

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

**CHAPTER 1**

**Introduction**

Prepared by Timothy S. Guster

**A. Purpose of Report**

1. This Report on Results of Operations (Report) is submitted to the California Public Utilities Commission (Commission) and to other interested parties as part of Great Oaks Water Company's (Company or GOWC) 2021 general rate case (GRC) application. Included in this Report is information on the recorded and projected operations and earnings of the Company in support of its GRC application.

2. This Report contains summaries and projections of estimated costs and earnings for each of the test years and the requested rate relief covered by the Company's GRC application, as well as historical data as required under D.07-05-062, the Commission's Revised Rate Case Plan for Class A Water Utilities, issued May 24, 2007.

3. The Company's rate year begins on July 1 and ends on June 30 of the following year. Commission Decision 19-09-010, issued September 19, 2019, addressed the years July 1, 2019 – June 30, 2020 (Rate Year 2019/2020), July 1, 2020 – June 30, 2021 (Rate Year 2020//2021), and July 1, 2021 – June 30, 2022 (Rate Year 2021/2022). This Application covers the time periods from July 1, 2022 – June 30, 2023 (Test Year 2022/2023), July 1, 2023 – June 30, 2024 (Escalation Year 2023/2024), and July 1, 2024 – June 30, 2025 (Attrition Year 2024/2025).

4. Purchased power costs for Rate Year 2022/2023 are projected in this Application and purchased power costs for the Test Year and subsequent years covered by this Application are projected based upon a trending of such costs. See **Exhibit E**, GRC Workpapers, WP-9. Groundwater charges (pump taxes) for the Test Year and subsequent years covered by this Application are based upon Santa Clara Valley Water District's (SCVWD or Valley Water)

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projections provided in its most recent report on water charges.<sup>1</sup> To the extent that adopted groundwater charges are more or less than the projections, the Company shall file an appropriate advice letter to utilize the correct groundwater charge rates at the appropriate time.

5. As of the date of this submission, there have been no significant changes in the general operations of the Company.

6. The following advice letters filed by the Company are currently pending as of July 1, 2021: Advice Letters 301-W, 302-W, and 303-W. See **Exhibit D**, Report on Results of Operations, Chapter 2.

7. The Company requests that the Commission make a finding that the Company's water quality meets all applicable state and federal drinking water standards and the requirements of General Order 103-A, as described in Chapter 3 of this Report.

#### **B. Scope of this Report**

8. This Report contains a brief history of the Company, a description of its present operations and organization, and a map of its current service area.

9. This Report includes the financial history of the Company over the past several years, including balance sheets from its Annual Reports submitted to the Commission for the years ended December 31, 2018, 2019, and 2020 and statements of income for the years ended December 31, 2018, 2019, and 2020. See **Exhibit 3-3** to this Report.

10. This Report includes detailed data and other information describing and explaining the Company's operations, customers, sales, revenues, expenses, utility plant, taxes, and depreciation. The detailed information is also summarized and extrapolated to develop the bases for projected net operating revenues, rate base, and rate of return.

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<sup>1</sup> <https://www.valleywater.org/sites/default/files/2021-03/2021-22%20Protection%20and%20Augmentation%20of%20Water%20Supplies%20Report.pdf>.

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11. Water sales are both reported and projected in this Report,<sup>2</sup> with explanatory text.

12. Operating results have been reported for prior years and projected for the Test Year using all available information and trends reasonably expected during the time periods covered by this Report. Data and projections have been entered appropriately under guidance and direction from Commission decisions.

13. The authorized capital structure of the Company and the currently authorized cost of capital have been used in calculating revenue requirements. See D.18-12-002.

14. The **Exhibit E**, GRC Workpapers provide calculated and projected values for all relevant items being considered in this proceeding. Notes are provided in the Workpapers when necessary to explain data or assumptions. Data and other information may be updated according to the schedule provided in D.07-05-062.

15. This Report includes present and proposed rates and the effect of proposed rates on the water bills of average single-family residential customers.

16. Additional Exhibits are referenced and attached as noted within the specific Chapters of this Report.

17. References to the Company's GRC Workpapers (**Exhibit E**) reference the title of the particular page being cited and, in certain circumstances, the specific page or pages of the Workpapers.

18. The Company's 2020 Urban Water Management Plan is included in **Exhibit F**. The Company's 2020 Urban Water Management Plan was submitted on or before July 1, 2021 to the Department of Water Resources.

19. Proposed Capital Projects are included in **Exhibit G**.

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<sup>2</sup> See Chapter 4 of this Report.

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20. A Cross-Index referencing responses to the Rate Case Plan Minimum Data Requirements is provided in **Exhibit H**.

21. A Comparison Exhibit showing the changes from the proposed Application to the filed Application has been added.

22. This Report was prepared under the direction of John Roeder, Chief Executive Officer, Ron Ceolla, Chief Financial Officer, and Timothy S. Guster, Vice President and General Counsel, Legal and Regulatory Affairs. The name and qualifications of the persons responsible for preparation of specific portions of this Report and of such persons providing testimony in support of this Report are provided in Chapter 11 of this Report.

23. To the extent necessary, the Company will present the testimony of other witnesses in rebuttal to the testimony of other parties, including Commission staff.

#### **C. Requested Rate Relief**

24. The Company's last general rate increase was authorized by D.19-09-010, issued September 19, 2010.

25. The Commission authorized a 8.15% rate of return on rate base in D.18-12-002, issued December 20, 2018, with an effective date of July 1, 2019. The actual rates of return on rate base experienced by the Company are shown in **Exhibit E**, GRC Workpapers, Summary of Earnings.

26. As shown and discussed in Chapter 5 of this Report, the Company has experienced cost increases in various categories of operational expenses and expects further cost increases in the test years covered by the Company GRC application.

27. The Company's utility-plant-in-service requires capital investments in infrastructure to enable the Company to continue to provide safe and reliable water service. Ratebase is addressed in Chapter 7 of this **Exhibit D**. Proposed Capital Projects are discussed in **Exhibit G**.



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28. Employee Payroll and Benefits are addressed in Chapter 5 of this Report. See also **Exhibit E**, GRC Workpapers, Employees & Salaries; A&G Expenses, Account 795.

29. Controversial Issues: The following controversial issues are discussed in this Report:

a. Tiered Rate Design. The Application now includes the tiered rate design developed jointly by Great Oaks and the Public Advocates Office and approved by the Commission through Advice Letters 299-W and 300-W.A. See **Exhibit D**, Report on Results of Operations, Chapter 4, Section IV.

b. Communications Program. See **Exhibit D**, Report on Results of Operations, Chapter 5, Section II.

c. General Order 156 - Supplier Diversity Program Memorandum Account. The Commission issued an Order Instituting Rulemaking to Revise General Order 156 – Supplier Diversity Program on March 23, 2021 (R.21-03-010). As of this filing, it is unknown what additional costs may be incurred by Great Oaks to comply with orders issued in this Rulemaking and it is impossible to know what those costs may be, if any, at this time.

Moreover, the projected revenues in this Application are expected to exceed \$25 million in Escalation Year 2023/2024, which would make the Company a full participant in the Commission’s Supplier Diversity Program at that time.

Costs of participation in and compliance with the Supplier Diversity Program are unknown at this time and cannot be accurately projected for purposes of this Application. As a result, Great Oaks is requesting a General Order 156 - Supplier Diversity Program Memorandum Account to record and recover costs of compliance with any orders resulting from R.21-03-010 and costs of participating in and complying with the requirements of the Supplier Diversity Program beginning in Escalation Year 2023/2024. Great Oaks further requests that the terms and conditions of the requested memorandum account authorized the Company to recover such costs either in a separate

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advice letter filing, in an advice letter filing that also requests to amortize other authorized memorandum and/or balancing accounts, or in Great Oaks' next general rate case, in Great Oaks' discretion.

30. Proposed Rate Case Schedule: See **Exhibit A**.

31. Previous Rate Case Compliance Items.

a. Update to Emergency Response and Preparedness Plan. In the Settlement Agreement adopted in D.19-09-010, Great Oaks agreed to complete the update of its Emergency Response and Preparedness Plan within ninety (90) days of the final decision. D.19-09-010 was issued on September 19, 2019. On December 18, 2019, Great Oaks filed Advice Letter 282-W, an "information only" advice letter confirming the completion of its Emergency Response and Preparedness Plan.

b. Complete Update and Revision to Cross-Connection Control Plan. Likewise, Great Oaks also agreed to complete the update and revision to its Cross-Connection Control Plan within ninety (90) days of the issuance of the final decision for its 2018 GRC. On October 10, 2019, Great Oaks filed Advice Letter 279-W confirming compliance with this 2018 GRC item.

c. Examination, Study, and Implementation of System-Wide Treatment Options. In D.19-09-010, the Commission confirmed that the Water Division conducted expert analysis of Great Oaks' compliance with all applicable water quality standards and that the report of the Water Division represented the testimony of a water quality expert consistent with *Hartwell Corp. v. Superior Court*, 27 Cal.4<sup>th</sup> 256 (2002) and as required by D.07-05-062.<sup>3</sup> In addition, the parties agreed that Great Oaks would perform the analysis necessary to determine the appropriate manner of maintaining an approved continuous disinfection process for its entire system.<sup>4</sup> The analysis was to be conducted during the entire three-year period covered by Great Oaks' 2018 general rate case application (July 1, 2019 through June 30, 2022).<sup>5</sup>

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<sup>3</sup> *Id.*, at p. 47.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

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Great Oaks has been following through on this analysis, but it is not yet complete (and neither is the agreed-upon three-year analysis period). As of the time of this writing, Great Oaks continues working with DDW to establish the parameters of a systemwide continuous disinfection process with the lowest appropriate level of disinfectant residual in the system to both provide a level of safety and protection and an early warning of possible contamination events. Projected costs associated with this program are discussed in **Exhibit D**, Report on Results of Operations, Chapter 3 Company Operations and Basic Information, at pp. 5 - 9. Great Oaks will continue its efforts to comply with its agreement on these issues set forth in the Settlement Agreement adopted in D.19-09-010.

c. Working Cash Component of Rate Base. Great Oaks and the Public Advocates Office compromised on the working cash component of rate base in settling Great Oaks' 2018 general rate case. As part of that compromise, Great Oaks agreed to provide a comparison of the two working cash methodologies in Water Standard Practice U-16-W Determination of Working Cash Allowance.<sup>6</sup> Great Oaks provides that comparison in Exhibit E GRC Workpapers, Working Cash Simplified WP-32a and Working Cash Detailed WP-32b.

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<sup>6</sup> *Id.*, at p. 33.

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**CHAPTER 2**

**History and Corporate Information**

Prepared by Timothy S. Guster

**I. History and Corporate Information**

**A. History and Service Area**

1. Great Oaks Water Company (Company) was granted a Certificate of Public Convenience and Necessity (CPCN) in October of 1959 by Commission Decision (D.) 59173. The CPCN envisioned construction of a water system that would serve a total of 938 connections. Through population growth and development, the Company now has more than 21,000 service connections.<sup>1</sup>

2. The Roeder family, in one form or another, has owned, operated, and managed the Company throughout its history. Originally founded by Water and Betty Roeder, the Company was managed by Betty Roeder through the end of the last century following her husband's passing. Since then, the Company has been under the management of current Chief Executive Officer John Roeder (age 62), the son of the founders.

3. In 2020, Great Oaks' parent company, GOW Corporation filed Application 20-09-003 with the Commission in which authority was requested for GOW Corporation to transfer ownership and control of Great Oaks from GOW Corporation to John Roeder and the John W.S. Roeder Continuing Trust. In D.21-01-008, the Commission authorized the change of ownership and control. No other changes were made with respect to Great Oaks' operations and management.

4. The Company's service area is located in the Southeast portion of the City of San José in Santa Clara County, California, generally to the East of Snell Road and to the South of Hellyer Park. A map of the Company's current service area is provided in **Exhibit 2-1** of this Report. The

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<sup>1</sup> See **Exhibit D**, Chapter 4 Water Sales Forecast; *see also* **Exhibit E**, GRC Workpapers, Customers, WP-11.

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Company's service area has been expanded from its original boundaries through various advice letter filings and corresponding Commission authorizations.

5. At present, the only dispute over service area is the continuing dispute between the Company and the City of San José, a matter both sides are still attempting to resolve amicably. More information regarding this dispute is provided in **Exhibit I** – Litigation Summary – of this Application.

#### **B. Water Quality**

5. See Chapter 3 of this Report.

#### **C. Active Service Connections (Customers)**

6. The following Table 2-1 shows the number of active service connections over recent years, as reported in the Company's annual reports filed with the Commission. See also **Exhibit E**, GRC Workpapers, page WP-10.

**Table 2-1**

Year End	Active Service Connections
2010	20,453
2011	20,498
2012	20,490
2013	20,572
2014	20,695
2015	20,874
2016	21,131
2017	21,258
2018	21,303
2019	21,344
2020	21,399

#### **D. Results and Issues from the Company's Last General Rate Case**

7. The Company filed its last general rate case application (A.18-07-002) on July 2, 2018.

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8. The Commission issued D.19-09-010 on September 19, 2019, approving the Settlement Agreement between the Company and the Public Advocates Office on the Company's general rate case application.

9. The Company filed its Advice Letter 277-W on September 20, 2019 to implement D.19-09-010, with an effective date of July 1, 2019.

#### **E. Proceedings Before the Commission Since the Company's Last GRC**

10. Since the filing of the Company's last GRC application, the Company has made a number of advice letter filings. These filings are summarized in Table 2-2 Advice Letter Filings, below.

**Table 2-2 Advice Letter Filings Since Last GRC**

<b>Advice Letter</b>	<b>Filing Date</b>	<b>Relief Requested</b>	<b>Disposition/ Effective Date</b>
274-W	1/31/2019	Updating PUCURA User Fees	Approved 4/1/2019
275-W	6/28/2019	Establishment of Interim Rates Memorandum Account	Approved 7/1/2019
276-W 276-W-A 276-W-B	9/9/2019 9/18/2019 10/3/2019	Reporting on Emergency Customer Protections in Compliance with D.19-07-015	Approved 9/9/2019
277-W	9/20/2019	Implementing D.19-09-010 (Settlement and Rates)	Approved 7/1/2019
278-W	9/24/2019	Establishment of Certified Public Accountant Audit Cost Memorandum Account	Approved 9/24/2019
279-W	10/10/2019	Compliance with D.19-09-010 Cross-Connection Control Plan	Approved 10/10/2019
280-W	11/18/2019	Amortization of Monterey-style WRAM and associated balancing accounts	Withdrawn See AL 281-W-A
281-W 281-W-A	12/4/2019 1/17/2020	Amortizing LICAP Balancing Accounts	Approved 2/18/2020
282-W	12/18/2019	"Information Only" Update on Emergency Response Plan in Compliance with D.19-09-010	Approved 12/18/2019
283-W	1/13/2020	Tariff Sheet Revision in Compliance with Water Shutoff Protection Act	Approved 2/1/2020

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284-W	1/15/2020	“Information Only” Amortization of Monterey-style WRAM in compliance with D.19-09-010	Approved 1/15/2020
285-W	3/20/2020	Compliance with D.19-07-015 Disaster Relief Customer Protections	Approved 3/4/2020
286-W	3/29/2020	Tariff Sheet Revisions to Comply with Water Shutoff Protection Act	Approved 3/29/2020
287-W 287-W-A	4/23/2020 5/1/2020	Amortization of Authorized Memorandum and Balancing Accounts	Approved 5/26/2020
288-W	4/29/2020	Compliance with Resolution M-4842	Approved 3/4/2020
289-W	6/17/2020	Compliance with Resolution M-4843	Approved 6/17/2020
290-W	6/22/2020	Amortization of Monterey-style WRAM	Approved 7/21/2020
291-W	7/31/2020	Updating PUCURA User Fees	Approved 10/1/2020
292-W	9/2/2020	Compliance with D.19-07-015	Approved 8/16/2020
293-W 293-W-A	10/6/2020 10/19/2020	Amortization of Monterey-style WRAM	Approved 11/24/2020
294-W	1/5/2021	Amortization of Monterey-style WRAM	Approved 2/9/2021
295-W	2/16/2021	Compliance with Resolution M-4849	Approved 2/16/2021
296-W	3/4/2021	Compliance with D.19-07-015, Ordering Paragraphs 11 and 12	Approved 4/3/2021
297-W	4/1/2021	Compliance with Resolution M-4849 Post-Pandemic Transition Plan	Approved 6/16/2021
298-W	4/5/2021	Amortization of Monterey-style WRAM	Approved 5/4/2021
299-W	5/14/2021	Escalation/Attrition Year Advice Letter	Approved 6/4/2021
300-W 300-W-A	5/18/2021 6/2/2021	Increase in Base Rates due to higher pump taxes	Approved 6/11/2021
301-W	6/9/2021	Update to and Activation of Schedule No. 14.1	Approved 7/13/2021

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302-W 302-W-A	6/9/2021	Request for Conservation Lost Revenue and Expense Memorandum Account	Approved 6/9/2021
303-W	6/18/2021	Continuation of Emergency Customer Protections	Approved 6/18/2021
304-W	7/2/2021	Correction of Typographical Error in Schedule No. 1 General Metered Service Tiered Rates	Approved 7/1/2021

**F. Rate History Since the Company's Last GRC**

13. Since the Company's last GRC, the Commission has approved the temporary rate changes shown below in Table 2-3. As of this filing, there have been no revenue or rate changes other than temporary surcharges. The temporary surcharges shown in the table below were either approved in D.19-09-010 or were for amortization of the Monterey-style WRAM made necessary due to the rate design approved in D.19-09-010. [MDR II.A.8]

**Table 2-3: Rate Changes Since Last GRC**

Advice Letter	Description	Effective Date	% Change Avg. Res. Bill <sup>2</sup>	Revenue Amount	% Increase in Revenue Requirement <sup>3</sup>
281-W-A	Amortization of LICAP Balancing Accounts	2/18/2020	3.73% for 12 months	\$336,089	1.61% for 12 months
287-W-A	Amortization of Memorandum and Balancing Accounts	5/26/2020	-15.8% for 8 months	(\$1,044,636.88)	(5.0%) for 8 months
290-W	Amortization of Monterey-style WRAM	7/21/2020	6.8% for 24 months	\$1,286,102.16	6.2% for 24 months
293-W-A	Amortization of Monterey-style WRAM	11/24/2020	6.29% for 12 months	\$635,933.50	3.05% for 12 months
294-W	Amortization of	2/9/2021	3.8% for	\$465,739.02	2.2% for 12

<sup>2</sup> Percentage change is compared to average Single Family Residential Customer with 5/8" X 3/4" meter using 10 ccf of water per month.

<sup>3</sup> Percentage change is compared to authorized revenue requirement at the time of the advice letter filing.



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	Monterey-style WRAM		12 months		months
298-W	Amortization of Monterey-style WRAM	5/10/2021	4.1% for 12 months	\$515,706.63	2.5% for 12 months
299-W	Escalation Year Advice Letter	7/1/2021	4.26% for 0 days	-\$347,733	-1.67% for 0 days
300-W 300-W-A	Increase in Base Rates – Pump Tax Increase	7/1/2021	3.78% for 12 months	\$1,249,869	6.1% for 12 months

#### G. Corporate Information

14. Great Oaks Water Company was incorporated in the State of California on April 30, 1959. The company's shareholders are John Roeder and the John W.S. Roeder Continuing Trust. See D.21-01-008.

15. The Company's officers are: John Roeder, Chief Executive Officer; Ron Ceolla, Chief Financial Officer; Timothy S. Guster, Vice President and General Counsel, Legal and Regulatory Affairs, and Corporate Secretary; and Jared Ajlouny, Vice President, Operations.

#### H. Compliance with Affiliate Transaction Rules

16. In compliance with a request from the Commission's Water Division, an audit of the Company has been performed for both 2018 and 2019. The audit report for 2019 is attached as **Exhibit 2-1**.

17. In compliance with the Commission's affiliate transaction rules, an independent audit was performed for the year ending December 31, 2018, a copy of which is attached as **Exhibit 2-2**. An independent affiliate transactions audit for the two-year period from January 1, 2019 through December 31, 2020 is being performed at this time and should be complete in time to be included with the filing of this general rate case application as Exhibit 2-3.

18. The Company's Compliance Plan for Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services is provided in

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the Company's Annual Report, as part of its Schedule E-4 Report on Affiliate Transactions.

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**CHAPTER 3**

**Company Operations and Basic Information**

Prepared by Tim Guster and Ron Ceolla

**I. Company Operations – Basic Information**

**A. Company Operations**

1. The Company's office is located at 20 Great Oaks Boulevard, Suite 120, San José, CA 95119.

2. All administrative activities, including customer service, are based in this office. The Company also has a shop at this location dedicated to maintaining and servicing the water system, including its vehicles and other equipment.

3. Great Oaks also has an operations and storage building located at Great Oaks' Well No. 2. This facility is used for staging of construction and repair projects and storage of equipment, including excavating equipment and vehicles. The facility includes space used for records retention and storage.

4. Field service operations are conducted and dispatched through the Company's office on Great Oaks Boulevard, as are water quality operations.

5. The Company's service area is shown in **Exhibit 3-1** to this Report.

**B. Personnel and Organizational Chart**

6. The Company has twenty-one employees. Great Oaks delayed the hiring of one of the positions authorized in D.19-09-010 due to the COVID-19 pandemic emergency, but that position will be filled when normal operations resume. No new positions are requested in this Application. See Chapter 5, below.

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7. The Company's current organizational structure is depicted on **Exhibit 3-2** of this Report. The date of Exhibit 3-2 is April 30, 2021.

8. Job descriptions and responsibilities for each employee other than management employees are included in Chapter 5 of this Report. Also provided are salary/compensation requests and comparisons for each non-management position.

#### **C. Financial Statements**

9. The Company's balance sheets and financial statements from its Annual Reports for the years 2018 through 2020 are attached as **Exhibit 3-3** to this Report. The balance sheets and financial statements from the Company's Annual Reports for prior years were provided in the Company's last general rate case.

#### **D. Water Supply**

10. The Company supplies potable water to its customers from a system of twenty (21) groundwater wells located throughout its service area. **[MDR II. E. 12]** See the discussion of Water Supply Issues immediately below for more information.

Discussions have slowed, but still continue on a long-standing dispute with the City of San José over a portion of the Great Oaks service area. There is no accurate way to assess the probability of this acquisition at this time. But, in that event, the Company will submit a separate request to the Commission seeking authorization and a rate base offset for the acquisitions. **[MDR II. E. 12]** Information regarding this dispute with the City of San José is included in **Exhibit I – Litigation Summary** to this Application.

#### **E. Water Supply Issues**

11. The Company relies exclusively on groundwater for its water supply. The Company does not receive, nor does it have the infrastructure and facilities to receive, treated water from the Santa Clara Valley Water

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District (District).<sup>1</sup> The Company is not in any way connected to District treated water distribution pipelines, nor does the District have treated water distribution pipelines in Great Oaks' service area. Treated water from the District is not immediately available to the Company, nor does treated water supplied by the District to others outside of the Great Oaks service area benefit the Company. The District does not provide water service to the Company and the Company does not receive water service from the District or any other entity or source.

12. The District is statutorily responsible for management of groundwater supplies in Santa Clara County. The District's prioritization of surface water supplies for treated water operations over use of surface water for groundwater recharge operations will always be an issue for the Company, as will the manner in which the District reallocates costs of surface and treated water operations to the groundwater charges levied by the District. Because the Company sources its water supply exclusively from groundwater, the District's decisions to prioritize treated water operations fall most heavily upon the Company (and others who rely exclusively upon groundwater). Great Oaks is actively involved in the Groundwater Subcommittee of the District's Retailer Committee (Tim Guster of Great Oaks is the Chairman of the Groundwater Subcommittee).

13. Since Great Oaks' last general rate case, the District has removed the Anderson Dam and Reservoir from operation in order to construct a complete seismic retrofit.<sup>2</sup> Water from the Anderson Reservoir has been used historically for groundwater recharge in the areas where Great Oaks wells are located (primarily through Coyote Creek and groundwater recharge ponds located nearby). Without the Anderson Reservoir as the source for groundwater recharge, the District plans to recharge the

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<sup>1</sup> The Company does have emergency interties with San Jose Water Company and the City of San José that can provide flow either way in the event of an emergency.

<sup>2</sup> This project was delayed by the District for well more than a decade.

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groundwater in the areas where Great Oaks' wells are located with water sourced from outside Santa Clara County (via the San Luis Reservoir and associated pipelines). It is unknown at this time if the District's efforts in this regard will be successful, so Great Oaks will be monitoring groundwater levels very closely while the Anderson Dam and Reservoir are out of commission. The construction of the seismic retrofit for the Anderson Dam and Reservoir is expected to take a minimum of ten (10) years, with the new dam and reservoir to be placed into service no sooner than 2031.

14. The Company's 2020 Urban Water Management Plan is attached as **Exhibit F** to this Application. [MDR II. E. 18]

#### **F. Water Quality**

15. The Company has been in full compliance with all water quality regulations and requirements since it received a violation on January 10, 2017. [MDR II. G. 1-3, MDR II. G. 5-7]

16. The Company does not expect regulations to be promulgated in the next five years will affect operations, except for changes to the Lead and Copper Rule. See paragraphs 29 – 30 below. [MDR II. G. 8.]

17. Copies of the Company's Consumer Confidence Reports for each year not covered by its last GRC are provided in **Exhibit 3-4** to this Report.

18. Copies of the SWRCB inspection reports (sanitary surveys) since the Company's last GRC are provided in **Exhibit 3-5** to this Report. Actions taken by the Company in response to the inspections are also described in **Exhibit 3-5**.

19. The Company is presently in compliance with all state and federal drinking water regulations and is not in violation of any primary MCLs (as of August 12, 2021). The Company submits regular reports and plans to the State Water Resources Control Board Division of Drinking Water (DDW) and monthly reports to DDW for compliance with the Total Coliform Rule. Reports for other monitoring requirements, including Title 22 requirements, are submitted on a timely basis. The Company is in

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compliance with requirements of the Safe Drinking Water Act and publishes an Annual Water Quality Report (Customer Confidence Report) that is made available electronically to each of the Company's customers.

20. In compliance with the Commission's Rate Case Plan, the Company respectfully requests that, based upon the Company's operational data and results reported herein, the Commission make an explicit finding that the Company is compliant with all pertinent and necessary state and federal water quality standards.

21. **Projected Expenses for Water Quality Compliance and Water Treatment.** The Company has projected expenses to remain in compliance with all current and expected drinking water regulations. See **Tables 3-1, 3-2, and 3-3** below; see also **Exhibit E**, Rate Case Workpapers, A&G Expenses, p. WP-4, Account 798. The projections include Title 22 monitoring expenses, bacteriological testing (Revised Total Coliform Rule) and monitoring expenses, UCMR (Unregulated Contaminant Monitoring Rule) 4 expenses, and Lead and Copper monitoring expenses. Bacteriological monitoring costs are projected based upon expected testing requirements and the Company's 2020 contract with California Water Service for analysis of drinking water samples. Recent changes to the Total Coliform Rule are estimated to cost an additional \$2,000 per year in bacteriological monitoring, and those extra costs are included in the table below and are included in Account 798 Outside Services. See **Exhibit 3-6** to this Report. Chemical costs are projected based upon current trends and expected chlorine analyzer reagent costs. See also **Exhibit E**, GRC Workpapers, O&M Expenses (Account 744), p. WP-4.

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**Table 3-1 Water Quality Compliance Expenses – Test Year 2022/2023**

Title 22 Monitoring	Bacteriological Monitoring	Lead and Copper	UCMR 5	Chlorine Analyzer Reagent Costs
\$66,300	\$79,194	-	-	\$1,005

**Table 3-2 Water Quality Compliance Expenses – Year 2023/2024**

Title 22 Monitoring	Bacteriological Monitoring	Lead and Copper	UCMR 5	Chlorine Analyzer Reagent Costs
\$10,200	\$79,194	\$1,650	-	\$1,005

**Table 3-3 Water Quality Compliance Expenses – Year 2024/2025**

Title 22 Monitoring	Bacteriological Monitoring	Lead and Copper	UCMR 5	Chlorine Analyzer Reagent Costs
\$2,580	\$79,194	-	\$26,950	\$1,005

22. Water Quality Compliance Expenses projected in Tables 3-1, 3-2, and 3-3 are based upon projected actual expenses and the recent changes to the Total Coliform Rule.

23. The Company's 2018 general rate case (A.18-07-002) was settled with the Public Advocates Office and that settlement was approved by the Commission in D.19-09-010. In A.18-07-002, it was agreed:

Great Oaks presented all data and information as required with its application on the issue of water quality. The Commission's Water Division conducted an expert analysis of Great Oaks' compliance with all applicable water quality standards. This report represents the testimony of a water quality expert consistent with Hartwell Corp. v. Superior Court, 27 Cal.4<sup>th</sup> 256 (2002) and as required by Commission Decision 07-05-062. The Public Advocates Office recommends that continuous disinfection of Great Oaks' water system will improve the safety and quality of Great Oaks' water supply and has recommended that Great Oaks perform the analysis necessary to determine the appropriate and approved manner of



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maintaining an approved continuous disinfection process for its entire system.

The agreements referenced above include amounts that Great Oaks may spend on this process during the three-year period covered by Great Oaks' application. Great Oaks shall work with the State Water Resources Control Board's Division of Drinking Water to establish a system-wide disinfection process (including all projected costs related thereto) that will be in effect by July 1, 2022, the first day of the Test Year for Great Oaks' 2021 general rate case application. Great Oaks will communicate with the Public Advocates Office during this three-year period so that the Public Advocates Office is informed of the progress being made to this end and of any issues that arise that affect this issue.

Based upon the foregoing, Settling Parties request that the Commission find that Great Oaks is in compliance with all applicable state, federal, and Commission water quality standards and requirements, including Commission General Order 103-A.<sup>3</sup>

24. Great Oaks is working with the State Water Resources Control Board's Division of Drinking Water (DDW) to develop an appropriate and approved manner of maintaining an approved continuous disinfection process for Great Oaks' water system. The process initially began with addressing contamination issues with a short segment of water main that was not connected to the water system (and therefore not a contamination threat to the system). Through regular communications between Great Oaks and DDW, Great Oaks was permitted to put the short segment of water main into service with a continuous disinfection protocol, which included regular monitoring. This ultimately proved successful, and that portion of water main is now in full service.

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<sup>3</sup> D.19-09-010, Settlement Agreement, pp. 47 – 48.  
Exhibit D: Report on Results of Operations  
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25. At the same time, Great Oaks utilized the services of an outside consultant to design a continuous disinfection process for Great Oaks' entire water system. That consultant, California SCADA Services, LLC, provided Great Oaks with a Budgetary Proposal/Estimate to implement ClorTec technology to install onsite sodium hypochlorite generation systems for Great Oaks' water system. A copy of that Budgetary Proposal/Estimate is attached as **Exhibit 3-7**.

26. The proposal from California SCADA Services, LLC has a price tag of \$1,880,736.70 (see Exhibit 3-7, Section 6). Additional costs of implementing and maintaining the proposed system are estimated in **Table 3-4** below.

**Table 3-4**  
**Estimated Costs of Proposed System-Wide Disinfection**

Description of Cost	Amount
California SCADA Services, LLC Proposal	\$1,880,736.70
Electrical Engineering	\$20,000.00
Electrician Services	\$42,000.00
Sewer Drain Installation (11 well sites)	\$330,000.00
Sewer Storage Tanks (4 well sites w/o sewer drain access)	\$16,000.00
Annual Maintenance Costs for sewer storage tanks	\$4,000.00
SCADA instrumentation and programming	\$63,252.00
Additional employee devoted to setup, operation, and maintenance of chlorine generators (annual cost, not including increases or employee benefit costs)	\$140,000.00
Additional Chlorine Monitoring Equipment	\$2,400.00
Chemicals (annual expense)	\$500.00
Additional materials, including salt (annual expense)	\$390,000.00
Disinfection Byproduct Monitoring Costs (annual)	\$2,000.00
Total	\$2,890,888.70

27. The estimated costs are significantly higher than Great Oaks expected and most likely higher than the Public Advocates Office expected as

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well. At no time during discussions over this issue in the 2018 general rate case proceedings were costs like this mentioned by the proponent of the issue – the Public Advocates Office. Because of this prohibitively high cost, Great Oaks is exploring less expensive, but still effective measures. Those efforts are ongoing and are expected to result in a less-expensive, efficient system.

28. Further information will be provided with the July 2021 filing of this Application.

29. **USEPA Lead and Copper Rule Revisions (LCRR) Expense Memorandum Account.** On April 20, 2021, the State Water Resources Control Board issued a Fact Sheet on the United States Environmental Protection Agency (USEPA) Lead and Copper Rule Revisions. See **Exhibit 3-8**. The LCRR will require the Company to inventory the privately-owned portion of a service line and categorize its findings as either lead, galvanized, non-lead (including copper, plastic, or steel) or lead status unknown. To accomplish this inventory and reporting, the Company is to review “construction and plumbing codes, permits, and existing records or other documentation which indicates the service line materials used to connect structures to the distribution system.” **Exhibit 3-8**, at p. 3. The Company is also to review all “water system records, including distribution system maps and drawings, historical records on each service connection, meter installation records, historical capital improvement or master plans, and standard operating procedures,” as well as all “inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system.” *Id.*

30. The LCRR changes the current regulations that did not require Great Oaks and other utilities to include information about customer service lines in its reporting under the Lead and Copper Rule. The changes will require Great Oaks to devote substantial time and money to research and record available information, none of which is presently budgeted in rates, including rates requested in this Application. Because of the LCRR and its

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new, unplanned, and unknown costs of compliance, Great Oaks requests authority for a USEPA Lead and Copper Rule Revisions (LCRR) Expense Memorandum Account to record, track, and recover costs directly attributable to compliance with the LCRR. At this time the amount of expenses are unknown. It may be necessary to add one or more employees to accomplish the necessary review and compliance reporting for the LCRR, or it may be better and more economically appropriate to hire an outside consultant or service provider to do the work. Great Oaks will seek to accomplish compliance with the LCRR in the most effective and economical manner and record its costs for doing so in the requested Memorandum Account for later amortization/recovery.

**G. Customer Service and Service Quality**

31. The Company's main office contains a walk-up facility for all customers, the customer call center, and all customer service functions. The walk-up facility has been closed since March 13, 2020 due to the COVID-19 pandemic emergency but is expected to reopen during the summer of 2021.

32. Customer service representatives provide bi-lingual service in English and Spanish. All customer service inquiries are handled directly by Company personnel without resort to automated, impersonal call systems. When necessary or required, information to customers is provided in writing in multiple languages.

33. Meter reading is accomplished by field personnel using ITRON hand-held meter reading devices. In the settlement of the 2018 general rate case, the Company was authorized to acquire new meter-reading devices and that process is underway.

34. On average, the Company's customer service representatives receive between thirty and thirty-five customer complaint telephone calls each week. Again, on average, of those calls: twenty calls relate to payment and amount of bills (it is not uncommon for a customer to complain that a bill is too high even though the average bill for a customer of the nearest

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regulated utility to the Company is approximately fifty percent (50%) higher than the average bill of one of the Company's customers – for the same amount of water use); five to ten calls relate to conservation; four calls relate to the quality, smell, or taste of water; and one call per week relates to potential water system leaks. The amount and type of customer complaints received during the past three years is similar to the amount and type of customer complaints the Company has received on an historical basis.

35. Since the last rate case, the Company has had zero (0) formal complaints lodged with the Commission and has zero (0) unresolved informal customer complaints. [MDR II. H. 1] The Public Advocates Office is invited to confirm this fact with the Commission's Consumer Affairs Branch.

36. The Company's customer service representatives also receive approximately twenty (20) calls per week from customers asking questions and seeking advice about water conservation, including information about no-cost water audit services. Customer service representatives also provide information about Great Oaks' Customer Assistance Program (CAP, formerly known as Low-Income Customer Assistance Program or LICAP). Customer service representatives also speak with customers about bill payment options, including, but not limited to payment plans of up to 12 months. [MDR II. H. 2]

37. The Company respectfully requests that the Commission find that its service quality is in accordance with the standard performance measure set by the Commission for complaints filed with the Consumer Affairs Branch (the standard being less than, or equal to, 0.1% of the Company's total customers).

**H. Urban Water Management Plan and Water Loss Audit**

38. The Company's 2020 Urban Water Management Plan (UWMP) is attached as **Exhibit F** to this Updated Application.

39. DWR's email confirming receipt of Great Oaks' 2020 Urban Water Management Plan is provided on the last page of Exhibit F.

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

#### **I. Operations, Maintenance, and Construction**

40. To the extent practicable, operations and maintenance work is performed by Company personnel, including main and service connection replacement, repairs, and maintenance, meter replacements, meter testing, hydrant maintenance, repairs, and replacements, and water storage tank maintenance and repairs. Outside contractors are employed when either Company personnel are unavailable, or the work is of a character more suitably performed by experienced outside contractors.

41. When feasible, Construction projects are performed by Company personnel. When necessary, the Company will retain and employ outside independent contractors and other service providers to perform construction activities. Company personnel supervise whenever outside personnel is employed for construction activities.

#### **J. Transmission, Distribution, and Storage**

42. The Company employs a centralized Supervisory Control and Data Acquisition (SCADA) system that is maintained by Company personnel. Improvements to the SCADA system are proposed in this Application. See **Exhibit G**, Proposed Capital Projects.

43. The Company employs and maintains a GIS information and mapping system.

44. Additions to Plant in Service for transmission and distribution are discussed in **Exhibit G**, Proposed Capital Projects, and shown in **Exhibit E**, GRC Workpapers, pp. WP-17-20.

#### **II. Company Operations – Minimum Data Requirements**

##### **A. Basic Information**

1. Number of customers and percentage of customer increase for last authorized test years, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Customers, p. WP-11. See *also* Chapter 4 of this Report. [**MDR II. A. 1**]

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2. Total water sales in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Water Sales CCF, p. WP-3. *See also* Chapter 4 of this Report. **[MDR II. A. 2]**

3. Revenue requirement authorized for last test year and escalation years and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Summary of Earnings, p. WP-1. **[MDR II. A. 3]**

4. Recorded revenues for last five years and proposed test year forecast.

Response: See **Exhibit E**, GRC Workpapers, Revenue Requirement, p. WP-2. **[MDR II. A. 4]**

5. Revenues per customer for last authorized test years, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Revenue Requirement, p. WP-2. **[MDR II. A. 5]**

6. Number of general office employees and percent increase for the last authorized test years, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Employees and Salaries, pp. WP-10 and WP-11. **[MDR II. A. 6]**

7. Number of district employees and percent increase for the last authorized test years, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Employees and Salaries, p. WP-10. **[MDR II. A. 7]**

8. List each rate change since the last GRC decision by district, including the date, percentage change to typical residential customer bill, percentage to revenue requirement, total dollar change, and citations to authority for each increase and sum to arrive at cumulative rate change by district since last GRC.

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Response: See Chapter 2 of this Report, Paragraph I. F. 13 (Table 2-3).

**[MDR II. A. 8]**

#### **B. Corporate and Unregulated Activities**

9. Identify and explain all transactions with corporate affiliates involving utility employees or assets or resulting in costs included in the revenue requirement over the last five years.

Response: None. **[MDR II.I.1]**

10. To the extent the utility uses assets or employees included in revenue requirement for unregulated activities, identify, document, and account for all such activities, including all costs and resulting revenue, and provide a list of all contracts over the last five years.

Response: No employees are used for unregulated activities. See Exhibit 3-11 for cell tower contracts. See Exhibit 3-12 for HomeServe contract. See Exhibit 3-13 for Well 2 Building Lease. **[MDR, II.I. 2]**

#### **III. Non-Revenue Tariff Changes**

##### **A. Update to Santa Clara Valley Water District Memorandum Account.**

This memorandum account was authorized in 2005 through Advice Letter 169-W. At that time, it was unforeseeable that the litigation would be ongoing more than fifteen years later. Great Oaks requests a simple revision/update to the terms and conditions of this memorandum account by removing the cap of \$100,000. With the removal of this cap, and if there is a recovery in the litigation, Great Oaks would, first, recover its litigation costs from the recovery and, second, refund all of the remaining net proceeds to its customers.

#### **IV. Review of Catastrophic Event Memorandum Account**

On October 28, 2019, the Company notified the Commission's Executive Director that it was activating its Catastrophic Event Memorandum Account (CEMA 1). This related to PG&E Public Safety Power Shutoff (PSPS) events due to high winds.



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On March 19, 2020, the Company notified the Commission's Executive Director that it was activating its Catastrophic Event Memorandum Account (CEMA 2). The CEMA activation resulted from the Governor's March 4, 2020 declaration of a State of Emergency due to COVID-19. Copies of both letters activating CEMA 1 and CEMA 2 are provided in **Exhibit 3-10**.

In its letter to the Executive Director, the Company stated it would "record costs and expenses associated with the declared emergency" according to the CEMA terms and conditions.

Great Oaks requests review of its CEMA accounts and amortization of the balances therein, as appropriate.

#### **V. Proposal for Disposition of Proceeds from Excess Capacity and Non-Tariffed Services**

The Company proposes to continue its equal split of revenues earned from passive income generated from excess capacity. See **Exhibit E**, GRC Workpapers, pp. WP-34, WP-42, and WP-49 (Passive Income 50% Ratepayer Credit).

#### **VI. Review of Expenses Associated with Paycheck Protection Program Loan (Resolution M-4843)**

The Company applied for and received a Paycheck Protection Program loan and established a Paycheck Protection Program Loan Memorandum Account through its Advice Letter 289-W. The proceeds of the loan were used only for purposes authorized under the loan program. No proceeds remain. No expenses were incurred by the Company to apply for the loan or to utilize the proceeds of the loan. The Company is in the process of requesting loan forgiveness but is uncertain as to when that process is complete. Because the Company utilized the loan proceeds properly, forgiveness of the loan is expected. At this time, tax consequences of the loan and its requested forgiveness are unknown. Pursuant to Commission Resolution M-4843, the Company requests review of its utilization of the proceeds of the loan in this general rate case.

## **CHAPTER 4**

### **WATER SALES FORECAST**

#### **Water Sales Forecast for Three-Year GRC Cycle**

#### **Proposal for Baseline Amount of Water for Basic Human Needs Proposal for New Tiered Rate Design Request for Sales Reconciliation Mechanism**

#### **I. Introduction.**

Great Oaks' water sales forecast includes and considers both traditional usage patterns among our customers, as well as new factors stemming from both legislative and regulatory actions in recent years. Each factor included and considered in the forecast is discussed below.

#### **II. Factors Considered in Great Oaks' Water Sales Forecast.**

In Great Oaks' water sales forecast for its 2018 general rate case application (A.18-07-002), Great Oaks embraced the challenges presented by D.16-12-026 and presented a water sales forecast that was based upon conservation mandates in effect in Santa Clara County calling for a twenty percent (20%) reduction in water usage as compared to 2013 water usage across all customer classes. As this was an entirely different method of forecasting, Great Oaks first presents a brief analysis of how the sales forecast adopted in D.19-09-010 compared to actual water usage.

##### A. Analysis of Test Year 2019/2020 Water Sales.

Table 4-1, below, provides a comparison of Test Year forecasted sales to Test Year actual sales, by customer class and in total. Table 4-2, below, provides a comparison of Test Year forecasted customer numbers to Test Year average customer numbers. The results are interesting. Total water sales exceeded the forecasted/adopted water sales by 1.63% - a relatively small percentage. The average number of customers during the Test Year were lower than forecasted by another relatively small percentage – 0.3%. The real reasons for these discrepancies are not known, but it is widely assumed that the State and local government restrictions imposed as a response to the pandemic has resulted in

slightly higher single family residential and multifamily residential usage, while at the same time business, industrial, and public authority usage is down for the same assumed reason (business restrictions/closures and more people working at home). School usage was up by slightly more than 10 percent, which is odd and may be indicative of schools using more water for cleaning and maintenance while students have been away. Private landscape sales were also up rather significantly, but the reasons for this are not yet known. Agricultural usage was up, but the number of agricultural customers did increase by one-third, from 6 to 8.

**Table 4-1**  
**Test Year 2019/2020 Forecast vs. Actual Sales**

<b>Customer Class</b>	<b>Adopted Sales (ccf)<sup>1</sup></b>	<b>Average Annual Usage<sup>2</sup></b>	<b>Actual Sales (ccf)</b>	<b>Average Annual Usage</b>	<b>% Difference</b>
SFR	2,367,852	118.44	2,407,405	120.59	+1.82%
MFR	887,540	1,397.70	890,570	1,434.09	+2.60%
Business	345,755	1,192.26	329,909	1,125.97	-5.56%
Industrial	94,307	1,714.67	91,568	1,695.70	-1.11%
Pub.Auth.	215,468	1,465.77	169,715	1,162.43	-20.69%
Schools	160,932	3,657.55	177,692	4,038.45	+10.41%
Priv. Ldsce.	231,891	931.29	304,498	1,306.86	+40.33%
Total Non-Ag Sales	4,303,745		4,371,357		+1.57%
Agriculture	2,483	413.8	5,133	641.63	+55.06%
Total Sales	4,306,228		4,376,490		+1.63%

<sup>1</sup> See, D.19-09-010, Comparison Exhibit, p. 7.

<sup>2</sup> *Id.*, at p. 4.

**Table 4-2**  
**Test Year 2019/2020 Forecasted Customers vs. Actual Customers<sup>3</sup>**

<b>Customer Class</b>	<b>Forecasted Customers</b>	<b>Actual Customers (Average for TY)</b>	<b>Difference</b>	<b>% Difference</b>
SFR	19,992	19,964	-28	-0.1%
MFR	635	621	-14	-2.2%
Business	290	293	+3	+1.0%
Industrial	55	54	-1	-1.8%
Public Authorities	147	146	-1	-0.7%
Schools	44	44	0	0%
Private Landscape	249	233	-16	-6.4%
Agricultural	6	8	+2	+33.3%
Total	21,418	21,363	-55	-0.3%
Private Fire Protection Service	338	343	+5	+1.5%
Total Services	21,756	21,706	-50	-0.2%

Test Year 2019/2020 water sales confirm that the methodology used by Great Oaks to forecast water sales in its last general rate case produced a reasonably accurate water sales forecast and customer forecast.

**B. Analysis of Partial Rate Year 2020/2021 Water Sales.**

Table 4-3, below, shows actual water sales for the July 1, 2020 through December 31, 2020 time period. Table 4-4 shows that over the ten-year period from Rate Year 2010/2011 through 2019/2020, Great Oaks' customers have used, on average, 59.2% of annual water use during this same six-month period. In Rate Year 2020/2021, Great Oaks' customers used 2,572,762 ccfs of water, which represents 59.7% of forecasted water usage. The average percentage of total water usage during the same six-month period over the 10-year period from July 1, 2010 through June 30, 2020 is 59.2%, ranging from a low of 57% in drought year 2015/2016 to a high of 62% in non-drought year 2010/2011. This data, again, indicates Great Oaks' water forecasting methodology is sound and produces consistently accurate results.

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<sup>3</sup> *Id.*, at p. 3.

**Table 4-3**  
**Rate Year 2020/2021 Sales from July through December, 2020**

Customer Class	July through December 2020 Sales (ccf)	Forecasted Sales Rate Year 2020/2021 <sup>4</sup>	Percentage of Forecasted Sales
Single-Family Residential	1,527,662	2,367,852	64.5%
Multi-Family Residential	508,078	887,540	57.2%
Business	182,594	345,755	52.8%
Industrial	51,097	94,307	54.2%
Public Authorities	129,322	215,468	60.0%
Schools	109,849	160,932	68.3%
Private Ldsce.	222,928	231,894	96.1%
Agriculture	4,668	2,483	188.0%
Total Usage	2,572,762	4,306,228	59.7%

**Table 4-4**  
**July – December Actual % of Annual Usage Comparison**

Rate Year	SFR	MFR	Bus	Ind	Pub Auth	Schools	Priv. Ldsce.	Ag.	All Classes
10/11	63	51	61	61	65	71	73	59	62
11/12	59	52	55	56	59	62	65	58	58
12/13	60	52	55	56	62	62	68	59	59
13/14	60	54	55	59	64	64	68	88	60
14/15	60	54	55	55	55	67	70	92	59
15/16	56	52	53	56	69	67	70	61	57
16/17	58	52	53	58	67	67	70	47	58
17/18	59	54	54	60	65	67	72	70	59
18/19	61	53	55	59	72	71	76	70	61
19/20	58	52	57	62	72	69	68	68	59
Average	59.4	52.6	55.3	58.2	65.0	66.7	70.0	67.2	59.2

Again, even though water sales for this six-month time period occurred during a pandemic emergency, the water sales forecast methodology utilized in Great Oaks’ 2018 general rate case and settlement proved to be reasonably accurate.

C. “New” Factors to Consider for Water Sales Forecasts.

In D.20-08-047, the Commission listed six (6) “new” factors to be included in water sales forecasts in future General Rate Cases (GRCs). D.20-08-047 requires water utility applicants, like Great Oaks, to “discuss how these factors impact the sales forecast presented in the application.”<sup>5</sup> The six factors listed are as follows:

<sup>4</sup> *Id.*, at p. 7.

<sup>5</sup> D.20-08-047, at p. 51 and Ordering Paragraph 1 at pp. 105 – 106.

- (a) Impact of revenue collection and rate design on sales and revenue collection;
- (b) Impact of planned conservation programs;
- (c) Changes in customer counts;
- (d) Previous and upcoming changes to building codes requiring low-flow fixtures and other water-saving measures, as well as any other relevant code changes;
- (e) Local and statewide trends in consumption, demographics, climate population density, and historic trends by ratemaking area; and
- (f) Past sales trends.<sup>6</sup>

Great Oaks will discuss each of these factors in the context of its water sales forecast in the following subsections.

- (a) Impact of revenue collection and rate design on sales and revenue collection.

In the settlement of A.18-07-002, the tiered rate design proposed by the Public Advocates Office was included as part of the overall settlement. The tiered rates (Schedule No. 1 General Metered Service Tiered Rates, Tariff Sheet 878-W) now in place are shown below in Table 4-5. The uniform quantity charge also adopted in the settlement of A.18-07-002 (D.19-09-010) \$3.2560 per ccf. Table 4-5 includes a comparison of each tiered rate to the uniform quantity charge to show the discount off of the uniform quantity charge in Tiers 1 and 2 and the amount above the uniform quantity charge in Tier 3.

**Table 4-5**  
**Tiered Rate Design – D.19-09-010**

Tier	Rate	Comparison to Uniform Quantity Charge
Tier 1: 0 – 6 ccf bi-monthly	\$1.3024 per ccf	40%
Tier 2: 7 – 24 ccf bimonthly	\$2.6048 per ccf	80%
Tier 3: Over 24 ccf bimonthly	\$3.9723 per ccf	122%

For revenue collection, this rate design failed in all material respects. With average single-family residential usage at 20 ccf (19.74 ccf rounded up), an entire

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<sup>6</sup> *Id.*

average single-family residential bill under this rate design was sold at a discount off the uniform quantity rate. In fact, under this rate design, single-family residential customers could use up to 20% (4 ccfs) more than average use before reaching Tier 3 (with the first 24 ccfs used all sold at a discount off of the uniform rate) and nearly another 6 ccfs (5.9 ccfs) before the total quantity charge under tiered rates equaled the cost of the same amount of water under the uniform quantity charge.

Whether the adopted rate design resulted in increased water use/reduced conservation is unknown. But what is known is that the rate design directly affected revenue collection and has resulted in no less than four Advice Letters (three approved/one still pending<sup>7</sup>) to amortize a total of \$2,903,481.68 in under-collected revenues purely as a result of the tiered rate design. Because of the current rate design, more and frequent amortizations and surcharges will certainly occur between now and the beginning of Test Year 2022/2023.

The problems with the current rate design need to be corrected in this general rate case proceeding (or sooner, if possible<sup>8</sup>). Essentially, because most of the water used by single-family residential customers is sold at a discount off the uniform quantity rate, the under-collected revenue amounts grow every day. To address this, the cost for the average amount of usage must equal or closely equal what the same amount of usage would cost under the uniform quantity rate. Great Oaks' proposed rate design in this application addresses this problem directly.

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<sup>7</sup> Advice Letter 290-W was filed on June 22, 2020 and resulted in a 24-month surcharge of \$0.2716 per ccf; Advice Letter 293-W was filed on October 6, 2020 and resulted in a 12-month surcharge of \$0.1343 per ccf; Advice Letter 294-W was filed on January 5, 2021 and resulted in a 12-month surcharge of \$0.1967 per ccf. Advice Letter 298-W was filed on April 5, 2021 and is still pending. Advice Letter 298-W requests a surcharge of \$0.2178 per ccf to amortize an under-collection of \$515,706.63 over a 12-month period.

<sup>8</sup> Great Oaks is in discussions with the Public Advocates Office to initiate a "pilot" program for Rate Year 2021/2022 that would both comply with D.20-08-047's requirement to include no less than 6 ccfs per month per household in the first tier and test a tiered rate design that collects the same revenues as would be collected using the uniform quantity charge, as is being proposed by Great Oaks in this general rate case application.

(b) Impact of Planned Conservation Programs.

Great Oaks' conservation programs include the ongoing WaterSmart program<sup>9</sup>, which provides customers with regular water use reports and messaging about conservation and responding to drought conditions by coordinating with local and State government actions and complying with their actions and policies. This strategy has worked well for Great Oaks and its customers in the past and should continue. Great Oaks is also proposing a new communications program that will include conservation messaging through social media and other channels that are not a part of the WaterSmart program.<sup>10</sup>

On June 9, 2021, Great Oaks filed Advice Letters 301-W and 302-W in response to a Water Shortage Emergency declared by the Santa Clara Valley Water District. As these advice letters remain pending, Great Oaks has not updated its sales forecast to include the proposed mandatory water conservation measures described in Advice Letter 301-W. If approved and if desired, Great Oaks will update this information in August.

Great Oaks' water sales forecast accounts for drought years, as required, so the impact of Great Oaks conservation programs is incorporated into the water sales forecast for this application. Because future drought actions by local and State government are unknown and unknowable at this time of this writing, Great Oaks' proposed Sales Reconciliation Mechanism (SRM) should be approved as it will result in increasing accuracy of the water sales forecast in between general rate cases. Approving the requested SRM will also reduce conservation lost revenues and reduce corresponding surcharges to recover those lost revenues.

(c) Changes in Customer Counts.

Great Oaks always incorporates expected changes in customer counts into its water sales forecast. Included in the consideration of changes in customer accounts are new and planned developments within Great Oaks' service area.

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<sup>9</sup> See Chapter 9 Conservation and Efficiency, at pp. 2 – 3.

<sup>10</sup> See Exhibit D Report on Results of Operations, Chapter 5 Operating Expenses, at pp. 37 - 38.



- (d) Previous and upcoming changes to building codes requiring low-flow fixtures and other water-saving measures, as well as any other relevant code changes.

Great Oaks' service area is located primarily within the City of San José (City). On December 11, 2018, the City adopted the Energy and Water Performance Ordinance. The Ordinance applies to privately-owned residential or non-residential buildings of 20,000 square feet or more. Details on the Ordinance may be found at: <https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/energy-and-water-building-performance-ordinance>.

The Ordinance is part of Climate Smart San José, a long-term plan that may be found here: <https://www.sanjoseca.gov/home/showpublisheddocument?id=32171>. The Climate Smart San José plan calls for the City to “reduce its per capita residential water consumption by 30% compared to 2009 levels by 2030.”<sup>11</sup>

In calendar year 2009, Great Oaks' single-family residential customers used an average of 161.78 ccfs per household per year. Great Oaks' water sales forecast in this application incorporates a 26.8% reduction in average use per household. Great Oaks' 2024 and 2027 general rate case applications will gradually call for and achieve the full 30% reduction from 2009 single-family water consumption (reducing average single-family residential usage to 113.246 ccfs per year or lower) to meet the City's objectives

Likewise, for multi-family residential dwellings, Great Oaks' 2009 water usage was 1,508.1 ccfs per dwelling per year. Great Oaks' water sales forecast in this application incorporates a 7.3% reduction off 2009 (a 30% reduction in water consumption for multi-family residential dwellings would equal 1,055.7 ccfs per dwelling per year). Future water sales forecasts in general rate cases will incorporate reductions designed to match and achieve Climate Smart San José's 30% reduction milestone by 2030.

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<sup>11</sup> Climate Smart San José, at p. 118.

One of the aspects of Climate Smart San José is “densifying” the City. A proposal to do away with single-family residential zoning is being floated now amongst elected officials in the City. If adopted, it is unclear how the allowance of certain multi-family residential dwellings in formerly single-family residential only neighborhoods will affect water use. Most of the neighborhoods in Great Oaks’ service area have been unchanged in any material way since they were built. The City has stated that it also intends to preserve “those neighborhoods mainly composed of single-family homes of distinctive character.”<sup>12</sup> This, at least, suggests that there may not be much in the way of change in the neighborhoods in Great Oaks’ service area.

Great Oaks has factored the City’s Energy and Water Performance Ordinance and Climate Smart San José into its water sales forecast and is designed to meet the City’s goals for water consumption reductions by the 2030 target date.

(e) Local and statewide trends in consumption, demographics, climate population density, and historic trends by ratemaking area.

“Local” trends in consumption in Great Oaks’ service area are factored into this water sales forecast. Statewide trends are not considered at this time, as such trends would not necessarily be relevant to Great Oaks’ service area. A water sales forecast should be based upon factors applicable to Great Oaks and its customers.

The demographics of the Great Oaks service area has not changed in recent years and is not expected to change during the three-year period covered by this application.

“Climate population density” is an undefined term. To the extent this includes the effects of climate change and population density, both of those factors are considered as part of the City of San José’s Energy and Water Performance Ordinance and Climate Smart San José, both of which are discussed above.

“Historic trends” in water usage are factored into Great Oaks’ water sales forecast, as discussed in more detail in the forecast itself.

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<sup>12</sup> *Id.*, at p. 91.

(f) Past Sales Trends.

It is believed that the term “historic sales trends” means the same as “past sales trends,” which are factored into Great Oaks’ water sales forecast, as discussed in more detail in the forecast itself.

(g) Additional Factors Considered in Great Oaks’ Water Sales Forecast and Request for a Sales Reconciliation Mechanism.

AB 1668 and SB 606 (Stats. 2018) (2018 Water Conservation Legislation) are a major part of the effort to make water conservation a way of life in California.<sup>13</sup> A multi-year process to develop and finalize regulations implementing the 2018 Water Conservation Legislation is expected to conclude on or about June 30, 2022 – the day before Test Year 2022/2023 begins.

With a presumed starting point of 55 gallons per person per day (gpcd) for residential indoor water use, plus an amount for water-system-wide outdoor water use (in development as of the time of this writing in a project in which Great Oaks was in the test pool of water systems to assist in the process of developing and verifying methodologies for the regulatory process), plus nonresidential use, plus other considerations, factoring into Great Oaks’ Water Sales Forecast the regulations implementing the 2018 Water Conservation Legislation is not possible *at this time*.

Having said that, it should be noted that the current water sales forecast for single-family and multi-family residential use is presently greater than 55 gallons per person per day. The 2020 residential population of the Great Oaks service is 106,450.<sup>14</sup> Total residential water usage in 2020 was 3,462,788 ccfs, which translates to approximately 66.66 gallons per person per day. It is not known how much of the residential water use in 2020 was for indoor usage and how much was for outdoor usage, as residential usage is provided through a single meter. The State Water Resources Control Board is currently working on a methodology to

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<sup>13</sup> See, e.g., [Rulemaking to implement 2018 Water Efficiency Legislation | California State Water Resources Control Board](#).

<sup>14</sup> Based upon Great Oaks’ 2015 Urban Water Management Plan.

estimate outdoor water usage as accurately as possible, and Great Oaks has been participating in this process. The methodology, along with the other regulations to implement the 2018 Water Conservation Legislation, will not be finalized until just before the beginning of Test Year 2022/2023, so it is not *yet* possible to estimate how much of the total residential water usage represents outdoor usage.

D. Request for Sales Reconciliation Mechanism. Between now and the beginning of Great Oaks' 2022/2023 Test Year, the stated objectives of the regulations to implement the 2018 Water Conservation Legislation will likely become more well known to all, including Great Oaks and its customers. Should the impending conservation regulations effect Great Oaks' customer water use (more likely than not it would be a reduction in water use) during the three years covered by this application, it would be appropriate to authorize a mechanism through which Great Oaks' water sales forecast could be adjusted to comply with the new regulations. If the regulations permit a calculation of water sales for Great Oaks' service area, then a mechanism to adjust any adopted water sales forecast in this proceeding to comply with the new State regulations. If the regulations are adopted, but not yet effective, and there is a material difference between adopted water sales and actual sales, such as a sales reconciliation mechanism as described in D.16-12-026.

Likewise, the SRM would also be responsive to new conservation measures that may be imposed to address the current drought conditions. Already the outlook for 2021 is rather bleak, but the local and State government agencies with the authority to impose drought-related conservation measures have not yet done so. Should such measures be implemented, the SRM would not just make water sales forecasts for the period covered by this application more accurate, the SRM would also reduce conservation lost revenues recorded in a drought-related memorandum account (as was done during the last drought period) and any necessary collections of the revenue losses from Great Oaks' customers (as was authorized in the last drought).

In D.16-12-026, the Commission indicated that water utilities should consider proposing a Sales Reconciliation Mechanism (SRM) “that puts at least 50 percent of the divergence between authorized and actual revenues in rates to be recovered through the remainder of the GRC cycle.”<sup>15</sup> In A.18-07-002, Great Oaks proposed a SRM to adjust water sales forecast annually. The proposed SRM in A.18-07-002 operated to provide annual adjustments to the water sales forecast but only when there was a difference of two percent (2%) or more between authorized and actual sales across all customer classes. Great Oaks requests that same threshold (2% difference) be established for its proposed SRM in this application.

If the 2% threshold is met, then the adjustment would be fifty percent (50%) of the divergence between authorized and actual sales per customer class. The first comparison of authorized and actual sales will occur after ten months of the initial Test Year. The two-month time period after the end of the comparison time period and the beginning of the next Rate Year would be utilized to prepare the comparison and apply, via Tier 2 Advice Letter to apply the adjustment to the next Rate Year’s sales forecast.

The proposed SRM will be responsive to material changes in customer usage and result in more accurate ratesetting in between General Rate Cases and will comport with D.20-08-047’s finding that more accurate water sales forecasts that provide water utilities with the opportunity to earn a reasonable rate of return are needed to address the increasing risk of drought as a component of climate change.

E. Rate Design. Tiered rate design is believed by most to have an impact on water sales, with the theory being that customers will moderate their water use so as not to be billed at higher-priced tiers. It must be admitted that tiered rate design is still in its formative stages, as there is no single rate design that is in effect in the State of California. Every Class A water utility, for example, has a different tiered rate design.

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<sup>15</sup> D.16-12-026, at pp. 6 -7.

In D.20-08-047, the Commission ordered: “Water utilities shall provide analysis in their next general rate case applications to determine the appropriate Tier 1 breakpoint that is not less than the baseline amount of water use for basic human needs for each ratemaking area.”<sup>16</sup> In the Conclusions of Law in D.20-08-047, the Commission stated: “Water utilities should consider and provide analysis for establishing a baseline not set below the Essential Indoor Usage of 600 cubic feet per household per month, as stated in the Affordability Rulemaking (R.18-07-006) and the average winter use in each ratemaking district.”<sup>17</sup>

The Essential Indoor Usage value of 6 ccf per household per month is approximately 61% of the current average single-family residential usage per month per household. The average annual single-family residential usage adopted in D.19-09-010 was 118.44 ccf, or 9.87 ccfs per month (rounded to 10 ccfs per month for rate design purposes, as Great Oaks does not bill in partial ccfs).<sup>18</sup> At present, Great Oaks’ Tier 1 “breakpoint” is 6 ccf per household per *billing* period, rather than 6 ccf per household per *month*. Great Oaks’ billing period is, generally, two months, meaning that the current Tier 1 “breakpoint” is exactly one-half of the Essential Indoor Usage. Put another way, simply to comply with D.20-08-047, Great Oaks will have to double the quantity in Tier 1 of its new rate design.

As is discussed below in Section II.C.(a), above, if the average amount of single-family water usage is billed at a discount off the uniform quantity rate, an under-collection balance can grow rapidly in the Monterey-style Water Revenue Adjustment Mechanism (Monterey-style WRAM). This has been Great Oaks’ experience under current rate design and an experience Great Oaks and its customers do not want to repeat in the next rate design.<sup>19</sup> A rate design that is revenue neutral – with “revenue neutral” defined by Great Oaks as producing the same revenue under tiered rates and uniform rates at average usage – must not

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<sup>16</sup> D.20-08-047, Ordering Paragraph 2, at p. 106.

<sup>17</sup> *Id.*, Conclusions of Law Paragraph 11, at p. 105.

<sup>18</sup> See Table 4-1, above.

<sup>19</sup> Multiple surcharges to amortize the balance in the Monterey-style WRAM is not customer friendly and impacts cash flow resulting from chronic under-collections of revenue.

result in a discount for average water usage. The proposed rate design in this application complies with D.20-08-047 and is a revenue neutral rate design. Because of this, the effect of tiered rate design does not affect the water sales forecast.

### **III. Water Sales Forecast**

#### **A. Summary of Water Sales Forecast.**

Consistent with Great Oaks' water sales forecast for its 2018 GRC, Great Oaks proposes a water sales forecast for the three-year time period covered by this GRC application that complies with the conservation objectives of the Santa Clara Valley Water District (Valley Water). However, on June 9, 2021, Valley Water declared a Water Shortage Emergency and called for 15% mandatory water conservation as compared to 2019 usage. This equates to a 33% reduction in usage from 2013 levels. Great Oaks' forecast is based upon 20% reductions from 2013 levels. Great Oaks filed Advice Letters 301-W and 302-W to implement the mandatory water conservation measures called for by Valley Water, but those advice letters remain pending as of this filing. Great Oaks can update the water sales forecast, if necessary, in August should the Commission approve Advice Letters 301-W and 302-W.

As noted above, regulations to implement the 2018 Water Conservation Legislation are scheduled to be finalized by June 30, 2022. While it is doubtful that such regulations will be known in time to impact the water sales forecast for this application, should information be provided about the regulations that impact this water sales forecast, Great Oaks will include such information with a revised water sales forecast if permitted in this proceeding.

The six factors noted in D.20-08-047 that must be considered in this water sales forecast are addressed in the forecast in the manner described above.

Great Oaks requests that its proposal for a Sales Reconciliation Mechanism be granted so that annual adjustments may be made to increase the accuracy of its water sales forecast in the second and third years covered by this application.

Rate design is addressed in the water sales forecast as it was in Great Oaks' 2018 GRC application. Incorporated into the proposed rate design is a first tier that includes 6 ccfs per household per month (which, for Great Oaks, translates to 12 ccfs per household per *billing* period). The second tier of the proposed rate design is a narrow tier that results in a bill for average single-family residential usage that is the same under both the tiered rate design and the uniform quantity rate. This will reduce the likelihood of growing balances and necessary amortizations, plus or minus, in Great Oaks' Monterey-style WRAM. The proposed third tier constitutes a price signal intended to produce conservation while, at the same time, not rising to the level of punishment for greater water use by larger families.

**B. Water Sales and Customer History.**

Table 4-6 below shows total water sales and customer counts for the last nine years. Table 4-7 shows Customer Growth Trends since 2011.

**Table 4-6  
Water Sales and Customer Counts**

Rate Year	Total Water Sales (ccf) and Comparison to Prior Year	Total Customers and Comparison to Prior Year
2011/2012	4,814,120	20,510
2012/2013	5,024,432 +4.4%	20,534 +24/+0.1%
2013/2014	5,086,534 +1.2%	20,603 +69/+0.3%
2014/2015	4,274,549 -16.0%	20,783 +180/+0.9%
2015/2016	3,422,405 -20%	20,991 +208/+1.0%
2016/2017	3,699,755 +8.1%	21,198 +207/+1.0%
2017/2018	4,209,801 +13.8%	21,304 +106/+0.5%
2018/2019	4,141,641 -1.6%	21,334 +30/+0.1%
2019/2020	4,376,490 +5.7%	21,382 +48/+0.2%



**Table 4-7**  
**Customer Growth Trends**

Customer Class	Growth 2011-2020	Growth 2015-2020	Growth 2017-2020	Projected Growth 2022-2025
SFR	4.0%	1.7%	0.3%	0.3%
MFR	5.2%	2.8%	2.5%	2.5%
Business	2.8%	11.0%	2.1%	2.1%
Industrial	31.0%	5.8%	1.9%	1.9%
Pub. Auth.	-13.7%	-1.4%	-1.4%	-1.4%
Schools	29.4%	2.3%	0%	0%
Priv. Ldsce.	86.4%	3.1%	1.3%	1.3%
Agriculture	100%	60%	33.3%	0.0%
Fire Protection	10.6%	6.5%	1.2%	1.2%

Table 4-6 shows that conservation efforts during the last drought were successful and most evident in the 2014/2015 through 2016/2017 Rate Years. During those years, Valley Water was calling for 20% reductions (February 2014 – March 2015), 30% reductions (March 2015 – June 2016), and 20% reductions (June 2016 to present) in water usage, as compared to 2013. During those times, Great Oaks utilized aggressive conservation measures, including its Rule 14.1 Water Conservation and Rationing Plan and Excess Usage Surcharges, together with WaterSmart water reports and messaging to customers. During the entire time periods mentioned above, Great Oaks’ calls for conservation mirrored those of Valley Water.

Whether mandatory conservation measures will be approved for the current drought conditions is not known, nor is how long such measures would be in effect if implemented. Just recently, the California Department of Water Resources (DWR) announced that allocations were being reduced for 2021 to only 5% of the amounts requested. This will directly affect Valley Water, which is a recipient of water through the State Water Project.

Since Valley Water’s future actions on conservation are not yet known, Great Oaks is maintaining not only its call for 20% water use reductions from 2013 water use across all customer classes, but also its water sales forecasting methodology utilized in 2018 and approved of by the Public Advocates Office and the Commission in D.19-09-010. To the extent this needs to be revised when more information

becomes available and local and State government conservation decisions are made, such revisions to can be incorporated into Great Oaks' water sales forecast with the expected cooperation of the Public Advocates Office.

Table 4-7 shows that the rate of customer growth in Great Oaks' service area has declined steadily over the time period from 2011 to 2020, with the only exception being agricultural customers. Agricultural customers increased by two (2) in Test Year 2019/2020 but are not expected to increase any further. Great Oaks' projected customer counts for each class are shown in Table 4-8 and is based upon the projected growth rates for each customer class shown in Table 4-7. Great Oaks' customer projections are also supported by the lack of residential development in its service area at the present time and only a handful of other projects under construction.

**Table 4-8**  
**Projected Customer Counts**

Customer Class	Rate Year 2021/2022	Test Year 2022/2023	Escalation Yr 2023/2024	Attrition Yr 2024/2025
SFR	19,990	20,050	20,110	20,170
MFR	629	645	661	677
Business	291	297	303	309
Industrial	55	56	57	58
Pub. Auth.	147	145	143	141
Schools	44	44	44	44
Priv.Ldsce.	235	238	241	244
Agriculture	8	8	8	8
Total	21,399	21,483	21,567	21,651
Private Fire Protection Services				
Fire Prot.	343	347	351	355

Meter sizes also need to be projected for water sales forecasting and rate design. Table 4-9 shows the actual number of meters in service at the end of calendar year 2020 and the projected number of meters in service for the beginning of Test Year 2022/2023. The numbers are derived from prior years' meter counts and Great Oaks' ongoing meter replacement program.

**Table 4-9**  
**Meters and Meter Sizes**

Meter Size	Rate Year 2021/2022	Test Year 2022/2023
5/8 x 5/8	5,657	5,574
3/4 x 3/4	13,798	13,941
1-inch	977	983
1.5-inch	356	366
2-inch	476	480
3-inch	66	68
4-inch	47	49
6-inch	11	11
8-inch	8	8
10-inch	3	3
12-inch	0	0
Total	21,399	21,483

C. Water Sales Forecast for Test Year 2022/2023.

Table 4-10 below shows the adopted usage per customer class from D.19-09-010.<sup>20</sup>

**Table 4-10**  
**Rate Year 2019/2020 Authorized Usage Per Customer Class**

Customer Class	2019/2020 Adopted Water Sales (ccf)	2019/2020 Average Number of Customers	2019/2020 Average Customer Annual Usage (ccf)
Single-Family Res.	2,573,0556	19,992	118.44
Multi-Family Res.	731,471	635	1,397.70
Business	228,047	290	1,192.26
Industrial	98,964	55	1,714.67
Public Authorities	159,202	147	1,465.77
Schools	197,927	44	3,657.55
Private Landscapes	314,103	249	931.29
Agriculture	2,483	6	413.80

Since the water sales forecast for Test Year 2022/2023 is based upon the same methodology that was adopted in D.19-09-010 to achieve the desired 20% reduction in water usage (as compared to 2013), as discussed above, Table 4-11 shows the forecasted water sales for each customer class for Test Year 2022/2023 and the total water sales forecast for Test Year 2022/2023.

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<sup>20</sup> D.19-09-010, Settlement Agreement, at pp. 3 – 8; see also Attachment 1 Comparison Exhibit, at pp. 4 and 7.

**Table 4-11**  
**Water Sales Forecast for Test Year 2022/2023**

Customer Class	Average Annual Usage Per Customer Class (ccf)	Projected Test Year 2022/2023 Customers Per Class	Water Sales Forecast for Test Year 2022/2023 (ccf)
Single-Family Res.	118.44	20,050	2,374,722
Multi-Family Res.	1,397.70	645	901,517
Business	1,192.26	297	354,101
Industrial	1,714.67	56	96,022
Public Authorities	1,465.77	145	212,537
Schools	3,657.55	44	160,932
Private Landscapes	931.29	238	221,647
Agriculture	413.80	8	3,310
Totals		21,483	4,324,788

**Table 4-12**  
**Water Sales Forecast for Escalation Year 2023/2024**

Customer Class	Average Annual Usage Per Customer Class (ccf)	Projected Test Year 2023/2024 Customers Per Class	Water Sales Forecast for Test Year 2023/2024 (ccf)
Single-Family Res.	118.44	20,110	2,381,828
Multi-Family Res.	1,397.70	661	923,880
Business	1,192.26	303	361,255
Industrial	1,714.67	57	97,736
Public Authorities	1,465.77	143	209,605
Schools	3,657.55	44	160,932
Private Landscapes	931.29	241	224,440
Agriculture	413.80	8	3,310
Totals		21,567	4,362,986

**Table 4-13**  
**Water Sales Forecast for Attrition Year 2024/2025**

Customer Class	Average Annual Usage Per Customer Class (ccf)	Projected Test Year 2024/2025 Customers Per Class	Water Sales Forecast for Test Year 2024/2025 (ccf)
Single-Family Res.	118.44	20,170	2,388,935
Multi-Family Res.	1,397.70	677	946,243
Business	1,192.26	309	368,408
Industrial	1,714.67	58	99,451
Public Authorities	1,465.77	141	206,674
Schools	3,657.55	44	160,932
Private Landscapes	931.29	244	227,235
Agriculture	413.80	8	3,310
Totals		21,651	4,401,188

The entire water sales forecast considers all of the factors addressed above, including the “new” factors listed in D.20-08-047. This water sales forecast

combined with the requested Sales Reconciliation Mechanism are intended to produce the most accurate water sales forecast possible in the Test Year and for the two years thereafter.

#### **IV. Proposed Rate Design**

As discussed above in Section II.A.C.(a), at pages 5-6 above, the tiered rate design currently in place needs to change to one that is more revenue neutral (*i.e.*, revenue collected under tiered rates should be fairly equal to revenue that would be recovered under uniform quantity rates). The complicating factor is the D.20-08-047 to include a minimum of 6 ccfs per household per month in the first tier of the tiered rate design. With 118.44 ccfs as the average annual usage per household, this translates to 10.0 ccfs per household per month when designing tiered rates, as water usage is billed in full ccf increments (as opposed to partial ccf increments).

Great Oaks bills on a bi-monthly basis which covers two months of usage. Doubling the first-tier usage of 6 ccfs per household per *month* to 12 ccfs per household per *billing period* is the only option to maintain compliance with the D.20-08-047 mandate. Because of this requirement, a full 60% of average single-family usage must be billed at a discount off the uniform quantity rate. Then, to equalize the total usage charge under tiered rates to the total usage charge under the uniform quantity rate, it will be necessary to set the next 8 ccfs (40% of average usage) at a rate that results in an equal or near equal amount as compared to billing 20 ccfs at the uniform quantity rate. Then, in order to avoid an over-collection of revenues from average water sales, it will be necessary to start third tier usage at 21 ccfs per billing period and to keep that third-tier rate from being considerably higher than the uniform quantity rate.

For its Advice Letter 299-W, Great Oaks worked cooperatively with the Public Advocates Office to create a new rate design that would avoid the issues of the previous tiered rate design referenced above. The new tiered rate design was approved by the Water Division and will be effective on July 1, 2021. This new rate design is proposed for the Test Year (and beyond, if it is effective). The new rate design is shown below. The new rate design also complies with D.20-08-047.

### **D.20-08-047-Compliant Tier-Rate Design**

Tier – Usage Per Billing Period (ccfs)	Factor – Compared to Uniform Quantity Rate
Tier 1: 0 – 12 ccfs	0.7110
Tier 2: 13 – 20 ccfs	1.2270
Tier 3: Over 20 ccfs	1.4570

The Company requests that its current D.20-08-047-compliant rate design be accepted and authorized.

#### **V. Authorization to Adjust Customer Assistance Program Surcharge.**

Great Oaks maintains a balancing account that tracks the difference between the amount of CAP discounts included in rates (CAP Surcharge) and the actual amounts of such discounts. Great Oaks will change the name of this balancing account from Low-Income Customer Assistance Program Balancing Account to Customer Assistance Program Balancing Account, consistent with the directives in D.20-08-047. The CAP Surcharge calculations are shown below and are based upon the requested revenues and rates in this Application. The calculations below are consistent with the methodology adopted in the settlement of Great Oaks’ 2018 general rate case (D.19-09-010, Settlement Agreement, at p. 40).

#### **CAP Cost and Surcharge Calculations**

Meter Size	Monthly Charge	50% Discount	Yearly Discount	Participants*	Totals
5/8 x 3/4	\$15.86	\$7.93	\$95.16	1,136	\$108,102
3/4 x 3/4	\$23.79	\$11.90	\$142.80	2,257	\$322,300
1-inch	\$39.65	\$19.83	\$237.96	6	\$1,428
1.5-inch	\$79.30	\$39.65	\$475.80	3	\$1,427
			Total CAP Amount		\$433,257
			Divided by Non-CAP Sales		3,918,545
			CAP Surcharge per CCF		\$0.1106

\*Total enrollees as of March 31, 2021.

The table below provides a comparison of single-family residential bills for customers in the CAP and customers not in the CAP. For purposes of this comparison, the most common meter size (3/4" x 3/4") for single-family residential customers is used. The quantities selected for the comparison are the “essential use amount” of 6 CCF per month and the average single-family use amount utilized in

Great Oaks’ sales forecast for this Application. The meter service charge and the quantity rates are those proposed in this Application. As can be seen, the CAP discount provides a \$26.75 savings for CAP customers, which represents an overall discount of 30.6% off of regular rates.

Note that the bill comparison is for a two-month time period. Broken down to a monthly amount, with the CAP discount, a CAP customer would pay less than \$31.00 for the monthly “essential use amount.” Temporary surcharges are not included in the calculation.

**SFR and CAP Customer Bill Comparison for Two Months of Service**

Charge	Single-Family Residential Customer		CAP Customer	
Monthly Meter Charge	\$23.79 x 2	\$47.58	\$11.90 x 2	\$23.80
Usage	\$2.7723 x 12 ccfs	\$33.27	\$3.7723 x 12 ccfs	\$33.27
CAP Surcharge	\$0.1106 x 12 ccfs	\$1.33		
Subtotal		\$82.18		\$57.07
CPUC Fee	1.43%	\$1.18	1.43%	\$0.82
Subtotal		\$83.36		\$57.89
City of San Jose Utility Tax	5%	\$4.17	5%	\$2.89
Total		\$87.53		\$60.78

Great Oaks requests that authorization be granted in this proceeding to make continuing adjustments to the CAP surcharge to reduce, over time, any over- or under-collections and corresponding amounts in the Customer Assistance Program Surcharge Balancing Account.<sup>21</sup>

## **VI. Conclusion**

Great Oaks requests that its water sales forecast, Sales Reconciliation Mechanism proposal, and Rate Design proposal all be adopted. All factors required to be considered have been and the rate design is decidedly more “revenue neutral” (as defined above) than last-adopted rate design. The water sales forecast, Sales Reconciliation Mechanism proposal, and Rate Design proposal all comply with D.16-12-026 and D.20-08-047.

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<sup>21</sup> Formerly known as the Low-Income Customer Assistance Program Surcharge Balancing Account.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**  
**CHAPTER 5**  
**OPERATING EXPENSES**

Prepared by Tim Guster and Ron Ceolla

**I. Operating Expenses**

**A. Operation and Maintenance Expenses**

1. Operation and Maintenance (O&M) Expenses for the last authorized test year, the last five years of recorded operations, and the proposed test year.

Response: See **Exhibit E**, GRC Workpapers, O&M Expenses, p. WP-4.

**[MDR II. B. 1]**

2. Operation and Maintenance Expenses per customer for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, O&M Expenses, p. WP-4.

**[MDR II. B. 2]**

3. Maintenance expense and percent increase/(decrease) for last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Maintenance Expenses, p.

WP-5. **[MDR II. B. 3]**

4. Maintenance expense per customer and percent increase/(decrease) for last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Maintenance Expenses, p.

WP-5. **[MDR II. B. 4]**

5. A&G (Administrative & General) Expenses and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, A&G Expenses, p. WP-6.

**[MDR II. B. 5]**



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6. A&G Expenses per customer and percent increase/(decrease) for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, A&G Expenses, p. WP-6.

**[MDR II. B. 6]**

7. Number of district employees per thousand customers and percent increase/(decrease) for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

**[MDR II. B. 7]**

8. District employee total payroll expenses and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

**[MDR II. B. 8]**

9. District employee payroll expense per thousand customers and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

**[MDR II. B. 9]**

10. District employee expensed payroll and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Expensed Payroll, p. WP-7.

**[MDR II. B. 10]**

11. District employee capitalized payroll and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Plant in Service Additions and Retirements Summary, p. WP-14. **[MDR II. B. 11]**

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

12. Number of general office employees per thousand customers and percent increase/(decrease) for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

**[MDR II. B. 12]**

13. General office payroll expense and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

**[MDR II. B. 13]**

14. General office payroll expenses per thousand customers and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

**[MDR II. B. 14]**

15. General Office expensed payroll and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: All general office payroll is expensed. See **Exhibit E**, GRC Workpapers, Expensed Payroll, p. WP-7. **[MDR II. B. 15]**

16. General Office capitalized payroll per thousand customers and percent increase for the last authorized test year, last five years recorded data, and proposed test year.

Response: Not applicable. All General Office payroll expenses are expensed. **[MDR II. B. 16]**

17. Number of supervisory, managerial, and executive employees in General Office for the last authorized test year, last five years recorded data, and proposed test year.

Response: None. **[MDR II. B. 17]**

18. Number of supervisory, managerial, and executive employees in General Office per thousand customers for the last authorized test year, last five years recorded data, and proposed test year.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

Response: None. **[MDR II. B. 18]**

19. If general office expenses are shared with other regulated water districts or other unregulated affiliates or functions, describe how these expenses are allocated (a) by the most recent Commission decision (provide citation to decision number and exact page reference) or (b) if these expenses are now subject to allocation by Commission decision (provide citation to decision number and exact page reference), how these expenses have been allocated, in fact, since the last general rate case or general rate adjustment.

Response: Not applicable. **[MDR II. B. 19]**

20. **Discussion of Employees, Employee Expenses, and Employee Benefits.**

a. **Management Employees.** The Company has three (3) management-level employees: Chief Executive Officer John Roeder; Vice President and General Counsel Tim Guster; and Chief Financial Officer Ron Ceolla. Vice President – Operations Jared Ajlouny is not included in the category of management expenses but is instead included in Field Service Employees, as he is a part-time employee. See **Exhibit E**, GRC Workpapers, Payroll Expenses, p. WP-9.

In D.21-01-008, the Commission authorized the transfer of ownership from GOW Corporation to John Roeder and the John W.S. Roeder Continuing Trust. The Company projects no transactions involving corporate affiliates involving utility employees or assets or resulting costs in this general rate case application. The Company also projects no contracts or other transactions involving services provided by Company officers or employees to corporate affiliates that would be reimbursable at fully allocated costs in this general rate case application. The Company projects no use of regulated assets or employees in the revenue requirement for unregulated activities in this general rate case application. The Company will, however, continue to comply with its regulatory obligations, and should any regulated employees work on non-regulated matters, appropriate records will be maintained. The

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

Company continues to maintain its Compliance Plan for Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services. A copy of this Compliance Plan is provided in **Exhibit 5-1** to this Report.

Management salaries are shown in **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9 for the last authorized test year, last five years recorded data, and the proposed test year in compliance with **MDR II. B**.

b. **Field Service Employees.** No additions are requested for Great Oaks' Field Service Employees. Company Field Service Employees are classified in the following manner:

1. **Vice President of Operations/Director of Construction.**

The employee in this position will remain part-time during the upcoming three-year general rate case cycle. Responsibilities include general and direct supervision of all field service employees. The position is also responsible for the planning, preparation, scheduling, and completion of all construction work, including both maintenance and capital projects. Compensation is based upon fifty percent (50%) of current compensation, with escalation factors used for adjustments.

2. **Water Quality Manager/Health and Safety Manager (WQM/HSM).** This position serves two critical functions – ensuring both water quality for Great Oaks' customers and safety for Great Oaks' employees.

Under the direction of the Chief Executive Officer and/or Vice President – Operations, the WQM/HSM organizes and supervises assigned personnel engaged in water quality responsibilities and serves as the liaison with state health officials on water quality issues. In addition, the WQM/HSM presently serves on the Company's safety committee and has responsibilities for safety training and instruction, as well as providing emergency and requested underground service location services.

**Essential Functions:**

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

- ◆ Supervision of personnel in accomplishing assigned tasks;
- ◆ Provides training to field service personnel on water quality tasks;
- ◆ Provides training and advice to field service personnel on health and safety issues;
- ◆ Evaluates performance of personnel assigned to water quality tasks;
- ◆ Recommends new or revised processes and procedures for compliance with water quality testing and reporting requirements;
- ◆ Assists with resolution of technical and complex issues pertaining to water quality issues;
- ◆ Operates SCADA system when required;
- ◆ Operates Company vehicles and equipment when required;
- ◆ Uses hand tools to perform limited repairs to Company equipment when required;
- ◆ Responds to emergency calls when required;
- ◆ Responds to underground service alerts and location requests;
- ◆ Takes water samples as required according to established procedures;
- ◆ Responds to customer inquiries about water quality;
- ◆ Participates in rotational shift and on-call/stand-by duties as required.

#### Classification Requirements

- ◆ Valid Level D5 and T1 certificates issues by the California State Water Resources Control Board (formerly California Department of Public Health);
- ◆ Valid California Driver's License and a satisfactory driving record;
- ◆ High School Diploma or G.E.D.
- ◆ Ten or more years of experience in semi-skilled or skilled work with a water or wastewater agency or utility;
- ◆ Working knowledge of the operation, maintenance, and cleaning of water distribution system equipment and facilities, water distribution principles, methods, and practices, mechanical, electrical, and

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

- hydraulic principles, underground service safety and location rules and requirements, and safety rules, codes, and confined space procedures;
- ◆ Five or more years of experience in supervising and/or training employees;
  - ◆ Ability to recognize unusual, inefficient, or dangerous operating conditions and take appropriate action; accurately read and enter data pertinent to the water distribution system; learn and utilize advanced SCADA system techniques;
  - ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

#### Compensation Range

\$9,583 - \$17,333 per month / \$115,000 - \$208,000 per year

Compensation (2020/2021): \$101,000 - Test Year Compensation: \$126,979

Rationale for Increase: Increase is necessary to ensure competitive salary for this very important position. This is considered a promotional increase and not simply an increase under labor rates. Current salary is well below average for this position and region. Significant additional responsibilities related to new water quality testing requirements: increased responsibilities for employee health and safety programs.

**See Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

#### Selected Comparable Employment Positions and Salaries

Quality Assurance/Quality Control Officer, Alameda County Water District - \$124,600.58 - \$151,457.83

Workplace Health and Safety Officer, Alameda County Water District - \$124,600.58 - \$151,457.83

Manager of Water Quality, EBMUD - \$142,860 - \$206,364

Manager of Workplace Health & Safety, EBMUD - \$135,984 - \$196,428

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Water Quality Superintendent, Contra Costa Water District - \$135,325  
- \$164,507

Manager of Health and Safety, Contra Costa Water District - \$164,798  
- \$200,325

Director of Water Quality/System Operations, Helix Water District -  
\$162,672 - \$207,612

3. **Water System Supervisor.** The responsibilities and functions of this position have been revised since the Company's last general rate case. This position now has greater responsibilities for the leadership of the field service employees.

Under the general direction of Vice President – Operations, the Water System Supervisor monitors and operates the potable water distribution and storage systems and provides direct leadership, guidance, and supervision to Field Service Foremen and to the Water System Lead Technician, as well as providing general guidance to all field service employees. The compensation for this position has been adjusted to reflect the added responsibilities and to remain competitive with compensation offered to comparable positions at water service providers in the region. This is also a promotional increase, as the employee in this position has been promoted from the position of Water System Operator IV.

**Essential Functions**

- ◆ Performs periodic inspections of pumping, distribution, and storage structures and properties; reports system status, operating problems, and needed repairs in accordance with established procedures;
- ◆ Performs water distribution system repairs under indirect supervision; provides general supervision of Field Service Foremen and Water System Operators, as needed;
- ◆ Performs water distribution system maintenance under indirect supervision; provides general supervision of Field Service Foremen and Water System Operators, as needed;

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- ◆ Performs water distribution system construction under indirect supervision; provides general supervision of Field Service Foremen and Water System Operators, as needed;
- ◆ Periodically operates a portion of the water distribution system using an advanced SCADA system under indirect supervision;
- ◆ Under general supervision, operates pumps and valves to regulate the flow of water through the distribution system, keeps water levels, gradients, pressures and flows within limits set by general water system distribution operating procedures; provides general supervision of Field Service Foremen and Water System Operators, as needed;
- ◆ Takes water samples as required according to established procedures under supervision of Water Quality Manager;
- ◆ Reads and records customer water usage;
- ◆ Validates unusual readings through established procedures;
- ◆ Performs meter installations and replacements; provides general supervision of Field Service Foremen and Water System Operators, as needed;
- ◆ Sets up traffic control apparatus, signs, and barriers according to established and required safety procedures; provides general supervision of Field Service Foremen and Water System Operators, as needed;
- ◆ Operates Company vehicles and equipment when required;
- ◆ Operates Company communications equipment when required;
- ◆ Performs limited repairs to Company equipment when required;
- ◆ Responds to emergencies as required; provides general supervision of Field Service Foremen and Water System Operators, as needed;
- ◆ Participates in rotational shift and on-call/stand-by duties as required;
- ◆ Provides training to Field Service Foremen and Water System Operators under general supervision of Vice President – Operations.

#### Classification Requirements



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- ◆ Valid level D2 or higher Operator Certificate issued by the California State Water Resources Control Board (formerly California Department of Public Health);
- ◆ Valid California Driver's License and a satisfactory driving record;
- ◆ High school diploma or G.E.D.;
- ◆ Eight or more years of experience in semi-skilled or skilled construction, working mechanical devices or a maintenance-related field, preferably in a water or wastewater agency or utility.
- ◆ Working knowledge of the operation, maintenance, and cleaning of water distribution system equipment and facilities, water distribution principles, methods, and practices, mechanical, electrical, and hydraulic principles, and safety rules, codes, and confined space procedures;
- ◆ Five years or more of experience in supervising and/or training employees;
- ◆ Ability to recognize unusual, inefficient, or dangerous operating conditions and take appropriate action; accurately read and enter data pertinent to water distribution systems; learn advanced SCADA system techniques;
- ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

#### Compensation Range

\$10,978 - \$20,121 per month / \$131,736 - \$241,446 per year

Compensation (2020/2021): \$110,596 – Test Year Compensation: \$119,096 per year

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

#### Selected Comparable Employment Positions and Salaries

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**REPORT ON RESULTS OF OPERATIONS**

Facility Maintenance Manager, Alameda County Water District -  
\$161,622 - \$196,459

General Facilities Supervisor, Alameda County Water District -  
\$140,492 - \$170,774

Distribution Maintenance Manager, Alameda County Water District -  
\$161,622 – \$196,459

Water Distribution Supervisor, EBMUD - \$131,736 - \$152,496

Director of Operations and Maintenance, Contra Costa Water District -  
\$198,640 - \$241,446

4. **Water System Lead Technician.** Under indirect supervision, the Water System Lead Technician monitors, operates, repairs, and constructs the potable water distribution and storage system, assists with water quality compliance requirements, communicates with water system customers and compiles water system data for billing and reporting purposes. Water System Lead Technician responsibilities include technical aspects, including data collection and reporting, not required of Water System Operators.

This is a new position and constitutes a promotion for the employee handling these responsibilities from a Water System Supervisor to Water System Lead Technician. Compensation is a promotional increase and is not based upon labor factors.

**Essential Functions**

- ◆ Performs periodic inspections of pumping, distribution, and storage structures and properties; reports system status, operating problems, and needed repairs in accordance with established procedures;
- ◆ Performs water distribution system repairs under indirect supervision;
- ◆ Performs water distribution system maintenance under indirect supervision;
- ◆ Performs water distribution system construction under indirect supervision;

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### **REPORT ON RESULTS OF OPERATIONS**

- ◆ Periodically operates a portion of the water distribution system using an advanced SCADA system under indirect supervision;
- ◆ Under general supervision, operates pumps and valves to regulate the flow of water through the distribution system, keeps water levels, gradients, pressures and flows within limits set by general water system distribution operating procedures;
- ◆ Takes water samples as required according to established procedures under supervision of Water Quality Manager;
- ◆ Records, calculates, and reports well data, water level data, flow data, pressure data, and other technical requirements under indirect supervision;
- ◆ Reads and records customer water usage;
- ◆ Validates unusual readings through established procedures;
- ◆ Performs meter installations and replacements;
- ◆ Sets up traffic control apparatus, signs, and barriers according to established and required safety procedures;
- ◆ Operates Company vehicles and equipment when required;
- ◆ Operates Company communications equipment when required;
- ◆ Performs limited repairs to Company equipment when required;
- ◆ Responds to emergencies as required;
- ◆ Participates in rotational shift and on-call/stand-by duties as required;

#### Classification Requirements

- ◆ Valid Level D2 or higher Operator Certificate issued by the California State Water Resources Control Board (formerly California Department of Public Health);
- ◆ Valid California Driver's License and a satisfactory driving record;
- ◆ High school diploma or G.E.D.;
- ◆ Three or more years of experience in semi-skilled or skilled construction, working mechanical devices or a maintenance-related field, preferably in a water or wastewater agency or utility.

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### REPORT ON RESULTS OF OPERATIONS

- ◆ Working knowledge of the operation, maintenance, and cleaning of water distribution system equipment and facilities, water distribution principles, methods, and practices, mechanical, electrical, and hydraulic principles, and safety rules, codes, and confined space procedures;
- ◆ Ability to recognize unusual, inefficient, or dangerous operating conditions and take appropriate action; accurately read and enter data pertinent to water distribution systems; use advanced SCADA system techniques;
- ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

#### Compensation Range

\$7,650 - \$10,432 per month / \$91,797- \$125,184 per year

Compensation (2020/2021): \$97,000 - Test Year Compensation: \$105,000

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

#### Selected Comparable Employment Positions and Salaries

Utility Worker 3 - \$91,797 - \$111,587 – Alameda County Water District

Senior Water Distribution System Operator - \$113,544 - \$125,184 – EBMUD

Senior Distribution Operator - \$104,328 – Contra Costa Water District

5. **Field Service Foreman (2 Positions)**. These are new positions in the revised organizational structure. One employee in this position was a Water System Supervisor and his duties and responsibilities remain the same. The other employee was a Water System Operator I and is receiving a promotion and promotional increase in compensation. Compensation levels have been adjusted for market conditions in the region, as evidenced by compensation for comparable positions.

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### **REPORT ON RESULTS OF OPERATIONS**

Under indirect supervision, the Field Service Foremen monitor, operate, repair, and construct the potable water distribution and storage system, assist with water quality compliance requirements, communicate with water system customers and compile water system data for billing and reporting purposes. Field Service Foremen supervise and direct other employees.

#### Essential Functions

- ◆ Performs periodic inspections of pumping, distribution, and storage structures and properties; reports system status, operating problems, and needed repairs in accordance with established procedures;
- ◆ Performs water distribution system repairs under indirect supervision; provides direct supervision of Water System Operators, as needed;
- ◆ Performs water distribution system maintenance under indirect supervision; provides direct supervision of Water System Operators, as needed;
- ◆ Performs water distribution system construction under indirect supervision; provides general supervision of Water System Operators, as needed;
- ◆ Periodically operates a portion of the water distribution system using an advanced SCADA system under indirect supervision;
- ◆ Under general supervision, operates pumps and valves to regulate the flow of water through the distribution system, keeps water levels, gradients, pressures and flows within limits set by general water system distribution operating procedures; provides direct supervision of Water System Operators, as needed;
- ◆ Takes water samples as required according to established procedures under supervision of Water Quality Manager;
- ◆ Reads and records customer water usage;
- ◆ Validates unusual readings through established procedures;

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- ◆ Performs meter installations and replacements; provides direct supervision of Water System Operators, as needed;
- ◆ Sets up traffic control apparatus, signs, and barriers according to established and required safety procedures; provides direct supervision of Water System Operators, as needed;
- ◆ Operates Company vehicles and equipment when required;
- ◆ Operates Company communications equipment when required;
- ◆ Performs limited repairs to Company equipment when required;
- ◆ Responds to emergencies as required; provides direct supervision of Water System Operators, as needed;
- ◆ Participates in rotational shift and on-call/stand-by duties as required;
- ◆ Provides training to Water System Operators under general supervision of Vice President – Operations.

#### Classification Requirements

- ◆ Valid Level D4 or higher Operator Certificate issued by the California State Water Resources Control Board (formerly California Department of Public Health);
- ◆ Valid California Driver's License and a satisfactory driving record;
- ◆ High school diploma or G.E.D.;
- ◆ Eight or more years of experience in semi-skilled or skilled construction, working mechanical devices or a maintenance-related field, preferably in a water or wastewater agency or utility.
- ◆ Working knowledge of the operation, maintenance, and cleaning of water distribution system equipment and facilities, water distribution principles, methods, and practices, mechanical, electrical, and hydraulic principles, and safety rules, codes, and confined space procedures;
- ◆ Two years or more of experience in supervising and/or training employees;

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- ◆ Ability to recognize unusual, inefficient, or dangerous operating conditions and take appropriate action; accurately read and enter data pertinent to water distribution systems; learn advanced SCADA system techniques;
- ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

#### Compensation Range

\$8,704 - \$12,708 per month / \$104,450 - \$152,496 per year

Compensation (2020/2021): \$97,000 - Test Year Compensation: \$105,000

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

#### Selected Comparable Employment Positions and Salaries

Distribution Maintenance Supervisor 1 - \$124,600 - \$151,458 –

Alameda County Water District

Water Distribution Supervisor - \$131,736 - \$152,496 – EBMUD

Crew Leader – Field - \$104,450 – Contra Costa Water District

6. **Sr. Water System Operator (2 Positions)**. Under direct supervision, the Sr. Water System Operator monitors, operates, repairs, and constructs the potable water distribution and storage system, assists with water quality compliance requirements, communicates with water system customers and compiles water system data for billing and reporting. Sr. Water System Operator is the highest non-supervisory position among field service employees. Compensation has been adjusted for the Test Year to make compensation for the position competitive in the Bay Area region (see comparable positions listed below).

One of the positions is currently open due to the death of a Great Oaks' employee. The position will be filled when the pandemic emergency is over and suitable candidates may be found.

#### Essential Functions

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### **REPORT ON RESULTS OF OPERATIONS**

- ◆ Performs periodic inspections of pumping, distribution, and storage structures and properties; reports system status, operating problems, and needed repairs in accordance with established procedures;
- ◆ Performs water distribution system repairs under general supervision;
- ◆ Performs water distribution system maintenance under general supervision;
- ◆ Performs water distribution system construction under general supervision;
- ◆ Periodically operates a portion of the water distribution system using an advanced SCADA system under direct supervision;
- ◆ Under direct supervision, operates pumps and valves to regulate the flow of water through the distribution system, keeps water levels, gradients, pressures and flows within limits set by general water system distribution operating procedures;
- ◆ Takes water samples as required according to established procedures under supervision of Water Quality Manager;
- ◆ Reads and records customer water usage;
- ◆ Validates unusual readings through established procedures;
- ◆ Performs meter installations and replacements;
- ◆ Sets up traffic control apparatus, signs, and barriers according to established and required safety procedures;
- ◆ Operates Company vehicles and equipment when required;
- ◆ Operates Company communications equipment when required;
- ◆ Performs limited repairs to Company equipment when required;
- ◆ Responds to emergencies as required;
- ◆ Participates in rotational shift and on-call/stand-by duties as required.

#### Classification Requirements

- ◆ Valid Level D1 or D2 Operator Certificate issued by the California State Water Resources Control Board (formerly California Department of Public Health);



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### REPORT ON RESULTS OF OPERATIONS

- ◆ Valid California Driver's License and a satisfactory driving record;
- ◆ High school diploma or G.E.D.;
- ◆ Two years or more of experience in semi-skilled or skilled construction, working mechanical devices or a maintenance-related field, preferably in a water or wastewater agency or utility.
- ◆ Working knowledge of the operation, maintenance, and cleaning of water distribution system equipment and facilities, water distribution principles, methods, and practices, mechanical, electrical, and hydraulic principles, and safety rules, codes, and confined space procedures;
- ◆ Ability to recognize unusual, inefficient, or dangerous operating conditions and take appropriate action; accurately read and enter data pertinent to water distribution systems; learn advanced SCADA system techniques;
- ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

#### Compensation Range

\$7,591 - \$8,369 per month / \$91,093 - \$100,432 per year

Compensation (2020/2021): \$86,635 - Test Year Compensation: \$93,635

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

#### Selected Comparable Employment Positions and Salaries

Utility Worker 2 (mid-range) - \$91,093 - \$100,432 – Alameda County  
Water District

Water Distribution Operator (mid-range) - \$97,788 – EBMUD

Distribution Operator (mid-level) - \$94,640 - \$99,362 – Contra Costa  
Water District

7. **Water System Operator**. The Company currently has four employees under this classification. One new position in this classification is

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### **REPORT ON RESULTS OF OPERATIONS**

proposed. The new position will enable the Company to perform additional maintenance on the system as it ages. The new position is projected at the low end of the compensation range for this classification. Proposed compensation is based upon comparable positions and relative seniority with the Company.

Under direct supervision, the Water System Operator monitors, operates, repairs, and constructs the potable water distribution and storage system, assists with water quality compliance requirements, communicates with water system customers and compiles water system data for billing and reporting. Water System Operator is the first working level classification in this series.

#### Essential Functions

- ◆ Performs periodic inspections of pumping, distribution, and storage structures and properties; reports system status, operating problems, and needed repairs in accordance with established procedures;
- ◆ Performs water distribution system repairs under general supervision;
- ◆ Performs water distribution system maintenance under general supervision;
- ◆ Performs water distribution system construction under general supervision;
- ◆ Periodically operates a portion of the water distribution system using an advanced SCADA system under direct supervision;
- ◆ Under direct supervision, operates pumps and valves to regulate the flow of water through the distribution system, keeps water levels, gradients, pressures and flows within limits set by general water system distribution operating procedures;
- ◆ Takes water samples as required according to established procedures under supervision of Water Quality Manager;
- ◆ Reads and records customer water usage;
- ◆ Validates unusual readings through established procedures;

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- ◆ Performs meter installations and replacements;
- ◆ Sets up traffic control apparatus, signs, and barriers according to established and required safety procedures;
- ◆ Operates Company vehicles and equipment when required;
- ◆ Operates Company communications equipment when required;
- ◆ Performs limited repairs to Company equipment when required;
- ◆ Responds to emergencies as required;
- ◆ Participates in rotational shift and on-call/stand-by duties as required.

#### Classification Requirements

- ◆ Valid Level D1 or D2 Operator Certificate issued by the California State Water Resources Control Board (formerly California Department of Public Health);
- ◆ Valid California Driver's License and a satisfactory driving record;
- ◆ High school diploma or G.E.D.;
- ◆ One year or more of experience in semi-skilled or skilled construction, working mechanical devices or a maintenance-related field, preferably in a water or wastewater agency or utility.
- ◆ Working knowledge of the operation, maintenance, and cleaning of water distribution system equipment and facilities, water distribution principles, methods, and practices, mechanical, electrical, and hydraulic principles, and safety rules, codes, and confined space procedures;
- ◆ Ability to recognize unusual, inefficient, or dangerous operating conditions and take appropriate action; accurately read and enter data pertinent to water distribution systems; learn advanced SCADA system techniques;
- ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

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**REPORT ON RESULTS OF OPERATIONS**

Compensation Range

\$6,427 - \$7,761 per month / \$77,124 - \$93,132 per year

Compensation (2020/2021): \$58,053 - \$79,962 - Test Year Compensation:

\$70,553 - \$88,962

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

Selected Comparable Employment Positions and Salaries

Utility Worker 1 (mid-range) - \$84,914 – Alameda County Water District

Water Distribution Operator (mid-range) - \$93,132 – EBMUD

Utility Worker - \$77,124 - \$80,974 – Contra Costa Water District

8. **Water Quality Specialist/Environmental Services.** This is a position authorized in the settlement of the Company's 2018 General Rate Case. The responsibilities of the employee are centered around addressing the water quality safety issues raised by the Public Advocates Office. Great Oaks expects to have this employee in place for the 2021/2022 rate year, as that is when Great Oaks expects to begin the implementation of the new water quality/water safety program. Beginning compensation for this new employee was authorized in D.19-09-010 at \$75,000 per year in rate year 2021/2022 and increasing through the next three years at normal escalation rates.

c. **General Office Employees.** The Company is requesting one addition to its General Office Employees beginning January 1, 2021.

Company General Office Employees are classified in the following manner:

1. **Office Manager/Customer Service Manager/Office Administration Assistant/Full-Charge Bookkeeper.** Under general supervision of the Chief Financial Officer, plans, directs, manages, supervises, and coordinates the programs and activities of the Customer Service Department. Provides accounting and administrative support for Chief Financial Officer. Assists General Counsel with conservation programs.

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

#### Essential Functions

- ◆ Shared responsibility for managing the services and activities of the Customer Service Department including customer service call center, meter reading, billing, posting, cashiering, and collections;
- ◆ Plans, directs, assigns, reviews, and evaluates the work of professional, technical, and support staff assigned to perform customer service functions;
- ◆ Coaches staff on appropriate customer service procedures and methods and recommends opportunities for improvement;
- ◆ Participates in the development of and directs and monitors the implementation of customer service goals, objectives and measures;
- ◆ Identifies and recommends opportunities for improvement in accounting and administrative matters;
- ◆ Supports Chief Financial Officer on relevant matters;
- ◆ Assists with development of customer notices and communications;
- ◆ Provides customers with water conservation program information;
- ◆ Investigates and resolves complex inquiries, service requests, and customer complaints;
- ◆ Supervises customer service employees in handling routine inquiries, service requests, and customer complaints;
- ◆ Authorizes discontinuation of service and reconnections to service for delinquent customers and negotiates terms for restoration of service for delinquent customers within established guidelines; transmits orders for discontinuation and restoration of service to field service employees; reviews accounts for proper posting and refers uncollected accounts to collection agency;
- ◆ Attends professional training sessions pertaining to customer service, conservation, and accounting procedures and methods for water utilities;
- ◆ Provides office administration, including payroll services.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

Classification Requirements

- ◆ Nine or more years of experience in customer service, involving complex utility billing systems, cash receipts, customer account record keeping, and meter reading and verifications, including at least four years of supervisory experience;
- ◆ High school diploma or G.E.D. equivalent.

Compensation Range

\$8,510 - \$16,372 per month / \$102,120 - \$196,459 per year

Compensation (2020/2021): \$107,524    Test Year Compensation: \$117,524

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

Selected Comparable Employment Positions and Salaries

- ◆ Customer Service Supervisor 1/2 - \$124,601 – \$170,774
- ◆ Customer Service Supervisor - \$123,864 - \$150,564 – Contra Costa Water District
- ◆ Senior Accountant - \$112,692 - \$136,980 – Contra Costa Water District
- ◆ Administrative Analyst II (Finance) - \$102,120 - \$124,152 – Contra Costa Water District
- ◆ Customer Services Manager - \$129,444 - \$186,984 – EBMUD
- ◆ Administrative Services Supervisor - \$105,312 – EBMUD
- ◆ Customer Service and Systems Manager - \$161,622 - \$196,459 – Alameda County Water District
- ◆ Customer Service Supervisor 2 - \$140,491 - \$170,774 – Alameda County Water District

2.     **Customer Service Representative/Field Services Liaison.**

The duties of this hybrid classification require the direct and indirect processing of customer service requests, information inquiries, maintenance of customer records, customer billing, and customer complaints. This position is also responsible for preparing reports, calculations for customer account reconciliation, credit and delinquent account statements, new service orders, preparation of computer input and/or operation of an interactive

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

terminal, and other activities associated with the business and functions of the Company. In addition, this classification includes various field service responsibilities, including service disconnections and reconnections and meter reading.

Proposed compensation is based upon escalation factors applied to current compensation.

#### Classification Requirements

- ◆ Interfaces directly with Company customers and/or personnel, either in-person, by telephone, or by correspondence in order to respond to complaints, inquiries, service requests, billing arrangements, or for other reasons necessitating communication from and within the Company;
- ◆ Researches, assembles, and analyzes data, as needed, under supervision of Customer Service Manager;
- ◆ Prepares and maintains a variety of reports and records, including account information and balances, cash and sales, computer file maintenance, credit and collection of delinquent accounts, account adjustments, meter audits, and other miscellaneous accounts such as deposits and refunds;
- ◆ Prepares service tags, investigation work orders, collection letters and reports, and such other items as may be required by the Company;
- ◆ Must be able to utilize maps and construction drawings and be able to communicate with Company personnel and outside contractors in the normal course of duties;
- ◆ Performs other general clerical tasks, as needed;
- ◆ Participates in rotational shift and on-call/stand-by duties as required;
- ◆ Must be physically able to perform the essential functions of the classification; must be willing to work shifts, weekends, holidays, and overtime, as needed; must be willing to work outdoors in a variety of weather conditions.

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### **REPORT ON RESULTS OF OPERATIONS**

#### Compensation Range

\$7,189 - \$10,116 per month / \$86,268 - \$121,392 per year

Compensation (2020/2021): \$89,989    Projected Compensation: \$93,489

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-10.

#### Selected Comparable Employment Positions and Salaries

- ◆ Senior Customer Services Representative - \$90,312 - \$109,752 –  
Contra Costa Water District
- ◆ Customer Services Representative II - \$86,268 – \$121,392 – Helix  
Water District
- ◆ Customer Account Representative III - \$86,945 - \$91,294 – Alameda  
County Water District

3.     **Senior Customer Service Representative.** The duties of this classification require the direct or indirect processing of rate-related data and incorporation of that data into the Company's billing system. This position is also responsible for preparing reports, calculations for customer account reconciliations, credit and delinquent account statements, new service orders, preparation of computer input and/or operation of an interactive terminal, and other activities associated with the business functions of the Company. In addition, this classification requires information technology and web support skills and experience in information technology. This position also, as needed, provides support for regulatory accounting.

Compensation is based upon comparable positions in the region with labor escalation factors applied.

#### Classification Requirements

- ◆ Interfaces directly with customers and/or personnel, either in-person, by telephone, or through correspondence to answer complaints, inquiries, service requests, billing arrangements, or for other reasons necessitating communication from and within the Company;
- ◆ Researches, assembles, and analyzes information, as needed;



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- ◆ Prepares and maintains a variety of reports and records which are related, but not limited to, account balances, cash and sales, computer file maintenance, credit and collection of delinquent accounts, account adjustments, meter audits, and the current status of a variety of miscellaneous accounts such as deposits and refunds;
- ◆ Prepares service tags, investigation work orders, collection letters and reports, and such items as may be required by other Company employees for the normal performance of their duties;
- ◆ Performs other general clerical tasks, as needed;
- ◆ Dual language capability: English and Spanish.

#### Compensation Range

\$6,900 - \$9,146 per month / \$82,803 - \$109,752 per year

Current Compensation (2020/2021): \$84,689 - Projected Compensation: \$90,596

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-10.

#### Selected Comparable Employment Positions and Salaries

- ◆ Senior Customer Sales Representative \$90,312 - \$109,752– Contra Costa Water District
- ◆ Senior Customer Services Representative - \$95,448 - \$100,224 – EBMUD
- ◆ Customer Account Representative 3 - \$82,803 - \$91,293 – Alameda County Water District
- ◆ Customer Services Representative III - \$86,460 - \$90,780 – EBMUD

4. **Customer Service Representative.** The duties of this classification require the direct or indirect processing of customer service requests, information inquiries, maintenance of customer records, customer billing and service complaints. This position is also responsible for preparing reports, calculations for customer account reconciliations, credit and delinquent account statements, new service orders, preparation of computer

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

input and/or operation of an interactive terminal, and other activities associated with the business functions of the Company.

#### Classification Requirements

- ◆ Interfaces directly with customers and/or personnel, either in-person, by telephone, or through correspondence to answer complaints, inquiries, service requests, billing arrangements, or for other reasons necessitating communication from and within the Company;
- ◆ Researches, assembles, and analyzes information, as needed;
- ◆ Prepares and maintains a variety of reports and records which are related, but not limited to, account balances, cash and sales, computer file maintenance, credit and collection of delinquent accounts, account adjustments, meter audits, and the current status of a variety of miscellaneous accounts such as deposits and refunds;
- ◆ Prepares service tags, investigation work orders, collection letters and reports, and such items as may be required by other Company employees for the normal performance of their duties;
- ◆ Performs other general clerical tasks, as needed;
- ◆ Dual language capability: English and Spanish.

Hiring for this position was delayed due to the COVID-19 pandemic emergency and the temporary shutdown of the walk-in customer service operations of the Company. Hiring will take place when the pandemic emergency is declared over and full customer service operations resume.

#### Compensation Range

\$5,610 - \$7,058 per month / \$67,320 - \$84,693 per year

Current Compensation (2020/2021): \$68,206 OPEN Projected

Compensation: \$68,250

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-10.

#### Selected Comparable Employment Positions and Salaries

- ◆ Customer Account Representative 2 - \$69,673 - \$84,693 – Alameda County Water District

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- ◆ Customer Services Representative 2 - \$71,004 - \$82,200 – EBMUD
- ◆ Customer Service Representative - \$67,320 - \$81,827 – Contra Costa Water District

5. **Director of Technology.** Under general direction of the Chief Financial Officer, supervises all information technology and database administration, business systems applications, and network infrastructure; plans, monitors, and evaluates project performance and budget expenditures; recommends and implements adjustments to priorities, work methods, and resources in response to project schedule requirements; identifies need for, plans for, and implements training programs consistent with work unit assignments and general staff development; monitors and maintains the Company's SCADA system; and performs related work as required. In addition, the Director of Technology assists the Chief Financial Officer and the General Counsel in regulatory accounting and general rate case preparation. The Director of Technology supervises the Customer Service Representative/IT & Web Support when engaged in information technology and web support functions.

Because this is a competitive position in the region where the Company provides water service, it is necessary to make the compensation competitive. The proposed compensation for the Test Year is intended to reduce the gap between current compensation and compensation for comparable positions.

#### **Classification Requirements**

- ◆ Thorough knowledge of current industry standard information technology principles, processes, procedures, and techniques related to the assigned work group which may include one or more of the following subject areas: computer programming, system analysis and design, database administration, personal computer hardware selection, installation and repair and software selection, installation

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and customization related to data communications and telephone systems;

- ◆ Working knowledge of processes, services, and related terminology applicable to common business systems as found in a large scale public drinking water utility; the techniques of evaluating vendor supplied software, hardware, and diagnostic tools for identifying and measuring system performance; documentation, testing, and implementation procedures for new software, applications, and systems;
- ◆ General knowledge of supervisory principles and techniques; budget development and expenditure monitoring techniques;
- ◆ Skill in communicating and consulting with a wide variety of departmental representatives on a diverse set of business needs and priorities; applying supervisory and management principles and technical knowledge related to the assigned work group in order to maximize service levels and successful project implementation;
- ◆ Ability to plan, schedule, prioritize, and adjust resource loading to meet simultaneous projects and service orders; coach, mentor, and train assigned staff in customer service and information technology principles and techniques; evaluate individual staff and overall work unit performance;
- ◆ Education and Experience: Any combination of education and experience that has led to the acquisition of the knowledge, skills and abilities as indicated above, including, for example, completion of four years of college resulting in graduation or its equivalent;
- ◆ Four years of experience in one or a combination of the following subject areas as  
  
required by the position vacancy: systems analysis and computer programming; data base administration; systems programming; personal computer hardware installation and repair and software installation and customization in a network environment involving

## **EXHIBIT D**

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either data communications or telephone systems. Additional demonstrated use and experience in specific programming languages or IT disciplines may be required depending on the assignment. At least one year of experience will have included some project lead responsibility;

- ◆ Must possess physical characteristics to perform the critical and important duties of the job and must be willing to work overtime as needed.

#### Compensation Range

\$12,413 - \$16,694 per month / \$148,956 - \$200,325 per year

Current Compensation (2020/2021): \$120,000 - Projected Compensation: \$132,000.

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-10.

#### Selected Comparable Employment Positions and Salaries

- ◆ Information Technology Manager - \$149,342 - \$188,943 – Alameda County Water District
- ◆ Information Systems Manager - \$164,796 - \$200,325 – Contra Costa Water District
- ◆ Information Services Supervisor - \$148,956 - \$172,449 - EBMUD

6. **Regulatory Analyst/Information Systems and Database Administrator**. Under the general supervision of the Chief Financial Officer, General Counsel, and Director of Technology, this hybrid classification performs complex financial and regulatory analyses to confirm compliance with all California Public Utilities Commission regulatory requirements and performs other complex financial, technical, and regulatory work as directed. The position is also responsible for database management.

As with the Director of Technology position, this position is also highly competitive in the region, and proposed compensation is based upon the need to have competitive compensation to retain the current employee.

#### Classification Requirements

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### **REPORT ON RESULTS OF OPERATIONS**

- ◆ Substantial regulatory experience, including compliance with regulations, statutes, financial requirements;
- ◆ Advanced skills with information technology systems, including utility billing systems, and ability to prepare reports and complex analyses utilizing data compiled from such systems;
- ◆ Provides information technology support for office computers and networks;
- ◆ Provides website support services, including web design and maintenance;
- ◆ Manages and maintains multiple Company databases;
- ◆ Analyzes customer data and account information, Company expense/cost data, Company revenue data, and assists with preparation of rate-related requests (advice letters, applications, memorandum and balancing account reports and amortizations, and other financial matters involved directly or indirectly in the rate-making process);
- ◆ Advanced communications skills, both verbal and written.

#### Compensation Range

\$8,979 - \$12,867 per month / \$107,747 - \$154,407 per year

Current Compensation (2020/2021): \$95,000 - Projected Compensation: \$109,798

See **Exhibit E**, GRC Workpapers, Payroll Expenses, page WP-9.

#### Selected Comparable Employment Positions and Salaries

- ◆ Rate and Financial Analyst \$126,734 - \$154,407 – Contra Costa Water District
- ◆ Senior Administrative Analyst \$112,694 - \$136,989 – Contra Costa Water District
- ◆ Senior Network Analyst \$123,198 - \$149,739 – Contra Costa Water District

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- ◆ Information Systems Analyst 2 - \$113,289 - \$137,706 – Alameda County Water District
- ◆ Server/Systems Administrator 1 - \$107,747 - \$130,972 – Alameda County Water District
- ◆ Information Systems Administrator \$122,304 - \$141,588 – EBMUD

7. **Senior Accountant/Controller.** This is a new position projected for hire on January 1, 2021. This employee will have sufficient regulatory accounting experience to actively participate in preparing and supporting the Company's 2021 general rate case application and eventually succeed to the position of Chief Financial Officer during the next general rate case cycle (the three-year period beginning July 1, 2022). A degree in accounting is required, with CPA preferred.

Under supervision, this employee will perform professional accounting work in a regulated water utility, including:

**Classification Requirements**

- ◆ Assisting in preparation of all regulatory filings, including general rate case applications, cost of capital applications, advice letter filings, and other matters required by various regulatory agencies.
- ◆ Prepares statistical analysis of data for ratemaking and financial planning.
- ◆ Assists in taking and recording physical inventories of materials and equipment.
- ◆ Prepares journal entries, posts and balances ledger accounts, prepares financial reports.
- ◆ Maintains records and prepares reports for regulated water utility.
- ◆ May direct the work of others in performing these responsibilities.

**Compensation Range**

\$108,948 - \$207,876 per year

**Current Compensation** \$135,000 - **Projected Compensation:** \$145,000

**Selected Comparable Employment Positions and Salaries**

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**REPORT ON RESULTS OF OPERATIONS**

- ◆ Accounting and Financial Systems Analyst – \$108,948 - \$132,432 – EBMUD
- ◆ Accounting Systems Supervisor - \$126,288 - \$146,196 – EBMUD
- ◆ Controller - \$143,916 - \$207,876 - EBMUD
- ◆ Rate and Financial Analyst - \$120,180 – Contra Costa Water District
- ◆ Accounting Manager - \$163,365 – Contra Costa Water District
- ◆ Rates, Financial Analysis and Budget Manager - \$149,342 – Alameda County Water District
- ◆ Accounting & Treasury Manager - \$161,622 - \$196,459 – Alameda County Water District

d. **Employee Pension and Health Insurance Benefits – Request for Adjustment of Time Period for Recording Costs and Contributions in the Pension Expense Balancing Account.** The multi-year plan adopted in D.13-05-020 was completed during the 2020/2021 rate year. A Pension Expense Balancing Account was approved in the Company's last general rate case.<sup>1</sup> Test Year pension plan funding expenses are based upon estimates of the Net Periodic Benefit Costs from the plan's third-party administrator for the years covered by this Application. See **Exhibit E**, GRC Workpapers, pages WP-6 and WP-7.

No substantive changes to the retirement benefits are requested in the Company's current general rate case application, although the Company is requesting an adjustment to the time period for the recording of costs and contributions in the Pension Expense Balancing Account (PEBA) to more accurately reflect the timing of such costs and contributions and the net over/under collections in the PEBA.

At present, the PEBA time period for the recording of costs and contributions for the pension plan coincides with Great Oaks' rate year (July 1 – June 30). Costs and contributions to the pension plan, however, do not fit

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<sup>1</sup> D.16-05-041, at p. 20 and Attachment 1 (Settlement Agreement), at p. 17.  
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neatly into this time period and result in large over/under-collections when reporting to the Commission on a semi-annual basis. For example, in Great Oaks' February 2020 Semi-Annual Balancing Account Report to the Commission, there was a \$359,939.61 over-collection reported as of December 31, 2019. In the August 2020 Semi-Annual Balancing Account Report, there was a -\$551,235.04 under-collection reported. Great Oaks could have amortized the under-collection, as it exceeded the two percent (2%) of authorized revenue threshold for amortization, but Great Oaks did not amortize that balance because of the timing issue Great Oaks is now requesting to remedy with a simple adjustment to the terms of the PEBA. The proposed adjustment to the terms of the PEBA to address the timing issue is included in **Exhibit 5-2** Proposed Revisions to PEBA.

Employee health insurance costs continue to increase, as shown in **Exhibit E**, GRC Workpapers, pages WP-6 and WP-7. Test Year employee health insurance expenses have been projected by the agency that has provided health insurance brokerage services to the Company for many years.

e. **Injury and Accident Prevention/Corrective Exercise Program.** Great Oaks proposes to add an Injury and Accident Prevention/Corrective Exercise Program designed and intended to address the physical condition of Great Oaks' employees and utilize corrective exercise techniques and methodologies in order to better prepare employees to avoid injuries and accidents. The Injury and Accident Prevention Program is fully described, with projected costs, on **Exhibit 5-3**. Projected costs of the Injury and Accident Prevention/Corrective Exercise Program (\$60,000 per year) are included in Employee Benefit Expenses on **Exhibit E** GRC Workpapers, Administrative & General Expenses, WP-7.

#### **B. Projected Operation and Maintenance Expenses**

21. **Groundwater Charge Component.** The Company sources all of its water supply through twenty (20) groundwater production wells. All of

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

the wells are subject to a groundwater charge levied by the Santa Clara Valley Water District (Water District). The vast majority of the Company's total production capacity are its wells subject to the Water District's Zone W-2 groundwater charge, while the remaining four wells are subject to the Water District's Zone W-7<sup>2</sup> groundwater charge. All of the Company's wells experienced significant drawdown due to drought conditions of the last several years, combined with the Water District's management of groundwater supplies which gives a higher priority to the Water District's own treated water operations than to the groundwater supplies from which the Company sources its water supply. The Company does not receive treated water or other water service from the Water District. The Company directs its water production (pumping) operations to most efficiently address water supply needs and available water supply.

22. No adjustment to the Zone W-2/Zone W-7 ratio is proposed in this general rate case. Great Oaks will continue to employ its long-standing pump tax balancing accounts<sup>3</sup> that track the differences between authorized groundwater charges for both agricultural pumping and non-agricultural pumping and actual pumping for those purposes. The pump tax balancing accounts were last amortized through Advice Letter 259-W, filed February 27, 2017. In that advice letter, an over-collection of \$1,026,798.23 in those pump tax balancing accounts was amortized and returned to ratepayers.

23. Over the course of the next ten years, the Water District will be constructing dam improvements for Anderson Reservoir. Due to a federal mandate, the Water District has drained the Anderson Reservoir for purposes of safety and construction. The Water District has represented that it will conduct groundwater recharge operations in the areas that most affect Great Oaks' wells in a manner that should maintain groundwater levels, but since

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<sup>2</sup> The Water District recently changed the designation of the groundwater charge zone W-5 to W-7.

<sup>3</sup> The two pump tax balancing accounts were authorized under Public Utilities Code Section 792.5 and were updated in D.16-05-041.

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

that process has not yet begun, Great Oaks cannot report on whether those efforts have taken place or whether those efforts have been successful. Great Oaks will be closely monitoring the groundwater levels at all well locations on a regular basis. At this time, Great Oaks requests that the Zone W-2/Zone W-7 ratio adopted in its 2018 General Rate Case (56% Zone W-2/44% Zone W-7) be maintained. Great Oaks will continue to produce as much water as it reasonably can from Zone W-7 to reduce the amount of pump tax expense incurred and use the Pump Tax Balancing Accounts referenced above to normalize those expenses through surcharges/sur-credits as it has done in the past.

24. The groundwater charges projected by the Company for the Test Year and beyond are based upon the same ratios approved in D.19-09-010. See **Exhibit E**, GRC Workpapers, page WP-14.

#### **25. Credit Card Program**

In D.19-09-010, Great Oaks received authorization to conduct a credit card pilot program that eliminated the previous transactions fees for credit/debit card/electronic payments. Included within such authorization was the addition of a Credit Card Pilot Program Memorandum Account to track the difference between the actual expenses of the pilot program and the expenses of the pilot program included in rates.

26. The legislation and law authorizing such Credit Card Pilot Programs is scheduled to expire, but the author of that original legislation (Assemblymember C. Garcia) has proposed AB 1058 which, should it become law, would extend the Credit Card Pilot Program at least through the three-year period covered by this general rate case application.

27. Great Oaks requests authority to continue its Credit Card Pilot Program, with an update to the costs of the Program based upon trending of expenses. See **Exhibit E** GRC Workpapers, Administrative & General Expenses, WP-6. This is a fixed amount and is therefore a fixed cost for ratemaking purposes.

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**REPORT ON RESULTS OF OPERATIONS**

28. The credit card program is project to cost \$76,338.04 in Test Year 2022/2023. This amount represents 0.77% of total fixed costs. For an average single-family residential customer with a ¾-inch meter, the meter cost on a monthly basis is increased by less than \$0.02 due to the credit card program. This amount is so negligible that no additional discounts are necessary or possible. Should this condition change, the Company will propose an adjustment to the CAP discounts to include any incremental cost of the credit card payment program.

29. As of December 31, 2020, the balance in the Credit Card Pilot Program Memorandum Account was and under-collection of -\$21,842.39. This indicates that the amount of pilot program expenses included in rates needs to be increased. Great Oaks proposes: (1) the balance in the Credit Card Pilot Program Memorandum Account as of May 1, 2022 (allowing sufficient time to calculate the balance in the Memorandum Account for amortization purposes) be amortized through an addition/subtraction from Test Year authorized revenues (depending upon whether there is an over-collection or under-collection in the Memorandum Account; (2) that the Credit Card Pilot Program Memorandum Account be maintained; and (3) that any balance in the Credit Card Pilot Program Memorandum Account that accumulates after May 1, 2022 remain in the Memorandum Account for future amortization purposes.

30. The language of the currently authorized Credit Care Pilot Program Memorandum Account specifically references the time period covered by the Company's 2018 general rate case application. Great Oaks requests that this time-specific language be removed to update/revise the memorandum account so that it applies during the time when the Credit Card Pilot Program is in effect. See proposed revised language in **Exhibit 5-5**.

31. The Company requests authority to continue the credit card payment pilot program and its associated Credit Card Pilot Program

**EXHIBIT D**  
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Memorandum Account, with proposed revisions, based upon the information provided above.

32. **Customer Communications Program**. Great Oaks is proposing a new Customer Communications Program to assist in the ever-increasing amount of communications the Commission is requiring with customers about a variety of subjects. The Communications Program and its costs are explained in **Exhibit 5-4**.

33. Great Oaks may be the only Class A water utility without a full communications program that reaches customers on important issues. As the important issues pile up, including issues relating to climate change, droughts, pandemics, and more, communications with customers through existing channels is insufficient to reach all customers, especially those with disabilities and others in hard-to-reach communities. The proposed communications program addresses this need. Great Oaks requests that the Communications Program described in **Exhibit 5-4**, with its associated costs and benefits, be approved. See **Exhibit E** GRC Workpapers, WP6 A&G Expenses, Account 798 Outside Services.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**  
**CHAPTER 6**  
**REVENUE REQUIREMENT**  
**WATER SALES AND PRODUCTION**

Prepared by John Roeder, Ron Ceolla, and Tim Guster

**I. Revenue Requirement: Water Sales and Production**

**A. Water Sales and Production**

1. Total water production in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Water Sales CCF, p. WP-3; see also, Chapter 4 of this Report. [MDR II. C. 1]

2. Total purchased water in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: Not applicable. The Company does not purchase water. All water produced and sold is sourced from the Company's groundwater wells. [MDR II. C. 2]

3. Total pumped water pumped in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Water Sales CCF, p. WP-3. [MDR II. C. 3]

4. Total treated water in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: Not applicable. [MDR II. C. 4]

5. Total surface water in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: Not applicable. [MDR II. C. 5]

6. Total raw water in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: Not applicable. [MDR II. C. 6]

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**REPORT ON RESULTS OF OPERATIONS**

7. Total recycled water in CCF for the last authorized test year, last five years recorded data, and proposed test year.

Response: Not applicable. [MDR II. C. 7]

8. Sales per customer for different customer classes (in CCF/customer) for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Water Sales CCF, page WP-3; see also Chapter 4 of this Report. [MDR II. C. 8]

**B. Discussion of Water Sales Projections and Requests for Relief.**

1. **Adoption of Water Sales Forecast.** The Company requests that its projected water sales, as provided in Chapter 4 of this Report, be adopted. See **Exhibit D**, Report on Results of Operations, Chapter 4, Sales Forecast Report for Great Oaks Water Company. See also **Exhibit E**, GRC Workpapers, Water Sales CCF, p. WP-3.

2. **Authorization to Adjust Customer Assistance Program Surcharge.**

The Company requests authority to adjust the terms and conditions of its CAP Surcharge to match rates adopted in this proceeding. See Chapter 4 of this Report.

Great Oaks requests that it be authorized to continue to make such adjustments as rates change over time, as such adjustments will reduce over and under-collections and corresponding amounts in the CAP Surcharge Balancing Account.<sup>1</sup>

3. **Authorization to Establish and Maintain Sales Reconciliation Mechanism.**

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<sup>1</sup> See Exhibit D, Chapter 4, at pp. 21 - 23.

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Great Oaks requests authority to establish, maintain, and utilize a Sales Reconciliation Mechanism to appropriately adjust water sales forecasts and adopted quantities for greater accuracy.<sup>2</sup>

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<sup>2</sup> See Exhibit D, Chapter 4, at pp. 10 – 12.



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**CHAPTER 7**  
**RATE BASE**

Prepared by John Roeder and Ron Ceolla

**I. Rate Base**

**A. Recorded and Proposed Rate Base**

1. Rate base and percentage of increases for last authorized test years, last five years recorded data, and proposed test year. The formula used to calculate projected rate base for the Test Year and subsequent years is provided in Exhibit E GRC Workpapers, WP31 Rate Base, Cell L42. That formula calculates projected rate base by starting with Total Gross Plant (Cell L15) and then subtracts Accumulated Plant in Service Depreciation (Cell L18/WP21 Cell K31) and the total of Deferred Income Taxes and Deferred Investment Tax Credits (Cell L23). Then, the total of CIAC and Net Advances for Construction are subtracted (Cell L33). Materials and supplies are then added (Cell L35). An adjustment for excess tax reserves is then made by subtracting that amount (Cell L37). The working cash allowance is then added (Cell L39 or L40). The result is the projected rate base.

Response: See **Exhibit E**, GRC Workpapers, Average Weighted Depreciated Rate Base, p. WP-31. [**MDR II. D. 1**]

2. Rate base per customer and percentage of increases for the last authorized test years, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Average Depreciated Rate Base, p. WP-31. [**MDR II. D. 2**]

3. Plant-in-Service and percentage of increases for last authorized test years, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, pp. WP-17 to WP-20. [**MDR II. D. 3**]

4. Plant-in-Service per customer and percentage increases for last authorized test years, last five years recorded data, and proposed test year.

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Response: See **Exhibit E**, GRC Workpapers, pp. WP-17 to WP-20. [MDR II. D. 4]

5. List plant improvements authorized in test years but not built.

Response: See Table 7-5 below for status of Plant in Service Additions authorized in D.19-09-010. Authorized plant improvements that were not built are discussed following Table 7-5. [MDR II. D. 5]

**Table 7-5**  
Status of Authorized Plant in Service Additions

Auth. Year	Account	Auth. Amount	Status
2019/2020	324: Pumping Equipment	\$121,000	\$164,357
	332: Water Treatment Equip.	\$7,500	\$1,068
	342: Reservoirs and Tanks	\$35,000	\$3,282
	343: T&D Mains	\$493,830	\$1,314,656
	345: Services	\$90,577	\$86,657
	346: Meters	\$161,882	\$84,961
	348: Hydrants	\$26,978	\$6,805
	372: Office Furniture & Equip. excl. Computers	\$80,535	\$15,873
	372: Office Furniture & Equip. - Computers	\$543,842	\$43,774
	373: Transportation Equipment	\$173,000	*\$214,388
	376: Communications Equip.	\$60,000	\$23,856
	377: Power Operated Equip.	\$23,626	\$167,426
	378: Tools, Shop & Garage Equip.	\$32,000	\$5,495
Totals		\$1,849,770	\$1,957,268
2020/2021	315: Wells	\$0	\$651,626
	324: Pumping Equipment	\$121,000	\$121,615
	332: Water Treatment Equip.	\$7,500	\$6,087
	342: Reservoirs and Tanks	\$35,000	\$3,282
	343: T&D Mains	\$493,830	\$116,990
	345: Services	\$90,577	\$238,067
	346: Meters	\$161,882	\$62,698
	348: Hydrants	\$26,978	\$27,294
	372: Office Furniture & Equip. excl. Computers	\$12,675	\$21,345
	372: Office Furniture & Equip. – Computers	\$65,742	\$185,943
	373: Transportation Equipment	\$156,000	**\$0
	376: Communications Equip.	\$25,000	\$23,856
	377: Power Operated Equip.	\$148,626	***\$0
	378: Tools, Shop & Garage Equip.	\$2,000	\$14,972
Totals		\$1,346,810	\$1,715,490
2021/2022	324: Pumping Equipment	\$121,000	Pending
	332: Water Treatment Equip.	\$7,500	Pending
	342: Reservoirs and Tanks	\$35,000	Pending
	343: T&D Mains	\$493,830	Pending
	345: Services	\$90,577	Pending

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	346: Meters	\$161,882	Pending
	348: Hydrants	\$26,978	Pending
	372: Office Furniture & Equip. excl. Computers	\$12,675	Pending
	372: Office Furniture & Equip. – Computers	\$65,742	Pending
	373: Transportation Equipment	\$38,000	Pending
	376: Communications Equip.	\$0	Pending
	377: Power Operated Equip.	\$23,626	Pending
	378: Tools, Shop & Garage Equip.	\$2,000	Pending
Totals		\$1,078,810	Pending

\*Includes Transportation Equipment purchased in December 2018 based upon no opposition to requested replacement vehicles.

\*\*See 2019/2020 Account 373 Transportation Equipment.

\*\*\* See 2019/2020 Account 377 Power Operated Equipment.

6. List plant improvements built in the last test years but not authorized.

Response: See **Table 7-6** below. See also **Exhibit E**, GRC Workpapers, Plant In Service, p. WP-18. [MDR II. D. 6]

**Table 7-6**  
Plant Improvements Built But Not Authorized in Last GRC

Year	Plant in Service Addition	Amount
2019/2020	Account 306: Land (Well 24A)	\$248,869
2020/2021	Account 315: Wells (Well 24A)	\$651,626
2019/2020	Account 377: Power Operated Equipment	\$42,425.37
2020/2021	Account 377: Power Operated Equipment	\$25,389.71

#### 6.1. Well 24A Plant in Service Additions

Prior to 2020, Great Oaks sourced its water from a total of twenty (20) groundwater wells located throughout its service area, with 16 of the wells located in the Santa Clara Valley Water District's (Valley Water or District) W-2 groundwater charge zone and the other 4 wells located in Valley Water's W-7<sup>1</sup> groundwater charge zone.

Prior to 2020, Groundwater recharge for Great Oaks' wells came primarily from Coyote Creek and artificial recharge ponds maintained by

<sup>1</sup> In 2019, Valley Water changed the designation of the groundwater charge zone where the 4 wells are located from W-5 to W-7. For ease of reference, Great Oaks will simply refer to that groundwater charge zone as W-7.

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Valley Water near Coyote Creek. Water flowing into Coyote Creek came from both natural rainfall and runoff and water stored in Anderson Reservoir. The water in Anderson Reservoir was a combination of natural rainfall and runoff and water imported by Valley Water from the State Water Project and the Central Valley Project. The water in Coyote Creek flows generally northward from the Anderson Reservoir area towards the San Francisco Bay.

Valley Water is responsible for managing groundwater recharge in Santa Clara County. For well more than a decade, Valley Water knew that seismic retrofit improvements were required for Anderson Dam/Reservoir for safety, water supply, and flood protection, but Valley Water delayed acting on the necessary work. Instead, Valley Water reduced capacity in Anderson Reservoir and, until recently, was operating Anderson Reservoir with a 592-foot reservoir restriction. Valley Water had asserted that operating Anderson Reservoir in this manner “protects downstream areas in the event of an earthquake and/or significant precipitation, maintains existing emergency water supplies in the event of a system outage or drought, avoids the risk of landslides that are possible when the reservoir is lowered further, and maintains water for downstream environmental protection including protection for steelhead, a federally-listed endangered species.”<sup>2</sup>

In February 2020, the Federal Energy Regulatory Commission (FERC), which has jurisdiction over the Anderson Dam, notified Valley Water that it did not concur with Valley Water’s justifications for operating Anderson Dam as planned and ordered Valley Water to lower the level of Anderson Reservoir “effective immediately.”<sup>3</sup> FERC also ordered Valley Water to reduce the level of Anderson Reservoir to “deadpool” no later than October 1, 2020.<sup>4</sup> FERC also stated: “In the meantime, you should continue

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<sup>2</sup> See FERC February 20, 2020 letter to Valley Water at: <https://www.valleywater.org/sites/default/files/2020-02-20%20FERC%20to%20VW%20re%20Dam%20Safety%20Directives%20-%20Reservoir%20Operating%20Level.pdf>

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

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to work with all haste to design and secure the necessary permits and complete the design for the larger Anderson Dam Seismic Retrofit Project.”<sup>5</sup>

According to Valley Water: “Anderson Reservoir will not be used for Santa Clara County’s water supply for at least the next 10 years. In a normal year, Anderson provides about 26,000-acre-feet per year, enough to supply the water needs for 52,000 families. Valley Water monitors groundwater conditions and public water usage to determine our water needs.”<sup>6</sup> While Valley Water has other reservoirs, none of them are located in areas that benefit Great Oaks or provide groundwater recharge for Great Oaks’ wells and service area.

Great Oaks maintains vigilance over Valley Water’s groundwater recharge operations and plans and was aware of these developments with FERC through its 2020 involvement with the Groundwater Subcommittee of the Valley Water Retailers Committee. Recognizing the long-term implications of the removal of the Anderson Reservoir from groundwater recharge operations affecting Great Oaks’ wells, Great Oaks was required to take action to protect the water supplies for its customers.

Water production capacity in Zone W-7 (formerly Zone W-5) has been declining for years. In July of 2016, Great Oaks placed Well 23A into production, as authorized in Great Oaks’ 2015 general rate case.<sup>7</sup> In response to both the declining production in Zone W-7 and the impending shutdown of the Anderson Reservoir (and the corresponding reduction of groundwater recharge from Anderson Reservoir), in 2020 Great Oaks commenced the development of Well 24A. Well 24A was completed in late 2020 and placed into service in early 2021. Great Oaks coordinated with the State Water Resources Control Board’s Division of Drinking Water for permission to operate Well 24A.

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<sup>5</sup> *Id.*

<sup>6</sup> [https://www.valleywater.org/sites/default/files/Anderson%20Dam%20Water%20Supply%20FAQ%20\\_%202020.pdf](https://www.valleywater.org/sites/default/files/Anderson%20Dam%20Water%20Supply%20FAQ%20_%202020.pdf)

<sup>7</sup> D.16-05-041.

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In addition to addressing the declining production of Great Oaks' Zone W-7 wells and the declining groundwater levels in that Zone, the water production from Well 24A will enable Great Oaks to maintain adequate fire flow to service locations in the southern portion of Great Oaks' service area, including fire flow to an elementary school located near the location of the new well. While Great Oaks can provide fire flow to the elementary school from its Zone W-2 wells, adequate pressure would be difficult to maintain due to friction loss caused by the longer distance water would travel from Zone W-2 sources to the school and other services in Zone W-7. Well 24A solves this issue.

Well 24A also helps to address the ever-increasing groundwater charges levied by Valley Water by allowing Great Oaks to maintain the current W-2/W-7 pumping ratio adopted in D.19-09-010. In D.19-09-010, it was agreed that Great Oaks would produce 56% of its water supplies from Zone W-2 and 44% from Zone W-7.<sup>8</sup> Without Well 24A, Great Oaks would not be able to continue to produce 44% of its water from Zone W-7 due to declining production from the existing Zone W-7 wells and the declining groundwater levels due in Zone W-7.

If Great Oaks is not able to produce at least 44% of its water supplies from Zone W-7, then more production would be required from Zone W-2. Valley Water's groundwater charge for Zone W-2 is presently \$1,374/AF, with Zone W-7 being \$481/AF. The Zone W-2 groundwater charge is projected to go from \$1,374/AF to \$1,983/AF over the next four year, which includes all three years covered by this general rate case application. The Zone W-7 groundwater is also projected to increase from \$481/AF to \$712 over the same four-year period. While the groundwater charges in both zones will be increasing, so will the difference between the charges in each zone, from the current \$893/AF to \$1,271/AF. Because groundwater charges (Account 700) represent the largest single expense category for ratesetting purposes, it is

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<sup>8</sup> D.19-09-010, Settlement Agreement, p. 11.  
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fair to say that increasing groundwater charges have the greatest impact on rate increases when compared to all other costs and expenses in rates. With Well 24A and Great Oaks' groundwater charge balancing accounts, Great Oaks will be able to keep rates as low as possible while still providing safe, reliable, and affordable water service.

Great Oaks was able to acquire land for Well 24A from the same property owner from whom Great Oaks acquired the land for Well 24. Great Oaks was also able to take advantage of the proximity of Well 24 to utilize existing electrical panels and controls.

The costs of Well 24A are shown in Exhibit E GRC Workpapers, WP-18 Plant-in-Service Additions and Retirements Detail (Accounts 306 Land and Account 315 Wells in CY2020). Great Oaks requests that the costs for Well 24A be added to rate base effective July 1, 2022 as a plant-in-service additions in the respective accounts.

#### 6.2. Account 377: Power Operated Equipment Plant in Service Addition.

In October Of 2019, PG&E started it Public Safety Power Shutoff (PSPS) procedures. Once the PSPS began, it became evident that the Company needed more than the one portable generator approved in D.19-09-010. The effects of the PSPS were not confined to a single location and portable power was needed at more than one location to maintain water system operations during a PSPS event (or multiple PSPS events).

In the 2018 general rate case, the Company received authorization to purchase and place into service one portable generator at the cost of \$125,000. Because of the need for more than one portable generator, the Company scoured the market for used, rather than new generators so that more than one portable generator could be acquired and placed into service.

Great Oaks found its first portable generator and purchased it in November of 2019 for \$43,973.13. The Company purchased two additional generators for a total of \$123,452.13 during the next month. All three generators are in "used" but good condition. The total cost of the three

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generators purchased in November and December of 2019 is \$167,425.63, which is \$42,425.37 more than the amount authorized for one portable generator in D.19-09-010.

Great Oaks requests that the additional \$42,425.37 be added to rate base effective July 1, 2022.

6.3. Account 377: Power Operated Equipment Plant in Service Addition. The Company's "Bobcat" tracked vehicle loader was stolen. Insurance recoveries paid for part of the cost of replacement. The remainder of the cost of replacement - \$25,389.71 – was incurred by the Company to replace this necessary piece of equipment. Great Oaks requests that this amount be authorized as a plant in service addition effective July 1, 2022.

7. List all Plant-in-Service included in rate base not "used and useful" in the last five years and proposed test year.

Response: None. [MDR II. D. 7]

8. Comparison of forecasted capital additions adopted in last GRC and actual capital additions.

Response: See **Table 7-5** above. See also **Exhibit E**, GRC Workpapers, Plant In Service Summary and Additions, pp. WP-17 to WP-19. [MDR II. D.]

9. **Request for Adoption of Proposed Rate Base.** The rate base calculations are included in **Exhibit E**, GRC Workpapers, Rate Base, p. WP-31. All proposed plant-in-service additions are supported and presented in **Exhibit G**, Proposed Capital Projects. The Company requests that its proposed rate base be adopted in this proceeding.



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**CHAPTER 8**  
**Supply and Distribution Infrastructure**  
**Status and Planning**

Prepared by John Roeder, Ron Ceolla, and Tim Guster

**I. Water Supply and Planning**

**A. Urban Water Management Plan**

1. Demonstrate compliance with §10620 of the California Water Code which requires the utility to prepare an Urban Water Management Plan. The utility shall demonstrate compliance by providing a copy of the letter the utility has received from DWR affirming a completed Urban Water Management Plan.

Response: See **Exhibit F**, Urban Water Management Plan (including DWR email acknowledging receipt). [MDR II. E. 1]

**B. Supply and Distribution Infrastructure**

2. Identify unaccounted for water in CCF and percentage of total water production for the last authorized test year, last five years recorded data, and proposed test year.

Response: See **Exhibit E**, GRC Workpapers, Water Sales CCF, p. WP-3. [MDR II. E. 2]

3. Submit the results of a water loss audit performed no more than 60 days in advance of the submission of the proposed application. The audit report will be prepared using the free Audit Software developed by the American Water Works Association (AWWA) and available on the AWWA website.

Response: See 2019 water loss audit verification attached as **Exhibit 8-1** to this Report. The actual water loss audit in Excel format is available upon request for electronic delivery. The 2020 water loss audit is due on or before October 1, 2021, and a copy will be provided of the Verified 2020 Water Loss Audit when it is available. [MDR II. E. 3]

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4. In connection with the water loss audit described above, the utility shall conduct and submit the results of a cost/benefit analysis for reducing the level of unaccounted for water reported in the water loss audit. If unaccounted for water is more than approximately 7% for each district or service area, submit a plan to reduce unaccounted for water to a specific amount.

Response: The Company continues to utilize leak detection equipment to assist in not only locating leaks, but also to determine if leak repairs have been effective. Leak detection equipment was authorized in D.19-09-010 and Great Oaks acquired and put the equipment into service, but with very mixed results. The pressure monitoring devices also authorized in D.19-09-010 are being placed into service soon and should assist in locating areas where there may be leaks, thereby reducing water loss. **[MDR II. E. 4]**

5. Identify specific measures taken to reduce unaccounted-for water in the last five years and proposed test year.

Response: Visual inspections of service connections and meters are conducted on a bi-monthly basis for 100% of the Company's service connections. Leaks are repaired, and meters are serviced and/or replaced based upon the results of the visual inspections and any reports of leaks and meter inaccuracies. In addition, the Company has an ongoing valve program through which valves are routinely "exercised" and checked for integrity.

The Company has deployed leak detection equipment, but with mixed results. The technology for leak detection equipment has room for improvement, especially with respect to determining the precise location of leaks, including small leaks. See paragraph 4, above. On the customer side, the WaterSmart Reports provided to customers provide automatic "Potential Leaks" alerts, which supplements the Company's own "check-read" program (anomalous meter reads trigger automatic "check-reads" by field service personnel).

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During the COVID-19 pandemic, the Company has continued its main flushing program for water quality purposes. This always contributes to a higher unaccounted-for water percentage than desired. Water “lost” through the flushing program is counted as part of water loss but is not water “lost” due to leaks in the water system. The Company will continue its main flushing program unless or until new drought or other water use restrictions imposed upon the Company dictate otherwise.

As the system ages, it will naturally require more maintenance, including leak repairs. [MDR II. E. 5]

6. Identify the number of leaks in the past five years.

Response: See **Table 8-6** below. [MDR II. E. 6]

**Table 8-6**  
**Leaks**

Year >>	2016	2017	2018	2019	2020
Main	13	14	14	16	21
Service	15	15	19	18	26

7. Describe leak detection program.

Response: See paragraph 5, above. [MDR II. E. 7]

8. Provide leak time and cost statistics for last five years.

Response: Leak repair time and cost statistics are tracked in Account 761 (Maintenance of T&D Mains). **Table 8-8**, below, displays information on the average cost of repairing a leak in each of the last five years. See **Exhibit E**, GRC Workpapers, O&M Expenses (includes Account 761 data), p. WP-4. The number of leaks in each of the last five years is provided in **Table 8-6**, above. [MDR II. E. 8]

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**Table 8-8**  
**Average Cost of Leak Repairs (including labor)**

Year >>	2016	2017	2018	2019	2020
Total Number of Leaks Repaired	28	29	33	34	47
Total Cost of Leak Repairs	\$120,449	\$273,415	\$329,150	\$307,917	\$374,848
Average Cost of Leak Repair	\$4,302	\$9,428	\$9,974	\$9,056	\$7,975

9. Identify specific measures taken to reduce the number of leaks in the past five years and proposed test year.

Response: The Company has and will continue to actively monitor service connections and meters through visual inspections described in paragraph 5, above, and through customer reports and complaints. [MDR II. E. 9]

10. Calculate the average age of the distribution system.

Response: The average age of the distribution system is 33 years. [MDR II. E. 10]

11. List number of feet of and size of mains replaced for last authorized test years, last five years recorded data, and proposed test year amounts.

Response: The Rahway Water Main Extension Replacement was completed in 2019. This main replacement was approved in D.16-05-041 at the estimated cost of \$323,180. The main is comprised of 1,170 feet of 12" C900 pipe and 140 feet of 10" C900 pipe. The actual cost was \$1,050,911.59 and Great Oaks requests that the full cost of this plant-in-service addition be included in rate base. This is the only main replacement in the last five years. [MDR II. E. 11]

12. Concisely list all major water sources, including the permit number or contract, remaining duration of the entitlement, and any pending proceedings or litigation concerning any major source. Location of the sources need not be included.

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Response: All water is sourced by groundwater production wells owned by the Company, located on Company property, and located within the Company's service area. See Exhibit 8-5. **[MDR II. E. 12]**

13. Identify water supply (in gpm) added to system for the last three years and proposed test years.

Response: None. **[MDR II. E. 13]**

**Table 8-13**  
**Water Supply Added to System (gpm)**

2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
0	0	1,100	0	0	0	0

14. Identify storage volume (in million gallons) added to water system for the last three years and proposed test years.

Response: None. **[MDR II. E. 14]**

15. Identify treatment volume (in million gallons) added to water system in the last three years and proposed test years.

Response: The Company does not yet conduct water treatment operations and the extent of any water treatment operations during the proposed test years is still uncertain. Great Oaks continues to work with the Department of Drinking Water on a workable low-level of disinfection in the system to provide an added layer of safety, as agreed in D.19-09-010.

Note that at various times, chlorine is used on a temporary, as-needed basis for water quality control, with guidance from the State Water Resources Control Board. See **Exhibit D**, Chapter 3, Section I.F. **[MDR II. E. 15]**

16. Include a copy of the latest Department of Water Resources Water Management Plan.

Response: See Paragraph 1, above. **[MDR II. E. 16]**

17. Provide confirmation of compliance with EPA Vulnerability Assessment and Office of Emergency Services Response Plan.

Response: See **Exhibit2 8-2** and **8-3** to this Report. **[MDR II. E. 17]**

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18. Any water utility filing a GRC on or after July 1, 2008 must submit a long-term 6 – 10-year Water Supply and Facilities Master Plan to identify aging infrastructure needs.

Response: See **Exhibit 8-4**, Great Oaks Water Company Infrastructure and Facilities Master Plan, SP 2015, to this Report. **[MDR II. E. 18]**

19. If expected system improvements over the next five years exceeds average authorized capital additions over past two GRCs, identify a ratemaking approach (for example, a Distribution System Improvement Charge) to ensure infrastructure renewal.

Response: Not applicable. **[MDR II. E. 19]**

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**CHAPTER 9**

**Conservation and Efficiency**

Prepared by Timothy Guster

**I. Conservation and Efficiency**

In this chapter, the Company provides the information requested in MDR Section F, Conservation and Efficiency.

**A. Conservation**

1. Specific measures taken to promote water conservation in the last five years and the proposed test years.

Response: In addition to the conservation rates for single-family residential customers that the Company has used since 2011, the Company has also taken the following specific measures to promote water conservation in the last five years [MDR II. F. 1]:

- a. Full coordination with the Santa Clara Valley Water District to achieve local and regional water savings. See Chapter 4 of this Report;
- b. Compliance with Commission Resolution W-5000, including cooperative efforts with local government agencies and other water utilities in Santa Clara County;
- c. Compliance with State Water Resources Control Board conservation requirements, including periodic reporting;
- d. Direct participation in conservation-related committees and activities with the Santa Clara Valley Water District, including Conservation, Landscape, Groundwater, and Communications subcommittees and Water Retailer Committee.
- e. Direct involvement with stakeholder committees on statewide water loss audit validation regulations and water loss audit validation certification requirements.
- f. Direct involvement with stakeholder committees working on the implementation of the 2018 Water Conservation Legislation.

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g. Implementation of limited **WaterSmart Software Inc.** (WaterSmart) program as authorized in D.16-05-041 and D.19-09-010. Through this program, customers receive not only information about their actual water use (shortly after receiving their bills from the Company), but also information about how their water use compares to similar water users and valuable information about how our customers may conserve water through specific water-saving actions.

The Water Reports have remained popular among Great Oaks' customers. Per WaterSmart's most recent customer satisfaction survey, 84% of customers remembered receiving the WaterSmart Water Reports and 78% of customers read each one received. Seventy-two percent (72%) of customers said the Water Reports made them more efficient water users, and 92% of customers indicated they would like to continue receiving the Water Reports. Great Oaks' customers maintain that the Water Reports:

- Help them understand their water use (increased from 46% to 84%);
- Help them save money (increased from 30% to 60%); and
- Help them use water more efficiently (increased from 40% to 64%).

The WaterSmart program was renewed in Great Oaks' 2018 general rate case through June 30, 2022. Great Oaks has received two quotes for renewal of the WaterSmart program for this general rate case. The first quote covers the same three-year period of the rate case, from July 1, 2022 through June 30, 2025. The costs for each year are shown below.



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Costs of WaterSmart Program  
Three-Year Renewal

Year	Cost
2022/2023	\$148,088
2023/2024	\$150,597
2024/2025	\$153,107

Costs of WaterSmart Program  
Five-Year Renewal

Year	Cost
2022/2023	\$144,500
2023/2024	\$148,878
2024/2025	\$153,272
2025/2026	\$157,682
2026/2027	\$162,110

Great Oaks recommends and proposes to accept the five-year renewal, which will save Great Oaks' customers at least \$24,923 over the three-year period covered by this general rate case application.

The costs of the WaterSmart program, based upon the five-year renewal are included in **Exhibit E** GRC Workpapers, Administrative & General Expenses, Account 798, WP-6.

h. General Order 103-A Meter Replacement Program. Through this program, the Company has replaced the vast majority of older meters. With new meters, customers are more aware of their actual water use and have been able to take measures to conserve water. See **Exhibit G** Proposed Capital Projects for more information.

i. The Company continues to direct customers to water conservation resources available through the Santa Clara Valley Water District, including water use audits.

2. Submit plan to achieve five percent reduction in average customer water use over three-year GRC cycle.

Response: See **Exhibit F**, Urban Water Management Plan. In addition, continuation of the conservation actions described in paragraph 1, above,

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

especially the continuing use of the WaterSmart program across all customer classes, will enable the Company to achieve this conservation goal. [MDR II. F. 2] See also Chapter 4 of this Report.

3. Identify the percentage of metered customers in aggregate and by district and your plan to convert customers to metered service.

Response: One hundred percent (100%) of the Company's customers have metered service. [MDR II. F. 3]

4. Confirm membership in the California Urban Water Conservation Council (CUWCC).

Response: The Company was a member of the CUWCC until it was disbanded and reformed into the California Water Efficiency Partnership. [MDR II. F. 4]

a. For those companies that are a member of CUWCC, submit a separate report that lists the Company's compliance with the 14 BMPs.

Response: See **Exhibit F**, Urban Water Management Plan. [MDR II. F. 4.a.]

b. For those companies that are not members of CUWCC, submit a separate report on the implementation of CUWCC's BMPs.

Response: Not applicable. [MDR II. F. 4.b.]

5. Provide specific measures taken to promote energy conservation in the last five years and the proposed test years.

Response: The Company has and will continue to schedule pumping operations during off-peak hours when feasible. High-efficiency pumps have throughout the water system, as authorized by the Commission. [MDR II. F. 5]

6. Identify and assess options to improve energy efficiency of water pumping, purifications systems, and other energy intensive water processes.

Response: See Response to Item I.A.5, above. [MDR II. F. 6]

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

7. Identify options to achieve reductions in energy use related to its water utility operations over the proposed GRC cycle, including a plan to achieve a ten percent reduction in energy use per ccf.

Response: The Company will continue to participate in energy efficiency programs and will replace, when feasible and cost-effective, existing pumps with higher efficiency pumps. Pumps and motors installed in recent years are more efficient than the pumps and motors that were replaced. The Company will, when feasible and cost-effective, also replace vehicles with more fuel-efficient vehicles. **[MDR II. F. 7]**

8. Identify number of water pumps rated in pump efficiency tests as “Low,” “Normal,” and “High” in the last five years.

Response: See Pump Efficiency Reports in **Exhibit 9-1** to this Report.  
**[MDR II. F. 8]**

9. Identify the number of low-efficiency pumps replaced for the last authorized test years, the last five years, and the proposed test years.

Response: The Company has had no “low-efficiency” pumps for a period of years, so there have been no “low-efficiency” pumps replaced or to be replaced. **[MDR II. F. 9]**

10. Calculate delivery factors (kWh/CCF) for the (1) total system, (2) wells only, and (3) boosters only, for the last authorized test year, last five years recorded data, and the proposed test years.

Response: See **Exhibit E**, GRC Workpapers, Purchased Power, p. WP-9.  
**[MDR II. F. 10]**

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**  
**CHAPTER 10**  
**Utility Plant**

Prepared by Ron Ceolla and Tim Guster

**I. Utility Plant**

**A. Utility Plant – Recorded**

1. The Company maintains its utility plant-in-service account with classifications according to the Commission’s Uniform System of Accounts as required.

2. The Company regularly records changes on active work orders in its construction work-in-progress ledgers.

3. These accounts and ledgers provide a complete and ongoing record of the utility plant-in-service, including additions.

4. The Company utilizes standard accounting practices in compliance with Commission requirements and Generally Accepted Accounting Principles (GAAP) in maintaining and recording its accounts and ledgers.

5. The Company capitalizes interest during construction work-in-progress. The interest rate is determined by the Commission’s authorized methodology.

6. The Company’s utility plant recorded data is provided in **Exhibit E**, GRC Workpapers, Plant In Service, p. WP-20, for the last five recorded years. Data is sourced from the Company’s Annual Reports filed with the Commission.

**B. Utility Plant – Projected**

See **Exhibit E**, GRC Workpapers, Plant In Service Additions, pp. WP-17 to WP-19; see also **Exhibit G**, Proposed Capital Projects.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

**CHAPTER 11**

**Qualifications**

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**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

Qualifications of  
John Roeder

My name is John Roeder. My business address is 20 Great Oaks Boulevard, Suite 120, San Jose, CA 95119.

I am Chief Executive Officer and Chairman of the Board of Great Oaks Water Company. My responsibilities include all corporate and executive direction, engineering research and support, environmental research and analysis, engineering systems analysis and financial matters related to all aspects of Great Oaks Water Co.

I have been involved with Great Oaks Water Company for almost my entire life, as the business was founded by my parents and at an early age I began working for the Utility reading meters and helping with other jobs, including pipe installation, well drilling and development. Even while in high school, I assisted with engineering, drafting, mapping and surveying. From 1982 to the present time, in addition to my responsibilities with real estate and mining interests, I have been involved in all aspects of Utility and corporate business operations and planning.

I hold a California State Department of Health Services Water Distribution Operator's Certificate. I attended San Jose State University, San Jose City College and Chico State University, focusing on mechanical engineering. My academic experience that has translated to Utility matters includes physics, chemistry, calculus, differential equations, statics, dynamics, thermodynamics, drafting, machining, metallurgy, hydraulics, civil and electrical engineering.

**VERIFICATION**

The statements in I have made in this General Rate Case Application of Great Oaks Water Company are true of my own knowledge, except as to matters that are therein stated on information and belief, and as to those matters, I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, 2021 at Dallas, Texas.

\_\_\_\_\_  
/s/  
John Roeder

## **EXHIBIT D**

### **REPORT ON RESULTS OF OPERATIONS**

#### **Qualifications of Ron Ceolla**

My name is Ron Ceolla and I am the Chief Financial Officer for Great Oaks Water Company. I am a finance professional with more than twenty-five years of experience, including seventeen years as a controller. I have extensive experience in budgeting, financial analysis, month and year-end closes, and cash management.

My experience includes serving as the controller of a marketing consulting firm reporting to the chief financial officer and chief operating officer. Among my responsibilities were all aspects of finance/accounting and the human resources functions. I also served as the primary contact for banking relations, state and local tax audits, insurance audits, and for the company's outside tax accounting firm.

I also served as Regional Controller, West Region, for Grant Thornton LLP, a director-level position functioning as the liaison between the regional management team and the firm's centralized accounting and finance group in its Chicago headquarters. In my role with Grant Thornton, I performed detailed financial analyses, produced routine and custom periodic financial reports and budgets and directed and managed special projects. My past work with Grant Thornton included serving as Director, Finance and Administration for the Greater Bay Area.

With Great Oaks Water Company, I am responsible for all financial and accounting activities, including regulatory accounting. I am the primary contact for banking relations, pension plan administration, insurance matters, and for the company's outside tax accounting firm. I am also responsible for all human resources functions (other than legal). In this General Rate Case, I am responsible for financial and expense projections, including those presented in Exhibit E, GRC Workpapers.

#### **VERIFICATION**

The statements I have made in the General Rate Case Application of Great Oaks Water Company are true of my own knowledge, except as to matters that are therein stated on information and belief, and as to those matters, I believe them to be true.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

I declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_, 2021 at San Jose, California.

\_\_\_\_\_  
/s/  
Ron Ceolla



**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

Qualifications of  
Timothy S. Guster

My name is Timothy S. Guster. My business address is 20 Great Oaks Boulevard, Suite 120, San Jose, CA 95119.

I am Vice President and General Counsel, Legal and Regulatory Affairs, for Great Oaks Water Company and have held this position since March, 2007. In this role, I have full responsibility for all legal and regulatory affairs of the Utility. I also serve as Secretary of the corporation.

In addition, I have responsibility for the Company's conservation programs. I serve as liaison with the Santa Clara Valley Water District on various committees and subcommittees and presently serve as Chair of the Groundwater Subcommittee.

I am the Company's representative for all matters involving the California Water Association (CWA), including its California Water Utility Executive Council, and I am presently the Second Vice President of CWA.

I serve as director of the Company's Emergency Response and serve as the Water Utility Emergency Response Manager.

I am a Certified Water Audit Validator for the American Water Works Association California-Nevada Section.

I am the Company's Conservation Manager, Communications Manager, and Public Relations Manager, and I am involved in government relations with state and local agencies.

Prior to my employment with Great Oaks Water Company, I served as General Counsel for more than twenty-five different business organizations, public and private, global and domestic. I also founded and served as chief executive officer/chief operating officer of my own business.

I have first-chair trial and appellate experience in state and federal courts and have managed and directed large litigation portfolios for a \$1 billion (+) multinational subsidiary of Berkshire Hathaway Inc. My experience includes resolution of legal and regulatory disputes with state and federal agencies, domestic and international commercial transactions, antitrust/competition law counseling, global management of large intellectual property portfolios, employment law (domestic and international), real estate law, securities law and stock exchange reporting and compliance and business development in more than fifty countries.

**EXHIBIT D**  
**REPORT ON RESULTS OF OPERATIONS**

I am admitted to practice law in California. I graduated from the University of Cincinnati College of Law, where a Juris Doctor degree was conferred in 1983. I am also a graduate of the University of Vermont, where I obtained a Bachelor of Arts degree in 1980. In addition to my General Counsel experience, I served as an associate trial attorney for a law firm in Akron, Ohio following my graduation from law school. While practicing in Akron, Ohio, I was invited to become a barrister with the Charles F. Scanlon Inn of Court (now the Charles F. Scanlon and Samuel H. Bell Inn of Court). As a member of the Akron Bar Association, I was involved with the Association's Continuing Legal Education Program.

**VERIFICATION**

The statements in I have made in this General Rate Case Application of Great Oaks Water Company are true of my own knowledge, except as to matters that are therein stated on information and belief, and as to those matters, I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

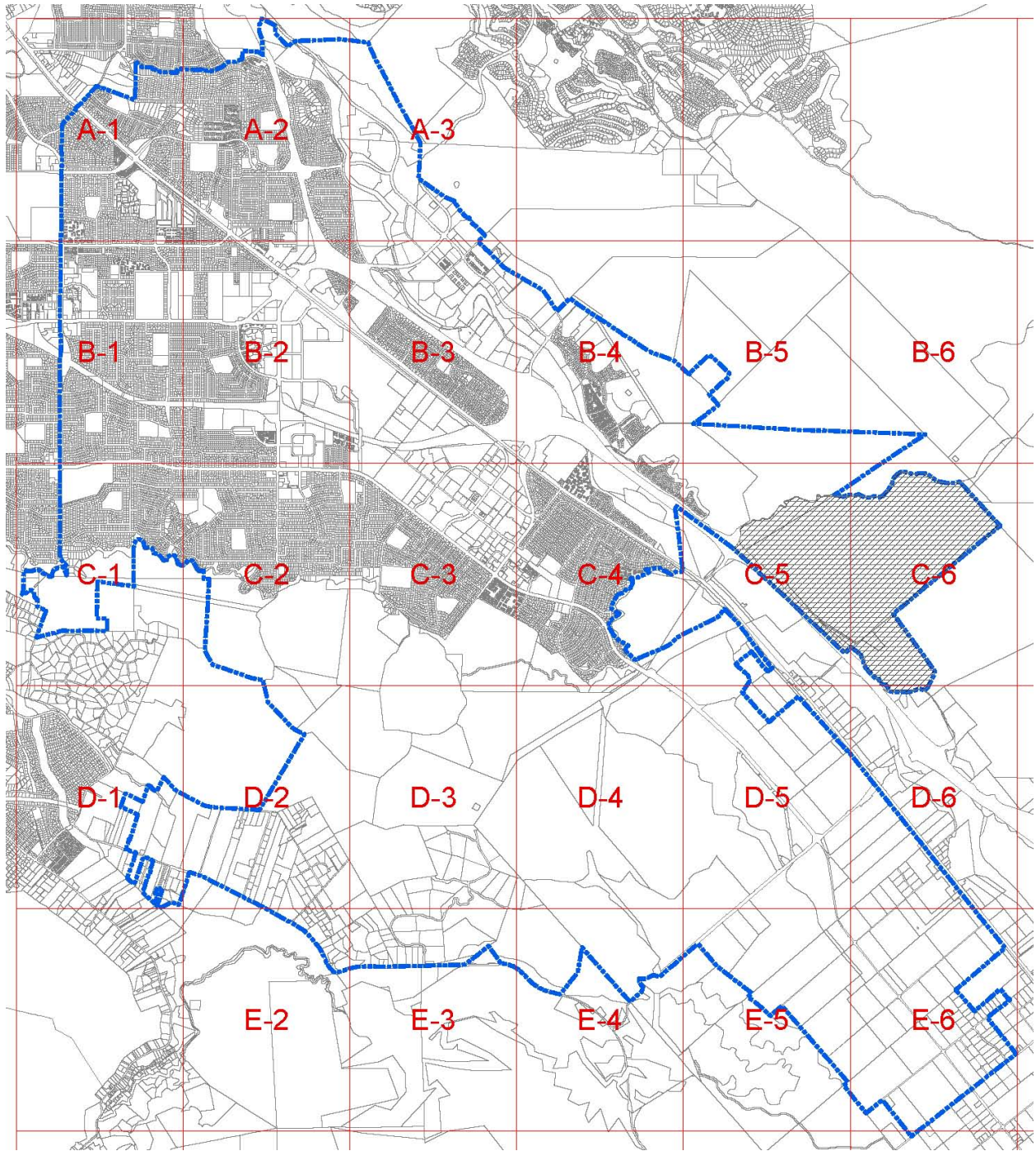
Executed on \_\_\_\_\_, 2021 at San Jose, California.

\_\_\_\_\_  
/s/  
Timothy S. Guster

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 2-1**

**Map of Great Oaks Water Company Service Area**



**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 2-2**

**2018 Affiliate Transaction Rules Audit**

**GREAT OAKS WATER COMPANY**  
**COMPLIANCE EXAMINATION**  
**OF THE AFFILIATE TRANSACTIONS RULES**  
**FOR THE YEAR ENDED DECEMBER 31, 2018**

GREAT OAKS WATER COMPANY  
FOR THE YEAR ENDED DECEMBER 31, 2018

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# Wright Ford Young & Co.

*Certified Public Accountants and Consultants, Inc.*

## INDEPENDENT ACCOUNTANT'S REPORT

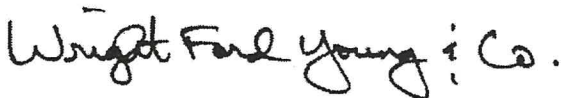
To The Board of Directors of  
Great Oaks Water Company:

We have examined Great Oaks Water Company's compliance with Rules I. through IX. of the Modified Rules for Water and Sewer Utilities Regarding Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services (the Affiliate Transaction Rules) for the year ended December 31, 2018. Great Oaks Water Company's management is responsible for Great Oaks Water Company's compliance with those requirements. Our responsibility is to express an opinion on Great Oaks Water Company's compliance based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether Great Oaks Water Company has complied with The Affiliate Transaction Rules in all material respects. Our examination involved performing procedures on a test basis to obtain evidence about Great Oaks Water Company's compliance with The Affiliate Transaction Rules including other procedures that we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion. Our examination does not provide a legal determination of Great Oaks Water Company's compliance with specified elements.

In our opinion, Great Oaks Water Company complied, in all material respects, with the requirements of The Affiliate Transaction Rules for the year ended December 31, 2018.

This report is intended solely for the information and use of management of Great Oaks Water Company and the California Public Utilities Commission and is not intended to be and should not be used by anyone other than these specified parties.



WRIGHT FORD YOUNG & CO.  
Irvine, California  
December 20, 2019



## EXECUTIVE SUMMARY

This examination addresses Great Oaks Water Company's compliance with Rule I. through Rule IX. of the Modified Rules for Water and Sewer Utilities Regarding Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services (the Affiliate Transaction Rules) of the California Public Utilities Commission (the Commission). Our examination found that Great Oaks Water Company complied with all the Affiliate Transaction Rules.

## BACKGROUND

The Commission adopted the Affiliate Transaction Rules in October 2010, in accordance with Decision D. 10-10-019, D. 11-10-034, and as modified by D. 12-01-042, which provides rules for all Class A and B water and sewer utilities regarding affiliate transactions and the use of regulated assets and personnel for non-tariffed utility products and services. The Commission's goals in adopting these rules are to protect ratepayers, to ensure the financial health of the utilities, and to prevent anti-competitive behavior in the competitive marketplace.

## AUDIT PURPOSE AND OBJECTIVE

The purpose of this examination is to comply with Rule VIII.E. of the Affiliate Transaction Rules. The rules state that the audit shall cover the last two calendar years and shall verify that the utility has complied with the Affiliate Transaction Rules. Management of Great Oaks Water Company interprets this rule as applying to Rule I. through Rule IX. only of the Modified Rules for Water and Sewer Utilities Regarding Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services because the Order in the Commission Decision 10-10-019 dated October 14, 2010, and D. 11-10-034, and as modified by D. 12-01-042, as noted above, defines that the Affiliate Transaction Rules I. through IX. supersede prior adopted affiliate transaction rules and that Rule X. regarding non-tariffed products and services, supersede prior non-tariffed product and services rules. Since the audit requirement is included in Rule VIII.E. which is included in Rule I. through Rule IX., the audit requirements apply to those items only.

## AUDIT SCOPE AND METHODOLOGY

The audit is for the year ended December 31, 2018. The procedures included inspection of Great Oaks Water Company's books, records, source documents, and accounting procedures, annual reports to the California Public Utilities Commission, and interviews with employees and management.

## AUDIT FINDINGS AND CONCLUSIONS

Appendix A details the findings and conclusions for each Rule, which consists of sub-rules that provide the specific criteria. Our examination found that GOWC complied with all Rules.

## **RULE I - Jurisdiction and Applicability**

### **I.A.**

These Rules apply to all Class A and Class B California public utility water and sewer corporations or companies subject to regulations by the California Public Utilities Commission (Commission).

#### Great Oaks Water Company (GOWC) Compliance:

GOWC affirms that the Rules for Water and Sewer Utilities Regarding Affiliate Transactions (Affiliate Transaction Rules) and the use of Regulated Assets for Non-Tariffed Utility Services apply to GOWC.

#### Wright Ford Young & Co. (WFY) Conclusion :

We reviewed the 2018 Annual Report to the Public Utilities Commission State of California (Annual Report) of GOWC. The report listed active service connections in excess of 20,000, which classify the utility under the Commission as a Class A Public Utility. Therefore, Affiliate Transaction Rules apply to GOWC.

### **I.B.**

These Rules apply to transactions between a Commission-regulated utility and another affiliated entity that is engaged in the provision of products that use water or sewer services or the provision of services that relate to the use of water or sewer services, including the utility's parent company, and to the utility's use of regulated assets for non-tariffed utility services, unless specifically modified or exempted by the Commission. Transactions between a Commission-regulated utility and an affiliated utility regulated by a state regulatory commission (whether the utility is located in California or elsewhere) are exempt from these Rules, except for provisions of Rule IV.B. and Rule X.

#### GOWC Compliance:

GOWC believes that Rule 1.B. applies to the Company and its parent in due to the provision of services that relate to the use of water or sewer services.

#### WFY Conclusion:

We discussed GOWC's organization with GOWC management regarding it and its affiliate (its parent company GOW Corporation) and have determined that transactions between them are covered by these rules.

### **I.C .**

Utilities shall comply with all applicable State and Federal statutes, laws and administrative regulations.

#### GOWC Compliance:

GOWC believes that it has and will comply with all applicable State and federal statutes, laws, and administrative regulations to which it is subject.

**I.C. – (Continued)**

WFY Conclusion:

GOWC has confirmed to us during our examination that it believes that it complied with all State and federal statutes, laws, and administrative regulations to which it is subject. During our examination, we did not observe any instances of noncompliance with State and federal statutes, laws, and administrative regulations.

**I.D.**

Existing Commission rules for each utility and its parent company continue to apply except to the extent they conflict with these Rules. In such cases, these Rules supersede prior rules and guidelines, provided that nothing herein shall preclude (1) the Commission from adopting other utility-specific guidelines; or (2) a utility or its parent company from adopting other utility-specific guidelines, with advance Commission approval through Decision or Resolution. In the case of ambiguity regarding whether a conflict exists, there shall be a rebuttable presumption that these Rules apply.

GOWC Compliance:

GOWC believes that Rule I.D.'s meaning is that these Affiliate Transaction Rules supersede prior rules if the prior rules conflict with the Affiliate Transaction Rules.

WFY Conclusions:

Based upon our review of the Affiliate Transaction Rules, we believe that GOWC's understanding of Rule I.D. is correct.

**I.E.**

Where these Rules do not address an item currently addressed in a utility's existing rules imposed by this Commission which govern that utility's transactions with its affiliate(s) or its use of regulated assets for non-tariffed utility services, the existing utility-specific rules continue to apply for that item only.

GOWC Compliance:

GOWC believes that Rule I.E.'s meaning is that existing rules will apply if an item currently addressed in existing rules is not addressed by the Affiliate Transaction Rules.

WFY Conclusions:

Based upon our review of the Affiliate Transaction Rules, we believe that GOWC's understanding of Rule I.E. is correct.

**I.F.**

These Rules do not preclude or stay any form of civil relief, or rights or defense thereto, that may be available under state or federal law.

GOWC Compliance:

GOWC believes that meaning of Rule 1.F. is that the Affiliate Transaction Rules do not preclude or stay any form of civil relief, or rights or defenses thereto, that may be available under state or federal law.

**I.F. – (Continued)**

WFY Conclusions:

Based upon our review of the Affiliate Transaction Rules, we believe that GOWC's understanding of Rule I.F. is correct.

**I.G.**

A California utility which is also a multi-state utility and subject to the jurisdiction of other state regulatory commissions, may file an application with this Commission, served on all parties to this proceeding and its most recent general rate case, requesting a limited exemption from these Rules or a part thereof, for transactions between the utility solely in its capacity serving its jurisdictional areas wholly outside of California, and its affiliates if such out-of-state operations do not substantially affect the utility's operations and the operating costs inside California. The applicant has the burden of proof.

GOWC Compliance:

GOWC asserts that it is not a multi-state utility and, therefore, Rule I.G. does not apply to GOWC.

WFY Conclusions:

Based upon our review of the Company's Annual Reports and discussions with management confirmed that GOWC provides utility services entirely within the State of California. Therefore, Rule I.G. does not apply to GOWC.

**I.H.**

A California utility's affiliates that operate entirely outside of California are exempt from Rule III.B. and Rule III.C. of these Rules, for transactions between the utility and such affiliates if the affiliates' operations do not substantially affect the utility's operations and the operating costs inside California.

GOWC Compliance:

GOWC believes that GOW Corporation is considered the "parent company" or "parent" of GOWC because GOW Corporation owns the regulated utility. GOW Corporation has real estate investments and rental operations outside the State of California and transactions between GOW Corporation and GOWC do not substantially affect the utility's operations and the operating costs inside of California.

WFY Conclusions:

We have concluded based on our examination of records and discussions with management of GOWC that GOW's rental operations, lending activities, and land investment activities operate outside the State of California and that their operations do not substantially affect GOWC's operations.

**I.I.**

These Rules shall be interpreted broadly, to effectuate the Commission's stated objectives of protecting consumer and ratepayer interests and, as an element thereof, preventing anti-competitive conduct.

GOWC Compliance:

GOWC affirms Rule I.I. means that the Affiliate Transaction Rules are to be interpreted broadly.

**I.I. – (Continued)**

WFY Conclusions:

Based upon our review of the Affiliate Transaction Rules, we believe that GOWC's understanding of Rule I.I. is correct.

**RULE II - Definitions**

**II.A . "Parent company" or "parent"**

"Parent company" or "parent" is the entity, including a holding company or corporation, that owns, or has substantial operational control (as defined in Rule II. E.) of , the regulated utility.

**II.B. "Utility"**

"Utility" (unless specified as a water utility) refers to all water utilities and sewer utilities regulated by the Commission.

**II.C. "Water utility"**

"Water utility" refers to all water utilities regulated by the Commission.

**II.D. "Sewer utility"**

"Sewer utility" refers to all sewer utilities regulated by the Commission.

**II.E. "Affiliate"**

"Affiliate" means any entity whose outstanding voting securities are more than 10 percent owned, controlled, directly or indirectly, by a utility, by its parent company, or by any subsidiary of either that exerts substantial operational control.

For purposes of these Rules, "substantial operational control" includes, but is not limited to, the possession, directly or indirectly of the authority to direct or cause the direction of the management or policies of a company. A direct or indirect voting interest of more than 10 percent by the utility in an entity's company creates a rebuttable presumption of substantial operational control.

For purposes of these Rules "affiliate" includes the utility's parent company, or any company that directly or indirectly owns, controls, or holds the power to vote more than 10 percent of the outstanding voting securities of a utility or its parent company.

Regulated subsidiaries of a utility, the revenues and expenses of which are subject to regulation by the Commission and are included by the Commission in establishing rates for the utility, are not included within the definition of affiliate for the purpose of these Rules. However, these Rules apply to all interactions any such regulated subsidiary has with other affiliated unregulated entities covered by these Rules.

For the purposes of this Rule, "affiliate" shall not include a mutual water company, a joint powers authority, other governmental or quasi-governmental agency or authority, a public/private partnership, a watermaster board, a water basin association, or a groundwater management authority in which a utility participates or in which a utility is a member or shareholder.

## **II.F. "Costs"**

"Costs" are used in these Rules to refer to the total expenses assigned or allocated to different projects or activities through the utility's and parent company's accounting systems. Cost categories include:

1. **Direct Costs.** Directs costs are costs that can be clearly identified to specific projects or activities because the resource in question, or some measurable portion of that resource, has been dedicated to the project or activity. An example would be the hours of a worker's time spent on the effort, materials purchased and used specifically on that effort, or the proportion of a machine's hours dedicated to the effort.
2. **Direct Overhead Costs.** For organizations that produce multiple outputs, direct overhead costs are the common costs of a subset of the organization, such as supervisors and support staff of a division not assigned or traceable to specific projects, or machinery shared among a subset of the company's projects. Such overhead costs require allocation to specific projects through proxies and methodologies designed to accurately reflect the particular production aspects of each project; e.g., some processes are more capital-intensive than others and need less supervision input. Allocation methodologies for direct overhead costs can make use of several factors, often activity-based and often using "costs causation" as one of the principles in their design.
3. **Indirect Overhead Costs.** Indirect overhead costs are functions that affect the entire organization, such as the headquarters building, the Chief Executive Officer and Chief Financial Officer, General Counsel and associated legal support, personnel departments, security for this building or these offices, shareholder and public relations, insurance, depreciation, advertising, and similar functions. These are real costs of the organization and must be allocated to the ongoing projects and activities to determine the total cost of each. These are also sometimes called "General Overhead Costs."
4. **Fully-loaded (also known as fully-allocated) costs.** Fully-loaded (or fully-allocated) costs refer to the total cost of a project or activity, which is the sum of Direct, Direct Overhead, and Indirect Overhead costs, as defined in Rule II.F.1., 2. and 3.

## **II.G. "Transaction"**

"Transaction" means any transfer of an item of value such as a good, service, information or money between a utility and one or more of its affiliates.

## **II.H. "Property"**

"Property" refers to any right or asset, tangible or intangible, to which an entity has legal or equitable title.

## **II.I. "Real Property"**

"Real Property" refers to any interest in real estate including leases, easements, and water rights.

## **II.J. "Customer"**

"Customer" means any person, firm, association, corporation or governmental agency supplied or entitled to be supplied with water, wastewater, or sewer service for compensation by a utility.

**II.K. "Customer information"**

"Customer information" means non-public information and data specific to a utility customer which the utility acquired or developed in the course of its provision of utility services.

**II.L. "Cross-subsidy"**

"Cross-subsidy" means the unauthorized over-allocation of costs to captive ratepayers resulting in under-allocation of costs to a utility affiliate.

GOWC Compliance:

GOWC affirms the definitions of Rule II.A. through II.L.

WFY Conclusion:

GOWC has confirmed to us its agreement of the definitions in Rule II.A. through II.L. Our review of the Affiliate Transaction Rules agrees with the definitions as it applies to GOWC and GOW Corporation.

**RULE III - Utility Operations and Service Quality**

**III.A.**

A utility shall not allow transactions with affiliates to diminish water utility staffing, resources, or activities in a manner that would result in degradation of the reliability, efficiency, adequacy, or cost of utility service or an adverse impact on customer service. Utility management attention shall not be diverted to such transactions in a way that would result in such degradation. The utility's parent and affiliates shall not acquire utility assets at any price if such transfer of assets would impair the utility's ability to fulfill its obligation to serve or to operate in a prudent and efficient manner.

GOWC Compliance:

GOWC believes that it has not allowed transactions that would diminish water utility staffing, resources, or activities in a manner that would result in a degradation of the reliability, efficiency, adequacy, or cost of service or an adverse impact on customer service. Also, GOWC believes that it has not allowed transactions that would divert management attention in a way that would result in such degradation. The parent has not acquired any utility assets.

WFY Conclusion:

Based on our review of GOWC records, Annual Reports, interviews with GOWC employees, and discussions with GOWC management we found no significant transactions between GOWC and GOW Corporation. Therefore, we believe that there have been no transactions described in Rule III A. that have resulted in a degradation of the reliability, efficiency, adequacy, or cost of service or an adverse impact on customer service, nor have they impaired the utility's ability to fulfill its obligation to serve or to operate in a prudent and efficient manner.

**III.B.**

Except as otherwise provided by these Rules, a utility shall not

1. Provide leads to its affiliates;
2. Solicit business on behalf of its affiliates;
3. Acquire information on behalf of or to provide to its affiliates;
4. Share market analysis reports or any other types of proprietary or non-publicly available reports, including but not limited to market, forecast, planning or strategic reports, with its affiliates, except that a utility may share such information with a parent under the condition that the parent does not share the information with any other entity;
5. Request authorization from its customers to pass on customer information exclusively to its affiliates;
6. Give the appearance that the utility speaks on behalf of its affiliates; or
7. Represent that, as a result of the affiliation with the utility, its affiliates or customers of its affiliates will receive any different treatment by the utility than the treatment the utility provides to other, unaffiliated companies or their customers.
8. Provisions 3, 4 and 5 of Rule III.B. shall not apply to utility affiliates which are non-profit and whose sole purpose is to serve the functions of regulated utilities, the parents of regulated utilities, governmental or non-profit entities, including non-profit affiliates of regulated utilities.
9. Utilities may file an Advice Letter seeking an exemption to Rule III.B.8. within ninety days of the effective date of the Commission decision adopting these rules, requesting that a non-profit affiliate subject to Rule III.B.8. be allowed to serve the functions of other affiliates, as long as those other affiliates provide no more than five per cent of the annual revenues of the non-profit affiliate.

GOWC Compliance:

GOWC believes that it has not engaged in any of the items 1 through 9 above during the year ended December 31, 2018.

WFY Conclusion:

Based on our review of GOWC records, Annual Reports, and discussions with GOWC management, we believe that GOWC and GOW Corporation did not engage in any items described in Rule III.B.



**III.C.**

Except as provided for elsewhere in these rules, if a utility provides customer or utility information, services, or unused capacity or supply to an affiliate, it must offer such customer or utility information, services, or unused capacity or supply to all similarly situated market participants in a non-discriminatory manner, which includes offering on a timely basis.

GOWC Compliance:

GOWC believes that it has not engaged in any of the items described in Item III.C. above during the year ended December 31, 2018.

WFY Conclusion:

Based on our review of GOWC records, Annual Reports, and discussions with GOWC management, we believe that GOWC and GOW Corporation have not engaged in any items described in Rule III.C .

**RULE IV – Separation**

**IV.A.**

The utility shall maintain accounting records in accordance with Generally Accepted Accounting Principles , the Commission's Uniform System of Accounts, Commission decisions and resolutions, and the Public Utilities Code.

GOWC Compliance:

GOWC affirms that it has policies and procedures in place to maintain and that it maintains its accounting records in accordance with Generally Accepted Accounting Principles (GAAP), the Commission's Uniform System of Accounts, Commission decisions and resolutions, and the Public Utilities Code.

WFY Conclusion:

We audited the financial statements of GOWC for the year ended December 31, 2018. We believe that the Company's financial statements were presented in conformity with GAAP. GOWC has confirmed to us that they believe that they maintain its accounting records in accordance with GAAP, the Commission's Uniform System of Accounts, Commission decisions and resolutions, and the Public Utilities Code.

**IV.B.**

The utility, its parent and other affiliated companies shall allocate common costs among them in such a manner that the ratepayers of the utility shall not subsidize any parent or other affiliate of the utility.

GOWC Compliance:

GOWC does not believe that it has allocated any common costs between GOWC and GOW Corporation.

WFY Conclusion:

Based on our review of Company records and discussions with GOWC management we believe that there have been no significant common costs allocated between GOWC and GOW Corporation during 2018.

**IV.C.**

The utility shall list all shared directors and officers between the utility and its affiliates in its annual report to the Commission. Not later than 30 days following a change to this list, the utility shall notify the Director of the Division of Water and Audits and the Director of the Division of Ratepayer Advocates of the change(s).

GOWC Compliance:

GOWC listed its sole shared director and officer of GOWC and GOW Corporation in its 2018 annual report as required under Rule IV.C. and therefore, has complied with this rule.

WFY Conclusion:

Our review of the 2018 annual report listed the sole shared director and officer of GOWC and GOW Corporation as John Roeder who was the only shared director and officer during 2018, and there were no changes to the list of shared officers and directors during that time period.

**IV.D.**

Employees transferred or temporarily assigned from the utility to an affiliate shall not use non-public, proprietary utility information gained from the utility in a discriminatory or exclusive fashion to the benefit of the affiliate to the detriment of unaffiliated competitors.

GOWC Compliance:

GOWC has not transferred or temporarily assigned any employees from GOWC to GOW Corporation.

WFY Conclusion:

Based on our review of Company records, discussions with GOWC management, and interviews with GOWC employees we believe that there have were no employees transferred or temporarily assigned from the GOWC to GOW Corporation during 2018.

**IV.E.**

All employee movement between a utility and its affiliates, as defined in Rule 1.8 ., shall be consistent with the following provisions:

**IV.E.1.**

A utility shall track and report to the Commission all employee movement between the utility and affiliates, consistent with Rule VIII.F.

GOWC Compliance:

GOWC has not transferred or temporarily assigned any employees from GOWC to GOW Corporation. There has been no movement of employees between the utility and its parent company.

WFY Conclusion:

Based on our review of Company records, discussions with GOWC management, and interviews with GOWC employees we believe that there has been no employee movement between GOWC and GOW Corporation during 2018.

**IV.E.2.**

When an employee of a utility is transferred, assigned, or otherwise employed by the affiliate, the affiliate shall make a one-time payment to the utility in an amount equivalent to 15% of the employee's base annual compensation. All such fees paid to the utility shall be accounted for in a separate memorandum account to track them for future ratemaking treatment on an annual basis, or as otherwise necessary to ensure that the utility's ratepayers receive the fees. This transfer payment provision does not apply to clerical workers.

GOWC Compliance:

GOWC has not transferred or temporarily assigned any employees from GOWC to GOW Corporation.

WFY Conclusion:

Based on our review of Company records, discussions with GOWC management, and interviews with GOWC employees we believe that there has been no employee movement between GOWC and GOW Corporation during 2018. Therefore, the provisions of Rule IV.E.2. do not apply to GOWC for that same period.

**IV.E.3.**

Utility employees may be used on a temporary or intermittent basis (less than 30% of an employee's chargeable time in any calendar year) by affiliates only if:

- a. All such use is documented, priced and reported in accordance with these Rules and existing Commission reporting requirements, except that when the affiliate obtains the services of a non-executive employee, compensation to the utility shall be priced at a minimum of the greater of fully loaded cost plus 5% of direct labor cost, or fair market values. When the affiliate obtains the services of an executive employee, compensation to the utility shall be priced at a minimum of the greater of fully loaded cost plus 15% of direct labor cost, or fair market value;
- b. Utility needs for utility employees always take priority over any affiliate requests;
- c. No more than 10% of full time equivalent utility employees may be on loan at a given time;
- d. Utility employees agree, in writing, that they will abide by these Rules; and
- e. Affiliate use of utility employees shall be conducted pursuant to a written agreement approved by the appropriate utility and affiliate officers.

GOWC Compliance:

GOWC believes that no utility employee has been used by its Parent during 2018.

WFY Conclusion:

Based on our review of Company records, discussions with GOWC management and interviews with GOWC employees we believe that there have been no utility employees used on a temporary or intermittent basis during 2018.

## **RULE V - Shared Corporate Support**

### **V.A.**

A utility, its parent company, or a separate affiliate created solely to perform corporate support services may share with its affiliates joint corporate oversight, governance, support systems, and personnel as further specified in the Rules. Any shared support shall be priced, reported and conducted in accordance with these Rules as well as other applicable Commission pricing and reporting requirements.

#### GOWC Compliance:

GOWC believes that its parent corporation was not created to solely perform corporate support services. Therefore, it believes that Rule V. does not apply to it.

#### WFY Conclusion:

Based on our review of Company records and discussions with GOWC management we believe that there was no significant shared corporate support during 2018.

### **V.B.**

Corporate support shall not be shared in a manner that allows or provides a means for the transfer of confidential information from the utility to the affiliate, creates the opportunity for preferential treatment or unfair competitive advantage, leads to customer confusion, or creates significant opportunities for cross- subsidy of affiliates. The restriction on transfer of confidential information from the utility to the affiliate does not apply to corporate support, shared services and access to capital.

#### GOWC Compliance:

GOWC affirms that it has adequate procedures to comply with Rule V.B. in its Compliance Plan for Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services (the Compliance Plan). In particular, the Compliance Plan documents the procedures for reimbursing the utility for services of GOWC used by corporate affiliates. During 2018, GOWC believes that it has not shared corporate support between it and its Parent in any significant manner.

#### WFY Conclusion:

Based on our review of Company records and discussions with GOWC management we believe that there have been no significant shared common costs between GOWC and GOW Corporation during 2018, that would lead to the transfer of confidential information from GOWC to GOW Corporation.

### **V.C.**

Examples of services that may be shared include: corporate governance and oversight, payroll, taxes, shareholder services, insurance, financial reporting, financial planning and analysis, corporate accounting, corporate security, human resources (compensation, benefits, employment policies), employee records, regulatory affairs, lobbying, legal, and pension management, engineering, water or sewage for resale, water storage capacity, and purchasing of water distribution systems.

**V.C. – (Continued)**

GOWC Compliance:

GOWC affirms that it may share the services listed in Rule V.C., however, it believes that it has not shared items listed above in any significant manner.

WFY Conclusion:

Our examination included reading Rule V.C. and discussions with management of GOWC. We are in agreement with GOWC regarding Rule V.C. that it may share services listed in Rule V.C. with its parent GOW Corporation. Based on our review of Company records we believe that no significant amount of services listed in Rule V.C. were shared with GOW Corporation during 2018.

**V.D.**

Examples of services that may not be shared include: hedging and financial derivatives and arbitrage services, and marketing.

GOWC Compliance:

GOWC affirms that it may not share the services listed in Rule V.D. and has not shared such services during 2018.

WFY Conclusion:

Our examination included reading Rule V.D. and discussions with management of GOWC. We are in agreement with GOWC regarding Rule V.D. that it may not share services listed in Rule V.D. with its parent GOW Corporation. Based on our review of Company records we believe that no services listed in Rule V.D. were shared with GOW Corporation during 2018.

**RULE VI - Pricing of Goods and Services between the Utility and Its Affiliate(s)**

To the extent that these Rules do not prohibit the transfer of goods and services between a utility and its affiliates:

**VI.A.**

Transfers from the utility to its affiliates of goods and services offered by the utility on the open market will be priced at fair market value.

GOWC Compliance:

GOWC believes that there has been no significant transfer of goods and services between the utility and its affiliates during 2018.

WFY Conclusion:

Based upon our review of Company records and discussions with management, we believe that there has been no significant transfer of goods and services from GOWC to GOW Corporation during 2018.

**VI.B.**

Transfers from an affiliate to the utility of goods and services offered by the affiliate on the open market shall be priced at no more than fair market value.

**VI.B. – (Continued)**

GOWC Compliance:

GOWC has not made any transfer of good and services from an affiliate to the utility during 2018.

WFY Conclusion:

Based upon our review of Company records and discussions with management, we believe that there has been no significant transfer of goods and services from GOW Corporation to GOWC during 2018.

**VI.C.**

For goods or services for which the price is regulated by a state agency, that price shall be deemed to be the fair market value, except that in cases where more than one state commission regulates the price of goods or services, this Commission's pricing provisions govern.

GOWC Compliance:

GOWC believes that since there has not been any transfer of goods and services, this rule does not apply during 2018.

WFY Conclusion:

Based upon our review of Company records and discussions with management we believe that there has been no transfer of goods and services for which the price is regulated by a state agency from or to GOWC from or to GOW Corporation during 2018.

**VI.D.**

Goods and services produced, purchased or developed to be offered on the open market by the utility shall be provided to the utility's affiliates and unaffiliated companies on a nondiscriminatory basis, except as otherwise required or permitted by these Rules or applicable law.

GOWC Compliance:

GOWC believes that since there has not been any transfer of goods and services, this rule does not apply during 2018.

WFY Conclusion:

Based upon our review of Company records and discussions with management, we believe that there has been no significant transfer of goods and services to GOW Corporation during 2018, that were produced, purchased or developed to be offered on the open market on a nondiscriminatory basis by GOWC.

**VI.E.**

Transfers from the utility to its affiliates of goods and services not produced, purchased or developed to be offered on the open market by the utility shall be priced at fully allocated costs plus 5% of direct labor cost.

GOWC Compliance:

GOWC believes that since there has not been any transfer of goods and services, this rule does not apply during 2018.

**VI.E. – (Continued)**

WFY Conclusion:

Based upon our review of Company records and discussions with management, we believe that there have been no significant transfer of goods and services to GOW Corporation during 2018, that were not produced, purchased or developed to be offered on the open market by GOWC.

**VI.F.**

Transfers from an affiliate to the utility of goods and services not produced, purchased or developed to be offered on the open market by the affiliate shall be priced at the lower of fully loaded cost or fair market value.

GOWC Compliance:

GOWC believes that since there has not been any transfer of goods and services, this rule does not apply during 2018.

WFY Conclusion:

Based upon our review of Company records and discussions with management, we believe that there have been no significant transfer of goods and services to GOWC during 2018, that were not produced, purchased or developed to be offered on the open market by GOW Corporation.

**VI.G.**

The utility shall develop a verifiable and independent appraisal of fair market value for any goods or services that are transferred to any affiliated company at fair market value under these Rules. The Commission's staff shall have access to all supporting documents used in the development of the fair market value. If sufficient support for the appraisal of fair market value does not exist to the reasonable satisfaction of the Commission's staff, the utility shall hire an independent consultant acceptable to the Commission staff to reappraise the fair market value for these transactions.

GOWC Compliance:

GOWC believes that since there has not been any transfer of goods and services, this rule does not apply during 2018.

WFY Conclusion:

Based upon our review of Company records and discussions with management, we believe that there have been no significant transfer of goods and services from GOWC to GOW Corporation during 2018, therefore, Rule VI.G. does not apply for that period.

**RULE VII - Financial Health of the Utility**

**VII.A.**

The parent shall provide the utility with adequate capital to fulfill all of its service obligations prescribed by the Commission.

**VII.A. – (Continued)**

GOWC Compliance:

GOWC believes that GOW Corporation has provided GOWC with adequate capital to fulfill all of its service obligations prescribed by the Commission.

WFY Conclusion:

Our examination included reading Rule VII.A., review of the 2018 Annual Report to the California Public Utilities Commission, and discussions with management. The annual report for 2018 appears to reflect that GOWC has been provided adequate capital to fulfill all of its service obligations.

**VII.B.**

If the parent is publicly traded, the utility shall notify the Director of the Commission's Division of Water and Audits and the Director of the Division of Ratepayer Advocates in writing within 30 days of any downgrading to the bonds of the parent, another affiliate, and/or the utility, and shall include with such notice the complete report of the issuing bond rating agency.

GOWC Compliance:

GOWC believes that Rule VII.B. does not apply because GOW Corporation is not publicly traded.

WFY Conclusion:

GOWC has confirmed to us that GOW Corporation is not a publicly traded company. (Our understanding of a company that is "publicly traded" is a company that has issued its stock that is traded in a public market). We agree with GOWC, that Rule VII.B. does not apply to GOWC because GOW Corporation is not publicly traded.

**VII.C.**

The creation of a new affiliate by the parent or another affiliate shall not adversely impact the utility's operations and provision of service.

GOWC Compliance:

GOWC affirms that it or its parent has not created any new affiliates during 2018.

WFY Conclusion:

Based upon our discussions with management, GOW Corporation has not created any new affiliates during 2018. Therefore, Rule VII.C. does not apply during 2018.

**VII.D.**

Debt of the utility's parent or other affiliates shall not be issued or guaranteed or secured by the utility.

GOWC Compliance:

GOWC believes that since GOW Corporation has no debt, therefore there is no debt that has been issued or guaranteed by the utility.



**VII.D. – (Continued)**

WFY Conclusion:

Based upon our discussions with management we believe that there have been no debt issued by GOW Corporation during 2018 nor has any debt of GOW Corporation been guaranteed by GOWC. Therefore, Rule VII.D. does not apply during 2018.

**VII.E.**

Financial Separation. Within three months of the effective date of the decision adopting these Rules, each utility with a parent company shall file a Tier III advice letter proposing provisions that are sufficient to prevent the utility from being pulled into bankruptcy of its parent company. The process specified by the Advice Letter Filing shall include a verification that the provisions have been implemented and signed by the utility's senior management (e.g., the Chief Executive Officer, Chief Financial Officer, and General Counsel).

GOWC Compliance:

GOWC believes that Rule VII.E. does not apply because GOWC did not have a parent company at the time the Rule was adopted, therefore, no Tier III advice letter was required.

WFY Conclusion:

Our examination included reading Rule VII.E., and discussions with management. Since GOWC did not have a parent company within three months of the enactment of the decision adopting these Rules, Rule VII.E. does not apply to GOWC.

**VII.F.**

Rules VI, VII, VIII(B) and VIII(C) adopted in Decision 97-12-011 (applicable to California Water Service Company), and Rule 12, 13, 15 and 16 adopted in Decision 98-06-068 (applicable to Golden State Water Company), continue in effect for those companies only.

GOWC Compliance:

GOWC believes that Rule VII.F does not apply because the Rule only applies to California Water Service Company or Golden State Water Company.

WFY Conclusion:

Since Rule VII.F. applies to California Water Service Company and Golden State Water Company, Rule VII.F. does not apply to GOWC.

**RULE VIII – Regulatory Oversight**

**VIII.A.**

The officers and employees of the utility and its affiliated companies shall be available to appear and testify in any proceeding before the Commission involving the utility. If, in the proper exercise of the Commission staffs duties, the utility cannot supply appropriate personnel to address the staff's reasonable concerns, then the appropriate staff of the relevant utility affiliated companies including, if necessary, its parent company, shall be made available to the Commission staff.

**VIII.A. – (Continued)**

GOWC Compliance:

GOWC confirms that the officers and employees of the utility and its affiliated companies (if any) shall be available to appear and testify in any proceeding before the Commission involving the utility.

WFY Conclusion:

We inquired with management and received confirmation that they would make all officers and employees of the GOWC and GOW Corporation available to appear and testify in any proceeding before the Commission involving the utility.

**VIII.B.**

The utility and its affiliated companies shall provide the Commission, its staff, and its agents with access to the relevant books and records of such entities in connection with the exercise by the Commission of its regulatory responsibilities in examining any of the costs sought to be recovered by the utility in rate proceedings or in connection with a transaction or transactions between the utility and its affiliates. The utility shall continue to maintain its books and records in accordance with all Commission rules. The utility's books and records shall be maintained and housed available in California.

GOWC Compliance:

GOWC confirms that access to the books and records of the utility and affiliated companies will be provided to the Commission, its staff, and its agents in connection with the exercise of the Commission's regulatory responsibilities. GOWC also confirms that it has and will maintain its books and records in accordance with all Commission rules and that its books and records have and will be maintained and housed available in its California offices.

WFY Conclusion:

Management of GOWC has confirmed to us that access to the books and records of the utility and GOW Corporation would be made available to the Commission, its staff, and its agents in connection with the exercise of the Commission's regulatory responsibilities. Management also confirmed to us that it will maintain its books and records in accordance with Commission rules at its offices in California. All books and records of GOWC that were used during our examination were located at Company offices in San Jose, California.

**VIII.C.**

**Compliance Plans.** Each utility shall include a compliance plan as part of its annual report, starting in 2011 with the 2010 annual report and biennially thereafter. The compliance plan shall include:

1. A list of all affiliates of the utility, as defined in Rule II.D. , and for each affiliate a description of its purposes or activities, and whether the utility claims that Rule I.B. makes any portion of these Rules applicable to the affiliate;
2. A description of the procedures in place to assure compliance with these Rules; and

**VIII.C. – (Continued)**

3. A description of both the specific mechanisms and the procedures that the utility and parent company have in place to assure that the utility is not utilizing the parent company or any of its affiliates not covered by these Rules as a conduit to circumvent any of these Rules in any respect. The description shall address, but shall not be limited to (a) the dissemination of information transferred by the utility to an affiliate covered by these Rules, (2) the provision of services to its affiliates covered by these Rules or (c) the transfer of employees to its affiliates covered by these Rules in contravention of these Rules. A corporate officer from the utility and parent company shall verify the adequacy of these specific mechanisms and procedures to ensure that the utility is not utilizing the parent company or any of its affiliates not covered by these Rules as a conduit to circumvent any of these Rules.

GOWC Compliance:

GOWC has Included a compliance plan as part of its Annual Report to the Public Utilities Commission State of California including items 1. through 3. of Rule VIII.C.

WFY Conclusion:

Our examination included review of the Annual Report to the Public Utilities Commission State of California for the year ended December 31, 2018. The report included a compliance plan including information required in items 1. through 3. of Rule VIII.C.

**VIII.D.**

**New Affiliates.** Upon the creation of a new affiliate, the utility shall immediately notify the Commission of its creation, as well as posting notice of this event on its web site. No later than 60 days after the creation of this affiliate, the utility shall file an information-only filing, as provided for in Rule 6.1 of General Order 96-B, with the Director of the Commission's Division of Water and Audits, with service on the Director of the Division of Ratepayer Advocates. The advice letter shall state the affiliate's purpose or activities and whether the utility claims these Rules are applicable to the new affiliate, and shall include a demonstration to the Commission that there are adequate procedures in place that will assure compliance with these Rules. The advice letter may include a request, including supporting explanation, that the affiliate transaction rules not be applied to the new affiliate. If the utility requests that the affiliate transaction rules not be applied to the new affiliate, in lieu of an information-only filing, the utility shall file a Tier 2 advice letter making such a request, including an explanation of why these Rules should not apply to the new affiliate.

GOWC Compliance:

GOWC has not created any new affiliates during 2018.

WFY Conclusion:

Our examination included discussions with management of GOWC. Based upon responses from management, there have been no new affiliates created during 2018.

**VIII.E.**

**Independent Audits.** Commencing in 2013, and biennially thereafter, the utility shall have an audit performed by independent auditors if the sum of all unregulated affiliates' revenue during the last two calendar years exceeds 5% of the total revenue of the utility and all of its affiliates during that period. The audits shall cover the last two calendar years which end on December 31, and shall verify that the utility is in compliance with these Rules. The utility shall submit the audit report to the Director of the Division of Water and Audits and the Director of the Division of Ratepayer Advocates no later than September 30 of the year in which the audit is performed. The Division of Water and Audits shall post the audit reports on the Commission's web site. The audits shall be at shareholder expense.

GOWC Compliance:

GOWC confirms its responsibility to have independent audits performed under the conditions of Rule VIII.E. which it believes applies to Rule I. through Rule IX. of the Rules for Water and Sewer Utilities Regarding Affiliate Transactions and the use of Regulated Assets for Non-Tariffed Utility Services listed in Appendix A.

WFY Conclusion:

Management of GOWC has confirmed to us their responsibility to have audits performed under the conditions of Rule VIII.E. at shareholder expense. Management interprets this rule as applying to Rules I. through Rules IX. only of the Affiliate Transaction Rules. Based upon management's interpretation of Rule VIII.E. GOWC has complied with the requirement to have an independent audit performed for the year ended December 31, 2018 with the performance of this report.

**VIII.F.**

**Annual Affiliate Transaction Reports.** Each year, by March 31, the utility shall submit a report to the Director of the Division of Water and Audits and the Director of the Division of Ratepayer Advocates that includes a summary of all transactions between the utility and its affiliated companies for the previous calendar year. The utility shall maintain such information on a monthly basis and make such information available to the Commission's staff upon request. The summary shall include a description of each transaction and an accounting of all costs associated with each transaction although each transaction need not be separately identified where multiple transactions occur in the same account (although supporting documentation for each individual transaction shall be made available to the Commission staff upon request). These transactions shall include the following:

1. Services provided by the utility to the affiliated companies;
2. Services provided by the affiliated companies to the utility ;
3. Assets transferred from the utility to the affiliated companies;
4. Assets transferred from the affiliated companies to the utility;
5. Employees transferred from the utility to the affiliated companies;
6. Employees transferred from the affiliated companies to the utility;

**VIII.F. – (Continued)**

7. The financing arrangements and transactions between the utility and the affiliated companies;
8. Services provided by and/or assets transferred from the parent holding company to the affiliate company which may have germane utility regulation impacts; and
9. Services provided by and/or assets transferred from affiliated company to the parent holding company which may have germane utility regulation impacts.

GOWC Compliance:

GOWC confirms its responsibility to submit a report that includes a summary of all transactions between the GOWC and GOW Corporation by March 31 each year for the previous calendar year. GOWC has filed an Affiliate Transaction Report, included with its Annual Report to the Public Utilities Commission State of California for the year ended December 31, 2018, and believes that it has complied with Rule VIII.F. Regarding bullet point 7 specifically, GOWC believes this rule applies to long-term debt only since only long-term debt must be approved by the CPUC. Furthermore, all types of short-term payables to affiliated companies are reported annually in Schedule A-46 of the Annual Report.

WFY Conclusion:

We reviewed the GOWC Report on Affiliated Transactions included in its 2018 Annual Report to the Public Utilities Commission State of California. Our review determined that the reports included the information required by Rule VIII.F. items 1. through item 9., based upon GOWC's interpretation of the Rule.

**RULE IX - Confidentiality**

Any records or other information of a confidential nature furnished to the Commission pursuant to these Rules that are individually marked Confidential are not to be treated as public records and shall be treated in accordance with P. U. Code §583 and the Commission's General Order 66-C, or their successors.

GOWC Compliance:

GOWC confirms that it will individually mark records of a confidential nature as "Confidential".

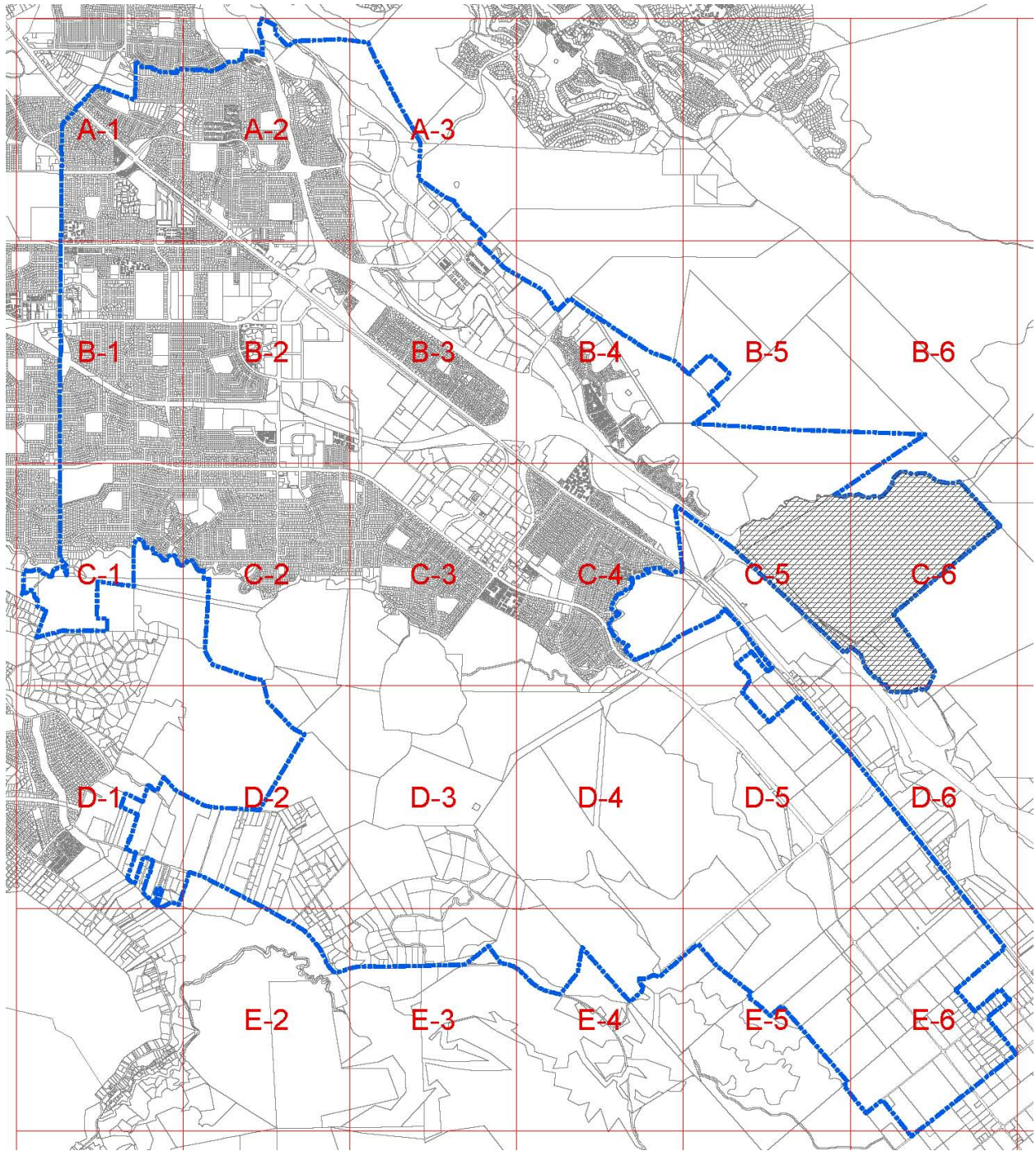
WFY Conclusion:

We inquired with management regarding its responsibility to mark certain records as "Confidential". Per our inquiry with management, management has affirmed its compliance with Rule IX. Management has also informed us that no records have been marked as "Confidential" during the year ended December 31, 2018.

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 3-1**

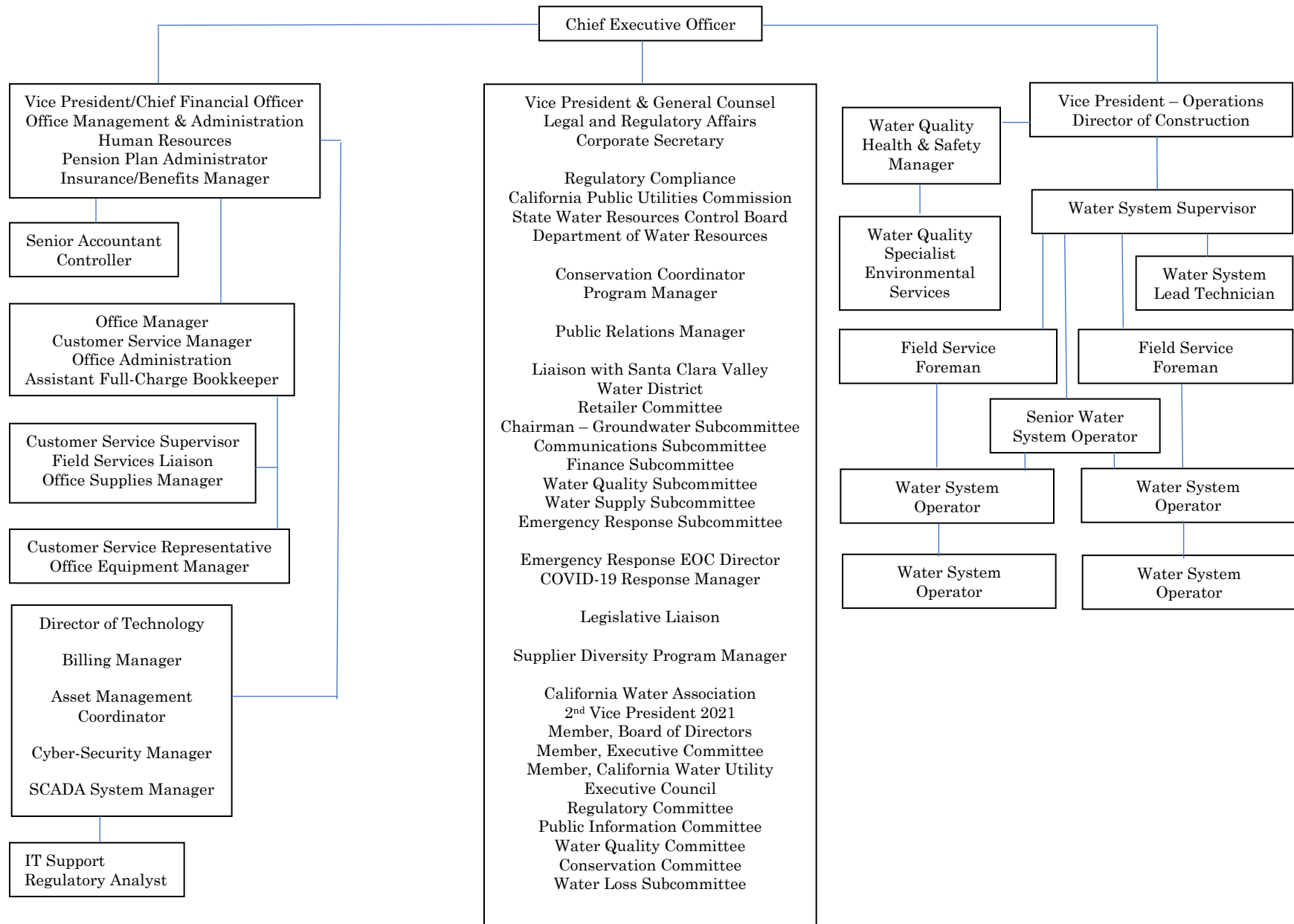
**Great Oaks Water Company  
Authorized Service Area**





# Great Oaks Water Company

## Exhibit 3-2 – Organization Chart





**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 3-3**

**Great Oaks Water Company  
Balance Sheets and Financial Statements  
2018, 2019, and 2020 Annual Reports**

2018 Annual Report

<b>SCHEDULE A</b> <b>COMPARATIVE BALANCE SHEETS</b> <b>Assets and Other Debits</b>					
Line No.	Acct.	Title of Account (a)	Schedule No. (b)	Balance End-of-Year (c)	Balance Beginning of Year (d)
1		<b>I. UTILITY PLANT</b>			
2	100	Utility plant	A-1, A-1a	\$ 48,496,791	\$ 47,071,506
3	101	Recycled Water Utility Plant	A-1b	\$ -	\$ -
4	107	Utility plant adjustments	A-2	\$ -	\$ -
5		Total utility plant		\$ 48,496,791	\$ 47,071,506
6	250	Reserve for depreciation of utility plant	A-5	\$ 25,459,519	\$ 24,199,963
7	251	Reserve for amortization of limited term utility investments	A-5	\$ -	\$ -
8	252	Reserve for amortization of utility plant acquisition adjustment	A-5	\$ -	\$ -
9	259	Reserve for depreciation and amortization of recycled water utility plant	A-5	\$ -	\$ -
10		Total utility plant reserves		\$ 25,459,519	\$ 24,199,963
11		Total utility plant less reserves		\$ 23,037,273	\$ 22,871,543
12					
13		<b>II. INVESTMENT AND FUND ACCOUNTS</b>			
14	110	Other physical property	A-3	\$ -	\$ -
15	253	Reserve for depreciation and amortization of other property	A-5	\$ -	\$ -
16		Other physical property less reserve		\$ -	\$ -
17	111	Investments in Affiliated Companies	A-6	\$ -	\$ -
18	112	Other Investments	A-7	\$ 11,935	\$ 11,935
19	113	Sinking Funds	A-8	\$ -	\$ -
20	114	Miscellaneous Special Funds	A-9	\$ -	\$ -
21		Total investments and fund accounts		\$ 11,935	\$ 11,935
22					
23		<b>III. CURRENT AND ACCRUED ASSETS</b>			
24	120	Cash	A-10	\$ 3,619,467	\$ 1,218,747
25	121	Special Deposits	A-11	\$ -	\$ -
26	122	Working Funds	A-12	\$ -	\$ -
27	123	Temporary Cash Investments (currently SCVWD funds held)	A-13	\$ -	\$ -
28	124	Notes Receivable	A-14	\$ 5,676	\$ -
29	125	Accounts Receivable	A-15	\$ 2,198,569	\$ 2,187,320
30	126	Receivables from Affiliated Companies	A-16	\$ -	\$ -
31	131	Materials and Supplies	A-17	\$ -	\$ -
32	132	Prepayments	A-18	\$ 337,361	\$ 1,331,128
33	133	Other Current and Accrued Assets	A-19	\$ 2,444,072	\$ 2,891,836
34		Total Current and Accrued Assets		\$ 8,605,145	\$ 7,629,031
35					
36		<b>IV. DEFERRED DEBITS</b>			
37	140	Unamortized debt discount and expense	A-20	\$ -	\$ -
38	141	Extraordinary property losses	A-22	\$ -	\$ -
39	142	Preliminary survey and investigation charges	A-23	\$ -	\$ -
40	143	Clearing accounts	A-24	\$ -	\$ -
41	145	Other work in progress	A-25	\$ -	\$ -
42	146	Other deferred debits	A-26	\$ 705,597	\$ 722,257
43	147	Accumulated Deferred Income Tax Assets	A-27	\$ -	\$ -
44		Total Deferred Debits		\$ 705,597	\$ 722,257
45		Total Assets and Other Debits		\$ 32,359,950	\$ 31,234,766

**SCHEDULE A**  
**COMPARATIVE BALANCE SHEETS**  
**Liabilities and Other Credits**

Line No.	Acct.	Title of Account (a)	Schedule No. (b)	Balance End of Year (c)	Balance Beginning of Year (d)
46		<b>I. CORPORATE CAPITAL AND SURPLUS</b>			
47	200	Common Capital Stock	A-30	\$ 360,110	\$ 360,110
48	201	Preferred Capital Stock	A-30a	\$ -	\$ -
49	202	Stock Liability for Conversion	A-31	\$ -	\$ -
50	203	Premiums and Assessments on Capital Stock	A-32	\$ 349,539	\$ 349,539
51	206	Subchapter S Corporation Accumulated Adjustments Account	A-33	\$ -	\$ -
52	150	Discount on Capital Stock	A-28	\$ -	\$ -
53	151	Capital Stock Expense	A-29	\$ (2,236)	\$ (2,236)
54	270	Capital Surplus	A-34	\$ 21	\$ 21
55	271	Earned Surplus	A-35	\$ 8,158,158	\$ 6,947,033
56		Total Capital Stock		\$ 8,865,592	\$ 7,654,467
57					
58		<b>II. PROPRIETARY CAPITAL</b>			
59	204	Proprietary Capital	A-36	\$ -	\$ -
60	205	Undistributed Profits of Proprietorship or Partnership	A-37	\$ -	\$ -
61		Total Proprietary Capital		\$ -	\$ -
62					
63		<b>III. LONG-TERM DEBT</b>			
64	210	Bonds	A-38	\$ -	\$ -
65	211	Receivers' Certificates	A-39	\$ -	\$ -
66	212	Advances from Affiliated Companies	A-40	\$ -	\$ -
67	213	Miscellaneous Long-Term Debt	A-41	\$ 4,000,000	\$ 4,000,000
68		Total Long-Term Debt		\$ 4,000,000	\$ 4,000,000
69					
70		<b>IV. CURRENT AND ACCRUED LIABILITIES</b>			
71	220	Notes Payable	A-43	\$ -	\$ -
72	221	Notes Receivable Discounted	A-44	\$ -	\$ -
73	222	Accounts Payable	A-45	\$ 141,507	\$ 223,901
74	223	Payables to Affiliated Companies	A-46	\$ 12,000	\$ -
75	224	Dividends Declared	A-47	\$ -	\$ -
76	225	Matured Long-Term Debt	A-48	\$ -	\$ -
77	226	Matured Interest	A-49	\$ -	\$ -
78	227	Customers' Deposits	A-50	\$ 98,117	\$ 90,676
79	228	Taxes Accrued	A-53	\$ 42,022	\$ 7,217
80	229	Interest Accrued	A-51	\$ 14,959	\$ 14,959
81	230	Other Current and Accrued Liabilities	A-52	\$ 5,305,216	\$ 5,346,897
82		Total Current and Accrued Liabilities		\$ 5,613,820	\$ 5,683,650
83					
84		<b>V. DEFERRED CREDITS</b>			
85	240	Unamortized Premium on Debt	A-21	\$ -	\$ -
86	241	Advances for Construction	A-54	\$ 5,197,287	\$ 5,454,362
87	242	Other Deferred Credits	A-55	\$ 1,476,305	\$ 1,051,765
	243	Long-Term Defined Benefit Pension Liability	A-55a	\$ 2,322,013	\$ 2,771,370
88		Total Deferred Credits		\$ 8,995,605	\$ 9,277,497
		<b>VI. ACCUMULATED DEFERRED TAXES</b>			
	266	Accumulated Deferred Income Taxes - Discontinued	A-58	\$ -	\$ -
	267	Accumulated Deferred Income Taxes Liabilities	A-59	\$ 2,347,675	\$ 2,123,360
	268	Accumulated Deferred Investment Tax Credits	A-60	\$ 9,678	\$ 13,818
		Total Accumulated Deferred Taxes		\$ 2,357,353	\$ 2,137,178
89					
90		<b>VII. RESERVES</b>			
91	254	Reserve for Uncollectible Accounts	A-56	\$ -	\$ -
92	255	Insurance Reserve	A-56	\$ -	\$ -
93	256	Injuries and Damages Reserve	A-56	\$ -	\$ -
94	257	Employees' Provident Reserve	A-56	\$ -	\$ -
95	258	Other Reserves	A-56	\$ -	\$ -
96		Total Reserves		\$ -	\$ -
97					
98		<b>VIII. CONTRIBUTIONS IN AID OF CONSTRUCTION</b>			
99	265	Contributions In Aid of Construction	A-57	\$ 2,527,579	\$ 2,481,974
100		Total Liabilities and Other Credits		\$ 32,359,950	\$ 31,234,766

# 2018 Annual Report

<b>SCHEDULE B</b> <b>Income Statement for the Year</b>				
Line No.	Acct.	Account (a)	Schedule Page No. (b)	Amount (c)
1		<b>I. UTILITY OPERATING INCOME</b>		
2	501	Operating Revenues	B-1	\$ 19,168,770
3				
4		Operating Revenue Deductions:		
5	502	Operating Expenses	B-2	\$ 14,935,764
6	503	Depreciation (Net of CIAC)	A-5	\$ 1,127,761
7	504	Amortization of Limited-Term Utility Investments	A-5	\$ -
8	505	Amortization of Utility Plant Acquisition Adjustments	A-5	\$ -
9	506	Property Losses Chargeable to Operations	B-3	\$ -
10	507	Taxes	B-4	\$ 1,754,987
11		Total Operating Revenue Deductions		\$ 17,818,512
12		Net Operating Revenues		\$ 1,350,259
13	508	Income From Utility Plant Leased to Others	B-6	\$ -
14	510	Rent for Lease of Utility Plant	B-7	\$ -
15		Total Utility Operating Income		\$ 1,350,259
16				
17		<b>II. OTHER INCOME</b>		
18	521	Income from nonutility operations (Net)	B-8	\$ 68,352
19	522	Revenue from lease of other physical property	B-9	\$ -
20	523	Dividend revenues	B-10	\$ 16,981
21	524	Interest revenues	B-11	\$ 7,720
22	525	Revenues from sinking and other funds	B-12	\$ -
23	526	Miscellaneous nonoperating revenues	B-13	\$ 67,824
24	527	Nonoperating revenue deductions - Dr.	B-14	\$ -
25	528	Gain (Loss) on sale of funds/stock		\$ -
26	530	Other Miscellaneous Income		\$ -
27	530	Gain (Loss) on sale of nonutility real estate		\$ -
28		Total Other Income		\$ 160,878
29		Net Income Before Income Deductions		\$ 1,511,137
30				
31		<b>III. INCOME DEDUCTIONS</b>		
32	530	Interest On Long-Term Debt	B-15	\$ 260,000
33	531	Amortization of Debt Discount and Expense	B-16	\$ -
34	532	Amortization of Premium On Debt - Cr.	B-17	\$ -
35	533	Taxes Assumed On Interest	B-18	\$ -
36	534	Interest on Debt to Affiliated Companies	B-19	\$ -
37	535	Other Interest Charges	B-20	\$ 2,059
38	536	Interest Charged to Construction - Cr.	B-21	\$ -
39	537	Miscellaneous Amortization	B-22	\$ -
40	538	Miscellaneous Income Deductions	B-23	\$ 37,951
41		Total Income Deductions		\$ 300,010
42		Net Income		\$ 1,211,126
43				
44		<b>IV. DISPOSITION OF NET INCOME</b>		
45	540	Miscellaneous Reservations of Net Income	B-24	\$ -
46				
47		Balance Transferred To Earned Surplus or		\$ 1,211,126
48		Proprietary Accounts Scheduled On Page 21		
49				

**SCHEDULE A**  
**COMPARATIVE BALANCE SHEETS**  
**Liabilities and Other Credits**

Line No.	Acct.	Title of Account (a)	Schedule No. (b)	Balance End of Year (c)	Balance Beginning of Year (d)
46		<b>I. CORPORATE CAPITAL AND SURPLUS</b>			
47	200	Common Capital Stock	A-30	\$ 360,110	\$ 360,110
48	201	Preferred Capital Stock	A-30a	\$ -	\$ -
49	202	Stock Liability for Conversion	A-31	\$ -	\$ -
50	203	Premiums and Assessments on Capital Stock	A-32	\$ 349,539	\$ 349,539
51	206	Subchapter S Corporation Accumulated Adjustments Account	A-33	\$ -	\$ -
52	150	Discount on Capital Stock	A-28	\$ -	\$ -
53	151	Capital Stock Expense	A-29	\$ (2,236)	\$ (2,236)
54	270	Capital Surplus	A-34	\$ 21	\$ 21
55	271	Earned Surplus	A-35	\$ 9,159,813	\$ 8,158,158
56		Total Capital Stock		\$ 9,867,247	\$ 8,865,592
57					
58		<b>II. PROPRIETARY CAPITAL</b>			
59	204	Proprietary Capital	A-36	\$ -	\$ -
60	205	Undistributed Profits of Proprietorship or Partnership	A-37	\$ -	\$ -
61		Total Proprietary Capital		\$ -	\$ -
62					
63		<b>III. LONG-TERM DEBT</b>			
64	210	Bonds	A-38	\$ -	\$ -
65	211	Receivers' Certificates	A-39	\$ -	\$ -
66	212	Advances from Affiliated Companies	A-40	\$ -	\$ -
67	213	Miscellaneous Long-Term Debt	A-41	\$ 4,000,000	\$ 4,000,000
68		Total Long-Term Debt		\$ 4,000,000	\$ 4,000,000
69					
70		<b>IV. CURRENT AND ACCRUED LIABILITIES</b>			
71	220	Notes Payable	A-43	\$ -	\$ -
72	221	Notes Receivable Discounted	A-44	\$ -	\$ -
73	222	Accounts Payable	A-45	\$ 139,332	\$ 141,507
74	223	Payables to Affiliated Companies	A-46	\$ -	\$ 12,000
75	224	Dividends Declared	A-47	\$ -	\$ -
76	225	Matured Long-Term Debt	A-48	\$ -	\$ -
77	226	Matured Interest	A-49	\$ -	\$ -
78	227	Customers' Deposits	A-50	\$ 102,833	\$ 98,117
79	228	Taxes Accrued	A-53	\$ 1,242	\$ 1,220
80	229	Interest Accrued	A-51	\$ 14,959	\$ 14,959
81	230	Other Current and Accrued Liabilities	A-52	\$ 5,799,844	\$ 5,346,018
82		Total Current and Accrued Liabilities		\$ 6,058,209	\$ 5,613,820
83					
84		<b>V. DEFERRED CREDITS</b>			
85	240	Unamortized Premium on Debt	A-21	\$ -	\$ -
86	241	Advances for Construction	A-54	\$ 5,076,428	\$ 5,197,287
87	242	Other Deferred Credits	A-55	\$ 918,071	\$ 1,476,305
	243	Long-Term Defined Benefit Pension Liability	A-55a	\$ 3,329,610	\$ 2,322,013
88		Total Deferred Credits		\$ 9,324,109	\$ 8,995,605
		<b>VI. ACCUMULATED DEFERRED TAXES</b>			
	266	Accumulated Deferred Income Taxes - Discontinued	A-58	\$ -	\$ -
	267	Accumulated Deferred Income Taxes Liabilities	A-59	\$ 2,568,558	\$ 2,347,675
	268	Accumulated Deferred Investment Tax Credits	A-60	\$ 6,137	\$ 9,678
		Total Accumulated Deferred Taxes		\$ 2,574,695	\$ 2,357,353
89					
90		<b>VII. RESERVES</b>			
91	254	Reserve for Uncollectible Accounts	A-56	\$ -	\$ -
92	255	Insurance Reserve	A-56	\$ -	\$ -
93	256	Injuries and Damages Reserve	A-56	\$ -	\$ -
94	257	Employees' Provident Reserve	A-56	\$ -	\$ -
95	258	Other Reserves	A-56	\$ -	\$ -
96		Total Reserves		\$ -	\$ -
97					
98		<b>VIII. CONTRIBUTIONS IN AID OF CONSTRUCTION</b>			
99	265	Contributions In Aid of Construction	A-57	\$ 2,435,452	\$ 2,527,579
100		Total Liabilities and Other Credits		\$ 34,259,713	\$ 32,359,950

# 2019 Annual Report

<b>SCHEDULE B</b> <b>Income Statement for the Year</b>				
Line No.	Acct.	Account (a)	Schedule Page No. (b)	Amount (c)
1		<b>I. UTILITY OPERATING INCOME</b>		
2	501	Operating Revenues	B-1	\$ 19,802,903
3				
4		Operating Revenue Deductions:		
5	502	Operating Expenses	B-2	\$ 16,578,374
6	503	Depreciation (Net of CIAC)	A-5	\$ 1,330,308
7	504	Amortization of Limited-Term Utility Investments	A-5	\$ -
8	505	Amortization of Utility Plant Acquisition Adjustments	A-5	\$ -
9	506	Property Losses Chargeable to Operations	B-3	\$ -
10	507	Taxes	B-4	\$ 795,904
11		Total Operating Revenue Deductions		\$ 18,704,586
12		Net Operating Revenues		\$ 1,098,318
13	508	Income From Utility Plant Leased to Others	B-6	\$ -
14	510	Rent for Lease of Utility Plant	B-7	\$ -
15		Total Utility Operating Income		\$ 1,098,318
16				
17		<b>II. OTHER INCOME</b>		
18	521	Income from nonutility operations (Net)	B-8	\$ 68,290
19	522	Revenue from lease of other physical property	B-9	\$ -
20	523	Dividend revenues	B-10	\$ 62,988
21	524	Interest revenues	B-11	\$ 12
22	525	Revenues from sinking and other funds	B-12	\$ -
23	526	Miscellaneous nonoperating revenues	B-13	\$ 73,124
24	527	Nonoperating revenue deductions - Dr.	B-14	\$ -
25	528	Gain (Loss) on sale of funds/stock		\$ -
26	530	Other Miscellaneous Income		\$ -
27	530	Gain (Loss) on sale of nonutility real estate		\$ -
28		Total Other Income		\$ 204,414
29		Net Income Before Income Deductions		\$ 1,302,731
30				
31		<b>III. INCOME DEDUCTIONS</b>		
32	530	Interest On Long-Term Debt	B-15	\$ 260,000
33	531	Amortization of Debt Discount and Expense	B-16	\$ -
34	532	Amortization of Premium On Debt - Cr.	B-17	\$ -
35	533	Taxes Assumed On Interest	B-18	\$ -
36	534	Interest on Debt to Affiliated Companies	B-19	\$ -
37	535	Other Interest Charges	B-20	\$ 638
38	536	Interest Charged to Construction - Cr.	B-21	\$ -
39	537	Miscellaneous Amortization	B-22	\$ -
40	538	Miscellaneous Income Deductions	B-23	\$ 40,441
41		Total Income Deductions		\$ 301,079
42		Net Income		\$ 1,001,652
43				
44		<b>IV. DISPOSITION OF NET INCOME</b>		
45	540	Miscellaneous Reservations of Net Income	B-24	\$ -
46				
47		Balance Transferred To Earned Surplus or		\$ 1,001,652
48		Proprietary Accounts Scheduled On Page 21		
49				

**SCHEDULE B**  
**Income Statement for the Year**

Line No.	Acct.	Account (a)	Schedule Page No. (b)	Amount (c)
1		<b>I. UTILITY OPERATING INCOME</b>		
2	501	Operating Revenues	B-1	\$ 19,802,903
3				
4		Operating Revenue Deductions:		
5	502	Operating Expenses	B-2	\$ 16,578,374
6	503	Depreciation (Net of CIAC)	A-5	\$ 1,330,308
7	504	Amortization of Limited-Term Utility Investments	A-5	\$ -
8	505	Amortization of Utility Plant Acquisition Adjustments	A-5	\$ -
9	506	Property Losses Chargeable to Operations	B-3	\$ -
10	507	Taxes	B-4	\$ 795,904
11		Total Operating Revenue Deductions		\$ 18,704,586
12		Net Operating Revenues		\$ 1,098,318
13	508	Income From Utility Plant Leased to Others	B-6	\$ -
14	510	Rent for Lease of Utility Plant	B-7	\$ -
15		Total Utility Operating Income		\$ 1,098,318
16				
17		<b>II. OTHER INCOME</b>		
18	521	Income from nonutility operations (Net)	B-8	\$ 68,290
19	522	Revenue from lease of other physical property	B-9	\$ -
20	523	Dividend revenues	B-10	\$ 62,988
21	524	Interest revenues	B-11	\$ 12
22	525	Revenues from sinking and other funds	B-12	\$ -
23	526	Miscellaneous nonoperating revenues	B-13	\$ 73,124
24	527	Nonoperating revenue deductions - Dr.	B-14	\$ -
25	528	Gain (Loss) on sale of funds/stock		\$ -
26	530	Other Miscellaneous Income		\$ -
27	530	Gain (Loss) on sale of nonutility real estate		\$ -
28		Total Other Income		\$ 204,414
29		Net Income Before Income Deductions		\$ 1,302,731
30				
31		<b>III. INCOME DEDUCTIONS</b>		
32	530	Interest On Long-Term Debt	B-15	\$ 260,000
33	531	Amortization of Debt Discount and Expense	B-16	\$ -
34	532	Amortization of Premium On Debt - Cr.	B-17	\$ -
35	533	Taxes Assumed On Interest	B-18	\$ -
36	534	Interest on Debt to Affiliated Companies	B-19	\$ -
37	535	Other Interest Charges	B-20	\$ 638
38	536	Interest Charged to Construction - Cr.	B-21	\$ -
39	537	Miscellaneous Amortization	B-22	\$ -
40	538	Miscellaneous Income Deductions	B-23	\$ 40,441
41		Total Income Deductions		\$ 301,079
42		Net Income		\$ 1,001,652
43				
44		<b>IV. DISPOSITION OF NET INCOME</b>		
45	540	Miscellaneous Reservations of Net Income	B-24	\$ -
46				
47		Balance Transferred To Earned Surplus or		\$ 1,001,652
48		Proprietary Accounts Scheduled On Page 21		
49				



2020 Annual Report

**SCHEDULE A  
COMPARATIVE BALANCE SHEETS  
Assets and Other Debits**

Line No.	Acct.	Title of Account (a)	Schedule No. (b)	Balance End-of-Year (c)	Balance Beginning of Year (d)
<b>I. UTILITY PLANT</b>					
1					
2	100	Utility plant	A-1, A-1a	\$ 51,145,832	\$ 49,581,470
3	101	Recycled Water Utility Plant	A-1b	\$ -	\$ -
4	107	Utility plant adjustments	A-2	\$ -	\$ -
5		Total utility plant		\$ 51,145,832	\$ 49,581,470
6	250	Reserve for depreciation of utility plant	A-5	\$ 27,611,114	\$ 26,166,494
7	251	Reserve for amortization of limited term utility investments	A-5	\$ -	\$ -
8	252	Reserve for amortization of utility plant acquisition adjustment	A-5	\$ -	\$ -
9	259	Reserve for depreciation and amortization of recycled water utility plant	A-5	\$ -	\$ -
10		Total utility plant reserves		\$ 27,611,114	\$ 26,166,494
11		Total utility plant less reserves		\$ 23,534,718	\$ 23,414,976
12					
<b>II. INVESTMENT AND FUND ACCOUNTS</b>					
13					
14	110	Other physical property	A-3	\$ -	\$ -
15	253	Reserve for depreciation and amortization of other property	A-5	\$ -	\$ -
16		Other physical property less reserve		\$ -	\$ -
17	111	Investments in Affiliated Companies	A-6	\$ -	\$ -
18	112	Other Investments	A-7	\$ 11,935	\$ 11,935
19	113	Sinking Funds	A-8	\$ -	\$ -
20	114	Miscellaneous Special Funds	A-9	\$ -	\$ -
21		Total investments and fund accounts		\$ 11,935	\$ 11,935
22					
<b>III. CURRENT AND ACCRUED ASSETS</b>					
23					
24	120	Cash	A-10	\$ 3,301,223	\$ 3,678,768
25	121	Special Deposits	A-11	\$ -	\$ -
26	122	Working Funds	A-12	\$ -	\$ -
27	123	Temporary Cash Investments (currently SCVWD funds held)	A-13	\$ -	\$ -
28	124	Notes Receivable	A-14	\$ 23,665	\$ 2,308
29	125	Accounts Receivable	A-15	\$ 2,575,751	\$ 2,031,400
30	126	Receivables from Affiliated Companies	A-16	\$ -	\$ -
31	131	Materials and Supplies	A-17	\$ -	\$ -
32	132	Prepayments	A-18	\$ 294,763	\$ 989,551
33	133	Other Current and Accrued Assets	A-19	\$ 3,716,361	\$ 3,467,332
34		Total Current and Accrued Assets		\$ 9,911,763	\$ 10,169,358
35					
<b>IV. DEFERRED DEBITS</b>					
36					
37	140	Unamortized debt discount and expense	A-20	\$ -	\$ -
38	141	Extraordinary property losses	A-22	\$ -	\$ -
39	142	Preliminary survey and investigation charges	A-23	\$ -	\$ -
40	143	Clearing accounts	A-24	\$ -	\$ -
41	145	Other work in progress	A-25	\$ -	\$ -
42	146	Other deferred debits	A-26	\$ 718,995	\$ 663,444
43	147	Accumulated Deferred Income Tax Assets	A-27	\$ -	\$ -
44		Total Deferred Debits		\$ 718,995	\$ 663,444
45		Total Assets and Other Debits		\$ 34,177,411	\$ 34,259,713



**SCHEDULE A**  
**COMPARATIVE BALANCE SHEETS**  
**Liabilities and Other Credits**

Line No.	Acct.	Title of Account (a)	Schedule No. (b)	Balance End of Year (c)	Balance Beginning of Year (d)
46		<b>I. CORPORATE CAPITAL AND SURPLUS</b>			
47	200	Common Capital Stock	A-30	\$ 360,110	\$ 360,110
48	201	Preferred Capital Stock	A-30a	\$ -	\$ -
49	202	Stock Liability for Conversion	A-31	\$ -	\$ -
50	203	Premiums and Assessments on Capital Stock	A-32	\$ 349,539	\$ 349,539
51	206	Subchapter S Corporation Accumulated Adjustments Account	A-33	\$ -	\$ -
52	150	Discount on Capital Stock	A-28	\$ -	\$ -
53	151	Capital Stock Expense	A-29	\$ (2,236)	\$ (2,236)
54	270	Capital Surplus	A-34	\$ 21	\$ 21
55	271	Earned Surplus	A-35	\$ 11,685,176	\$ 9,159,813
56		Total Capital Stock		\$ 12,392,611	\$ 9,867,247
57					
58		<b>II. PROPRIETARY CAPITAL</b>			
59	204	Proprietary Capital	A-36	\$ -	\$ -
60	205	Undistributed Profits of Proprietorship or Partnership	A-37	\$ -	\$ -
61		Total Proprietary Capital		\$ -	\$ -
62					
63		<b>III. LONG-TERM DEBT</b>			
64	210	Bonds	A-38	\$ -	\$ -
65	211	Receivers' Certificates	A-39	\$ -	\$ -
66	212	Advances from Affiliated Companies	A-40	\$ -	\$ -
67	213	Miscellaneous Long-Term Debt	A-41	\$ 4,000,000	\$ 4,000,000
68		Total Long-Term Debt		\$ 4,000,000	\$ 4,000,000
69					
70		<b>IV. CURRENT AND ACCRUED LIABILITIES</b>			
71	220	Notes Payable	A-43	\$ 550,000	\$ -
72	221	Notes Receivable Discounted	A-44	\$ -	\$ -
73	222	Accounts Payable	A-45	\$ 146,181	\$ 139,332
74	223	Payables to Affiliated Companies	A-46	\$ -	\$ -
75	224	Dividends Declared	A-47	\$ -	\$ -
76	225	Matured Long-Term Debt	A-48	\$ -	\$ -
77	226	Matured Interest	A-49	\$ -	\$ -
78	227	Customers' Deposits	A-50	\$ 99,190	\$ 102,833
79	228	Taxes Accrued	A-53	\$ 1,680	\$ 1,242
80	229	Interest Accrued	A-51	\$ 18,018	\$ 14,959
81	230	Other Current and Accrued Liabilities	A-52	\$ 2,495,241	\$ 5,799,844
82		Total Current and Accrued Liabilities		\$ 3,310,310	\$ 6,058,209
83					
84		<b>V. DEFERRED CREDITS</b>			
85	240	Unamortized Premium on Debt	A-21	\$ -	\$ -
86	241	Advances for Construction	A-54	\$ 4,816,733	\$ 5,076,428
87	242	Other Deferred Credits	A-55	\$ 1,064,367	\$ 918,071
	243	Long-Term Defined Benefit Pension Liability	A-55a	\$ 3,432,275	\$ 3,329,610
88		Total Deferred Credits		\$ 9,313,375	\$ 9,324,109
		<b>VI. ACCUMULATED DEFERRED TAXES</b>			
	266	Accumulated Deferred Income Taxes - Discontinued	A-58	\$ -	\$ -
	267	Accumulated Deferred Income Taxes Liabilities	A-59	\$ 2,703,168	\$ 2,568,558
	268	Accumulated Deferred Investment Tax Credits	A-60	\$ 3,979	\$ 6,137
		Total Accumulated Deferred Taxes		\$ 2,707,147	\$ 2,574,695
89					
90		<b>VII. RESERVES</b>			
91	254	Reserve for Uncollectible Accounts	A-56	\$ -	\$ -
92	255	Insurance Reserve	A-56	\$ -	\$ -
93	256	Injuries and Damages Reserve	A-56	\$ -	\$ -
94	257	Employees' Provident Reserve	A-56	\$ -	\$ -
95	258	Other Reserves	A-56	\$ -	\$ -
96		Total Reserves		\$ -	\$ -
97					
98		<b>VIII. CONTRIBUTIONS IN AID OF CONSTRUCTION</b>			
99	265	Contributions In Aid of Construction	A-57	\$ 2,453,968	\$ 2,435,452
100		Total Liabilities and Other Credits		\$ 34,177,411	\$ 34,259,713

**SCHEDULE B**  
**Income Statement for the Year**

Line No.	Acct.	Account (a)	Schedule Page No. (b)	Amount (c)
1		<b>I. UTILITY OPERATING INCOME</b>		
2	501	Operating Revenues	B-1	\$ 24,021,299
3				
4		Operating Revenue Deductions:		
5	502	Operating Expenses	B-2	\$ 18,282,456
6	503	Depreciation (Net of CIAC)	A-5	\$ 1,395,158
7	504	Amortization of Limited-Term Utility Investments	A-5	\$ -
8	505	Amortization of Utility Plant Acquisition Adjustments	A-5	\$ -
9	506	Property Losses Chargeable to Operations	B-3	\$ -
10	507	Taxes	B-4	\$ 1,712,645
11		Total Operating Revenue Deductions		\$ 21,390,259
12		Net Operating Revenues		\$ 2,631,040
13	508	Income From Utility Plant Leased to Others	B-6	\$ -
14	510	Rent for Lease of Utility Plant	B-7	\$ -
15		Total Utility Operating Income		\$ 2,631,040
16				
17		<b>II. OTHER INCOME</b>		
18	521	Income from nonutility operations (Net)	B-8	\$ 69,821
19	522	Revenue from lease of other physical property	B-9	\$ -
20	523	Dividend revenues	B-10	\$ 16,650
21	524	Interest revenues	B-11	\$ -
22	525	Revenues from sinking and other funds	B-12	\$ -
23	526	Miscellaneous nonoperating revenues	B-13	\$ 73,995
24	527	Nonoperating revenue deductions - Dr.	B-14	\$ -
25	528	Gain (Loss) on sale of funds/stock		\$ -
26	530	Other Miscellaneous Income		\$ -
27	530	Gain (Loss) on sale of nonutility real estate		\$ -
28		Total Other Income		\$ 160,465.05
29		Net Income Before Income Deductions		\$ 2,791,505
30				
31		<b>III. INCOME DEDUCTIONS</b>		
32	530	Interest On Long-Term Debt	B-15	\$ 260,000
33	531	Amortization of Debt Discount and Expense	B-16	\$ -
34	532	Amortization of Premium On Debt - Cr.	B-17	\$ -
35	533	Taxes Assumed On Interest	B-18	\$ -
36	534	Interest on Debt to Affiliated Companies	B-19	\$ -
37	535	Other Interest Charges	B-20	\$ 3,778
38	536	Interest Charged to Construction - Cr.	B-21	\$ -
39	537	Miscellaneous Amortization	B-22	\$ -
40	538	Miscellaneous Income Deductions	B-23	\$ 2,275
41		Total Income Deductions		\$ 266,053
42		Net Income		\$ 2,525,452
43				
44		<b>IV. DISPOSITION OF NET INCOME</b>		
45	540	Miscellaneous Reservations of Net Income	B-24	\$ -
46				
47		Balance Transferred To Earned Surplus or		\$ 2,525,452
48		Proprietary Accounts Scheduled On Page 21		
49				

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 3-4**

**Great Oaks Water Company  
Consumer Confidence Reports Since Last GRC**



Dear Customers,

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Great Oaks' rates for water service continue to be the lowest in San José by an even wider margin than in past years.

Santa Clara Valley Water District Litigation Update

In November 2005, Great Oaks Water filed a lawsuit against the Santa Clara Valley Water District (SCVWD) for failing to properly set Groundwater Charges, also known as Pump Tax. In 2009, Great Oaks prevailed in both of two portions of the case in the trial court. In February 2010, the SCVWD appealed the decision and in December 2015, the court of appeal issued a decision that reversed the trial court judgment and ordered Great Oaks and SCVWD back to the trial court for further proceedings. Neither Great Oaks nor SCVWD were satisfied with the court of appeal decision and both petitioned the California Supreme Court to review the case. The Supreme Court granted review, but delayed briefing until it decided a related case. In December 2017, the Supreme Court issued a decision in that related case, completely changing the standard for legal review of Groundwater Charges. This ultimately sent the Great Oaks case back to the trial court. Proceedings continue on the original case and cases filed each year since. Groundwater Charges still represent nearly 50% of Great Oaks' expenses (and your water bill).

Thank You

Your water is safe, clean and great tasting, and you pay one of the lowest rates for water in the State. As your water provider, Great Oaks is uniquely positioned to be an advocate on your behalf for positive change on the water issues that affect your lives. Thank you for your kind words of encouragement. We promise to continue to provide you with high quality water and strong community service.

Sincerely,

John Roeder, Chairman and CEO  
Great Oaks Water Co.

**Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.**

此份有關你的食水報告，  
內有重要資料和訊息，請找  
他人為你翻譯及解釋清楚。

Chi tiết này thật quan trọng.  
Xin nhờ người dịch cho quý vị.

During the past year, we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

#### Regulated Substances

Substance (unit of measure)	Year Sampled	MCL (MRDL)	PHG (MCLG) (MRDLG)	Amount Detected	Range Low-High	Violation	**Typical Source
1,1,1 Trichloroethane (ppb)	2017	200	1000	0.003	ND - 1.4	NO	2
Freon 113 (ppb)	2017	1200	10	0.001	ND - 12	NO	2,6
Barium (ppm)	2017	1	2	0.10	.09 - .18	NO	1
Flouride (ppm)	2017	2	1	0.17	.15 - .23	NO	1,3
Gross Alpha Part(pCi/L)	2017	15	15	0.152	ND - 4.6	NO	1
Chromium Total (ppb)	2017	100	NS	3.77	1.9 - 9.3	NO	2,5
Hexavalent Chromium(ppb)	2017	NS	NS	2.72	1.4 - 8.3	NO	2,5
Nitrate [as N] (ppm)	2017	10	10	1.46	.97 – 5.5	NO	3,4
Nitrate-Nitrite [as N] (ppm)	2017	10	10	0.013	0.97 – 3.1	NO	3,4
Arsenic(ppb)	2017	10	0.004	0.391	ND – 1.7	NO	1
5% MONTHLY SAMPLES POSITIVE							
Total Coliform (% positive)	2018		0	1.08%	0 – 3.57%	NO	5
Secondary Substances	Year Sampled	SMCL	PHG (MCLG)	Amount Detected	Range Low-High	Violation	Typical Source
Aluminum (ppm)	2017	1	0.6	0.022	ND – 0.1	NO	3,4
Chloride (ppm)	2017	500	NS	50	37 - 68	NO	7
Copper (ppm)	2017	1	0.3	.0004	ND - .0048	NO	1
Manganese (ppm)	2017	0.05	NS	0.007	ND - .007	NO	1
Specific Conductance (µS/cm)	2017	1600	NS	657	560 - 880	NO	8
Sulfate (ppm)	2017	500	NS	41	36 - 64	NO	7,9
Total Dissolved Solids (ppm)	2017	1000	NS	394	360 - 540	NO	7
Turbidity (NTU)	2017	5	NS	0.24	ND - 3	NO	10
Iron (ppb)	2017	300	NS	60	ND - 260	NO	1,3
Asbestos (MFL)	2017	NS	NS	.4	ND - .4	NO	1
Odor – Threshold (TON)	2017	3	NS	0.03	ND – 1	NO	12
	Year Sampled	AL	PHG (MCLG)	90 <sup>th</sup> %tile	Sites >AL /total sites	Violation	Typical Source
*Copper (ppm)	2017	1.3	0.3	0.44	0/50	NO	11
*Lead (ppm)	2017	.015	0.2	0.004	0/50	NO	11
*Collected from customer's taps for lead and copper							
Disinfection By-Products	Year Sampled	MCL	PHG	Amount Detected	Range	Violation	Typical Source
Calero Pressure Zone Only	2018	80		9.4	None	NO	13
Total Trihalomethanes (ppb)	2018	60		2.0	None	NO	13
Haloacetic Acids (ppb)							
Unregulated and Other Substances	Year Sampled	Amount Detected	Range Low-High	Typical Source			
Alkalinity (ppm)	2017	214	180 – 290	1			
Bicarbonate (ppm)	2017	262	220 – 390	1			
Calcium (ppm)	2017	48	41 – 69	1			
Hardness [as CaCO3] (ppm)	2017	280	230 – 390	1			
Magnesium (ppm)	2017	39	31 – 52	1			
Potassium (ppm)	2017	0.61	ND – 1.4	1			
Sodium (ppm)	2017	28	23 – 42	1			

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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**PDWS (Primary Drinking Water Standard):** MCLs and MRDLs for contaminants that effect health, along with their monitoring and reporting requirements and water treatment requirements.

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**TON:** Threshold Odor Number, a measure of odor.

**NTU:** Nephelometric Turbidity Unit: This is a measure of the cloudiness of the water

**MFL:** Million Fibers per liter

#### **\*\*Typical Source**

1. Erosion of natural deposits
2. Discharge from metal degreasing sites and other factories
3. Runoff and leaching from fertilizer use
4. Leaching from septic tanks and sewage
5. Naturally present in the environment
6. Dry-cleaning solvent
7. Runoff/leaching from natural deposits
8. Substances that form ions when in water
9. Industrial wastes
10. Soil runoff
11. Internal corrosion of household plumbing systems
12. Naturally occurring organic materials
13. By-product of drinking water disinfection

### **Unregulated Contaminant Monitoring Rule 3**

PARAMETER	UNITS	AVERAGE	RANGE
Chlorate	ppb	9.57	ND – 58.5
Chlorodifluoromethane	ppb	0.181	ND – 0.98
Chromium	ppb	3.06	1.75 – 6.85
Hexavalent Chromium	ppb	3.322	1.8 – 6.55
Strontium	ppb	535.5	385 – 775
Vanadium	ppb	1.756	1.2 – 2.75

Unregulated contaminants do not have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard.

### **Important Health Information**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at: (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

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Once again, we are proud to present our annual water quality report. This report covers all testing performed between January 1 and December 31, 2018. The events of the past few years have presented us with many challenges. In spite of this, we have maintained our high standards and we will deliver to you, the best quality drinking water possible. As we continue to feel the effects of the drought, it is important for all of us to be mindful of the dangers of handling hazardous materials carelessly. We must keep the paths to our underground water storage clean and clear. There may be other hurdles in the future but know that we will always stand behind you and the drinking water we work diligently to provide. This report is sent in compliance with the Safe Drinking Water Act, and only contaminants that were detected in samples are listed in this report. Landlords, businesses, and schools are encouraged to share this report with non-billed water users at their locations. Additional copies are available at no charge by calling our office at (408)227-9540. Our water quality specialist, Mike Carey, will be available to answer any questions you may have concerning this report and will entertain any thoughts or suggestions that you have about the quality of the water we provide to you.

### **Source Water Assessment**

Great Oaks Water conducted Drinking Water Source Assessments for all wells to determine potential sources of contamination. Assessments were performed in accordance with the Safe Drinking Water Act requirements. The assessments indicate that the wells may be vulnerable to contaminants from the following sources: septic systems, sewer collection systems serving nearby single family residential housing, nearby agricultural wells, gas stations, parks, highways and their related activities, nearby computer-related manufacturing facilities, roads, streets, parking lots, railroads, spreading basins, storm-drain discharge, crops, illegal activities, unauthorized dumping, unregulated tanks, photo processing and printing, and monitoring wells. All of Great Oaks Water Company's wells are constructed to minimize the influence of these potential contaminants under the approval of the California Department of Public Health. A copy of the assessment is available for viewing at the California Department of Public Health Drinking Water Program Office, 850 Marina Bay Parkway, Building P, Second Floor, Richmond, CA, or at Great Oaks Water Company, 20 Great Oaks Boulevard, Suite 120, San Jose, CA.

## **Nitrate**

Nitrate in drinking water at levels above 10mg/l (as N) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10mg/l (as N) may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels in Great Oaks Water Company's water sources are shown in the enclosed table. In 2017, Great Oaks Water Company did not detect nitrate at or above 10mg/l (as N) in any sources.

## **Lead**

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. Great Oaks Water Company received requests and completed lead testing at three additional schools during 2018. No lead was detected at any of these schools.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead levels in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 800-426-4791, or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

## **Source Water Description**

The customers of Great Oaks Water Company are fortunate to have water supplied from very pristine aquifers underlying this valley. All of our water is pumped from 20 wells (not surface water) located throughout our service area.

## **Well Protection Plan**

Great Oaks Water ensures the safe operation and restricts access to all of the wells in our system. It is every resident's responsibility to guard against any activity that could do harm or contaminate our source water. All of the land in Great Oaks Waters service area is a channel to the water our wells draw. Be aware that oil spills and chemical spills can wash off the surface and make their way to storm drains and ultimately into the ground. Address these situations immediately to minimize their impact on our precious resource. Great Oaks Water will continue to do its part to protect our well sites, now all of us need to do our part to protect the watershed.

## **Substances That Could Be In The Water**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Department of Public Health (Department) prescribe regulations that limit the quantity of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Contaminants that may be present in source water include:

- ◆ Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- ◆ Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- ◆ Pesticides and Herbicides, that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses;
- ◆ Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban storm water runoff, agricultural applications, and septic systems;
- ◆ Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

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1,1,1 Trichloroethane (ppb)	2019	200	1000	0.073	ND - .70	NO	2
Freon 113 (ppb)	2019	1200	4000	0.715	ND – 5.5	NO	2,6
Barium (ppm)	2019	1	2	0.11	.082 - .16	NO	1
Flouride (ppm)	2019	2	1	0.17	.15 - .24	NO	1,3
Gross Alpha Part(pCi/L)	2019	15	0	0.152	ND - 4.6	NO	1
Chromium Total (ppm)	2019	50	NS	3.45	1.4 – 8.4	NO	2,5
Cadmium(ppb)	2019	5	.04	.145	ND - .84	NO	2
Nitrate [as N] (ppm)	2019	10	10	1.58	.73 – 6.8	NO	3,4
Nitrate-Nitrite [as N] (ppm)	2019	10	10	1.58	0.73 – 6.6	NO	3,4
Total Coliform (% positive)	2019	5% MONTHLY SAMPLES POSITIVE	0	1.3%	0 – 4.2%	NO	5
Secondary Substances	Year Sampled	SMCL	PHG (MCLG)	Amount Detected	Range Low-High	Violation	Typical Source
Chloride (ppm)	2019	500	NS	45	39 - 53	NO	7
Copper (ppm)	2019	1.3	0.3	.21	ND - .0094	NO	1
Specific Conductance (µS/cm)	2019	1600	NS	651	570 - 840	NO	8
Sulfate (ppm)	2019	500	NS	44	37 - 60	NO	7,9
Total Dissolved Solids (ppm)	2019	1000	NS	371	320 - 490	NO	7
Turbidity (NTU)	2019	5	NS	0.195	ND - .1079	NO	10
PH	2019	NS	NS	7.4	7 – 7.5	NO	
Asbestos (MFL)	2017	7 MFL	7 MFL	.23	ND - 1	NO	1
Odor – Threshold (TON)	2019	3	NS	0.83	ND – 2	NO	12
	Year Sampled	AL	PHG (MCLG)	90 <sup>th</sup> %tile	Sites >AL /total sites	Violation	Typical Source
*Copper (ppm)	2017	1.3	0.3	0.44	0/50	NO	11
*Lead (ppm)	2017	0.015	0.0002	0.0044	0/50	NO	11

\*Collected from customer's taps for lead and copper

Disinfection By-Products	Year Sampled	MCL	PHG	Amount Detected	Range	Violation	Typical Source
Calero Pressure Zone Only							
Total Trihalomethanes (ppb)	2019	80	NS	13	None	NO	13
Haloacetic Acids (ppb)	2019	60	NS	ND	None	NO	13
Richmond Pipeline Only		MCL	PHG	Amount Detected	Range	Violation	Typical Source
Total Trihalomethanes (ppb)	2019	80	NS	3	None	NO	13
Haloacetic Acids (ppb)	2019	60	NS	ND	None	NO	13
Unregulated and Other Substances	Year Sampled	Amount Detected	Range Low-High	Typical Source			
Alkalinity (ppm)	2019	204	180 – 300	1			
Bicarbonate (ppm)	2019	268	220 – 390	1			
Calcium (ppm)	2019	49	38 - 71	1			
Hardness [as CaCO3] (ppm)	2019	280	240 - 380	1			
Magnesium (ppm)	2019	39	31 – 53	1			
Potassium (ppm)	2019	0.77	ND – 1.3	1			
Sodium (ppm)	2019	29	23 – 42	1			

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2. Discharge from metal degreasing sites and other factories
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13. By-product of drinking water disinfection

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PARAMETER	UNITS	AVERAGE	RANGE
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Chlorodifluoromethane	ppb	0.181	ND – 0.98
Chromium	ppb	3.06	1.75 – 6.85
Hexavalent Chromium	ppb	3.322	1.8 – 6.55
Strontium	ppb	535.5	385 – 775
Vanadium	ppb	1.756	1.2 – 2.75

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Great Oaks Water conducted Drinking Water Source Assessments for all wells to determine potential sources of contamination. Assessments were performed in accordance with the Safe Drinking Water Act requirements. The assessments indicate that the wells may be vulnerable to contaminants from the following sources: septic systems, sewer collection systems serving nearby single family residential housing, nearby agricultural wells, gas stations, parks, highways and their related activities, nearby computer-related manufacturing facilities, roads, streets, parking lots, railroads, spreading basins, storm-drain discharge, crops, illegal activities, unauthorized dumping, unregulated tanks, photo processing and printing, and monitoring wells. All of Great Oaks Water Company's wells are constructed to minimize the influence of these potential contaminants under the approval of the California Department of Public Health. A copy of the assessment is available for viewing at the State Water Resources Control Board Division of Drinking Water Santa Clara District, 850 Marina Bay Parkway, Building P, Second Floor, Richmond, CA, 94804 or at Great Oaks Water Company, 20 Great Oaks Boulevard, Suite 120, San Jose, CA. 95119

## **Nitrate**

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## **Lead**

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. Great Oaks Water Company received requests and completed lead testing at three additional schools during 2018. No lead was detected at any of these schools.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead levels in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 800-426-4791, or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

## **Source Water Description**

The customers of Great Oaks Water Company are fortunate to have water supplied from very pristine aquifers underlying this valley. All of our water is pumped from 20 wells (not surface water) located throughout our service area.

## **Well Protection Plan**

Great Oaks Water ensures the safe operation and restricts access to all of the wells in our system. It is every resident's responsibility to guard against any activity that could do harm or contaminate our source water. All of the land in Great Oaks Waters service area is a channel to the water our wells draw. Be aware that oil spills and chemical spills can wash off the surface and make their way to storm drains and ultimately into the ground. Address these situations immediately to minimize their impact on our precious resource. Great Oaks Water will continue to do its part to protect our well sites, now all of us need to do our part to protect the watershed.

## **Substances That Could Be In The Water**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Department of Public Health (Department) prescribe regulations that limit the quantity of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Contaminants that may be present in source water include:

- ◆ Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- ◆ Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- ◆ Pesticides and Herbicides, that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses;
- ◆ Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban storm water runoff, agricultural applications, and septic systems;
- ◆ Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

Dear Customers,

2020 CCR

This report is sent in compliance with the Safe Drinking Water Act and only contaminants that were detected in samples are listed in this report. Landlords, businesses and schools are encouraged to share this report with non-billed water users at their locations. Additional copies are available at no charge by calling our office at (408) 227-9540. Our water quality specialist, Mike Carey, will be available to answer any questions you may have concerning this report.

Low Water Rates and Mandatory Water Conservation

Great Oaks' rates for water service continue to be the lowest in San José by an even wider margin than in past years.

Thank You

Your water is safe, clean and great tasting, and you pay one of the lowest rates for water in the State. As your water provider, Great Oaks is uniquely positioned to be an advocate on your behalf for positive change on the water issues that affect your lives. Thank you for your kind words of encouragement. We promise to continue to provide you with high quality water and strong community service.

Sincerely,

John Roeder, Chairman and CEO  
Great Oaks Water Co.

**Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.**

此份有關你的食水報告，  
內有重要資料和訊息，請找  
他人為你翻譯及解釋清楚。

Chi tiết này thật quan trọng.  
Xin nhờ người dịch cho quý vị.

During the past year, we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Regulated Substances

Substance (unit of measure)	Year Sampled	MCL (MRDL)	PHG (MCLG) (MRDLG)	Amount Detected	Range Low-High	Violation	**Typical Source
1,1,1 Trichloroethane (ppb)	2020	200	1000	0.074	ND - .53	NO	2
Freon 113 (ppb)	2020	1200	4000	0.616	ND – 4.4	NO	2,6
Barium (ppm)	2020	1	2	0.11	.082 - .17	NO	1
Flouride (ppm)	2020	2	1	0.17	.14 - .24	NO	1,3
Gross Alpha Part(pCi/L)	2020	15	0	0.184	ND - 4.6	NO	1
Chromium Total (ppm)	2020	50	NS	3.8	1.4 – 8.4	NO	2,5
Cadmium(ppb)	2020	5	.04	.14	ND - .84	NO	2
Nitrate [as N] (ppm)	2020	10	1	1.74	.73 – 6.8	NO	3,4
Nitrate-Nitrite [as N] (ppm)	2020	10	10	1.89	0.73 – 6.5	NO	3,4
Total Coliform (% positive)	2020	5% MONTHLY SAMPLES POSITIVE	0	1.3%	0 – 4.2%	NO	5
Secondary Substances	Year Sampled	SMCL	PHG (MCLG)	Amount Detected	Range Low-High	Violation	Typical Source
Chloride (ppm)	2020	500	NS	47	39 - 55	NO	7
Copper (ppm)	2020	1.3	0.3	.0066	ND - .0094	NO	1
Specific Conductance (µS/cm)	2020	1600	NS	675	550 - 840	NO	8
Sulfate (ppm)	2020	500	NS	46	37 - 60	NO	7,9
Total Dissolved Solids (ppm)	2020	1000	NS	387	320 - 490	NO	7
Turbidity (NTU)	2020	5	NS	0.234	ND – 1.9	NO	10
PH	2020	NS	NS	7.4	7 – 7.5	NO	
Asbestos (MFL)	2017	7 MFL	7 MFL	.15	ND - 1	NO	1
Odor – Threshold (TON)	2020	3	NS	0.85	ND – 2	NO	12
	Year Sampled	AL	PHG (MCLG)	90 <sup>th</sup> %tile	Sites >AL /total sites	Violation	Typical Source
*Copper (ppm)	2020	1.3	0.3	0.340	0/50	NO	11
*Lead (ppm)	2020	.015	0.0002	0.0012	0/50	NO	11
*Collected from customer’s taps for lead and copper							
Disinfection By-Products	Year Sampled	MCL	PHG	Amount Detected	Range	Violation	Typical Source
Calero Pressure Zone Only	2020	80	NS	9.8	None	NO	13
Total Trihalomethanes (ppb)	2020	60	NS	ND	None	NO	13
Haloacetic Acids [HAA] (ppb)	2020						
Richmond Pipeline Only	Sampled	MCL	PHG	Amount Detected	Range	Violation	Typical Source
Total Trihalomethanes (ppb)	2020	80	NS	1.9	None	NO	13
Haloacetic Acids [HAA] (ppb)	2020	60	NS	ND	None	NO	13
Unregulated and Other Substances	Year Sampled	Amount Detected	Range Low-High	Typical Source			
Alkalinity (ppm)	2020	213	180 – 300	1			
Bicarbonate (ppm)	2020	281	220 – 360	1			
Calcium (ppm)	2020	51	38 - 71	1			
Hardness [as CaCO3] (ppm)	2020	291	240 - 380	1			
Magnesium (ppm)	2020	41	30 – 53	1			
Potassium (ppm)	2020	0.82	ND – 1.3	1			
Sodium (ppm)	2020	30	25 – 42	1			

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of water.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or risk to health. MCLGs are set by the US EPA.

**NA:** Not Applicable **NS:** No Standard **ND:** Not Detected

**PDWS (Primary Drinking Water Standard):** MCLs and MRDLs for contaminants that effect health, along with their monitoring and reporting requirements and water treatment requirements.

**PHG (Public Health Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**ppb:** parts per billion **ppm:** parts per million

**TON:** Threshold Odor Number, a measure of odor.

**NTU:** Nephelometric Turbidity Unit: This is a measure of the cloudiness of the water

**MFL:** Million Fibers per liter

#### **\*\*Typical Source**

1. Erosion of natural deposits
2. Discharge from metal degreasing sites and other factories
3. Runoff and leaching from fertilizer use
4. Leaching from septic tanks and sewage
5. Naturally present in the environment
6. Dry-cleaning solvent
7. Runoff/leaching from natural deposits
8. Substances that form ions when in water
9. Industrial wastes
10. Soil runoff
11. Internal corrosion of household plumbing systems
12. Naturally occurring organic materials
13. By-product of drinking water disinfection

### **Unregulated Contaminant Monitoring Rule 4**

PARAMETER	UNITS	AVERAGE	RANGE
MANGANESE	ppb	0.04	ND – 1.42

#### **DISTRIBUTION SYSTEM**

BROMOCHLOROACETIC ACID	ppb	0.51	NONE
CHLORODIBROMOACETIC ACID	ppb	0.52	NONE
DIBROMOACETIC ACID	ppb	1.8	NONE
TOTAL HAA5	ppb	1.8	NONE
TOTAL HAA6Br	ppb	2.8	NONE
TOTAL HAA9	ppb	2.8	NONE

#### **RAW WATER FOR CALERO PRESSURE ZONE**

BROMIDE	ppb	9.7	NONE
TOTAL ORGANIC CARBON	ppm	0.32	NONE

Unregulated contaminants do not have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should have a standard. UNITS above: HAA5, HAA6Br, and HAA9 are HALOACETIC ACIDS

### **Important Health Information**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at:

(800) 426-4791 or <http://water.epa.gov/drink/hotline>.

### **Quality First**

Once again, we are proud to present our annual water quality report. This report covers all testing performed between January 1 and December 31, 2020. The events of the past few year have presented us with many challenges. In spite of this, we have maintained our high standards and we will deliver to you, the best quality drinking water possible. As we still feel the effects of previous years of drought, it is important for all of us to be mindful of the dangers of handling hazardous materials carelessly. We must keep the paths to our underground water storage clean and clear. There may be other hurdles in the future but know that we will always stand behind you and the drinking water we work diligently to provide. This report is sent in compliance with the Safe Drinking Water Act, and only contaminants that were detected in samples are listed in this report. Landlords, businesses, and schools are encouraged to share this report with non-billed water users at their locations. Additional copies are available at no charge by calling our office at (408)227-9540. Our water quality specialist, Mike Carey, will be available to answer any questions you may have concerning this report and will entertain any thoughts or suggestions that you have about the quality of the water we provide to you.

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Great Oaks Water conducted Drinking Water Source Assessments for all wells to determine potential sources of contamination. Assessments were performed in accordance with the Safe Drinking Water Act requirements. The assessments indicate that the wells may be vulnerable to contaminants from the following sources: septic systems, sewer collection systems serving nearby single family residential housing, nearby agricultural wells, gas stations, parks, highways and their related activities, nearby computer-related manufacturing facilities, roads, streets, parking lots, railroads, spreading basins, storm-drain discharge, crops, illegal activities, unauthorized dumping, unregulated tanks, photo processing and printing, and monitoring wells. All of Great Oaks Water Company's wells are constructed to minimize the influence of these potential contaminants under the approval of the California Department of Public Health. A copy of the assessment is available for viewing at the State Water Resources Control Board Division of Drinking Water Santa Clara District, 850 Marina Bay Parkway, Building P, Second Floor, Richmond, CA, 94804 or at Great Oaks Water Company, 20 Great Oaks Boulevard, Suite 120, San Jose, CA. 95119

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**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 3-5**

**Great Oaks Water Company  
Sanitary Surveys Since Last GRC**



## State Water Resources Control Board

Division of Drinking Water

December 6, 2018

Mr. John Roeder, CEO  
Great Oaks Water Company  
20 Great Oaks Blvd., Ste. 120  
San Jose, CA 95119

### 2018 SANITARY SURVEY FINDINGS GREAT OAKS WATER COMPANY, WATER SYSTEM NO 4310022

Dear Mr. Roeder:

This letter documents the findings of the sanitary survey of the Great Oaks Water Company (GOWC) water system conducted on November 7 and 8, 2018. During the sanitary survey, the Division of Drinking Water (Division or DDW) inspected the GOWC's water system facilities, including its active and standby groundwater wells, its water storage reservoirs and booster pump stations, and the Calero Zone disinfection treatment system.

The Division greatly appreciates the time your staff provided assisting with the sanitary survey. The following requirements and recommendations were identified during the sanitary survey and require GOWC's attention and response. Please provide a written response to these items by no later than **December 31, 2018**. Note that some items may require additional specific action or submittals by this date.

#### Groundwater Wells

1. As noted during the sanitary survey, GOWC's active wells are not consistently equipped with appropriate raw water sample taps. Each well must be equipped with a dedicated, nonthreaded sample tap at a location on the well discharge piping between the wellhead and the first check valve. By the date noted above, GOWC must submit an inventory to the Division showing the location of the current sample tap locations for each well. The response must include a proposed timeline for equipping the remaining wells with the appropriate sample taps.
2. GOWC should maintain adequate internal and external control of its well sites to proactively mitigate against possible contaminating activities. At the time of the sanitary survey, the Division noted multiple instances where GOWC well sites were inadequately maintained with regards to possible contaminating activities. For example, the Well 10 site appears to be used for long-term vehicle storage and the Well 23/23A site is a large south-area site used for equipment maintenance and storage.

FELICIA MARCUS, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

3. As noted during the sanitary survey, the concrete surface seal on Well 24 and the surrounding grade are separating. GOWC must correct the separation and submit photographic documentation to the Division showing the completed work.
4. The Division recognizes that the Well 08 site was utilized for a groundwater remediation treatment system. Two wells appear to remain at the site, as noted during the sanitary survey. In a written response to this letter, GOWC must provide a description of the wells on the Well 08 site, including the parties responsible for maintaining the wells, the current use and status of the wells, and agreements between the parties and GOWC for use of the site. As the wells are on land owned by GOWC, GOWC would ultimately be responsible for ensuring that the wells are maintained in accordance with California Health and Safety Code Section 115700 or are otherwise appropriately destroyed.
5. GOWC must submit a written response to the Division describing the current status of the inoperable Well 15. The source has been off-line continuously since last monitored in 2008 and GOWC is now past due on all required monitoring for the well. GOWC must propose to either inactivate and destroy the well or otherwise repair the well and collect the past due monitoring. Continued monitoring violations may result in the issuance of enforcement actions to GOWC.
6. Well 16 is equipped with a water lubricated turbine-style pump. At the time of the sanitary survey, the Division noted that excess lubricant water was collecting on and around the wellhead. GOWC must implement a measure to collect and drain the excess water away from the wellhead and surface seal.

#### Disinfection Treatment

7. GOWC relies on a continuous chlorine analyzer on the Calero Tank inlet to monitor the disinfection treatment processes. While this configuration will ultimately inform GOWC personnel of a process failure, it is not adequate for monitoring the performance of the chlorine generation system. While GOWC has not had issues with the chlorine generation system to date, the Division recommends that GOWC establish procedures for verifying the strength of the generated chlorine solution.
8. While the Division understands that further chlorination of GOWC's water supply may be unpalatable for some of its customers, the Division would support GOWC electing to consider full, system-wide disinfection as a best practice for further protection of public health.

#### Storage Reservoirs

9. During the sanitary survey, the Division noted multiple storage reservoirs equipped with air filter material on the vent screens. Such material is inappropriate for the tank vents and must be removed. GOWC should remove the filter material, inspect the vents to ensure that the fine mesh screen is tight and secured to the tank opening, and submit photographic documentation of the completed work to the Division.

December 6, 2018

Booster Pump Stations

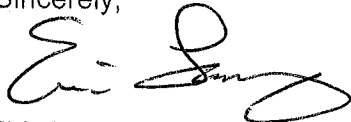
10. During the sanitary survey, the Division inspected GOWC's Coyote booster pump station. The two pumps that comprise the pump station are inoperable, as there is no power service to the site. It is not clear under what circumstances GOWC would need to activate the pump station, nor is it clear that GOWC has clear procedures in place for its operation. Considering the limited access to the site, it appears that, for any immediate use of the pump station, GOWC would need to transport a generator to the site and locate it in a traffic lane, blocking eastbound traffic on Coyote Road. The pump station appears to be an incomplete project that GOWC has never been able to fully utilize. GOWC must submit a written response to this letter that describes the current status of the pump station including procedures and operational scenarios in which it would be needed. If GOWC does not plan to activate and regularly utilize the pump station, additional maintenance procedures are necessary to ensure the viability of the pump station or GOWC should consider removing it.

As discussed during the sanitary survey, the Division is pursuing consolidations of small water systems state-wide as a tool to improve access to safe, clean, and reliable drinking water. GOWC is in the general proximity of several small Division-regulated public water systems that may be candidates for future consolidation. In its future planning efforts, the Division encourages GOWC to consider potential consolidation projects with these small water systems. The State Water Resources Control Board's Division of Financial Assistance is offering funding incentives to larger water systems who are willing to absorb and consolidate small water systems. Additional information on the consolidation incentive funding is posted on the Division of Financial Assistance's website:

[https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/fundingincentives.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/fundingincentives.html)

If you have any questions regarding this matter, please contact Philip Dutton at (510) 620-3654 or via email at [Philip.Dutton@waterboards.ca.gov](mailto:Philip.Dutton@waterboards.ca.gov).

Sincerely,



Eric Lacy, P.E.  
District Engineer  
Santa Clara District  
Drinking Water Field Operations Branch

Cc: Santa Clara County Environmental Health Department  
California Public Utilities Commission



# **GREAT OAKS WATER COMPANY**

P. O. Box 23490  
San Jose, California 95153  
(408) 227-9540

December 26, 2018

Eric Lacy, P.E.  
District Engineer  
Santa Clara District  
Division of Drinking Water  
State Water Resources Control Board

## **RESPONSE LETTER TO THE 2018 SANITARY SURVEY FINDINGS GREAT OAKS WATER COMPANY, WATER SYSTEM NO. 4310022**

Dear Eric,

This letter is Great Oaks Water Company response to the Sanitary Survey conducted November 7 and 8, 2018 by Philip Dutton, P.E. of the State Water Resources Control Board (SWRCB) Division of Drinking (DDW).

### **GROUND WATER WELLS**

1. Here is the source sample tap inventory for GOWC: Before the 1<sup>st</sup> Check Valve – Wells #8, #10, #15, #16, #20, #23A, and #24 - after the 1<sup>st</sup> Check Valve – Wells #1, #2, #3, #4, #7, #9, #11, #12, #18, #19, #21, #22, and #23. GOWC is working on changing the sample tap locations. While the work is in progress, GOWC will ensure the source wells are running when any samples are drawn from a sample tap after the 1<sup>st</sup> Check Valve. GOWC will install sample taps before the first check valve and remove the existing sample taps after the first check valve for all of the wells with the sample tap after the first check valve. This project is planned to be complete by March 1, 2019.

2. GOWC does not and will not conduct any equipment or vehicle maintenance at our well sites. GOWC is selling some of the vehicles that are currently located at our well sites. GOWC regularly inspects sites for leakage from equipment or vehicles.
3. The concrete surface seal on Well #24 and the surrounding grade have been filled and compacted leaving no separation. Photographs have been included with the e-mail that contains this Sanitary Survey response letter.
4. The two remediation wells on the Well #8 site are drilled to access two different depths of the aquifer. GOWC wants to retain the ability to access those two depths of the aquifer for water quality monitoring. GOWC takes full responsibility for maintaining the wells according to California Health and Safety Code Section 115700. The two wells will be "permanently inactive wells" that will be used for monitoring purposes only. All access points to the two wells are flanged, bolted, and watertight. GOWC will continue to keep the area surrounding the wells clear of brush, debris, and waste materials.
5. GOWC has contracted with Maggiora Bros. Drilling Inc. to return Well #15 to running condition. Once Maggiora Bros. has completed their work and Well #15 operates correctly, GOWC, while running water to waste, will conduct all delinquent Title 22 water testing to bring Well #15 current with the SWRCB Drinking Water Division's monitoring website. Well #15 will then return to being a Stand by well. This project is planned to be completed by March 1, 2019.
6. GOWC is working to control the excess lubricant water for Well #16 and direct the water away from the wellhead and surface seal. When the work is complete, GOWC will take pictures of the wellhead while Well #16 is running and e-mail them to the Division in a future Sanitary Survey response letter by March 1, 2019.

#### DISINFECTION TREATMENT

7. The chlorine generation system has operating protection built into the production of chlorine. If the chlorine generating system detects parameters out of normal range, the chlorine generation system shuts down, shows an error signal to help solve the problem, and does not produce low strength chlorine. GOWC is in the process of connecting the output signals from the chlorine generation system to our SCADA program with alarms to notify us in the case of a malfunction. GOWC will research the possibility of storage drum chlorine residual being a part of the SCADA inputs

from the chlorine generation system. This project is planned to be completed by March 1, 2019.

8. GOWC wants to continue to operate the majority of our system chlorine free as so many of our customers have indicated is their preference.

#### STORAGE RESERVOIRS

9. GOWC is in the process of removing the filter material on the vent screens of the storage reservoirs. After removing the filter material, GOWC will inspect the vent screens at all of the storage reservoirs and repair or replace as necessary. GOWC will take pictures of the storage reservoir vent screens and e-mail them to the Division in a future Sanitary Survey response letter by April 1, 2019.
10. GOWC wants to have the ability to supply water from Zone #1 to Zone #2 in the case of an emergency using the Coyote Pump Station. The Coyote Pump Station is isolated from our system. GOWC is currently preparing Operational Procedures that will determine when and how the Coyote Pump Station will be operated. GOWC intends to utilize the County of Santa Clara's park space to stage a generator to power the Coyote Booster pumps in the case of an emergency to avoid affecting traffic on Coyote Road. GOWC will contact the County of Santa Clara and obtain permission to place a generator on their property for this purpose. This project is planned to be completed by April 1, 2019.

The owner of Great Oaks Water Company, John Roeder, is in contact with three small water companies in San Martin California with the intention of GOWC purchasing and operating these water companies. Nothing has been finalized for the purchase of these water companies as of now. Discussions continue to allow GOWC to purchase the systems. No time frame is available for the completion of the sale.

Sincerely,



Mike Carey

Water Quality Specialist

Great Oaks Water Company

CA4310022

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 3-6**

**Great Oaks Water Company  
Contract for Drinking Water Analysis**





## GREAT OAKS WATER COMPANY

P. O. BOX 23490  
SAN JOSE, CA 95153  
(408) 227-9540  
tguster@greatoakswater.com

June 1, 2020

Sophie James  
Director of Water Quality  
California Water Service Company  
1720 North First Street  
San José, CA 95112-4598



RE: Laboratory Services Agreement

Dear Ms. James:

Enclosed you will find one fully executed copy of the above-referenced agreement. Thank you again for your help and expertise in this vitally important part of providing water service to our customers.

Should you at any time have any questions, please contact me directly.

Respectfully submitted,

A handwritten signature in blue ink that reads "Tim Guster".

Timothy S. Guster  
Vice President and General Counsel  
Legal and Regulatory Affairs

Enclosure

cc: Mike Carey (with enclosure)





## CALIFORNIA WATER SERVICE

1720 North First Street  
San Jose, CA 95112-4598 Tel: (408) 367-8200

May 27, 2020

Mr. Michael Carey  
Water Quality Specialist  
Great Oaks Water Company  
20 Great Oaks Blvd, Suite 120  
San Jose, CA 95119

RE: Contract Laboratory Service Agreement

Dear Mr. Carey:

I am very pleased to provide you with a renewal contract for laboratory analytical services for the years 2020 through 2022. Please find enclosed two (2) original contracts with signature from Rob Kuta, Vice President of Engineering and Chief Water Quality officer for your counter signature.

Thank you for choosing our Water Quality Laboratory for your analytical services and we look forward to continuing to provide top quality analytical services. Please don't hesitate to contact Kristy Fournier, Manager of Laboratory Services at (408) 367-8314 or [kfournier@calwater.com](mailto:kfournier@calwater.com) if you happen to have any questions relating to this contract.

Sincerely,

Sophie James  
Director of Water Quality

Cc: Rob Kuta  
Lynne McGhee  
Kristy Fournier

Quality. Service. Value.  
[calwater.com](http://calwater.com)



ORIGINAL

**AGREEMENT BETWEEN  
GREAT OAKS WATER COMPANY  
&  
CALIFORNIA WATER SERVICE COMPANY**

This Agreement is made and entered into effective the 1<sup>st</sup> day of June, 2020 by and between the Great Oaks Water Company (hereinafter referred to as "Great Oaks Water Company") and California Water Service Company, whose principal place of business is 1720 North First Street, San Jose, California (hereinafter referred to as "Contractor").

**RECITALS**

**WHEREAS**, Great Oaks Water Company has determined that it is necessary to obtain a Contractor to provide analysis of drinking water samples; and

**WHEREAS**, Contractor has represented to Great Oaks Water Company that it is specially trained, experienced, expert, and competent to perform the special services required hereunder, and Great Oaks Water Company has decided to rely upon such representations; and

**WHEREAS**, Contractor maintains a certified water testing laboratory (Certificate No. 1621, as issued by the California Department of Health Services); and

**WHEREAS**, it is the intent of the parties hereto that such services be in conformity with all applicable federal, state, and local laws,

**NOW, THEREFORE**, in consideration of the foregoing recitals, Great Oaks Water Company and Contractor mutually agree as follows:

**AGREEMENT**

**ARTICLE I**

**Scope of Services.** Contractor agrees to furnish personnel, services, and equipment necessary to provide drinking water testing and analysis for Great Oaks Water Company using methods approved by the State Water Resource Control Board Division of Drinking Water for bacteriological samples and chemical analysis samples from their distribution system. Contractor shall provide all chain of custody forms, labels, appropriate sample containers, ice chests, documents, and quality control/assurance. Consultation regarding the analytical support and sample collection defined in this Agreement shall be provided by the Contractor at no additional cost.

Contractor will provide laboratory services in accordance with the guidelines and procedures set forth in Exhibit A "Project Management." Great Oaks Water Company is responsible for updating and notifying the Contractor of any changes in the guidelines and procedures set forth in Exhibit A.

**AGREEMENT BETWEEN  
GREAT OAKS WATER COMPANY  
&  
CALIFORNIA WATER SERVICE COMPANY**

**ARTICLE II**

**Term of Contract:** The term of the Agreement is three (3) years. The term shall be automatically extended for three (3) successive one-year periods unless either party shall give written notice to the other of its election to terminate the Agreement at the end of the three-year period or any succeeding one-year period. Such written notice shall be given at least sixty (60) days prior to the end of the initial three-year period or any succeeding one-year period.

**ARTICLE III**

**Compensation for Services:** For services actually provided herein, Great Oaks Water Company agrees to pay Contractor at the rate indicated on Exhibit A during the three-year term of this Agreement. Additional analyses of samples for the same or other constituents, beyond those indicated in Exhibit A, shall be negotiated at a price structure agreeable to both parties on an as-needed basis and must be in writing. Great Oaks Water Company shall pay Contractor on or before the tenth day of each calendar month.

**ARTICLE IV**

**Changes to Agreement:** This Agreement may be amended by mutual consent of the parties hereto. Said amendments shall become effective only when in writing and fully executed by duly authorized officers of parties hereto.

**ARTICLE V**

**Assignment and Delegation:** Contractor is engaged by Great Oaks Water Company for their unique qualifications and skills as well as those of their personnel. Except as to an affiliate of Contractor, Contractor shall not subcontract, delegate or assign contract services, in whole, to any other person or entity without prior consent of Great Oaks Water Company. Any verbal consent is to be followed up by written documentation, either by email or fax. Great Oaks Water Company shall pay for any work that Contractor subcontracts on its behalf.

**ARTICLE VI**

**Independent Contractor/Liability:** Contractor is, and shall be at all times, be deemed independent and shall be wholly responsible for the manner in which it performs services required by terms of this Agreement. Contractor exclusively assumes responsibility for acts of its employees, associates, and subcontractors, if any are authorized herein, as they relate to services to be provided under this Agreement during the course and scope of their employment.

Contractor shall be responsible for performing the work under this Agreement in a safe, professional, skillful and workmanlike manner and shall be liable for its own negligence and negligent acts of its employees, associates, and subcontractors. Great Oaks Water Company shall have no right or control over the manner in which work is to be done and

**AGREEMENT BETWEEN  
GREAT OAKS WATER COMPANY  
&  
CALIFORNIA WATER SERVICE COMPANY**

shall, therefore, not be charged with responsibility to prevent risk to Contractor and its employees.

**Insurance and Limit of Liability:** Contractor shall maintain a policy of commercial general liability insurance with limits of liability of not less than \$2,000,000 for each occurrence and \$2,000,000 in the aggregate and which names Great Oaks Water Company as an additional insured. Contractor shall also maintain automobile insurance and workers compensation insurance as required by applicable laws. The liability of Contractor, and of Contractor's employees, to Great Oaks Water Company, shall not exceed an aggregate limit of \$500,000, regardless of the legal theory under which such liability is imposed.

**ARTICLE VII**

**Default, Termination, and Cancellation:**

- A. **Default:** Upon the occurrence of any default of the provisions of this Agreement, a party shall give written notice of said default to the party in default. If the party in default does not cure the default within ten (10) days of the date of notice (time to cure), then such party shall be in default. The time to cure may be extended at the discretion of the party giving notice. Any extension of time to cure must be in writing, prepared by the party in default for signature by the party giving notice and must specify reason(s) for the extension and the date in which the extension of time to cure expires.

Notice given under this section shall specify the alleged default and the applicable Agreement provision and shall demand that the party in default perform the provisions of this Agreement within the applicable period of time. No such notice shall be deemed a termination of this Agreement unless the party giving notice so elects.

- B. **Ceasing Performance:** Great Oaks Water Company may terminate this agreement in the event Contractor ceases to operate as a business, or otherwise becomes unable to substantially perform any term or condition of this Agreement.
- C. **Termination or Cancellation:** Great Oaks Water Company or Contractor may terminate this agreement in whole or in part after thirty (30) days of written notice for any reason. If such termination is effected, Great Oaks Water Company shall pay for satisfactory services rendered prior to written notice.

**ARTICLE VIII**

**Damages and Force Majeure:** Neither party shall be liable for any incidental, indirect, special or consequential damages of any nature whatsoever, whether known or unknown,



**AGREEMENT BETWEEN  
GREAT OAKS WATER COMPANY  
&  
CALIFORNIA WATER SERVICE COMPANY**

resulting from or caused by any breach of this Agreement. Neither party shall be held liable nor be deemed to have breached this Agreement for failure or delay caused by or resulting from causes beyond their reasonable control, including but not limited to, fire, floods, embargoes, acts of war, civil commotions, labor disturbances, acts of God or acts, omissions or delays in acting by any governmental authority; provided, however, it is understood that this paragraph is intended only to suspend and not discharge obligations under this Agreement and that when the causes of the failure or delay are removed or alleviated, performance shall resume.

**ARTICLE IX**

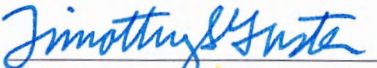
**Entire Agreement:** This document is the entire Agreement between the parties and incorporates and supersedes all prior written or oral Agreements or understandings.

**ARTICLE X**

**Indemnity:** Contractor agrees to defend, indemnify and hold harmless Great Oaks Water Company, its officers, agents, employees, successors and assigns, from and against any and all losses, liabilities, claims, damages, causes of action, obligations, costs and expenses (including without limitation reasonable attorneys' and experts' fees and costs) that Great Oaks Water Company may incur as a result of any intentional misconduct or negligent act or omission of Contractor, its employees, agents or subcontractors in connection with the services provided by Contractor hereunder, including without limitation, damages resulting from injuries to or death of persons or damage to or destruction of property. Great Oaks Water Company agrees to defend, indemnify and hold harmless Contractor, its officers, agents, employees, successors and assigns, from and against any and all losses, liabilities, claims, damages, causes of action, obligations, costs and expenses (including without limitation reasonable attorneys' and experts' fees and costs) that Contractor may incur as a result of any intentional misconduct or negligent act or omission of Great Oaks Water Company, its employees, agents or subcontractors in connection with the services provided hereunder, including without limitation, damages resulting from injuries to or death of persons or damage to or destruction of property.

IN WITNESS THEREOF, Great Oaks Water Company and Contractor have executed this Agreement this 27 day of May 2020.

Great Oaks Water Company

  
Name Timothy S. Guster

California Water Service

  
Name \_\_\_\_\_

AGREEMENT BETWEEN  
GREAT OAKS WATER COMPANY  
&  
CALIFORNIA WATER SERVICE COMPANY

Vice President and General Counsel  
Title

California Water Service Company

Stephen James  
Name  
Director of Water Quality  
Title

V.P. ENGINEERING and Chief  
Title  
W.Q. & E. Compliance Officer

**EXHIBIT A**  
**Project Management**

**Sample Collection.** All samples shall be taken by Great Oaks Water Company personnel. Great Oaks Water Company personnel shall write all relevant information related to the samples (collection date/time, sampler name, etc.) on the chain of custody sheets provided by Contractor. Samples shall be dropped off at the Contractor Laboratory during regular business hours (M-F) located at 1720 North First Street, San Jose, CA 95112.

Samples that are taken after the routine delivery time on any given day shall be delivered to Contractor by Great Oaks Water Company personnel within hold time in compliance with bacteriological and chemical standards set forth in the currently EPA-approved version of *Standard Methods for the Examination of Water and Wastewater*.

**Cost of Analysis.** The table below gives an estimation of the annual cost to Great Oaks Water Company.

Analysis	# Samples/ Year	Cost/ Analysis	Total Cost/ Analysis
Colisure	1367	\$25.00	\$34,175
HPC	342	\$40.00	\$13,680
Quanti-Tray (MPN)	480	\$35.00	\$16,800
Color	300	\$30.00	\$9,000
Turbidity	300	\$30.00	\$9,000
<b>Totals</b>	~	~	<b>\$82,655</b>

**Project Management.** Contractor's Microbiologist shall serve as Project Manager for microbiological analyses. The contractor shall implement all microbiological analysis according to Great Oaks Water Company monitoring requirements. If requested, the Contractor Laboratory can provide a daily report of sample receipt via e-mail to Great Oaks Water Company and shall be available for consultation to Great Oaks Water Company on an as-needed basis.

Consultation for water quality services that is over and above consultation requested on analytical results will be charged on an hourly basis (Junior Microbiologist charge rate: \$97/h; Senior Microbiologist charge rate: \$127/h; Laboratory Manager charge rate: \$143/h)).

**Reporting.** Contractor shall provide an initial report of analytical results within 5 days via electronic mail and a mailed analytical report within 21 days of sample delivery. In addition, Contractor shall provide Great Oaks Water Company with electronic data transmittal (EDT) of chemical analytical results to the State Water Resources Control Board Division of Drinking Water (SWRCB DDW). Contractor shall maintain an historical database of sample analyses and results for the duration of the Agreement.

## **EXHIBIT A**

### **Project Management**

**Surcharges.** Standard turnaround time (TAT) is 5 business days for bacteriological samples and 10 days for chemical samples. In the event that a faster TAT is required, the following surcharges will apply:

**4 days = 10%**

**3 days = 20%**

**2 days = 50%**

**Verbal Communication.** Pursuant to state drinking water regulations, the Contractor Program Managers shall provide immediate verbal communication to Great Oaks Water Company for any positive Total Coliform (TC) and/or positive E. Coli (EC) result or Maximum Contaminant Limit (MCL) exceedence; they will provide similar notification of unusual results of samples analyzed. Contractor shall wait for Great Oaks Water Company's decision on resampling for verification or confirmation of results.



**Great Oaks Water Company**  
**General Rate Case Application**  
**Exhibit 3-7**  
**California SCADA Services, LLC**  
**Budgetary Proposal**



Date: 15 SEP 2020  
Customer Name: Great Oaks Water Company  
Project Name: Great Oaks – MCT Well Sites  
Project Location: California, USA  
RFQ Reference: Great Oaks Water  
Proposal No: P091520202

Attn: To whom it may concern,

California SCADA Services, LLC, is pleased to present this Budgetary Proposal/ Estimate (“Proposal”) for the “Great Oaks - MCT Well Sites” project. The ClorTec technology has been effectively implemented worldwide and we are excited for the opportunity to work with Great Oaks Water Company to install the requested onsite sodium hypochlorite generation systems for the water company.

Enclosed is a detailed Proposal for your review and evaluation. This Proposal has been prepared per your request and after consideration of your well sites technical specifications. Please feel free to contact us should you have any questions.

Adnen Chaabane  
President, California SCADA Services, LLC  
[adnen@californiascadaservices.com](mailto:adnen@californiascadaservices.com)  
(831) 262 9071

**IMPORTANT NOTICE**

This Proposal and any and all documents submitted in the framework of this Proposal do not constitute a contract, commitment, undertaking or other binding obligation or limitation on the part of California SCADA Services in any respect. This Proposal does not constitute an offer or a contract. Accordingly, this Proposal does not create any obligations, legal or otherwise, on California SCADA Services in respect of this project. Any obligation in respect of this project will only arise if and when a binding definitive written agreement in relation to the same is executed between California SCADA Services and Great Oaks Water Company (the “Binding Contract”).

It is understood that all of the technical details, specifications and other features of the process and equipment described in this Proposal are of a preliminary nature only. California SCADA Services reserves the right to modify, delete, or add to them during completion of detailed Engineering.

## 1. Introduction

Microbiological contamination is a global concern and for more than twenty-five years ClorTec systems have been providing proven treatment solutions for generating onsite sodium hypochlorite to be used as a disinfectant. ClorTec systems provide a safe, proven and cost-effective sodium hypochlorite generation solution to meet water disinfection needs.

### ClorTec System Features and Benefits:

- The ClorTec systems are the Industry Standard with over 3,500 installations worldwide with a generating capacity of 3.2 Million Pounds per Day.
- The ClorTec system design guarantees Salt consumption of <3 Lbs, Softened Water consumption of 15 gallons and electrical energy of <2 kwh for each one (1) pound (lb.) of Chlorine Equivalent produced.
- The ClorTec system electrodes incorporate proprietary rare earth metal oxide coatings; leading to higher conversion efficiency versus competitors electrodes.
- Every ClorTec system design includes inherent safety protocols and interlocks.



## 2. Comparison to Other Disinfection Technologies

Onsite Sodium Hypochlorite generation is among the popular disinfection processes which include Gas Chlorination, UV Disinfection, Bulk Hypochlorite.

Gas Chlorination involves the use of chlorine gas stored either in cylinders or bulk containers. Chlorine gas is vacuumed through ejectors and mixed with water under pressure. This necessitates transportation, handling and storage of chlorine gas, which is a strong oxidizer, and poses severe safety risks. Additionally, there is a possibility of forming Disinfection-By-Products such as Total Trihalomethanes and Five Haloacetic Acids which are regulated under EPA primary standards.

Ultraviolet disinfection technology uses ultraviolet light in the 200-300 nm range for destroying viruses and bacteria. UV does so by altering the DNA of the microorganisms, making them non-viable and non-infectious. Since UV dose is primarily based on light intensity, water quality parameters such as turbidity and suspended solids (SS) can lower UV transmittance by screening/shielding UV light from the microorganisms. The presence of some organic and inorganic compounds (such as iron, calcium hardness) can also absorb UV light, lowering UV transmittance. Some key issues with UV disinfection are high maintenance and the absence of available residual which provides disinfection capability in the distribution system.

Bulk Hypochlorite (Sodium or Calcium Hypochlorite) finds wide acceptance within the water treatment industries. With the high levels of available chlorine, up to 15% in a “fresh” solution, however, storage and handling poses significant risk. Often, the solution strength of the delivered bulk hypo varies with the manufacturer and is not consistent. Additionally, because of safety concerns, transportation and storage costs are often high. This increases the carbon foot print compared to OSHG systems. Also, bulk hypochlorite can lose its disinfection strength very quickly while stored especially in warm weather.

Onsite Sodium Hypochlorite Generation involves the use of salt, softened water and electricity to generate 0.8% (typical) Chlorine Equivalent (CE) solution on site. There is no transportation of hazardous chemicals and none of the risks associated with gas chlorine. This process also offers consistent solution strength and on-demand production. It also helps reduce the number of delivery trucks on the road thus lowering the CO<sub>2</sub> emissions and the facility's Carbon footprint.

### 3. Design Assumptions

California SCADA Services is pleased to present its Proposal for the supply of complete Onsite Chlorine Generation Units installed inside an 8ft x10ft cargo boxes.

Below is a summary of Design and Water Quality Specifications:

- Chlorine Equivalent Generation Capacity, PPD: See scope of supply.
- Inlet Water Temperature: Inlet water temperature must be between 65°F-80°F [18°C-27°C].
- Power Available at site: 480VAC/ 3Ø; 120VAC/1Ø
- Water pH: 6.5 – 7.5
- Inlet Water Pressure: Min. 40 PSI
- Inlet Water Pressure: Max. 50 PSI (can be regulated with a pressure regulator)
- Hardness (Ca /Mg): < 10 PPM (at outlet of water softener)
- Total Organic Content: < 1 PPM
- Iron: < 200 PPB
- Manganese: < 10 PPB
- Nickel: < 5 PPM
- Fluoride: < 1 PPM
- Copper: < 5 PPB
- Chlorine: < 2 PPM
- Piping material: PVC

Salt Quality Specifications:

- NaCl, Dry Basis: 96.3% Minimum
- NaCl, Wet: 93.3%
- Calcium Sulfate: 0.30% Maximum
- Magnesium Chloride: 0.06% Maximum
- Calcium Chloride: 0.10% Maximum
- Magnesium Sulfate: 0.02% Maximum
- Insolubles: 0.1% Maximum
- Moisture (as H<sub>2</sub>O): 3.0% Maximum
- Lead: 0.0007% Maximum
- Copper: 0.0003% Maximum
- Iron (as Fe): 0.002% Maximum
- Fluoride: 0.002% Maximum
- Manganese: < 0.0002%

## 4. Scope of Supply

### Equipment Description for the MCT-12 & MCT-24 Systems

#### MCT-12

- The MCT12 system is capable of producing 12-lbs per day chlorine equivalent.
- The system components will be mounted inside an 8'x10' cargo box.
- The scope of work includes the installation of the Onsite Sodium Hypochlorite Generation System, hypochlorite or brine tanks and accessories including but not limited to railings, decking, fill lines and vent lines, interconnect pipe, pipe supports, valves and fittings.
- This system will be ready to generate a 0.8% chlorine solution once supplied with the proper power, a source of water, and a proper drain. The chlorine injection pump will supply the chlorine solution to an injection connection point supplied by Great Oaks.
- Great Oaks Water Company is responsible to supply the proper power, water supply, drain connection, an injector to the well discharge head, a static mixer, required piping to the injection connection point at the cargo box, cargo box foundation and all regulatory approvals.

Below is a list of all the items provided for the generation system (installed and loose items).

#### Equipment List:

One (1)	Powder coated carbon steel panel with brine proportioning system, drain valve, acid cleaning by-pass valves, solenoid valve, pressure regulator and flow switch.
One (1)	12 PPD DSA titanium electrodes with temp/level controls, DC Copper connection points and safety covers, assembled in a clear acrylic housing. Factory plumbed and mounted on skid.
One (1)	Control Cabinet with: <ul style="list-style-type: none"> <li>□ Painted carbon steel, NEMA 4 enclosure</li> <li>□ 6" color touchscreen display</li> <li>□ Allen Bradley 1400 Micro Logix PLC</li> <li>□ Ethernet-IP Connection</li> <li>□ RS-232/485 SERIAL Port Connection</li> <li>□ All necessary I/O points</li> <li>□ Safety interlocks</li> </ul>
One (1)	20 Micron 10" inline filters in clear PVC housing factory mounted on skid.
One (1)	Kinetico, dual tank, continuous operation, automatic regenerating water softener



P-09152020

One (1)	Power Supply in a NEMA 12 painted carbon steel enclosure: Air-cooled DC power supply / rectifier, soft start constant current with built in DC volt/amp display, emergency shut-off switch.
One (1)	20 Micron 10" inline filters in clear PVC housing.
One (1)	<p>200-gallons, open top Polyethylene tank with lid Tank is designed for indoor installation. Tank is 36" inside diameter x 48" height and can hold up to 1,800- lbs of dry salt. Each tank is designed to be refilled manually by hand using 50-lbs salt bags. Kit is complete with the following items:</p> <ul style="list-style-type: none"> <li>• One (1) mechanical float assembly for level control</li> <li>• One (1) set of inlet and discharge manual PVC isolation valves</li> <li>• One (1) Brine Guard (bottom PVC slotted discharge pipe)</li> </ul>
One (1)	<p>550-gallons Dome top cylindrical, single wall, solution storage tank. Tank is 48" internal dia. x 69" straight shell x 77" overall height and designed for Indoor use. Kit is complete with the following items:</p> <ul style="list-style-type: none"> <li>• One (1) Sonic Level Sensor with 4-20mA output</li> <li>• One (1) 2-inch CPVC inlet port</li> <li>• One (1) 1-inch PVC outlet port</li> <li>• One (1) 1-inch PVC overflow connection</li> <li>• One (1) 2-inch PVC top vent port</li> <li>• Two (2) 1-inch True Union Ball Valve for Outlet and Drain, PVC/Viton</li> <li>• One (1) 1-inch flexible hose for outlet piping</li> <li>• One (1) Hydrogen Vent Liquid Barrier System</li> </ul> <p>Hydrogen Safety &amp; Handling Internal Liquid Barrier Hydrogen Vent System comprised of PVC down tube in each of the tank(s), with a Tee at the top of the down tube connected to a CPVC vent pipe to outside of building. This item requires no electricity, fans, blowers or controls.</p>
One (1)	Pressure regulating valve.

Dosing System

One (1)	Sodium Hypochlorite Dosing pump rated 6.34 GPH with a max pressure rating of 58 psi with motor & VFD.
One (1) sets	<p>Dosing pump accessories include the following: (Supplied as loose components)</p> <ul style="list-style-type: none"> <li>□ PVC calibration column</li> <li>□ PVC dome top dampener</li> <li>□ Back pressure valve/ Pressure relief valves</li> </ul>

**MCT-24**

- The MCT24 system is capable of producing 24-lbs per day chlorine equivalent.
- The system components will be mounted inside an 8'x10' cargo box.
- The scope of work includes the installation of the On-site Sodium Hypochlorite Generation System, hypochlorite or brine tanks and accessories including but not limited to railings, decking, fill lines and vent lines, interconnect pipe, pipe supports, valves and fittings.
- This system will be ready to generate a 0.8% chlorine solution once supplied with the proper power, a source of water, and a proper drain. The chlorine injection pump will supply the chlorine solution to an injection connection point supplied by Great Oaks.
- Great Oaks Water Company is responsible to supply the proper power, water supply, drain connection, an injector to the well discharge head, a static mixer, required piping to the injection connection point at the cargo box, cargo box foundation and all regulatory approvals.

Below is a list of all the items provided for the generation system (installed and loose items).

One (1)	Powder coated carbon steel panel with brine proportioning system, drain valve, acid cleaning by-pass valves, solenoid valve, pressure regulator and flow switch.
Two (2)	12 PPD DSA titanium electrodes with temp/level controls, DC Copper connection points and safety covers, assembled in a clear acrylic housing. Factory plumbed and mounted on skid.
One (1)	Control Cabinet with: <ul style="list-style-type: none"> <li>□ Painted carbon steel, NEMA 4 enclosure</li> <li>□ 6" colour touchscreen display</li> <li>□ Allen Bradley 1400 Micro Logix PLC</li> <li>□ Ethernet-IP Connection</li> <li>□ RS-232/485 SERIAL Port Connection</li> <li>□ All necessary I/O points</li> <li>□ Safety interlocks</li> </ul>
One (1)	20 Micron 10" inline filters in clear PVC housing factory mounted on skid.
One (1)	Kinetico, dual tank, continuous operation, automatic regenerating water softener
One (1)	Power Supply in a NEMA 12 painted carbon steel enclosure: Air-cooled DC power supply / rectifier, soft start constant current with built in DC volt/amp display, emergency shut-off switch.
One (1)	20 Micron 10" inline filters in clear PVC housing.

One (1)	<p>200-gallons, open top Polyethylene tank with lid Tank is designed for indoor installation. Tank is 36" inside diameter x 48" height and can hold up to 1,800- lbs of dry salt. Each tank is designed to be refilled manually by hand using 50-lbs salt bags. Kit is complete with the following items:</p> <ul style="list-style-type: none"> <li>• One (1) mechanical float assembly for level control</li> <li>• One (1) set of inlet and discharge manual PVC isolation valves</li> <li>• One (1) Brine Guard (bottom PVC slotted discharge pipe)</li> </ul>
One (1)	<p>550-gallons Dome top cylindrical, single wall, solution storage tank. Tank is 48" internal dia. x 69" straight shell x 77" overall height and designed for Indoor use. Kit is complete with the following items:</p> <ul style="list-style-type: none"> <li>• One (1) Sonic Level Sensor</li> </ul>
	<ul style="list-style-type: none"> <li>• One (1) 2-inch CPVC inlet port</li> <li>• One (1) 1-inch PVC outlet port</li> <li>• One (1) 1-inch PVC overflow connection</li> <li>• One (1) 2-inch PVC top vent port</li> <li>• Two (2) 1-inch True Union Ball Valve for Outlet and Drain, PVC/Viton</li> <li>• One (1) 1-inch flexible hose for outlet piping</li> <li>• One (1) Hydrogen Vent Liquid Barrier System</li> </ul> <p>Hydrogen Safety &amp; Handling Internal Liquid Barrier Hydrogen Vent System comprised of PVC down tube in each of the tank(s), with a Tee at the top of the down tube connected to a CPVC vent pipe to outside of building. This item requires no electricity, fans, blowers or controls.</p>
One (1)	Pressure regulating valve.

## Dosing System

One (1)	Sodium Hypochlorite Dosing pump rated 6.34 GPH with a max pressure rating of 58 psi with motor & VFD.
One (1) sets	<p>Dosing pump accessories include the following: (Supplied as loose components)</p> <ul style="list-style-type: none"> <li>□ PVC calibration column</li> <li>□ PVC dome top dampener</li> <li>□ Back pressure valve/ Pressure relief valves</li> </ul>

### Technical Services

#### Engineering & Documentation:

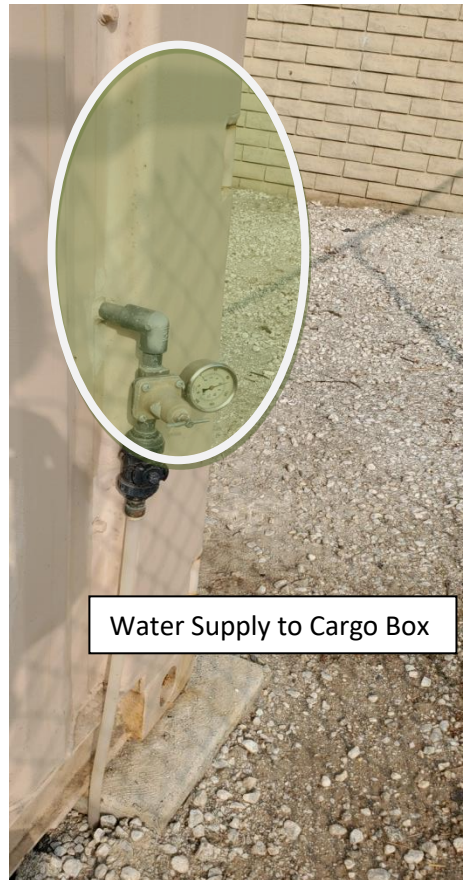
- ✓ One (1) electronic set of Shop Drawing & Product Data submittals.
- ✓ One (1) paper copy and One (1) electronic copy of Operation & Maintenance Manuals.

### Cargo Box

- ✓ California SCADA Services will install and deliver each of the onsite chlorination systems inside an 8'x10' cargo as shown in the pictures below.
- ✓ All vents, lighting and door locks will be provided by California SCADA Services.

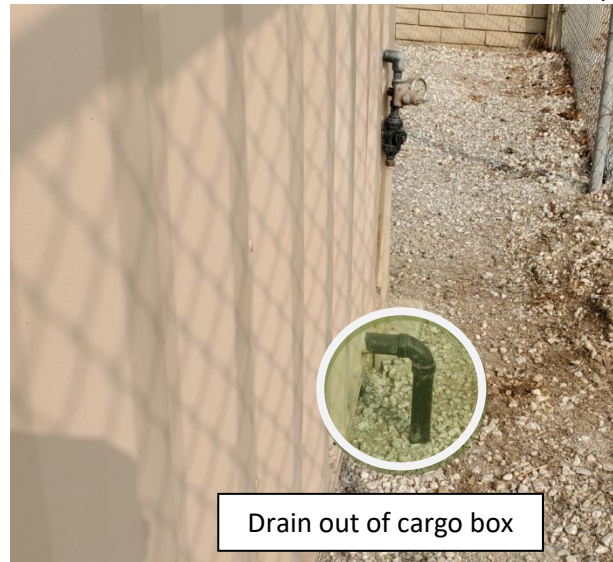


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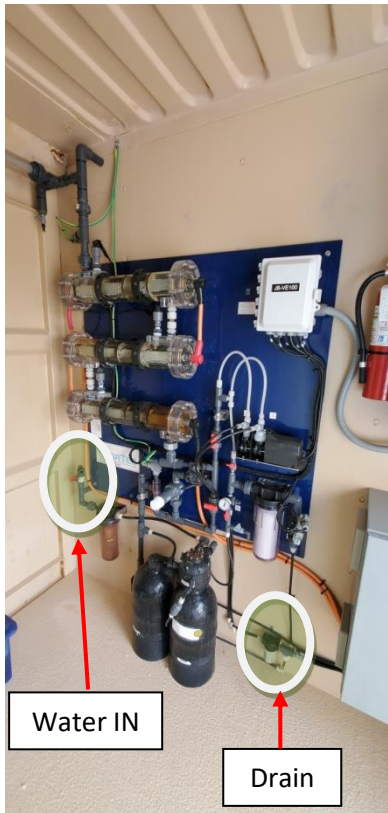
Water Supply to Cargo Box

P-09152020





P-09152020



P-09152020





## 5. General Clarifications & Exclusions

### Clarifications

P-09152020

1. This Proposal reflects standard ClorTec equipment and one standard 8'x10' cargo box. No site specific conditions are considered.
2. All chlorine generation equipment will be acquired directly from ClorTec.
3. All electrical work inside the cargo box will be designed by a State of California certified Professional Engineer (PE) in Electrical Engineering and performed by a State of California C-10 licensed electrician.
4. All Control Systems work, programming and installation of sensors, field devices and controls equipment will be performed by a State of California Professional Engineer in Control Systems Engineering.
5. All waterworks operations and plumbing inside the cargo box will be performed by a State of California certified Water Distribution and Water Treatment operators.
6. California SCADA Services shall not be obligated to establish or verify the accuracy of the information furnished by Great Oaks Water Company nor shall California SCADA Services be responsible for the impact or effect on the Materials and any services provided based on the information furnished by Great Oaks Water in the event that such information contains errors and/or omissions. California SCADA Services design shall be based solely on the provided specifications and not the application. Any changes in the design or equipment selection shall be priced separately as a change order.
7. Inlet water and salt must meet the requirements stated in the standard operating conditions for proper electrode operation and efficiency.
8. Great Oaks Water is to provide a slab or caissons for the cargo box to be set on.
9. Great Oaks Water is to provide a proper drain for the chlorination system softener backwash.
10. Great Oaks Water is to provide the proper power supply to the cargo box.
11. Great Oaks Water will plumb in the injection point to the discharge of the system injection pump.
12. Supply water temperature must be between 65°F-80°F. A Water heater or Chiller will be required (not included in this Proposal) if the supply water temperature falls out of the recommended temperature range and shall be priced separately upon request.
13. Chlorine Injection pump is to be controlled by a Great Oaks PLC (4-20mA signal to VFD). Programming associated with the pump is not included but can be added upon request.
14. A complete assembly is defined as a system inside an 8'x10' cargo box that is installed and ready to generate a 0.8% solution of sodium hypochlorite. This includes all stands, backboards, skids, enclosures, panels, etc. and any associated devices or equipment. Some of the system components reflected in the above scope will be supplied as loose items and will be assembled and installed in the field by California SCADA Services.

## Exclusions

1. California SCADA Services **IS NOT** responsible for any permits, licensing, fees or required approvals for this project.
2. California SCADA Services **IS NOT** responsible for any Civil, Structural, Architectural and Design work of any kind.
3. California SCADA Services **IS NOT** responsible for the injection line piping from any equipment to the injection point, or the water supply line to the cargo box.
4. California SCADA Services **IS NOT** responsible for water supply line to the cargo box.
5. California SCADA Services **IS NOT** responsible for the Electrical power and underground conduit to provided power to the cargo box.
6. California SCADA Services **IS NOT** responsible for the concrete pad or concrete caissons that will be used to set the cargo box on.
7. California SCADA Services **IS NOT** responsible for any items not specifically listed in the Scope of Supply above.

## 6. Price and Commercial Conditions

	GOW Well Site Designation	Available Voltage	Maximum GPM	MGD	Lbs/day at 1ppm	Proposed Chlorine Generation Unit
1	1	120/480	1600	2.30	19.22	MCT24
2	2	120/480	1500	2.16	18.01	MCT24
3	7	120/480	1000	1.44	12.01	MCT12
4	8	120/480	1400	2.02	16.81	MCT24
5	9	120/480	1000	1.44	12.01	MCT12
6	10	120/480	1300	1.87	15.61	MCT24
7	11	120/480	1300	1.87	15.61	MCT24
8	12	120/480	1300	1.87	15.61	MCT24
9	16	120/480	1600	2.30	19.22	MCT24
10	19	120/480	900	1.30	10.81	MCT12
11	20	120/480	1600	2.30	19.22	MCT24
12	21	120/480	1500	2.16	18.01	MCT24
13*	23	120/480	800	1.15	9.61	MCT24
14*	23A	120/480	1000	1.44	12.01	
15	24	120/480	1000	1.44	12.01	MCT12

\* All calculations were based on wells operation of 24 hours/day.

	# Units	Unit price	Total
MCT12	04	\$130,536.30	\$522,145.20
MCT24	10	\$135,859.15–	\$1,358,591.50
		<b>Total</b>	<b>\$1,880,736.70</b>

\*Wells 13 & 14 will have one single MCT24 chlorine generation unit. Flow pacing for the chlorine injection pump will be controlled by a Great Oaks PLC depending on which well is on.

This is a budgetary estimate only. This budgetary estimate includes all installation and freight charges. This is not a Proposal or a contract. All prices are subject to change without notice.

**Great Oaks Water Company**  
**General Rate Case Application**

**Exhibit 3-8**  
**USEPA Lead and Copper Rule Revisions Fact Sheet**



# Fact Sheet

## USEPA Lead and Copper Rule Revisions

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141 and 142

[EPA-HQ-OW-2017-0300; FRL-10019-23-OW] RIN 2040-AF15

National Primary Drinking Water

Regulations: Lead and Copper Rule Revisions:

<https://www.epa.gov/ground-water-and-drinking-water/final-revisions-lead-and-copper-rule>

*Published on January 15, 2021, U.S. Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR or Rule) in nearly 30 years. EPA's new Lead and Copper Rule Revisions (LCRR) strengthen every aspect of the LCR to better protect communities and children in elementary schools and childcare facilities from the risks of lead exposure. The new Rule will get the lead out of our nation's drinking water and empower communities through information. Over the next three years, the LCRR will require community and non-transient non-community water systems throughout the United States to conduct an inventory of service lines and determine the material of those lines and fittings. The majority of the LCRR requirements are currently scheduled to go into effect January 2024. The LCRR is scheduled to become effective on June 17, 2021, however the EPA is proposing to delay implementation until December 16, 2021. The public comment period for the LCRR ended on April 12, 2021 and EPA is now determining whether to extend the effective and compliance dates.*

### Background

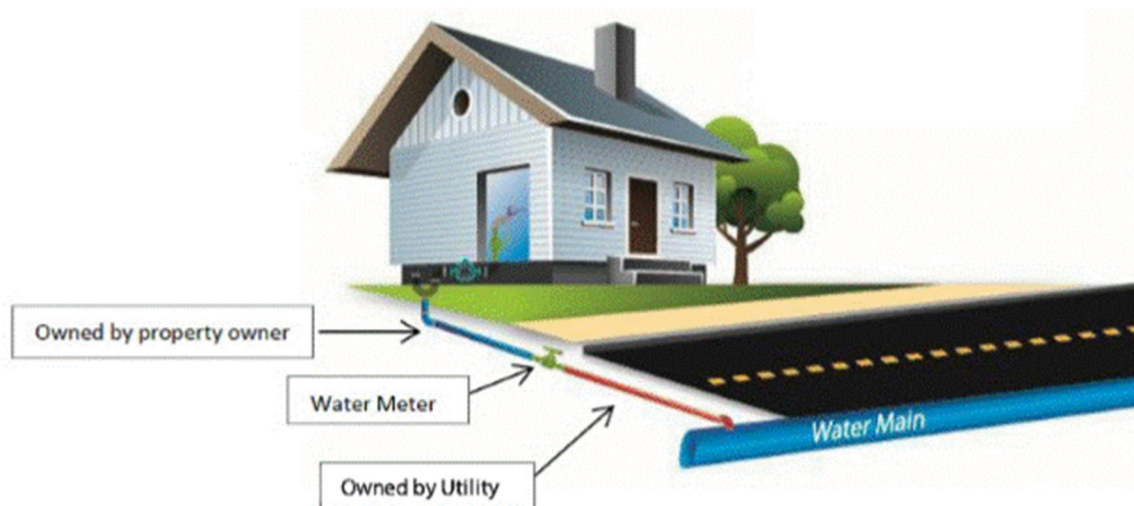
In California, **Senate Bill 1398** (2016) and subsequent additions in **Senate Bill 427** (2017), updated the California Health and Safety Code to require only community water systems to conduct an inventory of lead user service lines by July 1, 2018 and submit the user service line data to the State Water Board. As demonstrated in the diagram below, the California definition of a "user service line" is the portion of the service line and fittings that are owned by the water system, from the water main to the meter. In most cases, the homeowner owns the portion of the service line that extends from the water meter to the building inlet.

In contrast to the California definition, the **LCRR define** "service line" as a pipe, including the water meter, which connects the water main to the building inlet. A service line may be owned by the water system, owned by the property owner, or both. The LCRR require all community and non-transient non-community water systems to complete an inventory of service lines, regardless of ownership, by January 16, 2024<sup>1</sup>. Under the LCRR, water systems will need to determine if any portion of the service line and its fittings are: lead, galvanized, non-lead, or lead

<sup>1</sup> If the EPA extends the LCRR effective date to December 16, 2021, then it will likely extend the inventory compliance deadline to September 16, 2024.



status unknown. A water system may want to collect more specific data on the type of material, such as copper, plastic or steel.



**NOTE: Under SB 427 and previous California regulations, the sections of the service line titled “Owned by Utility” and the “Water Meter” are included in California’s definition of a “service line.” The EPA’s new LCRR expands the definition of “service line” to also include “Owned by property owner” such that the entire line, regardless of ownership, is required to be included in a water system’s inventory.**

Community water systems in California have already submitted service line inventories that include the portions of the service line from the Water Main to the Water Meter. The State Water Board intends to start collecting the additional data for the remainder of the entire “service line,” as defined by the LCRR, in the electronic annual report. Under the EPA’s LCRR, community water systems in California **will need to inventory the privately-owned portion (“Owned by property owner”) of the service line over the next three years.** Though the EPA is still currently taking public comment on its LCRR, and revisions may still happen to the LCR, its requirements regarding inventories will likely remain unchanged. California will update its regulations on required inventories so that they are consistent with the LCRR.

## Moving Forward

### Next Steps for water systems:

The LCRR specifically provides the following requirements to water systems to create an inventory:

A water system must use any information on lead and galvanized iron or steel that it has identified when conducting the inventory of service lines in its distribution system. The water system service line material must be categorized with the following: lead, galvanized, non-lead (including copper, plastic, or steel) or lead status unknown.

The water system must also review the sources of information listed below to identify service line materials for the inventory. The water system may use other sources of information not listed below, if approved by the State.

- All construction and plumbing codes, permits, and existing records or other documentation which indicates the service line materials used to connect structures to the distribution system.
- All water system records, including distribution system maps and drawings, historical records on each service connection, meter installation records, historical capital improvement or master plans, and standard operating procedures.
- All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system.

To comply with the LCRR, the State Water Board suggests starting with an evaluation of your system's records. The water system should then consider investigating County and City construction and plumbing codes, going back as far as the beginning of your water system's construction. Interviewing County and City building inspectors would also provide valuable information. Additionally, interviewing local building contractors and plumbers to determine what type of pipe is constructed in various parts of your distribution system is an option. Please document all evaluations and interviews. Other types of identification methods currently used are scratch testing and eddy currents. Predictive modeling has also shown success in various systems.

If you are a community water system with an approved replacement plan, you will need to continue to replace the water-system-owned lead pipes, lead fittings and unknown user service lines in addition to inventorying the remainder of the entire "service line," as defined by the LCRR.

**Non-Transient Non-Community** water systems will need to develop an inventory of all pipe and fittings material distributing water from the source of supply to the building inlets.

### **Helpful information sites:**

American Water Works Association (AWWA) held a webinar on what the LCRR rule changes mean for water systems in January 2021. It's free and available online here: [W210128 Final Lead and Copper Rule Revisions | GoToStage.com](#).

The Lead Service Line Replacement Collaborative is working on updating its website based on the LCRR changes. Their website is a great resource: [Preparing a Lead Service Line Inventory - LSLR Collaborative \(lslr-collaborative.org\)](#). Please note that this does not reflect rule-specific requirements at this time.

*(These Facts were last updated on April 20, 2021)*

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 3-9**

**Proposed Update to Santa Clara Valley Water District  
Memorandum Account**



PRELIMINARY STATEMENT  
(Continued)

Santa Clara Valley Water District Memorandum Account.

(T)

1. The Company has an authorized memorandum account to track outside legal expenses and litigation costs related to litigation against the Santa Clara Valley Water District (District) challenging the annual levies of groundwater charges (pump taxes) upon the water produced by the Company. The Santa Clara Valley Water District Memorandum Account was established in 2005. There are now lawsuits pending for each year since then.

(C)

a. The purpose of the litigation is to end the District's practices of charging the Company disproportionately for benefits the Company receives from the District's actions in the protection and augmentation of the water supplies under its jurisdiction. The results of the District's challenged practices is higher costs paid by the Company and higher rates paid by the Company's customers.

b. The groundwater charge expenses are pass-throughs to the Company's customers through rates authorized by the California Public Utilities Commission (Commission).

c. If the litigation is successful and the Company recovers from the District any amount of money, the Commission practice is to permit the Company to recover the outside costs of litigation (attorney fees and costs), with the net proceeds going 100% to ratepayers. Because the litigation has taken so long, significant outside costs of litigation have been incurred by the Company and under the terms of this Memorandum Account, the Company is entitled to recover such costs first, before the net proceeds are distributed to customers, subject to a reasonableness review that would determine if the outside costs were reasonably incurred by the Company. The amortization of the net proceeds may be combined with a request to amortize the balance of one or more other authorized memorandum or balancing accounts.

d. If the litigation is not successful, then the Company may request recovery of up to \$100,000 in outside costs from customers through a surcharge. This recovery may be combined with a request to amortize the balance of one or more other authorized memorandum or balancing accounts.

(C)

2. The Company is authorized to seek recovery of the costs in the Memorandum Account in its next General Rate Case or through a Tier 3 advice letter filing.

3. The Company shall not include internal costs or expenses in the Memorandum Account.

(To be inserted by utility)

Advice Letter No. \_\_\_\_\_

Issued by

Timothy S. Guster

NAME

(To be inserted by Cal. P.U.C.)

Date Filed \_\_\_\_\_

Decision No. \_\_\_\_\_

General Counsel

TITLE

Effective \_\_\_\_\_

Resolution No. \_\_\_\_\_

**Great Oaks Water Company**  
**General Rate Case Application**

**Exhibit 3-10**

**Activation of Catastrophic Event Memorandum Account**



## GREAT OAKS WATER COMPANY

P. O. Box 23490  
San Jose, California 95153  
(408) 227-9540

March 19, 2020

*Via email*

Alice Stebbins  
Executive Director  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

RE: Great Oaks Water Company  
Notice of Activation of Catastrophic Event Memorandum Account

Dear Executive Director Stebbins:

This letter is to notify you that Great Oaks Water Company (Great Oaks) is activating its Catastrophic Event Memorandum Account (CEMA) in response to the Coronavirus (COVID-19) emergency.

On March 4, 2020, Governor Newsom declared a State of Emergency pertaining to COVID-19. Governor Newsom followed up on the declared emergency with the issuance of Executive Orders on March 12, 2020 and March 16, 2020. On March 17, 2020, you issued a letter advising Class A and B water utilities regulated by the California Public Utilities Commission that customer protections adopted in Commission Rulemaking (R.) 18-03-011 (Decisions (D.)19-07-015 and D.19-08-025) apply to the current state of emergency.

Consistent with the Governor's emergency declaration and Executive Orders, as well as your March 17, 2020 letter and D.19-07-015, Great Oaks is taking action to appropriately respond to this emergency and is activating its CEMA to record costs and expenses associated with the declared emergency.

At this time, estimates are not available for costs and/or expenses associated with the declared emergency. While Great Oaks will seek to avoid such costs and/or expenses, should any be incurred, Great Oaks will record any such costs and/or expenses in the CEMA according to its terms and conditions. Any entries in the CEMA will be segregated by qualifying event

(e.g., COVID-19 Emergency). No costs or expenses associated with COVID-19 incurred prior to the declaration of emergency will be recorded in the CEMA.

Respectfully submitted,



Timothy S. Guster  
Vice President and General Counsel  
Legal and Regulatory Affairs

cc: Bruce DeBerry (via email)  
Jim Boothe (via email)  
Richard Smith (via email)  
Richard Rauschmeier (via email)

**Great Oaks Water Company**  
**General Rate Case Application**  
**Exhibit 3-11**  
**Cell Tower Leases**  
**MDR II.I.2.**



**COMMUNICATION SITE LEASE AGREEMENT (BUILDING)**

THIS COMMUNICATION SITE LEASE AGREEMENT ("Agreement") dated and is effective as of January 29, 2010, is between Clear Wireless LLC, a Nevada limited liability company ("Clearwire" or "Tenant"), and Great Oaks Water Co., a California corporation ("Owner" or "Landlord").

For good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. **Premises.** Landlord owns a parcel of land ("**Land**") and a water storage tank ("**Building**") located in the City of San Jose, County of Santa Clara, State of California, (APN: 684-15-006-00). The Building and the Land are collectively referred to herein as the "**Property**." The Land is more particularly described in Exhibit A annexed hereto. Subject to the provisions of Paragraph 2 below ("**Effective Date/Due Diligence Period**"), Owner hereby leases to Clearwire and Clearwire leases from Owner approximately 100 square feet on the exterior surface of the Building, additional space adjacent to the Building and cable tray, conduit and riser space, and all other access and utility easements necessary or desirable therefore (collectively, "**Premises**") as may be described generally in Exhibit B annexed hereto.

2. **Effective Date/Due Diligence Period.** This Agreement shall be effective on the date of full execution hereof ("**Effective Date**"). Beginning on the Effective Date and continuing until the Term Commencement Date as defined in Paragraph 4 below ("**Due Diligence Period**"), Clearwire shall only be permitted to enter the Property for the limited purpose of making appropriate engineering and boundary surveys, inspections, and other reasonably necessary investigations and signal, topographical, geotechnical, structural and environmental tests (collectively, "**Investigations and Tests**") that Clearwire may deem necessary or desirable to determine the physical condition, feasibility and suitability of the Premises. In the event that Clearwire determines, during the Due Diligence Period, that the Premises are not appropriate for Clearwire's intended use, or if for any other reason, or no reason, Clearwire decides not to commence its tenancy of the Premises, then Clearwire shall have the right to terminate this Agreement without penalty upon written notice to Owner at any time during the Due Diligence Period and prior to the Term Commencement Date. Owner and Clearwire expressly acknowledge and agree that Clearwire's access to the Property during this Due Diligence Period shall be solely for the limited purpose of performing the Investigations and Tests, and that Clearwire shall not be considered an owner or operator of any portion of the Property, and shall have no ownership or control of any portion of the Property (except as expressly provided in this Paragraph 2), prior to the Term Commencement Date.

3. **Use.** The Premises may be used by Tenant for any lawful activity in connection with the provisions of wireless communications services, including without limitation, the transmission and the reception of radio communication signals and the construction, maintenance and operation of related communications facilities. Landlord agrees, at no expense to Landlord, to cooperate with Tenant, in making application for and obtaining all licenses, permits and any and all other necessary approvals that may be required for Tenant's intended use of the Premises.

4. **Term.** The term of this Agreement shall commence upon the date Tenant begins construction of the Tenant Facilities (as defined in Paragraph 6 below) or eighteen (18) months following the Effective Date, whichever first occurs ("**Term Commencement Date**") and shall terminate on the fifth anniversary of the Term Commencement Date ("**Term**") unless otherwise terminated as provided herein. Tenant shall have the right to extend the Term for five (5) successive five (5) year periods ("**Renewal Terms**") on the same terms and conditions as set forth herein. This Agreement shall automatically be extended for each successive Renewal Term unless Tenant notifies Landlord of its intention not to renew at least thirty (30) days prior to commencement of the succeeding Renewal Term.

5. **Rent.** Within fifteen (15) business days following the Term Commencement Date and on the first day of each month thereafter, Tenant shall pay to Landlord as rent One Thousand Two Hundred Fifty and 00/100 Dollars \$1,250.00) per month ("**Rent**"). Rent for any fractional month at the beginning or at the end of the Term or Renewal Term shall be prorated. Rent shall be payable to Landlord at PO Box 23490, San Jose, CA 95153, Attention: Chief Financial Officer. All of Tenant's monetary obligations set forth in this Agreement are conditioned upon Tenant's receipt of an accurate and executed W-9 Form from Landlord. Rent shall increase at the rate of three percent (3%) annually, with the increases effective on the anniversary dates of the Term Commencement Date. Such annual increases shall also apply to any Renewal Terms.



5.1 As additional consideration for signing this Agreement, Tenant shall pay to Landlord a one-time signing bonus in the amount of Two Thousand and 00/100 Dollars. This signing bonus shall be payable within thirty (30) business days after both Tenant and Landlord have executed and delivered this Agreement. Tenant shall only have the obligation to pay this signing bonus if Landlord has fully and properly executed this Agreement and delivered it to Tenant on or before January 26, 2010.

6. Improvements.

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6.1 Tenant has the right to construct, maintain, install, repair secure, replace, remove and operate on the Premises radio communications facilities, including but not limited to utility lines, transmission lines, an air conditioned equipment shelter(s) and/or an air conditioned equipment room in, adjacent to, or on the roof of, the Building, electronic equipment, transmitting and receiving antennas, microwave dishes, antennas and equipment, a power generator and generator pad, and supporting equipment and structures therefore ("**Tenant Facilities**"). In connection therewith, Tenant has the right to do all work necessary to prepare, add, maintain and alter the Premises for Tenant's communications operations and to install utility lines and transmission lines connecting antennas to transmitters and receivers. All of Tenant's construction and installation work shall be performed at Tenant's sole cost and expense and in a good and workmanlike manner. Title to the Tenant Facilities and any equipment placed on the Premises by Tenant shall be held by Tenant or its lenders or assigns and are not fixtures. Tenant has the right to remove the Tenant Facilities at its sole expense on or before the expiration or earlier termination of this Agreement, and Tenant shall repair any damage to the Premises caused by such removal. Upon the expiration or earlier termination of this Agreement, Tenant shall remove the Tenant Facilities from the Property.

7. Access and Utilities.

7.1 Landlord shall provide Tenant, Tenant's employees, agents, contractors, subcontractors and assigns with access to the Premises twenty-four (24) hours a day, seven (7) days a week, at no charge to Tenant. Landlord grants to Tenant, and Tenant's agents, employees and contractors, a non-exclusive right and easement for pedestrian and vehicular ingress and egress across the Property, and such right and easement may be described generally in Exhibit B.

7.2 Landlord shall maintain all access roadways from the nearest public roadway to the Premises in a manner sufficient to allow pedestrian and vehicular access at all times under normal weather conditions. Landlord shall be responsible for maintaining and repairing such roadways, at its sole expense, except for any damage caused by Tenant's use of such roadways.

7.3 In consideration for the Rent, Landlord shall provide 60 amps of electrical service to Tenant at no charge to Tenant through Landlord owned facilities.

8. Interference. Tenant shall operate the Tenant Facilities in compliance with all Federal Communications Commission ("**FCC**") requirements including those prohibiting interference to communications facilities of Landlord or other lessees or licensees of the Property, provided that the installation and operation of any such facilities predate the installation of the Tenant Facilities. Subsequent to the installation of the Tenant Facilities, Landlord will not, and will not permit its lessees or licensees to, install new equipment on or make any alterations to the Property or property contiguous thereto owned or controlled by Landlord, if such modifications are likely to cause interference with Tenant's operations. In the event interference occurs, Landlord agrees to use best efforts to eliminate such interference in a reasonable time period. Landlord's failure to comply with this paragraph shall be a material breach of this Agreement.

9. Taxes. Tenant shall pay personal property taxes assessed against the Tenant Facilities and Landlord shall pay when due, all real property taxes and all other taxes, fees and assessments attributable to the Premises or this Agreement.

10. Termination.

10.1 This Agreement may be terminated without further liability on thirty (30) days prior written notice as follows: (i) by either party upon a default of any covenant or term hereof by the other party, which default is not cured within sixty (60) days of receipt of written notice of default, except that this Agreement shall not



be terminated if the default cannot reasonably be cured within such sixty (60) day period and the defaulting party has commenced to cure the default within such sixty (60) day period and diligently pursues the cure to completion; provided that the grace period for any monetary default is ten (10) days from receipt of written notice. This Agreement may be terminated by Tenant without further liability for any reason or for no reason, provided Tenant delivers written notice of termination to Landlord prior to the Commencement Date.

10.2 This Agreement may also be terminated by Tenant without further liability on thirty (30) days prior written notice (i) if Tenant is unable to reasonably obtain or maintain any certificate, license, permit, authority or approval from any governmental authority, thus, restricting Tenant from installing, removing, replacing, maintaining or operating the Tenant Facilities or using the Premises in the manner intended by Tenant; (ii) if Tenant determines that the Premises are not appropriate for its operations for economic, environmental or technological reasons, including without limitation, signal strength, coverage or interference, or (iii) or Tenant otherwise determines, within its sole discretion, that it will be unable to use the Premises for Tenant's intended purpose.

11. Destruction or Condemnation. If the Premises or Tenant Facilities are damaged, destroyed, condemned or transferred in lieu of condemnation, Tenant may elect to terminate this Agreement as of the date of the damage, destruction, condemnation or transfer in lieu of condemnation by giving notice to Landlord no more than forty-five (45) days following the date of such damage, destruction, condemnation or transfer in lieu of condemnation. If Tenant chooses not to terminate this Agreement, Rent shall be reduced or abated in proportion to the actual reduction or abatement of use of the Premises.

12. Insurance; Subrogation; and Indemnity.

12.1 Tenant shall provide Commercial General Liability Insurance in an aggregate amount of One Million and No/100 Dollars (\$1,000,000.00). Tenant may satisfy this requirement by obtaining the appropriate endorsement to any master policy of liability insurance Tenant may maintain.

12.2 Landlord, at Landlord's sole cost and expense, shall procure and maintain CGL insurance covering bodily injury and property damage with a combined single limit of at least One Million and 00/100 Dollars (\$1,000,000.00) per occurrence. Such insurance shall insure, on an occurrence basis, against all liability of Landlord, its employees and agents arising out of or in connection with Landlord's use, occupancy and maintenance of the Property. Landlord shall provide Tenant with a COI evidencing the coverage required by this Section upon written request.

12.3 Landlord and Tenant hereby mutually release each other (and their successors or assigns) from liability and waive all right of recovery against the other for any loss or damage covered by their respective first-party property insurance policies for all perils insured thereunder. In the event of such insured loss, neither party's insurance company shall have a subrogated claim against the other.

12.4 Landlord and Tenant shall each indemnify, defend and hold the other harmless from and against all claims, losses, liabilities, damages, costs, and expenses (including reasonable attorneys' and consultants' fees, costs and expenses) (collectively "Losses") arising from the indemnifying party's breach of any term or condition of this Agreement or from the negligence or willful misconduct of the indemnifying party or its agents, employees or contractors in or about the Property. The duties described in this Paragraph 12.3 shall apply as of the Effective Date of this Agreement and survive the termination of this Agreement.

13. Assignment. Tenant may not assign this Agreement without Landlord's written consent, and Landlord shall not unreasonably withhold such consent.

14. Title and Quiet Enjoyment.

14.1 Landlord represents and warrants that (i) it has full right, power, and authority to execute this Agreement, (ii) Tenant may peacefully and quietly enjoy the Premises and such access thereto, provided that Tenant is not in default hereunder after notice and expiration of all cure periods, (iii) it has obtained all necessary approvals and consents, and has taken all necessary action to enable Landlord to enter into this Agreement and allow Tenant to install and operate the Facility on the Premises, including without limitation, approvals and consents as may be necessary from other tenants, licensees and occupants of Landlord's Property, and (iv) the Property and access rights are free and clear of all liens, encumbrances and restrictions except those of record as of the Effective Date.



14.2 Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice. If, in the opinion of Tenant, such title report shows any defects of title or any liens or encumbrances which may adversely affect Tenant's use of the Premises, Tenant shall have the right to terminate this Agreement immediately upon written notice to Landlord.

15. Environmental. As of the Effective Date of this Agreement: (1) Tenant hereby represents and warrants that it shall not use, generate, handle, store or dispose of any Hazardous Material in, on, under, upon or affecting the Property in violation of any applicable law or regulation, and (2) Landlord hereby represents and warrants that (i) it has no knowledge of the presence of any Hazardous Material located in, on, under, upon or affecting the Property in violation of any applicable law or regulation; (ii) no notice has been received by or on behalf of Landlord from any governmental entity or any person or entity claiming any violation of any applicable environmental law or regulation in, on, under, upon or affecting the Property; and (iii) it will not permit itself or any third party to use, generate, handle, store or dispose of any Hazardous Material in, on, under, upon, or affecting the Property in violation of any applicable law or regulation. Without limiting Paragraph 12.4, Landlord and Tenant shall each indemnify, defend and hold the other harmless from and against all Losses (specifically including, without limitation, attorneys', engineers', consultants' and experts' fees, costs and expenses) arising from (i) any breach of any representation or warranty made in this Paragraph 15 by such party; and/or (ii) environmental conditions or noncompliance with any applicable law or regulation that result, in the case of Tenant, from operations in or about the Property by Tenant or Tenant's agents, employees or contractors, and in the case of Landlord, from the ownership or control of, or operations in or about, the Property by Landlord or Landlord's predecessors in interest, and their respective agents, employees, contractors, tenants, guests or other parties. The provisions of this Paragraph 15 shall apply as of the Effective Date of this Agreement and survive termination of this Agreement. "**Hazardous Material**" means any solid, gaseous or liquid wastes (including hazardous wastes), regulated substances, pollutants or contaminants or terms of similar import, as such terms are defined in any applicable environmental law or regulation, and shall include, without limitation, any petroleum or petroleum products or by-products, flammable explosives, radioactive materials, asbestos in any form, polychlorinated biphenyls and any other substance or material which constitutes a threat to health, safety, property or the environment or which has been or is in the future determined by any governmental entity to be prohibited, limited or regulated by any applicable environmental law or regulation.

16. Waiver of Landlord's Lien. Landlord hereby waives any and all lien rights it may have, statutory or otherwise concerning the Tenant Facilities or any portion thereof which shall be deemed personal property for the purposes of this Agreement, whether or not the same is deemed real or personal property under applicable laws, and Landlord gives Tenant and Mortgagees the right to remove all or any portion of the same from time to time, whether before or after a default under this Agreement, in Tenant's and/or Mortgagee's sole discretion and without Landlord's consent.

17. Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, or sent by for next-business-day delivery by a nationally recognized overnight carrier to the following addresses:

If to Tenant, to:	With a copy to:	If to Landlord, to:
Clear Wireless LLC Attn: Network Property Manager 4400 Carillon Point Kirkland, WA 98033 Telephone: 425-216-7600 Fax: 425-216-7900	Clear Wireless LLC Attention: Legal Department 4400 Carillon Point Kirkland, WA 98033 Telephone: 425-216-7600 Fax: 425-216-7900	Great Oaks Water Co. Attention: Legal Department PO Box 23490 San Jose, CA 95153 Telephone: 408-227-9540 Fax: 408-227-7126

Landlord or Tenant may from time to time designate any other address for this purpose by written notice to the other party. All notices hereunder shall be deemed received upon actual receipt or refusal to accept delivery.

18. Miscellaneous.

18.1 If Tenant is to pay Rent to a payee other than the Landlord, Landlord shall notify Tenant in advance in writing of the payee's name and address.



18.2 The substantially prevailing party in any legal claim arising hereunder shall be entitled to its reasonable attorney's fees and court costs, including appeals, if any.

18.3 If any provision of the Agreement is invalid or unenforceable with respect to any party, the remainder of this Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable, shall not be affected and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

18.4 Terms and conditions of this Agreement which by their sense and context survive the termination, cancellation or expiration of this Agreement will so survive.

18.5 This Agreement shall be governed under law of the State in which the Premises are located, and be binding on and inure to the benefit of the successors and permitted assignees of the respective parties.

18.6 A Memorandum of Agreement in the form attached hereto as Exhibit C may be recorded by Tenant confirming the (i) effectiveness of this agreement, (ii) expiration date of the Term, (iii) the duration of any Renewal Terms, and/or other reasonable terms consistent with this Agreement.

18.7 All Exhibits referred herein are incorporated herein for all purposes.

18.8 Landlord shall make a diligent and good faith effort to obtain a Nondisturbance Agreement for the benefit of Tenant from each lender with a security interest recorded upon the title to the Site at the time of execution of this Agreement.


18.9 This Agreement constitutes the entire Agreement between the parties, and supersedes all understandings, offers, negotiations and other leases concerning the subject matter contained herein. There are no representations or understandings of any kind not set forth herein. Any amendments, modifications or waivers of any of the terms and conditions of this Agreement must be in writing and executed by both parties.

18.10 Landlord agrees not to disclose, without the written consent of Tenant, any of the terms of this Agreement or any other written agreement between the parties relating to the privileges granted herein, except as required by governmental authority, in which case Landlord shall inform Tenant prior to divulging such information.

IN WITNESS WHEREOF, the parties have entered into this Agreement effective as of the date first above written.

**LANDLORD:**

Great Oaks Water Co., a California corporation

By:   
Name: John Reeder  
Title: CEO  
Date: 1-27-10  
Tax I.D.: 94-1550419

**TENANT:**

Clear Wireless LLC, a Nevada limited liability company

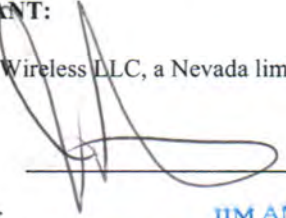
By:   
Name: JIM AMATO  
Title: DIRECTOR-NETWORK DEPLOYMENT  
Date: 1/28/10

EXHIBIT A

DESCRIPTION OF LAND

to the Agreement dated , 200 , by and between Great Oaks Water Co., a California corporation , as Landlord, and Clear Wireless LLC, a Nevada limited liability company, as Tenant.

The Land is described and/or depicted as follows (metes and bounds description):

APN: 684-15-006

A WRITTEN DESCRIPTION OF THE LAND WILL BE PRESENTED HERE OR ATTACHED HERETO

GREAT OAKS WATER CO., a corporation

that property in Santa Clara county, state of California, described as:

All that certain real property situate in the County of Santa Clara, State of California, described as follows:

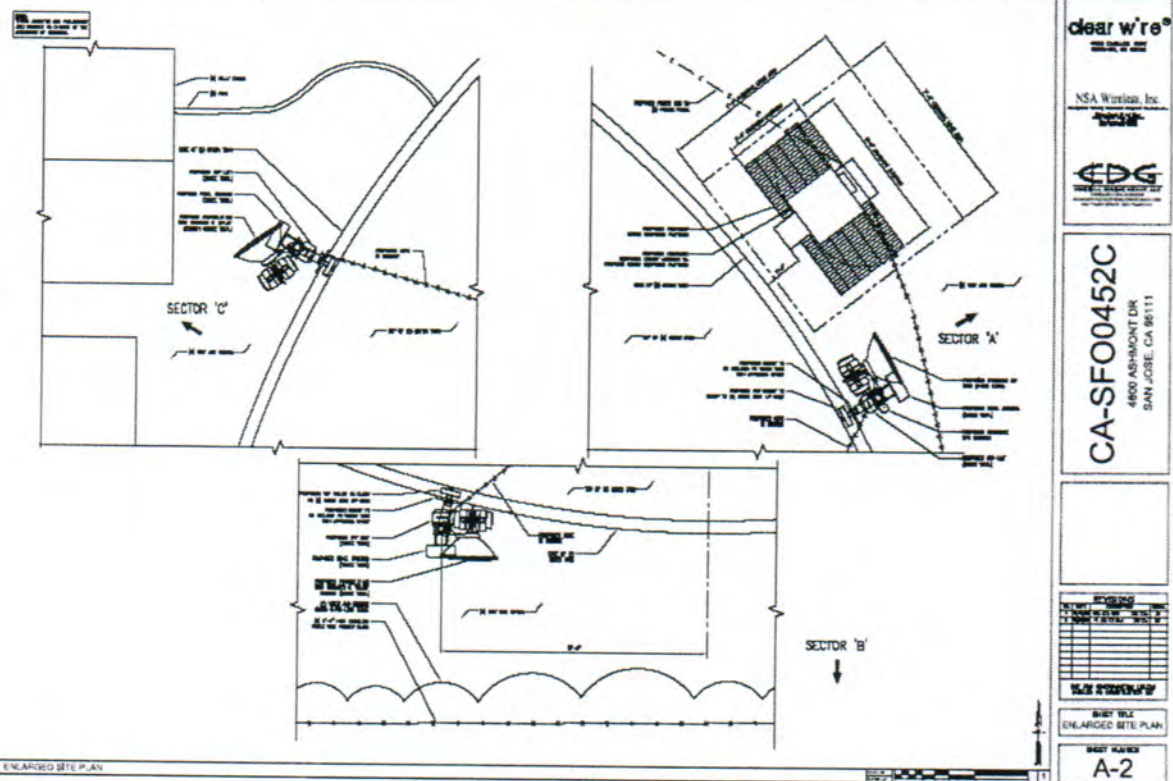
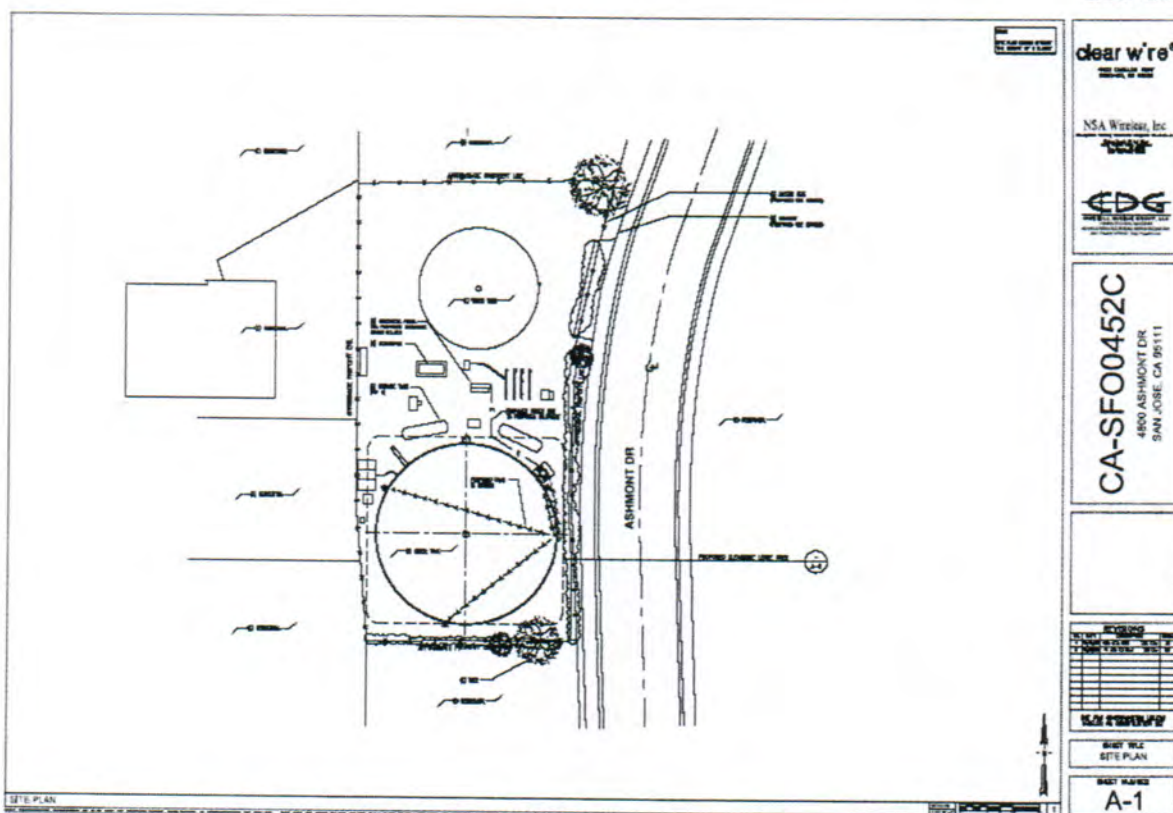
BEGINNING at the most Northerly corner of that certain 123.596 acre tract of land shown upon that certain Map entitled, "Map of the Property of Norman W. Church in the Santa Teresa Rancho, Santa Clara County, California", recorded in Book "Z" of Maps, at page 34, Santa Clara County Records, and thence due North as called on the Map attached to the Report of the Referees, in the Action of William A. Senter, et al, against Blanda Castro de Bernal, et al, No. 2370, in the District Court 2110.00 feet along the Westerly line of Lot 5 of the Santa Teresa Rancho and the true point of beginning of the tract of land to be described; thence from said true point of beginning continuing due North along the Westerly line of said Lot 5 for a distance of 200.00 feet; thence at right angles due East 100.00 feet; thence due South and parallel with the said Westerly line of Lot 5 for a distance of 200.00 feet; thence at right angles due West 100.00 feet to the true point of beginning.

009413

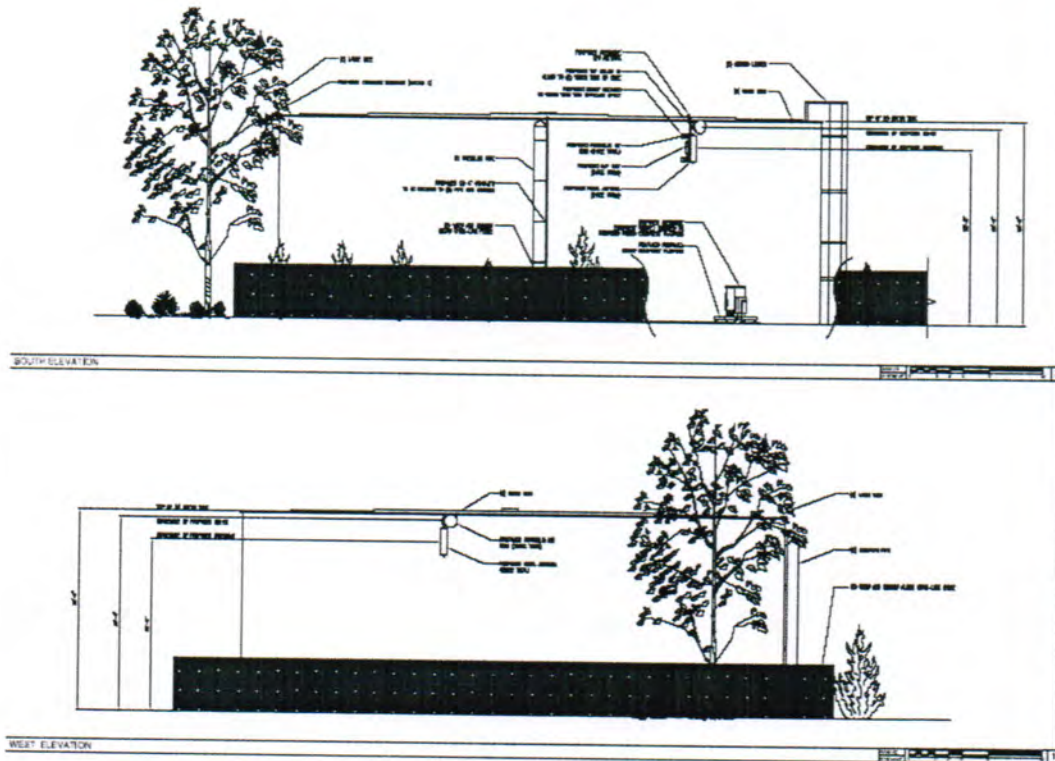




SITE NAME  
SITE NUMBER:



SITE NAME  
SITE NUMBER:



clear wire®

NSA Wireless, Inc.

NSA

EDG

Engineering & Design Group

CA-SFO0452C

4800 ASHMOND DR  
SAN JOSE, CA 95111

ITEM	DESCRIPTION	DATE
1	REVISION	
2	REVISION	
3	REVISION	
4	REVISION	
5	REVISION	
6	REVISION	
7	REVISION	
8	REVISION	
9	REVISION	
10	REVISION	

SCALE

WEST SIDE ELEVATIONS

WEST SIDE

A-3

#### Notes:

1. Tenant may replace this Exhibit with a survey of the Premises once Tenant receives it.
2. The Premises shall be setback from the Property's boundaries as required by the applicable governmental authorities.
3. The access road's width will be the width required by the applicable governmental authorities, including police and fire departments.
4. The type, number, mounting positions and locations of antennas and transmission lines are illustrative only. The actual types, numbers, mounting positions and locations may vary from what is shown above.
5. The locations of any utility easements are illustrative only. The actual locations will be determined by the servicing utility company in compliance with all local laws and regulations.



SITE NAME  
SITE NUMBER:

clear w<sup>re</sup>

4800 ASHMONT DR  
SAN JOSE, CA 95111

4400 CANTON POINT  
MIRAMAR, WA 98503

100



4800 ASHMONT DR  
SAN JOSE, CA 95111

SHEET NUMBER  
T-1





4400 CARRINGTON RD  
WILLOWDALE, WA 99026

1. *Chlorophyll a* (Chl *a*)  
 2. *Chlorophyll b* (Chl *b*)  
 3. *Chlorophyll c* (Chl *c*)  
 4. *Chlorophyll d* (Chl *d*)  
 5. *Chlorophyll e* (Chl *e*)  
 6. *Chlorophyll f* (Chl *f*)  
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 107. *Chlorophyll azaa* (Chl *aza*)  
 108. *Chlorophyll abz* (Chl *abz*)  
 109. *Chlorophyll acz* (Chl *acz*)  
 110. *Chlorophyll adz* (Chl *adz*)  
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 113. *Chlorophyll agz* (Chl *agz*)  
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 115. *Chlorophyll aiz* (Chl *aiz*)  
 116. *Chlorophyll ajz* (Chl *ajz*)  
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 118. *Chlorophyll alz* (Chl *alz*)  
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 120. *Chlorophyll anz* (Chl *anz*)  
 121. *Chlorophyll aoz* (Chl *aoz*)  
 122. *Chlorophyll apz* (Chl *apz*)  
 123. *Chlorophyll aqz* (Chl *aqz*)  
 124. *Chlorophyll arz* (Chl *arz*)  
 125. *Chlorophyll asz* (Chl *asz*)  
 126. *Chlorophyll atz* (Chl *atz*)  
 127. *Chlorophyll auz* (Chl *auz*)  
 128. *Chlorophyll avz* (Chl *avz*)  
 129. *Chlorophyll awz* (Chl *awz*)  
 130. *Chlorophyll axz* (Chl *axz*)  
 131. *Chlorophyll ayz* (Chl *ayz*)  
 132. *Chlorophyll ayz* (Chl *ayz*)  
 133.

**CONNELL DESIGN GROUP, LLC**  
13001 E. 15th Avenue, Suite 100  
Denver, CO 80232  
Tel: 303.755.1100  
Fax: 303.755.1101  
www.connell-design.com

4800 ASHMONT DR  
SAN JOSE, CA 95111

REVISIONS		
NO	DATE	DESCRIPTION
1	11/14/98	22.0
2	12/01/98	22.0

NOT FOR CONSTRUCTION UNLESS  
LABELLED AS CONSTRUCTION SET

SHEET TITLE  
SITE PLAN

SHEET NUMBER

A-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY TO MANSON. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CURRENT SERVICES IS STRICTLY PROHIBITED.

[illegible]

[illegible]

—(1) first and second (1)

— (1) DATA CHANNEL —



PROPOSED MOANT TO  
BE SECURED TO WHITE TAPE  
WITH APPROVED EPOXY

PROPOSED RIG MOUNT TO  
CLAMP TO (1) WHITE TAPE LE EDGE

PROPOSED COAR  
IN CHANNEL

TOR 'A'

- PROPOSED PARALLEL W/ 1994 (PAPER TONN.)
- PROPOSED PAUL ANTINNA (PAPER TONN.)
- PROPOSED CLAMPED 075 ANTINNA
- PROPOSED 009 UNIT (PAPER TONN.)

[illegible]

Figure 1 is a schematic diagram of a coal conveyor system. It shows a horizontal conveyor belt supported by a vertical post labeled "TOP OF (1) WHEEL TRACK". The belt is labeled "CONVEYOR COAL ON CONVEYOR". Below the belt, there is a section labeled "TRUCK OR (1) WHEEL TRACK".

[illegible]

4400 CAPITAL DR  
MIDLAND, TX 79703

[illegible]

© 2000 Blackwell Science Ltd, *Journal of Internal Medicine* 247: 391–397

4800 ASHMONT DR  
SAN JOSE, CA 95111

[illegible]

SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER

A-2





**EXHIBIT C**

**COMMUNICATIONS FACILITY**

to the Agreement dated \_\_\_\_\_, 2010, by and between, Great Oaks Water Co., a California corporation, as Landlord, and Clear Wireless LLC, a Nevada limited liability company, as Tenant.

**RECORDED AT REQUEST OF, AND  
WHEN RECORDED RETURN TO:**

Clear Wireless LLC  
4400 Carillon Point  
Kirkland, WA 98033  
Attn: Property Manager

**MEMORANDUM OF AGREEMENT  
APN: 684-15-006**

This MEMORANDUM OF AGREEMENT is entered into on \_\_\_\_\_, 200\_\_\_\_, by Great Oaks Water Co., a California corporation, with an address at Great Oaks Water Co. Attention: Legal Department PO Box 23490 San Jose, CA 95153 (hereinafter referred to as "**Owner**" or "**Landlord**") and Clear Wireless LLC, a Nevada limited liability company, with an address at 4400 Carillon Point Kirkland, WA 98033 (hereinafter referred to as "**Clearwire**" or "**Tenant**").

1. Owner and Clearwire entered into a Communication Site Lease Agreement ("**Agreement**") dated as of \_\_\_\_\_, 2010, effective upon full execution of the parties ("**Effective Date**") for the purpose of Clearwire undertaking certain Investigations and Tests and, upon finding the Property appropriate, for the purpose of installing, operating and maintaining a communications facility and other improvements. All of the foregoing is set forth in the Agreement.

2. The term of Clearwire's tenancy under the Agreement is for five (5) years commencing on the date Tenant begins construction of the Tenant Facilities or eighteen (18) months following the Effective Date, whichever first occurs ("**Term Commencement Date**"), and terminating on the fifth anniversary of the Term Commencement Date with five (5) successive five (5) year options to renew.

3. The Land that is the subject of the Agreement is described in Exhibit A annexed hereto. The portion of the Land being leased to Tenant and all necessary access and utility easements (the "**Premises**") are set forth in the Agreement.

In witness whereof, the parties have executed this Memorandum of Agreement as of the day and year first written above.

**LANDLORD:**

Great Oaks Water Co., a California corporation

By: EXHIBIT ONLY – DO NOT EXECUTE

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**TENANT:**

Clear Wireless LLC,  
a Nevada limited liability company

By: EXHIBIT ONLY – DO NOT EXECUTE

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## TOWER LEASE WITH OPTION

THIS TOWER LEASE WITH OPTION (this "Lease") is by and between Great Oaks Water Company, a California corporation ("Landlord") and T-Mobile West Corporation, a Delaware corporation ("Tenant").

#### 1. Option to Lease.

(a) In consideration of the payment of one thousand and no/100 dollars (\$1,000.00) (the "Option Fee") by Tenant to Landlord, Landlord hereby grants to Tenant an option to lease the use of a portion of the real property described in the attached Exhibit A (the "Property"), together with the right to use the tower located thereon ("Tower") on the terms and conditions set forth herein (the "Option"). The Option shall be for an initial term of twelve (12) months, commencing on the Effective Date (as defined below) (the "Option Period"). The Option Period may be extended by Tenant for an additional twelve (12) months upon written notice to Landlord and payment of the sum of one thousand and no/100 dollars (\$1,000.00) ("Additional Option Fee") at any time prior to the end of the Option Period.

(b) During the Option Period and any extension thereof, and during the term of this Lease, Landlord agrees to cooperate with Tenant in obtaining, at Tenant's expense, all licenses and permits or authorizations required for Tenant's use of the Premises (as defined below) from all applicable government and/or regulatory entities (including, without limitation, zoning and land use authorities, and the Federal Communications Commission ("FCC") ("Governmental Approvals"), including all land use and zoning permit applications; and Landlord agrees to cooperate with and to allow Tenant, at no cost to Landlord, to obtain a title report, zoning approvals and variances, land-use permits, and Landlord expressly grants to Tenant a right of access to the Property to perform surveys, soils tests, and other engineering procedures or environmental investigations on the Property necessary to determine that Tenant's use of the Premises will be compatible with Tenant's engineering specifications, system design, operations and Governmental Approvals. Notwithstanding the foregoing, Tenant may not change the zoning classification of the Property without first obtaining Landlord's written consent. During the Option Period and any extension thereof, Landlord agrees that it will not interfere with Tenant's efforts to secure other licenses and permits or authorizations that relate to other property. During the Option Period and any extension thereof, Tenant may exercise the Option by so notifying Landlord in writing, at Landlord's address in accordance with Section 12 hereof.

(c) If Tenant exercises the Option, then, subject to the following terms and conditions, Landlord hereby leases to Tenant the use of that portion of the Tower and Property, together with easements for access and utilities, generally described and depicted in the attached Exhibit B (collectively referred to hereinafter as the "Premises"). The Premises, located at parcel 678-62-047, San Jose, County of Santa Clara, CA 95138, comprises approximately 300 square feet. Tenant's location on the Tower shall be at 70 feet above ground level.

2. Term. The initial term of the Lease shall be five (5) years commencing on the date of exercise of the Option (the "Commencement Date"), and terminating at midnight on the last day of the month of the initial term (the "Initial Term").

3. Renewal. Tenant shall have the right to extend this Lease for five (5) additional and successive five-year terms (each a "Renewal Term") on the same terms and conditions as set forth herein. This Lease shall automatically renew for each successive Renewal Term unless Tenant notifies Landlord, in writing, of Tenant's intention not to renew this Lease, at least thirty (30) days prior to the expiration of the Initial Term or any Renewal Term. If Tenant shall remain in possession of the Premises at the expiration of this Lease or any Renewal Term without a written agreement, such tenancy shall be deemed a month-to-month tenancy under the same terms and conditions of this Lease.

#### 4. Rent.

(a) From and after the Commencement Date, Tenant shall pay Landlord or designee, as rent, one thousand eight hundred and no/100 dollars (\$1,800.00) per month ("Rent"). The first payment of Rent shall be due within twenty (20) days following the Commencement Date and shall be prorated based on the days remaining in the month following the Commencement Date, and thereafter Rent will be payable monthly in advance by the fifth day of each month to Landlord at the address specified in Section 12 below. If this Lease is terminated for any reason (other than a default by Tenant) at a time other than on the last day of a month, Rent shall be prorated as of the date of termination and all prepaid Rent shall be immediately refunded to Tenant. Landlord, its successors, assigns and/or designee, if any, will submit to Tenant any documents required by Tenant in connection with the payment of Rent, including, without limitation, an IRS Form W-9.

(b) Upon the commencement of any Renewal Term hereunder, Rent will be increased for each such Renewal Term over the monthly or annual installment of Rent payable during the preceding Renewal Term by seven and one half percent (7.5%).

5. Permitted Use. The Premises may be used by Tenant for the transmission and reception of radio communication signals and for the construction, installation, operation, maintenance, repair, removal or replacement of related facilities, including, without limitation, tower and base, antennas, microwave dishes, equipment shelters and/or cabinets and related activities.

6. Interference. Tenant shall not use the Premises in any way which interferes with the use of the Property by Landlord or lessees or licensees of Landlord, with equipment installed prior in time to Tenant's installation. Landlord represents and Tenant acknowledges that Landlord and MetroPCS California, LLC ("MetroPCS") entered into a Communications Site Lease Agreement, dated January 11, 2008 (hereinafter "MetroPCS Lease"), a copy of which has been provided to and acknowledged by Tenant. Tenant acknowledges that MetroPCS is operating a wireless communication facility on the Property as of the Effective Date. Tenant agrees not to interfere with MetroPCS' communications signal transmission and reception as of the Effective Date. In the event Tenant's use of the Premises and/or the Tower interferes with MetroPCS' existing signal transmission or reception or use of the Tower as of the Effective Date, within two (2) business days of Tenant's receipt of written notice from Landlord, Tenant shall terminate such interference, except for intermittent testing to discover whether the interference has been eliminated.

Similarly, Landlord shall not use, nor shall Landlord permit its lessees, licensees, employees, invitees or agents to use, any portion of the Property in any way which interferes with the operations of Tenant. Such interference shall be deemed a material breach by the interfering party, who shall, upon written notice from the other, be responsible for terminating said interference. In the event any such interference does not cease promptly, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, the injured party shall have the right, in addition to any other rights that it may have at law or in equity, to bring a court action to enjoin such interference or to terminate this Lease immediately upon written notice.

#### 7. Improvements; Utilities; Access:

(a) Tenant shall have the right, at its expense, to erect and maintain on the Premises improvements, personal property and facilities necessary to operate its communications system, including, without limitation, radio transmitting and receiving antennas, microwave dishes and base, equipment shelters and/or cabinets and related cables and utility lines and a location based system, including, without limitation, antenna(s), coaxial cable, base units, location based systems and other associated equipment, excluding the Tower Replacement (as defined below) (collectively, the "Antenna Facilities"). Tenant shall have the right to alter, replace, expand, enhance and upgrade the Antenna Facilities at any time during the term of this Lease. Tenant shall cause all construction to occur lien-free and in compliance with all applicable laws and ordinances, and shall discharge or bond any mechanic's lien filed or recorded. Landlord acknowledges that it shall not interfere with any aspects of construction, including, without limitation, attempting to direct construction personnel as to the location of or method of installation of the Antenna Facilities and the Easements (as defined below) ("Construction Interference"). Landlord further acknowledges that it will be responsible for any costs and damages (including, fines and penalties) that are directly attributable to Landlord's Construction Interference. The Antenna Facilities shall remain the exclusive property of Tenant and shall not be considered fixtures.

(b) Tenant, at its expense, may use any and all appropriate means of restricting access to the Antenna Facilities, including, without limitation, the construction of a fence. Tenant may not restrict the right of MetroPCS to access the Tower, and any such restriction shall be considered interference under the terms of Paragraph 6, above.

(c) Tenant shall, at Tenant's expense, keep and maintain the Antenna Facilities now or hereafter located on the Property in commercially reasonable condition and repair during the term of this Lease, normal wear and tear and casualty excepted. Upon termination or expiration of this Lease, the Premises shall be returned to Landlord in good, usable condition, normal wear and tear and casualty excepted.

(d) Tenant shall have the right to install utilities, at Tenant's expense, and to improve the present utilities on the Property (including, but not limited to, the installation of emergency power generators). Landlord agrees to use reasonable efforts in assisting Tenant to acquire necessary utility service. Tenant shall, wherever practicable, install separate meters for utilities used on the Property by Tenant. In the event separate meters are not installed, Tenant shall pay the periodic charges for all utilities attributable to Tenant's use. Landlord shall diligently cooperate with Tenant and the servicing utility company to correct any variation, interruption or failure of utility service.

(e) As partial consideration for Rent paid under this Lease, Landlord hereby grants Tenant an Easement in, under and across the Property for ingress, egress, utilities and access (including access for the purposes described in Section 1) to the Premises adequate to install and maintain utilities, which include, but are not limited to, the installation of power and telephone service cable, and to service the Premises and the Antenna Facilities at all times during the Initial Term of this Lease and any Renewal Term (collectively, the "Easements"). The Easements provided hereunder shall have the same term as this Lease.

(f) Tenant shall have 24-hours-a-day, 7-days-a-week access to the Premises ("Access") at all times during the Initial Term of this Lease and any Renewal Term at no additional charge to the Tenant.

(g) Notwithstanding the foregoing, Tenant, at its sole expense, shall have the right to remove and dispose of the existing Tower currently located in the approximate area designated on the Exhibit B as the area for the "Tower". Following removal, Tenant shall have the right to replace the former Tower with a replacement tower structurally capable of supporting Tenant's antennas and other ancillary equipment (the "Tower Replacement"). Upon completion of installation of the Tower Replacement, title and ownership of the Tower Replacement shall automatically, without need for execution of further documentation transfer to Landlord in its "AS IS" and "WHERE IS" condition without warranty or representation of any kind. Following such transfer, Landlord will be solely responsible for the ongoing maintenance and upkeep of the Tower Replacement and Tenant shall have no further responsibility in relation thereto.

#### 8. Termination. Except as otherwise provided herein, this Lease may be terminated, without any penalty or further liability as follows:

(a) upon thirty (30) days' written notice by Landlord if Tenant fails to cure a default for payment of amounts due under this Lease within that thirty (30) day period;

(b) immediately if Tenant notifies Landlord of unacceptable results of any title report, environmental or soil tests prior to Tenant's installation of the Antenna Facilities on the Premises; or if Tenant is unable to, through no fault of its own, obtain, maintain, or otherwise forfeits or cancels any license (including, without limitation, an FCC license), permit or any Governmental Approval necessary to the installation and/or operation of the Antenna Facilities or Tenant's business;

(c) upon thirty (30) days' written notice by Tenant if the Property or the Antenna Facilities are, or become unacceptable under Tenant's design or engineering specifications for its Antenna Facilities or the communications system to which the Antenna Facilities belong;



(d) immediately upon written notice by Tenant if the Premises or the Antenna Facilities are destroyed or damaged so as in Tenant's reasonable judgment to substantially and adversely affect the effective use of the Antenna Facilities. In such event, all rights and obligations of the parties shall cease as of the date of the damage or destruction, and Tenant shall be entitled to the reimbursement of any Rent prepaid by Tenant. If Tenant elects to continue this Lease, then all Rent shall abate until the Premises and/or the Antenna Facilities are restored to the condition existing immediately prior to such damage or destruction; or

(e) at the time title to the Property transfers to a condemning authority pursuant to a taking of all or a portion of the Property sufficient in Tenant's determination to render the Premises unsuitable for Tenant's use. Landlord and Tenant shall each be entitled to pursue their own separate awards with respect to such taking. Sale of all or part of the Property to a purchaser with the power of eminent domain in the face of the exercise of the power shall be treated as a taking by condemnation; or

(f) upon thirty (30) days written notice by Tenant if Tenant reasonably determines that the Property or Antenna Facilities are inappropriate or unnecessary for Tenant's operations due to economic reasons.

9. Default and Right to Cure. Notwithstanding anything contained herein to the contrary and without waiving any other rights granted to it at law or in equity, each party shall have the right, but not the obligation, to terminate this Lease on written notice pursuant to Section 12 hereof, to take effect immediately, if the other party (i) fails to perform any covenant for a period of thirty (30) days after receipt of written notice thereof to cure.

10. Taxes. Landlord shall pay when due all real property taxes for the Property, including the Premises. In the event that Landlord fails to pay any such real property taxes or other fees and assessments, Tenant shall have the right, but not the obligation, to pay such owed amounts and deduct them from Rent amounts due under this Lease. Notwithstanding the foregoing, Tenant shall pay any personal property tax, real property tax or any other tax or fee which are directly attributable to the presence or installation of Tenant's Antenna Facilities, only for so long as this Lease has not expired of its own terms or is not terminated by either party. Landlord hereby grants to Tenant the right to challenge, whether in a Court, Administrative Proceeding, or other venue, on behalf of Landlord and/or Tenant, any personal property or real property tax assessments that may affect Tenant. If Landlord receives notice of any personal property or real property tax assessment against the Landlord, which may affect Tenant and is directly attributable to Tenant's installation, Landlord shall provide timely notice of the assessment to Tenant sufficient to allow Tenant to consent to or challenge such assessment. Further, Landlord shall provide to Tenant any and all documentation associated with the assessment and shall execute any and all documents reasonably necessary to effectuate the intent of this Section 10. In the event real property taxes are assessed against Landlord or Tenant for the Premises or the Property, Tenant shall have the right, but not the obligation, to terminate this Lease without further liability after thirty (30) days' written notice to Landlord, provided Tenant pays any real property taxes assessed as provided herein.

#### 11. Insurance and Subrogation and Indemnification

(a) Tenant will provide Commercial General Liability Insurance in an aggregate amount of One Million and no/100 Dollars (\$1,000,000.00). Tenant may satisfy this requirement by obtaining the appropriate endorsement to any master policy of liability insurance Tenant may maintain.

(b) Landlord and Tenant hereby mutually release each other (and their successors or assigns) from liability and waive all right of recovery against the other for any loss or damage covered by their respective first party property insurance policies for all perils insured thereunder. In the event of such insured loss, neither party's insurance company shall have a subrogated claim against the other. To the extent loss or damage is not covered by their first party property insurance policies, Landlord and Tenant each agree to indemnify and hold harmless the other party from and against any and all claims, damages, cost and expenses, including reasonable attorney fees, to the extent caused by or arising out of: (a) the negligent acts or omissions or willful misconduct in the operations or activities on the Property by the indemnifying party or the employees, agents, contractors, licensees, tenants and/or subtenants of the indemnifying party, or (b) a breach of any obligation of the indemnifying party under this Lease. In addition, Tenant shall defend, indemnify and hold Landlord harmless from any and all claims by MetroPCS of interference to the extent caused by Tenant's operation of the Antenna Facilities. Notwithstanding the foregoing, this indemnification shall not extend to indirect, special, incidental or consequential damages, including, without limitation, loss of profits, income or business opportunities to the indemnified party or anyone claiming through the indemnified party. The indemnifying party's obligations under this section are contingent upon (i) its receiving prompt written notice of any event giving rise to an obligation to indemnifying the other party and (ii) the indemnified party's granting it the right to control the defense and settlement of the same. Notwithstanding anything to the contrary in this Lease, the parties hereby confirm that the provisions of this section shall survive the expiration or termination of this Lease. Tenant shall not be responsible to Landlord, or any third-party, for any claims, costs or damages (including, fines and penalties) attributable to any pre-existing violations of applicable codes, statutes or other regulations governing the Property.

12. Notices. All notices, requests, demands and other communications shall be in writing and are effective three (3) days after deposit in the U.S. mail, certified and postage paid, or upon receipt if personally delivered or sent by next-business-day delivery via a nationally recognized overnight courier to the addresses set forth below. Landlord or Tenant may from time to time designate any other address for this purpose by providing written notice to the other party.

#### If to Tenant, to:

T-Mobile West Corporation  
12920 SE 38<sup>th</sup> Street  
Bellevue, WA 98006  
Attn: PCS Lease Administrator

#### With a copy to:

Attn: Legal Dept.

#### And with a copy to:

Site Number: SF15107A  
Site Name: Great Oaks Water Tank  
Market: San Francisco Bay Area

CA Tower Lease - version 1.3-08

T-Mobile West Corporation  
2380-A Bisco Lane  
Concord, CA 94520  
Attn: Lease Administration Manager

With a copy to:  
Attn: Legal Dept.

[notices continued on next page]

Site Number: SB15107A  
Site Name: Great Oaks Water Tank  
Market: San Francisco Bay Area

CA Tower Lease -- version 1.3.08



**If to Landlord, to:**

**And with a copy to:**

Great Oaks Water Company  
P.O. Box 23490  
San Jose, CA 95153  
Attn: Legal Dept.

**Send Rent payments to:**

Great Oaks Water Company  
P.O. Box 23490  
San Jose, CA 95153

13. **Quiet Enjoyment, Title and Authority:** As of the Effective Date and at all times during the Initial Term and any Renewal Terms of this Lease, Landlord covenants and warrants to Tenant that (i) Landlord has full right, power and authority to execute and perform this Lease; (ii) Landlord has good and unencumbered fee title to the Property free and clear of any liens or mortgages, except those heretofore disclosed in writing to Tenant and which will not interfere with Tenant's rights to or use of the Premises; (iii) execution and performance of this Lease will not violate any laws, ordinances, covenants, or the provisions of any mortgage, lease, or other agreement binding on Landlord; and (iv) Tenant's quiet enjoyment of the Premises or any part thereof shall not be disturbed as long as Tenant is not in default beyond any applicable grace or cure period.

14. **Environmental Laws:** Landlord represents that it has no knowledge of any substance, chemical or waste (collectively, "Hazardous Substance") on the Property that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Landlord and Tenant shall not introduce or use any Hazardous Substance on the Property in violation of any applicable law. Landlord shall be responsible for, and shall promptly conduct any investigation and remediation as required by any applicable environmental laws, all spills or other releases of any Hazardous Substance not caused solely by Tenant, that have occurred or which may occur on the Property. Each party agrees to defend, indemnify and hold harmless the other from and against any and all administrative and judicial actions and rulings, claims, causes of action, demands and liability (collectively, "Claims") including, but not limited to, damages, costs, expenses, assessments, penalties, fines, losses, judgments and reasonable attorney fees that the indemnitee may suffer or incur due to the existence or discovery of any Hazardous Substances on the Property or the migration of any Hazardous Substance to other properties or the release of any Hazardous Substance into the environment (collectively, "Actions"), that relate to or arise from the indemnitor's activities on the Property. Landlord agrees to defend, indemnify and hold Tenant harmless from Claims resulting from Actions on the Property not caused by Landlord or Tenant prior to the Initial Term of this Lease. The indemnifications in this section specifically include, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any governmental authority. This Section 14 shall survive the termination or expiration of this Lease.

15. **Assignment and Subleasing:** Tenant may, upon written notice to Landlord, assign or transfer (by sublease or otherwise) its rights arising under this Lease or the Premises to any corporation, partnership or other entity which (i) is controlled by, controlling or under common control with Tenant, (ii) shall merge or consolidate with or into Tenant, (iii) shall succeed to all or substantially all the assets, property and business of Tenant, or (iv) is an affiliate or subsidiary or other party as may be required in connection with any offering, merger, acquisition, recognized security exchange or financing. Under all other circumstances, such assignment or transfer shall require Landlord's written consent, which consent shall not be unreasonably withheld, or delayed. Upon assignment, Tenant shall be relieved of all liabilities and obligations hereunder and Landlord shall look solely to the assignee for performance under this Lease and all obligations hereunder. Except as set forth above, Tenant may sublease the Premises to an unrelated third party, upon prior written consent of Landlord, such consent not to be unreasonably withheld, or delayed.

Landlord shall have the right to assign or otherwise transfer this Lease and the Easements granted herein, upon written notice to Tenant except for the following: any assignment or transfer of this Lease which is separate and distinct from a transfer of Landlord's entire right, title and interest in the Property, shall require the prior written consent of Tenant which may be withheld in Tenant's sole discretion. Upon Tenant's receipt of (i) an executed deed or assignment and (ii) an IRS Form W-9 from assignee, and subject to Tenant's consent, if required, Landlord shall be relieved of all liabilities and obligations hereunder and Tenant shall look solely to the assignee for performance under this Lease and all obligations hereunder.

Additionally, notwithstanding anything to the contrary above, Landlord or Tenant may, upon notice to the other, grant a security interest in this Lease (and as regards the Tenant and the Antenna Facilities), and may collaterally assign this Lease (and as regards the Tenant and the Antenna Facilities) to any mortgagees or holders of security interests, including their successors or assigns (collectively "Secured Parties"). In such event, Landlord or Tenant, as the case may be, shall execute such consent to leasehold financing as may reasonably be required by Secured Parties.

16. **Successors and Assigns:** This Lease and the Easements granted herein shall run with the land, and shall be binding upon and inure to the benefit of the parties, their respective successors, personal representatives and assigns.

17. **Waiver of Landlord's Lien:** Landlord hereby waives any and all lien rights it may have, statutory or otherwise, concerning the Antenna Facilities or any portion thereof, which shall be deemed personal property for the purposes of this Lease, whether or not the same is deemed real or personal property under applicable laws, and Landlord gives Tenant and Secured Parties the right to remove all or any portion of the same from time to time, whether before or after a default under this Lease, in Tenant's and/or Secured Parties' sole discretion and without Landlord's consent.

**18. Miscellaneous:**

(a) The prevailing party in any litigation arising hereunder shall be entitled to its reasonable attorneys' fees and court costs, including appeals, if any.

(b) Each party agrees to furnish to the other, within twenty (20) days after request, such truthful estoppel information as the other may reasonably request.

(c) This Lease constitutes the entire agreement and understanding of the parties, and supersedes all offers, negotiations and other agreements, with respect to the subject matter and property covered by this Lease.

(d) Each party agrees to cooperate with the other in executing any documents including a Memorandum of Lease necessary to protect its rights or use of the Premises. The Memorandum of Lease may be recorded in place of this Lease, by either party. In the event the Property is encumbered by a mortgage or deed of trust, Landlord agrees, upon request of Tenant, to obtain and furnish to Tenant a non-disturbance and attornment agreement for each such mortgage or deed of trust, in a form reasonably acceptable to Tenant. Tenant may obtain title insurance on its interest in the Premises. Landlord agrees to execute such documents as the title company may require in connection therewith.

(e) This Lease shall be construed in accordance with the laws of the state in which the Property is located.

(f) If any term of this Lease is found to be void or invalid, such finding shall not affect the remaining terms of this Lease, which shall continue in full force and effect. The parties agree that if any provisions are deemed not enforceable, they shall be deemed modified to the extent necessary to make them enforceable. Any questions of particular interpretation shall not be interpreted against the draftsman, but rather in accordance with the fair meaning thereof. No provision of this Lease will be deemed waived by either party unless expressly waived in writing signed by the waiving party. No waiver shall be implied by delay or any other act or omission of either party. No waiver by either party of any provision of this Lease shall be deemed a waiver of such provision with respect to any subsequent matter relating to such provision.

(g) The persons who have executed this Lease represent and warrant that they are duly authorized to execute this Lease in their individual or representative capacity as indicated.

(h) This Lease may be executed in any number of counterpart copies, each of which shall be deemed an original, but all of which together shall constitute a single instrument.

(i) All Exhibits referred to herein and any Addenda are incorporated herein for all purposes. The parties understand and acknowledge that Exhibit A (the legal description of the Property) and Exhibit B (the Premises location within the Property), may be attached to this Lease and the Memorandum of Lease, in preliminary form. Accordingly, the parties agree that upon the preparation of final, more complete exhibits, Exhibits A, and/or B, as the case may be, which may have been attached hereto in preliminary form, may be replaced by Tenant with such final, more complete exhibit(s). The terms of all Exhibits are incorporated herein for all purposes.

(j) If Landlord is represented by any broker or any other leasing agent, Landlord is responsible for all commission fee or other payment to such agent, and agrees to indemnify and hold Tenant harmless from all claims by such broker or anyone claiming through such broker. If Tenant is represented by any broker or any other leasing agent, Tenant is responsible for all commission fee or other payment to such agent, and agrees to indemnify and hold Landlord harmless from all claims by such broker or anyone claiming through such broker.

**19. Tower Marking and Lighting Requirements.** Landlord acknowledges that it, and not Tenant, shall be responsible for compliance with all Tower marking and lighting requirements of the Federal Aviation Administration ("FAA") and the FCC, provided that if Tenant installs a new tower, Tenant shall ensure that the new tower complies with all applicable marking and lighting requirements before completing installation. Landlord shall indemnify and hold Tenant harmless from any fines or other liabilities caused by Landlord's failure to comply with such requirements. Should Tenant be cited by either the FCC or FAA because the Tower is not in compliance and, should Landlord fail to cure the conditions of noncompliance within the time frame allowed by the citing agency, Tenant may either terminate this Lease immediately on notice to Landlord or proceed to cure the conditions of noncompliance at Landlord's expense, which amounts may be deducted from Rent otherwise payable under this Lease.

The effective date of this Lease is the date of execution by the last party to sign (the "Effective Date").

**LANDLORD:** Great Oaks Water Company

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**LANDLORD:**

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**TENANT:** T-Mobile West Corporation

By: \_\_\_\_\_  
Printed Name: Martin Vernon  
Title: Area Director, Engineering and Operations  
Date: \_\_\_\_\_

T-Mobile Legal Approval

**EXHIBIT A**  
**Legal Description**

**The Property is legally described as follows:**

[Enter legal description here or on attachment(s).]

## EXHIBIT B

The location of the Premises within the Property (together with access and utilities) is more particularly described and depicted as follows:

[Enter Premises description here or on attachment(s).]

However, it is expressly agreed and understood by and between the Landlord and Tenant that the exact and precise location of the Tenant's Antenna Facilities are subject to review and approval by the planning and/or zoning Boards having jurisdiction over the "Premises".

Therefore, it is expressly agreed and understood by and between Landlord and Tenant that the precise location of the Premises as shown on Exhibit "B" may be modified by the Tenant in order to comply with and obtain necessary planning and/or zoning approvals, and any and all other approvals necessary for Tenant's intended use of the property. The Premises as described herein may therefore be modified by the Tenant to reflect the final engineering design. An amended Exhibit "B" (if necessary) will be provided by the Tenant and attached to the lease in place of the existing Exhibit "B", a copy of which will be provided to the Landlord for review prior to being incorporated into the lease.

**ADDENDUM TO TOWER LEASE WITH OPTION**  
**[Additional Terms]**

In the event of conflict or inconsistency between the terms of this Addendum and this Lease, the terms of the Addendum shall govern and control. All capitalized terms shall have the same meaning as in this Lease.

NONE.

**LANDLORD:** Great Oaks Water Company, a corporation

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**TENANT:** T-Mobile West Corporation

By: \_\_\_\_\_  
Printed Name: Martin Vernon  
Title: Area Director, Engineering and Operations  
Date: \_\_\_\_\_

## FIRST AMENDMENT TO TOWER LEASE WITH OPTION

THIS FIRST AMENDMENT TO TOWER LEASE WITH OPTION (this "First Amendment") is executed and effective as of the date, or later of the dates, set forth in the respective acknowledgements of the parties hereto (the "First Amendment Effective Date") and is entered into by and, between Great Oaks Water Company, a California corporation ("Landlord"), and T-Mobile West Corporation, a Delaware corporation ("Tenant") (the Landlord and Tenant are sometimes collectively referred to herein as the "Parties").

WHEREAS, Landlord and Tenant previously entered into a Tower Lease with Option ("Lease") executed and effective as of April 28, 2010 and

WHEREAS, Landlord and Tenant desire to amend the Lease to: (i) modify and replace the Exhibit B of the Lease with a newly revised Exhibit B-1; (ii) expressly provide that Tenant shall have the right to utilize Landlord's existing power conduit for the purpose of providing power to Tenant's telecommunication facility.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease as follows:

1. Replacement of Exhibit B. Upon the full execution of this First Amendment, the (i) attached Exhibit B-1 shall become effective and binding as to the Parties and shall supersede and control with respect to any inconsistencies or contradictions between the attachments and any prior exhibits to the Lease; (ii) the prior exhibit replaced by the attached exhibit shall be of no further force and effect; (iii) all references in the Lease to the Exhibit B shall hereafter refer to and mean the Exhibit B-1 attached hereto.
2. Section 7(d) of the Lease is hereby deleted in its entirety and is replaced in full with the following:

(d) Tenant shall have the right to install utilities, at Tenant's expense, and to improve the present utilities on the Property (including, but not limited to, the installation of emergency power generators). Landlord agrees to use reasonable efforts in assisting Tenant to acquire necessary utility service. Tenant shall, wherever practical, install separate meters for utilities used on the Property by Tenant. In the event a separate meter is not installed, Tenant shall have the right install an electric submeter ("Submeter") to draw power directly from the existing power at the Property to provide power to its Antenna Facilities. In the event Tenant uses the existing conduit and electrical utilities on the Property, Tenant shall pay to Landlord three hundred fifty and no/100 dollars (\$350.00) per month which shall be in addition to and payable in the same manner as the Rent payable hereunder ("Estimated Utility Charge"). During the Term of this Lease, approximately annually, Landlord shall read the Submeter ("Submeter Reading") and calculate the actual utility charge for the period from the prior Submeter Reading based upon the rates charged by the servicing utility provider ("Actual Utility Charge"). Landlord shall submit to Tenant documentation (reasonably acceptable to Tenant) of Submeter Readings of actual electrical usage, utility bills documenting actual cost of electricity and an invoice showing the Estimated Utility Charge, with the amount of overpayment or underpayment due by Tenant. If the Actual Utility Charge varies from the Estimated Utility Charges paid, the Estimated Utility Charge shall be adjusted to

more accurately reflect the future anticipated monthly cost of Tenant's actual usage. Any previously underpaid utility charges shall be reimbursed to Landlord within thirty (30) days of Tenant's receipt of such calculation. Any previously overpaid utility charges shall be reimbursed to Tenant through application to future Estimated Utility Charge payments to be made by Tenant. In the event Tenant obtains its own utilities to its Antenna Facilities or otherwise ceases to use the Landlord's utilities and conduit, Tenant shall no longer pay the Estimated or Actual Utility Charge.

3. All capitalized terms shall have the same meaning as in the Lease. In case of any inconsistencies between the terms and conditions contained in the Lease and the terms and conditions contained herein, the terms and conditions herein shall control. Except as modified by this First Amendment, the Lease shall remain in full force and effect and is ratified and confirmed by the Parties.

**LANDLORD:** Great Oaks Water Company, a California corporation

By: Timothy S. Guster

Name: Timothy S. Guster

Its: General Counsel / Secretary

Date: 05-27-2010

Date: \_\_\_\_\_

**TENANT:** T-Mobile West Corporation, a Delaware corporation

By: Martin Vernon

Name: Martin Vernon

Its: Area Director

Date: 6/24/10

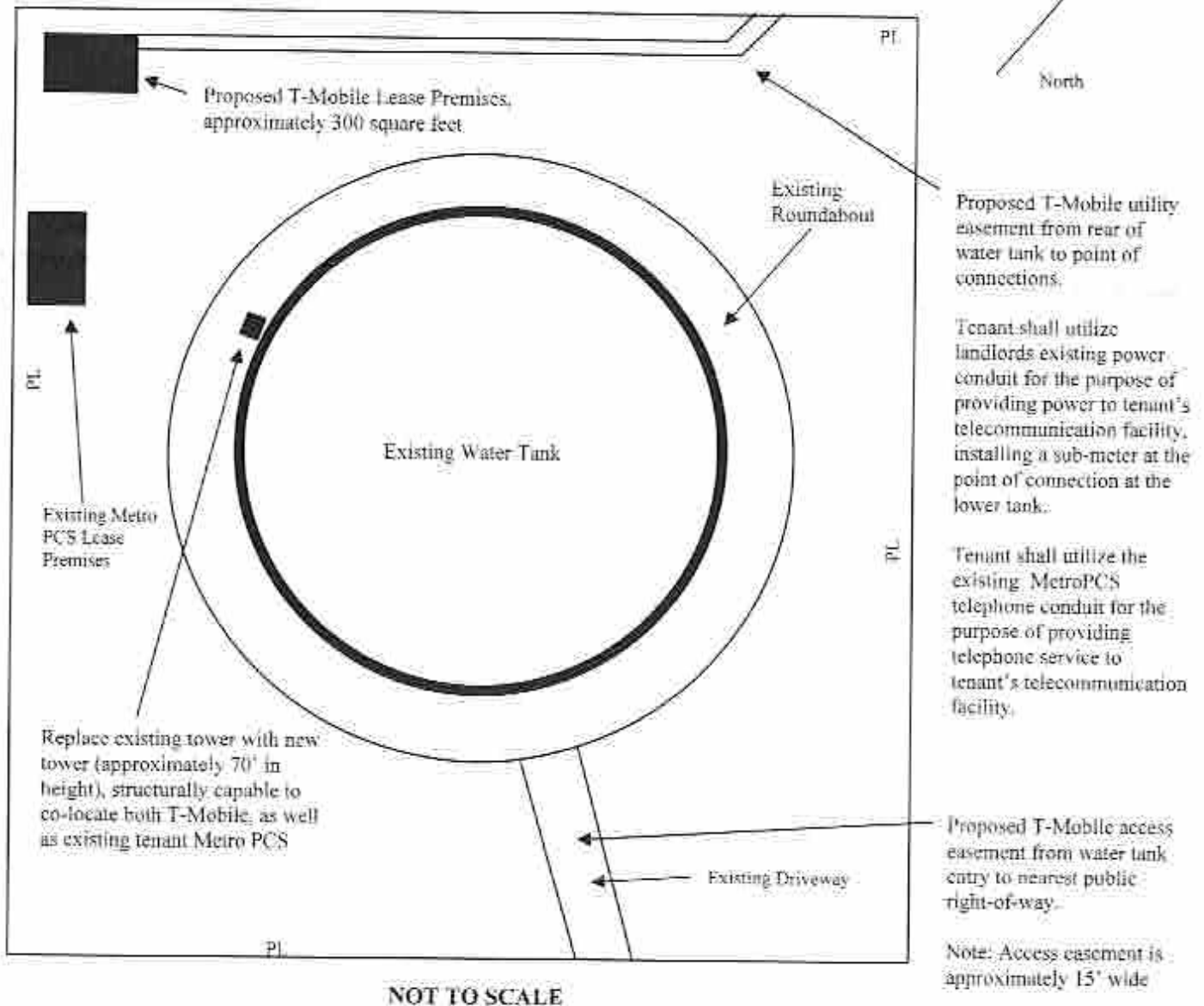


## Exhibit B-1

### SF15107A/Great Oaks Water Tank

Approximately 700' southerly of the terminus of Promenade Court,

San Jose, CA 95138 APN: 678-62-047



#### Notes:

1. This Exhibit may be replaced by a land survey of the Premises once it is received by Lessee.
2. Setback of the Premises from the Land's boundaries shall be the distance required by the applicable governmental authorities.
3. Width of the access road shall be the width required by the applicable governmental authorities, including police and fire departments.
4. The type, number and mounting positions and locations of antennas and transmission lines are illustrative only. Actual types, numbers, mounting positions and locations may vary from what is shown above.
5. The location of any utility easement is illustrative only. The actual location will be determined by the servicing utility company in compliance with all local laws and regulations.

**Great Oaks Water Company**  
**General Rate Case Application**  
**Exhibit 3-12**  
**HomeServe Contract and Amendment**

## **MARKETING AGREEMENT**

This Marketing Agreement (“**Agreement**”) commences and is effective as of the “**Effective Date**” set forth on the signature page below and is between **HomeServe USA Corp.**, a Pennsylvania corporation (“**HomeServe**”) with an office as noted on the signature page and **Great Oaks Water Company**, a California corporation (“**Utility**”) with an office located as noted on the signature page. HomeServe and Utility are referred to collectively as the “**Parties**” and individually as a “**Party**”.

HomeServe provides products to consumers for the emergency repair of domestic infrastructure and related systems. As of the Effective Date, Utility provides water service to approximately 20,000 connections within Utility’s water service area in the Blossom Valley - Santa Teresa - Edenvale - Coyote Valley- Almaden Valley areas of the City of San Jose, in the state of California and HomeServe desires to offer its Products to Utility’s Customers, as defined below. In consideration of the foregoing and the mutual covenants contained in this Agreement, the Parties agree as follows:

**1. Definitions.** Capitalized terms used and not otherwise defined herein shall have the meanings given below.

“**Customer**” shall mean any Person who is the Person responsible for utility bills (such as owner or resident) from Utility at a residential property to which Utility supplies water service in the Territory.

“**Law**” shall mean any federal, state or local laws, statutes, rules, regulations or ordinances issued by any governmental authority.

“**Loss**” and “**Losses**” shall mean all damages or losses, including but not limited to bodily injury or death to persons, property damage, claims, demands, suits, awards, assessments, fines, taxes, penalties, judgments, actions, expenses, costs, liabilities, and attorneys’ fees related to the foregoing, however described or denominated and by whomever claimed.

“**Member**” shall mean any Customer who enters into a valid and binding Service Agreement with HomeServe for one or more Products under this Agreement during the Term.

“**Member Data**” is all data of a Member and all other information about a Member obtained by or through HomeServe including, but not limited to, the name, service address, billing address, postal address, residential telephone number and email address.

“**Person**” shall mean any individual, corporation (including any nonprofit corporation), general or limited partnership, limited liability company, joint venture, estate, trust, association, organization, labor union, governmental authority or other entity.

“**Products**” shall mean the specific residential emergency home warranty repair product offerings within the Program provided by HomeServe under this Agreement. Such Product offerings on the Effective Date are as set forth on **Exhibit A**. The Product list may be amended from time to time as provided in Section 3.5.

“**Program**” shall mean the marketing, advertising, offering, sale, administration and provision of the Products to Customers in the Territory pursuant to this Agreement and more fully described in **Exhibit B**, titled “Program Description.”

**“Service Agreement”** shall mean an agreement issued by HomeServe to Customers who shall become Members by executing any one of the agreements that are substantially in the same form as attached as **Exhibit C**.

**“Services”** shall mean all the emergency repair services and other services performed for a Member under the Program and pursuant to a valid and in force Service Agreement.

**“Service Standards”** shall mean the standards of service for the Program in the form shown at **Exhibit D**, as amended from time to time by written agreement between HomeServe and Utility.

**“Territory”** shall mean all geographic areas where Utility is permitted to provide water service during the Term; it being agreed that the zip codes for the Territory as of the Effective Date are set forth on **Exhibit E**. Should Utility expand the area in which it provides water service to customers, the Territory on **Exhibit E** shall be updated accordingly.

**2. Exclusivity.** Except in the case of Utility’s termination of this Agreement for Cause under Section 14, during the Term and for a period of 12 months thereafter, Utility shall not itself or through any affiliate or through any Third Party: (i) market, advertise, or sell to Customers any product or service that competes with, or is similar to, the Products; or (ii) contract with any third party in the marketing, promotion or sale to Customers of any product or service that competes with, or is similar to, the Products.

**3. Intellectual Property; Member Data and Service Agreement Ownership.**

3.1 During the Term, Utility grants to HomeServe the non-transferrable right to use the Utility Marks identified in **Exhibit F**, or any future consumer-facing marks adopted by Utility (**“Utility Marks”**) only on marketing materials sent to Customers or Members in connection with the advertisement, marketing, sale and administration of the Products as set forth in this Agreement and only after prior written consent of such marketing material by Utility as set forth in this Agreement and subject to the provisions of Section 4.3. During the Term, Utility agrees not to grant the rights described under this Section 3.1 to any Utility affiliate or competitor of HomeServe or to any other third party.

During the Term, and subject to the terms hereunder, HomeServe shall use such Utility Marks on all marketing materials related to the Program.

3.2 Subject to Section 3.1 above, all documentation (and any related intellectual property) relating to the Products and Program advertised and offered by HomeServe shall remain the property of HomeServe. Service Agreements between a Member and HomeServe are owned exclusively by HomeServe. HomeServe shall ensure that Utility Marks are not, in any way, used by any of HomeServe’s contractors, subcontractors, outside vendors, insurers or consultants engaged by HomeServe to perform any Services under this Agreement or in any way related to the Program and HomeServe shall prohibit such use. The Utility Marks identified on Exhibit F shall be collectively referred to herein as the **“Marks.”** Except as expressly set forth herein, HomeServe shall not have or claim any right, title or interest in or to Utility Marks and the Utility Marks shall remain the exclusive property of Utility.

3.3 Notwithstanding any of the foregoing, in the event that any Member brings any claim for any Loss against Utility related to the Services, the Products, or the Program, upon Utility’s request, HomeServe shall provide Utility with a copy of any applicable Service Agreement between HomeServe and such Member and a copy of any Enrollment Form completed by such Member.

HomeServe shall require Customers who enter into a Service Agreement via mail-in enrollment to complete an Enrollment Form substantially in the form attached hereto as **Exhibit H**. Such Enrollment Form shall include language stating that the Products,

Services, and the Program are solely offered through, provided by and performed by HomeServe.

HomeServe may terminate and renew Service Agreements in its discretion. Notwithstanding this, HomeServe shall not amend the Service Agreement forms or the Enrollment form in any material respect without the prior written consent of Utility, which consent will not be unreasonably withheld or delayed (it being agreed that changes will be deemed approved unless Utility objects thereto in writing with reasonably detailed reasons therefor within 15 business days of notice). For the purpose of accuracy, HomeServe shall annually provide written confirmation to Utility that the forms of Service Agreement and the form of Enrollment Form are identical in all material respects to those attached hereto.

3.4 Subject to Section 3.3, Member Data is the sole and exclusive property of HomeServe. HomeServe shall provide Member Data to Utility only if HomeServe agrees that access to such data is necessary for Utility to perform its obligations under this Agreement. HomeServe may request access to and use of Customer data to permit it to exercise its marketing and other rights hereunder and, upon agreement by Utility, such Customer information shall be provided in such form and in such frequency as the Parties mutually agree.

3.5 Utility has reviewed the nature of the Products HomeServe will offer as of the Effective Date as listed on Exhibit A. Subject to this Section 3.5, during the Term, HomeServe shall offer in the Territory the same or similar products as those on Exhibit A. If, in the future, HomeServe proposes to materially change the nature of the Products offered using the Utility Marks, it will notify Utility for Utility's prior written consent at least 60 days prior to such proposed changes and use of the Utility Marks therewith (including sufficient information to enable Utility to review the nature of the proposed Products). Utility's consent to such changes shall not be unreasonably withheld.

In addition, if HomeServe proposes to materially change the nature of the Products and Utility objects to such changes within the 60 days after proper notice as set forth in this Section, the Parties agree to discuss in good faith for the 30-day period following Utility's objection ("**Discussion Period**") potential changes to this Agreement and/or the Products to address Utility's objections, it being agreed that neither Party is obligated to agree to any such changes.

3.6 Customers shall have the option of opting out of receiving any marketing materials regarding HomeServe, the Products and Services, and the Program, after which time, neither HomeServe nor Utility shall mail any such marketing material directly to any such Customer and HomeServe shall not direct any marketing by telesales to any such Customer. HomeServe shall provide Utility with a list of Customers who have opted out under this Section as part of its Monthly Performance Plan.

#### **4. Marketing.**

4.1. HomeServe will be permitted during the Term to send to Customers in the Territory up to 6 acquisition mailings using Utility Marks per Customer per year and up to 6 cross-sell mailings using Utility Marks per Member per year. HomeServe may distribute to Customers such Program marketing materials via direct mail, "occupant" addressed mailings and other means in any manner deemed proper by it provided that it is in accordance with the Agreement and applicable Law.

4.2. At the request of HomeServe, and in Utility's sole discretion, Utility may assist HomeServe in the promotion and marketing of the Products in any of the following ways: (i) inserting Program marketing material into Utility mail to Customers; (ii) including Program marketing materials with Utility's new home and home movers pack; (iii) including appropriate endorsements and referrals as an insert to Customer bills and/or advertising; or (iv) distributing marketing packs at Customer payment

points/centers. Any assistance that may be provided by Utility in its sole discretion related to any such marketing will be mutually agreed upon by the Parties.

- 4.3. Any marketing and Product-related materials to be delivered by or on behalf of HomeServe to Customers (including by Utility) under this Agreement are subject to prior written consent by Utility, which consent will not be unreasonably withheld or delayed. HomeServe shall provide Utility with copies of all such materials prior to distribution for Utility review (and approval by Utility therefor is deemed granted unless Utility objects in writing within 15 business days and where the objection includes reasonable detail as to the reasons therefor).
- 4.4. HomeServe shall reimburse Utility for Utility's actual costs in providing the requested assistance pursuant to Section 4.2 above, upon receipt of Utility's invoice therefor.
- 4.5. To the extent permitted by applicable Law, HomeServe may conduct inbound and outbound telesales to Customers. Prior to marketing by telesales, HomeServe must submit to Utility a detailed marketing plan and procedures, which shall include a script to be followed by Program telesales marketing personnel ("**Telesales Plan**"). Any Telesales Plan is subject to Utility's prior written consent, which consent shall not be unreasonably withheld or delayed and where approval is deemed given unless Utility objects in writing within 15 business days and where the objection includes reasonable detail as to the reasons therefor).

HomeServe's personnel, or its agent, shall perform telesales activities in compliance with the Telesales Plan and applicable Law. The Parties agree to discuss in good faith any of Utility's objections to any changes to the Telesales Plan, following Utility's objection, it being agreed that neither Party is obligated to agree to any such changes. If the Parties are unable to agree on suitable changes to the Telesales Plan, HomeServe shall not conduct inbound and outbound telesales to Customers under such changes to the Telesales Plan.

**5. HomeServe Responsibilities.** HomeServe shall be responsible for the functions and activities described in this Section 5.

- 5.1. HomeServe shall engage contractors, outside vendors, and consultants who have the proper skill, training and background to perform any one or more of the obligations of HomeServe hereunder in a competent and professional manner consistent with applicable industry standards, including, but not limited to, any claims handling responsibilities.
- 5.2. HomeServe shall regularly monitor compliance by its contractors, and employees for compliance with the Service Standards and shall use reasonable efforts to ensure that such contractors, and employees provide competent and courteous service to Members in accordance therewith. HomeServe shall provide Utility with a list of all contractors and subcontractors who will perform in-home repair services, and will update that list as contractors and subcontractors are added and/or deleted. HomeServe shall provide Utility with its written procedures and/or protocol of quality control that it uses to engage contractors and subcontractors and others who perform the Services prior to any Service being performed under this Agreement.
- 5.3. HomeServe shall use reasonable efforts to ensure that its contractors and employees are made aware of all relevant Laws and codes of practice applicable to the Program.
- 5.4. HomeServe shall provide Utility with a Performance Management Summary on a monthly basis on HomeServe's standard form, the current form of which is attached as **Exhibit G**.
- 5.5. HomeServe shall use reasonable efforts to ensure that adequate financial and human resources are available for the operation of the Program in accordance with this Agreement.

- 5.6. HomeServe shall conduct the Program, administer the Service Agreements and advertise, market and sell the Products in accordance with applicable Laws.
- 5.7. At least semi-annually, unless specified in writing by Utility to occur on a less frequent basis, and at a time mutually agreed on by the Parties, HomeServe shall conduct one or more information and training sessions at Utility offices for Utility staff including, but not limited to, Utility's customer service staff to train such staff on the Services, the Products, and the Program. HomeServe shall reasonably cooperate in scheduling such sessions and such sessions shall not interfere with Utility's customer service operations. Utility's costs incurred with respect to information and training sessions shall be reimbursed pursuant to Section 4.4, above.
- 5.8. HomeServe shall notify Utility of any alleged claims for Losses made by Customers or Members against it, its contractors, vendors, or consultants for money or damages relating to the Services, Products, or the Program, and shall include Utility, its parent company and their respective officers, directors, and employees in any release that HomeServe obtains from any third party. HomeServe shall provide any such release to Utility within ten (10) days following receipt. HomeServe shall make reasonable efforts to resolve all Customer or Member complaints or any alleged Losses related to the Services, Products, or Program and shall inform Utility in writing of the resolution of any escalated complaints and alleged Losses that were made against HomeServe, its contractors, vendors, or consultants.

**6. Utility Responsibilities.** Utility shall be responsible for the functions and activities described in this Section 6 and shall have the rights set forth herein.

- 6.1. Utility shall review, prior to distribution or use by HomeServe, all advertising, marketing and sales, and TeleSales Plan materials prepared by HomeServe under this Agreement pursuant to Section 4.3 and 4.5.
- 6.2. Utility understands that HomeServe intends to advertise, market and sell the Products through the use of such methods, channels, and activities as may be selected by HomeServe and approved by Utility including, telesales, newspaper advertising, "yellow pages", magazine advertising, media activity (such as Internet, television and radio), and direct mail. A form of such direct mail letter to be used in such mailings and the Enrollment Form are attached substantially in the form hereto as **Exhibit H** and may be modified from time to time only by written agreement of the Parties in accordance with the process set forth in Section 4.3 and 4.5 above. Notwithstanding the foregoing, HomeServe's use of Utility's name or Utility Marks by any method, channel, or media activity is subject to prior written consent of Utility.
- 6.3. Utility shall inform HomeServe of Customer or Member complaints or any alleged Losses related to the Program, Products, or Services and shall refer all such complaints and alleged Losses to HomeServe for resolution.

**7. Additional Responsibilities of the Parties.**

- 7.1. Each Party shall designate a management employee to serve as the contact person with the other Party for all activities under this Agreement.
- 7.2. HomeServe and Utility shall hold semi-annual business review meetings, and such other meetings as are agreed upon by the Parties, at such times and at such locations as may be mutually agreed upon by the Parties. The Parties shall reasonably cooperate in scheduling such business review meetings.

**8. Compensation to Utility.**

- 8.1 HomeServe shall pay to Utility during the Term, fifteen percent (15%) of the Service Agreement fees actually received by HomeServe from Members under each Service Agreement and during the term of any renewals of such Service Agreements, net of any discount, rebates, refunds or sales tax paid by HomeServe under such Service

Agreements ("**Net Commission**"). Should this Agreement terminate, the 15% Net Commission shall cease and in lieu thereof HomeServe shall pay Utility during the 12 months after the effective date of termination, a five percent (5%) Net Commission on each Service Agreement that is in effect from the effective date of termination for as long as such Service Agreement remains in effect during that 12-month post-termination period. Net Commission shall be non-refundable after it is paid to Utility, and Utility shall not be responsible for any subsequent reimbursement amounts, credits, refunds, or any other type of payments to Members.

#### **9. Member Billing and Payment Responsibilities.**

- 9.1 HomeServe shall bill Members for all amounts due and owing under Service Agreements (such amounts being referred to as "**Service Agreement Fees**") in accordance with HomeServe normal practices. For each month that Net Commissions are owed to Utility hereunder, HomeServe shall submit to Utility by the 10<sup>th</sup> of the month, a statement of the Net Commission due to Utility for the previous month ("**Commission Statement**"). Members shall be directed to pay HomeServe directly and HomeServe shall have full collection responsibility. Any Service Agreement Fees received from Members by Utility shall be immediately paid over to HomeServe. Any costs incurred by Utility with respect to Service Agreement Fees received from Members by Utility shall be reimbursed pursuant to Section 4.4, above.

The Commission Statement shall (i) identify by Service Agreement number, the in-force Service Agreements for the previous month, (ii) the Service Agreement Fees due to HomeServe for each such in-force Service Agreement during the previous month, (iii) the total amount of Service Agreement Fees actually received by HomeServe for each such in-force Service Agreement during the previous month, (iv) the aggregate outstanding balance for each such in-force Service Agreement from previous months, and (v) any amount received by HomeServe for each in-force Service Agreement allocated to past-due amounts. The Commission Statement shall be accompanied by payment of the aggregate Net Commission due to Utility during the previous month in a form to be mutually agreed.

- 9.2 Payment of the Service Agreement Fees to HomeServe shall be subject to audit and adjustment from time to time as required to account for, among other items, omitted in-force Service Agreements, canceled or terminated Service Agreements and missed payments under in-force Service Agreements. Utility shall have the right, upon at least ten (10) business days prior notice and during normal business hours, at the Utility's cost, to audit and inspect HomeServe's records for the limited purpose of confirming the billing and payments made pursuant to this Section and amounts owed under this Agreement.

**10. Confidential Information.** Each Party ("**Recipient**") shall keep secret and confidential the proprietary and confidential information (in any form) ("**Confidential Information**") of the other Party ("**Discloser**") that is disclosed or obtained pursuant to the performance of this Agreement and shall use such Confidential Information only for the purposes set forth in this Agreement. Recipient is responsible for the acts or omissions of its representatives to whom disclosure is made.

Confidential Information shall include any information and documents relating to business strategy, revenue plans or projections, financial plans, strategic plans, actual or intended financial information, financial projections, trade secrets, inventions, techniques, source code, engineering information, forecasts, computer programs, copyrightable material, customer lists, customer information, personal identification information, and patentable inventions pertaining to or owned by Discloser or its subsidiaries. The term "Information" shall not include information which (i) Recipient can show was rightfully in the possession of Recipient prior to disclosure by Discloser and which was not acquired or obtained from Discloser, (ii) is or becomes generally available to the public other than as a result of a disclosure by the Recipient, (iii) becomes available to the



Recipient on a non-confidential basis from a source other than the Discloser, which source is not prohibited to Recipient's knowledge, after reasonable investigation, from transmitting the information to the Recipient by a legal, contractual or fiduciary obligation to the Discloser, or (iv) was or is independently developed by the Recipient without breach of this Agreement or any other legal, contractual or fiduciary obligation. Recipient acknowledges that Recipient believes that the Information has been the subject of efforts by Discloser which were reasonable under the circumstances to maintain the secrecy of such Information. Recipient shall maintain the Confidential Information as proprietary to Discloser and hereby acknowledges that the Information is owned by and proprietary to Discloser.

If Recipient is required by any legal process to disclose Confidential Information of Discloser, it shall give Discloser prompt advance notice thereof so that Discloser may seek a protective order or other appropriate relief, and, provided further, the Recipient will only furnish that portion of the Confidential Information that it is legally required to disclose. This Section 10 of the Agreement shall remain in effect with respect to any particular item of Confidential Information until Recipient can document that it falls into an exception (except for trade secrets, which shall be held in confidence for so long as they are protected under applicable law as trade secrets).

**11. Representations and Warranties.** Each Party represents and warrants to the other that it has the full power and authority to carry on its business as it is now being conducted and to enter into and perform under this Agreement and, subject to Section 17, that there are no agreements or commitments or Law that would prevent it from carrying out its obligations hereunder.

**12. Indemnification.** To the fullest extent permitted by law, HomeServe shall indemnify, defend and hold Utility and its affiliates, officers, directors, and employees (the "**Utility Indemnitees**") harmless of, from and against all Losses, directly or indirectly, from or in connection with this Agreement, the performance or non-performance of it or any Service Agreement, any breach by HomeServe of any representation, warranty or covenant in this Agreement or any Service Agreement whether such Losses are caused by HomeServe itself or its contractors, subcontractors, or agents, except to the extent that such Losses are caused by the negligence or acts or omissions of a Utility Indemnitee. Such indemnity shall extend to Losses after completion of any Services arising out of the performance of any Service Agreement.

HomeServe may, at its option and expense, conduct the defense of any third-party claim, demand or suit, against the Utility Indemnitees for which HomeServe is also sued (with counsel reasonably acceptable to Utility Indemnitees) and Utility Indemnitees may monitor such defense and shall cooperate fully with such defense (*provided, however*, that if in the reasonable written opinion of legal counsel for Utility Indemnitees it would be a conflict of interest if HomeServe counsel represented both HomeServe and Utility Indemnitees, HomeServe shall pay the reasonable fees and expenses of separate legal counsel for Utility Indemnitees in that matter). If HomeServe fails or refuses to appoint counsel or to diligently defend such claim then Utility Indemnitees may appoint counsel of their choice without limiting its indemnity rights (and at HomeServe's sole cost and expense). Utility Indemnitees shall notify HomeServe of any written claims or demands against it; *provided, however*, that the failure of a Utility Indemnitee to give timely notice shall not relieve HomeServe of its obligations under this Section 12 unless failure to give notice results in a judgment or other prejudicial ruling against HomeServe. Unless consented to by Utility Indemnitees (which shall not be unreasonably withheld or delayed) neither party shall enter into any settlement that does not fully and finally release each other party from all claims in the applicable action.

FOR THE AVOIDANCE OF DOUBT, EACH PARTY IS RESPONSIBLE FOR THE ACTS, OMISSIONS, NEGLIGENCE AND OTHER MISCONDUCT OF ITS CONTRACTORS OR SUBCONTRACTORS.

**13. Disclaimer; Limitation of Liability.** EXCEPT FOR INDEMNIFICATION OF THIRD-PARTY CLAIMS OR CLAIMS FOR DAMAGES FROM PERSONAL INJURY OR PROPERTY DAMAGE, THE MAXIMUM LIABILITY OF EACH PARTY UNDER THIS AGREEMENT FOR DAMAGES FOR BREACH OF THIS AGREEMENT SHALL NOT EXCEED \$2,000,000 IN THE AGGREGATE, EXCEPT FOR LOSSES INCURRED BY A PARTY THAT ARE CAUSED BY THE VIOLATION OF LAW. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH PARTY HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), WARRANTY OR OTHERWISE, FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, PUNITIVE, EXEMPLARY OR INCIDENTAL DAMAGES, INCLUDING LOST REVENUES OR LOST PROFITS HOWSOEVER CAUSED.

**14. Term and Termination.** This Agreement shall commence as of the Effective Date and shall continue for a period of five (5) years thereafter ("**Initial Term**") (unless terminated early in accordance with this Section 14 or other provisions under this Agreement). After the Initial Term, this Agreement shall renew automatically for successive one 1-year renewal terms (each, a "**Renewal Term**") unless a Party has provided written notice to the other Party at least one hundred twenty (120) days before the expiration of the Initial Term that it will terminate this Agreement. The Initial Term and all Renewal Terms are referred to in this Agreement as the "**Term**".

Subject to Section 17 and notwithstanding any of the above, either Party may terminate this Agreement at any time, effective after a ninety (90) day notice to the other that the terminating Party intends to terminate the Agreement.

Either Party may also terminate this Agreement effective upon written notice to the other where: (i) the other commits a material breach of the Agreement which is either incapable of remedy (in which case the termination shall be effective upon receipt of notice) or, where capable of remedy, the Party in breach fails to remedy that breach within sixty (60) days of being so notified of it ; or (ii) the other Party becomes insolvent or files or has filed against it any bankruptcy or similar proceeding, or (iii) if the acts or omissions of the non-terminating Party (or its employees, agents, contractors or subcontractors) cause the terminating Party to suffer any material fine or other disciplinary process from any regulatory authority or if, due to the imposition of any rule or regulation by a regulatory authority, the continued sale of the Products would have a material adverse effect on the terminating Party. A termination for reasons described in clauses (i) to (iii) above shall constitute termination for "**Cause**."

**15. Effect of Termination; Survival.** Upon termination of this Agreement: (i) each Party shall, at the other's option, promptly return or destroy all materials bearing the Marks of the other Party and all Confidential Information of the other Party; (ii) neither Party shall thereafter hold itself out as being associated with the other Party and shall immediately terminate using the other Party's Marks; and (iii) payment processes shall survive such termination to the extent provided in Sections 8 and 9 hereof. Termination shall be without prejudice to the rights and obligations of the Parties accrued prior to termination. Sections 1, 3.2, 3.3, and 3.4, 8, 10, 12, 13, 14, 15, 16, 17, 18, and 19 shall survive the expiration or termination of this Agreement.

**16. Insurance.** HomeServe shall maintain during the Term of the Agreement and until, the later of (i) one (1) year after the Term and (ii) for a period of one (1) year after the expiration or termination of any outstanding Service Agreement under this Agreement, at its cost, comprehensive, occurrence-based liability insurance and such other insurance as shall be appropriate for the nature and extent of the business as carried on from time to time under this Agreement and any Service Agreement. HomeServe shall maintain, and shall ensure that its contractors and subcontractors maintain, occurrence-based insurance policies more fully described on **Exhibit I** hereto. HomeServe insurance policies required under this Agreement must have a minimum rating by A.M. Best of A- X. Such policies shall be issued by insurance

companies authorized to business in this state and shall name Utility and its parent company, subsidiaries of such parent company, affiliates, directors, officers, members, partners, managers, employees, agents and authorized representatives as additional insureds for completed Services and operations by endorsement.

All endorsements shall state that the insurance carrier shall give Utility thirty (30) days notice of any cancellation, renewal or material change of the policies except for non-payment, in which case ten (10) days' notice applies. Such insurance shall be primary and non-contributing with any other insurance available to Utility or any of the additionally insured.

HomeServe will furnish Utility with certificates evidencing such insurance prior to commencing performance hereunder and annually during the term of this Agreement. Certificates of insurance evidencing the coverages and all endorsements required under this Section shall be in the form and substance satisfactory to Utility and shall be provided by HomeServe to Utility prior to the commencement of any Services hereunder and certificates evidencing renewal or replacement policies shall be provided by HomeServe to Utility for any policies which expire during the term of the Agreement. The general liability additional insured endorsement required under this Section 16 shall provide coverage at least as broad as ISO Additional Insured Endorsement form CG 20 10 11 85 or a similar form approved in writing by Utility and shall include completed operations coverage.

HomeServe waives all rights of subrogation against Utility by reason of any claim arising out of or connected with the Services, Products, or Program under this Agreement to the extent covered by the general liability, automobile liability, worker's compensation, or any other insurance required by this Agreement and shall require similar waivers by its contractors and subcontractors. All insurance policies required hereunder shall permit and recognize such waivers of subrogation.

**17. Regulatory Matters.** The performance of this Agreement by Utility is from time to time subject to review by the California Public Utilities Commission "**CPUC**." If, as a result of a final non-appealable ruling by the CPUC ("**Ruling**"), a Party is unable to comply with any one or more specific provisions of this Agreement, the Parties will meet in good faith to discuss potential amendments to those provisions of this Agreement that may enable the Parties to remain able to perform hereunder. Any such amendment will be limited to addressing specific issues raised in the Ruling. Neither Party shall be obligated to agree to any proposed amendment to this Agreement and, pending agreement, the Parties will continue to perform under this Agreement to the extent permitted by applicable Law or any Ruling.

Without limiting the foregoing, in the event that Utility determines in good faith that continued performance of the Program following a Ruling or due to applicable Law is reasonably expected to result in either (i) the imposition of fines or penalties on Utility in the future; (ii) material interference with Utility's regulated water utility services, (iii) noncompliance with applicable Laws or Ruling, or (iv) material unanticipated financial loss or a material negative business impact, then the Parties may discuss amendments to this Agreement so as to avoid such results. If an agreement on an amendment is not reached, either Party may terminate this Agreement effective upon notice to the other. If the Parties are unable to amend this Agreement and the Ruling materially impacts performance of either Party hereunder in a manner that a Party deems materially adverse to its business then this Agreement may be terminated upon a reasonable transition period so as not to disrupt Customers and Members, with such transition period being subject to the Ruling or any other requirement set forth by the CPUC.

**18. Notices.** Any communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given and received (i) three (3) days after mailing by United States registered or certified mail, return receipt requested; (ii) one (1) day after mailing by overnight express mail; (iii) upon transmission when sent by facsimile with confirmed receipt, Email, or other electronic communication; and (iv) when delivered in person to the Parties at the following addresses:

*If to HomeServe:*

HomeServe USA Corp.  
601 Merritt 7, 6<sup>th</sup> Floor  
Norwalk, CT 06851  
Telephone: (203) 356-4205  
Facsimile: (203) 363-0727  
Attention: Thomas J. Rusin, CEO  
Email: tom.rusin@homeserveusa.com

*If to Utility:*

Great Oaks Water Company  
20 Great Oaks Blvd  
San Jose, CA 95110  
Telephone: (408) 227-9540  
Facsimile: (408) 227-7126  
Attention: John Roeder  
Email: jroeder@greatoakswater.com

*With a required copy to:*

Home Service USA Corp.  
601 Merritt 7, 6<sup>th</sup> Floor  
Norwalk, CT 06851  
Telephone: (203) 356-4230  
Facsimile: (305) 675-0411  
Attention: Divisional Counsel  
Email: graceann.pisano@homeserveusa.com

*With a required copy to:*

Great Oaks Water Company  
20 Great Oaks Blvd  
San Jose, CA 95110  
Telephone: (408) 227-9540  
Facsimile: (408) 227-7126  
Attention: Tim Guster  
Email: tguster@greatoakswater.com

Either Party may change the names or addresses for notice by providing written notice to the other Party of such change in accordance with this Section 18.

**19. Miscellaneous.**

- 19.1 Each Party shall be responsible for its acts and the acts of its employees, contractors, vendors, consultants, agents and subcontractors. This Agreement shall not render HomeServe or any of HomeServe's contractors, vendors, or consultants, an employee, partner, agent of, or joint venturer with Utility for any purpose. HomeServe's employees, contractors, vendors, or consultants shall have no claim against the Utility hereunder or otherwise for vacation pay, sick leave, retirement benefits, social security, worker's compensation, health or disability benefits, unemployment insurance benefits, or employee benefits of any kind. HomeServe is responsible for any federal, state and local income tax, if any, applicable to it with respect to Service Agreement Fees received by it under this Agreement, and HomeServe agrees to and acknowledges the obligation to pay all applicable taxes, fees, or assessments thereon.
- 19.2 Neither Party shall assign the benefit, or delegate the obligations of this Agreement to any third party without the prior written consent of the other; except that upon notice to the non-assigning Party, (i) either Party may assign and delegate its obligations hereunder to contractors and subcontractors, so long as the assigning Party remains primarily liable under this Agreement; and (ii) either Party may assign and delegate its rights and obligations hereunder in connection with a sale of all or substantially all of its business to a third party. Any purported assignment or transfer made in violation of this Section 19.2 is null and void, and shall be of no effect. Notwithstanding the foregoing, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the Parties hereto.

- 19.3 This Agreement may be amended, varied, modified or altered only by written agreement between the Parties. No failure or delay to exercise rights hereunder shall operate as a waiver and no single or partial exercise of such rights shall preclude any other or further exercise thereof. This Agreement (together with the Exhibits) is the entire agreement between the Parties with respect to the subject matter hereof and supersedes any previous agreements between the Parties relating to the same and does not and is not intended to confer upon any Person other than the Parties, any rights or remedies hereunder.
- 19.4 If a provision of this Agreement is held by any court of competent jurisdiction to be illegal or void (in whole or in part), then such provision shall be excluded, and the remaining provisions shall be interpreted as if such provision (or part thereof) were excluded and this Agreement shall otherwise remain in full force and effect.
- 19.5 This Agreement and the rights and obligations hereunder shall be governed by California law without regard to its choice of law provisions. The Parties submit to the exclusive jurisdiction of the Federal courts located in the Northern District of California and state courts located in Santa Clara County, California to resolve all disputes under this Agreement and consent to service of process in any manner permitted by those courts. Notwithstanding this, prior to commencing any proceedings in any such court, the Parties shall use their good faith efforts to resolve any dispute under this Agreement by negotiation for a period of 30 days after such dispute arose, which negotiation shall involve management of each Party.
- 19.7 Except for payment obligations, a Party shall not be held to be in breach of this Agreement by reason of any force majeure event including, but not limited to, act of God, delay in transportation, fire, flood, earthquake, storm, war, act of a public enemy, act of terrorism, civil commotion, telecommunications failure, a change in any law, rule, regulation, order or other action by any public authority, or any other matter reasonably beyond such Party's control and not due to the negligence of such Party. The nonperforming Party shall be excused from performance while the event continues, provided that the nonperforming Party provides prompt notice to the other of the force majeure event and takes commercially reasonable steps to resume full performance as soon as is practicable.
- 19.8 This Agreement may be executed in counterparts.

**IN WITNESS WHEREOF**, the Parties hereby enter into this Agreement as of the Effective Date written below as a legally binding agreement.

EFFECTIVE DATE OF THE AGREEMENT: \_\_\_\_\_

**GREAT OAKS WATER COMPANY**

**HOMESERVE USA CORP.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

**Thomas J. Rusin**  
**Chief Executive Officer**

Date: \_\_\_\_\_

## **List of Exhibits**

<b>A</b>	<b>Product Offerings</b>
<b>B</b>	<b>Program Description</b>
<b>C</b>	<b>Service Agreement Forms</b>
<b>D</b>	<b>Service Standards</b>
<b>E</b>	<b>Territory</b>
<b>F</b>	<b>Marks</b>
<b>G</b>	<b>Performance Management Summary</b>
<b>H</b>	<b>Enrollment Form and Customer Letter</b>
<b>I</b>	<b>Insurance</b>

**EXHIBIT A**  
**Product Offerings**

Exterior Water Service Line Coverage

Exterior Wastewater Line Coverage

Internal Plumbing and Drainage (Cross Sell product)

## **EXHIBIT B**

### **Program Description**

Under our proposed offering, customers of Great Oaks Water Company will receive the specified coverage for the repairs and replacement of broken, leaking, or clogged exterior water and sewer service lines, subject to the terms and conditions of the policy. This includes repairs to damage caused by frozen pipes, expansive soil, infiltration of roots, as well as the reinstallation of existing landscaping, service call charges, labor, materials, permits and tax for the covered repairs. The HomeServe approach provides a blend of service options and coverage plans to your customers in a domestic emergency situation:

- Dedicated customer service and customer inquiry phone lines.
- Toll-free emergency number to call 24 hours a day, 365 days a year to receive assistance.
- A locally based, fully qualified contractor who is rapidly dispatched to home emergencies with customer contact and scheduling within 1 hour and a target of on-site arrival within 2 to 6 hours for a Priority 1, emergency event.
- No bills to pay or forms to fill in at the completion of the job.
- Guaranteed levels of service.
- All repairs warranted for one year including material and labor.
- *48 hour call backs to customers to measure and ensure satisfaction.*

#### **Exterior Water Service Line Coverage**

- Locate, excavate and repair water service line leak.
- Four Service calls per year, with up to \$3000 in coverage per service call, on the entire portion of the privately owned service line from the building foundation to the property boundary.
- We will respond to requests for service 24 hours per day, 7 days per week. Within the constraints of weather, emergency conditions, workload, and staffing levels, we will make every attempt to perform repairs on or replacement of your water service line within 24 hours of notification of a leaking or broken water line.
- Basic restoration of ground surface features to comply with Great Oaks Water Company requirements (code), after excavation for service line repair; performance of all preparation, repair and restoration work in adherence with all applicable federal, state and local environmental and health and safety regulations; high- quality repairs in adherence to the most current municipality rules and regulations, including specifications for materials and construction for water service lines.

#### **Exterior Sewer Service Line Coverage**

- Locate, excavate and repair sewer service line break.
- Two service calls per year, with up to \$3000 in coverage, per service call on the entire portion of the privately owned sewer service line from the building foundation to the property boundary.
- We will respond to requests for service 24 hours per day, 7 days per week. Within the constraints of weather, emergency conditions, workload, and staffing levels, we will make every attempt to perform repairs on or replacement of your sewer service line within 24 hours of notification of a leaking or broken sewer line.
- Basic restoration of ground surface features to comply with Great Oaks Water Company requirements (code), after excavation for sewer service line repair; performance of all preparation, repair and restoration work in adherence with all applicable federal, state and local environmental and health and safety regulations; high- quality repairs in adherence to the most current municipality rules and regulations, including specifications for materials and construction for sewer service lines.



## EXHIBIT C

### Service Agreement Forms

#### 14. RIGHTS OF RECOVERY:

If We provide covered services, We may require You to assign Us Your rights of recovery against others. We will not pay for covered services if You impair these rights to recover. Your right to recover may not be waived.

We reserve the right to a second opinion by a licensed repairer of Our choosing on any repair or replacement diagnosis.

Misrepresentation or any attempt to defraud Us, including collusion between You and the plumber or service provider, shall result in cancellation of coverage and We shall seek reimbursement and may pursue remedies under the law.

#### 15. PRIVACY POLICY:

Personal information about You may be collected from persons other than You. The categories of information that We may collect include information about Your Property. Such information as well as other information collected by Us or by Our agents may, in certain circumstances be disclosed to third parties. The information will be disclosed only as permitted under applicable law. You have the right to review Your personal information in Our files and can request correction of any inaccuracies. A more detailed description of Your rights and Our practices is available upon request by calling us at 1-888-302-0107. Customer information collected during the purchase and administration of this Policy is not disclosed to other companies for the purposes of marketing other products and services. Such information may be disclosed to other companies in order to provide service under this Policy. Should you have any questions about our policy please contact us on 1-888-302-0107. Telephone calls may be recorded and/or monitored.

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or replace any covered parts. We reserve the right to select the materials and/or parts to be used in the repair or replacement; however, all such materials and/or parts will comply with all relevant and applicable laws, regulations, codes, and standards. We will perform all work related to the repair or replacement of the water service line. Repair or replacement under this Policy includes all excavation, backfill, and removal of spoils in the area of the repair or replacement. This Policy also covers damage to the water service line caused by freezing and root damage.

#### 5. EXCLUSIONS:

This Policy does not cover any equipment or facilities that are not specifically identified as covered including the following:

- Facilities, equipment, and appurtenances, such as pressure-reducing valves, house valves, backflow devices, water softeners, booster pumps, irrigation and separate fire sprinkler systems, hose bibs, and other similar items;
- Cost of restoration or repair of hard or soft landscaping, which includes but is not limited to driveways, walkways, decks, patios, retaining walls, flowerbeds, trees, lawns, shrubbery, and other plantings and structures. We will endeavor to minimize any disruption to hard and soft landscaping while performing work related to the repair or replacement;
- Removal of structures, such as decks, patios, and retaining walls, necessary to access the water line;
- Pre-existing damage, relocation of water service lines or related equipment, or unauthorized alterations or work on the water service line;
- Repairs or replacement due to damage directly or indirectly as a result of You or any other party working or excavating on Your property or in the vicinity of Your water service line or inside plumbing or related facilities;
- Damage caused by earthquakes, flooding, volcanic eruption, sinkholes, landslides, civil disobedience, riots, war, terrorism, or natural disaster other than freezing;
- Water service lines that are connected to multiple dwellings;
- Lines improperly installed by others (but does cover work done by Us);
- Damage caused by or resulting from: insect, vermin, pets, misuse, abuse, negligence, vandalism, theft, war, riot, military unrest, nuclear accident, flooding, water fluctuations, fire, hail, wind, lightning, earth movement, landslide, sand, chemicals.

#### 6. LIMITS OF LIABILITY:

We will cover a maximum of \$3,000 per occurrence and We will cover up to 4 (four) occurrences in each year of membership. We will not be liable for any incidental or consequential damage, including damage caused by leaks or by water service interruption. We will not be liable for any damage to Your property or any other property unless such damage is the direct result of Our negligence while providing services. All work in relation to covered services must be performed by Us or with Our authorization. We will not pay for any unauthorized repair or replacement of a covered item, including labor and/or materials.

#### 7. WARRANTY

We will repair or replace Your water service line so that it will be suitable for residential water service. All repairs or replacements will have a warranty of one year. During the warranty period, if the repair or replacement does not conform to this warranty, We will make the necessary correction. All corrected repairs will be similarly warranted.

#### 8. ENROLLMENT/WAITING PERIOD:

Coverage begins only after Our acceptance of the application and receipt of payment of the Premium. You have thirty (30) days from the effective date of this Policy as shown on the Declaration page before You can make a Service call. During that period if You decide You do not want the Policy You can notify Us and We will provide a full refund of Premium paid. We reserve the right to make an on-site inspection of Your water service line and related facilities and equipment to ensure they are in proper operating condition before coverage under this Policy becomes effective. To fulfill Our obligations under this Policy, You shall grant Us access to the covered water service line and related facilities and equipment.

If You find You have other coverage that provides similar benefits, You can notify Us immediately. We will refund Your Premium as long as no Service call has been provided. You may be required to provide a copy of the contract/policy showing similar coverage.

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## WESCO INSURANCE COMPANY

### WATER LINE PROTECTION INSURANCE

#### TERMS AND CONDITIONS

##### KEY TERMS

The Administrator means Home Emergency Insurance Solutions, 5301 Blue Lagoon Drive #400, Miami, Florida 33126, which administers this Insurance program on Our behalf. You may contact the Administrator at the foregoing address or by calling toll-free at 1-888-302-0107.

Premium means the amount You are required to pay for coverage under this policy.

Property means the Property listed on the Declaration Page.

Service call(s) means repair or replacement or unblocking work performed by a licensed plumber or licensed service provider to diagnose and eliminate a covered repair.

We, Us, and Our means Wesco Insurance Company, 59 Maiden Lane, 6th Floor, New York, NY 10036. You may contact Us at the foregoing address or by calling Us toll-free at 1-888-302-0107.

You and Your means the Named Insured listed on the Declaration Page.

##### 1. RESPONSIBILITY FOR BENEFITS OWED TO YOU:

We are responsible for the performance of contractual obligations under this Policy, including service performance and payment of the cost of any benefits payable to You under this Policy. The Administrator administers the delivery of benefits owed to You under this Policy. The Administrator will handle on Our behalf any claim You may have for benefits under this Policy. The Administrator will serve as Your ordinary point-of-contact for any questions or concerns You may have with respect to Your Policy; You may also contact Us with any further inquiries. We have given the Administrator authority to act on Our behalf in processing claims under this Policy and in assisting You in processing payments and other transactions under this Policy, and the Administrator will act on behalf of Us in providing these services to You.

##### 2. ELIGIBILITY:

You are eligible for benefits under this Policy only if (i) You own or have written authorization to provide maintenance for the customer-owned water service line and related facilities between the utility water meter, or the connection to Your service line and the residential dwelling served by the utility; (ii) the size of Your water service line is no larger than 2 inches in diameter and no longer than 200 feet in length; and (iii) Your water service line is in good condition on the first day that this Policy becomes effective.

This Policy covers only the water service lines identified in the Declaration Page for the residence located on the Property. We reserve the right to deny benefits if you fail to comply with the terms and conditions of this agreement, relevant rules, regulations, laws, local codes or standards, or if Your water service line is otherwise nonconforming. A separate policy is required for each water service line at a residence. Coverage under this Policy is not transferable.

##### 3. RESPONSE TIME:

We will respond to requests for service 24 hours per day, 7 days per week. Within the constraints of weather, emergency conditions, workload, and staffing levels, We will make every attempt to perform repairs on or replacement of Your water service line within 24 hours of notification of a leaking or broken water line. However, We will not be responsible for delays beyond Our reasonable control. In the case of an unsafe condition, which will be determined solely by Us, We will not be required to provide service under this Policy for Your water service line until the unsafe condition is corrected.

##### 4. COVERAGE:

Subject to the limits of liability set forth below, We shall provide all parts, materials, and labor to repair or replace a leaking or broken water service line between the utility's meter, or connection to Your water service line, and Your residential dwelling located on the Property. We will determine whether to repair

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##### 9. BILLING:

Your Premium will be billed as a non-regulated charge on Your utility bill. You will be billed in advance at a monthly rate.

If Your Premium cannot be billed on Your utility bill, We will arrange payment of Your Premium directly with You and You will be billed in advance at a frequency selected by You from the range of payment options made available by Us.

##### 10. RENEWALS:

This Policy will be automatically renewed in accordance with the frequency on the Declaration Page following the end of the first year unless you elect to terminate or We give you notice of non-renewal. We reserve the right to adjust the conditions of coverage and price upon renewal.

##### 11. CANCELLATION:

You may not cancel this Policy during the first year of coverage. After the first year, You may cancel this Policy at any time by mailing a request for cancellation to Home Emergency Insurance Solutions, 5301 Blue Lagoon Drive, Suite 400, Miami, Florida 33126. We also reserve the right to discontinue this Policy at renewal at Our discretion.

This Policy shall be non-cancelable during any Policy Period (as stated on the Declaration Page) by Us, except for:

- Nonpayment of Premium when due;
- Fraud or misrepresentation of facts by You material to the issuance of this Policy or in connection with a claim under this Policy.

If We cancel, We will provide you with written notice of cancellation as required by law. You will be entitled to a pro-rata refund of Premium paid provided no Service call has been made.

##### 12. TERMINATION:

Non-payment or late payment of Premium will NOT result in severance or termination of Your tariffed water service. Non-payment or late payment of Premium will result in a lapse or termination of coverage under this agreement. Prompt payment will ensure continuation of coverage.

##### 13. DISPUTE RESOLUTIONS:

All disputes shall be submitted in writing and addressed to the Administrator. The Administrator shall, within fourteen (14) days of receipt, respond to Your dispute. If the Administrator's recommendation is not satisfactory to resolve Your dispute, the parties agree to have the dispute heard by an independent mediator before initiating formal legal action. The losing party, as determined by the mediator, shall be responsible for all costs of mediation, including but not limited to the prevailing party's cost and its own cost of mediation. In determining the losing party, the mediator shall consider whether the Administrator's recommendations were reasonable and adequate to resolve the dispute. The mediator's recommendations shall not be legally binding on the parties.

We strive to provide You with the highest standards of service. If You feel that Our service has not met Your expectations or You have a question or concern, please contact Us at:  
5301 Blue Lagoon Drive, Suite 400, Miami, FL 33126, or call 1-888-302-0107.

You can also contact the California Department of Insurance. However, the California Department of Insurance should be contacted only after discussions with the insurance company or its agent or representative or both have failed to produce a satisfactory resolution to the problem.

The California Department of Insurance can be contacted at:

California Department of Insurance  
Consumer Communications Bureau  
300 South Spring Street, South Tower  
Los Angeles, California 90013  
Toll free number: (800) 527-4357  
Local telephone number: (213) 897-8621  
Fax number: (213) 897-5961

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before You can make a Service call. During that period If You decide You do not want the Policy You can notify Us and We will provide a full refund of Premium paid.

**e. PERMANENT REPAIRS.**

All permanent repairs will have a minimum of a six (6) month repairer's guarantee.

**f. TRANSFER.**

Your rights and duties under this Policy are transferable only to a subsequent purchaser of the Property, and any such transfer must be completed within thirty (30) days from the date of sale to the subsequent owner. All transfers are for the balance of the remaining term and are subject to any outstanding Premium and the new owner registering into the program.

**g. OVERLAPPING COVERAGE.**

If You find You have other coverage that provides similar benefits, You can notify Us immediately. We will refund Your Premium as long as no Service call has been provided. You may be required to provide a copy of the contract/policy showing similar coverage.

**h. RIGHTS OF RECOVERY.**

If We pay for an Emergency Breakdown, We may require You to assign Us Your rights of recovery against others. We will not pay for an Emergency Breakdown if You impair these rights to recover. Your right to recover may not be waived.

**i. REPAIR, REPLACEMENT AND/OR UNBLOCKING:**

At Our discretion a covered Emergency Breakdown may be remedied by repair, replacement and/or unblocking.

**j. SECOND OPINION:**

We reserve the right to a second opinion by a licensed repairer of Our choosing on any repair or replacement diagnosis.

**k. FRAUD AND/OR MISREPRESENTATION:**

Misrepresentation or any attempt to defraud Us, including collusion between You and the plumber or service provider, shall result in cancellation of coverage, and We shall seek reimbursement and may pursue remedies under the law.

**l. PRIVACY POLICY**

Personal Information about You may be collected from persons other than You. The categories of information that we may collect include information about Your Property. Such information as well as other information collected by Us or by Our agents may, in certain circumstances be disclosed to third parties. The information will be disclosed only as permitted under applicable law. You have the right to review Your personal information in Our files and can request correction of any inaccuracies. A more detailed description of Your rights and Our practices is available upon request by calling us at 1-877-444-2461. Customer information collected during the purchase and administration of this Policy is not disclosed to other companies for the purposes of marketing other products and services. Such information may be disclosed to other companies in order to provide service under this Policy. Should you have any questions about our policy please contact us on 1-877-444-2461. Telephone calls may be recorded and/or monitored.

## WESCO INSURANCE COMPANY SEWER/SEPTIC LINE INSURANCE COVERAGE

### TERMS AND CONDITIONS

#### KEY TERMS

The Administrator means Home Emergency Insurance Solutions, 5301 Blue Lagoon Drive #400, Miami, Florida 33126, which administers this insurance program on Our behalf. You may contact the Administrator at the foregoing address or by calling toll-free at 1-877-444-2461. Emergency Breakdown means the sudden failure to the External Sewer/Septic Lines due to defects in workmanship and/or materials, breakdowns due to normal wear and tear, or breakdowns arising in the course of ordinary functioning and usage, which immediately:

- Exposes You to a risk to Your health;
- Creates a risk of or damage to Your Property or any of Your belongings normally contained within the Property; or
- Makes Your home on the Property uninhabitable.

Premium means the amount You are required to pay for this agreement.

Property means the Property listed on the Declaration Page.

Reinstatement means back-filling of any necessary outside excavation to leave the ground level.

Service call(s) means repair or replacement or unblocking work performed by a licensed plumber or licensed service provider to diagnose and eliminate a covered Emergency Breakdown.

We, Us, and Our means Wesco Insurance Company, 59 Maiden Lane, 6th Floor, New York, NY 10038. You may contact Us at the foregoing address or by calling Us toll-free at 1-877-444-2461.

You and Your means the Named Insured listed on the Declaration Page.

#### 1. RESPONSIBILITY FOR BENEFITS OWED TO YOU:

We are responsible for the performance of contractual obligations under this Policy, including service performance and payment of the cost of any benefits payable to You under this Policy. The Administrator administers the delivery of benefits owed to You under this Policy. The Administrator will handle on Our behalf any claim You may have for benefits under this Policy. The Administrator will serve as Your ordinary point-of-contact for any questions or concerns You may have with respect to Your Policy; You may also contact Us with any further inquiries. We have given the Administrator authority to act on Our behalf in processing claims under this Policy and in assisting You in processing payments and other transactions under this Policy, and the Administrator will act on behalf of Us in providing these services to You.

This Policy becomes effective only after Our acceptance of the application and receipt of payment.

This Policy continues for one (1) year from the effective date listed on the Declaration Page. However in the first year of coverage You may not make a Service call within thirty (30) days of the effective date listed on the Declaration Page. Payment must be received by Us for this Policy to be effective.

This Policy will cover only systems for which You have responsibility.

#### 2. EMERGENCY BREAKDOWN SERVICE:

Subject to the terms and conditions of this Policy, including the exclusions and limits of liability listed below, We agree, in the event of a covered Emergency Breakdown during the Policy term, to arrange and pay for a licensed plumber or licensed service provider to provide a Service call under the following circumstances, subject to the type of coverage you have selected as shown on the Declaration Page:

- External Sewer/Septic Lines Coverage is provided if You have an Emergency Breakdown to Your external sewer drains from the point at which they cross the outer vertical wall of the building on Your Property to the point of connection with the public sewers on the Property for which You have responsibility. In that event, You should call the Emergency Service Hotline.
- In the case of an Emergency Breakdown to Your septic lines, Your coverage is for the external sewer drains from the point at which they cross the outer vertical wall of the building on Your Property to the point of connection with your septic system on the Property. Coverage does not include the septic system itself.

Covered Emergency Breakdown includes but is not limited to:

Drain letting or snaking to clear blockage;

**e) CONSEQUENTIAL OR INCIDENTAL DAMAGES;**

**f) INJURY, ILLNESS, DAMAGE, INCONVENIENCE OR LOSS OF USAGE CAUSED BY DELAYS, NON-AVAILABILITY OF PARTS, LABOR DIFFICULTIES OR OTHER CONDITIONS BEYOND OUR CONTROL;**

**g) ANY AND ALL COSTS ASSOCIATED WITH A REPAIR VISIT, IF IT IS DETERMINED THAT COVERAGE UNDER THIS CONTRACT DOES NOT APPLY, OR NO COVERED EMERGENCY BREAKDOWN IS DISCOVERED;**

**h) COST ASSOCIATED IN OBTAINING PERMITS;**

**i) COST ASSOCIATED WITH REINSTATEMENT OF HARD OR SOFT LANDSCAPING (INCLUDING BUT NOT LIMITED TO DRIVEWAYS, PATHWAYS, WALLS, PATIOS, DECKS, FLOWERBEDS, TREES AND LAWNS);**

**j) COVERAGE ON MOBILE HOMES, RECREATIONAL VEHICLES, MULTIPLE-UNIT DWELLINGS, COMMERCIAL BUILDINGS, OR ANY RESIDENTIAL HOME OVER 5,001 SQ. FT.**

**k) EMERGENCY BREAKDOWN CAUSED BY OR RESULTING FROM: INSECT, VERMIN, PETS, MISUSE, ABUSE, NEGLIGENCE, VANDALISM, THEFT, WAR, RIOT, MILITARY UNREST, NUCLEAR ACCIDENT, FLOODING, WATER FLUCTUATIONS, FIRE, HAIL, WIND, LIGHTNING, EARTHQUAKES, EARTH MOVEMENT, LANDSLIDE, SAND, CHEMICALS;**

**l) CIRCUMSTANCES OUTSIDE OUR REASONABLE CONTROL SUCH AS EXTREME WEATHER CONDITIONS, POWER AND/OR SYSTEM FAILURE, INDUSTRIAL ACTION OR STATE OR FEDERAL AUTHORITIES EMERGENCY DIRECTIVES.**

#### 3. LIMITS OF LIABILITY:

Our obligations for a covered Emergency Breakdown are limited to:

- Two Service calls per coverage term.
- A maximum of \$3000 for any one Service call.
- Your prorated share of the cost of repair or replacement or unblocking for shared plumbing or drainage facilities, up to \$3000 for any one service call.

#### 4. GENERAL CONDITIONS:

##### a. CANCELLATION:

If You cancel this Policy within 30 days of the effective date We will refund Your Premium in full. You may cancel this Policy after 30 days from the effective date by providing written notice. You will be entitled to a pro-rata refund of Premium paid less any claims paid by Us. Any refund not paid to You within 30 days is subject to a 10% monthly penalty.

This Policy shall be non-cancelable by Us, except for:

- Nonpayment of Premium when due.
- Fraud or misrepresentation by You of facts material to the issuance of this Policy or in connection with a claim under this Policy.

If We cancel, We will provide you with written notice of cancellation as required by law. You will be entitled to a pro-rata refund of Premium paid provided no Service call has been made.

##### b. CUSTOMER SERVICE:

We strive to provide You with the highest standards of service. If You feel that Our service has not met Your expectations or You have a question or concern, please contact Us at: 5301 Blue Lagoon Drive, Suite 400, Miami, FL 33126, or call 1-877-444-2461.

You can also contact the California Department of Insurance. However, the California Department of Insurance should be contacted only after discussions with the insurance company or its agent or representative or both have failed to produce a satisfactory resolution to the problem.

The California Department of Insurance can be contacted at:

California Department of Insurance  
Consumer Communications Bureau  
900 South Spring Street, South Tower  
Los Angeles, California 90013  
Toll free number: (800) 927-4357  
Local telephone number: (213) 897-8921  
Fax number: (213) 897-5961

##### c. PAST DUE AMOUNT(S):

If You fail to make the full payment of Premium when due, We may terminate Your coverage under this Policy.

##### d. WAITING PERIOD:

You have thirty (30) days from the effective date of this policy as shown on the declaration page

Relining of cracked drain;

Rebuilding of collapsed drain.

When You call the Emergency Service Hotline, We will:

- Arrange for a licensed plumber or licensed service provider to provide a diagnosis of the problem; and
- Pay for the covered Emergency Breakdown including Reinstatement, subject to limits of liability.

#### 5. YOUR DUTIES:

We will not pay for any services performed without Our prior approval. Notice of any Emergency Breakdown must be given to the Administrator upon discovery and during the coverage term. In the event of an Emergency Breakdown under this Policy, You must:

- Call the Emergency Service Hotline immediately at 1-877-444-2461.
- Cooperate and assist the Administrator in any matter concerning a covered Emergency Breakdown.
- Provide the licensed plumber or licensed service provider with access to the Property.
- You must take every precaution to protect the Property until the necessary repair or replacement or unblocking is authorized by the Administrator and the work is completed.

We will make payment directly to the licensed plumber or licensed service provider after the work is completed. In some cases, it may be necessary for You to pay for the Service call, in which case, We will reimburse You when We receive Your paid invoice(s) and process Your payment.

#### 6. EXCLUSIONS:

We are not responsible for any of the following:

- WATER FAUCETS THAT REQUIRE WASHNER REPAIR;
- THAWING OF TEMPORARILY FROZEN PIPES WHICH HAVE NOT RESULTED IN AN EMERGENCY BREAKDOWN;
- EMERGENCY BREAKDOWN TO EXTERNAL GUTTERING, STORM DRAINS AND DOWNSPOUTS OR ANY DAMAGE RESULTING FROM THEIR OVERFLOW;
- ANY EMERGENCY BREAKDOWN WHICH EXISTED PRIOR TO, OR WAS CAUSED BY, A CONDITION WHICH EXISTED PRIOR TO THE EFFECTIVE DATE OF THIS POLICY;
- EMERGENCY BREAKDOWN ARISING FROM THE DISCONNECTION FROM OR INTERRUPTION TO THE MAIN WATER SUPPLY;
- EMERGENCY BREAKDOWN CAUSED BY FAULTY CONSTRUCTION, IMPROPER MAINTENANCE OR A LACK OF MAINTENANCE;
- EMERGENCY BREAKDOWN ARISING FROM A CONTROLLABLE LEAK WHERE YOU COULD HAVE CONTAINED OR SHUT OFF THE LEAK YOURSELF;
- SWIMMING POOLS OR DECORATIVE FEATURES (SUCH AS PONDS, FOUNTAINS AND ANY ASSOCIATED EQUIPMENT), SUMP PUMP, VACUUM DRAINAGE SYSTEMS, SEPTIC SYSTEMS, SPA, SPRINKLER SYSTEMS, WATER SOFTENER AND WASTE DISPOSAL UNITS;
- REPAIR AND/OR REPLACEMENT COSTS OF: WATER TANKS, WATER HEATERS, RADIATORS, BATHROOM FITTINGS (E.G. TOILET BOWLS AND BATHS) AND SINKS;
- REPAIR OR REPLACEMENT OR UNBLOCKING OF COVERED PARTS, EQUIPMENT AND/OR SYSTEMS DUE TO THE GRADUAL REDUCTION IN PERFORMANCE CAUSED BY NORMAL WEAR AND TEAR WHERE AN EMERGENCY BREAKDOWN HAS NOT OCCURRED;
- EMERGENCY BREAKDOWN TO PROPERTY HAVING REMAINED UNOCCUPIED FOR MORE THAN THIRTY (30) DAYS. WE WILL NOT PROVIDE COVERAGE FOR AN EMERGENCY BREAKDOWN CAUSED BY FREEZING IF THE HOME WAS UNOCCUPIED OR THE HEATING WAS NOT IN OPERATION AT THE TIME OF THE EMERGENCY BREAKDOWN;
- REPAIRS OR REPLACEMENT WHEN PARTS ARE OBSOLETE;
- COSTS TO CORRECT OR UPGRADE ANY PART EQUIPMENT AND/OR SYSTEM IN ORDER TO COMPLY WITH ANY FEDERAL, STATE, OR LOCAL LAWS, REGULATIONS, ORDINANCE OR UTILITY REGULATIONS;
- COSTS ASSOCIATED WITH TREATMENT, REMOVAL, RECOVERY, OR DISPOSAL OF HAZARDOUS MATERIAL;
- REPAIR OR REPLACEMENTS OR UNBLOCKING WITHOUT OUR PRIOR AUTHORIZATION;
- REPAIR OR REPLACEMENTS OR UNBLOCKING ARISING FROM MANUFACTURER'S RECALLS, DEFECTS OR CLASS ACTION SUITS;
- COST OF CLOSING WALLS, FLOORS OR CEILINGS;
- COST OF REPLACING AND REINSTALLING (INCLUDING BUT NOT LIMITED TO: CARPETS, CABINETS, KITCHEN ASSEMBLIES, PANELING, STUCCO, WOOD, TILE, WALL PAPER, FIXTURES, FITTINGS, MIRRORS);

**EXHIBIT D**  
**Service Standards**

S e r v i c e  S t a n d a r d s	Measure	Target
	Service Contract Documentation	Mailed within 10 days of enrollment
	Appointments	Contractor to arrive within 2 hours of time agreed to by customer
	Correspondence	Mail response sent within seven days
	Complaints	Resolution in 48 hours unless further information required or additional action required to resolve
	48 Hour Call Backs	Representative Sample
	Calls Answered in 30 Seconds	80%
	% Abandoned	< 5%
	Complaints (Provide details in attachment)	< 0.5 of active policies
	# Calls Screened per month	5 per person per month
	% Calls Good	> 90%
	% Good Rating on 48 Hour Callback	≥ 95%

**EXHIBIT E**  
**Territory**

**Utility to provide zip plus 4 prior to first marketing campaign**

## **EXHIBIT F**

### **Marks**

#### Utility Marks:

Utility Mark(s) that will be used in the Program

Great Oaks Water Company  
Great Oaks Water Co.  
GOWC



**GREAT OAKS WATER COMPANY**


#### Specific Requirements on Use of Utility Marks:


Specific uses must be approved by Utility in advance of use.



# EXHIBIT G

## Performance Management Summary Report Samples

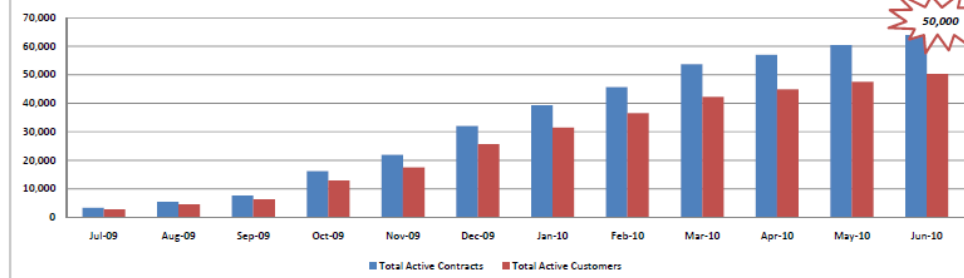
<b>HomeServe USA</b>		<b>Sea Haven Water</b>
<b>Monthly Performance Report</b>		
<b>June 2010</b>		
<b>Contents</b>		
Executive Summary.....	Page 2	
Section 1 - Contracts and Retention.....	Page 3	
Section 2 - Customer Service/Repair Mgt Information.....	Page 4, 5	
Section 3 - 48-Hour Call-Back and Testimonials.....	Page 6	
Section 4 - Complaints Received.....	Page 7	
Section 5 - Marketing Plan.....	Page 8	
<b>Company Confidential - Do Not Distribute</b>		

<b>HomeServe USA</b>	<b>Monthly Performance Report - June 2010</b>		<b>Sea Haven Water</b>
<b>Executive Summary</b>			
<b>Headline Performance</b>			<b>Page Number</b>
<b>Overall</b>	Report Overview: ~ Executive Summary page will now provide the performance highlights for all reporting sections. ~ Section 1 provides customer and sales results and trends ~ Section 2 contains call center data (including Customer Service/Sales, Repair Management data, and Quality call screening) ~ Section 3 provides additional data on the 48-hour call backs ~ Section 4 shows a rolling count of complaints per month by type ~ Section 5 shows critical path on upcoming marketing approvals/maillings for the next month		<b>2</b>
<b>Active Contracts</b>	Early results from the late June Water Service Line campaign are strong, showing over 600 sales in the first week (currently at 967 sales by end of week 2). Total active customers crossed a milestone during the month, now over <b>50,000</b> customers on a plan!		<b>3</b>
<b>Call Center</b>	Service Level surpassed goal again this month at 90%. The call abandon rate continued to remain well below goal at 0.4% of the total calls.		<b>4,5</b>
<b>(RM) Customer Service</b>	Service Level met goal this month even with an unexpectedly large call volume (over 9,700 calls this month across all partners). Our RM team has added a new Cost Authorizer position to assist in handling contractor calls. This will enable additional time for direct customer communication and raise overall service levels.		<b>4,5</b>
<b>Customer Service KPI's</b>			<b>Page Number</b>
Service Level- Customer Service	<b>This Month</b> 90%	<b>Last Month</b> 94%	<b>4</b>
Call Abandonment- Customer Service	0.3%	0.8%	<b>4</b>
Service Level- Repair Management	80%	83%	<b>4</b>
Call Abandonment - Repair Management	0.6%	0.5%	<b>4</b>
48-Hour Call-Back Satisfaction	95%	98%	<b>6</b>

## Section 1 - Contracts and Retention

	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
New Sales	3,552	1,910	2,207	8,642	6,364	10,450	8,130	6,675	8,261	4,617	3,939	4,343
Total Active Contracts	3,321	5,456	7,562	16,132	21,865	32,042	39,336	45,661	53,671	56,968	60,404	63,899
Total Active Customers	2,768	4,547	6,302	12,906	17,492	25,634	31,469	36,529	42,261	44,872	47,562	50,314
Total Number of Contracts	1.20	1.20	1.20	1.25	1.25	1.25	1.25	1.25	1.27	1.27	1.27	1.27
Penetration Rate	0.25%	0.41%	0.57%	1.17%	1.59%	2.33%	2.86%	3.32%	3.84%	4.08%	4.32%	4.57%

Total Active Contracts and Customers



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## Section 2 - Call Center Information

Home Service Calls	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	YTD
Total Calls	1,985	1,998	3,319	3,856	2,166	1,715	3,138	2,691	2,105	1,334	1,453	2,269	28,028
Total Answered within 30 seconds	1,846	1,898	2,852	3,269	1,832	1,416	2,582	2,378	1,772	1,219	1,370	2,048	24,482
Service Level	93%	95%	86%	85%	85%	83%	82%	88%	84%	91%	94%	90%	88%
Avg Speed of Answer (ASA)	0:00:12	0:00:11	0:00:11	0:00:13	0:00:12	0:00:15	0:00:13	0:00:09	0:00:13	0:00:08	0:00:07	0:00:09	0:00:11
Calls Abandoned	7	13	20	11	14	9	19	13	18	12	11	6	153
% Abandoned	0.4%	0.7%	0.6%	0.3%	0.6%	0.5%	0.6%	0.5%	0.9%	0.9%	0.8%	0.3%	0.5%

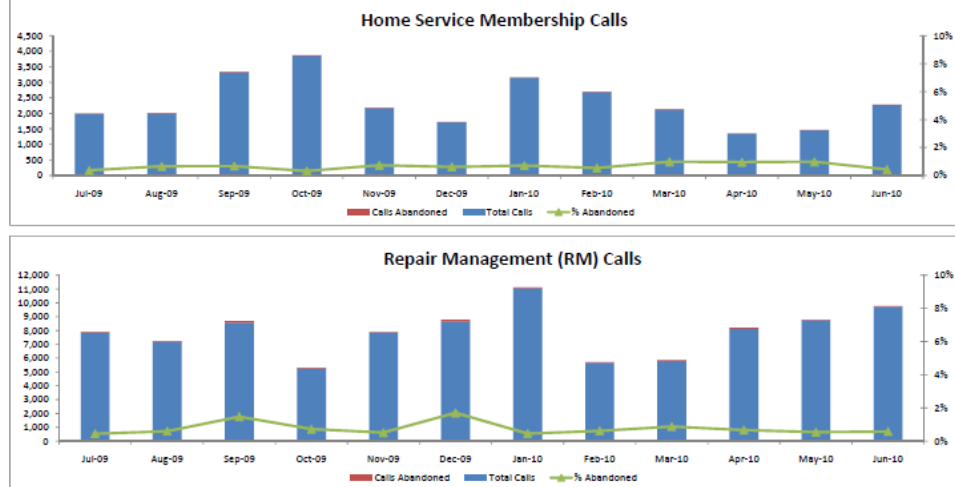
Call Screening (All Partners)	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	YTD
Number of contacts screened	281	259	181	302	235	104	185	174	229	236	214	240	2700
Number of contacts satisfactory	257	245	180	287	225	159	176	172	228	229	208	234	2600
% Satisfactory	91.5%	94.6%	99.4%	95.0%	95.7%	97.0%	95.1%	98.9%	99.6%	97.0%	97.2%	97.5%	96.3%
Number of letters audited	11	15	36	76	18	64	26	15	12	4	3	11	291
Number of letters satisfactory	11	15	36	76	18	64	26	15	12	4	3	11	291
% Satisfactory	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Repair Management Calls (All Partners)	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Total
Total Calls	7,851	7,196	8,563	5,263	7,858	8,626	11,083	5,672	5,797	8,146	8,741	9,709	96,505
Total Answered within 30 seconds	6,484	5,986	6,936	4,234	6,112	6,901	8,755	4,756	4,833	6,969	7,243	7,767	76,976
Service Level	83%	83%	81%	80%	78%	80%	79%	84%	83%	86%	83%	80%	82%
Average Speed of Answer	0:00:26	0:00:26	0:00:49	0:00:34	0:00:42	0:00:45	0:01:01	0:00:36	0:00:34	0:00:26	0:00:29	0:00:38	0:00:37
Calls Abandoned	35	43	126	38	40	147	50	35	51	54	47	56	722
% Abandoned	0.4%	0.6%	1.5%	0.7%	0.5%	1.7%	0.5%	0.6%	0.9%	0.7%	0.5%	0.6%	0.8%

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Section 2 - Call Center Information cont.



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Section 3 - 48-Hour Call-Backs

48-Hour Call-Backs	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	YTD
# of "Outstanding" Rating	32	61	38	46	55	37	66	52	52	57	34	42	572
% Outstanding	37%	38%	37%	40%	51%	25%	39%	38%	41%	41%	41%	39%	39%
# of "Exceeds Expectations" Rating	12	20	22	24	14	25	23	18	15	15	13	22	223
% Exceeds Expectations	14%	13%	22%	21%	13%	17%	14%	13%	12%	11%	16%	20%	15%
# of "Satisfactory" Rating	38	76	38	42	38	78	72	61	57	63	33	39	638
% Satisfactory	44%	48%	37%	37%	36%	53%	43%	45%	45%	45%	40%	36%	43%
# of "Below Expectations" Rating	2	1	3	2	0	5	5	3	3	2	1	4	31
% Below Expectations	2%	1%	3%	2%	0%	3%	3%	2%	2%	1%	1%	4%	2%
# of "Dissatisfactory" Rating	3	2	1	0	0	3	2	3	0	2	1	1	18
% Dissatisfactory	3%	1%	1%	0%	0%	2%	1%	2%	0%	1%	1%	1%	1%
Total	87	160	102	114	107	148	168	137	127	139	82	108	1,479
% Satisfied - sum of Outstanding, Exc. Expectations, and Satisfactory ratings	94%	98%	96%	98%	100%	95%	96%	96%	98%	97%	98%	95%	97%
% Delighted - sum of Outstanding and Exc. Expectations ratings	51%	51%	59%	61%	64%	42%	53%	51%	53%	52%	57%	59%	54%

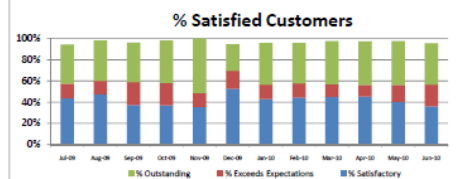
Recent Customer Testimonial

The response was very good! Workmanship was done very professionally. It gave me great satisfaction that I was covered by your service policy. Great peace of mind for the future too!

Mr. M. Abatemarco  
Anytown, US

I have been happy with Home Service. Calls are prompt and professional. I am happy that I decided to go with this Home Service and would gladly recommend to others AND HAVE!

Ms. D. Bachmeier  
Anytown, US

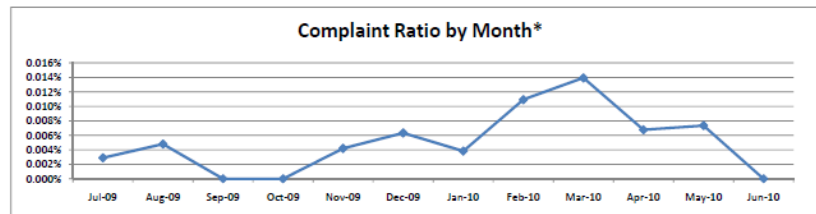


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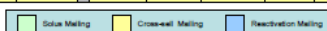
	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	YTD
Claims Handling	1	1	0	0	2	2	0	4	5	3	3	0	21
Contractor Problems	0	0	0	0	0	0	2	1	2	0	1	0	6
Call Center Response	0	1	0	0	0	1	0	1	1	0	0	0	4
Marketing Materials	0	0	0	0	0	0	0	0	0	1	0	0	1
<b>Total Complaints</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>32</b>



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[illegible]

\* Bold Indicates completed tasks



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## **EXHIBIT H**

### **Enrollment Forms and Customer Letter Sample**

Customized enrollment form to be provided at a later date, for approval by Great Oaks Water Company, and prior to launching of the marketing campaign.

**Customer Letter (sample)**

**An important message from Great Oaks Water Company.**

We value our customers at Great Oaks Water Company, which is why we are passing along the enclosed information about a program to protect you from unexpected repair costs. We would like to acquaint you with the coverage options offered by Home Emergency Insurance Solutions. This information outlines the protection and possible savings available.

Please be advised that coverage provided by Home Emergency Insurance Solutions is optional and is not required to receive regulated water service from Great Oaks Water Company.

If you have any questions about these options, please call Home Emergency Insurance Solutions toll-free at 1-xxx-xxx-xxxx.

John Roeder  
CEO  
Great Oaks Water Company

Coverage provided by Home Emergency Insurance Solutions is an optional, third-party, non-tariffed service. Great Oaks Water Company customers are not required to sign up for this service in order to receive regulated water utility services from Great Oaks Water Company.

**EXHIBIT I**  
**Insurance**

<b><u>Coverage Type</u></b>	<b><u>Limit of Liability</u></b>
Workers Compensation	Statutory
Employers Liability	\$1,000,000
Occurrence Based General Liability	
\$2,000,000, combined single limit	
(Including Explosion, Collapse and Underground)	
Products Completed Operations	\$1,000,000, aggregate
Personal and Advertising Injury	\$1,000,000, aggregate
Auto Liability	
\$1,000,000, combined single limit	
Umbrella	
\$10,000,000 combined single limit	

All insurance carriers have an A.M. Best rating of A- X or higher.

- 19.3 This Agreement may be amended, varied, modified or altered only by written agreement between the Parties. No failure or delay to exercise rights hereunder shall operate as a waiver and no single or partial exercise of such rights shall preclude any other or further exercise thereof. This Agreement (together with the Exhibits) is the entire agreement between the Parties with respect to the subject matter hereof and supersedes any previous agreements between the Parties relating to the same and does not and is not intended to confer upon any Person other than the Parties, any rights or remedies hereunder.
- 19.4 If a provision of this Agreement is held by any court of competent jurisdiction to be illegal or void (in whole or in part), then such provision shall be excluded, and the remaining provisions shall be interpreted as if such provision (or part thereof) were excluded and this Agreement shall otherwise remain in full force and effect.
- 19.5 This Agreement and the rights and obligations hereunder shall be governed by California law without regard to its choice of law provisions. The Parties submit to the exclusive jurisdiction of the Federal courts located in the Northern District of California and state courts located in Santa Clara County, California to resolve all disputes under this Agreement and consent to service of process in any manner permitted by those courts. Notwithstanding this, prior to commencing any proceedings in any such court, the Parties shall use their good faith efforts to resolve any dispute under this Agreement by negotiation for a period of 30 days after such dispute arose, which negotiation shall involve management of each Party.
- 19.7 Except for payment obligations, a Party shall not be held to be in breach of this Agreement by reason of any force majeure event including, but not limited to, act of God, delay in transportation, fire, flood, earthquake, storm, war, act of a public enemy, act of terrorism, civil commotion, telecommunications failure, a change in any law, rule, regulation, order or other action by any public authority, or any other matter reasonably beyond such Party's control and not due to the negligence of such Party. The nonperforming Party shall be excused from performance while the event continues, provided that the nonperforming Party provides prompt notice to the other of the force majeure event and takes commercially reasonable steps to resume full performance as soon as is practicable.
- 19.8 This Agreement may be executed in counterparts.

IN WITNESS WHEREOF, the Parties hereby enter into this Agreement as of the Effective Date written below as a legally binding agreement.

EFFECTIVE DATE OF THE AGREEMENT: \_\_\_\_\_

GREAT OAKS WATER COMPANY

HOMESERVE USA CORP.

By: Timothy S. Guster  
Name: Timothy S. Guster  
Title: Vice President  
Date: Nov. 20, 2013

By: \_\_\_\_\_  
Thomas J. Rusin  
Chief Executive Officer

Date: \_\_\_\_\_

**AMENDMENT NO. 1 TO MARKETING AGREEMENT**  
**EFFECTIVE DATE:** June 1, 2016

**THIS AMENDMENT NO. 1** ("Amendment") to the Marketing Agreement dated January 7, 2014 (the "Agreement") is entered into by and between **Great Oaks Water Company** ("Utility") and **HomeServe USA Corp.** ("HomeServe"). All capitalized terms used in this Amendment not otherwise defined herein shall have the same meanings ascribed to them in the Agreement.

**NOW, THEREFORE**, in consideration of the mutual covenants and promises as set forth herein and for other good and valuable consideration the receipt and sufficiency of which are acknowledged, the parties do hereby agree to amend the Agreement by adding the following Exhibit J, Statement of Work ("SOW").

**EXHIBIT J**

**STATEMENT OF WORK**

Utility and HomeServe have discussed the creation of a program to provide a referral service for On Demand Repair/Replace/Installation ("On Demand Services" or "Program") for Utility's residential customers ("Customers"). HomeServe will provide a turn-key Program that will encompass referrals, contractor management, and service delivery for the Products listed below.

This SOW covers the following activities and deliverables:

- 1. Contractor On-Demand Scope of Program** - HomeServe will provide referrals, contractor management, and service delivery related to the products listed below ("Products"). Additional products may be added as mutually agreed by Utility and HomeServe, and such products will then become Products offered under this SOW.
  - a) Lead Service Line Verification, Repair, and Replacement;
  - b) Non-Lead Service Line Repair and Replacement;
  - c) Sewer Line Repair and Replacement;
  - d) Water Heater Repair, Replacement, and Installation; and
  - e) Internal Plumbing Repair and Installation.
- 2. HomeServe Responsibilities** - HomeServe will perform the following services with respect to the Program:
  - a) Set up and maintain a unique phone number and website for Utility customers;
  - b) Maintain a trained group of customer care agents dedicated specifically to handling and scheduling On-Demand contractor requests; and
  - c) Maintain a pool of local, licensed, and insured contractors.

3. Utility Responsibilities – Upon at least ten (10) business days' notice to HomeServe, Utility will perform the following services for the Program:

- a) Communicate a unique phone number to customers to alert them of the Program;
- b) Provide a link from Utility website for customers who want to use the program; and
- c) Utility may also utilize mutually approved language for internal email campaigns, website messaging, and bill statement messaging to alert Customers about the Program.

4. Termination

Either Party may terminate this SOW without cause by providing ninety (90) days written notice to the other Party. Such termination shall have no effect on the Agreement. HomeServe will fulfill its On-Demand Services obligations to any Customers who sign up for the Program prior to the effective date of termination of this SOW.


5. All other provisions of the Agreement not previously amended shall continue in full force and effect in all respects.

HOMESERVE, USA CORP.

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Tom Rusin, Chief Executive Officer

GREAT OAKS WATER COMPANY

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Timothy Guster, General Counsel

**Great Oaks Water Company**  
**General Rate Case Application**  
**Exhibit 3-13**  
**Well 2 Building Lease Agreement**



**COPY**

## Month to Month Rental Agreement

This agreement is between Great Oaks Water Co hereinafter called Landlord  
and Cameron Kamal herein after called Tenant.

The above parties hereby agree to the following terms and conditions:

1) Landlord rents to the Tenant and Tenant rents from the Landlord for residential use only the premises:

located at 224 Bangor Ave, San Jose, CA 95123

Apt/Unit # \_\_\_\_\_

2) Rent is due in advance on the 1st day of each and every month at \$ 2400 per month,  
beginning on the 1st day of July 2020. If rent is paid after the 1st day of the  
month, there will be a late charge of \$ 100 assessed. Fee for returned checks is \$ 25

3) Except as prohibited by law, this agreement may be terminated by either party after the service upon the  
other of a written 30-day notice of termination of tenancy. Any holding over thereafter shall result in Ten-  
ant being liable to Landlord for "rental damages" at the fair rental value of \$ \_\_\_\_\_ per day.

4) Premises shall be occupied only by the following person(s) without the landlord's express written consent:

CAMERON KAMAL 5/16/81  
Name birthdate

SUZANNE SANCHEZ 11/3/68  
Name Birthdate

JANE SANCHEZ 11/9/94  
Name Birthdate

\_\_\_\_\_  
Name Birthdate

5) Without Landlord's prior written permission, no bird or animal, no water beds or liquid filled furniture,  
or \_\_\_\_\_ shall be kept or allowed in or about said premises.

6) Tenant acknowledges they have inspected premises, furnishings, appliances and equipment and have found  
them to be satisfactory. All plumbing, heating and electrical systems are operative and deemed satisfactory.

7) Except as prohibited by law, Tenant shall keep the premises and furniture, furnishings and appliances,  
yard and landscaping, if any, and fixtures which are rented for Tenant's exclusive use in good order and  
condition. Tenant shall pay Landlord for costs to repair, replace or rebuild any portion of the premises  
damaged by the Tenant, Tenant's guests or invitees. Tenant's property is not insured by Landlord.

8) Except as provided by law, no repairs, decorating or alterations shall be done by Tenant, without  
Landlord's prior written consent. Tenant shall notify Landlord in writing of any repairs or alterations  
contemplated. Decorations include, but are not limited to, painting, wallpapering, hanging of murals or  
posters. Tenant shall hold Landlord harmless as to any mechanics lien recordation or proceeding caused by  
Tenant.

9) Tenant shall not violate any Governmental law in the use of premises, commit waste or nuisance, annoy,  
molest or interfere with any other Tenant or neighbor.

10) Landlord shall pay for all gas, electric and water if any, made payable by or predicated upon occu-  
pancy of Tenant, with the exception of: Cable TV and Internet.

11) Tenant shall deposit with Landlord, as a security deposit, the sum of \$ 2400. Tenant shall not  
use the security deposit to pay the last month's rent. Owner may claim (withhold) of the security deposit  
only such amounts as are reasonably necessary to remedy Tenant defaults as shown:

- in the payment of rent, or
- to repair damages to the premises caused by Tenant, exclusive of ordinary wear and tear, or
- to clean such premises, if necessary, upon termination of the tenancy.

(Continued)

**COPY**

12) Landlord or his agents or employees may enter the premises: a) In case of emergency, or b) When the Tenant has abandoned or surrendered the premises, or to make necessary or agreed repairs, decorations, alterations, improvements, to supply necessary or agreed services, or to exhibit the dwelling unit to prospective or active purchasers, lenders, residents, workmen or contractors, provided the Tenant is given reasonable notice of Landlord's intent to enter, with entrance during normal business hours (8:00 a.m. to 6:00 p.m., Monday through Saturday, except holidays). Twenty-four hours shall be presumed to be reasonable notice, in absence of evidence to the contrary.

13) No portion of said premises shall be sublet nor this agreement assigned. Any attempted subletting or assignment by the Tenant shall, at the election of Landlord, be an irremedial breach of this agreement.

14) If any legal action or proceeding be brought by either party to enforce any part of this agreement, the prevailing party shall recover, in addition to all other relief, reasonable attorney's fees and costs.

15) Notice upon Landlord may be served upon: \_\_\_\_\_

at: 20 Great Oaks Blvd ste 120 (Great Oaks Water Co.)  
Said person is authorized to accept legal service on behalf of Landlord.

16) The premises are equipped with a smoke detection device(s), and:

- Tenant acknowledges the smoke detector(s) was tested and its operation explained by management in the presence of the resident at time of initial occupancy and the detector(s) in the unit was working properly at the time.
- Each Tenant shall perform the manufacturer's recommended test at least once a week to determine if the smoke detector(s) is (are) operating properly.

c) Initial ONLY IF BATTERY OPERATED: \_\_\_\_\_

By initialing as provided, each resident understands that said smoke detector(s) and alarm is a battery operated unit and it shall be each Tenant's responsibility to:

- Ensure that the battery is in operating condition at all times;
- Replace the battery as needed (unless otherwise provided by law); and
- If, after replacing the battery, the smoke detector(s) do not work, inform Landlord or authorized agent immediately in writing.

d) Tenant(s) must inform the Landlord or authorized agent immediately in writing of any defect, malfunction or failure of any detector(s)

e) If local law requires the Landlord to test the smoke detector, the Tenant shall allow the Landlord or his agent access to the premises for that purpose.

17) The undersigned Tenant(s), whether or not in actual possession of the premises, are jointly and severally liable for all obligations under this rental agreement, and shall indemnify Landlord for liability arising prior to the termination of the rental agreement for personal injuries or property damage caused or permitted by Tenant(s), their guests and invitees. This does not waive "Owner's duty of care" to prevent personal injury or property damage where that duty is imposed by law.

18) ATTACHMENTS: By initialing as provided, Tenant acknowledges receipt of those indicated attachments, copy(ies) of which is (are) attached hereto, marked by indicated page number(s) and is (are) incorporated herein as though fully set forth at length. Each Tenant should initial each attachment.

A. House Rules Initial	<u>CK</u>	<u>SS</u>	House Rules attached marked Page(s)	_____
B. Inventory Initial	<u>CK</u>	<u>SS</u>	Inventory which describes the furnishing of the premises, marked Page(s)	_____
C. Waterbed Initial	<u>CK</u>	<u>SS</u>	Waterbed and/or Liquid Filled Furniture Agreement marked Page	_____
D. Addendum Initial	<u>CK</u>	<u>SS</u>	Addendum marked Page	_____

The undersigned Tenant(s) acknowledge(s) having read and understood the foregoing, and receipt of a duplicate original:

AGREED TO ON THIS DATE: 6/15/20

[Signature]  
Landlord or Landlord's Agent

[Signature]  
Tenant  
[Signature]  
Tenant



**COPY**

ADDENDUM TO LEASE

**Data Base Disclosure Regarding Registered Sex Offenders**

The following terms and conditions are hereby incorporated in and made a part of the Residential Lease or Month-to-Month Rental Agreement, dated \_\_\_\_\_ by and between \_\_\_\_\_ ("Lessor) and CAMERON KAMAL ("Tenant(s)"), for the property described as 224 BANGOR AVE SAN JOSE, CA 95123

NOTICE: The California Department of Justice, sheriff's departments, police departments serving jurisdictions of 200,000 or more and many other local law enforcement authorities maintain for public access a database of the locations of persons required to register pursuant to paragraph (1) of subdivision (a) of Section 290.4 of the Penal code. The database is updated on a quarterly basis and a source of information about the presence of these individuals in any neighborhood. The Department of Justice also maintains a Sex Offender Identification Line through which inquiries about individuals may be made. This is a "900" telephone service. Callers must have specific information about the individuals they are checking. Information regarding neighborhoods is not available through the "900" telephone service.

Dated: 6-15-2020

  
LESSOR

Dated: 6/15/20

Cameron Kamal  
TENANT

Dated: 6/15/20

Suzanne M Sanchez  
TENANT

**ADDENDUM TO RENTAL OR LEASE AGREEMENT**

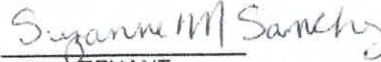
This agreement is between Great Oaks Water Co herein after called Landlord  
And Cameron Kamal, herein after called Tenant. IN CONSIDERATION OF THEIR MUTUAL  
PROMISES, OWNER AND TENANT AGREE AS FOLLOWS:

- 1.) Tenant is renting or leasing from owner the premises located at:  
**224 Bangor Ave, San Jose, CA. 95119**
- 2.) This agreement is an Addendum and part of the original Rental Agreement and/or Lease between Owner and tenant.
- 3.) If tenant is negligent in not reporting a problem and it develops into a costly repair, the tenant will be held fully responsible for the cost (parts & labor) of repair.
- 4.) Tenant is fully responsible for the cost involved to clear any drainage blockages if caused by negligence.
- 5.) No vehicles shall be parked in driveway.
- 6.) Tenant is responsible to see that the landlord has a complete set of keys of said property.
- 7.) No garage or backyard access.
- 8.) Landscaping service will be provided by landlord.
- 9.) During the term of tenancy, the security deposit cannot be used for rent, late charges, or repairs to said property unless landlord agrees.
- 10.) Tenant has received two sets of keys. Tenants are responsible for any of these items that are lost or broken.
- 11.) Extermination of any rodents or insects such as mice and ants are tenant's financial responsibility.
- 12.) Tenants agree to move out of said house if the full amount of rent is not received by the 1<sup>st</sup> day of each month.
- 13.) Tenants agree to move out of said house if not well maintained.. Examples are bathroom tubs, walls, carpets, tiles, hardwood, or floors, become damaged or stained.
- 14.) No smoking inside said house at any time.
- 15.) Most of the noise from equipment will be between the hours of 8am and 4:30pm Monday - Friday. There will be times when it is necessary to get equipment any time of day or night due to emergencies.
- 16.) All utilities will be paid for by landlord. (Water, Gas, Electricity, Wireless Internet). This does not include cable TV. This does not include excessive use.
- 17.) No holes or modifications can be performed on said house inside or outside without written authorization from landlord. This includes and not limited to installation of TV Cable or TV dishes. Note: Pin or small nail holes for hanging items or pictures do not need written permission

EFFECTIVE ON THIS DATE,

  
OWNER

  
TENANT

  
TENANT

\_\_\_\_\_  
OWNER

\_\_\_\_\_  
TENANT

\_\_\_\_\_  
TENANT

# COPY

## INVENTORY

CAMERON KAMAL has inspected the furniture and furnishings located at 224 BANGOR AVE SAN JOSE, CA 95123

Unless indicated and any defects explained below, each item has been found to be:

- A. Undamaged and in good working order;
- B. Adequate and appropriate for customary use;
- C. Free of vermin and in clean and sanitary condition.

Indicate appropriate code for damage and location of damage of inspected furnishings:

### TYPE OF DAMAGE:

- |             |                  |                |
|-------------|------------------|----------------|
| 1 - Bent    | 8 - Gouged       | 15 - Rusty     |
| 2 - Broken  | 9 - Holes        | 16 - Scratched |
| 3 - Burned  | 10 - Loose       | 17 - Soiled    |
| 4 - Chipped | 11 - Marred      | 18 - Stained   |
| 5 - Cracked | 12 - Moth eaten  | 19 - Torn      |
| 6 - Dented  | 13 - Normal wear | 20 - _____     |
| 7 - Faded   | 14 - Rubbed      | 21 - _____     |

### LOCATION OF DAMAGE:

- |            |            |              |
|------------|------------|--------------|
| B - Bottom | Re - Rear  | Se - Seat    |
| Ba - Back  | Rt - Right | Cu - Cushion |
| C - Corner | S - Side   | D - Door     |
| F - Front  | T - Top    | Dr - Drawer  |
| Le - Left  | Lg - Leg   | V - Veneer   |

Using the above codes, indicate the damage and location, such as Table, 6-F = Dented Front

DAMAGED ITEM	TYPE OF DAMAGE
refrigerator	16-D
flooring	13
master bathroom fan	2-cover
kitchen drawers	hard to close
handrail @ stairs	6/16

DAMAGED ITEM	TYPE OF DAMAGE

Comments \_\_\_\_\_

DATE 6-15-2020

Cameron Kamal  
Tenant

Ronald M. M...  
Owner/Agent



**COPY**

## INSURANCE INFORMATION FOR RENTERS

This is to inform you of important information regarding insurance coverage to protect yourself against loss and to help prevent misunderstandings about the owner's insurance coverage. It is not an effort on the part of the owner or management of this premises to change responsibilities – that is done solely by the state legislature and the courts.

1. Except under special circumstances, the owner is **NOT LEGALLY RESPONSIBLE** for any loss to the tenant's personal property, possessions or personal liability, and the owner's insurance **WILL NOT COVER** such losses or damages.

2. If damages or injury to owner's property is **CAUSED BY TENANT**, tenant's children, family members or guest(s), the owner's insurance company may have the right to attempt (under the "subrogation clause") to recover from the tenant(s) any payments made under the owner's policy.

3. Below is a non-inclusive list of possible misfortunes that you could be held legally and financially responsible for, except for special circumstances:

- a) A baby sitter injures her- or himself in your unit;
- b) A defective electrical cord starts a fire, causing damage to the building and your personal property and/or the personal property of others;
- c) A friend, handyman, or other person you engage to help you move furniture, appliances, etc., is injured while helping or during the move;
- d) A repairman slips on the floor or trips on the carpet and is injured;
- e) Your car is broken into at night and your and others property is stolen;
- f) Your unit is broken into and your personal property is stolen.


4. If you so desire to protect yourself and your property against loss, damage, theft, liability, etc. it is highly recommended that you consult an insurance agent and obtain proper insurance coverage for fire, theft, liability, worker's compensation and other perils.

The cost of adequate insurance is reasonable considering the protection, comfort, peace of mind and the financial recovery of loss that you receive from the insurance.

PREPARED FOR: CAMERON KAMAL

UNIT ADDRESS: 224 BANGOR AVE SAN JOSE, CA 95123

DATED: 6-15-2020

  
Owner or Owner's Agent

**Great Oaks Water Company**  
**General Rate Case Application**

**Exhibit 5-1**

**Compliance Plan for Affiliate Transactions and the Use of Regulated  
Assets for Non-Tariffed Utility Services**

**2020 Annual Report**

The following disclosures are provided with respect to 2020 affiliate transactions:

\* Tax compliance services were provided by Roeder Management LLC to Great Oaks Water Company.

\* Great Oaks Water Company and its parent corporation, GOW Corporation, have a single shared officer and director. John Roeder is an officer and director of both companies, as previously reported in proceedings authorizing the corporate reorganization - A. 14-04-035. This disclosure complies with Section IV.C. of the Affiliate Transaction Rules.

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### **Great Oaks Water Company**

#### **Compliance Plan for Affiliate Transactions and the Use of Regulated Assets for Non-Tariffed Utility Services**

Great Oaks Water Company (Great Oaks) submits this Compliance Plan pursuant to California Public Utilities Commission (Commission) Decision (D.) 10-10-019, Appendix A, Rule VIII.C.

1. List of Affiliates. As a result of the reorganization authorized by D.15-03-006, Great Oaks has no affiliates. All of Great Oaks' stock is owned and held by GOW Corporation. Great Oaks does not anticipate the use of regulated assets, including employees, for non-tariffed activities, but will still maintain the compliance mechanisms and procedures set forth below.

2. Compliance Procedures. Great Oaks maintains the procedures described below to assure compliance with Commission Rules under D.10-10-019.

3. Description of Compliance Mechanisms and Procedures. Great Oaks has long maintained records of hourly employee activity on non-regulated matters and has presented such information in rate-setting proceedings. In 2013, Great Oaks entered into a settlement agreement with the [California Public Advocates Office] with respect to the issues presented in the limited rehearing of Great Oaks' 2009 General Rate Case. As part of the settlement, Great Oaks agreed: (a) to identify and explain all transactions with corporate affiliates involving utility employees or assets, or resulting in costs included in revenue requirement over the prior five years; (b) include all documentation, including a list of all such contracts, and accounting detail necessary to demonstrate that any services provided by Great Oaks' officers or employees to corporate affiliates are reimbursed at fully allocated costs; and (c) to the extent Great Oaks uses assets or employees included in revenue requirement for unregulated activities, identify, document, and account for all such activities, including all costs and resulting revenue, and provide a list of contracts over the prior five years. In furtherance of this agreement, Great Oaks developed and implemented appropriate management and accounting internal controls to identify, quantify, and record in the books of account the time and other resources Great Oaks' employees spend on non-regulated activities. In addition, Great Oaks tracks and records any costs for services provided by any affiliated company to Great Oaks.



**Verification**

I verify that the mechanisms and procedures described above are adequate to ensure that Great Oaks is not utilizing any affiliates covered or not covered by the Commission's Rules as a conduit to circumvent any such Rules.

Date: March 31, 2021

\_\_\_\_\_/s/\_\_\_\_\_  
\_\_\_\_\_

John Roeder

Chief Executive Officer

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 5-2**

**Proposed Revisions to Terms and Conditions of  
Pension Expense Balancing Account**

## **Pension Expense Balancing Account.**

1. Purpose. The Purpose of the Pension Expense Balancing Account (PEBA) is to track the differences between Authorized Plan Expenses and ASC 715/SFAS 87 pension expenses for the Great Oaks Water Company Defined Benefit Plan and Trust (Plan) for Great Oaks Water Company's (Utility) eventual recovery (or ratepayer reimbursement) of this expense for ratemaking purposes.

2. Applicability. The PEBA is applicable to Plan Pension Expense.

3. Definitions.

- a. Authorized Plan Expenses are the Commission-authorized pension expenses adopted for ratemaking purposes.
- b. ASC 715/SFAS 87 Expenses are the accounting expense amounts determined by guidance from the Financial Accounting Standards Board (FASB) and are also known as the "Net Periodic Benefit Cost."

4. Accounting Procedure. The following entries shall be recorded monthly in the PEBA:

- a. ASC 715/SFAS 87 Expense amount for the calendar year.
- b. Authorized Plan Expenses for ratemaking purposes for the same calendar year time period corresponding to the ASC 715/SFAS 87 Expense amount. Because the Utility's rate year is from July 1 to June 30, the Authorized Plan Expenses for the corresponding ASC 715/SFAS 87 calendar year will include 50% of the Commission-authorized pension expenses adopted for the two rate years included in the ASC 715/SFAS 87 calendar year (*e.g.*, Authorized Plan Expenses for calendar year 2022 equals 50% of Commission-authorized pension expenses for rate year 2021/2022 and 50% of Commission-authorized pension expenses for rate year 2022/2023).
- c. Total Net PEBA = (2) minus (1).
- d. A positive balance represents a Utility over-collection, while a negative balance represents a Utility under-collection.
- e. The Utility will record entries for Authorized Plan Expenses and for ASC 715/SFAS 87 Expense when the Utility is informed of the ASC 715/SFAS pension expense amount and the Authorized Plan Expenses for the corresponding annual time periods. When there is a balance in the PEBA, entries will be made on a monthly basis for recording interest accruals.
- f. Interest will accrue monthly on the balance in the PEBA by applying a rate equal to one-twelfth of the 90-Day Non-Financial Commercial Paper Interest Rate, as reported in the Federal Reserve Statistical Release, to the average of the beginning-of-month and end-of-month balances.

5. Ratemaking Procedure. The PEBA is recoverable in a Tier 2 advice letter filing if the accumulated balance exceeds two percent (2%) of gross adopted revenues for the Utility in accordance with General Order 96-B and standard practices or be requested in the next general rate case. In any filing, Utility shall demonstrate its continued compliance with ASC 715/SFAS 87 and demonstrate that any changes to its expenses were reasonable and prudently incurred.

**Great Oaks Water Company**  
**General Rate Case Application**

**Exhibit 5-3**

**Injury and Accident Prevention/Corrective Exercise Program**

Under the direct supervision and guidance from a Certified Corrective Exercise (CE) Specialist, each Great Oaks Water Company employee will receive a complete evaluation to understand individual needs and physical limitations with respect to the physical demands of their job duties.

The initial evaluation will then be utilized by the CE Specialist to design and implement a program tailored to each employee to avoid accidents and injuries from the workplace environment.

Corrective Exercise identifies and addresses imbalances that cause posture, stability, and mobility issues. A properly designed and implemented CE program can improve neuromuscular control, which is proven to reduce the risk of future injuries.

Demonstrable benefits from a CE program include:

<ul style="list-style-type: none"><li>• Increased flexibility</li></ul>	<ul style="list-style-type: none"><li>• Increased joint stability</li></ul>
<ul style="list-style-type: none"><li>• Reduced risk of injury</li></ul>	<ul style="list-style-type: none"><li>• Increased ability to recover</li></ul>
<ul style="list-style-type: none"><li>• Increased muscle activation</li></ul>	<ul style="list-style-type: none"><li>• Improved neuromuscular efficiency (coordination)</li></ul>
<ul style="list-style-type: none"><li>• Improved movement patterns</li></ul>	<ul style="list-style-type: none"><li>• Correction of muscle imbalances</li></ul>
<ul style="list-style-type: none"><li>• Preparation for higher intensity physical activity</li></ul>	<ul style="list-style-type: none"><li>• Preparation of the body for optimal performance</li></ul>

The CE program involves individual sessions on at least two days per week. The sessions will be conducted at Great Oaks' office location in and around the garage area. A total of 80 to 85 hour-long sessions are planned per month, with a cost of \$60 per session (\$5,000 per month). The sessions will be scheduled so as not to conflict with employee responsibilities and may take place after hours upon agreement with the employee. Total cost of the program is estimated to be \$60,000 per year.

**Great Oaks Water Company**  
**General Rate Case Application**  
**Exhibit 5-4**

**Communications Program with Randle Communications**

# RANDLE

COMMUNICATIONS

## MEMORANDUM

**TO:** Tim Guster, Vice President and General Counsel  
Great Oaks Water Company

**FROM:** Mike Gazda, Vice President of Utilities Practice  
Randle Communications

**DATE:** April 16, 2021

**RE:** 2022-25 Scope of Work Proposal

---

Randle Communications (Randle) is pleased to present this proposal to serve as the dedicated communications partner for Great Oaks Water Company (Great Oaks Water). We look forward to building a sustainable communications program that ensures Great Oaks Water is meeting/exceeding the communications and outreach expectations of customers and regulators.

Randle has been a trusted partner for California's regulated water providers for nearly two decades, utilizing our team of utility experts to help clients build trust and engage customers. We provide a full-service public information partner experience that is unparalleled, and we are confident in our ability to take Great Oaks Water's outreach to the next level with the comprehensive strategic communications plan detailed below.

With Randle as your communications partner, Great Oaks Water would benefit from tremendous value at a fraction of what it would cost to employ a seasoned communications team that includes experts in utility communications, digital/social media, rapid-response communications, media relations, graphic design and video. We will work as an integrated part of your team to ensure you are effectively communicating the correct messages to the right audiences in a cost-effective manner.

Great Oaks has an exemplary track record and commitment to customers and the community. Randle will help to modernize your communications program to be more consistent with the reliable water service you provide and better reflect the expectations of your sophisticated/savvy customer base.

This 2022-2025 Scope of Work (SOW) proposes the activities and budget that will be performed by Randle during the period from July 1, 2022, through June 30, 2025. This SOW is designed to build and establish momentum for a solid communications foundation over the 36-month period.

## SCOPE OF WORK

The following activities are proposed for inclusion in Randle's 2022-25 SOW. We look forward to coordinating with Great Oaks Water to finalize this plan and establish a timeline based on the prioritization of projects, overall goals and the availability of resources allocated through the monthly budget.

### Phase 1: Audit and Resource Development (July 2022-August 2022)

- **Audit and Coordination** – Randle will meet with key members of the Great Oaks Water leadership team and staff to kick off the partnership and establish clear goals for the communications program. Randle will conduct a thorough audit to garner insight into past and current communications, as well as customer satisfaction levels and overall expectations.
- **Website** – Randle will audit the existing website and provide recommendations for short-term improvements focused on navigation, functionality, and design. These recommendations will focus on immediate improvements that can be made to the existing website that wouldn't require a substantial monetary investment. It's critical that utilities have accessible websites that can serve as a hub for all information and updates in an easy-to-navigate format.

*\* Note: Randle recommends a more robust website rebuild in Phase 3 to ensure Great Oaks Water is meeting regulatory requirements for data security and accessibility.*

- **e-Communications** – Randle will work with Great Oaks Water to create an email marketing program to share educational and dynamic content with customers and stakeholders. Randle will identify the most cost-effective vendor for this program (anticipated hard cost of less than \$200/month, which would be billed directly to Great Oaks Water). Email provides an eco-friendly opportunity to communicate directly to customers at a fraction of the cost of traditional mail.
  - Randle will use the current list of customer contacts (including e-bill customers) in the initial launch and will deploy strategies to build the email database.
  - Randle will also monitor, analyze and optimize email content to track and enhance performance.
- **Social Media** – Randle will work with Great Oaks Water to establish a social media footprint. It's important in today's media/social media landscape that utilities have social media infrastructure to efficiently and effectively share information with customers where they are, which is increasingly across social platforms. Randle will establish profiles on Facebook and Twitter with the aim to grow audiences, expand reach and maximize overall value. There is no hard cost associated with setting up these platforms, and Randle has outlined below how it will handle regular content management on the platforms.
- **Brand Guidelines** – Randle will develop a style guide to outline the brand colors, fonts and images to ensure consistency across all communications.

### Phase 2: Content/Material Development and Implementation of Customer Information Program (August 2022-June 2025)

- **Customer Information** – Randle will design a customer information program that meets or exceeds customer and regulatory expectations for education and notifications.

- **Strategic Content** – Randle will develop and manage a monthly content calendar to ensure Great Oaks Water’s messages are coordinated on its platforms, and the utility is meeting compliance with state and CPUC communications mandates for topics such as low-income programs, payment assistance resources, drought, conservation, etc.
- **Messaging** – Randle will develop and manage a master messaging resource that includes messaging/talking points to ensure customer service representatives and other customer-facing employees are equipped to answer questions regarding water service, rates and other complex issues that may arise and serve as ambassadors for the utility.
- **E-communications** – Randle will produce and send up to one customer email quarterly, or as warranted by developments or regulatory requirements, aligned with the content calendar schedule.
  - As part of the e-communications strategy, Randle will utilize customer mail/bills, the website and social media to help build a comprehensive list of customer contacts. This will help to expand the footprint of all e-communications and ensure Great Oaks Water can effectively reach customers when needed.
- **Social Media Content** – Randle will develop bi-weekly (every two weeks) social media content calendars that include engaging posts and graphics, and will execute content and monitor engagement.
- **Graphic Design** – Randle will produce the following collateral materials in coordination with Great Oaks Water, as needed (not to exceed two per month): customer mail, bill inserts, fact sheets, customer flyers, door hangers, advertisements, postcards, Consumer Confidence Reports, etc. Randle’s in-house team will complete these projects within the SOW and monthly retainer.
- **Video** – Randle will produce up to three videos each year to help educate customers on complex topics. Randle’s in-house video production team will shoot, edit and produce videos and the communications team will maximize viewership by sharing across channels (website, e-communications and social media).
- **Website** – Randle will produce website posts and manage website content, as needed, to ensure all critical information/updates are available on the website. The website should be an information hub that can effectively accomplish the following:
  - Educate and provide important customer updates/notifications
  - Explain rates, rate drivers and the ratemaking process
  - Showcase water-use efficiency education and resources
  - Highlighting community engagement
  - Highlighting infrastructure investments and projects
- **Media Relations** – Randle will serve as the media relations liaison and develop news releases and company statements.



- **Monitoring** – Randle will monitor media articles/stories and social media discussions and share any critical mentions with Great Oaks Water to improve awareness and ensure the utility is being responsive to customer concerns.

### Phase 3: Website Rebuild (January 2023-August 2023)

- **Website Rebuild Prep** – Randle will research best practices and state/federal website requirements and work with Great Oaks to prepare for a website rebuild.
- **Vendor Selection** – Randle will work with Great Oaks Water to help develop any necessary RFQ/RFPs and support the process to select a website developer and host.
- **Website Build Coordination** – Randle will work with the selected website vendor/host to coordinate all aspects of the website’s design, accessibility and functionality. Randle will ensure the website meets all state and federal language/translation, accessibility and privacy/data security requirements and is built in alignment with industry best practices.

*\* Note: The hard costs charged by the website vendor will be additional and billed directly to Great Oaks Water from the vendor. A website rebuild of this size may cost between \$50,000-\$80,000, depending on the intricacy of the design, wireframe, accessibility and security.*

## BUDGET

Professional services for the 2022-2025 Scope of Work will be compensated as follows:

- **Monthly retainer:** Randle proposes a fixed monthly retainer amount to allocate resources to fully develop and implement the Scope of Work. The monthly retainer amounts are calibrated to reflect the time and expertise required to provide the services. Randle will manage projects and the monthly workload to ensure staff resources are allocated in alignment with the monthly retainer budget (based on hourly billing rates below).

To maintain an aggressive timeline for Phase 1 (Audit and Resource Development), a monthly retainer of \$15,000 would be charged for the months of July and August, 2022. The monthly retainer would decrease to \$12,500 for the months from September 2022 through the duration of the contract.

<u>Month(s)</u>	<u>Professional Fees</u>
July 2022	\$15,000
August 2022	\$15,000
<u>September 2022 through June 2023</u>	<u>\$12,500</u>
<b>First-year professional fees</b>	<b>\$155,000*</b>

*\* Professional fees for the second and third years of the partnership would be \$150,000 annually.*

President and CEO	\$375	Account Executive	\$195
Partner	\$350	Digital Public Affairs Specialist	\$195
Senior Vice President	\$325	Assistant Account Executive	\$185
Vice President	\$310	Creative Services Coordinator	\$125
Senior Counselor	\$275	Account Coordinator	\$125
Director	\$275	Multimedia Producer	\$175
Senior Account Executive	\$225	Controller	\$90
Digital Public Affairs Manager	\$225	Support Staff	\$75
Creative Services Specialist	\$210		

General business expenses (travel, phone, etc.) will be billed separately. Any third-party expenses related to advertising, design, printing, etc. would be presented in advance for approval and billed as incurred following Great Oaks Water's approval.

- **Supplemental Budget Items:** The below items would be billed separately when requested and agreed upon with written consent from Great Oaks Water prior to any work beginning.
  - Unanticipated, Rapid-Response Communications: Randle can be retained at our rapid-response hourly rates for the following support:
    - Any unanticipated event that requires support after normal business hours or lasts more than 24 hours.
    - Any support related to a wildfire, earthquake or natural disaster event.
    - Any support related to an unanticipated water quality or reliability event.
  - Legal Support: Great Oaks Water will be billed separately at standard hourly rates for any support related to ongoing or new litigation, or if Randle is required to produce materials through a subpoena related to its work with Great Oaks Water.
  - Out-of-Scope Support: When staff resources are available, Great Oaks Water will be billed separately at standard hourly rates for out-of-scope support, including projects that are not able to be completed within the monthly retainer allocation.
    - Additional Videos: In addition to the three videos included in the SOW, Randle can produce additional videos at the preferred-client cost of \$5,000 per video, plus travel and production expenses.
    - Media Training: Randle can provide Media Training sessions at the preferred-client cost of \$5,000 per session, plus travel-related expenses.

## CONCLUSION

Randle appreciates the opportunity to work with Great Oaks Water. We are excited to get started building a robust communications program and establishing what we expect will be a long-lasting partnership. Please don't hesitate to let us know if you have any questions.

## EXAMPLES

- E-communications:



Dear Customer,

If you have experienced financial hardship due to COVID-19 and are having a difficult time paying your water bills, Golden State Water Company (Golden State Water) may be able to help.

Earlier this year, Golden State Water extended the protections provided through our [Emergency Disaster Relief Program](#) until June 30, 2021. Customers who have fallen behind on their water bill are encouraged to contact our Customer Service Center at 1-800-999-4033 to discuss payment extension and payment plan options that may be available to keep their accounts in good standing.

Additionally, Golden State Water is reminding customers that they may qualify for financial assistance for unpaid rent and utilities through the CA COVID-19 Rent Relief Program. Landlords and renters can verify eligibility immediately by visiting [HousingIsKey.com](https://www.housingiskey.com) or by calling 833-430-2122 and, if eligible, apply.

To learn more about these customer assistance programs and other options that may be available to you, please visit [www.gswater.com/assistance-programs](https://www.gswater.com/assistance-programs).

Sincerely,  
Golden State Water

Estimado cliente,

Si ha experimentado dificultades financieras debido a COVID-19 y tiene dificultades para pagar sus facturas de agua, es posible que Golden State Water Company (Golden State Water) pueda ayudarlo.

A principios de este año, Golden State Water extendió las protecciones proporcionadas a través de nuestro [Programa de Ayuda para Emergencias en Desastres](#) hasta el 30 de junio de 2021. Se recomienda a los clientes que se hayan atrasado en su factura de agua que se comuniquen con nuestro Centro de Servicio al Cliente al 1-800-999-4033 para discutir extensión de pago y opciones de plan de pago que pueden estar disponibles para mantener sus cuentas al día.

Además, Golden State Water les recuerda a los clientes que pueden calificar para recibir asistencia financiera para alquileres y servicios públicos no pagados a través del programa CA COVID-19 Rent Relief. Los propietarios e inquilinos pueden verificar la elegibilidad de inmediato visitando [HousingIsKey.com](https://www.housingiskey.com) o llamando al 833-430-2122 y, si es elegible, solicite.

Para obtener más información sobre estos programas de asistencia al cliente y otras opciones que pueden estar disponibles para usted, visite [www.gswater.com/assistance-programs](https://www.gswater.com/assistance-programs).

Atentamente,  
Golden State Water

○ Social Media Posts:



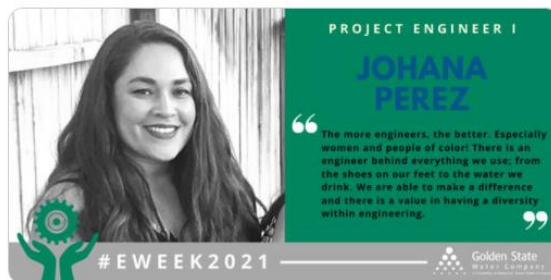
If you have experienced financial hardship due to COVID-19 and are having a difficult time paying your water bills, [#GSWater](#) may be able to help. Learn more: [gswater.com/assistance-pro...](https://gswater.com/assistance-pro...)



[#GSWater](#) is always here to help. Call us today or visit our website to see what payment assistance programs you may qualify for. We may have a payment plan or program that works for you. [bit.ly/37sy95c](https://bit.ly/37sy95c)



Meet Project Engineer I Johana Perez, a [@UCBerkeley](#) grad with a B.S. in Civil and Environmental Engineering. Johana plays a critical role in Golden State Water's infrastructure design process! [#Eweek2021](#) [#WomenInSTEM](#)





○ Graphic Design:

## GENERAL RATE CASE

# INFRASTRUCTURE INVESTMENTS AND WATER RATES

FOR 2019, 2020 AND 2021

### A MESSAGE FROM YOUR GENERAL MANAGER

Golden State Water Company (Golden State Water) has been serving reliable, quality water to Californians for more than 90 years. We always put our customers first, because we understand that water is a critical part of your everyday life.

On May 30, 2019, Golden State Water's General Rate Case (GRC) was approved by the State of California to set water rates for 2019, 2020 and 2021 and authorize infrastructure investments for the local system. Water rates and infrastructure investments are closely related, as investments to protect the reliability of the water system are a key driver of rates.

New rates approved through the GRC will be implemented on June 8, 2019, and customers may notice the adjustment on their June 2019 water bills. Since the GRC approval was delayed nearly six months (originally expected before Jan. 1, 2019) by factors outside of Golden State Water's control, the difference between actual rates and approved rates for the period from Jan. 1 – June 7, 2019, will be reconciled at a later time.

If you have any questions, please visit our website at [gswater.com/arden-cordova](http://gswater.com/arden-cordova) for more information or call us anytime at 800.999.4033.

On behalf of everyone at Golden State Water, thank you for being a valued customer.

Sincerely,



**Paul Schubert**  
General Manager  
Northern District  
Golden State Water Company

### WATER RATES

Golden State Water delivers quality drinking water and reliable service 24 hours a day, 7 days a week, to approximately 16,200 customers in the Arden Cordova service area, which includes portions of Arden Manor, Gold River and Rancho Cordova.

Beginning when new rates are implemented on June 8, 2019, an average residential customer in the Arden Cordova Customer Service Area with a 5/8 x 3/4" meter using 13 Ccf per month would see a monthly bill increase of \$4.72 from \$30.47 to \$35.19 compared to 2018 (excluding any applicable surcharges).

The rate adjustment factors the 2.88 percent rate decrease that was implemented in July 2018 to pass cost savings from the lower federal income tax requirement through to customers (Tax Cuts and Jobs Act of 2017).

#### EXPENSES

Approximately

## 76%

of the costs to operate, maintain and improve the water system don't change when customers use less/more water.

#### REVENUE

Approximately

## 70%

of the revenue collected from water bills is variable. When usage decreases, rates must eventually increase to cover fixed costs.

### RATES

\*Figures shown represent companywide averages and vary by rate-making area



### HOW WATER RATES ARE SET

Golden State Water is regulated by the State of California to ensure rates are reasonable and reflect the full cost to provide water service, maintain the infrastructure and make needed system improvements.

Every three years, Golden State Water is required to file a GRC with the state to propose a rate structure that recovers the revenue needed to meet operating expenses and necessary infrastructure improvements over a three-year period. Golden State Water filed its GRC application for the years 2019, 2020 and 2021 on July 19, 2017.

The GRC process is thorough and takes approximately 18 months to ensure rates are fair and provide reliable, quality water service. Customers are encouraged to participate in the ratemaking proceedings, and their interests are protected throughout the process by the state's Public Advocates Office.

### BENEFIT TO CUSTOMERS

Golden State Water invests to protect the safety and reliability of the local water system. We employ proactive maintenance programs and update our aging pipeline infrastructure on a replacement schedule of approximately 100 years. For comparison, the American Society of Civil Engineers published a report on the country's water infrastructure concerns, noting a national average replacement schedule of 200 years on pipes designed to last 75-100 years.\*

In the approved 2019-21 GRC Application, Golden State Water proposed infrastructure investments totaling approximately \$10,914,000 for the Arden Cordova Customer Service Area to address water supply, storage and distribution needs.

\*<https://www.infrastructurereportcard.org/wp-content/uploads/2017/01/Drinking-Water-Final.pdf>

### KEY PROJECTS

Following are capsule summaries of key upcoming projects:

- **Meters and Services Installation:** Approximately \$4,935,200 is approved to install new meters and connections and install meters on existing non-metered customer service lines in compliance with California law.
- **Coloma Water Treatment Plant Enhancement:** \$2,053,000 is approved to improve efficiency and protect the water supply at the Coloma Water Treatment Plant.
- **Pipeline Replacement Program:** More than \$1,853,000 is approved to replace aging water pipes to improve water system operation and reliability.
- **South Bridge Plant Upgrade:** More than \$352,000 is approved to install a reliable backup generator and construct a new water disinfection facility at the South Bridge Plant.
- **Folsom South Canal Plant Upgrades:** Approximately \$185,000 is approved to construct a new water treatment building and install upgrades at the Folsom South Canal Plant.
- **Pyrites Water Treatment Plant Enhancement:** More than \$133,000 is approved to replace the media in two filters at the South Bridge Plant. This project will optimize filtration efficiency and improve water quality.

TO LEARN MORE about local infrastructure investments, water rates or conservation programs/resources available in your area, please visit [gswater.com/arden-cordova](http://gswater.com/arden-cordova), follow us on Twitter @GoldenStateH2O or call us anytime at 800.999.4033.



## OUR COMMITMENT TO A SUSTAINABLE FUTURE

Liberty Utilities is committed to preserving and protecting our environment, and embraces the opportunity to serve as a steward for our planet's precious natural resources.

As a utility that provides water, wastewater, natural gas and electric services to more than 750,000 customers in communities across the United States, we recognize that we can influence our ecosystem in a big way, and we are working hard to make sure that impact is a positive one.

That's why we continue investing to modernize how we do business to ensure the communities we serve have the ability to support a sustainable future.

## SUPPORTING CUSTOMER EDUCATION

Understanding how we can change our behaviors to preserve the Earth's natural resources is critical. Liberty Utilities encourages customers to check out the conservation resources and tips we offer at [LibertyUtilities.com](http://LibertyUtilities.com).



“Sustainability is part of the Liberty Utilities DNA and, together with customers, we are working to meet the evolving needs of our environment today and for the future.”





[LibertyUtilities.com](http://LibertyUtilities.com)
[@LibertyParkH2O](https://www.facebook.com/LibertyParkH2O)
[@LibertyParkH2O](https://twitter.com/LibertyParkH2O)



## SUPPORTING A SUSTAINABLE FUTURE



- **Video (hyperlinks):**

PSA: Thank You For Letting Us Serve You

<https://www.youtube.com/watch?v=5ch8IS-RkoU>

Humanize Video: Water Distribution Operator

<https://www.youtube.com/watch?v=kzi-Vi9lTr0>

Educational Video: Payment Assistance Programs

[https://www.youtube.com/watch?v=R8kcwTE\\_KFo](https://www.youtube.com/watch?v=R8kcwTE_KFo)

Educational Video: How To Read Your Meter

<https://www.youtube.com/watch?v=MdrpyHj1KyI>

Educational Video: High Bill Investigation

<https://www.youtube.com/watch?v=99NaH3t1xml&t=8s>

News Style Video: Delivering Drinking Water Is Serious Business

<https://www.youtube.com/watch?v=ahxQaAZt2bc&t=22s>

**-- RANDLE COMMUNICATIONS 2021 --**

**Great Oaks Water Company  
General Rate Case Application**

**Exhibit 5-5**

**Proposed Revisions/Updates to Credit Card Pilot Program**

**Memorandum Account**



PRELIMINARY STATEMENT  
(Continued)

AA. Credit Card Pilot Program Memorandum Account.

1. Purpose. The Credit Card Pilot Program Memorandum Account shall track and record, for recovery or refund, costs incurred by the Utility to establish, maintain, and operate the Credit Card Pilot Program (CCPP) authorized by the California Public Utilities Commission (Commission). (T)  
(T)
2. Applicability. The CCPP does not have a rate component. The CCPP shall include:
  - (a) The actual costs incurred by the Utility to establish, maintain, and operate the CCPP during the period of time it is authorized by the Commission. (T)
  - (b) Those actual costs shall be compared to the costs for the CCPP authorized by the Commission for each rate year the CCPP is in effect. (T)  
(T)
  - (c) The difference between the actual incurred costs and the costs included in rates for each year shall be recorded in the memorandum account as soon as practicable after the close of each rate year. Interest shall accrue to the balance in the memorandum account on a monthly basis by applying a rate equal to one-twelfth of the 3-month Commercial Paper Rate, as reported in the Federal Reserve Statistical Release, to the average of the beginning-of-month and the end-of-month balances.
3. Effective Date. This memorandum account shall become effective on July 1, 2019.
4. Disposition. Dispositions of amounts recorded in the memorandum account shall be determined through a subsequent Tier 2 advice letter filing by the Utility.

(To be inserted by utility)  
Advice Letter No. \_\_\_\_\_

Decision No. \_\_\_\_\_

*Issued by*  
\_\_\_\_\_  
Timothy S. Guster  
NAME  
\_\_\_\_\_  
General Counsel  
TITLE

(To be inserted by Cal. P.U.C.)  
Date Filed \_\_\_\_\_  
Effective \_\_\_\_\_  
Resolution No. \_\_\_\_\_

**Great Oaks Water Company**  
**2021 General Rate Case Application**

**Exhibit 8-1**  
**2019 Water Loss Audit Validation**

## Certified Water Loss Audit Validation Report

### Audit Information

Utility: Great Oaks Water Company

PWS ID: 4310022

System Type: Potable

Audit Period: Calendar 2019

Utility Representation: Ron Ceolla, Mike Carey

Validation Date: September 28, 2020

---

### Validation Findings & Confirmation Statement

#### Key Audit Metrics:

Data Validity Score: 60

Data Validity Band (Level): Band III (51-70)

ILI: 2.04

Real Loss: 27.05

Apparent Loss: 3.07

Non-revenue water as percent of cost of operating system: 4.7%

#### Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit.

---

### Validator Information:

Water Audit Validator: Timothy S. Guster

#### **Validator Qualifications:**

Certified Water Audit Validator  
American Water Works Association  
California-Nevada Section

## Certified Water Loss Audit Validation Report

**Water Supplier Name:** Great Oaks Water Company **Water Supplier ID Number:** 4310022

**Water Audit Period:** Calendar 2019

### Water Audit & Water Loss Improvement Steps:

Steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

Data Validity Score and Data Validity Band for CY 2019 is one point higher than CY 2018. Acoustic leak detection equipment remains in use and additional leak detection equipment has been authorized by the California Public Utilities Commission (CPUC), which will be acquired by the Company and placed into service. Main flushing has been monitored more closely for volume of water used for flushing. System pressure monitors have not yet been installed due to reduced capital improvements during pandemic. Pressure monitors likely to be installed in 2021. Great Oaks is working with the Santa Clara Valley Water District to improve well meter accuracy and meter testing frequency.

Response times for reported leaks continues to improve due to increased emphasis by management on reducing water losses.

### Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in its manual, Water Audit and Loss Control Programs, Manual M36, Fourth Edition and the in the Free Water Audit Software (Version 5).

Executive Name (Print)

Ron Ceolla

Executive Position

Chief Financial Officer/Treasurer

Signature



Date

9-28-2020

**Great Oaks Water Company**  
**2021 General Rate Case Application**

**Exhibit 8-2**  
**US EPA Risk and Resilience**  
**Assessment Certification Statement**

## United States Environmental Protection Agency

[Home \(/AWIA/Home/SCSHandoff\)](/AWIA/Home/SCSHandoff)[Submission History \(/AWIA/SubmissionHistory\)](/AWIA/SubmissionHistory)[Advanced Shared Services \(/AWIA/Home/SCSHandoff\)](/AWIA/Home/SCSHandoff)[Contact Us \(/AWIA/Home/Contact\)](/AWIA/Home/Contact)

## America's Water Infrastructure Act (Sec. 2013(b)) / Emergency Response Plan Certification Statement

I **Timothy Guster** hereby certify that **GREAT OAKS WC INC**,  
serving a population of **106450**, has completed an emergency response plan that  
incorporates findings of the risk and resilience assessment conducted under Section 2013(a) of  
America's Water Infrastructure Act of 2018 for such system (and any revisions thereto). This  
emergency response plan includes:

- Strategies and resources to improve the resilience of the system, including the physical security and cyber security of the system;
- Plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water;
- Actions, procedures, and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes, and construction of flood protection barriers; and
- Strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.

Date of certification: **09/15/2020**

The U.S. EPA and the authorized official signing this document agree that this certification may be signed electronically. The parties agree that the typed electronic signature that appears on this certification is the same as a handwritten signature for the purposes of validity, enforceability, and admissibility.

**Once you have submitted your emergency response plan certification, EPA will send an email acknowledging receipt of your certification. If you have any problems, please email us at [dwresilience@epa.gov](mailto:dwresilience@epa.gov) (mailto:dwresilience@epa.gov).**

[Cancel](#)[Certify](#)

[Advanced SCS Home \(/AWIA/?area=\)](#) | [Privacy and Security Notice \(/AWIA/Home/PrivacyNotice?area=\)](#)

[Accessibility](#)  
(<http://www.epa.gov/accessibility/statement.htm>) |  
[Terms & Conditions](#)  
([/AWIA/Home/TermsAndConditions?area=](#))



**Great Oaks Water Company**  
**2021 General Rate Case Application**

**Exhibit 8-3**  
**Emergency Response Plan**

**CONFIDENTIAL**



# Great Oaks Water Company

## Water System

## Emergency Response Plan

Prepared by:

**Timothy S. Guster**

Vice President and General Counsel  
Legal and Regulatory Affairs  
Great Oaks Water Company

January 6, 2020

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- C Emergency Phone Lists
- D Public Notices and Press Releases
- E California Statewide Emergency Notification Plan
- F Incident Reports and Forms
- G ERP Certification Form

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# Acronyms and Abbreviations

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AP	action plan
ASDWA	Association of State Drinking Water Administrators
ATSDR	Agency for Toxic Substances and Disease Registry
AWWA	American Water Works Association
BSL	biosafety lab
BWO	Boil Water Order
CAMAL Net	California Mutual Aid Laboratory Network
CDC	Center for Disease Control
CST	Civilian Support Team
DDW	Division of Drinking Water Programs
DHS	Department of Homeland Security
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
EWQSK	Emergency Water Quality Sampling Kit
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
GM	General Manager
GOWC	Great Oaks Water Company
gpm	gallons per minute
HAZMAT	hazardous materials
HHS	Health and Human Services
ICS	Incident Command System
LD	Laboratory Director
LEPC	Local Emergency Planning Committees

LRN	Laboratory Response Network
MDL	Microbial Disease Laboratory
MSDS	Material Safety Data Sheet
MWDSC	Metropolitan Water District of Southern California
NRWA	National Rural Water Association
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
PIO	Public Information Officer
PWS	Public Water System
RMP	Risk Management Plan
SCADA	Supervisory Control and Data Acquisition
SD	Security Director
SEMS	Standardized Emergency Management System
SRLB	Sanitation and Radiation Laboratories Branch
SWRCB	State Water Resources Control Board
UWA	Unsafe Water Alert
VA	vulnerability assessment
WMD	Weapons of Mass Destruction
WTP	water treatment plant
WUERM	Water Utility Emergency Response Manager
WUOCM	Water Utility Emergency Operations Center Manager

# 1.0 Introduction

---

This section presents the purpose, goals, requirements, access control, and plan overview of the Emergency Response Plan (ERP) for GOWC. *Note that the ERP Activation process is described in Section 5.0.*

## 1.1 Purpose

The purpose of this ERP is to provide GOWC with a standardized response and recovery protocol to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of man-made or natural origin.

The ERP also describes how GOWC will respond to potential threats or actual terrorist scenarios identified in the vulnerability assessment (VA), as well as additional emergency response situations. Included in this ERP are specific action plans (APs) that will be used to respond to events and incidents.

## 1.2 Goals

The goals of this ERP are to:

- Rapidly restore water service after an emergency.
- Ensure adequate water supply for fire suppression.
- Minimize water system damage.
- Minimize impact and loss to customers.
- Minimize negative impacts on public health and employee safety.
- Provide emergency public information concerning customer service.

## 1.3 Requirement

This ERP has been designed to comply with Section 1433(b) of the Safe Drinking Water Act (SDWA) as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV – Drinking Water Security and Safety), California Government Code Section 8607.2 – Public Water System Plans, California Health and Safety Code, Sections 116460, 116555 and 116750, and California Waterworks Standards, Section 64560.

GOWC has provided the required certification to the United States Environmental Protection Agency (USEPA) that this emergency response plan incorporates the results of the VA completed for the system and includes plans, procedures, and identification of equipment that can be implemented or used in the event of a terrorist attack on the water system. GOWC has also provided a copy of the ERP to the local Field Operations Branch (Division 17) of the SWRCB DDW.

Whenever the ERP is changed or updated, a revised copy, or the specific revised documents, will be sent to the SWRCB DDW Division 17.

Guidance from the following documents is incorporated in this ERP:

- “California Emergency Response Plan Guidance” (CDHS, Version 1.0, December 2003).
- “Guidance for Water Utility Response, Recovery & Remediation Actions For Man-Made And / Or Technological Emergencies” (USEPA 810-R-02-001).
- “Large Water System Emergency Response Plan Outline: Guidance to Assist Community Water Systems in Complying with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002” (USEPA 810-F-03-007, July 2003).
- “Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents” (USEPA-817-D-03-001 to 007, Interim Final – December 2003).
- “Small and Medium Water System Emergency Response Plan Guidance to Assist Community Water Systems in Complying with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002.”
- “Emergency Planning Guidance Public and Private Water Utilities.” March 1999. California Office of Emergency Services (OES) and California Utilities Emergency Association.

## 1.4 Access Control

Because of the sensitive nature of the information contained in this ERP, an access control protocol has been established under the direction of the [GOWC’s General Counsel](#). Distribution of the ERP is limited to those individuals directly involved in GOWC’s emergency planning and response activities. The ERP copies are numbered prior to distribution, and recipients are required to sign and date a statement that includes their ERP number and their agreement not to reproduce the ERP without permission from the [GOWC General Counsel](#). A secure copy of the ERP is maintained in an off-premises location, known to [GOWC’s General Counsel](#), in the event that the utility’s copies cannot be accessed.

## 1.5 Plan Overview

This ERP is organized into eight sections and appendices, as described below:

- Section 1.0: **Introduction:** Describes the purpose, goals, regulatory requirements, access control protocol, and overall organization of the ERP.
- Section 2.0: **Emergency Planning Process Information:** Describes [GOWC’s](#) emergency planning partnerships, mutual aid agreements, emergency response policies, procedures and documents, and summarizes the scenarios from the VA that are addressed in the ERP.



- Section 3.0: Water System Information: Provides specific information about GOWC's water system, identifies emergency resources, and identifies alternate and backup water sources.
- Section 4.0: SEMS/ICS Integration and Organization: Presents emergency response chain-of-command and information and describes how GOWC will use the Standardized Emergency Management System/ Incident Command System (SEMS/ICS) system to manage emergencies.
- Section 5.0: Concept of Operations: Describes GOWC's policies, procedures, and plans to mitigate emergency incidents, including how threats may be received into the utility, ERP activation, response capabilities, personnel safety provisions, and protective action protocols.
- Section 6.0: Communications Procedures: Describes GOWC's chain of command and provides notification procedures and contact lists for internal and external contacts, including public notice procedures.
- Section 7.0: Water Quality Sampling: Includes information and procedures regarding water quality sampling procedures and equipment. Also provides information on available laboratory resources in California.
- Section 8.0: Emergency Response, Recovery, and Termination: Describes the three phases of an emergency: response, recovery, and termination. General actions and guidance is provided for each phase, and these procedures should be used in conjunction with the specific action plans in Appendix A.
- Section 9.0: Emergency Response Plan Approval, Update, Training, and Exercises: Describes the emergency response training program and the ERP review, approval, and update processes.
- Section 10.0: References and Links
- Appendices:
- A. Action Plans
  - B. System and Facility Information
  - C. Emergency Phone Lists
  - D. Public Notices and Press Releases
  - E. CA Statewide Emergency Notification Plan
  - F. Incident Reports and Forms
  - G. ERP Certification Form

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## 2.0 Emergency Planning Process Information

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This section presents the [GOWC](#) planning partnerships and discusses the relationship between this ERP and other [GOWC](#) related plans.

### 2.1 General Information

#### 2.1.1 Planning Partnerships

[GOWC](#) has established emergency planning partnerships with other parties who have agreed to help the utility in an emergency situation. A list of these agencies and a brief description of their emergency capabilities is provided below.

Agency	Capability
Santa Clara County OES 55 West Younger Street – Suite 450 San Jose, CA 95110 Telephone: (408) 808-7800	Operational Area Emergency Services
City of San Jose OES 855 N. San Pedro Street #404 San Jose, CA 95110 Telephone: (408) 277-4595 Facsimile: (408) 277-3345	Local Area Emergency Services
San Jose Fire Department 1661 Senter Road San Jose, CA 95112 Telephone: (408) 794-6950	1) Fire Department Capabilities 2) Emergency Medical Technician 3) Paramedic Unit 4) Bomb Squad Unit 5) HAZMAT capabilities
San Jose Police Department Telephone: (408) 277-8900 Non-Emergency: 311	Law Enforcement Traffic Control
State Water Resources Control Board Division of Drinking Water Programs Field Operations Branch District 17 850 Marina Bay Parkway Bldg. P, Second Floor Richmond, CA 94804-6403 Telephone: (510) 620-3474	Health-related water issues
Hazardous Materials Compliance Division Telephone: (408) 918-3400 Facsimile: (408) 280-6479	HAZMAT Response
CWS Utility Services 1720 North First Street San Jose, CA 95112-4508 Telephone: (408) 367-8200	Water Quality Testing
San Jose Water Company Jim Woolbrink Security and Emergency Preparedness Specialist Telephone: (408) 279-7804 Facsimile: (408) 292-5812	Neighboring Water Utility
Santa Clara Valley Water District	Local Government

Agency	Capability
Dale R. Jacques Emergency and Security Manager Telephone: (408) 630-2637	Special District

In the event of an attack on the water system, some or all of these agencies, as well as other state and federal agencies, may be called upon for assistance. A complete list of emergency response agencies with their telephone contact numbers is provided in Section 6.3.3.

### 2.1.2 Mutual Aid Agreements

In addition to the partnerships outlined above, [GOWC](#) has established mutual aid agreements with the following organizations:

Organization	Nature of Agreement
West Valley Construction Co (408) 371-5510, Nothorn Underground Construction (408) 363-8028, DACO Construction (408) 606-3464.	Agrees to provide contracting services in emergency events.
San Jose Water Co (408) 265-2600	Agrees to supply water as described in Interconnection Agreement
Fuel Delivery Services (408) 923-3475	Agrees to provide fuel as needed for generators, equipment and vehicles.
Ryan Peacock, Inc. (800) 916-4322	Agrees to provide emergency rental generators

### 2.1.3 Relationship Between ERP and Other Plans

This ERP is intended to assist [GOWC](#)'s managers and staff in responding to emergencies and malevolent acts (i.e., attacks) that affect the water system. The ERP is supplemented and referenced by the plans, procedures, policies and agreements shown in the table below

Document	Relationship to ERP
Risk Management Plan (RMP)	This document may contain responses to hazardous chemical releases, such as chlorine.
Identify applicable Material Safety Data Sheets (MSDS)	These are standard data sheets that may contain information regarding responses to specific chemical releases as well as a host of other useful information.
Identify the Water Sampling Plan	This document may provide useful information to support the contamination event stages evaluation as well as to provide information for the baseline analysis or provide conditions that are considered normal for your utility.

Document	Relationship to ERP
Identify the Water Sample Chain of Custody Procedures here	This document(s) may ensure that water samples are protected and properly handled so as to preclude contamination from the sampling process.

## 2.2 Disaster Events or Scenarios

Specific APs have been developed to address each of the high-risk threat scenarios identified in GOWC's vulnerability assessment. APs are tailored ERP actions that address specific major events. For security reasons, the procedures outlined in these documents are intentionally general in nature, omitting confidential details and effected assets. The specific APs are attached in the appendices following this main ERP document.

### 2.2.1 Natural Disasters

GOWC has considered the threats posed by natural events and weather-related phenomena. Specific AP(s) have been developed to guide a timely and prudent response should such threats be realized. These detailed APs are found in the attached appendices. Considered natural disasters include:

Natural Disaster	Primary AP No.	Secondary AP No.
Earthquakes	8D	
Floods	8A	
Winter Storm	8B	
Hurricane	8C	
Power Outage	7	

### 2.2.2 Events Caused by Human Intervention (Man-made Threats)

GOWC has developed specific AP documents, found in the appendices, to respond to the following threats that were identified in the vulnerability analysis:

Event / Threat	Primary AP No.	Secondary AP No.
Threat of Contamination to Water System	1A	1B
Confirmed Contamination to Water System	1C	1B
Structural Damage from Explosive Device	2	1A
Employee Assaulted with Weapon (Armed Intruder)	3	
SCADA System Intrusion	4	5
IT System Intrusion	5	4

Chemical Release	6	
Water Supply Interruption	9	
Bomb Threat	10A	10B, 10C

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## 3.0 Water System Information

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This section presents the core elements of the [GOWC](#) ERP, including the system-specific information, roles and responsibilities in an emergency, communication procedures, personnel safety, identification of alternate water sources, emergency and chemical supplies, and property protection.

### 3.1 System Specific Information

This section contains the [GOWC](#) Public Water System (PWS) identification and emergency contacts, as well as basic information to describe the water system.

<b>System Identification Number</b>	4310022	
<b>System Name and Address</b>	Great Oaks Water Co 20 Great Oaks Blvd Ste 120 San Jose, CA 95119	
<b>Directions to System Office</b>	The system is operated by Great Oaks Water Co. Operations are conducted from GOWC's offices located on Great Oaks Boulevard.	
<b>Number of Service Connections/Population Served<sup>1</sup></b>	20,572 Services	97,958 population <sup>1</sup>
<b>Type of Source</b>	19 Groundwater Wells	
<b>Interconnections and Purchased Water Agreements</b>	3 Interconnections (See Section 3.4.2)	Emergency sources only
<b>Type of Treatment Provided</b>	Chlorination in Calero tank/system only	
<b>Number of Storage Tanks</b>	4 Raw Water Storage Tanks	1 Treated Water Tanks
<b>Average Water Demand</b>	1,000 gallons per minute (gpm)	
<b>Maximum and Peak Water Demand</b>	2,500 gpm maximum	4,000 gpm peak
<b>Emergency Contact Person(s)</b>	John Roeder Chief Executive Officer	(408)227-9540 Office (208) 863-6046 Cell
	Tim Guster VP and General Counsel	(408) 227-9540 Office (408) 310-9441 Cell (408) 723-2338 Home Phone

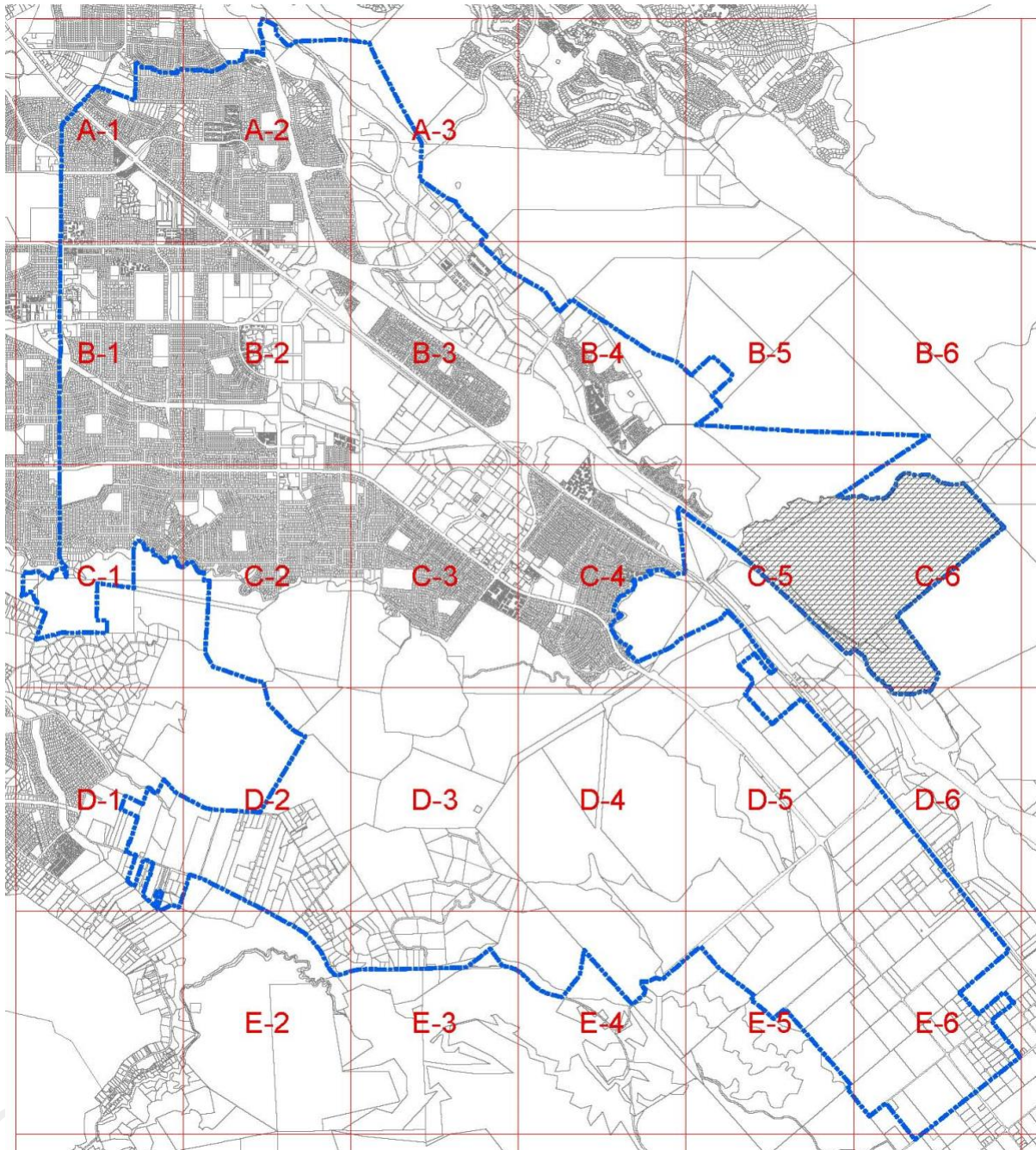
<sup>1</sup> If population is unknown, estimate using a factor of 3.3 persons per service connection.

### 3.2 General System Map/Service Area Map

The following maps and drawings of the [GOWC](#)'s system are provided below (*or in Appendix B*) for reference.



### 3.2.1.1 Distribution System Map



### 3.2.1.2 Site Plans and Facility “As-Built” Engineering Drawings

Due to the complexity and size of the service area, as-built drawings will not be provided in this document. Copies are available for emergency services staff through Jared Ajlouny, Vice President, Operations ([jajlouny@greatoakswater.com](mailto:jajlouny@greatoakswater.com)).

### 3.2.1.3 Operating Procedures and System Descriptions including Backup Systems

Certain operating procedures and system descriptions are included in the manuals and handbooks.

### 3.2.1.4 SCADA System/Process Control Systems Operations

GOWC's SCADA system is connected to all GOWC wells (20 wells), storage tanks (5 tanks), and booster stations (Calero, Zone 2, Zone 3).

## 3.3 Critical System Components

Included below is an outline of system components deemed critical to operation of [GOWC](#). Information on the location of the asset is included, as well as descriptive information such as entry restrictions or special equipment or tool needs.

Asset	Location	Description
GOWC Main Office	20 Great Oaks Blvd., Ste. 120 San Jose, CA 95119 Telephone: (408) 227-9540 Facsimile: (408) 227-7126	Operations center, customer service center, as-built drawings and plans, SCADA system, tools, construction equipment
Levin Tank #1 3,000,000 gallon capacity	Promenade Ct, San Jose	Water storage tank and associated distribution system
Levin Tank #2 1,500,000 gallon capacity	Promenade Ct, San Jose	Water storage tank and associated distribution system
Ashmont Tank #1 1,000,000 gallon capacity	Ashmont Dr, San Jose	Water storage tank and associated distribution system
Ashmont Tank #2 500,000 gallon capacity	Ashmont Dr, San Jose	Water storage tank and associated distribution system
Calero Booster Station	Santa Teresa Golf Course	Booster station associated with Calero water storage tank
Calero Tank 214,000 gallon capacity	Between south San Jose and Almaden Valley. Coyote Peak.	Water storage tank and associated distribution system

## 3.4 Identification of Alternate Water Sources

Alternate water sources are described in this section.

### 3.4.1 Alternate Raw Water Sources

[GOWC](#) has *no* alternate and independent raw water sources.

### 3.4.2 Interconnects and Agreements with Other Utilities

There are two neighboring utilities within the regional area: *San Jose Water Company* and *the City of San Jose Municipal Water System*. These water utilities have their own water



supply and treatment systems. To enable GOWC to have uninterrupted water service capability, bypass turnout valve connections from GOWC's water distribution system to *San Jose Water Company* are in place and are currently available to GOWC to serve as an alternate water source for *San Jose Water Company* if needed.

### 3.4.3 Water Sources for Short-term Outages

Possible alternate water supply options for short-term outages include:

#### Short-term water supply options

- Local supermarket
- Local bottled water companies and other bottlers
- Alternate water distribution plans
- Operational area EOC/ American Red Cross

Additional water supply equipment is available from:

#### Emergency water supply equipment sources

- Food processing companies
- Military bases or installations
- Industrial plants

## 3.5 Emergency Water Supply calculations

### 3.5.1 Amount of Water Needed for Various Durations

Typical residential water usage in the United States is on the order of 300 to 500 gallons per residence per day, or 100 to 150 gallons per capita per day. Although these amounts can typically be significantly reduced during crisis situations, GOWC has found it useful to develop an estimate for the quantity of supplemental water required for a number of potential outage scenarios. These estimates are as follows:

Outage Period	Number of Customers (Service Connections) Affected	Quantity Needed
1 hour	20,000	1,000,000 gallons
12 hours	20,000	5,000,000 gallons
1 day	20,000	10,000,000 gallons
2 days	20,000,000	20,000,000 gallons
1 week	20,000,000	70,000,000 gallons

### 3.5.2 Estimated Emergency Supply of Water

GOWC has estimated the amount of water storage available in the system under an emergency situation according to the following formula:

**Emergency supply of water = (amount of storage + backup/emergency supply) / (system demand)**

**Calculations for GOWC:**

Amount of storage = 6,214,000 gallons

Backup/Emergency Supply = 1,000,000 gallons

System Demand = 1,000 gpm Average, 2,500 gpm  
MaximumEmergency Supply = 4.17 days at Average Demand, 1.67  
days at Max Demand

## 3.6 Emergency Equipment and Supplies

The equipment and chemical supplies that are arranged to respond to incidents are described in this section. In addition, the individual APs have specific equipment requirements.

### 3.6.1 Facility Emergency Equipment List

GOWC has identified additional sources of operational equipment and repair parts in excess of normal usage that can be used in the event of an emergency situation. The decision regarding what type and quantity of additional equipment to have available is based on the results of the specific scenarios and critical assets identified in GOWC's vulnerability assessment.

### 3.6.2 Personnel Protective and Other Emergency Equipment

GOWC has established written safety procedures for using and maintaining emergency response equipment. These procedures apply to any emergency equipment relevant to a response involving a toxic chemical, including all detection and monitoring equipment, alarms and communications systems, and personnel protective equipment not used as part of normal operations. Summary procedures are listed below:

- How and when to use the equipment properly.
- How and when the equipment should receive routine maintenance.
- How and when the equipment should be inspected and tested for readiness.
- Training requirements.

### 3.6.3 Telephone Equipment

Standard land-based telephones are potentially useful for communication during an emergency. All GOWC employees also have cell phones usable in emergency situations.

In general, during an emergency, use of telephones will be minimized. If employees see telephones off the hook they should hang them up. This will help the telephone company to restore service.

### 3.6.4 VHF Radio Communications

Specific instructions will be provided by GOWC's Command Center on the operation and prioritization of GOWC radio facilities. It is important to note that radio communications are NOT SECURE; therefore, radios must not be used to transmit sensitive messages or data that is not ready for public release or would give advantage to an attacker. For this reason, it

is anticipated that radios will be of limited use during an attack on the water system, unless there is a loss of off-site power or other event affecting the land-based and cell phone service.

In addition to GOWC's own VHF radios, GOWC also is connected to SCVWD by emergency radio. SCVWD radio checks are conducted on a quarterly basis. The SCVWD radio is located in the office of Tim Guster at GOWC.

#### 3.6.4.1 VHF Communications Channel

Channel	Use Group / Frequency
KUA662	153.50000, 158.31000

#### 3.6.4.2 Trunked Radios (Mobile)

Serial Number	Storage Location	EOC Designation
Trunked Radio serial #	Indicate Trunked Radio Storage Location	Trunked Radio Emergency Operations Center (EOC) Designation

## 3.7 Property Protection

In the event of a real or potential malevolent event, the Water Utility Emergency Response Manager (WUERM) will make the determination as to what water system facilities should be immediately "locked down," including the implementation of specific access control procedures and the establishment of a security perimeter. The possibility of secondary malevolent events will be considered, given that the initial act may be diversionary.

GOWC personnel involved in an emergency response will take all necessary measures to protect potential evidence for law enforcement, should the event be declared a crime scene.

## 3.8 Environmental Management Policies and Procedures

- 3.8.1 Excavation Contact USA North before digging

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## 4.0 SEMS/ICS Integration and Organization

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The Standardized Emergency Management System is the system required by Government Code §8607(a) for managing response to multi-agency and multi-jurisdiction emergencies in California.

### 4.1 Five Levels of SEMS

There are five designated levels in the SEMS organization, as shown below. When resources become depleted or are not available at the field or local level, requests for resources are moved up through these levels until they are filled.

The type and severity of the incident determines the extent of activation for each level.

**Field Response:** The Field Response Level is where the Incident Command System is applied. At this level, emergency response personnel and resources are managed under ICS to carry out tactical decisions and activities in direct response to an incident or threat.

**Local Government:** Local Government includes *names of cities, counties, school districts, or special districts*.

**Operational Area:** The Operational Area concept represents the intermediate level of the state's emergency organization, consisting of *county and all political subdivisions*, including *water districts* and *other special districts*, within the county area.

**Regional:** Because of its size and geography, the state of California has been divided into six mutual aid regions by the Governor's OES. In SEMS, the regional level manages and coordinates information and resources among operational areas within the mutual aid region and also between the operational areas and the state level.

**State:** The state level manages and coordinates state resources in response to the emergency needs of the other levels. This level manages and coordinates mutual aid among the mutual aid regions and between the regional and state levels. The state level also serves as the coordination and communication link between the state and federal disaster response system.

### 4.2 Five Principle Functions of SEMS

There are five principle functions within SEMS at each of the five organizational levels. They are Management ("Command" at the Field Level), Operations, Planning/Intelligence, Logistics, and Finance/Administration. These functions are modular in their design and can expand or contract depending on the needs of the incident.

A summary of the functions and the responsibilities of each section, as they relate to [Utility Name's](#) Operations during an emergency, is provided in the table below.

Function	Responsibilities
Management	<ul style="list-style-type: none"> <li>• Serves as Command Staff and/or Incident Commander at the Field Level.</li> <li>• Directs Water System Emergency Operations Center (EOC).</li> <li>• May Serve as WUERM.</li> </ul>
Operations	<ul style="list-style-type: none"> <li>• Responsible for management of all operations directly applicable to the primary mission.</li> <li>• Operations Section Chief activates and supervises organizational elements in accordance with incident AP and directs execution of the AP.</li> <li>• Coordinates emergency response activities at the water utility EOC level.</li> <li>• Implements priorities established by management or Incident Command.</li> <li>• Field Coordinators               <ul style="list-style-type: none"> <li>- Operations staff who are linked to water utility personnel at other fixed facilities or who are assigned to incidents within the water utility.</li> <li>- Receive and pass information up the chain of command.</li> <li>- Receive and coordinate requests for services and support.</li> </ul> </li> </ul>
Planning/Intelligence	<ul style="list-style-type: none"> <li>• Oversees the collection, evaluation, verification, and display of current information related to the emergency.               <ul style="list-style-type: none"> <li>- Understand current situation.</li> <li>- Predict probable course of the incident events.</li> <li>- Prepare alternative strategies and control operations for the incident.</li> </ul> </li> <li>• Responsible for preparing action plans and maintaining documentation related to the emergency.</li> </ul>
Logistics	<ul style="list-style-type: none"> <li>• Provides facilities, services, and material in support of the Incident.</li> <li>• Oversees the acquisition, storing, and distribution of essential resources and support services needed to manage the emergency.</li> <li>• Tracks the status of resources.</li> <li>• Provides services to all field units in terms of obtaining and meeting their personnel, materials and equipment needs including communications.</li> </ul>
Finance/Administration	<ul style="list-style-type: none"> <li>• Responsible for all financial, administrative and cost analysis aspects of the incident.</li> <li>• Prepares vendor contracts, maintains records of expenditures for personnel and equipment, and maintains records and processes claims.</li> <li>• Provides preliminary estimates of damage costs and losses.</li> </ul>

## 4.3 GOWC Incident Command Structure

EXAMPLE OF SMALL WATER UTILITY UTILIZING A SEMS ORGANIZATION CHART

CONFIDENTIAL

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## 4.4 Emergency Operations Center

### 4.4.1 EOC Description

[Great Oaks Water Company](#)'s EOC is a pre-designated facility to coordinate the overall response and support to an emergency. The primary EOC is located at the **Primary EOC location** (note that it can be a separate room equipped and designated for emergencies only or a room that has been equipped to be easily used during emergency events).

[Great Oaks Water Company](#) has also identified and stocked an alternate EOC in the event that the primary EOC is not available or rendered unusable by the emergency. The alternate EOC location is at the **alternate EOC location**.

During an emergency situation, the EOC will:

- Establish an EOC Director to manage the Operations, Planning/Intelligence, Logistics, Finance/Administration Sections, and related sub-functions.
- Set priorities and develop APs.
- Coordinate and support all field-level incident activities within the utility service area.
- Gather, process, and report information within the utility service area and to other levels of SEMS.
- Coordinate with local government, operational areas, or regional EOCs as appropriate.
- Request resources from higher SEMS levels.

The EOC has sufficient communication equipment (phones, computer, two-way, etc.), copies of all engineering and operational plans and procedures for the [Great Oaks Water Company](#), chalk or white boards, and tables and chairs sufficient to meet the needs of any on-site emergency.

### 4.4.2 EOC Activation

In the event a credible or confirmed threat has been established, the [Great Oaks Water Company](#) staff will notify the [SD](#) and/or the General Manager ([GM](#)) or designated alternate. The [SD/GM](#) or alternate should then make the decision to activate the EOC. Once the decision to activate the EOC has been made, subsequent notification to the [Local Government Agency](#) should be made to notify the agency of the threat and the activation of the [Great Oaks Water Company](#) EOC.

Based on the severity of the incident, the [GM](#) or designee may also recommend that the [Local Government](#) EOC be activated.

Once the [Local Government](#) has been notified of the threat and the [Great Oaks Water Company](#) EOC activation, the [Great Oaks Water Company](#) EOC designee should provide immediate, specific information to the relevant agencies by *insert pre-designated communication method(s)* and be prepared to describe the magnitude and potential impact of the event on public health and safety. Updates on the actions of the [Great Oaks Water](#)

[Company](#), as well as damages and recovery actions, should be provided regularly and consistently during the event.

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## 5.0 Concept of Operations

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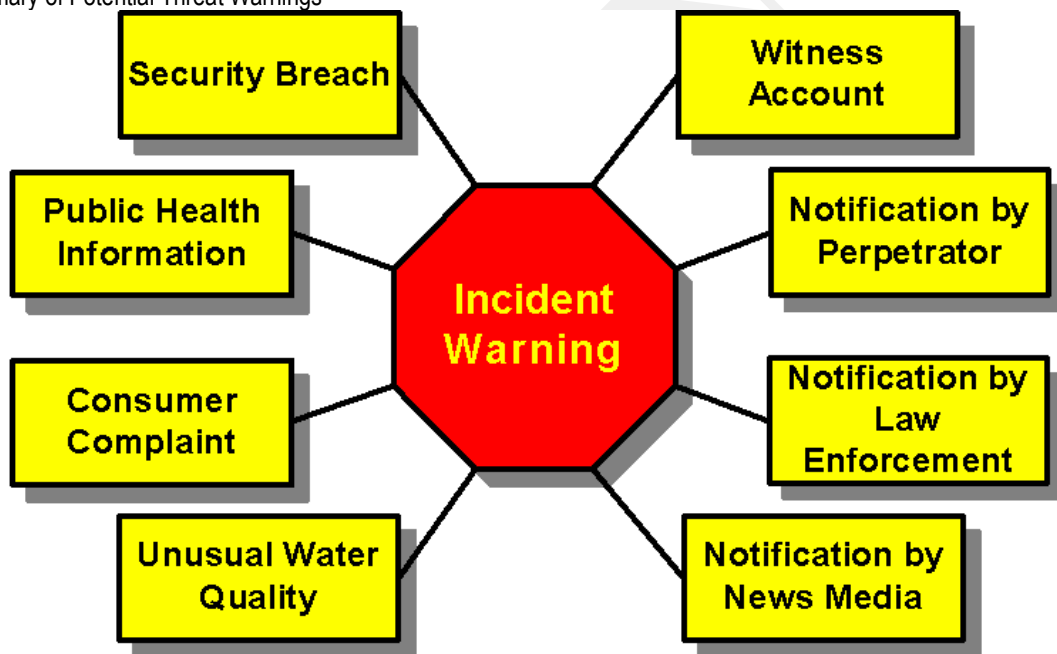
### 5.1 Decision Process

This section defines the decision process to be followed to determine if and when the ERP should be activated.

#### 5.1.1 Threat Warning

The “threat warning” is the initial occurrence or discovery that triggers an evaluation of whether or not to activate the ERP. A description of the possible types of threat warnings that [Great Oaks Water Company](#) may encounter is provided below. If any of these conditions are met, then a Threat Warning will be issued by the [GM](#).

FIGURE 1  
Summary of Potential Threat Warnings



##### 5.1.1.1 Threat Warning Conditions

**Security Breach.** Physical security breaches caused by relaxed operations, such as unsecured doors or criminal acts such as trespassing, are probably the most common threat warnings.

**Witness Account.** Employees or neighbors may see suspicious activity, such as trespassing, breaking and entering, and other types of tampering, that they report to local law enforcement or water utility.

**Notification by Perpetrator.** A threat may be made directly to the water utility, either verbally or in writing. Historical incidents would indicate that verbal threats made over the phone are more likely than written threats.

**Notification by Law Enforcement.** [Great Oaks Water Company](#) may receive notification about a threat directly from law enforcement. Such a threat could be a result of a report of suspicious activity or gathered by law enforcement intelligence.

**Notification by News Media.** A threat to contaminate the water supply might be delivered to the news media, or the media may discover a threat. A conscientious reporter should immediately report such a threat to the police, and either the reporter or the police would immediately contact the water utility.

**Unusual Water Quality.** All unusual changes in water quality should be investigated. Results should be ruled out that can be explained by the analytical detection method or on-line monitoring system (*i.e.*, false positives/false negative, known interferences, instrument reliability) or results from a known cause (*e.g.*, overdosing of coagulant).

**Consumer Complaint.** An unexplained or unusually high incidence of consumer complaints about the aesthetic qualities of drinking water may indicate potential contamination. Many chemicals can impart a strong odor or taste to water, and some may discolor the water.

**Public Health Notification.** The first indication that contamination has occurred may be victims showing up in local emergency rooms and health clinics. An incident triggered by a public health notification is unique in that at least a segment of the population has been exposed to a harmful substance.

### 5.1.2 ERP Activation

Once a threat warning is issued by the [GM](#) or his/her designee, the threat decision process begins. The [WUERM](#) or designated alternate should immediately be notified since this person will be involved in this decision process.

The threat decision process is considered in three successive stages: “possible,” “credible,” and “confirmed.” As the threat escalates through these three stages, the actions that might be considered also change. The following table describes the stages, actions that will be taken, and activation of the ERP. The [WUERM](#) is responsible for working through the threat decision process and implementing the ERP as needed.

Decision Process Stage	Actions Taken	ERP Activation Level
Stage 1 Possible Threat	Evaluate available information. Review findings from VA. Determine if threat is possible. (Could something have actually happened?)	Implement precautionary response actions.
Stage 2 Credible Threat	Determine that threat is credible by establishing corroborating information.	Activate portions of ERP. <ul style="list-style-type: none"> <li>Initiate internal and external notifications.</li> </ul>

Decision Process Stage	Actions Taken	ERP Activation Level
	Highly credible source. Health department/customer reports. Unusual monitoring results.	<ul style="list-style-type: none"> <li>Issue public health advisories.</li> <li>Initiate water sampling and analysis.</li> </ul> Consider partial or full activation of <a href="#">Great Oaks Water Company</a> EOC.
Stage 3 Confirmed Major Event	Confirm threat by verifying definitive evidence and information that establishes the major event.  Perform water sampling and analysis.	Fully implement ERP.  Immediately initiate appropriate APs.  Fully activate <a href="#">Great Oaks Water Company</a> EOC.

## 5.2 Response Capability Identified in the Water System VA

This section describes the response capabilities for [Great Oaks Water Company](#) that were identified in the water system VA.

Response Type	Title	Description
Procedures	Emergency Operating Procedures	A set of procedures that define employee responses to specific types of emergency events.
Procedures	Coordination with Local Police Force	An agreement with local law enforcement units regarding the support the utility can expect from the agency and the type of training and support the utility will provide to responding police agencies.
Communication	Public Address or Other Warning System	Used to notify people within a facility of an incident. Should a building or entire facility need to be evacuated, it is important to have a means by which everyone can be notified.
Mitigation	Fire Brigade at the Plant	Training and equipping a group of first responders from the plant population.

## 5.3 Personnel Safety

The safety of [Great Oaks Water Company](#) staff, emergency responders, and the public is paramount during an emergency. This section provides basic safety information and procedures to be followed in an emergency, including a toxic or potentially toxic release of chlorine or other chemical agents from a water treatment plant. Additional information

regarding proper procedures during and after a chemical release can be found in [Great Oaks Water Company's](#) Risk Management Plan and in the associated AP. This section will cover Facility Protective Actions, Personnel Accountability, Public Notification for Protective Actions, and Emergency First Aid procedures.

### 5.3.1 Facility Protective Actions

Facility protective actions include sheltering-in-place, evacuation, and a combination of the two. When determining the appropriate protective action decision, the [Great Oaks Water Company GM/SD](#) or designee will carefully consider:

- If a hazardous material is involved, its characteristics, amount, release rate, physical state, ambient temperature, and location
- The employees at risk and the capability and resources to recommend a protective action.
- The time factors involved in the emergency and their effect on the selected protective action.
- The effect of the present and predicted meteorological conditions (on the control of the hazardous material, storm warnings, flood stage level, etc.) and the feasibility of the protective actions.
- The capability to communicate with both the employees at risk and emergency response personnel before, during, and after the emergency.
- The capabilities and resources of the facility to implement, control, monitor, and terminate the protective action.

#### 5.3.1.1 Evacuations

- Facility evacuation should follow the pre-designated evacuation routes from buildings and plant grounds as shown in Appendix B.
- These evacuation routes are posted at *the entrance to all buildings and within employee break areas*.
- If an evacuation is ordered by the [GM/SD](#), all employees shall report to the pre-designated assembly areas shown on the evacuation plans to be accounted for by their *supervisor, assembly area coordinator, other pre-designated individual*.
- Supervisors are responsible to assure their disabled employees are provided with adequate assistance during the evacuation.

#### 5.3.1.2 Sheltering-in-place

- Sheltering in place should occur in the pre-designated facilities and locations as described in Section 5.5.1 and as shown in Appendix B.
- Locations should be equipped with emergency medical supplies and provisions.

### 5.3.2 Personnel Accountability

- All designated assembly areas are indicated on the facility evacuation plans.
- All personnel are responsible to report to their designated assembly area.
- *Supervisors* are responsible to assure all their personnel have reported after an ordered evacuation.
- Personnel who are not accounted for at the assembly area must be reported to the [GM/SD](#) to assure a proper response is coordinated. This response may include checking with other assembly areas, radio communication, or organization of a formal search.
- No search of a contaminated area should be performed unless all rescue personnel are fully equipped and trained for the expected hazards.

### 5.3.3 Off-site Protective Actions

Some hazardous materials hazards have the potential to affect off-site personnel and the local response agency may request support in making protective action decisions for the general public surrounding your facility.

[Great Oaks Water Company](#) will respond to requests from the local agencies for recommendations, or protective actions for the general population surrounding the facility.

### 5.3.4 First Aid and Emergency Medical Treatment

- Call 911 for medical assistance.
- Assure emergency medical care is provided to injured persons, as necessary until off-site medical personnel arrive.
- If trained, provide emergency first aid for victims of heart attack, strokes, severe bleeding, and shock.
- [GM/SD](#) *should designate* a supervisor to coordinate off-site ambulance and medical assistance.
- Victims may need to be decontaminated if the emergency involves hazardous material.
- Control the scene to avoid further spread of contamination.
- Obtain accurate information on the health hazards of the material from Local Emergency Response Team, Safety Officer, MSDSs, or the Poison Control Center.
- Determine if there is a risk of secondary contamination to personnel or emergency transport vehicles/hospitals.
- If needed, follow your pre-determined decontamination protocol, which should include removing wet or exposed clothing, flushing affected skin and hair with water, and using soap or shampoo for oily substances.
- Provide post-emergency medical evaluation as required by Occupational Safety and Health Administration (OSHA).

## 5.4 Protective Action Protocols

The protocols that [Great Oaks Water Company](#) uses for sheltering-in-place and for evacuation are described below.

### 5.4.1 Sheltering-in-Place Protocol

Evacuation during emergency incidents is sometimes, but by no means always, necessary. The emergency situation can escalate so rapidly that there would be no time to evacuate personnel. For hazardous weather conditions, a prudent course of action, for the protection of the potentially-affected employees/personnel, would be to remain inside with the doors and windows closed.

The [SD](#) or [GM](#) is responsible for determining whether sheltering-in-place is the most appropriate response to protect the vulnerable employees. If the decision is to shelter-in-place, then the affected employees will be advised to follow these guidelines to reduce the chance of being injured:

- Provide information on the procedure to employees and visitors on the facility public address system. If the information is provided to a local agency at their request, it should be coordinated through the Facility EOC.
- Close all doors to the outside and close and lock the windows.
- Inform staff to assemble at the *specify location* (preferred locations are windowless rooms).
- Close as many internal doors as possible.
- If an outdoor explosion is possible, close drapes, curtains, and shades over windows, stay away from windows to prevent potential injury from flying glass.
- *Add utility-specific instructions for sheltering-in-place during a hazardous materials release (for example, shut off or re-configure ventilation system).*

### 5.4.2 Evacuation Procedures

This evacuation procedure identifies the areas to be evacuated, as well as the warnings and instructions to personnel that must be provided. The assembly and shelter locations are identified in the posted facility evacuation plan.

#### 5.4.2.1 Evacuation Areas

The evacuated areas may be expanded by the on-site or off-site [Incident Commander](#). An incident resulting in off-site consequences (hazardous materials incident) shall determine evacuation requirements in conjunction with appropriate external agencies.

Decisions on evacuation are incident-specific and must be made at the time of incident. Estimated vulnerable zones that may be provided with the incident specific checklists should be used for planning purposes only and should not be used peremptorily in an emergency response situation.



### 5.4.2.2 Evacuation Warning and Instruction

Once the area to be evacuated has been identified, it is necessary to inform employees that they must evacuate:

- **Facility Personnel**

- Public address system: Using either voice and/or tones that are pre-established and exercised evacuation routes and procedures.
- Person-to-person: Not very rapid but can be very thorough.
- Combination of both public address and person-to-person.

- **General Public (Responsibility of Local Public Responders)**

Although protective actions for the general public are the responsibility of the [Local Government](#) this information may be helpful if you are requested to provide recommendations to the local [Incident Commander](#):

- Door-to-door: Requires significant personnel and is a slow process but is very thorough.
- Public address system (from a mobile unit or within a building): Requires fewer personnel than door-to-door and is quicker to accomplish but is not as thorough.
- Combination of Door-to Door and Public Address system: Dependent on the area to be evacuated a combination of methods of instruction may be warranted.

The method used to accomplish the evacuation will be determined by the [Incident Commander](#) and will be incident and site-specific. The evacuees should be told to report to their designated assembly areas and wait for further instructions.

### 5.4.3 Evacuee Assembly Areas

Evacuee assembly areas must be pre-designated for each area of the facility. Depending upon the conditions and requirements for the particular emergency, the [Incident Commander](#) may move or modify assembly area locations. The location of the Evacuee Assembly Areas are:

*List Locations Here*

Each manager/supervisor shall be responsible for head counts, assembly security and safety and will communicate with the [Incident Commander](#) to obtain support for various needs, such as food, water, medical aid, or transportation.

### 5.4.4 Shelter Locations

As necessary, the [Incident Commander](#) will select the most appropriate shelter from pre-identified shelter locations from the following list:

*List Locations here*

Once the shelter location has been determined, the shelter information will be disseminated to:

- Incident site personnel.
- Assembly area personnel.
- EOC, if activated.
- Responders on-site: for example, the communications coordinator and *the Medical Unit*.

Once the facility employees are notified to evacuate they will proceed to their designated shelter.

*The medical unit* will be notified of the shelter locations and be provided with information on any injuries or the type of hazardous material and any known exposures.

Once an area is evacuated, the SD or designee must secure the area. Security personnel operating in or around an evacuated area must not be located in a hazardous or potentially hazardous area that would necessitate the use of personnel protective clothing or place them in an unsafe condition.

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## 6.0 Communication Procedures

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In general, communications during an emergency response will proceed along the chain of command of the SEMS/ICS. The number of people notified will increase as the incident expands and decrease as the incident contracts toward its conclusion.

The type and extent of the disaster will dictate the normal and/or alternative methods of communication that will be used. The possibility of a coordinated attack that targets the water, power, and communications systems must be considered. In this case, it would be reasonable to assume that some methods of communication will either be unavailable or limited to certain areas during an emergency. It is anticipated that employees will know upon arrival at their duty stations which communication systems are functional and which are not. This information should be relayed to the [Great Oaks Water Company Information Officer](#) upon discovery.

[GOWC](#) uses the ICS for its command structure during water emergencies. The table below describes the ICS command structure positions and shows which individuals will hold the various positions during different emergency situations (recognizing that at different stages of an event or for different severity of events that the person/position responsible in the ICS changes).

### 6.1 [GOWC](#) Chain of Command

[GOWC](#) Primary Position Descriptions and Assignments

Name and Title	Responsibilities during an Emergency	Contact Numbers
Name Incident Commander	Sets incident objectives and priorities.  Responsible for management of incident.  Coordinates all emergency response activities between agencies.  Communicates with all participants including those outside water utility.	Office: Cell: Pager: Home:
Name Water Utility Emergency Response Manager	Overall management and decision making for the water system.  WUERM is lead for managing the emergency and contacting the regulatory agencies.  All communications to external parties are approved by the WUERM.	Office: Cell: Pager: Home:
Name Alternate WUERM	Takes over for primary WUERM if primary WUERM is unavailable.	

**GOWC** Primary Position Descriptions and Assignments

Name and Title	Responsibilities during an Emergency	Contact Numbers
Name Water Utility Emergency Operations Center Manager (WUOCM)	Heads water utility's EOC.  Provides operational and resource management during an emergency.	Office: Cell: Pager: Home:
Name Public Information Officer PIO	Member of the command staff and reports directly to the Incident Commander.  Interfaces with media and disseminates public information.  Plans the information strategy.	Office: Cell: Pager: Home
Name Liaison Officer	Member of the command staff  On-scene contact for representatives from other agencies.	Office: Cell: Pager: Home:
Name Safety Officer	Develops and recommends measures for assuring personnel safety.  Assess and anticipates hazardous and unsafe conditions.	Office: Cell: Pager: Home:
Name Office Administrator	Responsible for administrative functions in the office.  Receives customer phone calls and maintains a log of complaints and calls.  In an emergency, could provide a standard carefully pre-scripted message for customers who call with general questions.	Office: Cell: Pager: Home
Name Technical Specialist Water Quality Manager	In charge of collecting samples, having samples analyzed by certified labs, receiving the results.  Determines the quality of the water being served meets all drinking water and public health requirements.	Office: Cell: Pager: Home:
Name Technical Specialist Water Treatment Plant (WTP) Operator	In charge of running water treatment plant.  Performs inspections, maintenance, sampling of the WTP and relaying critical information to the WUERM.  Assess WTP facilities and treatment provided and provides recommendations to the WUERM.	Office: Cell: Pager: Home:
Name Technical Specialist Water System Operator	In charge of operating the water system.	Office: Cell: Pager:

**GOWC** Primary Position Descriptions and Assignments

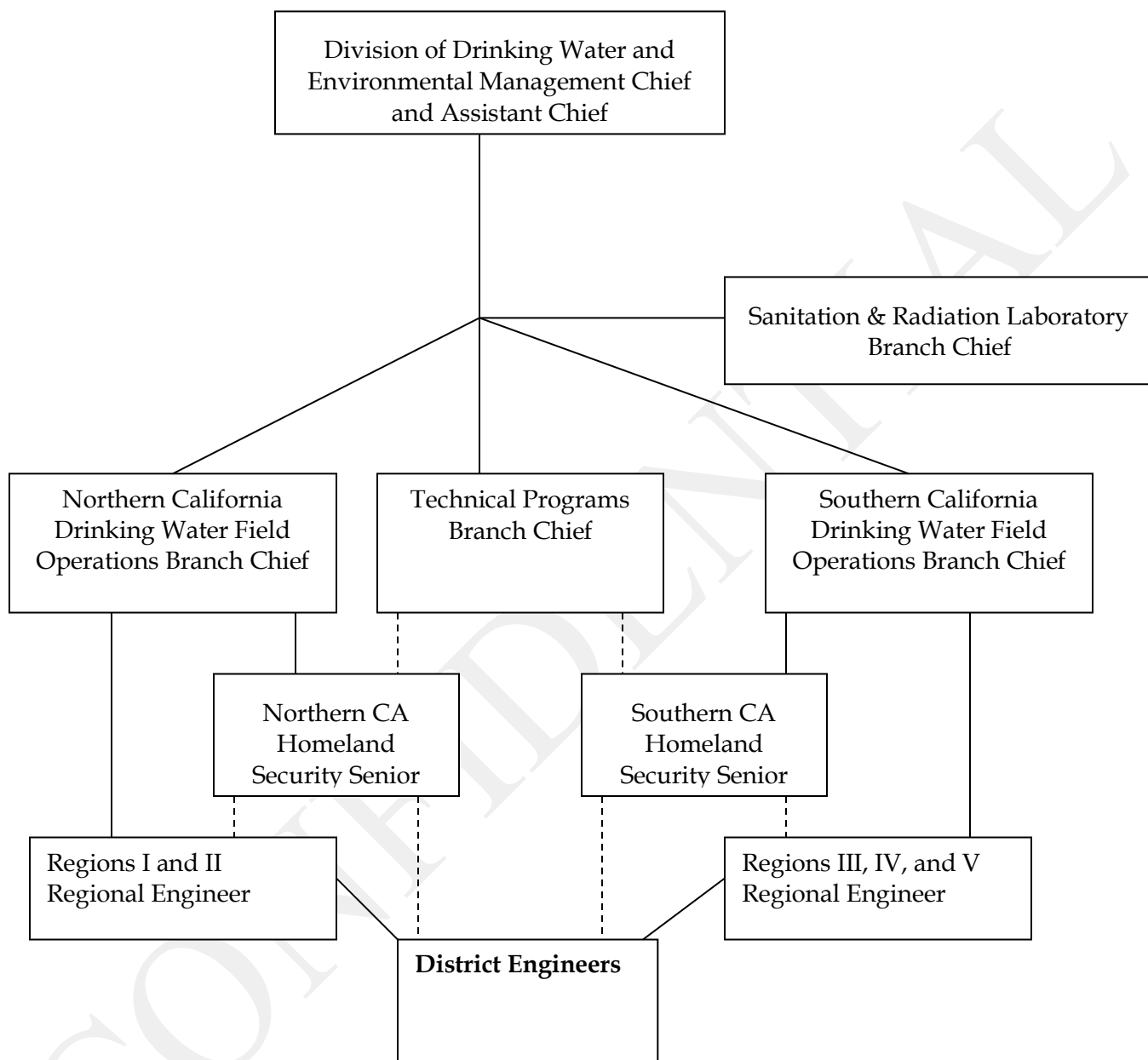
Name and Title	Responsibilities during an Emergency	Contact Numbers
	<p>Performs inspections, maintenance, sampling of the system and relaying critical information to the WUERM.</p> <p>Assess facilities and provides recommendations to the WUERM.</p>	Home:
<p>Name</p> <p>Technical Specialist</p> <p>Field Staff</p>	<p>Delivers water quality notices or door hangers.</p> <p>Provides backup to water system operator.</p> <p>Conducts site inspections of all facilities.</p>	<p>Office:</p> <p>Cell:</p> <p>Pager:</p> <p>Home</p>

## 6.2 Drinking Water Field Operation Branch – Chain of Command

The primary contact for the **GOWC** during any emergency is the District Engineer. **GOWC** will contact the District Engineer in the event of any emergency.

From the District Engineer, authority moves up the line to the Regional Engineer, Branch Chiefs, Assistant Division Chief, to finally the Chief of the Division.

*The following flow chart shows the chain of command structure within the State Water Resources Control Board- Division of Drinking Water (SWRCB-DDW). The SWRCB-DDW Web site has a map showing all the contact information for each District Office and District Engineer. <http://www.dhs.ca.gov/ps/ddwem/technical/dwp/dwpindex.htm>. The figure can be modified to show your utility's command structure, and you can add names and contact numbers from the SWRCB-DDW Web site.*



## 6.3 Notification Procedures

### 6.3.1 Initial Notifications

First Responders (911): If the situation is an emergency that needs response from local fire, law enforcement, medical or HAZMAT team, calling 911 should be the first immediate call.

GOWC is aware that if the water system staff call 911 from a cell phone, then the call is routed to the nearest California Highway Patrol Office, which may be in another city or county, and not in the immediate local 911 area. Direct phone numbers have been obtained from local first responders for the different 911 areas that are served by GOWC. These numbers are shown in the Table C-1 in Appendix C.

### 6.3.2 Internal Contact List

The contact information in Table C-2 in Appendix C represents the network of GOWC personnel and serves as the primary means of contacting internal staff.

If it becomes necessary to contact the staff member's family or emergency contact, the PIO will have primary responsibility for making the notification. The *Human Resources Manager* will assist the PIO with family member communications as needed.

### 6.3.3 External Contact List

Tables C-3, C-4, C-5, C-6, and C-7 in Appendix C contain contact information for the local and national agencies that GOWC may need to notify. The WUERM will make the decision as to which of these agencies needs to be notified, and at what point in the threat evaluation the calls should be made. The PIO or Liaison Officer will serve as the water utility point of contact for these agencies.

In addition to the External Contact List in Appendix C, GOWC maintains an Emergency Notification Plan (Appendix E) that includes day and evening phone numbers for the CDHS District Engineer and/or staff, CA State OES, and County Personnel. The Notification Plan also includes procedures for notifying the affected service area, and it is updated whenever there is a personnel change.

### 6.3.4 Additional Information on State of California Agencies

The initial notification response to any emergency should be to call 911 for the needed first responder and then to the CDHS DWP. The CDHS DWP is the Drinking Water Primacy Agency in California and has regulatory jurisdiction over all public water systems in the state.

Contact to the CDHS DWP should be to their District Engineer. If the water system is unable to contact the District Engineer (or one of their staff), the water system should use the California OES Warning Center Phone Number: 1-800-852-7550, which is a 24/7 phone number. A second phone number for the OES Warning Center is 916-845-8911.

A duty officer will answer the California OES Warning Center phone call and refer to statewide emergency phone numbers. In order to assist the duty officer-it will expedite response if you request the CDHS duty officer. The CDHS duty officer will then call management staff in the DWP to respond to the emergency.

The District Engineer will be able to assist **GOWC** with:

- Inspections of water treatment plants, storage facilities, and watersheds (chemical contamination, sewage spills, erosion, and drainage diversions).
- Water quality sampling.
- Consulting with water system staff/operators.
- Providing technical assistance.
- Documenting the disaster's effect on the water system through photographs and reports.
- Keeping local officials advised of the current drinking water situation.
- Review plans and specifications for reconstruction projects, and issue amended permits as needed.
- Laboratory sampling analysis.

### 6.3.5 Critical Customers Contact List

In addition to the agencies listed in the previous tables in Appendix C, Table C-8 in Appendix C contains contact information for **GOWC**'s Critical Care Customers (Primary Notification) and Large Water Users (Secondary Notification). The **WUERM** will decide if the **PIO** will notify some or all of these customers in the event of an emergency involving the water system.

**GOWC**'s Water Quality Emergency Notification Plan, as required under Section 116460, California Health and Safety Code, is included in Appendix E of this ERP.

### 6.3.6 Contact Information for Fire-fighting Water Alternate Sources

If the water becomes contaminated with substances that render it unsafe to be used for fire-fighting, then an order will be issued to discontinue use of the affected fire hydrants. Alternate sources for fire-fighting water are shown in Table C-9 in Appendix C.

### 6.3.7 Contact Information for Bulk and Bottled Water Suppliers

**GOWC** has identified agencies and private companies as shown in Table C-10 in Appendix C that could provide water supplies (bottled or bulk) in the event of an incident.

## 6.4 Public Notice Procedures

### 6.4.1 Media Notification

Effective communication with the public is a key element of this ERP. **GOWC** personnel have been instructed to direct all media questions or information requests related to an



emergency situation to GOWC's Public Information Officer, PIO. The PIO is the official spokesperson for GOWC and is the only GOWC employee who is authorized to speak directly to public media representatives.

Table C-11 in Appendix C provides contact information for the various media agencies that GOWC PIO might use to disseminate information to the public.

## 6.4.2 Public Notification

A Boil Water Order (BWO), Unsafe Water Alert (UWA), or Do Not Drink Notice can be issued by one, or a combination of the following agencies:

- SWRCB-DDW. Designated personnel: District Engineer, Regional Engineer or Branch Chief.
- Local County Health Department. Designated personnel: County Health Officer or Director of Environmental Health Department for small water systems under county jurisdiction.
- Affected Water System. Designated personnel: responsible person in charge of the affected water system (i.e., Director of Water Quality, Manager, Director of Water Department, Director of Public Works, Owner, etc.).

In the event that a BWO, UWA, or Do Not Drink Notice is issued by GOWC, the GM is the person who has the authority to issue the public notice.

If a BWO or UWA is issued, the General Manager will notify the PIO in the EOC immediately.

GOWC will ensure that all public notifications (BWO, UWA, or Do Not Drink Notices) will be coordinated with the SWRCB District Engineer, County Environmental Health Department, and the County Public Health Officer prior to issuing a public notice.

GOWC will notify the SWRCB District Engineer, the County Environmental Health Department and the County Public Health Officer prior to or immediately after issuing a public notice. Notice must be given to a person rather than a message left on voicemail. Table C-12 in Appendix C shows the primary, 1<sup>st</sup> Alternate and 2<sup>nd</sup> Alternate contacts for the County Public Health Officer and the County Environmental Health Department.

GOWC has prepared a series of public notices and press releases for use during various emergency situations in accordance with SWRCB guidance. These notices can be found in Appendix D.

A summary of each of the notices, including guidance on when to issue each of them, is provided below.

**Consumer Alert During Water Outages or Periods of Low Pressure:** If the water system is experiencing power outages, water outages, or low-pressure problems, a consumer alert may be issued to the public. The notice provides consumers information on conserving water and how to treat the water with household bleach if the water quality is questionable.

**BWO:** A BWO should be issued when minimum bacteriological water quality standards cannot be reasonably assured. To assure public health protection a BWO should be issued as soon as it is concluded by the designated personnel that the water supply is or may be biologically unsafe. Examples of these situations include:

1. Biological contamination of water supply system, including but not limited to:
  - Positive total or fecal coliform bacteriological samples.
  - Prolonged water outages in areas of ruptured sewer and/or water mains.
  - Failed septic tank systems in close proximity to ruptured water mains.
  - Ruptured water treatment, storage, and/or distribution facilities in areas of known sewage spills.
  - Known biological contamination.
  - Cross-connection contamination problems.
  - Illness attributed to water supply.
2. Unusual system characteristics, including but not limited to:
  - Prolonged loss of pressure.
  - Sudden loss of chlorine residual.
  - Severe discoloration and odor.
  - Inability to implement emergency chlorination.
3. Implemented due to treatment inadequacies.

**UWA/Do Not Drink:** In the event a water quality emergency due to known or suspected chemical (non-bacteriological) contamination to the water system a UWA or Do Not Drink should be issued. Water should not be used for drinking and cooking, but may be used for sanitation purposes. Examples of these situations include:

1. Known or suspected widespread chemical or hazardous contamination in water supply distribution, including but not limited to:

- Ruptured water distribution system (storage tanks, mains) in area of known chemical spill coupled with loss of pressure.
  - Severe odor and discoloration.
  - Loss of chlorine residual.
  - Inability of existing water treatment process to neutralize chemical contaminants prior to entering the distribution system.
2. Threatened or suspected acts of sabotage confirmed by analytical results, including but not limited to:
    - Suspected contamination triggered by acts of sabotage or vandalism.
  3. Emergency use of an unapproved source to provide a supplemental water supply.

**UWA/Do Not Use:** In the event a known or suspected contamination event occurs to the water system, where the contaminate may be chemical, biological, or radiological, a UWA or Do Not Use should be issued. Water should not be used for drinking, cooking, or sanitation purposes. Examples of these situations include:

1. Known or suspected widespread chemical or hazardous contamination in water supply distribution, including but not limited to:
  - Terrorist contamination event.

## 6.5 Cancellation of Public Notification

Once a BWO/UWA is issued, the only agency that can rescind the public notice is the drinking water primacy agency.

SWRCB-DDW will not lift the BWO until two rounds, collected one day apart, of coliform bacteria samples have been analyzed and the results are negative. GOWC will fax two sets of sample results to the SWRCB-DDW District Office for final approval before rescinding the BWO.

Special chemical sampling will be required to rescind an UWA. GOWC will contact the SWRCB-DDW District Office to determine required sampling.

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## 7.0 Water Quality Sampling

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**NOTE:** Laboratory protocols and procedures identified in Section 7.0 are still under development by federal and state Agencies. Water utilities are encouraged to customize this section to reflect the laboratory resources that are currently available, and to update this section as new information becomes available. Some utilities will rely primarily on the local HAZMAT team, health department, or emergency management agency to collect and analyze samples during a contamination threat or incident. If that is the case for your utility, completion of Section 7.8 should be sufficient water quality sampling information for your ERP.

During an emergency, there are several types of water quality sampling that may need to be analyzed depending on the actual event. If it is natural disaster, flood or power outage, sampling will probably only include bacteriological samples, turbidity and chlorine residual samples if the system is chlorinated. However, if the event is a terrorist act or contamination event, the sampling will include a full scan of Weapons of Mass Destruction (WMD) chemical, radiological, and microbiological (unless the actual contaminant used is known).

### 7.1 Laboratory Resources

In general there are four different types or ownership of laboratory facilities in California that can analyze drinking water samples, which are listed below:

1. Commercial/private laboratories
2. County Public Health Laboratories
3. State Department of Health Services Laboratories
4. Research Facility/Specialty Laboratories

In general, laboratories are grouped into two broad categories: chemical or biological. Chemical laboratories include general environmental chemistry laboratories, radiological laboratories, and specialty laboratories that may be able to handle and analyze exotic contaminants, such as chemical weapons and radionuclides. Biological laboratories include environmental microbiology laboratories and the Laboratory Response Network (LRN) that typically analyze clinical samples for pathogens and select biotoxins.

### 7.2 SWRCB Laboratory

The SWRCB Sanitation and Radiation Laboratories Branch (SRLB) is organized within the Division of Drinking Water and Environmental Management. SRLB is the State's primary drinking water quality testing laboratory and is the only State laboratory capable of measuring environmental radiation. Its primary mission is to provide analytical services, reference measurements and technical support pertaining to the State's Drinking Water and Radiological Health Programs.

SRLB has two laboratories: the Southern California Section is located in Los Angeles and performs microbiological, inorganic and organic testing in various water matrices; the Northern California Section, located in Richmond, carries out inorganic and organic analyses in water, and radiochemical testing in various environmental matrices in addition to water. The SRLB in conjunction with the SWRCB Microbial Disease Laboratory (MDL) does microbiological analyses including biotoxins.

## 7.3 California Mutual Aid Laboratory Network

The SWRCD-DDW – in conjunction with the water utilities, USEPA Region 9 laboratory in Richmond, Lawrence Livermore National Laboratory, and the California Department of Water Resources – have formed a laboratory network, the California Mutual Aid Laboratory Network (CAMAL Net), to address laboratory capacity issues associated with possible drinking water-related contamination events. CAMAL Net establishes a triage system to process samples when water systems or commercial laboratory methods are not available or the water system lacks capacity within their own lab. The CAMAL Net system will not handle any samples where field screening indicates that the sample may contain a Center for Disease Control (CDC)-listed WMD agent. The list of WMD agents can be found on the CDC Web page at <http://www.bt.cdc.gov/>. Any request for analysis through the CAMAL Net system needs to be approved by the CDHS DWP District Engineer in GOWC's jurisdiction prior to collection of water quality samples to be processed.

## 7.4 Chemical Analysis Classification

The SWRCB, along with its stakeholders and federal partners, are in the process of developing an algorithm to assist California water systems, public health agencies, law enforcement, and first responders with the identification of possible chemical agents in drinking water contamination events. A draft version has been developed, and it is anticipated that a final version will be released in the near future. The final version will become an appendix to this ERP.

## 7.5 Biological Analysis Classification

The LRN for Bioterrorism has ranked laboratories (Level A, B, C or D) based on the type of safety procedures they practice.

- Level A Lab uses a Class II biosafety lab (BSL) cabinet.
- Level B Lab is a BSL-2 facility + BSL-3 safety practices.
- Level C Lab is a BSL-3 facility.
- Level D Lab is a BSL-4 facility.
- Level A Labs are used to rule out and forward organisms.
- Level B Labs are used for limited confirmation and transport.
- Level C Labs are used for molecular assays and reference capacity.
- Level D Labs are used for the highest level of characterization.

Currently, in California there are 28 Level A labs, 10 Level B labs, and two Level C labs. The two Level C laboratories are the Los Angeles County Public Health Laboratory in Los

Angeles, California and the SWRCB-DDW in Richmond, California. Lawrence Livermore National Laboratory is also a Level C laboratory, but access to that lab is restricted. The only Level D laboratories available in the LRN are the national laboratories, such as those at the CDC and the Department of Defense. These laboratories test and characterize samples that pose challenges beyond the capabilities of the Level A, B, and C reference labs and provide support for other LRN members during a serious outbreak or terrorist event. The most dangerous or perplexing pathogens are handled only at the Bio-Safety Level 4 laboratories at CDC and the United States Army Medical Research Institute of Infectious Diseases.

## 7.6 Natural Disaster

During a natural disaster, flood, earthquake, fire etc., sample collection and analysis will be available to **GOWC** by the normal laboratory resources. Sampling will primarily consist of regulatory bacteriological samples and turbidity to show that the system has been flushed out. **GOWC** may also be collect chlorine residual samples throughout the system with a field chlorine test kit.

## 7.7 Terrorist Event/Contamination Event

Once a threat warning has occurred and **GOWC** has deemed the threat confirmed, it will be necessary to collect water quality samples. The decisions made from the time of the threat warning to the time the threat is confirmed is specific to each individual event. This “credibility stage” may take between 2 and 8 hours and should involve consultation with local first responders, SWRCB-DDW (Drinking Water Primacy Agency), local Health Department, and the regional Federal Bureau of Investigation (FBI) office. For more detail on sampling during various stages of threat confirmation, see Action Plans 1A, 1B, and 1C.

Assuming the threat is credible enough to warrant water quality sampling, several state and federal agencies are involved to collect samples, transport the samples to appropriate laboratory, and analyze the samples.

**GOWC**’s first step in this process will be to contact the CDHS District Engineer so the utility can notify the CDHS-SRLB of the incoming samples. The following steps are described in more detail below:

The original sample kit was developed by the Metropolitan Water District of Southern California to be used during a terrorist or contamination event. USEPA reviewed the sample kit and provided a list of the sample bottles in the USEPA Toolbox. The CAMAL Net has also reviewed this kit and made some minor changes that will allow water quality samples to be collected under all conditions. The CAMAL Net version of the sample kit has been finalized for deployment. This kit will continue to evolve as the USEPA develops sampling protocols for these new constituents in drinking water. The estimated cost of one kit is approximately \$200.

SWRCB-DDW will purchase the supplies to create enough EWQSK to supply 2-3 in each DDW District Office. If water systems do not want to purchase and maintain their own kits, then the DDW will provide one of these kits in the event of an emergency. Requests for these kits should be made to the District Engineer when the water system reports the incident. Travel time from the District Office to the water system should be incorporated in the water system’s emergency response plan.



- Emergency Water Quality Sampling Kit (EWQSK)
- Sample Collection
- Laboratory Required for Analysis
- Sample Transport
- Sample Analysis

### 7.7.1 Emergency Water Quality Sampling Kit

GOWC's EWQSK contains sample bottles need for chemical, radiological, and microbiological analysis that can be split into three complete sample sets. A complete list of the EWQSK contents is provided in Appendix B. The EWQSK should remain sealed before the sample is collected. Since some of the sample bottles contain reagents that expire, the bottles in each kit are replaced annually.

### 7.7.2 Sample Collection

Several types of samples may need to be collected depending on the event. Sampling protocol includes:

- GOWC will collect samples for public health to determine if the water is safe for consumption using the EWQSK for public health.
- GOWC will assist the FBI as requested to collect samples for the crime scene investigation.
- GOWC will also provide assistance as requested to responding agencies such as local HAZMAT, FBI, California National Guard Civilian Support Team (CST), or USEPA.
- Proper personal protection material will be used at all times to minimize exposure to any possible agent, and all personnel involved in sampling activities will be properly trained.

### 7.7.3 Laboratory

Depending on the results of the field screening and actual event, the required laboratories will be notified and prepared to accept the samples. If an EWQSK (supplied by GOWC or SWRCB-DDW) is used, the CAMAL Net and the LRN will be notified and involved in the process for laboratory selection. The first step in this process is for the District Engineer working with GOWC to contact SRLB.

### 7.7.4 Sample Transport

Depending on the responding agencies and field screening results, the ICS will decide how the samples will be transported to the appropriate lab. Since the samples may be used for the crime investigation, proper chain-of-custody must be maintained. The possible agencies, depending on the event, are local HAZMAT teams, CHP, FBI, CST, or USEPA.

### 7.7.5 Sample Analysis

Once the samples are delivered to the appropriate laboratory, they may be split for analysis to different laboratories. The CDHS SRLB laboratory will handle the transport and

laboratory testing protocols. Sample results will be shared through the ICS. Sample analysis may take days to weeks to complete depending on the complexity of analysis.

## 7.8 GOWC Water Sampling and Monitoring Procedures

The *name of agency (could be water utility or local emergency management or HAZMAT team)* will have the primary responsibility for all water sampling and monitoring activities during an actual or potential contamination event. The [GOWC Laboratory Director no lab?\(LD\)](#) will provide technical support and advice to the local emergency management agency or HAZMAT team as needed throughout the incident.

The [LD](#) will also play a key role in the interpretation and communication of monitoring or lab results and will consult directly with the [WUERM](#) on significant findings.

Specific information and procedures regarding water sampling and monitoring is included the following table:

Contaminant	Sampling/Monitoring Procedures	Quantity of Required Samples	Responsible Individual
Suspected bacterial or chemical contamination	Follow SWRCB-DDW sampling protocols	Follow SWRCB-DDW sampling protocols	Michael Carey (408) 591-5230

The [GOWC](#) laboratory has the following analytical capabilities:

***GOWC does not operate a lab.***

If outside laboratory assistance is needed, [GOWC](#) will contact the following laboratory facilities:

Outside Laboratory Name	Contact Number	Capabilities
California Water Services	Vivian Duong - (408) 367-8350	Bacterial Contamination Analysis
Eaton Analytical, inc	750 Royal Oaks Drive #100 Monrovia, CA 91016 (626) 386-1100	Chemical Analysis



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# 8.0 Emergency Response, Recovery, and Termination

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## 8.1 Response Phase

### 8.1.1 Initial Response

When a situation occurs that is judged to be of an emergency, “out of the ordinary,” or of a suspicious nature, the person who first notices the situation should determine whether an immediate response by police, fire, or emergency medical services is necessary. If so, immediately call 911 to report the incident. Next, report the incident to your supervisor.

General information to be reported from [GOWC](#) facilities (or incident sites) includes:

- What has happened?
- What can be done about it?
- What is needed?
- An assessment of whether the situation calls for activation of the [GOWC](#)’s EOC.

Additionally, immediate specific information should include the status of [GOWC](#)’s:

- Personnel
- Equipment
- Vehicles
- Communications capabilities
- Facilities

The employee who first noticed the incident and the Supervisor that responded should:

1. Notify the [WUERM](#) or the [Alternate WUERM](#) as soon as possible.
2. Remain in a safe location in the vicinity to meet and assist medical, fire, and police personnel and other first responders as necessary.

### 8.1.2 Damage Assessment

Damage assessment is used to determine the extent of damage, estimate repair or replacement costs, and identify the resources needed to return the damaged system to full operation. This assessment is accomplished during the emergency response phase of the event, before the recovery phase is implemented.

The [WUERM](#) is responsible for establishing a Damage Assessment Team.

The **GOWC** Damage Assessment Team will be led by *an operations or maintenance supervisor, with representatives from engineering and procurement*. Team composition may vary, however, depending upon the nature and extent of the emergency.

Damage assessment procedures should follow the guidelines established for system operability checks and determination of operability/serviceability. At a minimum, the damage assessment team will:

- Conduct an initial analysis of the extent of damage to the system or facility.
- Estimate the repairs required to restore the system or facility; the estimate should consider supplies, equipment, rental of specialized equipment (e.g., cranes), and additional staffing needs.
- Provide this estimate to the procurement representative for a cost estimate to conduct repairs.

Appendix F contains a damage assessment form that can be used for all **GOWC** facilities.

## 8.2 Recovery phase

### 8.2.1 Recovery Planning

During emergency response operations, the **Incident Commander** or **WUERM** will appoint a Recovery Manager. The Recovery Manager is responsible for selecting a recovery team and developing a recovery strategy prior to emergency termination.

The **GOWC** Recovery Manager will be a senior operations representative familiar with the systems that may be affected by the emergency. He/she will have the responsibility and authority to coordinate recovery planning; authorize recovery activities; protect the health and safety of workers and the public; and initiate, change, or recommend protective actions. Additional responsibilities include:

- Facilitate the transition from emergency to recovery operations.
- Develop, implement, and maintain the Recovery Plan.
- Coordinate all vendor and contractor activities that occur on site.
- Ensure that the appropriate safety inspections have been completed.
- Coordinate the completion of emergency repairs and schedule permanent repairs.
- Notify key agencies of emergency repair status and the scheduled completion of system repairs.
- Complete permanent repair and/or replacement of system facilities.
- Review press releases prior to distribution.
- Release repaired facilities and equipment for normal use.
- Replace, or authorize the replacement of, materials and supplies used in the emergency.

- Document all recovery activities.

The Recovery Manager determines the expertise and selects the personnel necessary for the recovery team. In general, the composition of the recovery team is based on the nature and extent of the emergency and includes:

- Technical advisors to the Recovery Manager, which may include external experts such as industrial hygienists or fire protection specialists.
- Utility personnel with the technical expertise to direct post-incident assessment activities and to analyze the results. Maintenance, operations, and engineering staff are expected to fill these positions.
- PIO, who will respond to inquiries or concerns from employees, the public, the news media, and outside agencies. The PIO should be prepared to provide information regarding the results of the incident investigation, the extent of on-site and off-site impacts, and the status of recovery operations.

### 8.2.2 Recovery Activities

The following activities will be directed by the Recovery Manager and will be executed by the recovery team as required following an incident or emergency situation.

- Notify all appropriate regulatory agencies that recovery phase is underway.
- Install warning signs, barriers, and shielding as needed.
- Take measures to protect workers and the public from hazardous exposures.
- Complete detailed evaluations of all affected water utility facilities and determine priorities for permanent repair, reconstruction, or replacement at existing or new locations.
- Begin repair activities design and make bids for contractor services.
- Make necessary repairs to the system and un-tag repaired facilities and equipment.
- Restore all telecommunications, data processing, and similar services to full operation.
- Complete assessment of losses and costs for repair and replacement, determine approximate reimbursements from insurance and other sources of financial assistance, and determine how residual costs will be financed by the water utility.
- Define needs for additional staff, initiate recruitment process, and adopt temporary emergency employment policies as necessary.
- Execute agreements with vendors to meet service and supply needs.
- Address needs for handling and disposing of any hazardous waste generated during recovery activities.
- Control discharges as a result of recovery activities within regulatory and environmental compliance limits.

- Reevaluate need for maintaining the emergency management organization; consider returning to the normal organizational structure, roles, and responsibilities when feasible.
- Collect cost accounting information gathered during the emergency and prepare request for Emergency Disaster Funds (follow FEMA and State OES requirements).
- Debrief staff to enhance response and recovery efforts in the future by identifying lessons learned, developing action plans and follow-up mechanisms, and providing employee assistance programs if needed.
- Prepare After-Action Reports as required. Complete reports within 6 months of the event (90 days for public utilities which are part of a city or county government.).

### 8.3 Termination and review phase

The Recovery Manager will officially terminate the recovery phase when normal operations are resumed at all facilities affected by the emergency. Termination and review actions include the following:

- Initiate permanent reconstruction of damaged water utility facilities and systems.
- Obtain inspections and/or certifications that may be required before facilities can be returned to service.
- Restore water utility operations and services to full pre-event levels.
- Determine how emergency equipment and consumable materials should be replenished, decontaminated, repaired or replaced.
- Identify operational changes that have occurred as a result of repair, restoration, or incident investigation.
- Document the recovery phase, and compile applicable records for permanent storage.
- Continue to maintain liaison as needed with external agencies.
- Update training programs, the [GOWC](#) ERP, and standard operating procedures, as needed, based upon lessons learned during the emergency response and recovery phases of the event.

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## 9.0 Emergency Plan Approval, Update, Training, and Exercises

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This section of the ERP describes the plan review and approval process, the practice and update schedule, plan for assessment of the ERP effectiveness and training, exercises, and drills of the ERP.

### 9.1 Plan Review and Approval

The [GOWC](#) process for review and approval of the ERP is described in the sections below.

#### 9.1.1 GOWC Approval Authority

This plan is intended to be a living document that is reviewed regularly and updated as needed to ensure that the information it contains is correct. The ERP will be reviewed and approved by the [WUERM](#), [GM](#), and other approval personnel. The plan will undergo an initial review and approval process and will be reviewed and signed off by the [SD](#) after each revision. A revision log is found in the front of the ERP binder.

#### 9.1.2 Local Government Approval

[City of San Jose?](#) will review this plan annually for coordination and consistency with the *City's* emergency planning programs.

### 9.2 Practice and Update Schedule

The schedule for training, updating, and review of the ERP is discussed below.

#### 9.2.1 Schedule and Responsibility for Training and Exercises

A schedule for general security training and incident-specific exercises/drills for testing of the emergency response plan will be developed and reviewed annually.

The exercises, drills, and training sessions will be conducted annually or more frequently if the [SD](#) deems it necessary.

The [SD](#) will be responsible for the organization and management of the security-training program.

#### 9.2.2 Schedule for ERP Review and Update

The [SD](#) will review and update the ERP and APs as follows:

- Annually prior to the annual ERP/AP training sessions.
- Upon update of the VA.

- Following the ERP exercises.
- Within 2 months of any significant plant modification or water system change.
- Immediately when there is a utility staff change where the staff member was named in the ERP.
- Immediately when there is a change in the roles and responsibilities of anyone involved in response activities.
- Immediately upon changes in internal and external contact information.

*Add specific procedures for updating the document (for example, change request form) and procedures for ensuring that all ERP holders receive updates.*

## 9.3 Assessment of ERP Effectiveness

To evaluate the effectiveness of the ERP and to ensure that procedures and practices developed under the ERP are adequate and are being implemented properly, the GOWC staff will perform audits of the program on a periodic basis.

One method of audit will be through exercises and drills. Members of GOWC management will act as observers during the exercises and will evaluate the staff's performance in responding to emergency incidents as well as the overall effectiveness of the ERP in accomplishing their goals. GOWC management will review the results of the evaluation, and the ERP and APs will be updated as appropriate to incorporate any lessons learned from the exercises.

The ERP program will also be discussed as an agenda item during the GM's meeting each time the VA is updated. At this time, GOWC management and staff will discuss the need to update or augment the ERP based on new information regarding threats or critical asset vulnerability.

The SD will maintain a file of ERP assessment and after-action reports.

## 9.4 Training, Exercises, and Drills

All GOWC personnel who may be required to respond to emergencies will receive initial and refresher training class on this ERP. The training will be conducted annually or when any of the following occurs:

- New employees are hired.
- Special emergency assignments are designated to operations staff.
- New equipment or materials are introduced.
- Procedures are updated or revised.

The training will consist of the following programs:

**Orientation Sessions:** The orientation sessions will include basic instruction and explanation of the ERP and AP procedures. Written tests may be used to ensure some level of comprehension by the attendees.

**Table Top Workshop:** Table top workshops involve developing scenarios that describe potential problems and providing certain information necessary to address the problems. Employees will be presented with a fabricated major event. Next they will verbally respond to a series of questions and then evaluate whether their responses match what is written in the ERP.

**Functional Exercises:** The functional exercise is designed to simulate a real major event. A team of simulators is trained to develop a realistic situation. By using a series of pre-scripted messages, the simulation team sends information in to personnel assigned to carry out the ERP procedures. Both the simulators and personnel responding to the simulation are focused on carrying out the procedures to test the validity of the ERP.

**Full-scale Drills:** Emergency response personnel and equipment are actually mobilized and moved to a scene. A problem is presented to the response personnel, and they respond as directed by the ERP and the Incident Commander or [WUERM](#) at the scene.

## 10.0 References and Links

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The following is a list of references and Internet links that provide additional water system security and ERP information.

**State Water Resources Control Board - Division of Drinking Water:** SWRCB- DDW is the Drinking Water Primacy Agency for all California public water systems serving over 200 service connections. SWRCB has published a guidance document to assist California public water systems in developing or revising their emergency response plans. General information, as well as the guidance document and its appendices, is available at [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Security.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Security.shtml)

**Department of Homeland Security (DHS):** DHS is the overall lead agency for homeland security issues. DHS will become involved in incident response if needed. General information is available at <http://www.dhs.gov/dhspublic>.

**United States Environmental Protection Agency:** USEPA has numerous resources available. The following are key sources:

- Water Infrastructure Security information, guidance, and training information can be found at <http://www.epa.gov/safewater/security/index.html>.
- Information on Local Emergency Planning Committees (LEPCs) can be found at <http://www.epa.gov/ceppo/lepclist.htm>.

**The Center for Disease Control and Prevention:** The CDC develops resources to assist hospital staff, clinics, and physicians in diagnosing diseases related to terrorism, reporting incidences of disease, and controlling the spread of infection. Information on emergency preparedness and response can be found at <http://www.bt.cdc.gov/>.

- To assist in the development of a Public Health Response Plan, the CDC published a planning guidance document entitled *The Public Health Response to Biological and Chemical Terrorism: Interim Planning Guidance for State Public Health Officials* (July 2001), which can be found at <http://www.bt.cdc.gov/Documents/Planning/PlanningGuidance.pdf>.
- *Interim Recommended Notification Procedures for Local and State Public Health Department Leaders in the Event of a Bioterrorist Incident* can be found at <http://www.bt.cdc.gov/EmContact/Protocols.asp>.

**Federal Emergency Management Agency (FEMA):** FEMA's mission is to reduce loss of life and property and protect our nation's critical infrastructure from all types of hazards through a comprehensive, risk-based, emergency management program of mitigation, preparedness, response and recovery. FEMA takes the lead if an incident is assigned to DHS. General information can be found at <http://www.fema.gov>. In addition, several online training courses relevant to emergency management are available on-line from FEMA at <http://training.fema.gov/EMIWeb/IS/crslist.asp>.



**The American Water Works Association (AWWA):** USEPA training developed through partnership with AWWA covers the entire spectrum of security issues including assessing vulnerabilities, emergency response plans, and risk communication. AWWA information can be accessed at <http://www.awwa.org>. Specific AWWA resources can be found at <http://www.awwa.org/communications/offer/secureresources.cfm>.

**The Association of State Drinking Water Administrators (ASDWA):** ASDWA has information on water security planning, training, and links to state programs and other information sources. Go to the security link at <http://www.asdwa.org/>.

**National Rural Water Association (NRWA):** NRWA developed the SEMS Software Program, which can be loaded on a personal computer. It is based on NRWA/ASDWA's *Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems Serving Populations Between 3,300 and 10,000*. More information can be found at <http://www.nrwa.org/>.

**Agency for Toxic Substances and Disease Registry (ATSDR):** ATSDR is directed by [congressional mandate](#) to perform specific functions concerning the effect on public health of hazardous substances in the environment. These functions include public health assessments of waste sites, health consultations concerning specific hazardous substances, health surveillance and registries, response to emergency releases of hazardous substances, applied research in support of public health assessments, information development and dissemination, and education and training concerning hazardous substances. More information can be found at <http://www.atsdr.cdc.gov/>.

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**Appendix A**  
**Action Plans**

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## AP 1A - Threat of or Actual Contamination to Water System

### POSSIBLE STAGE

<b>AP Summary:</b>	This Action Plan applies to the intentional introduction of a contaminant into the water system. The contaminant could be introduced at any point within the system, including raw water, treatment facilities, distribution system including distribution pipes, finished water storage, or pump stations. The adversary may or may not give notice of the contaminant or provide the location. Contamination may have actually occurred or it may be a hoax.	
<b>Initiation and Notification:</b>	<p>1. Initiate this AP if any of the following has occurred:</p> <p>Security Breach (including, for example):</p> <ul style="list-style-type: none"> <li>• Unsecured Doors</li> <li>• Open Hatches</li> <li>• Unlocked/Forced Gates</li> <li>• Alarm Triggered</li> </ul> <p>Witness Account (including, for example):</p> <ul style="list-style-type: none"> <li>• Suspicious Activity</li> <li>• Trespassing</li> <li>• Breaking and Entering</li> <li>• Tampering with Equipment or Property</li> </ul> <p>Direct Notification by Perpetrator (including, for example):</p> <ul style="list-style-type: none"> <li>• Verbal Threat</li> <li>• Threat in Writing</li> </ul> <p>Notification by Law Enforcement (including, for example):</p> <ul style="list-style-type: none"> <li>• Suspicious Activity</li> <li>• Threat made to Water System</li> </ul> <p>Notification by News Media (including, for example):</p> <ul style="list-style-type: none"> <li>• Threat Delivered to News Media</li> <li>• Media Discovers Threat</li> </ul> <p>Unusual Water Quality Parameters (including, for example):</p> <ul style="list-style-type: none"> <li>• Changes in pH, chlorine residual or turbidity</li> <li>• Unexpected monitoring or sampling results</li> </ul>	<p><i>Use this AP if you receive any incident warning (see types of warnings to left) indicating possible contamination of your water system</i></p> <p><i>If you have evidence that corroborates the warning, or if collective information indicates that contamination is likely, <b>GO TO AP 1B – CREDIBLE STAGE.</b></i></p> <p><i>If there is confirmed evidence and/or definitive information that the water system has been contaminated. <b>GO TO AP 1C – CONFIRMED STAGE.</b></i></p>

<b>AP 1A - Threat of or Actual Contamination to Water System</b> <b>POSSIBLE STAGE</b>		
	<ul style="list-style-type: none"> <li>• Strange odor, color or appearance</li> </ul> <p>Customer Complaints (including, for example unexplained or unusually high complaints of):</p> <ul style="list-style-type: none"> <li>• Odor</li> <li>• Color or Appearance</li> <li>• Taste</li> </ul> <p>Public Health Notification (including, for example):</p> <ul style="list-style-type: none"> <li>• Victims in Emergency Rooms and/or Clinics</li> <li>• High Incidence of Similar Health Complaints in one Local Area</li> </ul>	
<b>Initiation and Notification:</b>	2. Notify <a href="#">[WUERM]</a> or <a href="#">[Alternate WUERM]</a> immediately upon discovery of any of the above Threat Warnings.	<i>The individual who first notices or receives the threat warning should contact the <a href="#">[WUERM]</a> immediately by whatever means of communication may be available.</i>
<b>Equipment Identified:</b>	<p style="text-align: center;"><b>Equipment</b></p> <p style="text-align: center;"><b>Location</b></p>	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p>A. Complete the following <b>Threat Warning Report Forms</b> according to the type of Threat Warning received. (Section XX of ERP).</p> <ul style="list-style-type: none"> <li>• <b>Security Incident Report Form</b></li> <li>• <b>Witness Account Report Form</b></li> <li>• <b>Phone Threat Report Form</b> (to be filled out during actual phone call)</li> </ul>	<i>Threat Warning Report Forms help document, organize and summarize information about a security incident. The individual who discovers the incident warning, the <a href="#">[WUERM]</a>, or another designated individual may complete the form. Only the form that corresponds to the</i>

## AP 1A - Threat of or Actual Contamination to Water System

### POSSIBLE STAGE

	<ul style="list-style-type: none"> <li>• <b>Written Threat Report Form</b></li> <li>• <b>Water Quality / Consumer Complaint Report Form</b></li> <li>• <b>Public Health Information Report Form</b></li> </ul> <p>B. Complete <b>Threat Evaluation Worksheet</b> (Section XX of ERP).</p> <p>C. Evaluate <b>Threat Evaluation Worksheet</b>, and determine if threat is Possible.</p> <p style="padding-left: 40px;">If YES, perform Response Steps 1 – 8 below.</p> <p style="padding-left: 40px;">If NO,</p> <ol style="list-style-type: none"> <li>i. Return to normal operations.</li> <li>ii. Document and record the threat for future reference.</li> </ol>	<p><i>type of threat warning needs to be completed. Completion of the form should not distract emergency responders from more urgent matters.</i></p> <p><i>Threat Evaluation Worksheets help organize information about a threat warning that will be used during the Threat Evaluation Process. The individual responsible for conducting the Threat Evaluation (e.g., the <a href="#">[WUERM]</a>) should complete this worksheet.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>1. Notify local law enforcement.</li> <li>2. Notify State Drinking Water Agency.</li> <li>3. Do not disturb site if location could be possible crime scene. Consult <b>Maintaining Crime Scene Integrity</b> Form in Section XX.</li> <li>4. Alert staff and emergency response personnel about threat.</li> <li>5. Consider containment / isolation, elevating chlorination, and/or discharge of suspect water.</li> <li>6. Evaluate spread of suspect water and potential impact on public health.</li> </ol>	<p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p> <p><i>The immediate operational response actions are primarily intended to limit exposure of customers to potentially contaminated water.</i></p> <p><i>See EPA Toolbox Module 2, Section 3.3.2 for guidance on containing contaminants and evaluating movement of potentially contaminated water through distribution systems.</i></p>
<b>III. Monitoring</b>	<ol style="list-style-type: none"> <li>7. Initiate Site Characterization Activities:           <ul style="list-style-type: none"> <li>• Define the investigation site.</li> <li>• Designate site characterization team members.</li> <li>• Conduct preliminary assessment of potential site hazards.</li> <li>• Approach site and conduct field safety screening to detect any hazards to the characterization team.</li> </ul> </li> </ol>	<p><i>Site Characterization is intended to gather critical information to support the 'credible' stage of threat evaluation.</i></p> <p><i>If signs of a hazard are evident during the site approach, the team should halt their approach and immediately inform the <a href="#">[WUERM]</a> of their</i></p>

<b>AP 1A - Threat of or Actual Contamination to Water System</b> <b>POSSIBLE STAGE</b>		
	<ul style="list-style-type: none"> <li>• Search for physical evidence (discarded containers, etc.).</li> <li>• Investigate records from CCTV cameras.</li> <li>• Look for environmental indicators (dead animals or fish, dead vegetation, unusual odors or residues).</li> <li>• Perform rapid field testing of the water.</li> <li>• Collect water samples according to sampling plan.</li> </ul>	<p><i>findings. The site may then be turned over to the HAZMAT Team.</i></p> <p><i>The [WUERM] may determine the threat is credible based preliminary information before the site characterization has been completed.</i></p>
<b>IV. Recovery and Return to Safety</b>	<p>8. Determine if threat is credible.</p> <p>If YES, initiate AP 1B.</p> <p>If NO,</p> <ul style="list-style-type: none"> <li>• Return to normal operations.</li> <li>• Store water samples for <i>(enter predetermined time period here)</i>.</li> </ul>	<p><i>You should determine whether or not the threat is 'credible' <b>within 2 to 8 hours (preferably within 2 hours)</b> from the time the threat is deemed 'possible', depending on the effectiveness of the containment strategy.</i></p> <p><i>If the threat is not deemed 'credible', the samples obtained during site characterization should be stored in case the situation changes and analysis is determined to be necessary.</i></p>
<b>V. Report of Findings</b>	<p>9. File incident reports.</p>	<p><i>The Utility [Security Director] should file an internal report for the Utility's files, and also provide information as requested to Local Law Enforcement.</i></p>
<b>VI. AP-1A Revision Dates</b>		

<b>AP 1B - Threat of or Actual Contamination to Water System</b> <b>CREDIBLE STAGE</b>		
<b>AP Summary:</b>	This Action Plan applies to the intentional introduction of a contaminant into the water system. The contaminant could be introduced at any point within the system, including raw water, treatment facilities, distribution system including distribution pipes, finished water storage, or pump stations. The adversary may or may not give notice, identify the contaminant, or provide the location. Contamination may have actually occurred or it may be a hoax.	
<b>Initiation and Notification:</b>	<p>A. Initiate this AP if there is credible evidence that the water system has been contaminated:</p> <ul style="list-style-type: none"> <li>• Additional information collected during the investigation corroborates the threat warning.</li> <li>• Collective information indicates that contamination is likely.</li> <li>• Signs of contamination are observed during site characterization.</li> <li>• Additional water quality data shows unusual trends that are consistent with the initial data and corroborate the threat.</li> <li>• A pattern of customer complaints emerges.</li> <li>• Previous threats and incidents corroborate the current threat.</li> </ul> <p>B. Notify <a href="#">[WUERM]</a> or <a href="#">[Alternate WUERM]</a> immediately upon discovery of credible evidence of threat (if not already notified).</p> <p>C. Initiate ERP.</p> <p>D. Initiate partial or full activation of the Emergency Operations Center (EOC).</p> <p>Perform internal and external notifications according to ERP.</p>	<p><i>If there is confirmed evidence and/or definitive information that the water system has been contaminated, <b>GO TO AP 1C – CONFIRMED STAGE.</b></i></p> <p><i>The individual who first notices or receives the credible evidence should contact the <a href="#">[WUERM]</a> immediately by whatever means of communication may be available.</i></p> <p><i>The <a href="#">[WUERM]</a> will decide whether to initiate the ERP on a partial or full basis. The <a href="#">[WUERM]</a> will also decide when and to what extent to activate the EOC.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p> <p><i>The <a href="#">[Information Officer]</a>, <a href="#">[IO]</a> is the only one authorized to make notifications to outside agencies.</i></p>
<b>Equipment Identified:</b>	<p><b>Equipment</b></p> <p><b>Location</b></p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>

<b>AP 1B - Threat of or Actual Contamination to Water System</b> <b>CREDIBLE STAGE</b>		
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<ol style="list-style-type: none"> <li>1. Assess results of previous sample analysis.</li> <li>2. Perform additional site characterization at primary sites as needed.</li> <li>3. Perform site characterization at any new investigation sites.</li> </ol>	
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>4. Perform actions to estimate the contaminated area and predict movement of contamination.</li> <li>5. Take actions to isolate portions of system containing suspect water. See ERP Section XX for <b>System Shut Down Plan</b>.</li> <li>6. Issue "Boil Water", "Do not Drink", or "Do not Use" orders and Press Releases as appropriate. See Section XX of ERP for <b>Press Release Forms</b>.</li> <li>7. Initiate <b>Alternate Water Supply Plan</b> (ERP Section XX) to provide alternate water supply for customers and fire protection as necessary.</li> </ol>	<i>The contaminated area can be estimated using hydraulic models, consumer complaints, public health agency reports, water quality data, or other available information. The estimate may define additional locations where site characterization should be performed</i>
<b>III. Monitoring</b>	<ol style="list-style-type: none"> <li>8. Continue to monitor water quality in suspect parts of system by manual sampling, rapid field testing, or automated means.</li> </ol>	
<b>IV. Recovery and Return to Safety</b>	<ol style="list-style-type: none"> <li>9. Determine if threat is Confirmed.  If YES, Initiate AP 1C.  If NO, <ul style="list-style-type: none"> <li>• Verify that water is safe.</li> <li>• Notify public that water is safe.</li> <li>• Notify outside agencies that water is safe.</li> </ul> </li> </ol>	<i>It may take several days to collect sufficient evidence to confirm a contamination incident, depending on the type of information used for confirmation. (Some microbiological analytical procedures may take</i>



<b>AP 1B - Threat of or Actual Contamination to Water System</b> <b>CREDIBLE STAGE</b>		
	<ul style="list-style-type: none"> <li>Return to normal operations.</li> <li>Store water samples for (<i>enter predetermined time period here</i>).</li> </ul>	<i>several days.)</i>  <i>If the threat is not deemed 'confirmed', the samples obtained during site characterization should be stored in case the situation changes and an analysis is determined to be necessary.</i>
<b>V. Report of Findings</b>	E. File incident reports.	<i>The Utility [Security Director] should file an internal report for the Utility's files, and also provide information as requested to Local Law Enforcement and other outside agencies.</i>
<b>VI. AP-1B Revision Dates</b>		

<b>AP 1C - Contamination to Water System</b> <b>CONFIRMED STAGE</b>		
<b>AP Summary:</b>	<p>This Action Plan applies to the intentional introduction of a contaminant into the water system. The contaminant could be introduced at any point within the system, including raw water, treatment facilities, distribution system including distribution pipes, finished water storage, or pump stations. The adversary may or may not give notice, identify the contaminant, or provide the location. Contamination may have actually occurred or it may be a hoax.</p>	
<b>Initiation and Notification:</b>	<p>A. Initiate this AP if there is confirmed evidence that the water system has been contaminated:</p> <ol style="list-style-type: none"> <li>1. There is <b>analytical confirmation</b> of the presence of one or more contaminants in the water system.</li> <li>2. The <b>preponderance of the evidence</b> confirms that a contamination incident has occurred. <ul style="list-style-type: none"> <li>• There is a security breach with obvious signs of contamination along with unusual water quality and consumer complaints in the vicinity of the security breach.</li> <li>• Additional findings (laboratory analysis, field observations) of continued site characterization activities add to other credible evidence of contamination.</li> <li>• There is information from public health officials, area hospitals, or 911 call centers indicating a problem with the water supply.</li> <li>• Law enforcement agencies have discovered crucial evidence or apprehended a suspect that helps confirm that the water has been contaminated.</li> <li>• Specific information on a number of potential contaminants can be used in conjunction with other available</li> </ul> </li> </ol>	<p><i>If there is <b>no</b> confirmed evidence and no definitive information that the water system has been threatened or contaminated, <b>GO TO AP 1B – CREDIBLE STAGE.</b></i></p> <p><i>It may take several days to collect sufficient evidence to confirm a contamination incident, and the required time will depend on the type of information used for confirmation (some microbial analytical procedures may take several days).</i></p>

<b>AP 1C - Contamination to Water System</b> <b>CONFIRMED STAGE</b>		
	information to narrow down the number of contaminant candidates.	
<b>Initiation and Notification:</b>	<p>B. Notify [WUERM] or [Alternate WEURM] immediately upon discovery of confirmed evidence of contamination (if not already notified).</p> <p>C. Initiate full ERP activation.</p> <p>D. Initiate full activation of Emergency Operations Center (EOC).</p> <p>E. Engage other organization as needed (drinking water primacy agency, public health agency, response agencies, law enforcement).</p> <p>F. Perform internal and external notifications according to ERP.</p>	<p><i>The individual who first becomes aware of the confirmed evidence should contact the [WUERM] immediately by whatever means of communication may be available.</i></p> <p><i>The [WUERM] will decide whether to initiate the ERP on a partial or full basis. The [WUERM] will also decide when and to what extent to activate the EOC.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p> <p><i>The [Information Officer], [IO], should make the notifications to the outside agencies.</i></p>
<b>Equipment Identified:</b>	<p><b>Equipment</b></p> <p><b>Location</b></p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<ol style="list-style-type: none"> <li>1. Assess results of previous sample analysis and attempt to identify the contaminant.</li> <li>2. Confirm the identity of the contaminant.</li> </ol>	<p><i>Effective implementation of response actions depends on positive identification of the contaminant and knowledge of contaminant properties, including public health protection strategies and selection of treatment technologies.</i></p>

<b>AP 1C - Contamination to Water System</b> <b>CONFIRMED STAGE</b>		
<b>I. Assess the Problem</b>	3. Perform a full characterization of the contaminated area, including contaminant properties, contaminant concentration profiles, and characteristics of the impacted area.  4. Evaluate the likely direction and extent of future movement of the contaminant within the distribution system.  5. Evaluate all available information about the contamination incident	<i>If information from site characterization activities indicates that the contaminant impacts water quality in a certain manner (i.e., consumes free chlorine or imparts a certain odor to the water), the contaminant specific information may facilitate tentative identification of a contaminant and determine the analytical approach that should be used to positively identify the specific contaminant. Sources of contaminant information include:</i>  <a href="http://www.bt.cdc.gov/agent/agentlistchem.asp">http://www.bt.cdc.gov/agent/agentlistchem.asp</a>  <a href="http://www.cdc.gov/atsdr/index.html">http://www.cdc.gov/atsdr/index.html</a>  <a href="http://www.waterisac.org/">http://www.waterisac.org/</a>  <i>EPA Water Contaminant Information Tool (WCIT) – under development</i>
<b>II. Isolate and Fix the Problem</b>	6. Take actions to isolate portions of system containing suspect water. See ERP Section XX for <b>System Shut Down Plan</b> .  7. Shut down system if obvious or confirmed contamination warrants.  8. Issue “Boil Water”, “Do not Drink”, or “Do not Use” orders and Press Releases as appropriate. See Section XX of ERP for <b>Press Release Forms</b> .  9. Initiate <b>Alternate Water Supply Plan</b> (ERP Section XX) to provide alternate water supply for customers and fire protection as necessary.  10. Revise public health response measures and public notifications as necessary.	<i>The contaminated area can be estimated using hydraulic modes, consumer complaints, public health agency reports, water quality data, or other available information. The estimate may define additional locations where site characterization should be performed.</i>
<b>III. Monitoring</b>	11. Continue sampling and analysis to monitor the status and extent of the contamination, and to verify that containment strategies are working.	
<b>IV. Recovery and Return</b>	12. Consult with appropriate officials to develop a Remediation and Recovery Plan.	<i>Remediation and recovery activities will likely be planned and implemented by a number of agencies. The first step of the process is to establish the roles and responsibilities of each</i>

<b>AP 1C - Contamination to Water System</b> <b>CONFIRMED STAGE</b>		
<b>to Safety</b>	<ul style="list-style-type: none"> <li>a. Evaluate options for treating contaminated water and rehabilitating system components.</li> <li>b. Select treatment and rehabilitation technology/approach.</li> <li>c. Develop strategy for disposal of contaminated residuals.</li> <li>d. Develop sampling and analysis plan to verify remediation.</li> <li>e. Develop communications and public relations plan.</li> </ul> <p>13. Implement Remediation and Recovery Plan.</p> <ul style="list-style-type: none"> <li>a. Verify that water is safe by performing additional sampling and analysis to confirm the progress of system treatment and remediation.</li> <li>b. Notify public that water is safe.</li> <li>c. Notify outside agencies that water is safe.</li> <li>d. Return to normal operations.</li> <li>e. Store water samples for <i>(enter predetermined time period here)</i>.</li> </ul>	<p><i>organization</i></p> <p><i>The samples obtained during site characterization and monitoring should be stored in case the situation changes and further analysis is determined to be necessary.</i></p>
<b>V. Report of Findings</b>	G. File incident reports with internal and external agencies as required.	<i>The Utility [Security Director] should file an internal report for the Utility's files, and also provide information as requested to outside agencies.</i>
<b>VI. AP-1C Revision Dates</b>		

<b>AP 2 - Structural Damage from Explosive Device</b>		
<b>AP Summary:</b>	This Action Plan applies to an incident where intentional structural damage has occurred to the water system as a result of an explosive device. The assumed intent of the explosion is to disrupt normal system operations any point within the system, including raw water, treatment, finished water storage, or the distribution network.	
<b>Initiation and Notification:</b>	<p>A. Initiate this AP if it appears that an explosive device has caused damage, or has the potential to cause damage to one or more components of the water system. The event will begin with an “incident discovery” which may come to <b>GOWC</b> by one (or more) of the following:</p> <ul style="list-style-type: none"> <li>• Security Equipment</li> <li>• Employee Discovery</li> <li>• Witness Account of Explosion</li> <li>• Notification By Adversary</li> <li>• Notification by Fire Department</li> <li>• Notification By Law Enforcement</li> <li>• Notification By News Media</li> </ul> <p>B. Call 911 and notify <b>[WUERM]</b> or <b>[Alternate WUERM]</b> immediately upon discovery of the explosion. The <b>[WUERM]</b> should then notify others as appropriate. Examples include:</p> <ul style="list-style-type: none"> <li>a. Local Fire Department</li> <li>b. Local Police Department</li> <li>c. FBI</li> <li>d. ATF</li> </ul> <p>C. Take all practical measures to ensure that the building or facility is evacuated.</p>	<p><i>The individual who first notices or receives word of the explosion should contact the <b>[WUERM]</b> immediately by whatever means of communication are available.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Initiation and Notification:</b>	<p>D. In cases where an adversary calls a <b>GOWC</b> employee in advance that employee should complete the <b>Bomb Threat Checklist OR Phone Threat Report Form</b> found in Section VIII of the ERP.</p> <p>E. Initiate partial or full ERP activation.</p> <p>F. Initiate partial or full activation of the Emergency Operations Center (EOC).</p>	<p><i>The <b>Bomb Threat Checklist</b> and the <b>Phone Threat Report Form</b> contain questions that should be asked the caller if possible to help determine the specifics of the threat including the location of the explosive device, type of device, time of detonation, and reason for the attack.</i></p> <p><i>The <b>[WUERM]</b> will decide whether to initiate the ERP on a partial or full basis. The</i></p>

<b>AP 2 - Structural Damage from Explosive Device</b>		
	<p>G. Engage other organization as needed (Law Enforcement, Fire Protection, FBI).</p> <p>H. Perform internal and external notifications according to ERP.</p>	<i>[WUERM] will also decide when and to what extent to activate the EOC.</i>
<b>Equipment Identified:</b>	<p><b>Equipment</b></p> <p><b>Location</b></p>	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<ol style="list-style-type: none"> <li>Deploy Damage Assessment Team(s) (DAT) <ul style="list-style-type: none"> <li>Perform a thorough assessment of the structural damage caused by the explosion.</li> <li>Determine how explosion is effecting system operations.</li> </ul> </li> <li>Check and monitor all other water system functions and facilities to ensure that the rest of the system is operating normally. (The initial explosion could be a diversion to a larger event, or it could be the first in a series of similar attacks.)</li> <li>If the damage appears to be intentional, treat as a crime scene. Consult with local police, state police, and the FBI on evidence preservation. Also see <b>Maintaining Crime Scene Integrity</b> Form, Section XX of ERP.</li> <li>Isolate damaged facility from rest of water system, and take measures to bypass the damaged area if possible.</li> <li>Inform local police, state police, and the FBI of</li> </ol>	<p><i>The DAT will work in conjunction with local/state law enforcement in terms of incident command and control.</i></p> <p><b>UNDER NO CIRCUMSTANCES WILL THE DAT TEAM ENTER THE AREA CONTAINING THE EXPLOSIVE DEVICE UNTIL AFTER THE LOCAL LAW ENFORCEMENT EXPLOSION SPECIALISTS (BOMB SQUAD) HAS DETERMINED THAT THE AREA IS SAFE.</b></p>

<b>AP 2 - Structural Damage from Explosive Device</b>		
	potential hazardous materials.	
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>6. Physically secure water system facilities and implement heightened security procedures throughout the system.</li> <li>7. Initiate <b>Alternate Water Supply Plan</b> (ERP Section XX) to provide alternate water supply for customers and fire protection as necessary.</li> <li>8. Based on extent of damage, consider alternate (interim) treatment schemes.</li> <li>9. Issue public notification, “Boil Water”, “Do not Drink”, or “Do not Use” orders and other Press Releases as appropriate. See Section XX of ERP for <b>Press Release Forms</b>.</li> <li>10. Request assistance from outside contractors or other water utilities if needed to help repair the damage.</li> </ol>	
<b>III. Monitoring</b>	<ol style="list-style-type: none"> <li>11. Perform sampling and monitoring activities and analysis to determine if the explosion has rendered the water supply unsafe for customers.</li> <li>12. Perform a system pressure evaluation to determine how the explosion has affected customers and fire water capability in each pressure zone.</li> </ol>	
<b>IV. Recovery and Return to Safety</b>	<ol style="list-style-type: none"> <li>13. Repair damage to critical equipment and facilities as soon as possible.</li> <li>14. Determine and mitigate effects on other system components. For example, replace water storage capacity if it was diminished during repairs.</li> <li>15. Clean and disinfect system components as necessary.</li> <li>16. Resume normal operations.</li> <li>17. Assess need for additional protection/security measures.</li> </ol>	<p>The [WUERM] will inspect the repairs and will give the OK to resume normal operation of the water system</p> <p>The [WUERM] will evaluate a heightened security posture. As a result, security will be increased or decreased as necessary according to the perceived threat.</p>
<b>V. Report of</b>	18. File incident reports.	The Utility [Security Director] should file an internal report for the Utility's files, and also



AP 2 - Structural Damage from Explosive Device		
Findings		<i>provide information as requested to Local Law Enforcement and other outside agencies.</i>
VI. AP-2 Revision Dates		

<b>AP 3 – Employee Assaulted with Weapon (Armed Intruder)</b>		
<b>AP Summary:</b>	<p>This Action Plan applies to the threat of an employee(s) being assaulted by an intruder (possibly an ex-employee), with a weapon. Incidents of this type will vary in scale and severity, but the following should generally apply across the spectrum of threat conditions.</p> <p><b>If you believe this threat is of current importance and have not yet dialed 911 or an emergency equivalent, do so immediately before proceeding.</b></p>	
<b>Initiation and Notification:</b>	<p>Initial notification of the incident will vary in both method and urgency, however in any scenario the first priority is the welfare of the assault victim. Under all circumstances, emergency personnel should be notified and consulted immediately.</p> <p>This threat requires a response addressing three distinct categories:</p> <ul style="list-style-type: none"> <li>• Ensuring the health and safety of the victim and other employees.</li> <li>• Notifying and facilitating involvement of the proper authorities.</li> <li>• Communicating specifics of the incident to other staff, the media, and the victim's relatives.</li> </ul> <p>Remain aware of these aspects of your response as the AP is initiated and consulted.</p>	<p><i>The individual who first notices or receives word of the assault should contact 911 immediately by whatever means of communication may be available.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p><b>Equipment</b></p> <p><b>Location</b></p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p>Assessment of the severity of injury should not be made by Utility staff, proper diagnosis should be made only by trained medical personnel. The following general steps</p>	<p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from</i></p>

## AP 3 – Employee Assaulted with Weapon (Armed Intruder)

	<p>will be prudent:</p> <ol style="list-style-type: none"> <li>1. The first task upon discovery of the incident is to dial 911 and report the incident in detail.</li> <li>2. An ambulance (or other transportation to the hospital in less urgent situations) should be immediately arranged in all cases.</li> <li>3. Decision-making control of the situation should be readily surrendered to the proper authorities.</li> <li>4. In the event of a hostage situation or extended incident, Utility staff should notify the authorities and evacuate the area quickly.</li> <li>5. Under no circumstances should Utility personnel attempt to subdue the adversary or bring personal weapons onto the scene.</li> </ol>	<i>Section XX of the ERP.</i>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>6. If witnesses were present they should be readily available to provide information to the authorities. Fill out the <b>Suspect Identification Form</b>. See Section XX of ERP.</li> <li>7. The area surrounding the incident is a crime scene and care should be taken not to alter anything that may impair the ability of the authorities to interpret or recreate the assault. Consult the <b>Maintaining Crime Scene Integrity</b> Form located in Section XX of this ERP.</li> <li>8. The weapon, if present, should not be handled or touched in any way.</li> </ol>	
<b>III. Monitoring</b>	<ol style="list-style-type: none"> <li>9. Communication with the media should be handled in a proactive fashion, with statements made only by the identified Utility spokesperson. Similarly, employees should not be left to spread the word through gossip and hearsay. An announcement carrying relevant details should be disseminated promptly.</li> <li>10. If the assault victim is injured or otherwise unable to perform his/her duties, the replacement personnel may also be under significant stress. Care should be taking in selecting replacement</li> </ol>	<i>See ERP Section XX.</i>

<b>AP 3 – Employee Assaulted with Weapon (Armed Intruder)</b>		
	personnel including monitoring of performance and behavior	
<b>IV. Recovery and Return to Safety</b>	<p>11. Staff stress may have serious ramifications. It is important to evaluate these effects in an ongoing fashion and address them accordingly. The Utility should consider temporary mental health counselors under such tragic circumstances.</p> <p>12. In the event of a fatality, notification of family is an unfortunate duty, which may be best handled by the local police or other authorities experienced in such tasks.</p> <p>13. If security was breached during the incident, rapidly address any weakness the incident may have identified. Evaluate access to the incident location and modify where necessary.</p> <p>14. If the adversary was acting with an identifiable motive, consider the mentality and culture of the utility to evaluate if the underlying issue may be significant and widespread.</p> <p>15. If assault was of a sexual nature consider awareness training for utility staff.</p> <p>16. The need to maintain a heightened security posture should be evaluated, and security should be increased and decreased as necessary according to the perceived threat.</p>	
<b>V. Report of Findings</b>	<p>17. In addition to completing the appropriate filings with the local police and other agencies, the utility should assemble relevant personnel to review the effectiveness of the action plan and reinforce lessons learned in the process.</p>	
<b>VI. AP-3 Revision Dates</b>		

<b>AP4 - SCADA Security</b>		
<b>AP Summary:</b>	<p>This Action Plan applies to a cyber attack on a SCADA network system when the cyber intruder is:</p> <ul style="list-style-type: none"> <li>• Conducting DoS (Denial of Service)</li> <li>• Initiating SCADA/DCS command spoofing</li> <li>• Attempting to take the SCADA/DCS system down</li> <li>• Attempting to take control of or is in control of the system</li> </ul> <p><b><u>Prepare for problems by:</u></b></p> <ul style="list-style-type: none"> <li>• Updating all network documentation around the SCADA/DCS</li> <li>• Documenting all network data flows to/from Intranet systems, SCADA/DCS and surrounding systems</li> <li>• Identifying Zones of Vulnerability</li> <li>• Identifying ramifications and feasibility of disconnecting networks, computers and data flows</li> <li>• Ensuring that sufficient monitoring and network control points (firewalls, IPS, etc.) are in place to both know what's happening on your network and how to control it</li> <li>• Characterizing network traffic so that anomalous behavior can be identified</li> <li>• Becoming familiar with computer forensics tools and practices before being forced to learn them "under fire"</li> <li>• Becoming familiar with host-based monitoring and intrusion detection, since most hacking over networks is now conducted via encrypted tunnels or data streams.</li> <li>• Ensuring that backup/restore procedures are up to date, as are the backups themselves</li> </ul>	
<b>Initiation and Notification:</b>	<p>Notify immediately upon discovery of the attack:</p> <ul style="list-style-type: none"> <li>• <a href="#">[WUERM]</a>,</li> <li>• Data (IT) Manager</li> </ul> <p>Others as appropriate (for example):</p> <ul style="list-style-type: none"> <li>• Internet Service Provider</li> <li>• Computer Equipment Vendor</li> <li>• Computer Emergency Response Team</li> </ul>	<p><i>The individual that first notices or receives word of an attack should contact the Data (IT) manager and <a href="#">[WUERM]</a> immediately by whatever means of communication may be available.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p>Equipment</p> <p>Location</p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>

AP4 - SCADA Security		
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p>An attack on SCADA system may be manifested in several different manners and may be quite difficult to initially determine the specific mode of attack or objective of the SCADA threat. Initial areas for investigation are:</p> <ul style="list-style-type: none"> <li>• SCADA is not controlling plant parameters</li> <li>• Complaints from customers</li> <li>• Quality of water results</li> <li>• Inadequate throughput</li> </ul>	<p><i>In a DoS an intruder breaks into a number of computers and plants programs that lie dormant until activated by the attacker. The computers then send a steady stream of data packets to a targeted Web site in an attempt to crash a service (or server), overload network links, or disrupt other mission-critical resources. DoS attacks are powerful because they can be launched simultaneously from hundreds of remotely controlled computers, thereby amplifying their reach. The objective of a DoS attack is to exhaust the resources of the target until the underlying network fails. The tools for DoS attacks are widely available and can be found at numerous hacker Web sites.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>1. Restrict physical access to the area.</li> <li>2. Physically unplug any phone lines that could dial in to the attacked computer.</li> <li>3. Unplug the computer from the network.</li> <li>4. Determine if the SCADA system needs to be isolated from process operations and taken completely off line.</li> <li>5. Photograph the scene, including connections to any peripherals.</li> <li>6. IF the computer is off, DO NOT turn it on (preferred method is to jumper system disk drive(s) as read only, and perform a post-mortem on a separate</li> </ol>	<p><i>Restricting access helps to preserve fingerprints for later prosecution (if physical access to systems is involved)</i></p> <p><i>These steps isolate the SCADA system from the outside world where the cyber attack is originating.</i></p> <p><i>The SCADA system itself may be malfunctioning as a result of the attacks with equipment not operating as originally intended.</i></p> <p><i>Useful for later reference if the machine needs to be disassembled for examination.</i></p> <p><i>Merely turning on a Windows computer changes time stamps and other important evidence, for example.</i></p> <p><i>Rebooting your computer may launch viruses or time bombs.</i></p> <p><i>Access timestamps may be altered.</i></p> <p><i>Manual sampling may be necessary if computerized process are not functioning</i></p>

<b>AP4 – SCADA Security</b>		
	<p>computer using suitable tools.)</p> <ol style="list-style-type: none"> <li>7. IF the computer is on, DO NOT reboot it.</li> <li>8. Avoid accessing any files on the compromised machine.</li> <li>9. Increase sampling at or near system intakes – consider whether to isolate.</li> <li>10. Preserve latest full battery background test at baseline.</li> <li>11. Increase sampling efforts.</li> <li>12. Check for NIPC water sector warnings (<i>NIPC may contain additional protective actions to consider: <a href="http://www.NIPC.gov">http://www.NIPC.gov</a> or <a href="https://www.infraguard.org">https://www.infraguard.org</a> for secure access infraguard members</i>)</li> </ol>	<p>properly.</p> <p><i>A baseline analysis is important for determining if changes of an unknown nature are made to the water supply</i></p> <p><i>Contamination may pass through the system unnoticed if an insufficient number of sampling points are used or if sampling points and mis-specified.</i></p>
<b>III. Monitoring</b>	<ol style="list-style-type: none"> <li>13. Monitor unmanned components (storage tanks &amp; pumping stations) – consider whether to isolate.</li> </ol>	<p><i>With the SCADA system down, it may be easier for attackers to physically enter the site undetected</i></p>
<b>IV. Recovery and Return to Safety</b>	<ol style="list-style-type: none"> <li>14. Solicit the assistance of a Computer Emergency Response Team or Network Forensics Specialists.</li> </ol> <p><b>OR with appropriate training, develop site-specific procedures to:</b></p> <ol style="list-style-type: none"> <li>15. Retrieve logged data from the various equipment and server logs.</li> <li>16. Collect adequate information (make image copies).</li> <li>17. With law enforcement/FBI assistance, check for implanted backdoors and other malicious code (i.e., Trojan horse, or worm).</li> <li>18. Install safeguards and patch to</li> </ol>	<p><i>Computer Emergency Response Teams:</i></p> <p><i>Preserve the evidence,</i></p> <p><i>Determine the extent of damage,</i></p> <p><i>Return the system to normal operation.</i></p> <p><i>The goal is for proper forensics to be performed on these logs such that it cannot be claimed that these logs were tampered or altered and prosecution can therefore take place.</i></p> <p><i>The goal is to preserve evidence for identifying and prosecuting the attacker utilizing assistance from the proper authorities in command (FBI, EPA, Police, Computer Emergency Response Team, etc.).</i></p>

<b>AP4 – SCADA Security</b>		
	current levels.	
<b>IV. Recovery and Return to Safety</b>	<p>19. Test security breach to ensure plugged (in a safe mode, in case the either the problem hasn't been fixed or some other attack was installed unbeknownst).</p> <p>20. Assess / implement additional precautions for SCADA system.</p>	<p><i>Prematurely returning the system to operation may make the utility susceptible to specific attack via purposefully implanted attack pathways.</i></p> <p><i>Simply returning the system to operation may be insufficient and invite future attacks.</i></p> <p><i>Ensures attacker can not use same method to compromise SCADA system.</i></p> <p><i>Simply restoring from recent backup media may be insufficient to restore the system to a trusted state.</i></p>
<b>V. Report of Findings</b>	21. Turn over evidence to the proper authorities.	<i>Supports prosecution of attack</i>
<b>VI. AP-4 Revision Dates</b>		



AP5 - IT Security		
<b>AP Summary:</b>	<p>This Action Plan applies to a cyber attack on an IT intranet system. Examples of cyber include:</p> <ul style="list-style-type: none"> <li>• Virus</li> <li>• Denial of Service (DoS) including Smurf, ICMP, TCP SYN, UDP, TCP, Distributed Denial of Service, and various combinations</li> <li>• Internet facing server attacks</li> <li>• Unauthorized Network Intrusions / Unauthorized Access</li> </ul> <p><b><i>Prepare for problems by:</i></b></p> <ul style="list-style-type: none"> <li>• Updating all network documentation around the SCADA/DCS</li> <li>• Documenting all network data flows to/from Intranet systems, SCADA/DCS and surrounding systems</li> <li>• Identifying Zones of Vulnerability</li> <li>• Identifying ramifications and feasibility of disconnecting networks, computers and data flows</li> <li>• Ensuring that sufficient monitoring and network control points (firewalls, IPS, etc.) are in place to both know what's happening on your network and how to control it</li> <li>• Characterizing network traffic so that anomalous behavior can be identified</li> <li>• Becoming familiar with computer forensics tools and practices before being forced to learn them "under fire"</li> <li>• Becoming familiar with host-based monitoring and intrusion detection, since most hacking over networks is now conducted via encrypted tunnels or data streams</li> <li>• Ensuring that backup/restore procedures are up to date, as are the backups themselves</li> </ul>	
<b>Initiation and Notification:</b>	<p>Notify immediately upon discovery of the attack:</p> <ul style="list-style-type: none"> <li>• [WUERM],</li> <li>• Data (IT) Manager</li> </ul> <p>Contact others as appropriate:</p> <ul style="list-style-type: none"> <li>• Internet Service Provider,</li> <li>• Computer Equipment Vendor,</li> </ul> <p>Computer Emergency Response Team</p>	<p><i>The individual that first notices or receives word of the attack should contact both the [Data (IT) Manager] and [WUERM] by whatever means of communication may be available.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Initiation and Notification:</b>	<p><b>Initiate this AP if any of the following has occurred:</b></p> <ul style="list-style-type: none"> <li>• More than one user reports unusual behavior of any IT system or software.</li> </ul>	<p><i>Unusual log file entries - Although expert intruders are good at covering their tracks, examples include numerous failed login attempts, and logins into dormant or default accounts (logins when not expected,</i></p>

AP5 – IT Security		
	<ul style="list-style-type: none"> <li>• Network intrusion detection indicates a violation.</li> <li>• Unusual IT system activity is noted on holidays, evenings, or weekends.</li> <li>• Unusual log file entries are noticed.</li> <li>• Presence of new <b>setuid</b> or <b>setgid</b> files are discovered.</li> <li>• Changes in system directories and files are noted.</li> <li>• Unusual hidden files or ambiguous files, such as those from past incidents, are noticed.</li> <li>• Users' home pages are altered.</li> <li>• Accounting discrepancies are noticed.</li> <li>• Suspicious probes and /or browsing is identified.</li> <li>• Presence of cracking utilities is found.</li> <li>• Unaccounted for changes in the DNS tables, router rules, or firewall rules are discovered.</li> <li>• Unexplained elevation or use of privileges.</li> </ul>	<p><i>logins to infrequently used accounts)</i></p> <p><i>Missing files, altered files, unknown users in password files</i></p> <p><i>Unusual hidden files– For example, /tmp/bob and /etc/inet/d (/tmp/..., /tmp/(space), /dev/* as real files rather than device files)</i></p> <p><i>Altered home pages – These are usually the intentional target for visibility or other pages on the Web server</i></p> <p><i>Suspicious probes – For example login attempts</i></p> <p><i>An authorized user with bad intentions might, have loaded cracking utilities such as Crack.</i></p> <p><i>Unexplained elevation –for example gaining super user privileges.</i></p>
<b>Equipment Identified:</b>	<b>Equipment Location</b>	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>	Complete: <b>IT Incident Response and Reporting Checklist.</b>	<p><i>Human error or a software failure can sometimes mimic the actions of an intruder. New content on a Web server, newly released products, or anything that may generate above-normal amounts of traffic may seem like a DoS attack</i></p> <p><i>In many incidents, the perpetrator gains unauthorized access, but doesn't actually access privileged information or alter data.</i></p>
<b>I. Assess the</b>	<b>Note:</b> Because the approach to addressing an incident can vary depending on the nature of the	<i>Note: Be prepared to revise the response plan as necessary based on</i>

AP5 – IT Security		
<b>Problem</b>	<p>incident, it is critical to be aware of the type of incident that has occurred <b>BEFORE</b> taking action.</p> <ol style="list-style-type: none"> <li>1. Protect Customer Information (Take the customer information database, assuming it is a standard database, off the network, so that it is no longer accessible). Note: Modems should not be allowed on the database machine.</li> <li>2. Isolate and Contain the Threat (Insert site-specific procedures consistent with your system architecture)</li> <li>3. Document the event (See items 4 and 16)</li> <li>4. Take a snapshot of the system – Obtain forensic images and preserve original media. <ul style="list-style-type: none"> <li>• Registers, peripheral memory, caches</li> <li>• Memory (kernel and physical)</li> <li>• Network state</li> <li>• Running processes</li> <li>• Hardware data residue, memory chips, and PDA-type systems</li> <li>• Hard disks</li> <li>• Disks and backup media</li> <li>• CD-ROMs</li> <li>• Printouts</li> </ul> </li> </ol>	<p><i>new information. Flexibility is important. Be ready to change monitoring and defensive strategies during an incident as necessary to handle the distinctive circumstances of an individual attack.</i></p> <p><i>You might maintain critical customer information on your network. If a hacker steals, modifies, destroys, or even posts the information to the Internet, you may find yourself in court.</i></p> <p><i>In general, the intruder or the malicious code should be prevented from working through the network. Attempts to contain the threat should also take into account every effort to minimize the impact to business operations. Prevent the use of your systems to launch attacks against other companies. Your computer may become one of hundreds of “soldier” machines rather than an “end target”.</i></p> <p><i>Recording all of the details may provide management with the information necessary to assess the break-in and could assist in the prosecution of specific individuals.</i></p> <p><i>A snapshot is basically a photo of what a computer’s memory (primary storage, specific registers, etc) contains at a specific point in time. It can be used to catch intruders by recording information that the hacker may erase before the attack is completed or repelled.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>5. Save the system state by backing up as much of the system as necessary.</li> <li>6. Alert others according to the response strategy including contacting a Computer Emergency Response Team.</li> <li>7. Determine if the system should be disconnected from the network.</li> <li>8. Determine if the system should be shut</li> </ol>	<p><i>Serves to further diagnose the incident</i></p> <p><i>Alerting others may be done in parallel with other steps. The Computer Emergency Response Team may know how to fix the flaw in the vendor’s software or hardware that allowed the intruder to access your network.</i></p> <p><i>Users should still be able to use some local services. Be careful. The network might involve wireless local area networks. In these cases, it might be</i></p>

AP5 – IT Security		
	down entirely.	<p>important to disable and/or remove the wireless access points from the internal network. Sometimes you may need to disconnect a system from the network to prevent further damage and limit the extent of the attack.</p> <p>This action might appear drastic, but is sometimes advisable usually based on a decision to prevent further loss and/or disruption. Shut down or disconnect resources only when absolutely necessary.</p>
<b>III. Monitoring</b>	<p>9. Perform real-time scanning and detection to prevent further infection</p> <p>10. Set up traps.</p>	<p>This involves actively tracking traffic for unusual activity (for example, port scanning) or patterns of an attack stream of bits, bytes, or packets. Attackers sometimes use a “smoke screen”, an attack that attempts to divert attention from a more stealthy network intrusion. It is therefore important not to focus all attention on an initial attack, but to continue diligently looking for other attacks.</p> <p>This action involves learning the intruder’s identity or modus operandi (MO). The MO is a mechanism by which the perpetrator commits his or her crime. It is a learned behavior and can change over time. A MO can be considered a pattern, allowing for some variance. Examples of traps are honeypots (that is, computers designed to attract attackers in order to record their behavior and to gather evidence, but not meant for legitimate users.)</p>
<b>IV. Recovery and Return to Safety</b>	<p>11. Change the filtering rules of firewalls and routers.</p> <p>12. Disable known vulnerable services.</p> <p>13. Remove any hidden malicious programs or directories added by the intruder or deployed by the malicious code, up to and including a system-wide removal of all programs and files (i.e., format the disk and re-install).</p> <p>14. Update virus signatures.</p> <p>15. Eliminate the vulnerability that allowed</p>	<p>This action excludes traffic from hosts that appear to be the source of an attack.</p> <p>Such as file transfer or calendar services. This action is effective when attackers exploit newly discovered service vulnerabilities.</p> <p>Need to balance the need recovery with the need to preserve evidence for prosecution.</p> <p>Although it takes longer to update antivirus signatures to the desktop community, IT professionals can</p>

<b>AP5 – IT Security</b>		
	<p>the exploit and ensure the system is restored with an optimal security configuration.</p> <p>16. Complete a break-in report.</p> <p>17. Based on experience, identify and document tools and techniques that would improve future incident responses.</p>	<p><i>quickly update antivirus signatures at the gateway and perimeter to minimize the impact immediately.</i></p> <p><i>Break-in reports provide an overall picture of the status of network security. Chronic, increasing break-in reports indicate need to update system security overall and help pinpoint weak points.</i></p> <p><i>Thoroughly examine how well your procedures worked and decide whether you need to make changes for the future.</i></p>
<b>V. Report of Findings</b>	18. Turn over evidence to the proper authorities.	<i>Supports prosecution of attack.</i>
<b>VI. AP-5 Revision Dates</b>		

AP 6 - Chlorine Release		
<b>AP Summary:</b>	This Action Plan applies to an uncontrolled release of any quantity of chlorine gas.	
<b>Initiation and Notification:</b>	<p>When a release of chlorine gas has been confirmed.</p> <p>Notify:</p> <ul style="list-style-type: none"> <li>• [WUERM]</li> <li>• [Alternate WUERM]</li> </ul>	<p><i>The individual who first notices the release should contact the [WUERM] immediately by whatever means of communication may be available.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p><b>Note only trained personnel should attempt to use any emergency tools or Personal Protective Equipment (PPE)</b></p> <p><b>Equipment</b></p> <p><b>Location</b></p> <p>Self Contained Breathing Apparatus (SCBA), level "A"</p> <p>Personal Protective Equipment (PPE)</p> <p>Chlorine Emergency Kits</p> <p>Ammonia bottle for small leaks</p> <p>Designated chlorine use tools</p> <p>Portable chlorine/oxygen alarm</p>	<p><i>Chlorine is a highly toxic gas stored under pressure on this site.</i></p> <p><i>Chlorine is toxic by inhalation and high concentrations can cause skin irritation and severe eye injury. See MSDS</i></p>

AP 6 – Chlorine Release		
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<ol style="list-style-type: none"> <li>1. Determine number and severity of any injured personnel.</li> <li>2. Estimate the rate and volume of the release.</li> <li>3. Determine wind directions and potential for additional on-site and off-site impacts.</li> <li>4. Based on number of adequately trained and equipped personnel, determine response capability (in-house or off-site personnel).</li> </ol> <p>Activate the facility Emergency Operations Center (EOC), as appropriate.</p>	<p><i>Personnel need to be moved to or seek shelter away from the release area.</i></p> <p><i>Fully PPE protected personnel may be required to rescue personnel in the release area.</i></p> <p><i>Rate &amp; volume of release, size of container, and wind direction will all influence the ability to control the release as well as determine the impact of the release on both on-site and off-site personnel</i></p>
<b>II. Isolate and Fix the Problem</b>	<p>Note: Only trained personnel using pre-planned procedures should respond to uncontrolled chlorine releases. Attempt to install a Chlorine Emergency Kit <b>ONLY</b> if you are familiar with the kit and trained in its use.</p> <ol style="list-style-type: none"> <li>5. Remove clothing of contaminated personnel.</li> <li>6. Bag the clothing.</li> <li>7. Wash victims thoroughly with soap and water.</li> <li>8. Rinse eyes with plain water for 10 to 15 minutes.</li> <li>9. Have Safety/Security notify the incoming emergency equipment and ambulances of staging location.</li> <li>10. Detect small chlorine leaks with an atomizer or squeeze bottle filled with aqueous ammonia. (A white cloud will show the location of the leak).</li> <li>11. Attempt to close the main source valve prior to entering the area.</li> <li>12. <b>IF</b> this does not stop the release (or it is not possible to reach the valve), <b>THEN</b> allow the gas to release in place or remove it to a safe area and allow the gas to be released there.</li> </ol>	<p><i>Shelter-in-Place, Evacuation, or a combination may be an appropriate response. See Section VIII of ERP.</i></p> <p><i>The facility [Incident Commander],[IC], will have the best initial information on the magnitude of the release and be best informed to dictate on-site as well as suggest off-site actions.</i></p> <p><i>Victims need to be provided with fresh air (and oxygen by trained personnel) and have contaminated clothing removed to prevent further injury.</i></p> <p><i>Only trained and properly equipped personnel can assure a successful control of this release. Untrained or under-equipped personnel will only become more victims.</i></p>



## AP 6 – Chlorine Release

<b>III. Monitoring</b>	<p>13. Monitor the surrounding area for Chlorine gas levels and oxygen. (The Chlorine level must be below 0.5 ppm and the atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self Contained Breathing Apparatus (SCBAs.))</p> <p>14. Victim should be monitored for signs of exposure which can include:</p> <ul style="list-style-type: none"> <li>• Coughing</li> <li>• Chest Tightness</li> <li>• Burning sensation in the nose, throat, and eyes</li> <li>• Burning pain, redness, blisters similar to frostbite</li> <li>• Blurred Vision</li> <li>• Nausea and Vomiting</li> <li>• Fluid in the lungs within 2-4 hours</li> <li>• Difficulty breathing or shortness of breath</li> <li>• Watery Eyes</li> </ul>	<p><i>0.5 ppm chlorine over 8 hours has shown no effects.</i></p> <p><i>Oxygen can be replaced by chlorine gas. A 19.5% O<sub>2</sub> level is required for entry.</i></p> <p><i>Some symptoms of exposure can be delayed so all potentially exposed personnel should be routinely monitored.</i></p> <p><i>Facility area monitoring should continue until all levels reach below 0.5 ppm after repairs are completed.</i></p>
<b>IV. Recovery and Return to Safety</b>	<p>15. Maintain detailed notes of all actions</p> <p>16. Re-entry by un-protected facility personnel should not occur until all repairs are made and the ppm of chlorine is below 0.5. Community re-entry levels should be established by off-site emergency personnel, but should not be higher than 0.5 ppm.</p> <p>17. Conduct a detailed evaluation of the failure that caused the release. This could include engineering, personnel, security and metallurgical evaluations.</p> <p>18. Hold post-incident discussions to include all responders and actors in the response and</p>	<p><i>Notes will provide details of who, what, when, and why decisions were made. This will help in the evaluation of the incident response and also in cost recovery.</i></p> <p><i>Exposure to chlorine should not exceed OSHA levels for workers. Lower levels of exposure to chlorine may be established for members of the community. Exposure levels for community members should be separately</i></p>



<b>AP 6 – Chlorine Release</b>		
	recovery	<i>determined.</i>
<b>V. Report of Findings</b>	<p>19. All the components of the incident should be correlated and established in writing. This would include why the release occurred, how the response was managed and suggestions to improve the facility/community response in the future. The report should incorporate all relevant data from the forensics of the release to suggested changes in the emergency response plans and procedures.</p> <p>20. Suggestions from the report should be submitted to the governing board/individuals for evaluation and actions to be taken.</p>	<p><i>To learn from the incident and reduce the likelihood of future such events, a Report of Findings should be provided to the decision makers for the Utility so consideration can be given for changes in facility structure, security, procedures or personnel.</i></p>
<b>VI. AP 6 - Revision Dates</b>		

AP 7 – Power Outage														
AP Summary:	This Action Plan applies to events that result in power outages. Note that this Action Plan may need to be implemented in conjunction with other Action Plans (for example, severe weather) as necessary.  Consider agreement with the power company to determine the priority of drinking water and wastewater systems for recovery prior to the emergency.													
Initiation and Notification:	Initiate this AP upon a loss of offsite power  Notify: <ul style="list-style-type: none"><li>• [WUERM]</li><li>• [Alternate WUERM]</li></ul> Others as appropriate, examples include: <ul style="list-style-type: none"><li>• Fuel supplier (back up generator)</li><li>• Critical Care Customers</li><li>• Large Water Users</li></ul>	Notify the [WUERM] by whatever means of communication may be available.  Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.												
Equipment Identified:	<table><thead><tr><th>Equipment</th><th>Location</th></tr></thead><tbody><tr><td>Mobile battery-powered radios</td><td></td></tr><tr><td>Mobile/cellular phones</td><td></td></tr><tr><td>Flashlights</td><td></td></tr><tr><td>Spare batteries</td><td></td></tr><tr><td>Accessory requirements (cables for generators, transformers, load banks, bus bars, distribution</td><td></td></tr></tbody></table>	Equipment	Location	Mobile battery-powered radios		Mobile/cellular phones		Flashlights		Spare batteries		Accessory requirements (cables for generators, transformers, load banks, bus bars, distribution		Radios should have access to a frequency compatible with the local fire dept, sheriff, public health officials, other government departments, utilities, services, or consultants.  Cell phones may not be available during power outages.
Equipment	Location													
Mobile battery-powered radios														
Mobile/cellular phones														
Flashlights														
Spare batteries														
Accessory requirements (cables for generators, transformers, load banks, bus bars, distribution														

AP 7 – Power Outage		
	panels, feeder panels, fuses, outlets, load centers, etc)  Emergency kits	
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<ol style="list-style-type: none"> <li>1. Call local hydro-electric supply company – request information on the estimated down time.</li> <li>2. <b>IF</b> backup generation is available, <b>THEN</b> assess the ability to supply fuel for extended periods.</li> <li>3. Assess ability for HVAC or alternate to provide proper temperatures for SCADA, computer, and control systems.</li> <li>4. Estimate potable water requirements under the emergency condition and determine if the utility can still meet requirements.</li> <li>5. <b>IF</b> telephone is also down, <b>THEN</b> SCADA communications may be blocked.</li> <li>6. Loss of power could affect utility access gates, CCTV, intrusion alarms and other remote monitoring abilities. Loss of power may be a diversionary tactic for other terrorist activity. Be alert.</li> </ol>	<p><i>Consider agreements with fuel supply company to supply fuel automatically upon a power loss if the capability to store fuel on site is not practical. A fuel tank with capacity for at least 24 hours of run time is advisable.</i></p> <p><i>If on-staff personnel are not experienced with power-generation equipment, it is necessary to arrange for professional assistance to install and operate the mobile units.</i></p> <p><i>Evaluate back-up power with controllers that sense problems with purchased power and come up automatically.</i></p> <p><i>Complete assessment as quickly as possible.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>7. Turn off unnecessary electrical equipment.</li> <li>8. Start back up generators as necessary for key components: Note: Uninterruptible Power Supply (UPS) for SCADA and computers, battery back-up for Remote</li> </ol>	<p><i>This can prevent injuries and damage from unexpected equipment startups, power surges to the equipment and possible fires. If power goes out, an Uninterruptible Power Supply (UPS) provides battery power at a constant rate for several minutes, allowing you</i></p>

AP 7 – Power Outage		
	Terminal Unit (RTU) may only supply power for a few hours.	<p><i>to safely turn off equipment with minimal risk or loss.</i></p> <p><i>If you permanently connect a backup electrical generator, the connection may have to meet certain technical standards required by law. Some states also require you to notify your electric utility. If you do not, utility personnel working nearby could be seriously injured.</i></p>
<b>II. Isolate and Fix the Problem</b>	<p>9. Increase disinfectant residual as a precaution to potential contamination.</p> <p>10. <b>IF</b> not able to meet community requirements for water <b>THEN</b> arrange for water to be supplied by another source. See Mutual aid agreements Section II B. of ERP and Section III.G of ERP for Alternate Water Sources.</p> <p>11. Notify priority customers</p> <p>12. Notify users of interruption of service if backup pump(s) is/are not capable of maintaining supply.</p> <p>13. Issue “Boil Water”, “Do not Drink”, or “Do not Use” orders and Press Releases as appropriate. See Section VIII.A.1 of ERP for <b>Press Release Forms</b>.</p> <p>14. Initiate back up plan for retrieval of current information from outside sources.</p>	<p><i>A temporary portable generator should not be connected to building wiring unless the building meets the same technical standards legally required for a permanent generator. Most buildings are not so equipped. As an alternative, use properly rated extension cords to connect electrical loads directly to the generator receptacles.</i></p> <p><i>This is an analysis of all available sources of water, not just those used under conditions of normal operation. These sources might include both new intakes or wells, public or private ponds, reservoirs, swimming pools, interconnections with other water utilities, water stored within building water systems, water provided in bottles or tank trucks from outside sources of potable water, local dairies or bottling plants, etc.</i></p> <p><i>Since computers may be down, access to Water ISAC, police, government, etc. could be compromised.</i></p>
<b>II. Isolate and Fix the Problem</b>	<p>15. Consider initiating back-up portable pumping and generating capability to serve areas with limited storage, critical wastewater collection and treatment operations.</p> <p>16. Facilities with freezing temperatures should turn off and drain the following lines in the event of a long term power loss:</p> <ul style="list-style-type: none"> <li>a. Fire sprinkler system</li> <li>b. Standpipes</li> </ul>	

<b>AP 7 – Power Outage</b>		
	c. Potable Water Lines d. Toilets	
<b>III. Monitoring</b>	17. <b>IF</b> damage to equipment occurs, <b>THEN</b> contact vendor/mutual aid companies to replace/repair damaged equipment.  18. Monitor the status of the backup power supply and regularly test whether battery levels are adequate and the backup generators are functional.	<i>Ask your vendors about specific limitations of your equipment. Find out how long it would take to repair or replace damaged equipment.</i>
<b>IV. Recovery and Return to Safety</b>	19. Conduct disinfection, flushing, and bacteriological sampling after repairs of equipment lost.  20. <b>IF</b> power outage occurs during freezing conditions <b>THEN</b> allow electronic equipment to reach ambient temperatures before energizing to prevent condensate from forming on circuitry.  21. Fire and potable water piping should be checked for leaks from freeze damage after the heat has been restored to the facility and water turned back on.  22. Notify public/customers when it is safe to use the drinking water again.	
<b>V. Report of Findings</b>	23. All the components of the incident should be correlated and established in writing. This would include how the response was managed and suggestions to improve the facility / community response in the future. The report should incorporate all relevant data from the incident and suggested changes in the emergency response plans and procedures.  24. Suggestions from the report should be submitted to the governing board/individuals for evaluation and actions to be taken.	<i>To learn from the incident and reduce the likelihood of future such events, a Report of Findings should be provided to the decision makers for the Utility so consideration can be given for changes in facility structure, security, procedures or personnel.</i>

## AP 7 - Power Outage

<b>VI. AP-7 Revision Dates</b>								

## AP 8A - Natural Event (Flood)

<b>AP Summary:</b>	This Action Plan applies to flooding events. In general, these events occur with reasonable lead times, and it is possible to take proactive measures, as outlined below. Response and recovery can be time consuming during flood events, as they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
<b>Initiation and Notification:</b>	<p>This AP should be initiated upon official notification of either a flood “watch” (a flood is possible in your area), or a flood “warning” (flooding is already occurring or will occur soon in your area). Such information will almost certainly be issued in the form of forecasts from the National Weather Service (NWS) and other governmental agencies. Also initiate if actual flooding is discovered.</p> <p>Notify</p> <ul style="list-style-type: none"> <li>• [WUERM]</li> <li>• [Alternate WUERM]</li> </ul> <p>The [WUERM] will make the decision to contact local response authorities to request possible assistance.</p>	<p><i>Links to specific RFCs can be found at the following website:</i>  <a href="http://www.nws.noaa.gov/oh/hic/rfc.html">http://www.nws.noaa.gov/oh/hic/rfc.html</a></p> <p><i>The NWS maintains 13 regional River Forecast Centers (RFC) that are responsible for issuing flood forecasts synthesized from hydro-meteorological data. These centers offer current river conditions and observations, as well as forecast and guidance for both major river and flash floods, hydrographs for gauging stations, and flood outlook potentials. Be aware that floods often occur without local precipitation as a result of precipitation upstream.</i></p> <p><i>Flash flood guidance values can also typically be obtained via your local RFC. These values show data suggesting the amount of rain necessary over 1-, 3-, and 6-hour periods that could cause flash floods.</i></p> <p><i>While major floods can take several hours to days to develop, flash floods can take only a few minutes to a few hours to develop.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>

<b>AP 8A – Natural Event (Flood)</b>		
<b>Equipment Identified:</b>	<b>Equipment</b>  <b>Location</b>  Binoculars	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<b>If a Flood Watch or Warning is received:</b> <ol style="list-style-type: none"> <li>1. Contact local representative of NWS for additional information on exact location and probable extent (stage) of flooding, relative to utility facilities.</li> <li>2. Use site maps or other available information to assess location of all facilities for location in flood plain.</li> <li>3. Prioritize pre-flooding activities on basis of flooding potential (in part, based on location).</li> <li>4. If flooding has already occurred:               <ul style="list-style-type: none"> <li>• Conduct site assessment from nearest safe location.</li> <li>• Based on peak flood stage, predict and build inventory of equipment likely to be most affected.</li> <li>• List equipment needed to restore water service when flood waters recede.</li> </ul> </li> </ol>	<i>Flood damage is proportional to the to the volume and the velocity of the water. Floods are extremely dangerous because they destroy through inundation and soaking as well as the incredible force of moving water. High volumes of water can move heavy objects and undermine roads and bridges. Flooding can also facilitate other hazards such as landslides, or cause other hazards such as material hazard events</i>
<b>II. Isolate and Fix the Problem</b>	The following steps should be taken in preparation for the event: <ol style="list-style-type: none"> <li>1. Activate Emergency Operations</li> </ol>	<i>Steps in advance of flooding obviously will be different than steps in reaction to flooding. Both may be needed for any one flooding</i>

AP 8A – Natural Event (Flood)		
	<p>Center (EOC).</p> <p>2. Assemble essential personnel and designate duties, such as:</p> <ul style="list-style-type: none"> <li>Elevate in-place or remove water-sensitive equipment within structures to prevent flood damage.</li> <li>Anchor fuel tanks.</li> <li>Elevate electrical system components.</li> <li>Take appropriate flood-proofing steps (sandbags or other).</li> <li>Install sewer backflow valves.</li> <li>Flood-proof or elevate heating, cooling, and ventilating equipment.</li> <li>Assemble and stage mobile stand-by generators and auxiliary water pumps.</li> </ul>	<p>event.</p>
<b>II. Isolate and Fix the Problem</b>	<p>3. Notify neighboring utilities or other sources of emergency response support if manpower or equipment will be needed.</p> <p>4. The [IO] is to notify customers, media, and state and local authorities that service may be disrupted and/or that demand reductions may be necessary.</p> <p>5. Pre-test and/or initiate emergency communications plan</p> <p>6. Consider shut-down if flooding appears imminent.</p>	<p><i>Flood water may have to be pumped out of facilities before utility equipment can be restored.</i></p> <p><i>Decision to shutdown must balance protection of utility equipment and maintenance of fire flows.</i></p>
<b>III. Monitoring</b>	<p>Observe the following recommended practices during the flood event:</p> <ul style="list-style-type: none"> <li>Take pictures of the damage, both of buildings and their contents, for insurance claims.</li> <li>Instruct Utility personnel to avoid</li> </ul>	<p><i>If it is moving swiftly, even water six inches deep can knock an individual off their feet. Many people are swept away wading through floodwaters, resulting in injury or death. Floodwaters may still be rising. Staff may not be able to see on the surface how fast floodwater is moving or see holes and submerged debris.</i></p>



## AP 8A – Natural Event (Flood)

	<p>floodwaters whenever possible.</p> <ul style="list-style-type: none"> <li>• If a vehicle stalls in rapidly rising waters, abandon it immediately and climb to higher ground. Vehicles can be swept away in two feet of water.</li> <li>• Stay out of any building if floodwaters remain around the building.</li> <li>• Avoid smoking inside buildings. Smoking in confined areas can cause fires.</li> <li>• Wear sturdy shoes. The most common injury following a disaster is cut feet.</li> <li>• Use battery-powered lanterns or flashlights when examining buildings. Battery-powered lighting is the safest and easiest, preventing fire hazard for the user, occupants, and building.</li> <li>• Look for fire hazards. There may be broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances. Flammable or explosive materials may travel from upstream. Fire is the most frequent hazard following floods.</li> <li>• The [WUERM] or [IO] is to communicate with customers and the Local Emergency Planning Committee (LEPC) as to current conditions.</li> </ul>	<p><i>Floodwaters often undermine foundations, causing sinking, floors can crack or break and buildings can collapse. Buildings may have hidden damage that makes them unsafe such as gas leaks or electric hazards.</i></p>
<b>IV. Recovery  And Return to Safety</b>	<p>Once floodwaters recede, the following may be of relevance:</p> <ul style="list-style-type: none"> <li>• Check insurance policy for procedures to recover losses, including the national Flood Insurance Program.</li> <li>• Inspect foundations for cracks or other damage.</li> <li>• Check power lines for damages</li> <li>• Arrange for alternate source of electrical power or fuel for diesel generators, sufficient for period of outage following flood. See AP-7</li> </ul>	<p><i>More information can be found here:</i></p> <p><a href="http://www.fema.gov/nfip">http://www.fema.gov/nfip</a></p> <p><i>Cracks and damage to a foundation can render a building uninhabitable.</i></p> <p><i>See AP-7 Power Outage</i></p> <p><i>Contaminated floodwater contains bacteria and germs. Eating foods exposed to flood waters can make personnel very sick.</i></p> <p><i>In the longer-term, mitigation against loss of life and property caused by flood events is principally accomplished before the events, through sensible floodplain management and regulation. This involves strategies to modify</i></p>

AP 8A - Natural Event (Flood)		
	<p>Power Outage.</p> <ul style="list-style-type: none"> <li>• Throw away all food that has come into contact with floodwaters.</li> <li>• Inspect, clean, rebuild, replace all affected equipment as necessary</li> <li>• Contact state and local authorities to determine if there are any restrictions on disposal of materials and debris removed from the site or if a temporary discharge permit (NPDES or other) is needed for the water pumped from tanks and other flooded structures.</li> </ul>	<p><i>flooding and to modify infrastructure to reduce likelihood of damage.</i></p> <p><i>Guidelines to a variety of flood-proofing and elevation methods are available from FEMA and NOAA.</i></p>
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8A Revision Dates</b>		

AP 8B – Natural Event (Winter Storm)		
<b>AP Summary:</b>	This Action Plan applies to winter storm events. In general, these events occur with reasonable lead times, and it is possible to take proactive measures, as outlined below. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
<b>Initiation and Notification:</b>	<p>When hazardous winter weather conditions are expected to affect the region, the National Weather Service (NWS) issues public advisories. This AP should be initiated upon official notification of a “winter storm watch” or more elevated status. In order of increasing severity, the standard terminology is as follows:</p> <p><b>Winter Storm Outlook:</b> Issued prior to a Winter Storm Watch. The Outlook is given when forecasters believe winter storm conditions are possible and are usually issued 3 to 5 days in advance of a winter storm.</p> <p><b>Winter Weather Advisory:</b> Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconveniences and, if caution is not exercised, could lead to life-threatening situations.</p> <p><b>Winter Storm Watch:</b> Alerts the public to the possibility of a blizzard, heavy snow, heavy freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 48 hours before the beginning of a Winter Storm.</p> <p><b>Winter Storm Warning:</b> Issued when hazardous winter weather in the form of heavy snow, heavy freezing rain, or heavy sleet is imminent or occurring. Winter Storm Warnings are usually issued 12 to 24 hours before the event is expected to begin.</p> <p><b>Blizzard Warning:</b> Issued for sustained or gusty winds of 35 mph or more, and falling or blowing snow creating visibilities at or below <math>\frac{1}{4}</math> mile; these conditions should persist for at least three hours.</p> <p>It is expected that the local the Local Emergency Planning Committee (LEPC) will carefully and continually monitor meteorological conditions and forecasts. During such events, the Local Emergency Planning Committee (LEPC) shall be in constant contact with the National Weather Service (NWS) and disseminate information to agencies via conference call, e-mail and broadcast fax.</p>	<p><i>See the NWS website for current warnings here:</i></p> <p>NWS</p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>

AP 8B – Natural Event (Winter Storm)		
<b>Equipment Identified:</b>	Equipment  Location	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	Winter storms, accompanied by strong winds and blizzard conditions, have resulted in localized power and phone outages; closures of streets, highways, schools, businesses, and nonessential government operations. People have been isolated from essential services in their homes and vehicles. A winter storm may escalate into a catastrophic event paralyzing municipalities, and rural areas for several days. Life threatening situations may occur in which emergency response agencies cannot perform their duties due to extreme weather conditions. Individual jurisdictions may be over-whelmed and need mutual aid assistance.	
<b>II. Isolate and Fix the Problem</b>	<p>Snow removal capabilities will vary widely, general procedures are as follows:</p> <p><b>Before the storm:</b></p> <ol style="list-style-type: none"> <li>1. Activate Emergency Operations Center (EOC).</li> <li>2. Monitor track of storm.</li> <li>3. Release nonessential personnel, as warranted.</li> <li>4. Assemble essential personnel and designate duties.</li> <li>5. Typical duties at this stage may include: <ul style="list-style-type: none"> <li>• Fill gravity storage tanks.</li> <li>• Test auxiliary power sources.</li> <li>• Fill fuel tanks.</li> <li>• Secure windows and doors.</li> </ul> </li> </ol>	

<b>AP 8B – Natural Event (Winter Storm)</b>		
	<ul style="list-style-type: none"> <li>• Mobilize snow removal equipment, as warranted.</li> <li>• Man remote stations essential to operations.</li> <li>• Stockpile chemicals, food, etc.</li> </ul>	
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>6. Discuss needs with electric company.</li> <li>7. Test back-up communications system.</li> <li>8. Review mutual aid agreements and verify connections to/from neighboring water systems.</li> </ol> <p>Review specific power outage contingency action plan.</p> <p><b>During the storm:</b></p> <ol style="list-style-type: none"> <li>1. Notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary.</li> <li>2. Monitor reservoirs.</li> <li>3. Monitor changes in water quality. If a water quality emergency should develop, follow the appropriate procedure.</li> <li>4. Open connections with neighboring water systems if necessary.</li> <li>5. Provide backup power to facilities utilizing mobile generators, as appropriate.</li> </ol>	
<b>III. Monitoring</b>	<p>In order to monitor the infrastructure status and residents' health during a winter weather event, it is expected that the Utility will assist the Local Emergency Planning Committee (LEPC) in gathering the following types of information:</p> <ul style="list-style-type: none"> <li>• Electrical load</li> <li>• EMS cold-related responses / total responses</li> <li>• Cold weather-related water main breaks</li> <li>• Available sheltering centers</li> <li>• Status of salt and sand stockpiles</li> <li>• Available snow removal assets</li> <li>• Cold-related incidents / concerns</li> </ul>	

<b>AP 8B – Natural Event (Winter Storm)</b>		
	During winter weather emergencies, heavy snowfall, coupled with icy roads or ice accumulations on aboveground electrical transmission lines, can result in vehicular accidents and transmission line failure. Power outages during winter weather events can pose serious problems, particularly among those communities where life-sustaining equipment (LSE) is a necessity.	
<b>III. Monitoring</b>	<p>Personnel should avoid traveling by vehicle, but if necessary, it is important to communicate destinations, routes, and expected arrival times. If vehicles get stuck along the way, help can be sent along the predetermined route. If personnel do get stuck:</p> <ul style="list-style-type: none"> <li>• Staff should stay with their car and not try to walk to safety.</li> <li>• Tie a colored cloth to the antenna for rescuers to see.</li> <li>• Start the car and use the heater for about 10 minutes every hour. Keep the exhaust pipe clear so fumes won't back up in the car.</li> <li>• Leave the overhead light on when the engine is running to be seen.</li> </ul> <p>Keep arms and legs moving to keep blood circulating and to stay warm and keep one window away from the blowing wind slightly open to let in air.</p> <p>During heavy storms, search and rescue operations, movement of emergency response agencies to assigned duties and restoration of essential services are likely to become the primary focus of the EOC.</p> <p>Priorities of response forces, prioritization of the use of snow removal equipment and allocation of all critical resources and response personnel will be the responsibility of the EOC.</p>	
<b>IV. Recovery And Return to Safety</b>	<p>It is recommended that staff observe the following safety tips in recovery from winter storm events:</p> <ul style="list-style-type: none"> <li>• After the storm, if personnel are required to shovel snow, be extremely careful. It is physically strenuous work, requiring frequent breaks. Avoid overexertion. Heart attacks from shoveling heavy snow are a leading cause of deaths during winter.</li> <li>• Walk carefully on snowy, icy, sidewalks.</li> </ul>	

<b>AP 8B – Natural Event (Winter Storm)</b>		
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8B Revision Dates</b>		

<b>AP 8C - Natural Event (Hurricane / Tropical Storm)</b>		
<b>AP Summary:</b>	<p>This Action Plan applies to Hurricane / Tropical Storm events. In general, these events occur with reasonable lead times, and it is possible to take proactive measures, as outlined below. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.</p>	
<b>Initiation and Notification:</b>	<p>Initiation of the hurricane/ tropical storm AP will occur when the NWS has determined a "Hurricane Watch" is in effect. The general terminology they utilize is as follows, in order of increasing severity:</p> <ul style="list-style-type: none"> <li>• <b>Advisory:</b> Hurricane and storm information is disseminated to the public every six hours.</li> <li>• <b>Special Advisory:</b> Information is disseminated when there is significant change in storm-related weather conditions.</li> <li>• <b>Gale Warning:</b> Sustained winds of 35-54 mph and strong wave action are expected.</li> <li>• <b>Storm Warning:</b> Sustained winds of 55-73 mph are expected.</li> <li>• <b>Hurricane Watch:</b> There is a threat of hurricane conditions within 24-36 hours.</li> <li>• <b>Hurricane Warning:</b> A hurricane is expected to strike within 24 hours or less, with sustained winds of 74 mph or more and dangerously high water.</li> <li>• <b>Tropical Disturbance:</b> A moving area of thunderstorms is in the tropics.</li> <li>• <b>Tropical Depression:</b> An area of low pressure, rotary circulation of clouds and winds up to 38 mph is identified.</li> <li>• <b>Tropical Storm:</b> A storm characterized by counterclockwise circulation of clouds and winds 39-73 is brewing.</li> </ul> <p>The Atlantic and Caribbean hurricane season runs from June 1 through November 30, with the Eastern Pacific hurricane season running from May 15 through November 30.</p>	<p><i>See National Hurricane Center website here:</i></p> <p><i>NHC</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p><b>Equipment</b></p> <p><b>Location</b></p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>



<b>AP 8C - Natural Event (Hurricane / Tropical Storm)</b>		
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	It is expected that the Local Emergency Planning Committee (LEPC) will carefully and continually monitor meteorological conditions and forecasts. During such events, the Local Emergency Planning Committee (LEPC) shall be in constant contact with the National Weather Service (NWS) and disseminate information to agencies via conference call, e-mail and broadcast fax.	
<b>II. Isolate and Fix the Problem</b>	<p>In preparation for the hurricane, the following general steps are to be followed, as per the US EPA's Water Security Division:</p> <p><b>General:</b></p> <ol style="list-style-type: none"> <li>1. Line up and schedule emergency operations and clean up crews.</li> <li>2. Notify State and Federal Agencies (FEMA and others) of location and telephone numbers of the emergency operating center or command post for the utility. For public water systems, be sure to line up contacts to request emergency water supply, if necessary.</li> <li>3. Notify media where to access information and press advisories.</li> <li>4. Arrange for food and water for the crews.</li> <li>5. Notify and set up clear lines of communication with local authorities, such as police and fire in case of an injury or other emergency.</li> <li>6. Make arrangements with the local power utility to be prepared to disconnect power to the plant if plant is evacuated or if power lines are downed and to restore power as a primary customer.</li> <li>7. Make arrangement with local companies to purchase materials and supplies and to borrow/lease heavy equipment needed to make repairs to the plant.</li> <li>8. Make arrangement with local companies to have materials and chemicals delivered to the plant as soon as it is safe and</li> </ol>	

<b>AP 8C - Natural Event (Hurricane / Tropical Storm)</b>		
	units are repaired and ready for operation.	
<b>II. Isolate and Fix the Problem</b>	<b>Grounds and Common Areas:</b> <ol style="list-style-type: none"> <li>1. Check inventory of emergency repair equipment and supplies (i.e., sand and sand bags, hand shovels, power equipment, fuel, batteries, flashlights, portable radio, first aid kits, etc.). Resupply if possible.</li> <li>2. Stock service vehicles with equipment and supplies.</li> <li>3. Fuel all vehicles and emergency generators.</li> <li>4. Move service vehicles to high ground (above expected flood crest).</li> <li>5. Check all communications equipment and charge or replace batteries (i.e., two way radios, cell phones, walkie-talkies, pagers, etc.).</li> <li>6. Sand bag critical areas.</li> <li>7. Board up critical windows and doors to prevent wind damage.</li> <li>8. Shut down exposed pipes at river crossing to prevent discharge of raw sewage or to prevent loss or contamination of potable water, if the pipes brake.</li> </ol>	
<b>II. Isolate and Fix the Problem</b>	<b>Administration and Laboratory Buildings:</b> <ol style="list-style-type: none"> <li>1. Remove portable electrical equipment and small motors from the flood zone.</li> <li>2. Remove all sensitive laboratory equipment from the flood zone, where possible.</li> <li>3. Remove or store computers in a safe area.</li> <li>4. Remove or store all important records in a safe area.</li> <li>5. Move vital records such as built drawings, wiring diagrams, etc. to the emergency operations center or command post.</li> <li>6. Remove or store furnishings in a safe place, when practical.</li> <li>7. Disconnect electrical power to the building, if it is evacuated.</li> </ol>	
<b>II. Isolate and</b>	<b>Treatment Plant and Pumping Stations:</b>	

## AP 8C - Natural Event (Hurricane / Tropical Storm)

<b>Fix the Problem</b>	<ol style="list-style-type: none"> <li>1. Fill empty tanks with water to prevent floating.</li> <li>2. Disconnect power to all units in the flood zone. Have the power utility disconnect power to the entire plant, if ordered to evacuate the facility.</li> <li>3. Remove or move chemicals to a safe area. If chemicals are removed from an underground or above ground tank, fill the tank with water to prevent floating.</li> <li>4. Remove fuel from under ground tanks to prevent contamination of the fuel and to protect the environment. If possible move above ground fuel storage tanks to a safe area (fuel will be need for emergency and plant vehicles until new supplies arrive). If it is not practical to move above ground fuel storage tanks, remove the fuel and fill tanks with water.</li> <li>5. Remove electrical motors, where possible.</li> <li>6. When it is not practical to remove large motors, wrap the motors in plastic and seal as tight as possible. This will not keep the motor from getting wet, but will protect the motor from silt, mud, and dirt getting into the windings. Submerged motors can be washed with clean water and dried, and in most case restored to service.</li> <li>7. Remove shop tools and electrical hand tools to the emergency operations center or command post.</li> <li>8. For drinking water systems, as appropriate try to have elevated storage at full capacity.</li> </ol>	
<b>III. Monitoring</b>	<ol style="list-style-type: none"> <li>1. Emergency power should be utilized to the extent necessary and available to maintain pressure within the distribution system.</li> <li>2. Systems which have been flooded or otherwise had bacterial quality compromised must be disinfecting their water system and maintaining chlorine residuals throughout the water system.</li> <li>3. Where such flooding, loss of pressure, or other damage has occurred resulting in potential bacterial compromise, <b>GOWC</b> should Issue "Boil Water", "Do not Drink", or "Do not Use" orders and Press Releases as appropriate. See Section XX of ERP for <b>Press Release Forms</b> until further testing can be conducted and the situation normalizes. If</li> </ol>	

<b>AP 8C – Natural Event (Hurricane / Tropical Storm)</b>		
	necessary, a “Boil Water” notice must be announced as soon as possible, and realize that it may be necessary to issue a “Boil Water” notice before the Health Department can be reached.	
<b>IV. Recovery And Return to Safety</b>	<p>In the aftermath of the hurricane, the following general steps are to be followed, as per the US EPA’s Water Security Division:</p> <ul style="list-style-type: none"> <li>• <b>General:</b> <ol style="list-style-type: none"> <li>1. For water utilities, the first priority should be restoring fire flow and pressure.</li> <li>2. For wastewater utilities, the first priority should be to restore primary treatment and disinfection.</li> <li>3. Line up and schedule emergency operations and clean up crews</li> <li>4. Make arrangements with the local power utility to repair and restore power to the plant as a primary customer. Power should not be turned on to buildings or process units until the floodwater has been removed and the area is safe to occupy.</li> <li>5. Notify State and Federal Agencies when the facility is back in operation.</li> <li>6. The [IO] is to notify the media where to access information and press advisories, such as boil water orders, beach closures, and other public instructions.</li> <li>7. Make arrangements with local companies to deliver materials and supplies and to provide heavy equipment needed to make repairs to the plant.</li> <li>8. Make arrangements with local companies to deliver materials and chemicals as soon as it is safe, and facilities are prepared and ready for operation.</li> <li>9. Contact State and local authorities to determine if there are any restrictions on disposal of materials and debris removed from the site or if a temporary discharge permit (NPDES or other) is needed for the water pumped from tanks and other flooded structures.</li> </ol> </li> </ul>	
<b>IV. Recovery And Return to Safety</b>	<p><b>Grounds and Common Areas:</b></p> <ol style="list-style-type: none"> <li>1. Inspect all service vehicles for water and wind damage.</li> <li>2. Check site including remote locations for visible damage to power lines and above ground structures.</li> <li>3. Inspect all sewage collection systems for damage and</li> </ol>	

<b>AP 8C - Natural Event (Hurricane / Tropical Storm)</b>		
	<p>blockages. Most collection systems will require cleaning after a flood.</p> <ol style="list-style-type: none"> <li>Inspect all exposed pipes, especially at river crossings, for leakage. Broken pipes can discharge raw sewage into rivers and streams. Broken water pipes including service connections to severely damaged structures can provide a source of contamination and/or pressure loss to the potable water system.</li> <li>Check all remote control systems, including telemetering, telephone, and SCADA, etc.</li> </ol>	
<b>IV. Recovery And Return to Safety</b>	<b>Administration and Laboratory Building:</b> <ol style="list-style-type: none"> <li>Check windows and doors for wind damage. Replace and repair as needed to prevent further damage and to provide security.</li> <li>Check roofs for water and wind damage. Make repairs as needed to prevent further damage.</li> <li>Pump out and remove silt, mud and sand from basements and other below grade areas.</li> <li>Clean and disinfect masonry walls with bleach solution to prevent the growth of mold and mildew.</li> <li>Remove all plasterboard, wallboard, and sheet rock that is wet or shows signs of water damage. Clean and disinfect all the interior studs and other support structures behind the damaged walls with bleach solution to prevent the growth of mold and mildew.</li> <li>Inspect all switchgear, motor control centers, electrical boxes, junction boxes, and other electrical equipment in flooded areas for silt and sand or loose connections. Boxes should be cleaned and dried with portable or hand held dryers before the electrical power is restored.</li> <li>Thoroughly clean all wet carpets. It is advisable to remove carpets for cleaning. If removing the carpets is not practical, carpets should be steam cleaned, disinfected and mechanically dried. The carpets also should be treated with an anti-bacterial agent to prevent the growth of mold and</li> </ol>	

<b>AP 8C - Natural Event (Hurricane / Tropical Storm)</b>		
	<p>mildew.</p> <ol style="list-style-type: none"> <li>Check and reset fire alarms, door alarms, clocks and other control and measurement devices.</li> <li>Start sampling, monitoring and testing, including the water distribution system for coliform bacteria, as soon as the laboratory is operational.</li> </ol>	
<b>IV. Recovery And Return to Safety</b>	<p><b>Treatment Plant and Pumping Stations:</b></p> <ol style="list-style-type: none"> <li>Pump out all tanks, wet wells, dry wells, channels, vaults and pits to remove silt, mud, sand, and debris. In some cases washing down walls will be necessary before returning to service. Make sure you have all the necessary permits to dispose of the collected material and for discharging the wastewater.</li> <li>Inspect all equipment, clean and lubricate.</li> <li>Inspect all switchgear, motor control centers, electrical boxes, junction boxes, and other electrical connections in flooded areas for silt and sand or loose connections. Boxes should be flushed with fresh water and dried before the electrical power is restored. Breaker boxes and other contacts may need additional cleaning to remove corrosion, especially if the damage was caused by salty or brackish water.</li> <li>Inspect all electric motors. Generally, it is more cost-effective to replace small flood damaged motors than to try and repair them. In some cases, motors can be flushed with de-ionized water. Be sure the motor is thoroughly (oven dried) dry before restoring power. Starters and other electrical controls may also be damaged and will need to be replaced.</li> <li>Large motors that were not removed but were wrapped in plastic should be inspected for damage. Be sure the motor is thoroughly dry before restoring power. However, having the motors cleaned and dried by motor or armature specialists is recommended. Starters and other electrical controls may also be damaged and need to be replaced.</li> <li>Large horsepower motors that were not wrapped in plastic should be removed and sent out for cleaning and drying.</li> </ol>	

<b>AP 8C - Natural Event (Hurricane / Tropical Storm)</b>		
	Check with the motor or armature specialists in your area. They often have equipment to clean and ovens to dry motors under controlled temperatures.	
<b>IV. Recovery And Return to Safety</b>	<ol style="list-style-type: none"> <li>7. Inspect and clean debris from all air intakes and vents.</li> <li>8. Inspect all chemical storage and feed equipment to make sure that the equipment is undamaged and is properly calibrated.</li> <li>9. Chemical and fuel tanks that were filled with water should be pumped out and restocked with fresh materials. Caution: Water from fuel tanks may still contain hydrocarbon residues and may require special handling and disposal.</li> <li>10. Check and refuel emergency generators in the event of future power outages. If generators and diesel engines have been flooded, they will need to be overhauled or engines rebuilt. Getting emergency power capability resorted, should be a high priority. Renting portable generators or pumps should also be considered.</li> </ol>	
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8C Revision Dates</b>		

<b>AP 8D - Natural Event (Earthquake)</b>		
<b>AP Summary:</b>	<p>This Action Plan applies to earthquake events. In general, these events occur without any lead times, making it impossible to take proactive measures. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.</p>	
<b>Initiation and Notification:</b>	<p>An earthquake usually occurs without any type of warning. Due to the suddenness, all personnel should attempt to find immediate shelter. This may include:</p> <ul style="list-style-type: none"> <li>• Standing in a doorway and bracing your hands and feet against each side.</li> <li>• Getting under a desk or heavy table.</li> <li>• Standing flat against an interior wall.</li> <li>• Do not seek cover under laboratory tables or benches as chemicals could spill and harm personnel.</li> </ul> <p>After an earthquake has stopped, initiate this earthquake AP 8D.</p>	<p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p>Equipment</p> <p>Location</p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p>In general, the [WUERM] will organize an assessment team to undertake the following activities:</p> <ul style="list-style-type: none"> <li>• Inspect all structures for obvious cracks and damage.</li> <li>• Assess condition of all electrical power feeds and switchgear.</li> <li>• If SCADA is working, immediately review system for all types of malfunctions, including telemetry, pressure in the distribution system, and operation of pumps and other equipment.</li> <li>• If buildings have any sign of damage, such as cracked</li> </ul>	<p><i>Be prepared for aftershocks. Although smaller than the main shock, aftershocks cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days,</i></p>



AP 8D – Natural Event (Earthquake)		
	<p>walls, broken windows, downed power lines, do not enter, but wait for trained personnel.</p> <ul style="list-style-type: none"> <li>• If buildings appear safe, cautiously inspect condition of interiors for damaged equipment, leaks, chemical spills, etc.</li> <li>• Communicate all findings via radio to Emergency Operations Center (EOC) or [WUERM], as appropriate.</li> <li>• Activate personnel accountability network to check for injury of staff.</li> </ul>	<p><i>weeks, or even months after the quake. Follow the same procedures as for earthquakes.</i></p> <p><i>See AP 7 for specific power loss procedures.</i></p>
<b>I. Assess the Problem</b>	Earthquakes can cause significant power outages because of the impact on outside generation and transmission lines. After a major earthquake, power might be interrupted for an extended period of time over the entire operations area. In this instance, power restoration will most probably be slow and, depending upon the infrastructure damage, localized. Some isolated areas could take considerably longer for power restoration than others.	
<b>II. Isolate and Fix the Problem</b>	<p>General earthquake procedures during an earthquake are as follows:</p> <ol style="list-style-type: none"> <li>1. Seek shelter under a deck, table, doorway, or inside wall.</li> <li>2. Once the shaking has stopped, gather valuables and quickly make your way outside. (DO NOT USE ELEVATORS.)</li> <li>3. Avoid electric wires, poles and equipment, once outside.</li> <li>4. Prepare for aftershocks.</li> </ol>	
<b>III. Monitoring</b>	<p>At all times, personnel should observe the following general steps:</p> <ul style="list-style-type: none"> <li>• Stay calm and await instructions from the designated official.</li> <li>• Keep away from overturned fixtures, windows, filing cabinets, and electrical power.</li> <li>• Provide assistance and/or call for medical help for injured employees as needed.</li> <li>• If major structural damage has occurred, order a complete evacuation. The building should be inspected by trained personnel for damage before reentry.</li> <li>• Protect from further danger by putting on long pants, a long-sleeved shirt, sturdy shoes, and work gloves.</li> <li>• Look for and extinguish small fires. Eliminate fire hazards.</li> </ul>	

AP 8D – Natural Event (Earthquake)		
	<ul style="list-style-type: none"> <li>• Monitor the radio for instructions.</li> <li>• Expect aftershocks.</li> <li>• Use the telephone only to report life-threatening emergencies.</li> </ul>	
<b>IV. Recovery And Return to Safety</b>	<p>General earthquake procedures after an earthquake are as follows:</p> <ol style="list-style-type: none"> <li>1. Activate Emergency Operations Center (EOC).</li> <li>2. Contact emergency assistance (local police, local fire department, rescue squad, etc) as necessary to respond to injuries of staff.</li> <li>3. The [IO] is to notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary.</li> <li>4. Inspect facilities for structural damage, including: buildings, storage tanks, pipelines, and process equipment. Consider the use of an outside engineering consultant.</li> <li>5. Prioritize and repair water main leaks.</li> <li>6. Contact neighboring purveyors for mutual aid arrangements, and open connections as needed.</li> <li>7. Respond to side effects (loss of power, fire chemical spills, etc.)</li> </ol>	
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8D Revision Dates</b>		

<b>AP 9 – Water Supply Interruption</b>		
<b>AP Summary:</b>	This action plan applies to water supply interruptions. These events will vary in scale from compromised incremental supply volumes to complete, catastrophic loss of water supply. The ability for a utility to successfully respond to a catastrophic water supply interruption will be highly correlated to the existence of interconnections and alternative sources of supply.	
<b>Initiation and Notification:</b>	Catastrophic water supply interruptions will generally be identified by other events, such as physical equipment damage, severe weather or others, which are likely to have a specific direct action plan. Incremental interruptions due to longer-term events such as drought or acute loss of one source, will lead to a prescribed series of contingency measures, as outlined below.	<p><i>It is recognized that many utilities will already have an action plan in place to address this event.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<b>Equipment</b>  <b>Location</b>	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p>There are a number of potential levels of severity involved in a water supply interruption. A series of stages of action corresponding to increasing impacts on water are:</p> <ul style="list-style-type: none"> <li>• Normal Conditions</li> <li>• Water Alert</li> <li>• Water Warning</li> <li>• Water Crisis</li> <li>• Water Emergency</li> </ul>	
<b>II. Isolate and Fix the Problem</b>	<p>Each stage has specific customized definitions, in terms of percent of Water Supply reduction, with appropriate actions or restrictions at each stage. Utilities will have a series of escalating penalties for successive violations of restrictions. These stages are:</p> <p><b>Normal Conditions</b> – Normal conditions apply. Water is</p>	

<b>AP 9 – Water Supply Interruption</b>		
	available; but in arid environments there are specific watering days for various addresses or penalties for excess watering.	
<b>II. Isolate and Fix the Problem</b>	<p><b>Water Alert</b> -- A 5% or greater reduction in water usage is to meet the immediate needs of customers. Voluntary conservation encouraged. The water shortage situation is explained to the public and voluntary water conservation is requested (see standard press releases). <a href="#">GOWC</a> maintains an ongoing public information campaign consisting of distribution of literature, speaking engagements, bill inserts, and conversation messages printed in local newspapers.</p> <p><b>Water Warning</b> -- A 15% or greater reduction in water usage is to meet the immediate needs of customers. Water supply shortage is moderate. The utility aggressively continues its public information and education programs. Consumers are asked for a 15 percent or greater voluntary or mandatory water use reduction. Additional landscape irrigation restrictions may be implemented. Businesses may be asked not to serve water in restaurants unless requested.</p> <p><b>Water Crisis</b> -- A 30% or greater reduction in water usage is to meet the immediate needs of customers. Water supply shortage is severe. Additional requirements may include: Dramatic landscape irrigation restrictions; Restrictions on use of potable water to fill or refill new swimming pools, artificial lakes, ponds, or streams until the water crisis is declared over; Prohibition of water use for ornamental ponds and fountains; Restrictions on washing of automobiles and equipment (such as requiring that it shall be done on the lawn or at a commercial establishment that uses recycled or reclaimed water); Restriction of flushing of sewers or fire hydrants to cases of emergency and essential operations, and; Introduction of a permanent water meter on existing non-metered services and/or flow restrictors on existing metered services at customer's expense upon receipt of the second water violation.</p>	
<b>II. Isolate and Fix the Problem</b>	<p><b>Water Emergency</b> -- A 50% or greater reduction in water usage is to meet the immediate needs of customers. Water shortage is critical. Additional requirements may include: Disallowing all landscape irrigation; Disallowing potable</p>	

## AP 9 – Water Supply Interruption

	<p>water use for construction purposes such as dust control, compaction, or trench jetting. In addition, large industrial users, for example canneries and other food manufacturers, may be required to reduce or cease all water use.</p> <p>In addition to these incremental stages, the Utility should prepare for a catastrophic interruption of water supplies. A catastrophic event that constitutes a proclamation of a water shortage would be any event, either natural or manmade, that causes a severe water supply interruption, synonymous with or with greater severity than the “Water Warning” water supply shortage condition outlined above.</p>	
<b>III. Monitoring</b>	<p>Communication of water supply interruption stages should be handled according to the identified public notification procedures.</p> <p>Press releases should also be handled according to the identified utility procedures.</p>	<p><i>See ERP Section XX.</i></p> <p><i>See ERP Section XX for Press Releases.</i></p>
<b>IV. Recovery and Return to Safety</b>	<p>Alternative water supply options have been identified in the utility emergency response plan (ERP). In the event of a catastrophic, immediate need, it is likely these will be utilized. This includes information on local interconnections with neighboring sources, area water haulers, temporary storage options, etc.</p> <p>If there have been lines with no water or negative pressures, a precautionary boil order should be issued by the utility until line tests on two consecutive days show the lines to be safe. Chlorine residuals should be increased temporarily.</p> <p>The water system may have to valve off portions of the distribution system until above ground storage tanks are refilled. Valved off areas have the potential for external contamination to enter the system through leaking joints or cracked pipe. Before placing a valved off area back in service, the system should issue a precautionary boil order, increase the chlorine residual throughout the system and obtain safe bacteriological samples from representative areas of the system on two consecutive days. The precautionary boil order may be lifted once the</p>	<p><i>See ERP Alternative Water Sources, Section XX.</i></p> <p><i>See boil order release Section XX, Press Releases.</i></p> <p><i>See boil order release Section XX, Press Releases.</i></p>

<b>AP 9 – Water Supply Interruption</b>		
	<p>required safe samples are obtained.</p> <p>The system should be repressurized slowly to avoid water hammer and the potential for damage to the lines.</p> <p>Air should be bled from lines as they refill since entrapped air can impede flows and may cause line damage.</p>	
<b>V. Report of Findings</b>	In addition to completing the appropriate filings with local authorities and agencies, it is recommended that the Utility assemble the relevant personnel to review the effectiveness of the action plan and reinforce lessons learned in the process.	
<b>VI. AP-9 Revision Dates</b>		

<b>AP 10A - Bomb Threat (Telephone / In Person)</b>		
<b>AP Summary:</b>	This Action Plan applies to the receipt of a bomb threat via telephone or in person. It is important to develop this plan in counsel with the local police and the local fire department services.	
<b>Initiation and Notification:</b>	<p>Initiate this AP as soon as the bomb threat is received</p> <p>As soon as possible, notify:</p> <ul style="list-style-type: none"> <li>• 911</li> <li>• [WUERM]</li> </ul> <p>The WUERM should then notify others as appropriate. Examples include:</p> <ul style="list-style-type: none"> <li>• Local Fire Department</li> <li>• Local Police Department</li> <li>• FBI</li> <li>• ATF</li> </ul>	<i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i>
<b>Equipment Identified:</b>	<b>Equipment Location</b>	
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	As a rule, all bomb threats should be considered credible until proven otherwise.	<i>Due to the diversity of facilities, each utility is encouraged to undertake an audit of their own facilities and consult with local emergency services such as fire and police while creating their evacuation plan. If it is not possible during the creation, then certainly consult before instituting the plan.</i>
<b>II. Isolate and Fix the Problem</b>	<b>Threat received via Telephone</b> <ol style="list-style-type: none"> <li>1. Remain Calm</li> </ol>	<i>It is always desirable that more than one person listens in on the call. To do this, have a pre-established signaling system in</i>

## AP 10A – Bomb Threat (Telephone / In Person)

	<ol style="list-style-type: none"> <li>2. If possible record the message</li> <li>3. Fill out <b>Bomb Threat Checklist</b> while performing the following:               <ol style="list-style-type: none"> <li>a. Listen</li> <li>b. Be Calm and Courteous</li> <li>c. Keep the caller on the line as long as possible</li> <li>d. Ask him/her to repeat the message</li> <li>e. Record every word spoken by the person</li> <li>f. Do not speak to anyone unless directed to do so</li> <li>g. <b>WHEN</b> caller hangs up, <b>THEN</b> implement <b>GOWC</b> policy to either hang up or not hang up the phone.</li> </ol> </li> <li>4. Notify the <b>[WUERM]</b> if not already done</li> <li>5. Call the local police (911 or the emergency number for your area) and report the threat immediately.</li> <li>6. Implement the <b>GOWC</b> policy on searching for the bomb.</li> <li>7. Implement the <b>GOWC</b> policy evacuation.</li> <li>8. <b>IF</b> evacuating building, <b>THEN</b> Take the <b>Bomb Threat Checklist</b> with you.</li> </ol>	<p><i>place to engage another listener if possible.</i></p> <p><i>Not hanging up the phone may be useful to law enforcement authorities in tracing the call. Hanging up and dialing *57 (where available) may allow a trace of the call. Consult with <b>GOWC</b> management and local law enforcement.</i></p> <p><i>Develop a plan for conducting a bomb search. Establish time considerations in the plan commensurate with utility size and resources. For example, if time until detonation is less than ½ hour, immediate evacuation may be advisable. If greater than ½ hour a search should be conducted. Consult with the local police, local fire department, or other local authority to determine who will conduct the search. In most cases, because of their familiarity with the facility, the search is best conducted by utility personnel, however this requires that they be trained properly in search techniques. The police or fire department may be available to assist in the training or be able to provide advice as to who can provide the training.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ul style="list-style-type: none"> <li>• Make a quick visual sweep of your area for any unusual items and proceed to a designated gathering area sufficiently located away from the building.</li> <li>• <b>Direct any media questions to the <b>[Information Officer]</b>, <b>[IO]</b>.</b></li> <li>• <b>If a bomb is found note:</b></li> <li>• Exact location of the object</li> <li>• Size of object</li> </ul>	<p><i>Let the trained bomb technician determine what is or is not a bomb.</i></p> <p><i>Note that a bomber wishing to cause personal injuries could place a bomb near an exit normally used to evacuate and then call in the threat.</i></p>



AP 10A – Bomb Threat (Telephone / In Person)		
	<ul style="list-style-type: none"> <li>Type of container or wrappings and marking on package</li> <li>Any sound coming from object</li> </ul> <p><b>Threat received in person:</b></p> <ol style="list-style-type: none"> <li>Cooperate with the individual or group.</li> <li>Try to get the attention of a co-worker.</li> <li>Co-worker call 911.</li> <li>Co-worker call [WUERM]</li> <li>Create a description of the adversary using a <b>Suspect Description Form</b>. See ERP Appendix Section XX.</li> <li>Direct any media questions to the [Information Officer], [IO].</li> </ol>	
<b>III. Monitoring</b>	<p>During a search of the building, rapid two-way communication is essential.</p> <ol style="list-style-type: none"> <li>Use existing installed telephones.</li> <li>Alert medical personnel to stand by in the event of an accident caused by the explosion of the devise.</li> <li>Alert fire department to stand by.</li> </ol> <p><b>In event of an explosion:</b></p> <ol style="list-style-type: none"> <li>Get out of the building as quickly as calmly as possible.</li> <li><b>IF</b> items are falling from bookshelves or the ceiling, <b>THEN</b> get under a sturdy table or desk until the situation has stabilized enough for your safe passage.</li> <li>Ensure your own safety before trying to help others.</li> </ol>	<p><b>DO NOT USE RADIOS OR OTHER WIRELESS DEVICES DURING A SEARCH.</b> The radio transmission energy can cause premature detonation of an electric initiator (blasting cap).</p>
<b>IV. Recovery and Return to Safety</b>	<p><b>IF</b> evacuated, <b>THEN</b> do not return to the building until it is determined safe by appropriate authorities.</p>	
<b>V. Report of Findings</b>	<p>Debrief after every bomb threat response to improve procedures.</p>	<p>The Utility [Security Director] should file an internal report for the Utility's files and also provide information as requested to Local</p>

AP 10A – Bomb Threat (Telephone / In Person)		
		<i>Law Enforcement and other outside agencies</i>
<b>VI. AP 10A Revision Dates</b>		

<b>AP 10B - Bomb Threat</b> <b>(Suspicious Package / Letter)</b>		
<b>AP Summary:</b>	This Action Plan applies to the receipt of a suspicious package / letter or a bomb found at the utility. It is important to develop this plan in counsel with your local police and local fire department.	
<b>Initiation and Notification:</b>	<p>Initiate this AP as soon as a suspicious package or letter has been discovered</p> <p>As soon as possible, notify:</p> <ul style="list-style-type: none"> <li>• 911</li> <li>• <a href="#">[WUERM]</a></li> </ul> <p>The WUERM should then notify others as appropriate. Examples include:</p> <ul style="list-style-type: none"> <li>• Local Fire Department</li> <li>• Local Police Department</li> <li>• FBI</li> <li>• ATF</li> </ul>	<p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>		
<b>Specific Activities</b>		
<b>I. Assess the Problem</b>	<p>Determining if a package is suspicious involves a careful evaluation. Some points to consider are:</p> <ul style="list-style-type: none"> <li>• Incorrect address and or titles</li> <li>• Titles but no names</li> <li>• Visual distractions</li> <li>• Possess a foreign postmark, airmail, or special delivery markings (Personal, Confidential, Special Delivery, Open By Addressee Only)</li> <li>• Return address irregularities, including no address, one not matching the postmark, or not familiar</li> <li>• Badly typed or poorly written addresses</li> <li>• A package not expected by the addressee</li> <li>• Deficient or excessive postage, unusual stamps</li> <li>• Packages within packages</li> </ul>	<p><i>Most bombs are homemade and can look like nearly anything. Suspect anything that looks unusual.</i></p> <p><i>Although the presence of one of these conditions does not mean, for certain, that there is a bomb in the package, check further if any of these indicators are present. Find out if the recipient is expecting the package, recognizes the return address, and if the package is the right size for the item expected. Verify the return address. If any of these comes up a "no," investigate further and alert <a href="#">[WUERM]</a>, and police.</i></p>

<b>AP 10B – Bomb Threat</b> <b>(Suspicious Package / Letter)</b>		
<b>I. Assess the Problem</b>	<ul style="list-style-type: none"> <li>• Be from a company/person you do not recognize</li> <li>• Be hand delivered by a person other than normal delivery persons, especially by a person using a non-delivery type vehicle</li> <li>• Foul Odor</li> <li>• Left behind by someone you have not seen before</li> <li>• Left behind by someone known to carry a grudge against you, your facility, someone at your facility</li> <li>• Oily, stained, or crystalization on the outside</li> <li>• Rigid or bulky</li> <li>• Odd shaped, unevenly-weighted, lopsided, or lumpy</li> <li>• Possess protruding wires or tinfoil</li> <li>• Over-wrapped with excessive securing material such as tape or string</li> <li>• Feel (See notes section to the right)</li> </ul>	<p><b>DO NOT OPEN SUSPICIOUS PACKAGES and / or LETTERS.</b></p> <p><i>Packages within packages may be an attempt to mask or hide the actual explosive device</i></p> <p><i>If the bomb contains nitrogen based fertilizers there will be an odor that people can smell. The next time you fertilize your lawn or garden, smell the fertilizer. This is similar to the odor of nitrogen based bomb components.</i></p> <p><i>Chemicals used may “sweat” that in turn stain the package wrapper.</i></p> <p><i>Letters have a normal ‘feel’. Those that contain devices may not ‘feel’ right as the presence of plastic or metallic components may alter the normal ‘feel’ of a letter.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>1. Remain Calm.</li> <li>2. Do not touch or move package.</li> <li>3. Notify the [WUERM] if not already done.</li> <li>4. While waiting for instructions, clear the area around the object and try to determine ownership. (Did anyone see who left this here?)</li> </ol>	<p><i>Let the trained bomb technician determine what is or is not a bomb.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>5. Notify police.</li> <li>6. Implement the GOWC policy on evacuation.</li> <li>7. Direct any media questions to the [Information Officer], [IO].</li> </ol> <p><b>If a bomb is found note:</b></p> <ul style="list-style-type: none"> <li>• Exact location of the object</li> <li>• Size of object</li> <li>• Type of container or wrappings and marking on package</li> </ul>	<p><b>DO NOT USE RADIOS OR OTHER WIRELESS DEVICES NEAR A SUSPECTED BOMB.</b></p> <p><i>The radio transmission energy can cause premature detonation of an electric initiator (blasting cap)</i></p>

<b>AP 10B – Bomb Threat</b> <b>(Suspicious Package / Letter)</b>		
	<ul style="list-style-type: none"> <li>Any sound coming from object</li> </ul>	
<b>III. Monitoring</b>	<b>In event of an explosion</b> <ul style="list-style-type: none"> <li>Get out of the building as quickly as calmly as possible.</li> <li><b>IF</b> items are falling from bookshelves or the ceiling, <b>THEN</b> get under a sturdy table or desk until the situation has stabilized enough for your safe passage.</li> <li>Ensure your own safety before trying to help others.</li> </ul>	
<b>IV. Recovery and Return to Safety</b>	<b>IF</b> evacuated, <b>THEN</b> do not return to the building until it is determined safe by appropriate authorities.	
<b>V. Report of Findings</b>	Debrief after every bomb threat response to improve procedures.	<i>The Utility <a href="#">[Security Director]</a> should file an internal report for the Utility's files and also provide information as requested to Local Law Enforcement and other outside agencies</i>
<b>VI. AP 10B Revision Dates</b>		

<b>AP 10C - Bomb Threat (Written Threat Received)</b>		
<b>AP Summary:</b>	This Action Plan applies to the receipt of a written bomb threat. It is important to develop this plan in counsel with your local police and local fire department.	
<b>Initiation and Notification:</b>	<p>Initiate this AP as soon as a written threat has been discovered</p> <p>As soon as possible, notify:</p> <ul style="list-style-type: none"> <li>• 911</li> <li>• [WUERM]</li> </ul> <p>The WUERM should then notify others as appropriate. Examples include:</p> <ul style="list-style-type: none"> <li>• Local Fire Department</li> <li>• Local Police Department</li> <li>• FBI</li> <li>• ATF</li> </ul>	<p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p>Equipment</p> <p>Location</p>	
<b>Specific Activities</b>		
<b>I. Assess the Problem</b>	As a rule, all bomb threats should be considered credible until proven otherwise.	
<b>II. Isolate and Fix the Problem</b>	<p><b>Written Threats:</b></p> <ol style="list-style-type: none"> <li>1. Remain Calm.</li> <li>2. Save all materials, including any envelope or container.</li> <li>3. Once recognized as a bomb threat, avoid further handling.</li> <li>4. Leave the message where found.</li> <li>5. Do not alarm others; however</li> </ol>	<p><i>Every effort must be made to retain evidence such as fingerprints, handwriting, or typewriting, paper, and postal marks. These will prove essential in tracing the threat and identifying the writer.</i></p> <p><i>Let a trained bomb technician determine what is or is not a bomb. Develop a plan for conducting a bomb search. Establish time considerations in the plan commensurate with utility size and resources. For example, if time until detonation is less than ½ hour, immediate evacuation may be advisable. If greater than ½ hour a search should be</i></p>

<b>AP 10C – Bomb Threat (Written Threat Received)</b>		
	<p>contact [WUERM] immediately.</p> <ol style="list-style-type: none"> <li>Contact the local police.</li> <li>Implement the GOWC policy on searching for the bomb.</li> <li>Implement the GOWC policy on evacuation.</li> <li>Make a quick visual sweep of your area for any unusual items and proceed to a designated gathering area sufficiently located away from the building.</li> <li>Direct any media questions to the [Information Officer], [IO].</li> </ol>	<p>conducted. Consult with the police, fire department, or other local authority to determine who will conduct the search. In most cases, because of their familiarity with the facility, the search is best conducted by utility personnel, however this requires that they be trained properly in search techniques. The police or fire department may be available to assist in the training or be able to advise as to who can provide the training.</p>
	<p><b>If a bomb is found note:</b></p> <ul style="list-style-type: none"> <li>Exact location of the object</li> <li>Size of object</li> <li>Type of container or wrappings and marking on package</li> <li>Any sound coming from object</li> </ul>	<p>Note that a bomber wishing to cause personal injuries could place a bomb near an exit normally used to evacuate and then call in the threat.</p> <p>Due to the diversity of facilities, each utility is encouraged to undertake an audit of their own facilities and consult with local emergency services such as fire and police while creating their evacuation plan. If it is not possible during the creation, then certainly consult before instituting the plan.</p>
<b>III. Monitoring</b>	<p>During a search of the building, rapid two-way communication is essential.</p> <ul style="list-style-type: none"> <li>Use existing installed telephones.</li> <li>Alert medical personnel to stand by in the event of an accident caused by the explosion of the device.</li> <li>Alert fire department to stand by.</li> </ul> <p><b>In event of an explosion</b></p> <ol style="list-style-type: none"> <li>Get out of the building as quickly as calmly as possible.</li> <li><b>IF</b> items are falling from bookshelves or the ceiling, <b>THEN</b> get under a sturdy table or desk</li> </ol>	<p><b>DO NOT USE RADIOS OR OTHER WIRELESS DEVICES DURING A SEARCH.</b> The radio transmission energy can cause premature detonation of an electric initiator (blasting cap)</p>

<b>AP 10C – Bomb Threat (Written Threat Received)</b>		
	until the situation has stabilized enough for your safe passage.  3. Ensure your own safety before trying to help others.	
<b>IV. Recovery and Return to Safety</b>	<b>IF</b> evacuated, <b>THEN</b> do not return to the building until it is determined safe by appropriate authorities.	
<b>V. Report of Findings</b>	Debrief after every bomb threat response to improve procedures.	<i>The Utility <a href="#">[Security Director]</a> should file an internal report for the Utility's files and also provide information as requested to Local Law Enforcement and other outside agencies</i>
<b>VI. AP 10C Revision Dates</b>		



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**Appendix B**  
**System and Facility Information**

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### SYSTEM SHUT DOWN AND ISOLATION PLAN

SYSTEM COMPONENT	METHOD OF SHUTDOWN OR ISOLATION		LOCATION & PERSON TO PERFORM SHUTDOWN OR ISOLATION		SPECIAL REQUIREMENTS
	Automated	Manual	SCADA Controlled	Manual Operation	
All Wells	SCADA	Manual Valve in Intake Vault	Water Distribution System Operator	Water Distribution System Operator	Locked Access - Key required for valve vault entry hatch.
All Storage Tanks and pumps	SCADA	Manual valve in Storage Tank Valve Vault	Water Distribution System Operator	Distribution System Operator	Locked Access - Key required for valve vault entry hatch.

## Instructions for System Shut Down and Isolation Plan Table

The purpose of the System Shut Down and Isolation Plan is to provide clear and easy-to-understand guidance regarding how and where to isolate and/or shut down portions the water system to prevent the movement of contamination.

1. **System Components** – Enter all physical assets that could potentially be the introduction point for a contaminant. The System Components list can be imported from the VSAT physical asset list.
2. **Method of Shut Down or Isolation** – Describe automated and manual methods by which shutdown or isolation of the asset can occur. In cases where automated controls are available, be sure to list manual control points (valves, power cut-offs, etc.) that can be used if the SCADA system is not functioning.
3. **Location & Person to Perform Shut Down or Isolation** – Describe the individual (position, title, workplace) who will actually perform the SCADA controlled or manual shut down or isolation procedures. This table will serve as a reference for the WUERM during emergency situations and/or contamination incidents, so it is important to be as specific as possible regarding who will actually be executing the shut down or isolation order, and where the person can be found.
4. **Special Requirements** – Describe any special requirements that need to be considered in order to perform the shut down or isolation of the asset. Examples of special requirements include; confined space certification, PPE, entry codes, keys, specialized tools and safety equipment (wrenches, ladders, harnesses, flashlights, etc.), and locations of power cut-offs.

## CA Dept. of Health Services Recommended Emergency Sampling Kit

Quantity Per Kit	Total Quantity Needed (50 Kits)	Size	Description	Supplier	Page No.	MFG Number	Catalog No.	Quantity to Order	Unit Price	Extended Price
3	150	1 L	Wheaton Glass 24/case	VWR	190	219820	16159-903	7	\$166.46	<b>\$1,165.22</b>
4	200	1 L	Amber Glass 12/case	VWR	176		15900-142	17	\$26.20	<b>\$445.40</b>
3	150	2 1/2 L	Amber Glass 6/case	VWR	179		15900-192	25	\$26.10	<b>\$652.50</b>
5	250	40 ml	Amber Glass Vials 72/case	VWR	175		15900-024	4	\$70.15	<b>\$280.60</b>
2	100	125 ml	125 ml (4 oz) Nalgen Polypropylene Wide Mouth Bottle 12/case	Fischer Scientific	191	2105-0004	02893A	9	\$19.74	<b>\$177.66</b>
3	150	1/2 Gal	Plastic 64 oz Type F Natural	Mayfair Plastics				150	\$0.458	<b>\$68.70</b>
2	100	125 ml	Amber Glass w/septa 12/case	VWR	176		15900-146	9	\$17.75	<b>\$159.75</b>
2	100	250 ml	Disposable Plastic Bac-t Bottle w/thiosulfate (Forest Biomedical)	Eagle Pitcher				100	\$1.50	<b>\$150.00</b>
2	100	10 L	Collapsible Carboy LDPE Cubitainers 12/case	VWR	189		EP 160-2-5	9	\$58.74	<b>\$528.66</b>
4	200	pair	Vinyl gloves (disposable) Large 1000/case	VWR	746		PH2D7852	1	\$177.41	<b>\$177.41</b>
2	100	each	Moldex Type N95 particulate respirator 20/pk	Fischer Scientific	1544	1501	19-003-245A	5	\$21.07	<b>\$105.35</b>
2	100	each	Disposable Lab Jacket Kimberly Clark "Kleen Guard" Size XL 15/case	Fischer Scientific	35	36544	17-981-41H	7	\$80.00	<b>\$560.00</b>
2	100	each	Bouton Softsides Goggle	Central Stores			45-132-12500	100	\$1.89	<b>\$189.00</b>
12	600	feet	50' Coil 3/8-in I.D. 1/2 -in O.D. Tygon Laboratory tubing R-3606	VWR	1807	AJC00027	63010-122	4	\$73.05	<b>\$292.20</b>
2	100	each	Connector Clamps with thumbscrew 10/pack	Fischer Scientific	410		14-198A	10	\$14.18	<b>\$141.80</b>

<b>CA Dept. of Health Services Recommended Emergency Sampling Kit</b>										
<b>Quantity Per Kit</b>	<b>Total Quantity Needed (50 Kits)</b>	<b>Size</b>	<b>Description</b>	<b>Supplier</b>	<b>Page No.</b>	<b>MFG Number</b>	<b>Catalog No.</b>	<b>Quantity to Order</b>	<b>Unit Price</b>	<b>Extended Price</b>
10	500	9 x 18	Zip-lock LDPE Sample Bags Nalgene 250/case	VWR	55	6255-0918	56766-130	2	\$139.45	<b>\$278.90</b>
1	50	roll	Lab grade marker tape 1" (12/case)	VWR	926		36425-067	4	\$50.04	<b>\$200.16</b>
1	50	each	Biohazard Bags 12 x 24 (200/case)	VWR	52		11215-898	1	\$119.16	<b>\$119.16</b>
4	200	each	Antiseptic wipes (pads) 200/case	VWR	1945		21899-553	1	\$123.80	<b>\$123.80</b>
10	500	grams	Sodium Thiosulfate granules Mallinckrodt 500 grams	VWR	2320		MK809612	1	\$37.95	<b>\$37.95</b>
40	2000	each	Adhesive labels 500/roll	Stock				4	\$5.00	<b>\$20.00</b>
2	100	30.8 Qt	Collapsible Cooler (Igloo Softmate 48)	Igloo			Softmate 48	100	\$32.36	<b>\$3,236.00</b>
1	50	30 Gal	Plastic Storage Bin (Sterilite Ultra)	Sterilite Corp.		17454204	Ultra 30 Gal	54	\$11.49	<b>\$620.46</b>
									<b>Total</b>	<b>\$9,831.03</b>
								<b>Price per Kit</b>		<b>\$196.62</b>

CONFIDENTIAL

**Appendix C**  
**Emergency Phone Lists**

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TABLE C-1

911 Area	Direct Phone Number
San Jose Police Department	(408) 277-8911
San Jose Fire Department	(408) 227-8956
County of Santa Clara County Sheriff	(408) 299-3233

The individual(s) who discover the threat or emergency situation will immediately notify GOWC's 24-hour Call Center. The **Dispatcher at the Call Center** will then notify the [Water Utility Emergency Response Manager](#) or [WUERM](#). The remainder of the GOWC staff will be notified according to the table below.

TABLE C-2

Name and Title	Responsibilities during an Emergency	Contact Numbers
NONE	Indicate who is to notify this person in the event of an emergency	Enter the name of the person who currently holds this position
NONE		
Water Distribution Manager	Jared Ajlouny	(408) 390-3443
Safety Officer	Michael Carey	(408) 591-5230
Data (IT) Manager	Jim Mashburn	(208) 283-7118
Chief Water Utility Engineer		
Director of Water Utility		
Security Director		
Maintenance Supervisor		
Laboratory Director NONE		
Water Source Manager		
Utilities Dispatch		
Facility Manager		
Enter Other Key Personnel as necessary		

TABLE C-3

Local Agencies	Name	Contact Numbers
Local Police	San Jose Police Department	(408) 277-8911
Fire Department	San Jose Fire Department	(408) 227-8956
HAZMAT Team	San Jose Hazmat	(408) 535-7750.
Hospital / Critical Care Facility	Kaiser Permanente	(408) 972-7777
Power Company	Pacific Gas and Electric Company	1 (800) 743-5000
Elected Official	Sam Liccardo	<a href="tel:4085354800">(408) 535-4800</a>

TABLE C-4

County Agencies	Name	Contact Numbers
County Public Health Officer	Martha Wien	(408) 918-3409 or (408) 687-6440
County Director of Environmental Health Department	Office of Environmental Health	(408) 918-3400
County OES	Santa Clara County Emergency	<a href="tel:4088087800">(408) 808-7800</a>
County HAZMAT Team	Santa Clara County Hazmat	(408) 378-4010



TABLE C-5

State Agencies	Name	Contact Numbers
CDHS District Engineer	Eric Lacey  If can't get a hold of "DE", call the CA Warning Center's 24/7 phone number and ask for the SWRCB Duty Officer. A SWRCB manger will be contacted and call the water system	Day- (510) 620-3453  Evening- (925) 299-6936
Department of Water Resources	State of California Water Resources	<a href="tel:(916)341-5455">(916) 341-5455</a>
Department of Fish and Game	California Department Fish and Game	<a href="tel:(909)484-0167">(909) 484-0167</a>
Department of Toxic Substances Control	California Department of Toxic Sustances Control	(800) 728-6942
Regional Water Quality Control Board	California Regional Water Quality Control Board	<a href="tel:(213)576-6600">(213) 576-6600</a>
CA OES (State OES)	Warning Center  (Ask for SWRCB Duty Officer-Drinking Water Program)	(800) 852-7550 24/7 (916) 845-8911 24/7
California Public Utilities Commission (if privately owned system)	California Puuublic Utilities Commission	<a href="tel:(213)576-7000">(213) 576-7000</a>

TABLE C-6

Federal Agencies	Name	Contact Numbers
FBI	San Jose FBI	(415) 369-8900
EPA	Office of Water	(202) 564-5700
Department of Homeland Security (DHS)	Homeland Security US Department	<a href="tel:(415)522-3466">(415) 522-3466</a>
Health and Human Services (HHS)	US Human and Health Services Department	<a href="tel:(415)437-8090">(415) 437-8090</a>
Center for Disease Control (CDC)	US Center for Disease Control	(800) 232-4636
ATF	Bureau of Alcohol, Tobacco, Firearms, Explosives	(202) 648-7120

TABLE C-7

Vendors / Contractors	Name	Contact Numbers
Internet Service Provider	Comcast	<a href="tel:8009452288">(800) 945-2288</a>
Computer Equipment Vendor	Frys Electronics ?????	<a href="tel:4083501484">(408) 350-1484</a>
Fuel Supplier (backup generator)	Fuel Delivery Services	(408) 923-3475
Computer Emergency Response Team	Jim Mashburn, Angel Rodriguez	(208) 283-7118, (650) 435-9334

TABLE C-8

Customer Name	Critical Care Customers	Large Water Users	Primary Contact Information	Secondary Contact Information
Satellite Dialysis Center 393 Blossom Hill Rd (408) 831-3956	Yes	No	Jon-Jon Diokno Jr (408) 431-3125	<a href="tel:4084559497">Willie Gallo:</a> (408) 455-9497
Fresenius Medical 6850-A Santa Teresa Blvd	Yes	No	William Montano: (408) 229-0334	<a href="tel:8008815101">(800) 881-5101</a>
Satellite Dialysis Center 7019 Realm Dr (408) 610-7455	Yes	No	Lyle Sosa: (408) 310-9333	Willie Gallo (408) 455-9497

TABLE C-9

Firefighting Water Source	Contact Information	Quantity Available
San Jose Water Co	Phone: (408) 279-7900 Pager: (408) 279-7900	3,000 GPM
Add additional sources as available		

TABLE C-10

Supplier	Contact Information
Enter name of Bulk Water Supplier here ?	Contact Person: Office phone: Mobile phone: Pager:

TABLE C-11

Media Type	Contact Information
San Jose Mercury News	Office phone: (408) 920-0500 News Room phone: (408) 920-5446 After Hours Email: <a href="mailto:crime@mercurynews.com">crime@mercurynews.com</a>
NBC Bay Area	408-432-6221
KGO 810	415-995-6800

TABLE C-12

County Agency	Name	Contact Numbers
County Health Department	Primary: Only number. No after hours	(408) 918- 3400
County Health Department	1 <sup>st</sup> Alternate:	
County Health Department	2 <sup>nd</sup> Alternate:	
County Health Officer	Primary:	
County Health Officer	1 <sup>st</sup> Alternate:	
County Health Officer	2 <sup>nd</sup> Alternate:	

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**Appendix D**  
**Public Notices and Press Releases**

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## PUBLIC NOTICE

### CONSUMER ALERT DURING WATER OUTAGES OR PERIODS OF LOW PRESSURE

1. If you are experiencing water outages or low water pressure, immediately discontinue any non-essential water usage. This includes all outdoor irrigation and car washing. Minimizing usage will reduce the potential for the water system to lose pressure or completely run out of water. Please notify your water system of the outage or low pressure.
2. If the water looks cloudy or dirty, you should not drink it. Upon return of normal water service, you should flush the hot and cold water lines until the water appears clear and the water quality returns to normal.
3. If you are concerned about the water quality or are uncertain of its safety, you may add eight drops of household bleach to one gallon of water and let it sit for 30 minutes or alternatively, if you are able, water can be boiled for one minute at a rolling boil to ensure its safety.
4. Use of home treatment devices does not guarantee the water supply is safe after low pressure situations.
5. Do not be alarmed if you experience higher than normal chlorine concentrations in your water supply since the California Department of Health Services is advising public water utilities to increase chlorine residuals in areas subject to low pressure or outages.
6. The California Department of Health Services has also advised public water systems to increase the bacteriological water quality monitoring of the distribution system in areas subject to low pressure. They may be collecting samples in your area to confirm that the water remains safe. You will be advised if the sampling reveals a water quality problem.
7. Your water system is committed to make certain that an adequate quantity of clean, wholesome, and potable water is delivered to you. We recommend that you discuss the information in this notice with members of your family to ensure that all family members are prepared should water outages or low water pressure occur.

**Falta de seguir este aviso podría resultar en una enfermedad intestinal**

***Each letter in "California" has 6 strokes just like the letter in "California" itself***

Nó se bebe en el agua. **Isr** Este es el método preferido para la división de la comida entre hermanos.

[illegible]

- También se puede utilizar tabletas de purificación del agua siguiendo las instrucciones del fabricante.
- **Alternativo:** Hay agua potable disponible en los siguientes sitios: **[List locations]**. Traiga un recipiente limpio para el agua (con una capacidad máxima de 5 galones).

Before the year 2000, Andipalnosque has solved domestic problems and date of expected resolution in Spanish

Condado de [county name]: [XXXXXX County at (XXX) XXX-XXXX].

**El sistema estudiantil está integrado al sistema de residencia presentando la demanda de la salud en los patrones de**

Date:

# UNSAFE WATER ALERT

[Insert one-liner language other than Spanish here, otherwise delete.]

**Great Oaks Water Company water is possibly contaminated  
with [an unknown substance]**

## DO NOT DRINK YOUR WATER

Failure to follow this advisory could result in illness.

~~WATER FOR BATHING, SHOWERING, COOKING, DRINKING, AND OTHER HOUSEHOLD USES. DO NOT USE public supply water, including bottled water, and~~

### What should I do?

- ~~DO NOT DRINK YOUR TAP WATER AND USE ONLY BOTTLED WATER.~~ Bottled water should be used for drinking and cooking.
- ~~DO NOT TRY AND TREAT THE WATER YOURSELF.~~ Do not drink or use water that has been treated by boiling, freezing, filtering, adding chlorine or other home remedies.

### OPTIONS

- ~~Option 1:~~ Potable water is available at the following locations: [List locations]. Please bring a clean water container (5 gallons maximum capacity).

~~We will inform you as soon as we know the water is safe again. We expect to resolve the problem within [insert time frame].~~

For more information call:

Water Utility contact: [Name, title, phone & address of responsible utility representative].

California Department of Health Services at: [insert local district office, DE and phone number].

Local County Health Department: [insert phone number of local health department].

~~This notice is being distributed to [date]~~ [insert water system name]. California Public Water System ID # [insert ID number]

~~This notice is being distributed to [date]~~ [insert water system name]. California Public Water System ID # [insert ID number]

## UNSAFE WATER ALERT

[Insert one-liner language other than Spanish here, otherwise delete.]

**[System Name] water is possibly contaminated  
with [an unknown substance]**

### DO NOT USE YOUR WATER

Failure to follow this advisory could result in illness.

~~DO NOT USE WATER FOR DRINKING, COOKING, BATHING, OR BOTTLING. INTEND FOR FURTHER USE~~

#### What should I do?

- ~~DO NOT USE YOUR TAP WATER. USE ONLY BOTTLED WATER.~~ Bottled water, making
- ~~DO NOT TRY AND TREAT THE WATER YOURSELF.~~ Boiling, water freezing, filtering, adding chlorine

#### OPTIONS

- ~~Optional:~~ Potable water is available at the following locations: [List locations].  
Please bring a clean water container (5 gallons maximum capacity).

~~We will be informing you as soon as we know that the water is safe again. We expect to resolve~~

For more information call:

Water Utility contact: [Name, title, phone & address of responsible utility representative].

California Department of Health Services at: [insert local district office, DE and phone number].

Local County Health Department: [insert phone number of local health department].

~~XXXXXX~~ is being distributed by [date] [insert water system name]. California Public Water System ID #

~~Please share this information with the public by handing out this notice to as many people as possible by distributing copies by hand.~~



# BOIL WATER ORDER

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

## BOIL YOUR WATER BEFORE USING

**Failure to follow this advisory could result in stomach or intestinal illness.**

**Safety Precautions:** The significant danger of infection from the water service system should be kept in mind as of

organisms in the water. [on This is the preferred method to assure that all water is safe to drink.] Boiling kills bacteria and other pathogens.

Optional alternative to include for prolonged situations where it fits.

- An alternative method of purification for residents that do not have gas or electricity available is to use fresh liquid household bleach (Clorox®, Purex®, etc.). To do so, add 16 drops (1/2 oz) of bleach to 1 gallon of water and stir thoroughly. Allow the water to stand for 30 minutes before drinking.
- Water purification tablets may also be used by following the manufacturer's instructions.
- **Optional:** Potable water is available at the following locations: [link locations]

We anticipate resolving the protests within [\[estimated time frame\]](#). We

For more information call:

Water Utility contact: [Name, title, phone & address of responsible utility representative].

California Department of Health Services – Drinking Water Field Operations Branch- District Office at

Local Environmental Health Jurisdiction: [XXXXX County at (XXX) XXX-XXXX].

**Abolish slavery, discrimination, and all other things that oppress and disrespect people, and**

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**Appendix E**  
**California Statewide Emergency Notification**  
**Plan**

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State of California—Health and Human Services Agency  
DEPARTMENT OF HEALTH SERVICES



ARNOLD SCHWARZENEGGER  
Governor

**WATER QUALITY EMERGENCY NOTIFICATION PLAN**

Name of Utility: \_\_\_\_\_

Physical Location/Address: \_\_\_\_\_

The following persons have been designated to implement the plan upon notification by the State Department of Health Services that an imminent danger to the health of the water users exists:

Water Utility:		Telephone		
Contact Name & Title	Email Address	Day	Evening	Cell
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____

The implementation of the plan will be carried out with the following State and County Health Department personnel:

State & County Health Departments:		Telephone	
Contact Name & Title		Day	Evening
1. <b>Eric Lacy</b> , District Engineer California Department of Health Services		(510) 620-3453	(925) 299-6936
2. <b>Jose P. Lozano IV</b> California Department of Health Services		(510) 620-3459	(510) 215-1774
3. <b>County Environmental Health Department</b> <b>Local Primacy Agency</b>	Marth Wien	(408) 918-3409	(408) 687-6440

4. If the above personnel cannot be reached, contact:

**Office of Emergency Services Warning Center (24 hrs) (800) 852-7550 or (916) 845-8911**  
When reporting a water quality emergency to the Warning Center, please ask for the California Department of Health Services – Drinking Water Program Duty Officer.

**NOTIFICATION PLAN**

**Attach a written description of the method or combination of methods to be used** (radio, television, door-to-door, sound truck, etc.) **to notify customers in an emergency.** For each section of your plan give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations (such as schools), non-English speaking groups, and outlying water users. Ensure that the notification procedures you describe are practical and that you will be able to actually implement them in the vent of an emergency. Examples of notification plans are attached for large, medium and small communities.

Report prepared by: \_\_\_\_\_

Signature and Title

Date

### **PLAN I (Medium Community)**

During regular working hours our people will contact the news media at television station KXYZ to broadcast the necessary warning. The local radio stations will also be contacted. The television and radio personnel are available at all hours. As a follow-up measure, we will also contact the Daily Bee, a local newspaper that serves both Ourtown and Hometown.

The warnings will be issued in both English and Spanish to cover all members of the community. Outlying areas of the water service area (such as Isolated Canyon and Lonesome Mountain subdivisions) will also be notified by sound truck and/or handbill distributed to their respective areas. Both of these areas are very small and this can be done quite quickly.

A special telephone answering service can also be quickly set up at the utility headquarters (using the regular company numbers) to answer questions that will come in from consumers. Questions are anticipated, especially from the Hometown area, because that area is served by three different water companies. A map will be available to the telephone answering personnel to determine the water company serving the caller.

It is anticipated that the time for notification to the television and radio audiences will be very short. The areas served by handbill and sound truck will also be notified within an hour. For notification to be issued in other than normal hours, the same media will be contacted and an announcement will be scheduled for as long as is necessary. A sound truck(s) will be used in the early morning hours to quickly alert the people not listening to their radio or television.

### **PLAN II (Small Community)**

Our community is very small and the most efficient means of notification will be both sound truck and handbill. It is estimated that the entire service area can be covered in less than three hours.

### **PLAN III (Large Community)**

The same plan as implemented in Plan I should be used here with the exceptions noted. All the news media will be contacted in the entire metropolitan area. This includes all television and radio stations and all local and general area newspapers. Maps have been prepared to be distributed to the media to locate the boundaries of the water company. This system is large enough that it may only be necessary to notify some of the water users. This information will be transmitted to the media and an answering service at the water company will respond to consumers' calls. Unless the problems are limited to isolated areas it is unreasonable to assume that contact can be made through sound truck or handbill.

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**Appendix F**  
**Incident Reports and Forms**

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## Written Threat Report Form

### INSTRUCTIONS

The purpose of this form is to summarize significant information from a written threat received by a drinking water utility. This form should be completed by the WUERM or an individual designated by incident command to evaluate the written threat. The summary information provided in this form is intended to support the threat evaluation process; however, the completed form is not a substitute for the complete written threat, which may contain additional, significant details.

The written threat itself (e.g., the note, letter, e-mail message, etc.) may be considered evidence and thus should be minimally handled (or not handled at all) and placed into a clean plastic bag to preserve any forensic evidence.

**Remember, tampering with a drinking water system is a crime under the SDWA Amendments!**

### SAFETY

A suspicious letter or package could pose a threat in and of itself, so caution should be exercised if such packages are received. The US Postal Service has issued guidance when dealing with suspicious packages ([http://www.usps.com/news/2001/press/pr01\\_1022gsa.htm](http://www.usps.com/news/2001/press/pr01_1022gsa.htm)).

### THREAT NOTIFICATION

Name of person receiving the written threat: \_\_\_\_\_

Person(s) to whom threat was addressed: \_\_\_\_\_

Date threat received: \_\_\_\_\_ Time threat received: \_\_\_\_\_

How was the written threat received?

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> US Postal service | <input type="checkbox"/> Delivery service | <input type="checkbox"/> Courier        |
| <input type="checkbox"/> Fax               | <input type="checkbox"/> E-mail           | <input type="checkbox"/> Hand delivered |
| <input type="checkbox"/> Other _____       |   |   |

If mailed, is the return address listed? ☐ Yes ☐ No

If mailed, what is the date and location of the postmark? \_\_\_\_\_

If delivered, what was the service used (list any tracking numbers)? \_\_\_\_\_

If Faxed, what is the number of the sending fax? \_\_\_\_\_

If E-mailed, what is the e-mail address of sender? \_\_\_\_\_

If hand-delivered, who delivered the message? \_\_\_\_\_

### DETAILS OF THREAT

Has the water already been contaminated? ☐ Yes ☐ No

Date and time of contaminant introduction known? ☐ Yes ☐ No

Date and time if known: \_\_\_\_\_

Location of contaminant introduction known? ☐ Yes ☐ No

Site Name: \_\_\_\_\_

Type of facility

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Source water        | <input type="checkbox"/> Treatment plant       | <input type="checkbox"/> Pump station             |
| <input type="checkbox"/> Ground storage tank | <input type="checkbox"/> Elevated storage tank | <input type="checkbox"/> Finished water reservoir |
| <input type="checkbox"/> Distribution main   | <input type="checkbox"/> Hydrant               | <input type="checkbox"/> Service connection       |
| <input type="checkbox"/> Other _____         |  |   |

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

Name or type of contaminant known? ☐ Yes ☐ No

Type of contaminant

- |                                   |                                     |                                       |
|-----------------------------------|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> Chemical | <input type="checkbox"/> Biological | <input type="checkbox"/> Radiological |
|-----------------------------------|-------------------------------------|---------------------------------------|

Specific contaminant name/description: \_\_\_\_\_

Mode of contaminant introduction known? ☐ Yes ☐ No

Method of addition: ☐ Single dose ☐ Over time ☐ Other \_\_\_\_\_

Amount of material: \_\_\_\_\_

Additional Information: \_\_\_\_\_

**Motive for contamination known?**☐ Yes☐ No☐ Retaliation/revenge☐ Political cause☐ Religious doctrine☐ Other \_\_\_\_\_

Describe motivation: \_\_\_\_\_

**NOTE CHARACTERISTICS****Perpetrator Information:**

Stated name: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Phone number: \_\_\_\_\_

Location/address: \_\_\_\_\_

**Condition of paper/envelop:**☐ Marked personal☐ Marked confidential☐ Properly addressed☐ Neatly typed or written☐ Clean☐ Corrected or marked-up☐ Crumpled or wadded up☐ Soiled/stained☐ Torn/tattered☐ Other: \_\_\_\_\_**How was the note prepared?**☐ Handwritten in print☐ Handwritten in script☐ Computer typed☐ Machine typed☐ Spliced (e.g., from other typed material)☐ Other: \_\_\_\_\_

If handwritten, does writing look familiar?

☐ Yes☐ No**Language:**☐ Clear English☐ Poor English☐ Another language: \_\_\_\_\_☐ Mixed languages: \_\_\_\_\_**Writing Style**☐ Educated☐ Proper grammar☐ Logical☐ Uneducated☐ Poor grammar/spelling☐ Incoherent☐ Use of slang☐ Obscene☐ Other: \_\_\_\_\_**Writing Tone**☐ Clear☐ Direct☐ Sincere☐ Condescending☐ Accusatory☐ Angry☐ Agitated☐ Nervous☐ Irrational☐ Other: \_\_\_\_\_**SIGNOFF**

Name of individual who received the threat:

Print name \_\_\_\_\_

Signature \_\_\_\_\_ Date/Time: \_\_\_\_\_

Name of person completing form (if different from written threat recipient):

Print name \_\_\_\_\_

Signature \_\_\_\_\_ Date/Time: \_\_\_\_\_

Source: EPA Response Protocol Toolbox Module 2, Section 8.6 – Interim Final December 2003

## IT Incident Response and Reporting Checklist

Date \_\_\_\_\_ Time \_\_\_\_\_

Status:

- ☐ Site Under Attack
- ☐ Past Incident
- ☐ Repeated Incidents
- ☐ Unresolved

**Contact Information:**

Name \_\_\_\_\_

Title \_\_\_\_\_

Utility \_\_\_\_\_

Direct-dial phone \_\_\_\_\_

E-mail \_\_\_\_\_

Location / Site involved \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_

State/ZIP \_\_\_\_\_

1. What is the nature of the emergency? (Check all that apply)
  - ☐ Denial of Service attack
  - ☐ Unauthorized electronic monitoring
  - ☐ Network intrusion
  - ☐ Insider attack
  - ☐ Probe/scan
  - ☐ Malicious code (virus, Trojan horse, worm)
  - ☐ Website defacement
  - ☐ Other (explain)
2. Is there just one, or more than one, incident involved simultaneously?
3. Is this a single or multi-site incident?
4. What is the extent of penetration / infection?
5. Estimate the duration of attack
6. What is the entry point of the incident (network, the phone line, etc)?
7. What resources will be required to deal with this incident? (A Computer Emergency Response Team with a forensic expert might be needed immediately to analyze a major incident versus simply disconnecting the compromised equipment from the Internet for later analysis)
8. What is the source of the attack?
9. What is the target of the attack?
10. Impact of attack
11. Has there been a loss or compromise of business data?
12. What type of data has already been compromised or is at risk?



13. How critical is this data?
14. Affect on customers (Customers might be sensitive, based on the intensity level of the intellectual property loss. It could be a violation of privacy legislation versus a serious theft of software property, critically affecting a customer's enterprise-level business)
15. Estimate system downtime
16. Document damage to systems
17. Estimate financial loss
18. Has there been damage to the integrity or delivery of water or services?
19. Describe
20. Other utility systems affected
21. Severity of attack (include financial loss)
- ☐ Low      ☐ Medium      ☐ High
22. Did the attacker gain root, administrative or system access?
23. How was the incident detected?
- ☐ Intrusion detection system or audit logs
  - ☐ External complaint
  - ☐ User report
  - ☐ Other
24. What are the known symptoms?
25. What utility areas are affected?
26. What systems are affected?
- Gather as much information as possible about the systems, including suspected systems. For example:
- ☐ Operating system
  - ☐ Platform
  - ☐ Applications
  - ☐ IP addresses
  - ☐ Associated or suspected user IDs
  - ☐ Most recent changes applied
  - ☐ Other related items
27. Are the backups of the perceived affected systems available (provide all of the information regarding online, onsite, or offsite backups)?

See [www.cert.org/tech\\_tips/intruder\\_detection\\_checklist.html](http://www.cert.org/tech_tips/intruder_detection_checklist.html) for more information on detecting an intruder.

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## Maintaining Crime Scene Integrity\*

Security breaches and suspicious activity need to be evaluated to determine if the actions are a result of “normal” activity, such as a construction crew working in the area, or the result of activity that could result in an intentional threat to the safety or security of the facility and its operations.

- As soon as **you** recognize that the threat is/was intentional and particularly if the actions of the threatening individuals are suspected to have been successful, **you** must notify facility management ([Security Director]/[General manager]).
- The ([SD]/[GM]) should immediately notify the local law enforcement agency responsible for criminal investigation at the facility as soon as they have verified a credible threat.
- **No personnel** from GOWC facility should enter the area where any possible criminal activity might have occurred so as not to disturb the area. All signs of inappropriate entrance to the facility and any physical activity of the suspects must be available for evaluation by law enforcement without any disturbance.
- **GOWC facility staff** and/or **law enforcement** may collect water samples prior to the collection of physical evidence.
- **GOWC facility staff** should collect samples outside of the boundaries of the suspected crime scene, if possible, to avoid concerns about the integrity of the crime scene.
- The **GOWC facility [GM]** should pre-designate a qualified laboratory that can assist in analysis, if the sample is suspected to contain water that has been intentionally contaminated, to insure chain of evidence custody. Law enforcement may require the collection of an additional sample set to be analyzed by their designated lab.
- **GOWC facility staff** should be aware of possible physical evidence of contamination that might include discarded PPE, equipment (such as pumps and hoses), or containers with residual material. Special care should be taken by facility personnel to avoid moving or disturbing any potential physical evidence.
- **GOWC facility staff** should notify [SD]/[GM] of any obvious physical evidence of contamination.
- **GOWC facility staff** should not handle any physical evidence except at the direction of the appropriate law enforcement agency.
- Any photographs or videos taken by [UTILITY ABBREVIATION] facility staff should be reported to law enforcement for proper handling to ensure integrity of the evidence.

The **GOWC [SD]/[GM]** if appropriate, should clearly designate the area of suspected criminal activity to assure that facility personnel do not inadvertently enter the area and disturb evidence.

The **GOWC [SD]/[GM]** can instruct security personnel to stand by and/or lock doors/gates, and/or string tape or rope to restrict entrance, as appropriate.

The [SD]/[GM] should balance the needs of both the public health concerns and the concerns of possible criminal activity in their decisions to protect the crime scene.

*\* Adapted from EPA Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threats and Incidents Module 3: Site Characterization and Sampling Guide Section 3.6.*

# Phone Threat Report Form

## INSTRUCTIONS

This form is intended to be used by utility staff that regularly answer phone calls from the public (e.g., call center operators). The purpose of this form is to help these staff capture as much information from a threatening phone call while the caller is on the line. It is important that the operator keep the caller on the line as long as possible in order to collect additional information. Since this form will be used during the call, it is important that operators become familiar with the content of the form. The sections of the form are organized with the information that should be collected during the call at the front of the form (i.e., Basic Call Information and Details of Threat) and information that can be completed immediately following the call at the end of the form (i.e., the description of the caller). The information collected on this form will be critical to the threat evaluation process.

**Remember, tampering with a drinking water system is a crime under the SDWA Amendments**

## THREAT NOTIFICATION

Name of person receiving the call: \_\_\_\_\_

Date phone call received: \_\_\_\_\_ Time phone call received: \_\_\_\_\_

Time phone call ended: \_\_\_\_\_ Duration of phone call: \_\_\_\_\_

Originating number: \_\_\_\_\_ Originating name: \_\_\_\_\_

If the number/name is not displayed on the caller ID, press \*57 (or call trace) at the end of the call and inform law enforcement that the phone company may have trace information.

Is the connection clear? ☐ Yes ☐ No

Could call be from a wireless phone? ☐ Yes ☐ No

## DETAILS OF THREAT

Has the water already been contaminated? ☐ Yes ☐ No

Date and time of contaminant introduction known? ☐ Yes ☐ No

Date and time if known: \_\_\_\_\_

Location of contaminant introduction known? ☐ Yes ☐ No

Site Name: \_\_\_\_\_

Type of facility

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Source water        | <input type="checkbox"/> Treatment plant       | <input type="checkbox"/> Pump station             |
| <input type="checkbox"/> Ground storage tank | <input type="checkbox"/> Elevated storage tank | <input type="checkbox"/> Finished water reservoir |
| <input type="checkbox"/> Distribution main   | <input type="checkbox"/> Hydrant               | <input type="checkbox"/> Service connection       |
| <input type="checkbox"/> Other               |  |   |

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

Name or type of contaminant known? ☐ Yes ☐ No

Type of contaminant

- |                                   |                                     |                                       |
|-----------------------------------|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> Chemical | <input type="checkbox"/> Biological | <input type="checkbox"/> Radiological |
|-----------------------------------|-------------------------------------|---------------------------------------|

Specific contaminant name/description: \_\_\_\_\_

Mode of contaminant introduction known? ☐ Yes ☐ No

Method of addition: ☐ Single dose ☐ Over time ☐ Other \_\_\_\_\_

Amount of material: \_\_\_\_\_

Additional Information: \_\_\_\_\_

Motive for contamination known? ☐ Yes ☐ No

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Retaliation/revenge | <input type="checkbox"/> Political cause | <input type="checkbox"/> Religious doctrine |
| <input type="checkbox"/> Other               |  |   |

Describe motivation: \_\_\_\_\_

## CALLER INFORMATION

---

**Basic Information:**

Stated name: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Phone number: \_\_\_\_\_

Location/address: \_\_\_\_\_

**Caller's Voice:**Did the voice sound disguised or altered? ☐ Yes ☐ NoDid the call sound like a recording? ☐ Yes ☐ NoDid the voice sound? ☐ Male / ☐ Female ☐ Young / ☐ OldDid the voice sound familiar? ☐ Yes ☐ No

If 'Yes,' who did it sound like? \_\_\_\_\_

Did the caller have an accent? ☐ Yes ☐ No

If 'Yes,' what nationality? \_\_\_\_\_

How did the caller sound or speak?

☐ Educated☐ Well spoken☐ Illiterate☐ Irrational☐ Obscene☐ Incoherent☐ Reading a script☐ Other \_\_\_\_\_

What was the caller's tone of voice?

☐ Calm☐ Angry☐ Lispering☐ Stuttering/broken☐ Excited☐ Nervous☐ Sincere☐ Insincere☐ Slow☐ Rapid☐ Normal☐ Slurred☐ Soft☐ Loud☐ Nasal☐ Clearing throat☐ Laughing☐ Crying☐ Clear☐ Deep breathing☐ Deep☐ High☐ Raspy☐ Cracking☐ Other \_\_\_\_\_

Were there background noises coming from the caller's end?

☐ Silence☐ Voices describe \_\_\_\_\_☐ Children describe \_\_\_\_\_☐ Animals describe \_\_\_\_\_☐ Factory sounds describe \_\_\_\_\_☐ Office sounds describe \_\_\_\_\_☐ Music describe \_\_\_\_\_☐ Traffic/street sounds describe \_\_\_\_\_☐ Airplanes describe \_\_\_\_\_☐ Trains describe \_\_\_\_\_☐ Ships or large boats describe \_\_\_\_\_☐ Other: \_\_\_\_\_

---

**SIGNOFF**

Name of call recipient:

Print name \_\_\_\_\_

Signature \_\_\_\_\_ Date/Time: \_\_\_\_\_

Name of person completing form (if different from call recipient):

Print name \_\_\_\_\_

Signature \_\_\_\_\_ Date/Time: \_\_\_\_\_

*Source: EPA Response Protocol Toolbox Module 2, Section 8.5 – Interim Final December 2003*

## Public Health Information Report Form Instructions

*The purpose of this form is to summarize significant information about a public health episode that could be linked to contaminated water. This form should be completed by the WUERM or an individual designated by incident command. The information compiled in this form is intended to support the threat evaluation process. In the case of a threat warning due to a report from public health, it is likely that the public health agency will assume incident command during the investigation. The drinking water utility will likely play a support role during the investigation, specifically to help determine whether or not water might be the cause.*

### PUBLIC HEALTH NOTIFICATION

**Date and Time of notification:** \_\_\_\_\_

**Name of person who received the notification:** \_\_\_\_\_

#### Contact information for individual providing the notification

Full Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Day-time phone: \_\_\_\_\_

Evening phone: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

**Why is this person contacting the drinking water utility?** \_\_\_\_\_

**Has the state or local public health agency been notified?** ☐ Yes ☐ No

If "No," the appropriate public health official should be immediately notified.

### DESCRIPTION OF PUBLIC HEALTH EPISODE

#### Nature of public health episode:

☐ Unusual disease (mild) ☐ Unusual disease (severe) ☐ Death

☐ Other: \_\_\_\_\_

#### Symptoms:

☐ Diarrhea ☐ Vomiting/nausea ☐ Flu-like symptoms

☐ Fever ☐ Headache ☐ Breathing difficulty

☐ Other: \_\_\_\_\_

Describe symptoms: \_\_\_\_\_

**Causative Agent:** ☐ Known ☐ Suspected ☐ Unknown

*If known or suspected, provide additional detail below*

☐ Chemical ☐ Biological ☐ Radiological

Describe \_\_\_\_\_

---

Estimate of time between exposure and onset of symptoms: \_\_\_\_\_

**Exposed Individuals:**

Location where exposure is thought to have occurred

- |                                       |  |   |
|---------------------------------------|--|---|
| <input type="checkbox"/> Residence    | <input type="checkbox"/> Work          | <input type="checkbox"/> School           |
| <input type="checkbox"/> Restaurant   | <input type="checkbox"/> Shopping mall | <input type="checkbox"/> Social gathering |
| <input type="checkbox"/> Other: _____ |  |   |

Additional notes on location of exposure: \_\_\_\_\_

Collect addresses for specific locations where exposure is thought to have occurred.

Is the pattern of exposure clustered in a specific area? ☐ Yes ☐ No

Extent of area

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Single building | <input type="checkbox"/> Complex (several buildings) | <input type="checkbox"/> City block            |
| <input type="checkbox"/> Neighborhood    | <input type="checkbox"/> Cluster of neighborhoods    | <input type="checkbox"/> Large section of city |
| <input type="checkbox"/> Other: _____    |  |  |

Additional notes on extent of area: \_\_\_\_\_

Do the exposed individuals represent a disproportionate number of:

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Immune compromised | <input type="checkbox"/> Elderly        | <input type="checkbox"/> Children |
| <input type="checkbox"/> Infants            | <input type="checkbox"/> Pregnant women | <input type="checkbox"/> Women    |
| <input type="checkbox"/> Other: _____       |   |                                   |

☐ None, no specific groups dominate the makeup of exposed individuals

**EVALUATION OF LINK TO WATER**

**Are the symptoms consistent with typical waterborne diseases, such as gastrointestinal disease, vomiting, or diarrhea?** ☐ Yes ☐ No

**Does the area of exposure coincide with a specific area of the system, such as a pressure zone or area feed by a specific plant?** ☐ Yes ☐ No

**Were there any consumer complaints within the affected area?** ☐ Yes ☐ No

**Were there any unusual water quality data within the affected area?** ☐ Yes ☐ No

**Were there any process upsets or operational changes?** ☐ Yes ☐ No

**Was there any construction/maintenance within the affected area?** ☐ Yes ☐ No

**Were there any security incidents within the affected area?** ☐ Yes ☐ No

---

**SIGNOFF**

Name of person completing form:

Print name \_\_\_\_\_

Signature \_\_\_\_\_

Date/Time: \_\_\_\_\_

Source: EPA Response Protocol Toolbox Module 2, Section 8.8 – Interim Final December 2003

# Security Incident Report Form

## INSTRUCTIONS

The purpose of this form is to help organize information about a security incident, typically a security breach, which may be related to a water contamination threat. The individual who discovered the security incident, such as a security supervisor, the WUERM, or another designated individual may complete this form. This form is intended to summarize information about a security breach that may be relevant to the threat evaluation process. This form should be completed for each location where a security incident was discovered.

## DISCOVERY OF SECURITY INCIDENT

Date/Time security incident discovered: \_\_\_\_\_

Name of person who discovered security incident: \_\_\_\_\_

### Mode of discovery:

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Alarm (building)   | <input type="checkbox"/> Alarm (gate/fence)        | <input type="checkbox"/> Alarm (access hatch) |
| <input type="checkbox"/> Video surveillance | <input type="checkbox"/> Utility staff discovery   | <input type="checkbox"/> Citizen discovery    |
| <input type="checkbox"/> Suspect confession | <input type="checkbox"/> Law enforcement discovery |   |
| <input type="checkbox"/> Other _____        |  |   |

Did anyone observe the security incident as it occurred? ☐ Yes ☐ No

If "Yes", complete the 'Witness Account Report Form'

## SITE DESCRIPTION

Site Name: \_\_\_\_\_

### Type of facility

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Source water        | <input type="checkbox"/> Treatment plant       | <input type="checkbox"/> Pump station             |
| <input type="checkbox"/> Ground storage tank | <input type="checkbox"/> Elevated storage tank | <input type="checkbox"/> Finished water reservoir |
| <input type="checkbox"/> Distribution main   | <input type="checkbox"/> Hydrant               | <input type="checkbox"/> Service connection       |
| <input type="checkbox"/> Other _____         |  |   |

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

## BACKGROUND INFORMATION

Have the following "normal activities" been investigated as potential causes of the security incident?

- |  |  |
|--|--|
| <input type="checkbox"/> Alarms with known and harmless causes | <input type="checkbox"/> Utility staff inspections   |
| <input type="checkbox"/> Routine water quality sampling        | <input type="checkbox"/> Construction or maintenance |
| <input type="checkbox"/> Contractor activity                   | <input type="checkbox"/> Other _____                 |

Was this site recently visited prior to the security incident? ☐ Yes ☐ No

If "Yes," provide additional detail below

Date and time of previous visit: \_\_\_\_\_

Name of individual who visited the site: \_\_\_\_\_

Additional Information: \_\_\_\_\_

Has this location been the site of previous security incidents? ☐ Yes ☐ No

If "Yes," provide additional detail below

Date and time of most recent security incident: \_\_\_\_\_

Description of incident: \_\_\_\_\_

What were the results of the threat evaluation for this incident?

- |                                     |                                     |                                      |
|-------------------------------------|-------------------------------------|--------------------------------------|
| <input type="checkbox"/> 'Possible' | <input type="checkbox"/> 'Credible' | <input type="checkbox"/> 'Confirmed' |
|-------------------------------------|-------------------------------------|--------------------------------------|

Have security incidents occurred at other locations recently? ☐ Yes ☐ No

If "Yes", complete additional 'Security Incident Reports' (Appendix 8.3) for each site

Name of 1<sup>st</sup> additional site: \_\_\_\_\_

Name of 2<sup>nd</sup> additional site: \_\_\_\_\_

Name of 3<sup>rd</sup> additional site: \_\_\_\_\_

## SECURITY INCIDENT DETAILS

Was there an alarm(s) associated with the security incident? ☐ Yes ☐ No

*If "Yes," provide additional detail below*

Are there sequential alarms (e.g., alarm on a gate and a hatch)? ☐ Yes ☐ No

Date and time of alarm(s): \_\_\_\_\_

Describe alarm(s): \_\_\_\_\_

Is video surveillance available from the site of the security incident? ☐ Yes ☐ No

*If "Yes," provide additional detail below*

Date and time of video surveillance: \_\_\_\_\_

Describe surveillance: \_\_\_\_\_

### Unusual equipment found at the site and time of discovery of the security incident:

- |  |  |
|--|--|
| <input type="checkbox"/> Discarded PPE (e.g., gloves, masks)   | <input type="checkbox"/> Empty containers (e.g., bottles, drums) |
| <input type="checkbox"/> Tools (e.g., wrenches, bolt cutters)  | <input type="checkbox"/> Hardware (e.g., valves, pipe)           |
| <input type="checkbox"/> Lab equipment (e.g., beakers, tubing) | <input type="checkbox"/> Pumps or hoses                          |
| <input type="checkbox"/> None                                  | <input type="checkbox"/> Other _____                             |

Describe equipment: \_\_\_\_\_

### Unusual vehicles found at the site and time of discovery of the security incident:

- |  |   |                                       |
|--|---|---------------------------------------|
| <input type="checkbox"/> Car/sedan     | <input type="checkbox"/> SUV                  | <input type="checkbox"/> Pickup truck |
| <input type="checkbox"/> Flatbed truck | <input type="checkbox"/> Construction vehicle | <input type="checkbox"/> None         |
| <input type="checkbox"/> Other _____   |   |                                       |

Describe vehicles (including make/model/year/color, license plate #, and logos or markings): \_\_\_\_\_

### Signs of tampering at the site and time of discovery of the security incident:

- |  |  |
|--|--|
| <input type="checkbox"/> Cut locks/fences            | <input type="checkbox"/> Open/damaged gates, doors, or windows |
| <input type="checkbox"/> Open/damaged access hatches | <input type="checkbox"/> Missing/damaged equipment             |
| <input type="checkbox"/> Facility in disarray        | <input type="checkbox"/> None                                  |
| <input type="checkbox"/> Other _____                 |  |

Are there signs of sequential intrusion (e.g., locks removed from a gate and hatch)? ☐ Yes

☐ No

Describe signs of tampering: \_\_\_\_\_

### Signs of hazard at the site and time of discovery of the security incident:

- |  |   |
|--|---|
| <input type="checkbox"/> Unexplained or unusual odors            | <input type="checkbox"/> Unexplained dead animals |
| <input type="checkbox"/> Unexplained dead or stressed vegetation | <input type="checkbox"/> Unexplained liquids      |
| <input type="checkbox"/> Unexplained clouds or vapors            | <input type="checkbox"/> None                     |
| <input type="checkbox"/> Other _____                             |   |

Describe signs of hazard: \_\_\_\_\_

## SIGNOFF

Name of person responsible for documenting the security incident:

Print name \_\_\_\_\_

Signature \_\_\_\_\_ Date/Time: \_\_\_\_\_

Source: EPA Response Protocol Toolbox Module 2, Section 8.3 – Interim Final December 2003



## SUSPECT DESCRIPTION FORM

### GENERAL APPEARANCE

**Gender:**

Male  
Female

**Race:**

☐ White  
☐ Black  
☐ Middle Eastern  
  
☐ Hispanic  
☐ Asian  
☐ Native American

Other \_\_\_\_\_

**Hair:**

Color  
Style  
Texture  
Sideburns

**Eyes:**

Color  
Shape  
Glasses (type)

**Physical Characteristics:**

Age  
Height  
Weight  
Build

**Distinguishing Marks (describe):**

Scars  
Tattoos  
Gang Insignia

**Other:**

Left Handed / Right Handed

### CLOTHING

**Color/Type:**

Layered Shirts/Blouse

Cap/Hat

Coat/Jacket

Tie

Pants

Shoes

Stockings

Gloves

Jewelry

Bag/Backpack  
Purse/Briefcase

---

### SUSPECT DEMEANOR

- ☐ Apologetic
- ☐ Calm
- ☐ Belligerent
- ☐ Angry
- ☐ Threatening
- ☐ Nervous
- ☐ Confused

### DISTINGUISHING TRAITS

Speech  
Accent  
Gait / Limp

### FACIAL CHARACTERISTICS

#### Skin:

Color  
Texture

#### Describe shape of:

Mouth  
Lips  
Ears  
Cheeks  
(full or sunken)  
Nose  
Neck  
Eyes  
Eyebrows

#### Presence of:

Adam's Apple  
Chin clefts  
Wrinkles

#### Hair:

Mustache  
Beard  
Other

#### Describe any:

Facial piercing  
Ear piercing

### WEAPON (describe if any)

- ☐ Handgun
- ☐ Long gun
- ☐ Knife

### Direction of Escape

What did the suspect say?

---

### VEHICLE

Color  
Make  
Model  
Body Style  
Damage / Rust  
Antenna  
Bumper Sticker  
Wheel Covers

License Number \_\_\_\_\_

---

# BOMB THREAT CHECKLIST

*Be Calm and Courteous*

*Give a co-worker a signal to "listen in"*

Date:

\_\_\_\_\_ Time call started:

\_\_\_\_\_ Time call ended:

Check call display for phone number (if available)

\_\_\_\_\_

## EXACT WORDING OF BOMB THREAT:

What can you tell me?

When is the bomb going to explode?

*What kind of bomb is it?*

Where is the bomb right now?

What does the bomb look like?

What will cause the bomb to explode?

Did you place the bomb?

Why?

What is your name?

**REMARKS:**

## CALLER'S VOICE

- ☐ Male
- ☐ Female

- ☐ Old (Age?) \_\_\_\_\_
- ☐ Young (Age?) \_\_\_\_\_

- ☐ Calm
- ☐ Excited

- ☐ Soft
- ☐ Loud

- ☐ Angry
- ☐ Cracking Voice

- ☐ Laughter
- ☐ Crying

- ☐ Normal
- ☐ Disguised

- ☐ High pitched
- ☐ Deep

- 
- ☐ Nasal
  - ☐ Slurred

- ☐ Distinct
- ☐ Ragged

- ☐ Rapid
- ☐ Slow

- ☐ Raspy
- ☐ Stutter

- ☐ Lisp
- ☐ Heavy Breather

- ☐ Clearing Throat
- ☐ Intoxicated

- ☐ Pleasant
- ☐ Whisper

☐ Familiar (who?) \_\_\_\_\_

☐ Accent (type?) \_\_\_\_\_

#### **FAMILIARITY WITH FACILITY**

- ☐ Much
- ☐ Some
- ☐ None

#### **BACKGROUND SOUNDS**

- ☐ Street
- ☐ Party Sounds

- ☐ Office Noises
- ☐ Train

- ☐ Voices
- ☐ Airplane

- ☐ PA System
- ☐ Animals

- ☐ Local Music
- ☐ Static on line

- ☐ Long Distance
- ☐ Motors

- ☐ Bells
- ☐ Whistles

- ☐ Factory Machinery
- ☐ Crockery

- ☐ Household sounds
- ☐ Bedlam

\_\_\_ Chanting

\_\_\_ Other

Inform the caller that the building is occupied and the detonation of a bomb could result in death or serious injury to many innocent people.

---

#### **BOMB THREAT LANGUAGE**

- ☐ Well Spoken
- ☐ Incoherent
  
- ☐ Foul
- ☐ Irrational
  
- ☐ Taped
- ☐ Deliberate
  
- ☐ Abusive
- ☐ Righteous
  
- ☐ Message read by threat maker

# Threat Evaluation Worksheet

## INSTRUCTIONS

The purpose of this worksheet is to help organize information about a contamination threat warning that would be used during the Threat Evaluation Process. The individual responsible for conducting the Threat Evaluation (e.g., the WUERM) should complete this worksheet. The worksheet is generic to accommodate information from different types of threat warnings; thus, there will likely be information that is unavailable or not immediately available. Other forms in the Appendices are provided to augment the information in this worksheet.

## THREAT WARNING INFORMATION

Date/Time threat warning discovered: \_\_\_\_\_

Name of person who discovered threat warning: \_\_\_\_\_

Type of threat warning:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Security breach | <input type="checkbox"/> Witness account     | <input type="checkbox"/> Phone threat               |
| <input type="checkbox"/> Written threat  | <input type="checkbox"/> Law enforcement     | <input type="checkbox"/> Unusual water quality      |
| <input type="checkbox"/> News media      | <input type="checkbox"/> Consumer complaints | <input type="checkbox"/> Public health notification |
| <input type="checkbox"/> Other _____     |  |   |

Identity of the contaminant: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

- ☐ Chemical ☐ Biological ☐ Radiological

Describe \_\_\_\_\_

Time of contamination: ☐ Known ☐ Estimated ☐ Unknown

If known or estimated, provide additional detail below

Date and time of contamination: \_\_\_\_\_

Additional Information: \_\_\_\_\_

Mode of contamination: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

Method of addition: ☐ Single dose ☐ Over time ☐ Other \_\_\_\_\_

Amount of material: \_\_\_\_\_

Additional Information: \_\_\_\_\_

Site of contamination: ☐ Known ☐ Suspected ☐ Unknown

If known or suspected, provide additional detail below

Number of sites: \_\_\_\_\_

Provide the following information for each site.

### Site #1

Site Name: \_\_\_\_\_

Type of facility

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Source water        | <input type="checkbox"/> Treatment plant       | <input type="checkbox"/> Pump station             |
| <input type="checkbox"/> Ground storage tank | <input type="checkbox"/> Elevated storage tank | <input type="checkbox"/> Finished water reservoir |
| <input type="checkbox"/> Distribution main   | <input type="checkbox"/> Hydrant               | <input type="checkbox"/> Service connection       |
| <input type="checkbox"/> Other _____         |  |   |

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

### Site #2

Site Name: \_\_\_\_\_

Type of facility

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Source water        | <input type="checkbox"/> Treatment plant       | <input type="checkbox"/> Pump station             |
| <input type="checkbox"/> Ground storage tank | <input type="checkbox"/> Elevated storage tank | <input type="checkbox"/> Finished water reservoir |
| <input type="checkbox"/> Distribution main   | <input type="checkbox"/> Hydrant               | <input type="checkbox"/> Service connection       |
| <input type="checkbox"/> Other _____         |  |   |

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

**Site #3**

Site Name: \_\_\_\_\_

Type of facility

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Source water        | <input type="checkbox"/> Treatment plant       | <input type="checkbox"/> Pump station             |
| <input type="checkbox"/> Ground storage tank | <input type="checkbox"/> Elevated storage tank | <input type="checkbox"/> Finished water reservoir |
| <input type="checkbox"/> Distribution main   | <input type="checkbox"/> Hydrant               | <input type="checkbox"/> Service connection       |
| <input type="checkbox"/> Other _____         |  |   |

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

**ADDITIONAL INFORMATION**

**Has there been a breach of security at the suspected site?** ☐ Yes ☐ No

*If "Yes", review the completed 'Security Incident Report'*

**Are there any witness accounts of the suspected incident?** ☐ Yes ☐ No

*If "Yes", review the completed 'Witness Account Report'*

**Was the threat made verbally over the phone?** ☐ Yes ☐ No

*If "Yes", review the completed 'Phone Threat Report'*

**Was a written threat received?** ☐ Yes ☐ No

*If "Yes", review the completed 'Written Threat Report'*

**Are there unusual water quality data or consumer complaints?** ☐ Yes ☐ No

*If "Yes", review the completed 'Water Quality/Consumer Complaint Report'*

**Are there unusual symptoms or disease in the population?** ☐ Yes ☐ No

*If "Yes", review the completed 'Public Health Report'*

**Is a 'Site Characterization Report' available?** ☐ Yes ☐ No

*If "Yes", review the completed 'Site Characterization Report'*

**Are results of sample analysis available?** ☐ Yes ☐ No

*If "Yes", review the analytical results report, including appropriate QA/QC data*

**Is a 'Contaminant Identification Report' available?** ☐ Yes ☐ No

*If "Yes", review the completed 'Sample Analysis Report'*

**Is there relevant information available from external sources?** ☐ Yes ☐ No

*Check all that apply*

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Local law enforcement | <input type="checkbox"/> FBI                          | <input type="checkbox"/> DW primacy agency     |
| <input type="checkbox"/> Public health agency  | <input type="checkbox"/> Hospitals / 911 call centers | <input type="checkbox"/> US EPA / Water ISAC   |
| <input type="checkbox"/> Media reports         | <input type="checkbox"/> Homeland security alerts     | <input type="checkbox"/> Neighboring utilities |
| <input type="checkbox"/> Other _____           |   |  |

Point of Contact: \_\_\_\_\_

Summary of key information from external sources (provide detail in attachments as necessary):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**THREAT EVALUATION**

**Has normal activity been investigated as the cause of the threat warning?** ☐ Yes ☐ No

Normal activities to consider

- |  |   |
|--|---|
| <input type="checkbox"/> Utility staff inspections   | <input type="checkbox"/> Routine water quality sampling           |
| <input type="checkbox"/> Construction or maintenance | <input type="checkbox"/> Contractor activity                      |
| <input type="checkbox"/> Operational changes         | <input type="checkbox"/> Water quality changes with a known cause |
| <input type="checkbox"/> Other _____                 |   |

**Is the threat 'possible'?** ☐ Yes ☐ No

Summarize the basis for this determination: \_\_\_\_\_

Response to a 'possible' threat:

- ☐ None ☐ Site characterization ☐ Isolation/containment  
☐ Increased monitoring/security ☐ Other \_\_\_\_\_

**Is the threat 'credible'?** ☐ Yes ☐ No

Summarize the basis for this determination: \_\_\_\_\_

Response to a 'credible' threat:

- ☐ Sample analysis ☐ Site characterization ☐ Isolation/containment  
☐ Partial EOC activation ☐ Public notification ☐ Provide alternate water supply  
☐ Other \_\_\_\_\_

**Has a contamination incident been confirmed?** ☐ Yes ☐ No

Summarize the basis for this determination: \_\_\_\_\_

Response to a confirmed incident:

- ☐ Sample analysis ☐ Site characterization ☐ Isolation/containment  
☐ Full EOC activation ☐ Public notification ☐ Provide alternate water supply  
☐ Initiate remediation and recovery  
☐ Other \_\_\_\_\_

**How do other organizations characterize the threat?**

Organization	Evaluation	Comment
<input type="checkbox"/> Local Law Enforcement	<input type="checkbox"/> Possible <input type="checkbox"/> Credible <input type="checkbox"/> Confirmed	
<input type="checkbox"/> FBI	<input type="checkbox"/> Possible <input type="checkbox"/> Credible <input type="checkbox"/> Confirmed	
<input type="checkbox"/> Public Health Agency	<input type="checkbox"/> Possible <input type="checkbox"/> Credible <input type="checkbox"/> Confirmed	
<input type="checkbox"/> Drinking Water Primacy Agency	<input type="checkbox"/> Possible <input type="checkbox"/> Credible <input type="checkbox"/> Confirmed	
<input type="checkbox"/> Other	<input type="checkbox"/> Possible <input type="checkbox"/> Credible <input type="checkbox"/> Confirmed	
<input type="checkbox"/> Other	<input type="checkbox"/> Possible <input type="checkbox"/> Credible <input type="checkbox"/> Confirmed	

**SIGNOFF**

Name of person responsible for threat evaluation:

Print name \_\_\_\_\_

Signature \_\_\_\_\_ Date/Time: \_\_\_\_\_

Source: EPA Response Protocol Toolbox Module 2, Section 8.2 – Interim Final December 2003



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## Water Quality/Consumer Complaint Report Form

**INSTRUCTIONS** - This form is provided to guide the individual responsible for evaluating unusual water quality data or consumer complaints. It is designed to prompt the analyst to consider various factors or information when evaluating the unusual data. The actual data used in this analysis should be compiled separately and appended to this form. The form can be used to support the threat evaluation due to a threat warning from unusual water quality or consumer complaints, or another type of threat warning in which water quality data or consumer complaints are used to support the evaluation. Note that in this form, water quality refers to both specific water quality parameters and the general aesthetic characteristics of the water that might result in consumer complaints.

**Threat warning is based on:**      ☐ Water quality      ☐ Consumer complaints      ☐ Other

**What is the water quality parameter or complaint under consideration?**

**Are unusual consumer complaints corroborated by unusual water quality data?**

**Is the unusual water quality indicative of a particular contaminant of concern? For example, is the color, order, or taste associated with a particular contaminant?**

**Are consumers in the affected area experiencing any unusual health symptoms?**

**What is 'typical' for consumer complaints for the current season and water quality?**

Number of complaints.

Nature of complaints.

Clustering of complaints

**What is considered to be 'normal' water quality (i.e., what is the baseline water quality data or level of consumer complaints)?**

**What is reliability of the method or instrumentation used for the water quality analysis?**

Are standards and reagents OK?

Is the method/instrument functioning properly?

**Based on recent data, does the unusual water quality appear to be part of a gradual trend (i.e., occurring over several days or longer)?**

**Are the unusual water quality observations sporadic over a wide area, or are they clustered in a particular area?**

What is the extent of the area?    Pressure zone.    Neighborhood.    City block.    Street.    Building.

**If the unusual condition isolated to a specific area:**

Is this area being supplied by a particular plant or source water?

Have there been any operational changes at the plant or in the affected area of the system?

Has there been any flushing or distribution system maintenance in the affected area?

Has there been any repair or construction in the area that could impact water quality?

---

### SIGNOFF

Name of person completing form:

Print name \_\_\_\_\_

Signature \_\_\_\_\_

Date/Time: \_\_\_\_\_

Source: EPA Response Protocol Toolbox Module 2, Section 8.7 – Interim Final December 2003

# Witness Account Report Form

## INSTRUCTIONS

The purpose of this form is to document the observations of a witness to activities that might be considered an incident warning. The individual interviewing the witness, or potentially the witness, should complete this form. This may be the WUERM or an individual designated by incident command to perform the interview. If law enforcement is conducting the interview (which may often be the case), then this form may serve as a prompt for "utility relevant information" that should be pursued during the interview. This form is intended to consolidate the details of the witness account that may be relevant to the threat evaluation process. This form should be completed for each witness that is interviewed.

## BASIC INFORMATION

Date/Time of interview: \_\_\_\_\_

Name of person interviewing the witness: \_\_\_\_\_

### Witness contact information

Full Name: \_\_\_\_\_

Address: \_\_\_\_\_

Day-time phone: \_\_\_\_\_

Evening phone: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Reason the witness was in the vicinity of the suspicious activity: \_\_\_\_\_

## WITNESS ACCOUNT

Date/Time of activity: \_\_\_\_\_

### Location of activity:

Site Name: \_\_\_\_\_

#### Type of facility

☐ Source water

☐ Treatment plant

☐ Pump station

☐ Ground storage tank

☐ Elevated storage tank

☐ Finished water reservoir

☐ Distribution main

☐ Hydrant

☐ Service connection

☐ Other \_\_\_\_\_

Address: \_\_\_\_\_

Additional Site Information: \_\_\_\_\_

### Type of activity

☐ Trespassing

☐ Vandalism

☐ Breaking and entering

☐ Theft

☐ Tampering

☐ Surveillance

☐ Other \_\_\_\_\_

Additional description of the activity \_\_\_\_\_

## Description of suspects

Were suspects present at the site? ☐ Yes ☐ No

How many suspects were present? \_\_\_\_\_

Describe each suspect's appearance:

Suspect #	Sex	Race	Hair color	Clothing	Voice
1					
2					
3					
4					
5					
6					

Where any of the suspects wearing uniforms? ☐ Yes ☐ No

If "Yes," describe the uniform(s): \_\_\_\_\_

Describe any other unusual characteristics of the suspects: \_\_\_\_\_

Did any of the suspects notice the witness? ☐ Yes ☐ No

If "Yes," how did they respond: \_\_\_\_\_

#### Vehicles at the site

Were vehicles present at the site? ☐ Yes ☐ No

Did the vehicles appear to belong to the suspects? ☐ Yes ☐ No

How many vehicles were present? \_\_\_\_\_

Describe each vehicle:

Vehicle #	Type	Color	Make	Model	License plate
1					
2					
3					
4					

Where there any logos or distinguishing markings on the vehicles? ☐ Yes ☐ No

If "Yes," describe: \_\_\_\_\_

Provide any additional detail about the vehicles and how they were used (if at all): \_\_\_\_\_

#### Equipment at the site

Was any unusual equipment present at the site? ☐ Yes ☐ No

☐ Explosive or incendiary devices

☐ Firearms

☐ PPE (e.g., gloves, masks)

☐ Containers (e.g., bottles, drums)

☐ Tools (e.g., wrenches, bolt cutters)

☐ Hardware (e.g., valves, pipe, hoses)

☐ Lab equipment (e.g., beakers, tubing)

☐ Pumps and related equipment

☐ Other \_\_\_\_\_

Describe the equipment and how it was being used by the suspects (if at all): \_\_\_\_\_

#### Unusual conditions at the site

Were there any unusual conditions at the site? ☐ Yes ☐ No

☐ Explosions or fires

☐ Fogs or vapors

☐ Unusual odors

☐ Dead/stressed vegetation

☐ Dead animals

☐ Unusual noises

☐ Other \_\_\_\_\_

Describe the site conditions: \_\_\_\_\_

#### Additional observations

Describe any additional details from the witness account: \_\_\_\_\_

#### SIGNOFF

Name of interviewer:

Print name \_\_\_\_\_

Signature \_\_\_\_\_

Date/Time: \_\_\_\_\_

Name of witness:

Print name \_\_\_\_\_

Signature \_\_\_\_\_

Date/Time: \_\_\_\_\_

Source: EPA Response Protocol Toolbox Module 2, Section 8.4 – Interim Final December 2003

**Damage Assessment Form**

INITIAL DAMAGE ASSESSMENT		DATE	PAGE    OF
SITE ID	LOCATION <i>(Use map location, address, etc.)</i>		
DESCRIPTION OF DAMAGE			
IMPACT			COST ESTIMATE
SITE ID	LOCATION <i>(Use map location, address, etc.)</i>		
DESCRIPTION OF DAMAGE			
IMPACT			COST ESTIMATE
SITE ID	LOCATION <i>(Use map location, address, etc.)</i>		
DESCRIPTION OF DAMAGE			
IMPACT			COST ESTIMATE
NAME OF INSPECTOR			
DEPARTMENT		PHONE	

CONFIDENTIAL

**Appendix G**  
**ERP Certification Form**

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## CERTIFICATION OF COMPLETION

### OF AN EMERGENCY RESPONSE PLAN

Public Water System ID number: \_\_\_\_\_

System Name: \_\_\_\_\_

City where system is located: \_\_\_\_\_

State : \_\_\_\_\_

**Printed Name of Person Authorized to Sign this Certification on Behalf of the System:** \_\_\_\_\_

Title: \_\_\_\_\_

Address : \_\_\_\_\_

City: \_\_\_\_\_

State and ZIP Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

I certify to the Administrator of the U.S. Environmental Protection Agency that this community water system has completed an Emergency Response Plan that complies with Section 1433(b) of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV — Drinking Water Security and Safety). I further certify that this document was prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information (Safe Drinking Water Act (42 U.S.C.300f *et seq.*)).

The emergency response plan that this community water system completed incorporates the results of the vulnerability assessment completed for the system and includes “plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist or other intentional attack ” on this community water system. The emergency response plan also includes “actions, procedures, and identification of equipment which can obviate or significantly lessen the impact of terrorist attacks or other intentional actions on the public health and the safety and supply of drinking water provided to communities and individuals.”

This CWS has coordinated, to the extent possible, with existing Local Emergency Planning Committees established under the Emergency Planning and Community Right-to- Know Act (42 U.S.C.11001 *et seq.*) when preparing this emergency response plan.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Primary contact person that EPA can call if there are questions about this Certification:

Name: \_\_\_\_\_

Address (if different than that of the Authorized Representative): \_\_\_\_\_

Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Alternate Contact Person:

Name: \_\_\_\_\_

Address (if different than that of the Authorized Representative): \_\_\_\_\_

*Source: EPA Small-Medium ERP Guidance 2004*

**Great Oaks Water Company  
2021 General Rate Case Application**

**Exhibit 8-4  
Great Oaks Water Company Infrastructure and  
Facilities Master Plan, SP 2015**



**Great Oaks Water Company**

**Infrastructure and Facilities  
Master Plan**

**SP 2015**



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### GAO-04-461 Compliance Statement

This SP 2015 Infrastructure and Facilities Master Plan (“SP 2015”) is guided by the recommendations and elements of comprehensive asset management as described in GAO-04-461, the United States General Accounting Office Report to the Ranking Minority Member, Committee on Environment and Public Works, U.S. Senate, entitled: *Water Infrastructure: Comprehensive Asset Management Has Potential to Help Utilities Better Identify Needs and Plan Future Investments*. In preparing this SP 2015, Great Oaks Water Co. (“Great Oaks”) has considered and incorporated the Findings and Recommendations of GAO-04-461 applicable to Great Oaks’ infrastructure and assets devoted to its water utility operations.

### Historical Facilities and Asset Management

Great Oaks is privately-owned and operated public utility founded in 1959 by the Roeder family. Great Oaks continues to this day to be operated pursuant to the guiding principles of its founders, to provide high quality water service at the lowest rates available within Santa Clara County. Proper facilities and asset management principles have always been observed in furtherance of these objectives, and to date, Great Oaks has consistently provided its customers with the best quality, best tasting, lowest cost water service of all regulated public utilities in Santa Clara County.

Great Oaks’ water system facilities and assets are comparatively young, with the first installation of water mains and transmission lines only fifty years ago. A significant portion of Great Oaks’ system is much newer, responding to relatively recent population growth within Great Oaks’ service area and the natural areas of expansion adjacent to its service area. As a result, Great Oaks does not face some of the infrastructure and asset management challenges of other nearby public water utilities which have had to replace, for example, wooden water mains and antique system assets. Great Oaks has employed high quality materials in the construction and expansion of its water system, combined with a regular monitoring and maintenance program that is both cost effective and highly efficient.

## Great Oaks Water System Facilities and Assets

### A. Sources of Water Supply

As of July 1, 2015, Great Oaks utilizes a total of nineteen (19) groundwater production wells, all located on real property owned by Great Oaks or to which Great Oaks has rights acquired through easement. All groundwater wells are located within Great Oaks' service area.

Great Oaks' water production wells draw water from two sub-basins of the greater Santa Clara groundwater basin. All but three of its wells draw water from the Santa Teresa sub-basin. The remaining three wells are located in the Coyote Sub-basin adjacent to and south of the Santa Teresa Sub-basin.

Groundwater recharge is the responsibility of the Santa Clara Valley Water District (the "District"). The District utilizes recharge ponds and locally-derived water conserved in District-managed reservoirs to recharge the groundwater in the sub-basins where Great Oaks' water production wells are located. At times, due to water supply, budgetary and political reasons, the District recharges the groundwater insufficiently to restore groundwater levels to appropriate levels. These decisions primarily affect Great Oaks' water production wells drawing water from the Coyote Sub-basin. Great Oaks' ability to shift water production to other wells in such instances provides necessary flexibility and redundancy to enable Great Oaks to maintain adequate water supplies necessary to meet customer demand at present and projected well into the future.

Decisions by the District causing inadequate groundwater recharge in both the Santa Teresa Sub-basin and the Coyote Sub-basin have caused Great Oaks to take action to ensure adequate water supply

### B. Water Mains and Transmission Lines

Great Oaks' water mains and transmission lines include cement-asbestos, steel, welded steel, SOM, ductile iron, and PVC piping. The oldest mains and transmission lines were installed in 1959 and are only fifty years old, while the newest were installed in 2008 and are less than one year old.

Schedule D-3 of Great Oaks' Annual Report filed with the Commission provides information about pipe materials and size of the piping currently in use in Great Oaks' water system.

#### C. Storage Facilities

Great Oaks' water system includes a total of six (6) storage tanks, with a combined capacity of 6,228,000 gallons. All storage tanks have metal construction.

#### D. Service Connections

As of December 31, 2014, Great Oaks water system included 20,695 service connections and 318 private fire connections. Customer classifications are provided in Schedule D-4 of the Company's Annual Report.

#### E. Meters

As of December 31, 2014, Great Oaks water system included 20,695 meters of various sizes. Meter sizes are shown in Schedule D-4 of the Company's Annual Report.

#### F. Additional Assets

Great Oaks also maintains various other asset categories, including vehicles and equipment employed in water system functions, as well as computer, software and other operational assets. All asset categories are considered under SP 2015.

#### Great Oaks Water Co. Facilities and Asset Management Program

As recognized in GAO-04-461 recognizes that systematic collection of key data is an essential element of comprehensive asset management. Great Oaks collects and maintains current and accurate data on all of its water system facilities and assets, updating such data regularly to preserve data integrity. This data enables Great Oaks to make decisions on infrastructure monitoring, maintenance, repair and replacement.

One of the major problems water utilities face in facilities and asset management programs is accessing necessary funding for program implementation. A key aspect of Great Oaks Infrastructure and Asset Management Master Plan SP 2015 is

securing appropriate and necessary funding through timely requests to the Public Utilities Commission of California (“CPUC”) for authority to include projected costs and expenses in tariff rates for water service. Great Oaks will continue to seek funding in this manner, especially in light of Great Oaks’ status as a wholly-owned private enterprise with limited access to traditional financing vehicles.

The current economic climate provides little, if any, opportunity to secure outside financing for facilities and asset maintenance, repair and replacement, increasing the risk to Great Oaks’ owners which distinguish Great Oaks from all other Class A water utilities. In the event CPUC would deny Great Oaks a fair and reasonable rate of margin return and instead apply the rate of return on rate base methodology more applicable to utilities with a rate base markedly higher than that of Great Oaks, the risk to Great Oaks owners and customers will increase unreasonably.

Should such risk be unreasonably increased by CPUC action, it is likely that maintenance and capital improvement projects will be deferred. GAO-04-461 identifies deferred maintenance and needed capital improvements because of insufficient funding as one of the most common problems faced by water utilities.

#### A. Elements of Great Oaks’ Infrastructure and Facilities Master Plan 2015.

Great Oaks’ approach to infrastructure and facilities management includes the collection and organization of detailed information on assets, as demonstrated in the section immediately above. In addition, once data is collected, Great Oaks analyzes the data to establish priorities and make rational decisions regarding water system facilities and assets.

Ductile iron piping is known to have an average useful life of well over fifty years. In fact, more than 600 water utilities in the United States have ductile iron pipe systems that have been in service for more than 100 years. Likewise, concrete and PVC piping are also considered to have life expectancies of 100 years or more. Key to receiving maximum life expectancy of water mains and transmission lines is consistent and reliable monitoring of such assets, and Great Oaks SP 2015 includes a vigilant monitoring and leak detection system performed by Great Oaks field personnel. In fact, unaccounted for water percentage has declined markedly since 2012.

The effectiveness of the monitoring and leak detection components of Great Oaks SP 2015 Infrastructure and Facilities Master Plan are reflected in Great Oaks' outstandingly low unaccounted-for water totals and percentages.

Moreover, utilizing the AWWA WLCC Free Water Audit Software, as required by CPUC's Rate Case Plan (D.07-05-062), Great Oaks' water losses, real and apparent, amounted to 370.763 acre-feet or approximately 3.4% of total water production for 2014. These outstanding results are reflective of the effectiveness of Great Oaks SP 2015 efforts.

SP 2015 also includes risk assessment for water system facilities, taking into account the likelihood of failure of system infrastructure components and the consequences of failure. Certain redundancies are built into the design of the water system infrastructure that enable Great Oaks to, for example, produce water from various well sites, rather than placing reliance upon a specific combination of wells. Great Oaks also has the ability to bypass portions of its water system, without compromising service levels or with minimal service interruptions, to enable routine monitoring, maintenance and repair. Great Oaks' risk assessments take into account material life cycles, cost of repairs and/or replacement, availability of repair or replacement materials and available labor resources. Only repairs and replacements that are necessary is scheduled. Great Oaks chooses not to pass on to its customers the cost of wholesale replacement of water system infrastructure that is performed merely for the sake of upgrading or updating its system infrastructure. Great Oaks' GRC application is reflective of the projected costs and expenses resulting from SP 2015 risk assessments.

While GAO-04-461 indicates that comprehensive asset management is a relatively new concept for drinking water utilities in the United States, Great Oaks has employed practices consistent with the elements of comprehensive infrastructure and asset management programs identified by the General Accounting Office. For example, Great Oaks carefully considers upsizing water main and transmission line installations as an integral part of water system construction and expansion planning. Upsizing at installation may result in slightly higher expenses at the time, but consistently avoids excessive (more costly) future system expansion costs.

## B. SP 2015 Implementation.

Great Oaks' GRC application incorporates full consideration of SP 2015 by including only necessary maintenance and capital project expenses over the three-year GRC cycle. Unnecessary maintenance and replacement costs have been eliminated from the GRC application.

At present, SP 2015 does not call for the replacement of any portions of its water system infrastructure. Monitoring and maintenance costs are included in Great Oaks' GRC application for existing water system infrastructure. New capital projects are included in the GRC application, each with SP 2015 consideration given to the selection, sizing and installation of materials.

## C. SP 2015: Six to Ten Year Plan.

No water main or transmission line replacements are projected over the next ten years. Service connections will continue to be repaired as leaks occur and replacements will be made with greater frequency as equipment ages over the next ten years.

Great Oaks has determined that wholesale replacement of meters with automatic meter reading technology is not cost effective at this time. Within the next ten years, however, technological improvements may make conversion more practical. If AMR meter costs decline to the \$50 per meter level, replacement of all meters would cost in the range of \$1,000,000 for the entire system. Those costs would be the subject of a request to the CPUC either in a rate case or other proceeding to ensure adequate funding. Thereafter, meter costs related to replacement would be minimal for an extended period.

Water storage facilities are incorporated into Great Oaks' system to allow seamless repair or replacement without service interruptions. All tanks are in good condition and no replacements or extensive rebuilding is forecast over the next ten years. The acquisition of property for one additional storage tank is underway through eminent domain proceedings.

Several of the well pumps, booster pumps and motors are expected to be replaced with more efficient equipment over the course of the next ten years, with costs to be recovered through appropriate rate adjustments. New water supply wells are planned due to the lowering of groundwater levels and insufficient recharge by the local government agency responsible for such actions.

Great Oaks' fleet of vehicles are maintained so that replacement is not needed until reaching 120,000 to 150,000 miles. Replacements are sequenced so as to not result in cost spikes during any given year. Vehicle replacement costs are included in GRC applications.

Great Oaks will continue to employ the facilities and asset management elements and considerations of SP 2015, updating when necessary and appropriate, all consistent with GAO-04-461.



## SP 2015



**Great Oaks Water Company**

**2021 General Rate Case Application**

**Exhibit 8-5  
Listing of all Major Water Sources**

<b>Name</b>	<b>PS Code</b>	<b>Capacity (gpm)</b>	<b>Status</b>
Well 01	CA4310022_001_001	1550	Active
Well 02	CA4310022_002_002	1400	Active
Well 03	CA4310022_003_003	1400	Standby
Well 04	CA4310022_004_004	1800	Active
Well 07	CA4310022_006_006	800	Active
Well 08	CA4310022_007_007	1300	Active
Well 09	CA4310022_008_008	800	Active
Well 10	CA4310022_009_009	1300	Active
Well 11	CA4310022_010_010	1300	Active
Well 12	CA4310022_011_011	1200	Active
Well 15	CA4310022_012_012	1600	Standby
Well 16	CA4310022_013_013	1600	Active
Well 18	CA4310022_014_014	2000	Standby
Well 19	CA4310022_015_015	800	Active
Well 20	CA4310022_019_019	1500	Active
Well 21	CA4310022_018_018	1500	Active
Well 22	CA4310022_021_021	300	Active
Well 23	CA4310022_022_022	2000	Active
Well 23A	CA4310022_025_025	1800	Active
Well 24	CA4310022_023_023	2800	Active
Well 24A	CA4310022_024_024	1400	Active

Great Oaks Water Company

Exhibit 9-1

Pump Efficiency Reports

# Pumping Efficiency Testing Services, PETS

Serving you with accuracy and efficiency

498 Water Trough Road  
Sebastopol, CA 95472

(866) 774-4812  
pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: CALERO B1  
23 GREAT OAKS BLVD                                Nameplate HP: 75.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112778

This is a Submersible pump used for Municipal and assumed to be operated 1095 hours/year.

The following Pumping Cost Analysis is presented as an estimate prepared from data acquired from the pump test performed 2/21/2018 and information provided by you. Please pay careful attention to the assumptions. The estimated savings are only valid for the assumptions made and conditions measured during the pump test. Note that many numbers are rounded during calculations.

NOTE: * denotes a value that was Assumed or Provided by Customer	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	51 %	66 %	
2. Nameplate Horsepower:	75.0 hp	75.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	79.8 hp	78.3 hp	
5. Motor loaded at:	96 %	94 %	
6. Flow rate (gpm):	203 gpm	218 gpm	
7. Inlet Water Level (ft):	-109 ft	-109 ft	
8. Discharge Pressure (psi):	393 psi	453 psi	
9. Total Dynamic Head (feet):	799 ft	939 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	13.30 mg/Yr*	13.30 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	65,152 kWh/yr	59,551 kWh/yr	5,602 kWh/yr
13. Hours of Operation/yr:	1,095 hr/yr*	1,020 hr/yr	75 hr/yr
14. Kilowatt-Hours per mill gal:	4,885 kWh/mg	4,465 kWh/mg	420 kWh/mg
15. Average Cost Per mill gal:	\$976.93 \$/mg	\$892.93 \$/mg	\$84.00/mg = 8.60%
- Estimated savings = \$84.00/mg = 8.60% of energy costs			
- If pumping 13.30 mg/year this equals about \$1,120 annual savings			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

# Pumping Efficiency Testing Services, PETS

Serving you with accuracy and efficiency

498 Water Trough Road  
Sebastopol, CA 95472

(866) 774-4812  
pumpingeffectivity1@pacbell.net

## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Calero B1/300 Enzo	<b>HP:</b>	75	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7741	<b>Lat</b>	37.21867	<b>Pump Make:</b>	
<b>Motor Make:</b>		<b>Type</b>	Submersible	<b>Meter Number:</b>	1008822386
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>		<b>Voltage:</b>	<b>Amps:</b>
	23 Great Oaks BLVD	<b>Our Test #:</b>	6		
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

**1. Inlet Water Level (ft):** -109

*If line 1 is negative then pump inlet is under pressure.*

**2. Standing Water Level (ft):** NA

**3. Draw Down (ft):** NA

**4. Recovered Water Level (ft):** NA

**5. Discharge Pressure at Gauge (psi):** 393

**6. Total Lift (ft):** 799

**7. Flow Velocity (ft/sec):** 5.2

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

**8. Measured Flow Rate (gpm):** 203

**9. Customer Flow Rate (gpm):** 203

**10. Specific Capacity (gpm/ft draw):** NA

**11. Acre Feet per 24 Hr:** 0.9

**Million Gallons per 24 Hr:** 0.292

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

**12. Cubic Feet per Second (cfs):** 0.5

**13. Horsepower Input to Motor:** 80

**14. Percent of Rated Motor Load (%):** 96

**15. Kilowatt Input to Motor:** 60

**16. Kilowatt-hours per mill gal:** 4,885

**17. Cost to Pump a million gal:** \$976.93

**18. Energy Cost (\$/hour)** \$11.90

**19. Base Cost per Kwh:** \$0.200

**20. Nameplate rpm:** 0

**21. rpm at Gearhead:** 0

**22. Overall Pumping Efficiency (%):** 51

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Meter Hours: 14027

Estimated savings of 137 kWh/AF and \$1,120.38 annual energy costs from a retrofit

Current OPE of 51% and estimated potential OPE of 66%

# Pumping Efficiency Testing Services, PETS

Serving you with accuracy and efficiency

498 Water Trough Road  
Sebastopol, CA 95472

(866) 774-4812  
pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: CALERO B2  
23 GREAT OAKS BLVD                                Nameplate HP: 75.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112779

This is a Submersible pump used for Municipal and assumed to be operated 1190 hours/year.

The following Pumping Cost Analysis is presented as an estimate prepared from data acquired from the pump test performed 2/21/2018 and information provided by you. Please pay careful attention to the assumptions. The estimated savings are only valid for the assumptions made and conditions measured during the pump test. Note that many numbers are rounded during calculations.

NOTE: * denotes a value that was Assumed or Provided by Customer	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	58 %	66 %	
2. Nameplate Horsepower:	75.0 hp	75.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	77.1 hp	92.3 hp	
5. Motor loaded at:	93 %	111 %	
6. Flow rate (gpm):	222 gpm	300 gpm	
7. Inlet Water Level (ft):	-109 ft	-109 ft	
8. Discharge Pressure (psi):	393 psi	395 psi	
9. Total Dynamic Head (feet):	799 ft	804 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	15.81 mg/Yr*	15.81 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			<b>Estimated Savings from Retrofit</b>
12. Estimated Total kWh per Year:	68,425 kWh/yr	60,622 kWh/yr	7,803 kWh/yr
13. Hours of Operation/yr:	1,190 hr/yr*	881 hr/yr	309 hr/yr
14. Kilowatt-Hours per mill gal:	4,316 kWh/mg	3,824 kWh/mg	492 kWh/mg
15. Average Cost Per mill gal:	\$863.29 \$/mg	\$764.84 \$/mg	\$98.45/mg = 11.40%
<b>- Estimated savings = \$98.45/mg = 11.40% of energy costs</b>			
<b>- If pumping 15.81 mg/year this equals about \$1,561 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker



# Pumping Efficiency Testing Services, PETS

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(866) 774-4812  
pumpingefficiency1@pacbell.net

## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Calero B2/300 Enzo	<b>HP:</b>	75	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7741	<b>Lat</b>	37.21867	<b>Pump Make:</b>	
<b>Motor Make:</b>		<b>Type</b>	Submersible	<b>Meter Number:</b>	1008822386
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>		<b>Voltage:</b>	<b>Amps:</b>
	23 Great Oaks BLVD	<b>Our Test #:</b>	7		
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

**1. Inlet Water Level (ft):** -109

*If line 1 is negative then pump inlet is under pressure.*

**2. Standing Water Level (ft):** NA

**3. Draw Down (ft):** NA

**4. Recovered Water Level (ft):** NA

**5. Discharge Pressure at Gauge (psi):** 393

**6. Total Lift (ft):** 799

**7. Flow Velocity (ft/sec):** 5.7

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

**8. Measured Flow Rate (gpm):** 222

**9. Customer Flow Rate (gpm):** 222

**10. Specific Capacity (gpm/ft draw):** NA

**11. Acre Feet per 24 Hr:** 1.0

**Million Gallons per 24 Hr:** 0.320

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

**12. Cubic Feet per Second (cfs):** 0.5

**13. Horsepower Input to Motor:** 77

**14. Percent of Rated Motor Load (%):** 93

**15. Kilowatt Input to Motor:** 58

**16. Kilowatt-hours per mill gal:** 4,316

**17. Cost to Pump a million gal:** \$863.29

**18. Energy Cost (\$/hour)** \$11.50

**19. Base Cost per Kwh:** \$0.200

**20. Nameplate rpm:** 0

**21. rpm at Gearhead:** 0

**22. Overall Pumping Efficiency (%):** 58

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be fair assuming this run represents plant's normal operating condition.

Estimated savings of 161 kWh/AF and \$1,560.64 annual energy costs from a retrofit

Current OPE of 58% and estimated potential OPE of 66%

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## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS

FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY    Pump: WELL 2  
23 GREAT OAKS BLVD    Nameplate HP: 100.0  
SAN JOSE, CA 95490    Our Pump Test Number: 112774

This is a Turbine pump used for Municipal and assumed to be operated 500 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	72 %	72 %	
2. Nameplate Horsepower:	100.0 hp	100.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	108.6 hp	108.6 hp	
5. Motor loaded at:	99 %	99 %	
6. Flow rate (gpm):	1,505 gpm	1,505 gpm	
7. Pumping Level (ft):	22 ft	22 ft	
8. Discharge Pressure (psi):	80 psi	80 psi	
9. Total Dynamic Head (feet):	207 ft	207 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	45.03 mg/Yr*	45.03 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	40,500 kWh/yr	40,500 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	500 hr/yr*	500 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	897 kWh/mg	897 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$179.39 \$/mg	\$179.39 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 45.03 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 2/Bangor Ave X Calpine	<b>HP:</b>	100	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.8132 <b>Lat</b> 37.24753	<b>Pump Make:</b>	Johnston		
<b>Motor Make:</b>	General Electric <b>Type</b> Turbine	<b>Meter Number:</b>	1010108326		
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>	JAJ915152		
	23 Great Oaks BLVD	<b>Voltage:</b>	440	<b>Amps:</b>	121
	San Jose, CA 95490	<b>Our Test #:</b>	2		
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	22
2. Standing Water Level (ft):	11.5
3. Draw Down (ft):	11
4. Recovered Water Level (ft):	11.5
5. Discharge Pressure at Gauge (psi):	80
6. Total Lift (ft):	207
7. Flow Velocity (ft/sec):	6.2
8. Measured Flow Rate (gpm):	1,505
9. Customer Flow Rate (gpm):	0
10. Specific Capacity (gpm/ft draw):	143.3
11. Acre Feet per 24 Hr:	6.7
Million Gallons per 24 Hr:	2.167
12. Cubic Feet per Second (cfs):	3.4
13. Horsepower Input to Motor:	109
14. Percent of Rated Motor Load (%):	99
15. Kilowatt Input to Motor:	81
16. Kilowatt-hours per mill gal:	897
17. Cost to Pump a million gal:	\$179.39
18. Energy Cost (\$/hour)	\$16.20
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,770
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	72

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.  
Overall efficiency of this plant is considered to be very good assuming this run represents plant's normal operating condition.

Pumping water level up from 69' on 12-17-16 to 22'

Current OPE is close to optimum - no savings estimated for a retrofit



# Pumping Efficiency Testing Services, PETS

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## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 10  
23 GREAT OAKS BLVD                                Nameplate HP: 125.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112776

This is a Turbine pump used for Municipal and assumed to be operated 100 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	65 %	65 %	
2. Nameplate Horsepower:	125.0 hp	125.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	114.2 hp	114.2 hp	
5. Motor loaded at:	83 %	83 %	
6. Flow rate (gpm):	1,400 gpm	1,400 gpm	
7. Pumping Level (ft):	31 ft	31 ft	
8. Discharge Pressure (psi):	77 psi	77 psi	
9. Total Dynamic Head (feet):	209 ft	209 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	8.38 mg/Yr*	8.38 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	8,520 kWh/yr	8,520 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	100 hr/yr*	100 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,014 kWh/mg	1,014 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$202.84 \$/mg	\$202.84 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 8.38 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 10/International Circle	<b>HP:</b>	125	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.8008 <b>Lat</b> 37.24137	<b>Pump Make:</b>	Byron Jackson		
<b>Motor Make:</b>	General Electric <b>Type</b> Turbine	<b>Meter Number:</b>	1010079421		
<b>Customer Addr:</b>	Great Oaks Water Company 23 Great Oaks BLVD San Jose, CA 95490	<b>Serial Number:</b>	DRJ404115		
		<b>Voltage:</b>	460	<b>Amps:</b>	144
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce	<b>Our Test #:</b>	4		
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	31
2. Standing Water Level (ft):	20.5
3. Draw Down (ft):	11
4. Recovered Water Level (ft):	20.5
5. Discharge Pressure at Gauge (psi):	77
6. Total Lift (ft):	209
7. Flow Velocity (ft/sec):	5.7
8. Measured Flow Rate (gpm):	1,400
9. Customer Flow Rate (gpm):	1,391
10. Specific Capacity (gpm/ft draw):	133.3
11. Acre Feet per 24 Hr:	6.2
Million Gallons per 24 Hr:	2.016
12. Cubic Feet per Second (cfs):	3.1
13. Horsepower Input to Motor:	114
14. Percent of Rated Motor Load (%):	83
15. Kilowatt Input to Motor:	85
16. Kilowatt-hours per mill gal:	1,014
17. Cost to Pump a million gal:	\$202.84
18. Energy Cost (\$/hour)	\$17.04
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,770
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	65

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit

# Pumping Efficiency Testing Services, PETS

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Sebastopol, CA 95472

(866) 774-4812  
pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 12  
23 GREAT OAKS BLVD                              Nameplate HP: 100.0  
SAN JOSE, CA 95490                              Our Pump Test Number: 112777

This is a Submersible pump used for Municipal and assumed to be operated 1146 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	72 %	72 %	
2. Nameplate Horsepower:	100.0 hp	100.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	104.2 hp	104.2 hp	
5. Motor loaded at:	95 %	95 %	
6. Flow rate (gpm):	1,612 gpm	1,612 gpm	
7. Pumping Level (ft):	22 ft	22 ft	
8. Discharge Pressure (psi):	70 psi	70 psi	
9. Total Dynamic Head (feet):	184 ft	184 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	110.54 mg/Yr*	110.54 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			<b>Estimated Savings from Retrofit</b>
12. Estimated Total kWh per Year:	89,044 kWh/yr	89,044 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	1,146 hr/yr*	1,146 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	803 kWh/mg	803 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$160.66 \$/mg	\$160.66 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 110.54 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 12/International Circle	<b>HP:</b>	100	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.8021 <b>Lat</b> 37.23839	<b>Pump Make:</b>	Byron Jackson		
<b>Motor Make:</b>	Byron-Jackson	<b>Type</b>	Submersible		
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Meter Number:</b>	1010101179		
	23 Great Oaks BLVD	<b>Serial Number:</b>	731S1170		
	San Jose, CA 95490	<b>Voltage:</b>	460	<b>Amps:</b>	
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce	<b>Our Test #:</b>	5		
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126		
	<b>Cell:</b>				

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	22
2. Standing Water Level (ft):	19.5
3. Draw Down (ft):	3
4. Recovered Water Level (ft):	19.5
5. Discharge Pressure at Gauge (psi):	70
6. Total Lift (ft):	184
7. Flow Velocity (ft/sec):	6.6
8. Measured Flow Rate (gpm):	1,612
9. Customer Flow Rate (gpm):	1,612
10. Specific Capacity (gpm/ft draw):	644.8
11. Acre Feet per 24 Hr:	7.1
Million Gallons per 24 Hr:	2.321
12. Cubic Feet per Second (cfs):	3.6
13. Horsepower Input to Motor:	104
14. Percent of Rated Motor Load (%):	95
15. Kilowatt Input to Motor:	78
16. Kilowatt-hours per mill gal:	803
17. Cost to Pump a million gal:	\$160.66
18. Energy Cost (\$/hour)	\$15.54
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	0
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	72

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.  
Overall efficiency of this plant is considered to be very good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit



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## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 16  
23 GREAT OAKS BLVD                                Nameplate HP: 200.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112773

This is a Turbine pump used for Municipal and assumed to be operated 2088 hours/year. Abnormal after-project motor load seen with the reason given as: Reason not given by tester.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	68 %	68 %	
2. Nameplate Horsepower:	200.0 hp	200.0 hp	
3. Motor Efficiency:	95 %	95 %	
4. Actual Motor Input Horsepower:	152.8 hp	152.8 hp	
5. Motor loaded at:	73 %	73 %	
6. Flow rate (gpm):	1,587 gpm	1,587 gpm	
7. Pumping Level (ft):	75 ft	75 ft	
8. Discharge Pressure (psi):	80 psi	80 psi	
9. Total Dynamic Head (feet):	260 ft	260 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	198.29 mg/Yr*	198.29 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			<b>Estimated Savings from Retrofit</b>
12. Estimated Total kWh per Year:	238,032 kWh/yr	238,032 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	2,088 hr/yr*	2,088 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,197 kWh/mg	1,197 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$239.42 \$/mg	\$239.42 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 198.29 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 16/	<b>HP:</b>	200	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7756	<b>Lat</b>	37.23908	<b>Pump Make:</b>	Aurora
<b>Motor Make:</b>	U.S.	<b>Type</b>	Turbine	<b>Meter Number:</b>	1005720668
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>	B413 / Y04Y069R0	<b>Voltage:</b>	460
	23 Great Oaks BLVD	<b>Amps:</b>	229	<b>Our Test #:</b>	1
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	75
2. Standing Water Level (ft):	32
3. Draw Down (ft):	43
4. Recovered Water Level (ft):	32
5. Discharge Pressure at Gauge (psi):	80
6. Total Lift (ft):	260
7. Flow Velocity (ft/sec):	6.5
8. Measured Flow Rate (gpm):	1,587
9. Customer Flow Rate (gpm):	1,587
10. Specific Capacity (gpm/ft draw):	36.9
11. Acre Feet per 24 Hr:	7.0
Million Gallons per 24 Hr:	2.285
12. Cubic Feet per Second (cfs):	3.5
13. Horsepower Input to Motor:	153
14. Percent of Rated Motor Load (%):	73
15. Kilowatt Input to Motor:	114
16. Kilowatt-hours per mill gal:	1,197
17. Cost to Pump a million gal:	\$239.42
18. Energy Cost (\$/hour)	\$22.80
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,775
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	68

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit

# Pumping Efficiency Testing Services, PETS

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pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 20  
23 GREAT OAKS BLVD                                Nameplate HP: 125.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112775

This is a Submersible pump used for Municipal and assumed to be operated 1 hours/year.

The following Pumping Cost Analysis is presented as an estimate prepared from data acquired from the pump test performed 2/21/2018 and information provided by you. Please pay careful attention to the assumptions. The estimated savings are only valid for the assumptions made and conditions measured during the pump test. Note that many numbers are rounded during calculations.

NOTE: * denotes a value that was Assumed or Provided by Customer	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	60 %	67 %	
2. Nameplate Horsepower:	125.0 hp	125.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	135.5 hp	127.9 hp	
5. Motor loaded at:	99 %	93 %	
6. Flow rate (gpm):	1,391 gpm	1,459 gpm	
7. Pumping Level (ft):	55 ft	57 ft	
8. Discharge Pressure (psi):	76 psi	76 psi	
9. Total Dynamic Head (feet):	231 ft	233 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	0.08 mg/Yr*	0.08 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			<b>Estimated Savings from Retrofit</b>
12. Estimated Total kWh per Year:	101 kWh/yr	91 kWh/yr	10 kWh/yr
13. Hours of Operation/yr:	1 hr/yr*	1 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,211 kWh/mg	1,090 kWh/mg	121 kWh/mg
15. Average Cost Per mill gal:	\$242.25 \$/mg	\$218.08 \$/mg	\$24.17/mg = 9.98%
<b>- Estimated savings = \$24.17/mg = 9.98% of energy costs</b> <b>- If pumping 0.08 mg/year this equals about \$2 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

# Pumping Efficiency Testing Services, PETS

Serving you with accuracy and efficiency

498 Water Trough Road  
Sebastopol, CA 95472

(866) 774-4812  
pumpingeffectivity1@pacbell.net

## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 20/5904 Holgate	<b>HP:</b>	125	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.8142	<b>Lat</b>	37.2411	<b>Pump Make:</b>	Byron Jackson
<b>Motor Make:</b>	Byron-Jackson	<b>Type</b>	Submersible	<b>Meter Number:</b>	5000046508
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>		<b>Voltage:</b>	<b>Amps:</b>
	23 Great Oaks BLVD				
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce	<b>Our Test #:</b>	3		
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	55
2. Standing Water Level (ft):	11
3. Draw Down (ft):	44
4. Recovered Water Level (ft):	11
5. Discharge Pressure at Gauge (psi):	76
6. Total Lift (ft):	231
7. Flow Velocity (ft/sec):	5.7
8. Measured Flow Rate (gpm):	1,391
9. Customer Flow Rate (gpm):	1,391
10. Specific Capacity (gpm/ft draw):	31.6
11. Acre Feet per 24 Hr:	6.1
Million Gallons per 24 Hr:	2.003
12. Cubic Feet per Second (cfs):	3.1
13. Horsepower Input to Motor:	136
14. Percent of Rated Motor Load (%):	99
15. Kilowatt Input to Motor:	101
16. Kilowatt-hours per mill gal:	1,211
17. Cost to Pump a million gal:	\$242.25
18. Energy Cost (\$/hour)	\$20.22
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,770
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	60

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be fair assuming this run represents plant's normal operating condition.

Meter Hours: 20150

Estimated savings of 39 kWh/AF and \$2.02 annual energy costs from a retrofit

Current OPE of 60% and estimated potential OPE of 67%



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pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR      Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 21  
23 GREAT OAKS BLVD                                Nameplate HP: 125.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112780

This is a Submersible pump used for Municipal and assumed to be operated 2161 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	66 %	66 %	
2. Nameplate Horsepower:	125.0 hp	125.0 hp	
3. Motor Efficiency:	91 %	91 %	
4. Actual Motor Input Horsepower:	134.5 hp	134.5 hp	
5. Motor loaded at:	98 %	98 %	
6. Flow rate (gpm):	1,706 gpm	1,706 gpm	
7. Pumping Level (ft):	57 ft	57 ft	
8. Discharge Pressure (psi):	64 psi	64 psi	
9. Total Dynamic Head (feet):	205 ft	205 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	220.61 mg/Yr*	220.61 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			<b>Estimated Savings from Retrofit</b>
12. Estimated Total kWh per Year:	216,748 kWh/yr	216,748 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	2,161 hr/yr*	2,161 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	980 kWh/mg	980 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$195.96 \$/mg	\$195.96 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 220.61 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 21/300 Enzo	<b>HP:</b>	125	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7804	<b>Lat</b>	37.25073	<b>Pump Make:</b>	Byron Jackson
<b>Motor Make:</b>	Byron-Jackson	<b>Type</b>	Submersible	<b>Meter Number:</b>	1009537954
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>	98-RW-0035	<b>Voltage:</b>	460
	23 Great Oaks BLVD	<b>Amps:</b>	165	<b>Our Test #:</b>	1
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018

**Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	57
2. Standing Water Level (ft):	22
3. Draw Down (ft):	35
4. Recovered Water Level (ft):	22
5. Discharge Pressure at Gauge (psi):	64
6. Total Lift (ft):	205
7. Flow Velocity (ft/sec):	7.0
8. Measured Flow Rate (gpm):	1,706
9. Customer Flow Rate (gpm):	1,672
10. Specific Capacity (gpm/ft draw):	48.7
11. Acre Feet per 24 Hr:	7.5
Million Gallons per 24 Hr:	2.457
12. Cubic Feet per Second (cfs):	3.8
13. Horsepower Input to Motor:	134
14. Percent of Rated Motor Load (%):	98
15. Kilowatt Input to Motor:	100
16. Kilowatt-hours per mill gal:	980
17. Cost to Pump a million gal:	\$195.96
18. Energy Cost (\$/hour)	\$20.06
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,751
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	66

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be good assuming this run represents plant's normal operating condition.

Meter Hours: 72682

Current OPE is close to optimum - no savings estimated for a retrofit

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pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 22  
23 GREAT OAKS BLVD                                Nameplate HP: 25.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112783

This is a Submersible pump used for Municipal and assumed to be operated 1000 hours/year. Abnormal after-project motor load seen with the reason given as: Reason not given by tester.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	72 %	72 %	
2. Nameplate Horsepower:	25.0 hp	30.0 hp	Note Change!
3. Motor Efficiency:	83 %	96 %	Note Change!
4. Actual Motor Input Horsepower:	18.4 hp	18.4 hp	
5. Motor loaded at:	61 %	51 %	
6. Flow rate (gpm):	160 gpm	160 gpm	
7. Pumping Level (ft):	138 ft	138 ft	
8. Discharge Pressure (psi):	82 psi	82 psi	
9. Total Dynamic Head (feet):	327 ft	327 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	9.57 mg/Yr*	9.57 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	13,700 kWh/yr	13,700 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	1,000 hr/yr*	1,000 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,427 kWh/mg	1,427 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$285.39 \$/mg	\$285.39 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 9.57 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 22/	<b>HP:</b>	25	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7239	<b>Lat</b> 37.1737	<b>Pump Make:</b>		
<b>Motor Make:</b>	Franklin	<b>Type</b>	Submersible	<b>Meter Number:</b> 1008834615	
<b>Customer Addr:</b>	Great Oaks Water Company		<b>Serial Number:</b>		
	23 Great Oaks BLVD		<b>Voltage:</b> 460 <b>Amps:</b> 39.5		
	San Jose, CA 95490		<b>Our Test #:</b> 11		
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018 **Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	138
2. Standing Water Level (ft):	21
3. Draw Down (ft):	117
4. Recovered Water Level (ft):	21
5. Discharge Pressure at Gauge (psi):	82
6. Total Lift (ft):	327
7. Flow Velocity (ft/sec):	1.0
8. Measured Flow Rate (gpm):	160
9. Customer Flow Rate (gpm):	160
10. Specific Capacity (gpm/ft draw):	1.4
11. Acre Feet per 24 Hr:	0.7
Million Gallons per 24 Hr:	0.230
12. Cubic Feet per Second (cfs):	0.4
13. Horsepower Input to Motor:	18
14. Percent of Rated Motor Load (%):	61
15. Kilowatt Input to Motor:	14
16. Kilowatt-hours per mill gal:	1,427
17. Cost to Pump a million gal:	\$285.39
18. Energy Cost (\$/hour)	\$2.74
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	3,450
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	72

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be very good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit



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Sebastopol, CA 95472

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pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 23 A  
23 GREAT OAKS BLVD                                Nameplate HP: 150.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112782

This is a Turbine pump used for Municipal and assumed to be operated 8429 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	68 %	68 %	
2. Nameplate Horsepower:	150.0 hp	150.0 hp	
3. Motor Efficiency:	96 %	96 %	
4. Actual Motor Input Horsepower:	136.5 hp	136.5 hp	
5. Motor loaded at:	87 %	87 %	
6. Flow rate (gpm):	1,322 gpm	1,322 gpm	
7. Pumping Level (ft):	138 ft	138 ft	
8. Discharge Pressure (psi):	61 psi	61 psi	
9. Total Dynamic Head (feet):	279 ft	279 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	666.80 mg/Yr*	666.80 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	858,072 kWh/yr	858,072 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	8,429 hr/yr*	8,429 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,283 kWh/mg	1,283 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$256.66 \$/mg	\$256.66 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 666.80 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 23 A/10 Laguna Ave	<b>HP:</b>	150	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.721	<b>Lat</b>	37.19804	<b>Pump Make:</b>	
<b>Motor Make:</b>	U.S.	<b>Type</b>	Turbine	<b>Meter Number:</b>	1009538267
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>	X 02 7639111-0004	<b>Voltage:</b>	460
	23 Great Oaks BLVD	<b>Amps:</b>	164	<b>Our Test #:</b>	10
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018 **Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	138
2. Standing Water Level (ft):	46
3. Draw Down (ft):	92
4. Recovered Water Level (ft):	46
5. Discharge Pressure at Gauge (psi):	61
6. Total Lift (ft):	279
7. Flow Velocity (ft/sec):	5.4
8. Measured Flow Rate (gpm):	1,322
9. Customer Flow Rate (gpm):	1,322
10. Specific Capacity (gpm/ft draw):	14.4
11. Acre Feet per 24 Hr:	5.8
Million Gallons per 24 Hr:	1.904
12. Cubic Feet per Second (cfs):	2.9
13. Horsepower Input to Motor:	136
14. Percent of Rated Motor Load (%):	87
15. Kilowatt Input to Motor:	102
16. Kilowatt-hours per mill gal:	1,283
17. Cost to Pump a million gal:	\$256.66
18. Energy Cost (\$/hour)	\$20.36
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,785
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	68

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.  
Overall efficiency of this plant is considered to be very good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit

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## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 23  
23 GREAT OAKS BLVD                                Nameplate HP: 125.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112781

This is a Turbine pump used for Municipal and assumed to be operated 8429 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	65 %	65 %	
2. Nameplate Horsepower:	125.0 hp	125.0 hp	
3. Motor Efficiency:	95 %	95 %	
4. Actual Motor Input Horsepower:	109.1 hp	109.1 hp	
5. Motor loaded at:	83 %	83 %	
6. Flow rate (gpm):	1,008 gpm	1,008 gpm	
7. Pumping Level (ft):	138 ft	138 ft	
8. Discharge Pressure (psi):	60 psi	60 psi	
9. Total Dynamic Head (feet):	277 ft	277 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	508.42 mg/Yr*	508.42 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			Estimated Savings from Retrofit
12. Estimated Total kWh per Year:	686,121 kWh/yr	686,121 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	8,429 hr/yr*	8,429 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,346 kWh/mg	1,346 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$269.16 \$/mg	\$269.16 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 508.42 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 23/10 Laguna Ave	<b>HP:</b>	125	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7211	<b>Lat</b>	37.1983	<b>Pump Make:</b>	No Name Plate
<b>Motor Make:</b>	U.S.	<b>Type</b>	Turbine	<b>Meter Number:</b>	1009538267
<b>Customer Addr:</b>	Great Oaks Water Company	<b>Serial Number:</b>	P 03 7342122-0021	<b>Voltage:</b>	460
	23 Great Oaks BLVD	<b>Amps:</b>	142	<b>Our Test #:</b>	9
	San Jose, CA 95490				
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce				
<b>Phone:</b>	(408) 227-9540	<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>	

### Test Results

**Test Date:** 2/21/2018 **Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	138
2. Standing Water Level (ft):	46
3. Draw Down (ft):	92
4. Recovered Water Level (ft):	46
5. Discharge Pressure at Gauge (psi):	60
6. Total Lift (ft):	277
7. Flow Velocity (ft/sec):	4.1
8. Measured Flow Rate (gpm):	1,008
9. Customer Flow Rate (gpm):	1,008
10. Specific Capacity (gpm/ft draw):	11.0
11. Acre Feet per 24 Hr:	4.5
Million Gallons per 24 Hr:	1.452
12. Cubic Feet per Second (cfs):	2.2
13. Horsepower Input to Motor:	109
14. Percent of Rated Motor Load (%):	83
15. Kilowatt Input to Motor:	81
16. Kilowatt-hours per mill gal:	1,346
17. Cost to Pump a million gal:	\$269.16
18. Energy Cost (\$/hour)	\$16.28
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,785
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	65

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.

Overall efficiency of this plant is considered to be good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit



# Pumping Efficiency Testing Services, PETS

*Serving you with accuracy and efficiency*

498 Water Trough Road  
Sebastopol, CA 95472

(866) 774-4812  
pumpingefficiency1@pacbell.net

## CONFIDENTIAL AND PROPRIETARY INFORMATION PUMPING COST ANALYSIS FROM: Pumping Efficiency Testing Services

JOHN ROEDER/JARED AJLOUNY/LORENZO AR    Test Date: 2/21/2018  
GREAT OAKS WATER COMPANY                      Pump: WELL 24  
23 GREAT OAKS BLVD                                Nameplate HP: 125.0  
SAN JOSE, CA 95490                                Our Pump Test Number: 112784

This is a Turbine pump used for Municipal and assumed to be operated 8700 hours/year.

The current OPE is high enough that little or no cost savings are estimated from a retrofit/repair.

NOTE: \* denotes a value that was  
Assumed or Provided by Customer

	Measured Pump Condition	Assumed Condition After Retrofit	Notes
1. Overall pumping efficiency:	67 %	67 %	
2. Nameplate Horsepower:	125.0 hp	125.0 hp	
3. Motor Efficiency:	95 %	95 %	
4. Actual Motor Input Horsepower:	141.6 hp	141.6 hp	
5. Motor loaded at:	108 %	108 %	
6. Flow rate (gpm):	1,302 gpm	1,302 gpm	
7. Pumping Level (ft):	151 ft	151 ft	
8. Discharge Pressure (psi):	60 psi	60 psi	
9. Total Dynamic Head (feet):	290 ft	290 ft	Rounded TDH = line 7. + (2.31 x line 8.)
10. Million Gallons Pumped/Year:	677.83 mg/Yr*	677.83 mg/Yr*	Same mg/yr AFTER!
11. Average Cost per kWh:	\$0.200 /kWh*	\$0.200 /kWh*	Same \$/kWh AFTER
			<b>Estimated Savings from Retrofit</b>
12. Estimated Total kWh per Year:	918,720 kWh/yr	918,720 kWh/yr	0 kWh/yr
13. Hours of Operation/yr:	8,700 hr/yr*	8,700 hr/yr	0 hr/yr
14. Kilowatt-Hours per mill gal:	1,352 kWh/mg	1,352 kWh/mg	0 kWh/mg
15. Average Cost Per mill gal:	\$270.33 \$/mg	\$270.33 \$/mg	\$0.00/mg = 0.00%
<b>- Estimated savings = \$0.00/mg = 0.00% of energy costs</b>			
<b>- If pumping 677.83 mg/year this equals about \$0 annual savings</b>			

### Analysis

### Remarks:

It is sincerely hoped that this information will prove helpful to you, and that your concerns over maintaining optimum pumping efficiency will continue. If you have any questions, please contact Bob Fraker at 7078293127.

Regards,

Bob Fraker

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## Pump Test Report

v.6.0 9/2014

### Customer and Facility Data

<b>Pump/Location:</b>	Well 24/8690 Monterey HWY	<b>HP:</b>	125	<b>Utility:</b>	PG & E
<b>GPS Coord.:</b>	<b>Long</b> -121.7163 <b>Lat</b> 37.19452	<b>Pump Make:</b>	Floway		
<b>Motor Make:</b>	U.S. <b>Type</b> Turbine	<b>Meter Number:</b>	1009538327		
<b>Customer Addr:</b>	Great Oaks Water Company 23 Great Oaks BLVD San Jose, CA 95490	<b>Serial Number:</b>	W 06 7629337-000		
<b>Contact:</b>	John Roeder/Jared Ajlouny/Lorenzo Arce	<b>Voltage:</b>	460	<b>Amps:</b>	142
<b>Phone:</b>	(408) 227-9540	<b>Our Test #:</b>	12		
<b>Fax:</b>	(408) 227-7126	<b>Cell:</b>			

### Test Results

**Test Date:** 2/21/2018 **Tester:** Bob Fraker

**Run Number ('E' = used for cost anal):** E-1

1. Pumping Water Level (ft):	151
2. Standing Water Level (ft):	36
3. Draw Down (ft):	115
4. Recovered Water Level (ft):	36
5. Discharge Pressure at Gauge (psi):	60
6. Total Lift (ft):	290
7. Flow Velocity (ft/sec):	3.7
8. Measured Flow Rate (gpm):	1,302
9. Customer Flow Rate (gpm):	1,302
10. Specific Capacity (gpm/ft draw):	11.3
11. Acre Feet per 24 Hr:	5.8
Million Gallons per 24 Hr:	1.875
12. Cubic Feet per Second (cfs):	2.9
13. Horsepower Input to Motor:	142
14. Percent of Rated Motor Load (%):	108
15. Kilowatt Input to Motor:	106
16. Kilowatt-hours per mill gal:	1,352
17. Cost to Pump a million gal:	\$270.33
18. Energy Cost (\$/hour)	\$21.12
19. Base Cost per Kwh:	\$0.200
20. Nameplate rpm:	1,765
21. rpm at Gearhead:	0
22. Overall Pumping Efficiency (%):	67

*If a Flow Velocity (line 7) is less than 1 ft/second, the accuracy of the test is suspect.*

*Note any major difference between the "Measured" flow rate and the "Customer's" (lines 8,9).*

### Remarks

All results are based on conditions during the time of the test. If these conditions vary from the normal operation of your pump, the results shown may not describe the pump's normal performance.  
Overall efficiency of this plant is considered to be very good assuming this run represents plant's normal operating condition.

Current OPE is close to optimum - no savings estimated for a retrofit