APPENDIX A
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PUBLIC REVIEW AND ADOPTION MATERIALS

In later versions of this report, this Appendix will include the following materials:

- Notification of Public Hearing (sent to cities and county)
- Notification of Public Hearing (posted in newspaper)
- Resolution of Intent to Adopt
- Resolution of Adoption

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APPENDIX C

URBAN WATER MANAGEMENT PLAN ACT

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CALIFORNIA WATER CODE DIVISION 6
PART 2.6. URBAN WATER MANAGEMENT PLANNING

All California Codes have been updated to include the 2010 Statutes.

WATER CODE
SECTION 10610-10610.4

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact

on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

WATER CODE SECTION 10611-10617

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city

and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

WATER CODE SECTION 10620-10621

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water

supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

WATER CODE SECTION 10630-10634

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(A) An average water year.

(B) A single dry water year.

(C) Multiple dry water years.

(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multifamily residential customers.

(B) Residential plumbing retrofit.

(C) System water audits, leak detection, and repair.

(D) Metering with commodity rates for all new connections and retrofit of existing connections.

(E) Large landscape conservation programs and incentives.

(F) High-efficiency washing machine rebate programs.

(G) Public information programs.

(H) School education programs.

(I) Conservation programs for commercial, industrial, and institutional accounts.

(J) Wholesale agency programs.
(K) Conservation pricing.
(L) Water conservation coordinator.
(M) Water waste prohibition.
(N) Residential ultra-low-flush toilet replacement programs.
(2) A schedule of implementation for all water demand management measures proposed or described in the plan.
(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.
(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.
(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:
(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
(2) Include a cost-benefit analysis, identifying total benefits and total costs.
(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.
(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.
(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
(j) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivisions (f) and (g) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California,"

dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

(k) Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.1. (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall

determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, "not locally cost effective" means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

(B) The department may require additional information for any determination pursuant to this section.

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of

the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

(c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).

(d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.

(e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

(f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

10631.7. The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

10632. (a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:

(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.

(2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic

sequence for the agency's water supply.

(3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

(6) Penalties or charges for excessive use, where applicable.

(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

(8) A draft water shortage contingency resolution or ordinance.

(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

(b) Commencing with the urban water management plan update due December 31, 2015, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) The projected use of recycled water within the supplier's

service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

WATER CODE SECTION 10635

10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

WATER CODE
SECTION 10640-10645

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644. (a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

(c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report those water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section

10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

(2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

(3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

WATER CODE
SECTION 10650-10656

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the

"Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

APPENDIX D

GROUNDWATER BASIN INFORMATION

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Russell Valley Groundwater Basin

- Groundwater Basin Number: 4-20
- County: Los Angeles, Ventura
- Surface Area: 3,100 acres (4.9 square miles)

Basin Boundaries and Hydrology

The Russell Valley Groundwater Basin is a relatively small alluvial basin bounded by semi-permeable rocks of the Santa Monica Mountains (CSWRB 1953; DWR 1959). The basin is bordered on the west by the Thousand Oaks Groundwater Basin. Triunfo Creek drains the valley into Malibu Creek. Average annual precipitation ranges from 18 to 20 inches.

Hydrogeologic Information

Water Bearing Formations

The principal water-bearing formation is Holocene age alluvium, although some groundwater is extracted from underlying volcanic rocks and older Tertiary sedimentary rocks (DWR 1959). Holocene age alluvium consists of unconsolidated, poorly bedded, poorly sorted to sorted sand, gravel, silt, and clay with some cobbles and boulders that averages about 35 to 55 feet thick; groundwater is unconfined (VCPWA 2002).

Restrictive Structures

No information is available.

Recharge Areas

Recharge is dominantly from percolation of rainfall (VCPWA 2002).

Groundwater Level Trends

One well in the eastern part of the basin fluctuated about 4 feet during 1956 through 1964 then rose about 15 feet during 1965 through 1969 (Panaro 2002).

Groundwater Storage

Groundwater Storage Capacity. The total storage capacity is estimated at 10,570 af (Panaro 2000; VCPWA 2002).

Groundwater in Storage. Unknown.

Groundwater Budget (Type A)

Recharge from underflow is estimated to be 300 to 500 af/yr and about 50 to 150 af/yr more from irrigation return (VCPWA 2002). Extraction is estimated to be about 600 af/yr (VCPWA 2002).

Groundwater Quality

Characterization. The chemical character of groundwater is generally sodium bicarbonate or calcium bicarbonate water (VCPWA 1996), but also may be sodium bicarbonate or calcium-magnesium sulfate (DWR 1959). The TDS content in the Russell Valley Groundwater Basin usually ranges from 800 to 1,200 mg/l (VCPWA 1996), but was also reported to range from

400 to 2,800 mg/L (DWR 1959). Sulfate averages 300 mg/L in most wells due to the volcanic basalt that constitutes the basement rock (VCPWA 1996).

Impairments. TDS and sulfate both exceed their MCL for some wells in the basin.

Well Production characteristics

	Well yields (gal/min)	
Municipal/Irrigation	Range:	Average: 25 gal/min (VCPWA 1996)
	Total depths (ft)	
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Department of Health Services and cooperators	Groundwater levels Miscellaneous water quality Title 22 water quality	

Basin Management

Groundwater management:

Water agencies	
Public	Calleguas Municipal Water District, Ventura County Public Works Agency
Private	

References Cited

California Department of Water Resources (DWR). 1959. *Water Quality and Water Quality Problems, Ventura County.* Bulletin 75. Two Volumes. 195 p.

California State Water Resources Board (CSWRB). 1953. *Ventura County Investigation.* Bulletin 12. Two Volumes.

Panaro, D. 2000. Fox Canyon Groundwater Management Agency: Written Communication to R.R. Davis (DWR), March 21, 2000.

_____ 2002. Fox Canyon Groundwater Management Agency: Written Communication to T.M. Ross (DWR), July 2, 2002.

Ventura County Public Works Agency (VCPWA). 1996. *Ventura County Groundwater Quality Assessment Report.* 57 p.

_____. 2002. "Ventura County Groundwater Basins." http://www.ventura.org/vcpwa/wre/wrd/pages/BASINS.htm

Additional References

California Department of Public Works, Division of Water Resources (CDPW). 1933. *Ventura County Investigation.* Bulletin 46.

California Department of Water Resources (DWR). 1975. *California's Ground Water.* Bulletin 118. 135 p.

California State Water Resources Board (CSWRB). 1953. *Ventura County Investigation.* Bulletin 12. Two Volumes.

Errata

Changes made to the basin description will be noted here.

APPENDIX E

2010 WATER QUALITY REPORT

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Dear Valued Customer:

While the supply of water to southern California is reduced, I am happy to report the quality of your drinking water remains excellent. This report provides details on the many ways we monitor your water, which is the most tested substance you consume.

Last year, Las Virgenes customers conserved a significant amount of water. Your efforts at saving water made a difference. However, even with a wet winter, judicial pumping constraints limit the amount of water that flows to our region. Your conservation efforts continue to be both important and necessary.

I invite you to stay informed on water issues through our website, www.LVMWD.com, our customer publication The Current Flow, which is included with each billing statement as well as being available online, and through our program of free quarterly facility tours. You are also welcome to attend meetings of the LVMWD Board of Directors, which are scheduled on the second and fourth Tuesday of each month at 5 p.m. at our Headquarters Building, 4232 Las Virgenes Road in Calabasas. Check the website for meeting schedule updates and agenda information. If you have questions about any aspect of your water service, please call Customer Service at 818.251.2200.

John R. Mundy
General Manager

4232 Las Virgenes Road
818-251-2200
www.LVMWD.com

Chinese

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

Spanish

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Korean

이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.

German

Der Bericht enthält wichtige Informationen über die Wasserqualität in Ihrer Umgebung. Der Bericht sollte entweder offiziell uebersetzt werden, oder sprechen Sie mit Freunden oder Bekannten, die gute Englischkenntnisse besitzen.

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Annual Water Quality Report 2009
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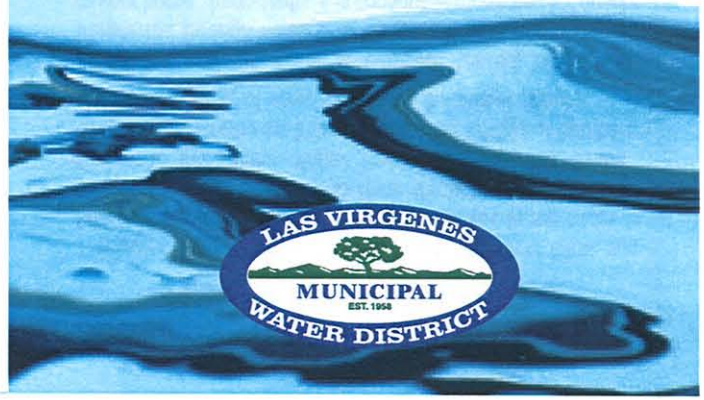
Your partner in saving water –
our most precious resource.

Annual

Water Quality Report

Water Analysis performed in 2009

Commitment to Community



A Message from the U.S. EPA

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

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.

Contaminants that may be present in source water before treatment include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, U.S. EPA and the California Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Health Advisory for Persons with Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

Some substances are known to especially affect people with weakened immune systems. This is the case with a microscopic parasite called, "Cryptosporidium" which can cause a life-threatening infection. Cryptosporidium is found in surface water (which comes from rivers, snowmelt, and streams as opposed to ground water from wells) and some occasionally pass into the treated water supply. Although Cryptosporidium may be spread via drinking water, it is more commonly spread through poor hygiene or contaminated foods.

In 2009, there was no evidence of Cryptosporidium in water leaving Metropolitan Water District of Southern California's (MWD) Jensen Water Treatment Plant, which disinfects water supplied to LVMWD, or at LVMWD's Westlake Filtration Plant.

Guidelines from EPA and the U.S. Centers for Disease Control and Prevention to reduce the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Where does our water come from?

Las Virgenes Municipal Water District was founded because there were no local, reliable sources of quality drinking water. As much of our service area rests on volcanic soil, there are no underground storage aquifers or streams that can be drawn upon.

LVWMD is a member agency of the Metropolitan Water District of Southern California, which is our sole supplier of potable water. Metropolitan delivers water to LVMWD from the State Water Project, bringing water from the western Sierras in northern California through the Sacramento – San Joaquin Delta where it is pumped into the California Aqueduct.

After a journey of several hundred miles, to its terminus near Sylmar, your water is filtered, treated and disinfected before being delivered to LVMWD for distribution.

While Metropolitan also receives water from the Colorado River, our area relies upon the State Water Project, which has an established history of providing very high quality water.

Managing Your Water, From Snowfall to Your Tap

The water LVMWD delivers to you begins as rain or snow that falls in the western Sierras, hundreds of miles to the north. It travels down the Sacramento River through the State Water Project to the Jensen Water Treatment Plant near Sylmar, which is operated by the Metropolitan Water District of Southern California (MWD), of which LVMWD is a member agency.

Along the way the water is pumped, filtered, disinfected, transferred through miles of underground pipe and delivered to your home. Importantly, it is continually monitored for quality and safety.

MWD and LVMWD take pride in protecting the water you drink. Reducing the exposure of water to contaminants not only means higher quality water, it reduces treatment costs. LVMWD and other water utilities that deliver surface water are required to complete a Watershed Sanitary Survey every five years. These surveys examine the potential sources of drinking water contamination and identify improved methods for protecting water quality at its source. LVMWD and MWD have completed these required surveys.

For More Information

LVMWD

Phone: (818) 251-2200
Fax: (818) 251-2109
E-mail: Customer_Service@LVMWD.com

Additional information about drinking water safety and standards can be found at:

California Department of Public Health

Office of Drinking Water
601 N. 7th St.
Sacramento, CA 94234-7320
http://www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx

U.S. Environmental Protection Agency (EPA)

Office of Ground and Drinking Water
401 M. St., SW
Washington, DC 20460
www.epa.gov/safewater/

EPA Safe Drinking Water Hotline

(800) 426-4791
http://www.epa.gov/safewater/standards.html

U.S. Centers for Disease Control and Prevention

1600 Clifton Road
Atlanta, GA 30333
(800) 311-3435
www.cdc.gov

Sampling Results - Water Quality Report (based on data collected 2009)

Primary Standards apply to constituents that may be unhealthy at certain levels. They are measured in terms of Maximum Contaminant Levels (MCLs) established by the California Department of Health Services. If water contains a contaminant level above the primary MCL, the safety of the water cannot be assured. None of the tests for water served to LVMWD's customers exceeded the MCLs.

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Jensen Plant		LVMWD		Major Sources in Drinking Water
Primary Standards – Mandatory Health-Related Standards					Range	Average - Highest RAA*	Range	Average - Highest RAA*	
Clarity									
Combined Filter	NTU	0.3			Highest	0.06	Highest	0.42	Soil runoff
Effluent Turbidity	%	95 (a)	NA	NA	% < 0.3	100		100	
Microbiological									
Total Coliform Bacteria (b)	%	5.0	(0)	NA	0-0.2	0	0-0	0	Naturally present in the environment
Heterotrophic Plate Count (HPC) (c)	CFU/mL	TT	NA	NA	TT	TT	TT	TT	Naturally present in the environment
Inorganic Chemicals									
Aluminum (d)	ppb	1,000	600	50	ND - 100	76*	ND - 100	42	Residue from water treatment process; natural deposits erosion
Arsenic	ppb	10	0.004	2	2.5 - 3.9	3.1*	1.3 - 3.8	2.4	Natural deposits erosion, glass and electronics production wastes
Fluoride (e) Treatment-related	ppm	2.0	1	0.1	0.6 - 0.9	0.8	0.5 - 0.8	0.6	Water additive for dental health
Nitrate (as N) (f)	ppm	10	10	0.4	0.6 - 0.9	0.8*	ND - 0.8	0.3	Runoff and leaching from fertilizer use; septic tank and sewage; natural deposits erosion
Radiologicals									
Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND - 7.3	3.4	ND - 6.9	3.2	Erosion of natural deposits
Gross Beta Particle Activity (g)	pCi/L	50	(0)	4	ND - 5.2	ND	ND	ND	Decay of natural and man-made deposits
Uranium	pCi/L	20	0.43	1	1.6 - 2.0	1.8	1.2 - 2.6	1.9	Erosion of natural deposits
Disinfection By-Products, Disinfectant Residuals, and Disinfection By-Products Precursors (h)									
Total Trihalomethanes (TTHM) (i)	ppb	80	NA	1	17 - 33	28	3 - 35	26	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) (i)	ppb	80	NA	1	15 - 81	39*	3 - 35	29*	By-product of drinking water chlorination
Haloacetic Acids (five) (HAA5) (j)	ppb	60	NA	1	2.0 - 3.2	2.5	ND - 4.8	3.4	By-product of drinking water chlorination
Haloacetic Acids (five) (HAA5) (j)	ppb	60	NA	1	1.5 - 30	14*	ND - 4.8	4.5*	By-product of drinking water chlorination
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	1.5 - 3.0	2.4*	ND - 2.9	2.0	Drinking water disinfectant added for treatment
Bromate (k)	ppb	10	0.1	5.0	4.2 - 12	6.9*	NA	NA	By-product of drinking water ozonation
DBP Precursors Control (TOC)	ppm	TT	NA	0.30	TT	TT	TT	TT	Various natural and man-made sources

Secondary Standards – Aesthetic Standards					Range	Average - Highest RAA*	Range	Average	
Aluminum (d)	ppb	200	600	50	ND - 100	76*	ND - 100	42	Residue from water treatment process; natural deposits erosion
Chloride	ppm	500	NA	NA	77 - 82	79*	79 - 83	81	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	NA	NA	1 - 2	2*	ND - 5	ND	Naturally-occurring organic materials
Manganese	ppb	50	NL = 500	20	ND	ND	ND - 30	9	Leaching from natural deposits
Odor Threshold	TON	3	NA	1	2	2	ND - 3	ND	Naturally-occurring organic materials
Specific Conductance	µS/cm	1,600	NA	NA	570 - 610	590*	580 - 620	600	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	0.5	56 - 70	66*	58 - 67	62	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	ppm	1,000	NA	NA	310 - 340	330*	320 - 370	340	Runoff/leaching from natural deposits; seawater influence

Turbidity (a)	NTU	5	NA	NA	0.04 - 0.05	0.04*	0.07 - 0.6	0.25	Soil runoff

Other Parameters					Range	Average - Highest RAA*	Range	Average	
Microbiological									
HPC (c)	CFU/mL	TT	NA	NA	ND - 20	ND	ND - 240	1	Naturally present in the environment
Chemical									
Alkalinity	ppm	NA	NA	NA	84 - 93	90*	89 - 104	98	
Boron	ppb	NL = 1,000	NA	100	190 - 220	200*	NA	NA	Runoff/leaching from natural deposits; industrial wastes
Calcium	ppm	NA	NA	NA	27 - 33	31*	27 - 30	29	
Chlorate	ppb	NL = 800	NA	20	ND	ND - 79	NA	NA	By-product of drinking water chlorination; industrial processes
Chromium VI (l)	ppb	NA	NA	1	0.36 - 0.63	0.50*	NA	NA	Industrial waste discharge; could be naturally present as well
Corrosivity (m) (as Aggressiveness Index)	AI	NA	NA	NA	12.0 - 12.1	12.0	NA	NA	Elemental balance in water; affected by temperature, other factors
Corrosivity (n) (as Saturation Index)	SI	NA	NA	NA	0.13 - 0.27	0.21	-0.2 - 0.2	0.07	Elemental balance in water; affected by temperature, other factors
Hardness	ppm	NA	NA	NA	120 - 130	130*	120 - 140	127	
Magnesium	ppm	NA	NA	NA	11 - 12	13*	11 - 15	13	
pH	Units	NA	NA	NA	8.1 - 8.3	8.2	6.2 - 8.9	7.8	
Potassium	ppm	NA	NA	NA	2.6 - 2.9	2.8*	NA	NA	
Sodium	ppm	NA	NA	NA	66 - 74	68*	62 - 66	64	
TOC	ppm	TT	NA	0.30	1.2 - 1.7	1.7*	2.0 - 3.1	2.7	Various natural and man-made sources
Vanadium	ppb	NL = 50	NA	3	6.1 - 6.7	6.4	NA	NA	Naturally-occurring; industrial waste discharge
N-Nitrosodimethylamine (NDMA) (o)	ppb	NL = 0.01	0.003	0.002	0.002 - 0.006	ND - 0.01	NA	NA	By-product of drinking water chloramination; industrial processes

Abbreviations

AI	Aggressiveness Index
AL	Action Level
CFU	Colony-Forming Units
DBP	Disinfection By-Products
DLR	Detection Limits for purposes of Reporting
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
N	Nitrogen
NA	Not Applicable
ND	Not Detected
NL	Notification Level
NTU	Nephelometric Turbidity Units
P or ND	Positive or Not Detected
pCi/L	picoCuries per Liter
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter (µg/L)
ppm	parts per million or milligrams per liter (mg/L)
RAA	Running Annual Average
SI	Saturation Index (Langelier)
TOC	Total Organic Carbon
TON	Threshold Odor Number
TT	Treatment Technique
µS/cm	microSiemen per centimeter; or micromho per centimeter (µmho/cm)

Footnotes

(a) For the Jensen plant, the turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1 NTU at any time. For the Westlake plant, the turbidity level of the filtered water shall be less than or equal to 0.5 NTU in 95% of the measurements taken each month and shall not exceed 5.0 NTU at any time. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance. The averages and ranges of turbidity shown in the Secondary standards were based on the treatment plant effluent.

(b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform-positive. Compliance is based on the combined distribution system sampling from all the treatment plants. In 2009, 994 samples were analyzed. The MCL was not violated.

(c) All MWD distribution samples collected had detectable total chlorine residuals and no HPC testing was required. HPC reporting level is 1 CFU/mL.

(d) Aluminum has both primary and secondary standards.

(e) Metropolitan was in compliance with all provisions of the State's Fluoridation System Requirements. Control Range - 0.7 - 1.3 ppm, Optimal Fluoride Level - 0.8 ppm

(f) State MCL is 45 mg/L as nitrate, which is the equivalent of 10 mg/L as N.

(g) The gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. The screening level is 50 pCi/L.

(h) Metropolitan was in compliance with all provisions of the Stage 1 Disinfectants/Disinfection By-Products (D/DBP) Rule. Compliance was based on the RAA.

(i) Reporting level is 0.5 ppb for each of the following: bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

(j) DLR is 1.0 ppb for each of the following: dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid; and 2.0 ppb for monochloroacetic acid.

(k) Bromate reporting level is 3 ppb.

(l) Chromium VI reporting level is 0.03 ppb.

(m) AI <10.0 = Highly aggressive and very corrosive water; AI > 12.0 = Non-aggressive water; AI (10.0 - 11.9) = Moderately aggressive water

(n) Positive SI index = non-corrosive; tendency to precipitate and/or deposit scale on pipes; Negative SI index = corrosive; tendency to dissolve calcium carbonate

(o) Analysis conducted by Metropolitan's Water Quality Laboratory using Standard Methods 6450B.

Addendum to 2009 Water Quality Report

Parameter	Year Sampled	Unit	AL	PHG (MCLG) [MRDLG]	State DLR	90th Percentile	# Sites Sample	# Sites Above AL	Exceeded AL Y/N	Major Sources in Drinking Water
Lead and Copper Tap Monitoring										
Lead	2008	ppb	15	0.2	5	6.5	30	0	N	House pipes internal corrosion; erosion of natural deposits
Copper	2008	ppb	1300	300	50	230	30	0	N	House pipes internal corrosion; erosion of natural deposits

Abbreviations

AL	Action Level
DLR	Detection Limits for purposes of Reporting
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter (µg/L)
ppm	parts per million or milligrams per liter (mg/L)

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Las Virgenes Municipal Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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 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 or at http://www.epa.gov/safewater/lead

APPENDIX F

ORDINANCES AND RESOLUTIONS

This appendix includes the following Ordinances and Resolutions:

Ordinance 01-09-254
Ordinance 03-09-256
Ordinance 04-03-241
Ordinance 05-10-262
Ordinance 07-09-257
Resolution 03-10-2399 and 2400
Resolution 04-09-2388
Resolution 05-10-2401
Resolution 05-10-2404
Water Shortage Response Plan

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1/27/2009

ORDINANCE NO. 01-09-254

AN ORDINANCE OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT AMENDING ORDINANCE NO. 11-86-161 (LAS VIRGENES CODE) AS IT RELATES TO WATER CONSERVATION

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. Purpose.

This ordinance amends the Las Virgenes Code to introduce additional mandatory water conservation measures pursuant to Water Code Section 71610.5.

2. Amendment.

Section 3-4.404 of Ordinance No. 11-86-161 is hereby amended and reenacted to read as follows:

"3-4.404 WATER CONSERVATION MEASURES

(a) Customers shall comply with the following water conservation measures:

(1) Potable water shall not be used to clean or sweep hard surfaces such as sidewalks, walkways, driveways or parking areas unless the washing is performed with an approved water conservation broom, and only as necessary to protect the public health and safety.

(2) Restaurants shall serve water only on request of the customers.

(3) Hotels, motels and other places for commercial transient occupancy shall offer guests who stay more than one night the opportunity to retain towels and linens during their stay.

(4) Car washing is permitted only with the use of a nozzle having an automatic shut-off.

(b) Customers shall use the following irrigation practices:

(1) Irrigation shall occur after 5:00 p.m. and before 10:00 a.m., provided no irrigation is permitted during rainfall, provided further, irrigation is not permitted for 24 hours after rainfall in excess of 1 inch.

(2) Irrigation shall not run off to streets, gutters or adjacent properties.

(3) The District shall assist in the promotion of water efficient irrigation practices by monitoring compliance with landscaping plans approved by cities and the county under the Water Conservation in Landscaping Act. The District shall notify the city or county with jurisdiction by law if it is determined that a landscaping plan has been breached."

3. Amendment.

Section 3-4.406 of Ordinance No. 11-86-161 is hereby repealed.

4. Amendment.

Section 3-4.407 of Ordinance No. 11-86-161 is hereby amended and reenacted to read as follows:

"3-4.407 WATER SHORTAGE RESPONSE – DROUGHT AND EMERGENCIES

(a) The General Manager shall recommend responses to water shortage emergencies as the need arises. The board shall adopt additional conservation measures as appropriate.

(b) A customer may request relief from mandatory conservation practices by filing a written appeal with the General Manager.

(c) The General Manager may grant relief in case of hardship if all feasible means of conserving water have been exercised, including but not limited to: retrofitting high-flow toilets with Ultra Low-Flush Toilets ("ULFT") or High Efficiency Toilets ("HET"); installation of low-flow showerheads; a water audit by the District and compliance with staff recommendations; and no observable runoff.

(d) The decision of the General Manager may be appealed to a five-member water shortage committee appointed by the board. The committee shall review the General Manager's decision and approve or deny the petition based on the circumstances of each case. Decisions of the committee shall be final."

5. Amendment.

Section 3-4.408 is hereby added to Ordinance No. 11-86-161 to read as follows:

"3-4.408 ENFORCEMENT

(a) Customers shall be notified in writing when the first violation of this article is discovered by the District. The notice shall include a warning that further violations could result in stricter penalties as set forth below.

(b) Customers who violate this article for a second time within a twelve-month period have committed an infraction punishable by a fine of up to $50.00.

(c) Customers who violate this article for a third time within a twelve-month period have committed an infraction punishable by a fine of up to $100.00

(d) Customers who violate this article for a fourth time within a twelve-month period have committed an infraction punishable by a fine of up to $250.

(e) The District may install flow restrictors or terminate service to customers who have violated provisions of this article five times within a twelve-month period.

(f) Customers shall be encouraged to report violations of this article through the District's water conservation "hot line"."

(g) Fines collected pursuant to this section shall be deposited in a special fund and spent to provide assistance for water reduction appliances and processes.

6. Other.

Except as provided herein, Ordinance No. 11-86-161 is reaffirmed and readopted.

PASSED, APPROVED AND ADOPTED on January 27, 2009.

Charles Caspary, President

ATTEST:

Glen Peterson, Secretary

APPROVED AS TO FORM:

Wayne Lemieux, Legal Counsel

[Seal]

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, KIMMEY CONKLIN, Assistant Deputy Secretary of the Board of Directors of Las Virgenes Municipal Water District, DO HEREBY CERTIFY the foregoing Ordinance was duly adopted by the Board of Directors of said District at a regular meeting of said Board held on the 27th day of January, 2009, and it was so adopted by the following vote:

YES: Directors: Bowman, Caspary, Peterson, Renger and Smith

NOES: Directors: None

ABSENT: Directors: None

ABSTAIN: Directors: None

Kimmey Conklin

Assistant Deputy Secretary of Las Virgenes Municipal Water District and of the Board of Directors thereof

(SEAL)

3/24/2009

ORDINANCE NO. 03-09-256

AN URGENCY ORDINANCE OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT AMENDING ORDINANCE NO. 11-86-161 (LAS VIRGENES CODE) ADOPTING FURTHER WATER CONSERVATION MEASURES

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. Purpose.

This ordinance amends the Las Virgenes Code to establish further water conservation regulations as a result of reductions in the amount of water delivered to the District by the Metropolitan Water District of Southern California ("Metropolitan").

2. Findings.

The following facts are true:

(a) The District obtains its entire potable water supply from Metropolitan.

(b) Metropolitan obtains water for the District through the State Water Project.

(c) The Department of Water Resources has informed Metropolitan to expect delivery of approximately 20% of its entitlement for State Water Project water during the next year.

(d) The yield of the State Water Project has been reduced because of drought conditions in Northern California and a series of court decisions which have required the State Water Project to release water for the protection of fishes instead of delivering water to Metropolitan.

(e) While it is possible for additional rainfall to lessen the impact of drought conditions on the State Water Project, the aforementioned court decrees will prevent the State Water Project from delivering its full yield for several years.

(f) Based on the foregoing, the amount of water available to the District for distribution and sale to its customers will be severely reduced and is likely to continue to be severely reduced for the foreseeable future.

(g) This ordinance is an urgency ordinance because it must be adopted immediately on first reading to ensure adequate water supply for the customers of the District.

3. Amendment.

Section 3-4.409 is hereby added to Ordinance No. 11-86-161 (Las Virgenes Code) to read as follows:

"3-4.409 WATER SHORTAGE RESPONSE – WATER BUDGETS

(a) A water budget shall be assigned to each potable water customer based on the customer's classification. Water budget shall reflect water supply allocation levels to the District by Metropolitan. The General Manager shall provide each customer with thirty days' notice of the customer's water budget.

(b) Customers who consume no more water than their budget will pay normal rates and charges. Customers who consume more than their water budget will be assessed a surcharge for usage above the budget. Proceeds collected as a result of a surcharge will be used to pay penalties assessed by Metropolitan, to stabilize rates, to support water conservation programs, and at the discretion of the Board of Directors, to rebate surcharges to customers.

(c) The water shortage committee shall hear appeals concerning the customer's water budget pursuant to an appeals process approved by the board of directors. The General Manager and District Counsel shall provide support to the committee.

(d) The water allocation levels for each classification and surcharge rates shall be established by the board from time to time by resolution."

4. Other.

Except as provided herein, Ordinance No. 11-86-161 is reaffirmed and readopted. This ordinance is effective immediately.

PASSED, APPROVED AND ADOPTED on March 24, 2009.

Charles Caspary
President

ATTEST:

Glen Peterson
Secretary

[Seal]

APPROVED AS TO FORM:

Wayne Lemieux
District Counsel

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, JOHN R. MUNDY, Deputy Secretary of the Board of Directors of Las Virgenes Municipal Water District, DO HEREBY CERTIFY the foregoing Ordinance was duly adopted by the Board of Directors of said District at a regular meeting of said Board held on the 24th day of March, 2009, and it was so adopted by the following vote:

YES: Directors: Bowman, Caspary, Peterson, Renger and Smith

NOES: Directors: None

ABSENT: Directors: None

ABSTAIN: Directors: None

Deputy Secretary of Las Virgenes Municipal
Water District and of the Board of Directors thereof

(SEAL)

5/11/2010

ORDINANCE NO. 05-10-262

AN ORDINANCE OF THE BOARD OF DIRECTORS OF
LAS VIRGENES MUNICIPAL WATER DISTRICT
AMENDING ORDINANCE NO. 11-86-161
(LAS VIRGENES CODE)
ADOPTING FURTHER WATER CONSERVATION MEASURES

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. Purpose.

This ordinance supersedes Ordinance No. 03-09-256 and amends the Las Virgenes Code to establish further water conservation regulations as a result of reductions in the amount of water delivered to the District by the Metropolitan Water District of Southern California ("Metropolitan").

2. Findings.

The following facts are true:

(a) The District obtains its entire potable water supply from Metropolitan.

(b) Metropolitan obtains water for the District through the State Water Project.

(c) The Department of Water Resources has informed Metropolitan to expect delivery of approximately 20% of its entitlement for State Water Project water during the next year.

(d) The yield of the State Water Project has been reduced because of drought conditions in Northern California and a series of court decisions which have required the State Water Project to release water for the protection of fishes instead of delivering water to Metropolitan.

(e) While it is possible for additional rainfall to lessen the impact of drought conditions on the State Water Project, the aforementioned court decrees will prevent the State Water Project from delivering its full yield for several years.

(f) Based on the foregoing, the amount of water available to the District for distribution and sale to its customers will be severely reduced and is likely to continue to be severely reduced for the foreseeable future.

3. Amendment.

Section 3-4.409 is hereby added to Ordinance No. 11-86-161 (Las Virgenes Code) to read as follows:

"3-4.409 WATER SHORTAGE RESPONSE – WATER BUDGETS

(a) A water budget shall be assigned to each potable water customer based on the customer's classification. Water budget shall reflect water supply allocation levels to the District by Metropolitan. The General Manager shall provide each customer with thirty days' notice of the customer's water budget.

(b) Customers who consume no more water than their budget will pay normal rates and charges. Customers who consume more than their water budget will be assessed a surcharge for usage above the budget. Proceeds collected as a result of a surcharge will be used to pay penalties assessed by Metropolitan, and at the discretion of the Board of Directors, may be refunded to customers, and/or stabilize rates, and/or support water conservation programs.

(c) District staff shall process water budget adjustments and appeals pursuant to an appeals process approved by the board of directors.

(d) The water allocation levels for each classification and surcharge rates shall be established by the board from time to time by resolution."

4. Other.

Except as provided herein, Ordinance No. 11-86-161 is reaffirmed and readopted. This ordinance is effective immediately.

PASSED, APPROVED AND ADOPTED on _____, 2010.

_____
Charles Caspary
President

ATTEST:

_____
Glen Peterson
Secretary

[Seal]

APPROVED AS TO FORM:

_____
Wayne Lemieux
District Counsel

7/14/2009

ORDINANCE NO. 07-09-257

AN ORDINANCE OF THE BOARD OF DIRECTORS OF
LAS VIRGENES MUNICIPAL WATER DISTRICT
AMENDING ORDINANCE NO. 11-86-161
(LAS VIRGENES CODE)
AS IT RELATES TO WATER CONSERVATION INCENTIVES

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. Purpose.
This ordinance amends the Las Virgenes Code concerning water conservation incentives.

2. Amendment.
Section 3-4.405 of Ordinance No. 11-86-161 is amended and reenacted to read as follows:

" 3-4.405 Conservation Incentives

Customers are encouraged to make the most efficient use of the potable and recycled water supplies. The district may by resolution offer financial and other incentives to customers who replace high volume water use equipment, appliances and devices with low volume water use equipment, appliances and devices."

3. Other.
Except as provided herein, Ordinance No. 11-86-161 is reaffirmed and readopted.

PASSED, APPROVED AND ADOPTED on July 14, 2009.

Charles Caspary, President

ATTEST:

Glen Peterson, Secretary

[Seal]

APPROVED AS TO FORM:

Wayne Lemieux, Legal Counsel

4/14/2009

RESOLUTION NO. 04-09-2388

A RESOLUTION OF THE BOARD OF DIRECTORS OF
LAS VIRGENES MUNICIPAL WATER DISTRICT
ESTABLISHING WATER SUPPLY ALLOCATION LEVELS AND
RATE SURCHARGES FOR CONSERVATION PURPOSES

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. **Purpose.**

This resolution implements changes to District practices to achieve water conservation in order to meet the Regional Water Shortage Level 2 allocations as called by Metropolitan Water District of Southern California ("Metropolitan") on April 14, 2009.

2. **Water Budget Allocation Levels.**

Effective immediately the following water allocation levels are established for each customer classification to reflect the reduction in allocation by Metropolitan:

Single Family	15,291 acre-feet annually
Multi Family	1,378 acre-feet annually
Commercial	1,725 acre-feet annually
Irrigation	929 acre-feet annually

Water shall be allocated to an individual customer in each classification as described in the Water Shortage Response Framework as approved by the Board of Directors on March 10, 2009 and affirmed on April 14, 2009.

3. **Water Surcharge.**

Effective with service periods beginning on or after July 1, 2009, a water surcharge of $3.00 is established for each billing unit used above the customer's water budget.

PASSED, APPROVED AND ADOPTED on April 14, 2009.

Charles Caspary
President

ATTEST:

Glen Peterson
Secretary

(SEAL)

APPROVED AS TO FORM:

Wayne K. Lemieux
District Counsel

5/11/2010

RESOLUTION NO. 05-10-2401

RESOLUTION OF THE BOARD OF DIRECTORS OF
LAS VIRGENES MUNICIPAL WATER DISTRICT
DEALING WITH WATER BUDGET ALLOCATIONS AND SURCHARGE CREDITS

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. **Purpose.**

In response to reductions in water supply, the District assesses surcharges for usage exceeding customer water allocations. This resolution permits customers using less than their allocated amount to obtain an allocation credit against future usage. This resolution also permits refunds.

2. **Allocation Credits.**

(a) Customers will be credited with all amounts of unused water allocation assigned to a billing period.

(b) Credits of unused water allocation will offset water use in excess of allotment during subsequent billing periods.

3. **Surcharge Credits.**

(a) A customer who has paid water surcharges for the first three billing periods in the allocation year shall be credited the entire surcharge if the customer usage is equal to or less than the cumulative water allocation for those billing periods.

(b) A customer who has paid water surcharges for the first three billing periods in the allocation year shall be credited 90% of the surcharge if the customer has exceeded the cumulative water allocation for those billing periods.

(c) Surcharge credits shall be applied to the customer's account against all future water charges unless the customer requests a refund by check.

4. **Effective Dates.**

(a) Unused water allocation credits will be forfeited on July 1, 2010.

(b) Surcharge credits shall cease for water delivered on or after July 1, 2010.

(c) The board will consider this subject annually.

PASSED, APPROVED AND ADOPTED this 11th day of May, 2010.

Charles Caspary, President

Attest:

Glen Peterson, Secretary

(Seal)

Approved as to Form:

Wayne K. Lemieux, District Counsel

5/25/2010

RESOLUTION NO. 05-10-2404

A RESOLUTION OF THE BOARD OF DIRECTORS OF
LAS VIRGENES MUNICIPAL WATER DISTRICT
ESTABLISHING WATER SUPPLY ALLOCATION LEVELS,
RATE SURCHARGES FOR CONSERVATION PURPOSES, AND
REPEALING RESOLUTION NOs. 04-09-2388 and 05-09-2391

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

1. Purpose.

This resolution implements changes to District practices to achieve water conservation to meet the Regional Water Shortage Level 2 allocations by Metropolitan Water District of Southern California ("Metropolitan") on April 14, 2009.

2. Water Allocations Levels.

(a) The following water allocation levels are established for each customer classification for water delivered on or after July 1, 2010.

Single Family Residential Water Budgets:

Parcel Group	Parcel Size (square feet)		Annual Water Budget (hcf)
	From	Up to	
Group 1	1	4,000	132
Group 2	4,001	6,500	197
Group 3	6,501	9,000	260
Group 4	9,001	11,500	323
Group 5	11,501	14,000	385
Group 6	14,001	16,500	446
Group 7	16,501	19,000	506
Group 8	19,001	21,500	542
Group 9	21,501	44,000	560 minimum
Group 10	44,001	90,000	589 minimum
Group 11	90,001	180,000	618 minimum
Group 12	180,001	>180,001	647 minimum

Other Customer Classification Water Budgets:

Customer Classification	Basis for Annual Budget	Water Budget (hcf)	Basis for Bi-monthly Billing Period Budget
Multi-family residential	Dwelling unit	12 hcf per dwelling unit per billing period	12 hcf per dwelling unit + ET_o adjusted outdoor units
Commercial	2008 usage	82.14% of 2008 usage	2008 billing period usage
Irrigation	2008 usage	74.15% of 2008 usage	ET_o

(b) Water shall be allocated to each customer in each classification as described in the Water Shortage Response framework dated March 10, 2009, and affirmed on April 14, 2009.

(c) Water budgets for single family residential customers in Groups 9 through 12 will be adjusted based on their 2008 usage and a reduction of 36% on outdoor usage. These budgets will be no less than the specified minimum but no more than 2000 hcf.

3. Water Surcharge.

Effective with water delivered on or after July 1, 2009, a surcharge of $3.00 is established for each billing unit used above the customer's water allocation.

4. Other.

Resolution No. 04-09-2388 (Water Supply Allocation Levels) and Resolution No. 05-09-2391 (Conservation Appeals Panel) are hereby repealed.

PASSED, APPROVED, AND ADOPTED on May 25, 2010.

Charles Caspary, President

ATTEST:

Glen Peterson, Secretary

(SEAL)

APPROVED AS TO FORM:

Wayne Lemieux, District Counsel

4/14/2009

April 14, 2009 Board Meeting

TO: Board of Directors

FROM: General Manager

Subject: Resolution to Set Allocation Level and Surcharge

SUMMARY

On March 10, 2009 Las Virgenes Municipal Water District (LVMWD)'s board of directors conducted a public hearing to review and adopt a water shortage response framework. The framework was developed in anticipation of a water supply shortage declaration by Metropolitan Water District of Southern California (MWD). The framework calls for assignment of water budgets to individual customers, and establishment of a surcharge to be assessed to customers for any usage over their budget. The framework was adopted by the board as proposed.

On March 24, 2009 the board adopted Urgency Water Conservation Ordinance No. 03-09-256. The ordinance amends Section 3-4.4-9 of LVMWD's water code by establishing provisions for the establishment of water budgets, an over-budget surcharge, and a water shortage committee. The amended code states the board shall establish by resolution water allocation levels for each customer classification and surcharge rates commensurate with a Regional Shortage Level declaration by MWD. It is anticipated that MWD's board of directors will make a determination on April 14, 2009 to declare a Regional Water Shortage Level and implement the allocation provisions of MWD's Water Supply Allocation Plan.

RECOMMENDATION

- Re-affirm the water shortage response framework presented and approved on March 10, 2009 and summarized in this memorandum.

- Adopt the attached resolution which establishes water supply allocation levels and a surcharge for conservation purposes pursuant to a Regional Shortage Level declaration by MWD

FINANCIAL IMPACT

- Adoption of the resolution will implement a surcharge to be assessed for each billing unit (HCF) used above the assigned water budget. The amount as determined by the Regional Shortage Level is listed in Table H of the discussion below.

DISCUSSION

MWD Water Supply Allocation Plan

Between July 2007 and February 2008 MWD worked jointly with member agencies to develop a Water Supply Allocation Plan. MWD's plan strives to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level, and takes into account growth, local

investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs. The allocation period covers twelve consecutive months, from July of a given year through the following June. This period was selected to minimize the impacts of varying State Water Project (SWP) allocations and to provide member agencies with sufficient time to implement their outreach strategies and rate modifications.

MWD will declare a specific Regional Water Shortage Level that reflects the severity of supply shortage ranging from Levels 1 to 10, with Level 10 as the most severe condition. Based on information provided to member agencies on April 1, 2009 it is highly probable MWD will declare a Level 2 regional shortage on April 14, 2009 and implement allocations to member agencies beginning July 1, 2009. Accordingly, the shortage level scenarios and supply impacts on LVMWD and its customers discussed in this section will be limited to Regional Shortage Levels 1, 2 and 3. The 12-month allocation that would be assigned to LVMWD under Levels 1, 2 and 3 are as follows:

Table A – MWD Allocations to LVMWD by Regional Shortage Level

MWD Allocations to LVMWD by Regional Shortage Level (acre-ft)		
Level 1	**Level 2**	**Level 3**
22,378	20,736	20,726

MWD Allocation Penalty Rates

MWD will enforce member agencies' allocations through a penalty rate structure. The applicable rates are based on Metropolitan's established tiered pricing structure in effect at the end of the 12-month allocation period. The recommended penalty rate is an ascending block structure that provides a lower penalty for minor overuse of allocations and a higher penalty for major overuse of allocations. Table B summarizes MWD's penalty rates.

Table B – MWD Allocation Penalty Rates

MWD Penalty Rates to LVMWD for Usage Over Allocation		
Water Usage by LVMWD	**Penalty Formula**	**Penalty Rate ($/Acre-Ft) / ($/HCF)**
≤ 100% of Allocation	No penalty	No penalty
>100% and ≤115% of Allocation	2 x Tier 2 (untreated)*	$1,267.00 / $2.90
>115% of Allocation	4 x Tier 2 (untreated)*	$2,534.00 / $5.80

** Tier 2 rate is estimated as Jan 1, 2009 Tier 2 full service untreated rate ($528/Acre-ft) plus 20% projected rate increase.*

LVMWD Water Shortage Response Framework

LVMWD's water shortage response framework, as presented to the board of directors and adopted on March 10, 2009 assigns water budgets to individual customer accounts and assesses an over-budget surcharge in the event of an allocation from MWD. Sections 1 through 3 below summarize the framework methodology for developing individual water budgets.

1. Determination of net supply available for allocation to customers. Net supply available to LVMWD customers is determined by adding local supplies to MWD's allocation and discounting the total by an operational demand factor of 7.5% to account for all non-billed system demand (e.g., fire protection, system loss). Table C summarizes the net supply that would be available for allocation to customers.

Table C – Net Water Supply Available to LVMWD Customers

	Supply (acre-ft)		
	Level 1	Level 2	Level 3
MWD Allocation Supply	22,378	20,736	20,726
Local Supplies (Ventura/Simi connections)	154	154	154
Operational Demand (7.5% of supply)	(1,690)	(1,567)	(1,566)
Net Supply Available for Allocation to Customers	20,842	19,323	19,314

2. Allocation of net supply to LVMWD customer classifications. The net supply is further allocated to each of four customer classifications based on 2008 usage ratios, minimum health & safety demands for single family residential (96 HCF/year) and multi-family (72 HCF/dwelling-unit/year) accounts, and an indoor/other allowance for commercial accounts. Table D summarizes the allocations assigned to each customer classification under Levels 1, 2 and 3.

Table D – Supply Allocations to Customer Classifications

Customer Classification	2008 Billed Usage (acre-ft)	Allocations (acre-ft)		
		Level 1	Level 2	Level 3
Residential	19,198	16,585	15,291	15,283
Multi Family	1,443	1,400	1,378	1,378
Commercial	2,100	1,821	1,725	1,725
Irrigation	1,253	1,036	929	928
Total	23,994	20,842	19,323	19,314

Table E below summarizes the total usage reduction volume and percent conservation required by each customer classification to meet its respective allocation. The differences in the degree of impact are due to the ratio of minimum indoor/other usage versus outdoor usage. Multi-family accounts are least impacted because the majority of usage is accounted for as indoor health & safety; at all shortage Levels, each dwelling unit will maintain a minimum budget of 72 HCF for a 12-month period. Conversely, irrigation accounts are most impacted because all usage is attributed to outdoor use.

Table E – Usage Reduction and Conservation Required to Meet Allocation

Customer Classification	2008 Billed Usage (acre-ft)	Reduction from 2008 Usage Required to Meet Allocation (acre-ft) / (%)		
		Level 1	Level 2	Level 3
Residential	19,198	2,613 / 14%	3,907 / 20%	3,915 / 20%
Multi Family	1,443	43 / 3%	65 / 5%	65 / 5%
Commercial	2,100	279 / 13%	375 / 18%	375 / 18%
Irrigation	1,253	217 / 17%	324 / 26%	325 / 26%
Total	23,994	3,152 / 13%	4,671 / 19%	4,680 / 20%

3. Assignment of customer water budgets. Finally, the customer classification allocations listed in Table D are distributed to individual customer water budgets based on criteria presented in Table F.

Table F – Water Budget Criteria by Customer Classification

Customer Classification	Basis for Annual Water Budget	Minimum or Other Allowance for Indoor/Other	Basis for Bi-Monthly Billing Period Budget
Single Family Residential	Parcel size	Yes 96 HCF/year	16 HCF + ET adjusted Outdoor HCF
Multi Family	Dwelling Unit	Yes 72 HCF/dwelling-unit/yr	12 HCF / Dwelling unit + ET adjusted Outdoor HCF
Commercial	2008 Usage	Yes Determined by Regional Shortage % Level	2008 Billing Period Usage
Irrigation	2008 Usage	None	ET

Single family residential and multi family accounts maintain a minimum budget for indoor health & safety use across all Regional Shortage Levels. The remaining volume is attributed to outdoor use, and is budgeted across billing cycles using an evapo-transpiration (ET) factor to account for seasonal differences in irrigation demand. The ET factor for a bill period is represented as a percentage of total annual ET demand based on five year (2004~2008) daily ET averages.

In addition to minimum indoor usage and outdoor ET, single family residential water budgets are determined by lot parcel size. Customers are assigned to one of twelve parcel range groups listed in Table G.

Commercial water budgets are based on 2008 billed usage. To account for indoor and "other" usage, commercial accounts are allowed a water hardening credit adjustment of 4.3% for Regional Shortage Level 1 and 9.5% for Levels 2 and 3. For example, under a Level 2 shortage a 12-month commercial account water budget of 1,095 HCF would be 1,000 HCF without the 9.5% adjustment. The budget amount for each bill period is based on 2008 usage patterns, not ET.

Irrigation water budgets are based on 2008 total usage. The water budget for each bill period is determined as a percentage of total annual ET.

Table G – Water Budget Parcel Groups for Single Family Residential Accounts

Parcel Group	Parcel Range		12-Month Water Budget (HCF)		
	From (ft^2)	To (ft^2)	Level 1	Level 2	Level 3
Group 1	1	4,000	137	132	132
Group 2	4,001	6,500	211	197	197
Group 3	6,501	9,000	283	260	260
Group 4	9,001	11,500	354	323	323
Group 5	11,501	14,000	424	385	385
Group 6	14,001	16,500	494	446	446
Group 7	16,501	19,000	562	506	506
Group 8	19,001	21,500	603	542	542
Group 9	21,501	44,000	623	560	560
Group 10	44,001	90,000	656	589	589
Group 11	90,001	180,000	689	618	618
Group 12	180,001	>180,001	722	647	647

Over-budget Surcharge

Customers who consume no more water than their budget will pay normal rates and charges. Customers who consume more than their water budget will be assessed a surcharge for usage above the budget. Proceeds collected as a result of a surcharge will be used to pay penalties assessed by Metropolitan, to stabilize rates, to support water conservation programs, and at the discretion of the Board of Directors, to rebate surcharges to customers.

Table H – Usage Over Budget Surcharge

Surcharge by Regional Shortage Level ($/HCF)		
Level 1	Level 2	Level 3
$2.50	$3.00	$3.00

Jimmie Cho, Director of Resource Conservation & Public Outreach, prepared this report.

Jimmie Cho Date
Director of Resource Conservation & Public Outreach

John R. Mundy Date
General Manager

6/24/2008

Celebrating 50 Years OF SERVICE

WATER SHORTAGE RESPONSE PLAN

Las Virgenes Municipal Water District

LVMWD REPORT No. 2411.00

June 24, 2008

INTRODUCTION

The purpose of this Water Shortage Response Plan is to apprise Las Virgenes Municipal Water District (LVMWD) customers and interested parties of: (1) the current regional water supply shortage situation, (2) the policy principles by which LVMWD will implement and administer measures to address water shortage, (3) the conservation measures LVMWD will undertake to ensure adequate water supplies to its customers, and (4) the process by which customers may appeal exceptional cases of hardship imposed by these conservation measures.

1. WATER SUPPLY SITUATION

A combination of low snowpack levels in the Sierras, a record eight year drought in the Colorado River Basin, significantly below normal rainfalls for the past two years, reduced levels of storage in our reservoirs, and restrictions on water delivery through the Sacramento-San Joaquin River Delta for the State Water Project (SWP) are all contributing to a severe water supply shortage throughout California.

- The California Department of Water Resource's final snow survey of 2008 showed snowpack water content at only 67 percent of normal and the runoff forecast at only 55 percent of normal. As conditions continue to worsen across California, it underscores the state's need for infrastructure improvements to capture excess water in wet years to use in dry years like this one.
- Statewide rainfall has been below normal in 2007 and 2008, with many Southern California communities receiving only 20 percent of normal rainfall in 2007, and Northern California this year experiencing the driest spring on record with most communities receiving less than 20 percent of normal rainfall from March through May.
- California is experiencing critically dry water conditions in the Sacramento and San Joaquin River basins and the statewide runoff forecast for 2008 is estimated to be 41 percent below average.
- Water storage in many of the state's major reservoirs is far below normal including Lake Oroville, which supplies the State Water Project, at 50 percent of capacity, Lake Shasta at 61 percent of capacity and Folsom Lake at 63 percent of capacity.
- The Colorado River Basin has just experienced a record eight-year drought resulting in current reservoir storage throughout the river system reduced to just over 50 percent of total storage capacity.
- Climate change will increasingly impact California's hydrology and is expected to reduce snowpack, alter the timing of runoff and increase the intensity and frequency of droughts in the western United States.
- Diversions from the Sacramento-San Joaquin River Delta for the State Water Project (SWP) and federal Central Valley Project (CVP) are being greatly restricted due to various factors including federal court actions to protect fish species, resulting in estimated SWP deliveries of only 35 percent, and CVP deliveries of only 40 percent, of local agencies' requested amounts for 2008.

Governor's Statewide Drought Declaration – On June 4, 2008, as a result of these severe supply conditions, the Governor of the State of California proclaimed a statewide drought and issued an Executive Order directing immediate state action to deal with the crisis. The Executive Order encourages local water districts and agencies to promote water conservation. They are encouraged to work cooperatively on the regional and state level to take aggressive, immediate action to reduce water consumption locally and regionally for the remainder of 2008 and prepare for potential worsening water conditions in 2009.

Metropolitan Water District Water Supply Alert – On June 10, 2008 the Metropolitan Water District of Southern California (MWD) Board of Directors followed the Governor's drought declaration, with a regional Condition 2 Water Supply Alert to help preserve the region's water storage reserves.

MWD's Water Supply Alert calls on local public water agencies and retailers to achieve extraordinary conservation by adopting and enforcing drought ordinances, and accelerating public outreach and messaging. According to MWD's Alert, the measures that could be incorporated into local drought ordinances include restrictions on the hours of watering outdoors, where up to 70 percent of water is used; prohibitions on landscape irrigation runoff; tiered rate structures that promote conservation; provisions for water-efficient landscapes in new construction and landscape retrofits; and hotlines and other mechanisms for the public to report wasteful water practices.

2. POLICY PRINCIPLES

In response to the urgent regional water supply situation, LVMWD will implement various conservation measures to ensure adequate supplies for essential water demands. The following eight policy principles will guide LVMWD's implementation of these measures:

a) Incentives and appropriate water use practices shall be utilized as needed to accomplish goals, limiting financial impacts and/or shut-offs to those customers who fail to meet conservation targets.
b) Customers who meet goals should not pay more for their water.
c) Conservation goals should relate to the MWD's Water Supply Allocation Plan and wholesale rate structures.
d) Development that complies with conservation codes and standards should not be restricted.
e) An appeal process shall be available to all customers.
f) The Las Virgenes Reservoir shall be used appropriately to support water supply.
g) Policies and procedures shall be clear and logical, make sense to customers, and relate clearly and directly to conservation targets.
h) Water allocations shall be based on needs that are basic to all, and customers' demonstrated level of efficiency.

3. CONSERVATION MEASURES

In response to our urgent statewide and regional water supply shortage, LVMWD will:

- Communicate timely water supply situation, conservation, and compliance messages to all customers, residential homeowners associations, business chambers, inter-governmental bodies, essential facilities (schools, hospitals, fire), and other stakeholders.
- Implement water conservation measures in accordance with LVMWD rules and regulations.
- Develop further ordinances and policies as necessary to ensure conservation.
- Develop and implement individual customer water budgets to ensure proper allocation of water supplies.

Each of the above measures will be implemented as appropriate to ensure conservation levels commensurate with the severity of the water supply situation.

Communications & Outreach – Through the use of the following channels and media, LVMWD staff will ensure timely and appropriate communications with the LVMWD Board of Directors, customers, residential homeowners associations, business chambers, inter-governmental bodies, essential facilities (schools, hospitals, fire), and other stakeholders.

- Public water conservation forums hosted at LVMWD headquarters and off-site locations.
- Attendance and agenda presentation at local city council meetings.
- Attendance and agenda presentation at home-owners association, business chamber, and city council meetings.
- Direct mailings and bill inserts to customers and account holders.
- Press releases.
- LVMWD publications, e.g., the *Current Flow.*
- Updated posting of issues and information on LVMWD website.
- Advertisements in local publications and cable channels.
- Cards, table tents, door hangers and other leave-behind reminders.

Conservation Measures – LVMWD supports customer conservation efforts through education programs that include water-efficient home gardening workshops, facility tours, community event conservation outreach, school programs, printed materials, and free on-site water use surveys. The District also offers rebate programs for qualifying water-efficient devices that are purchased and installed in customer homes. Eligible items include certain water-efficient clothes washers, toilets, weather-based irrigation controllers and lawn sprinkler heads.

Ordinances – In addition to programmatic, voluntary conservation measures, it may become necessary to implement mandatory compliance measures to ensure conservation.

If this occurs, LVMWD may implement one or more of the following measures, in accordance with approved ordinances.

- Limit the times and days of outdoor irrigation.
- Restrict exterior washing, and ornamental or recreational uses of water.
- Require restaurants to serve water only upon request.
- Require hotels to give guests the option of laundering linens and towels during multiple day stays.

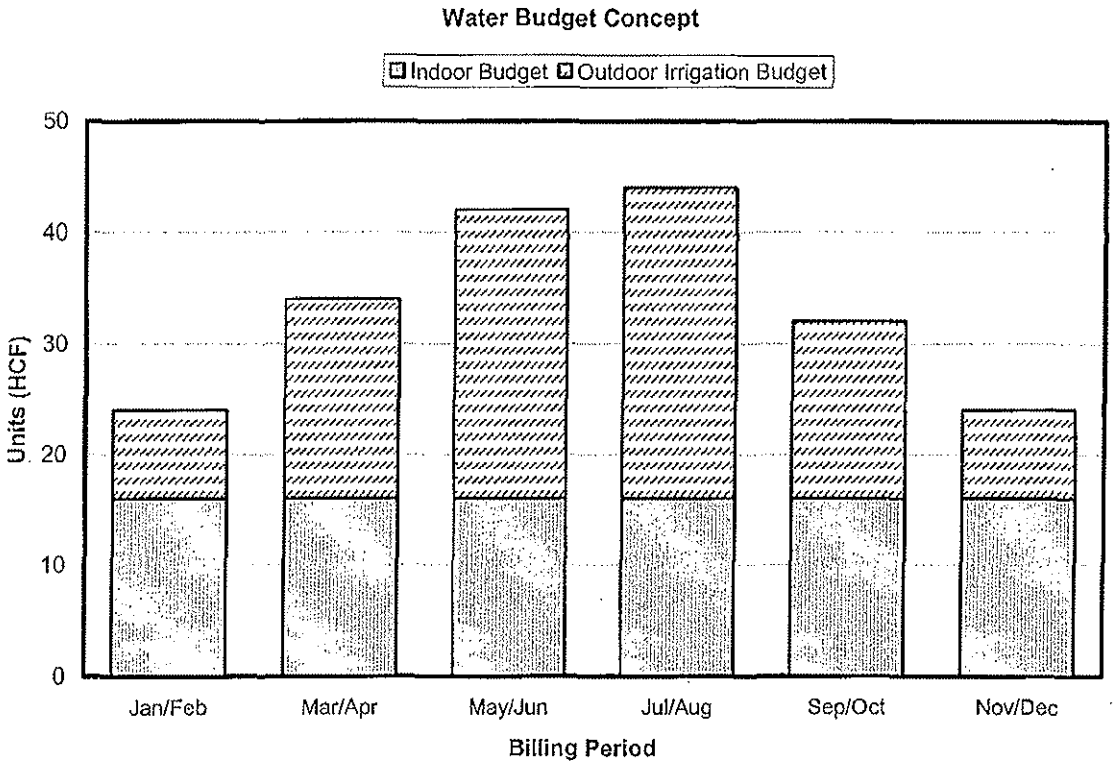
The Board of Directors of LVMWD may also amend existing drought ordinances, or adopt more stringent ordinances as necessary to ensure.

Water Budgets – An additional water conservation measure that may be implemented is water budgets, volumetric allotments of water based on a set indoor demand volume and weather-adjusted outdoor demand.

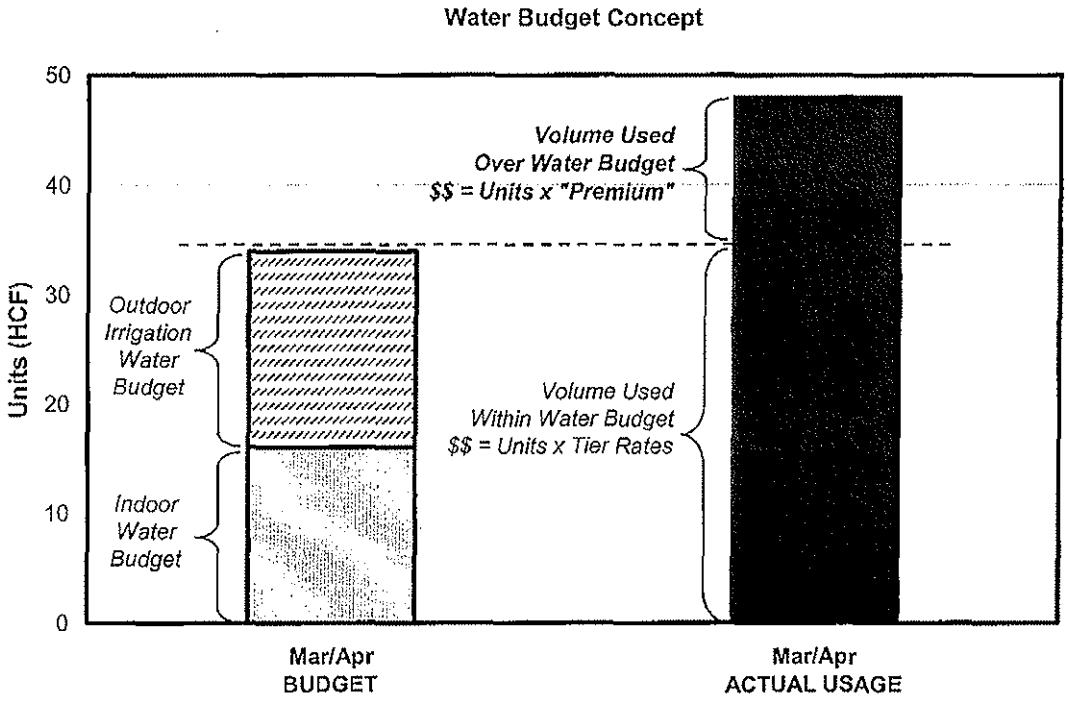
As an example, the indoor demand for single family residential customers is currently set at 16 units (HCF) of water per two month billing cycle, the minimal water necessary for indoor consumptive use (drinking, health and hygiene). Outdoor water demand is based on total irrigable area adjusted for a weather-based evapo-transpiration factor (ET).

$$\textit{Water Budget} = \textit{Indoor Water Requirements} + \textit{Outdoor Irrigable Area x ET Factor}$$

Accordingly, whereas the indoor budget is relatively constant, the outdoor irrigable budget will change seasonally, with water demands higher during summer months and lower during the winter. This concept is demonstrated in the chart below.



Water budgets represent reasonable demands for combined indoor and outdoor use. As such, water budgets may be used as an overlay to existing tier and rate structures to enhance water conservation. Customers who consume water within budget will pay the respective unit cost per tier. However, as demonstrated in the chart below, customers who exceed budget will be charged a premium for the incremental volume.



4. APPEALS PROCESS

As with any system for allocating community resources, exceptional individual circumstances or needs may warrant review and specific accommodations. In considering such circumstances, LVMWD will strive to balance individual needs with the community's need for adequate water and a practical system for allocation.

A customer may request relief from mandatory conservation practices by filing a written appeal with LVMWD staff. The water district may grant relief in case of hardship if all feasible means of conserving water have been exercised, including but not limited to, retrofitting non-ULF toilets with ULF toilets, installing low-flow showerheads, implementing recommended conservation measures pursuant to a district water audit, and verifying no observable runoff from the customer's premise.

Staff will review the petition for appeal and make a finding to approve or deny the appeal. Findings and recommended exceptions, if any, will be forwarded to the General Manager for approval.

The decision of the General Manager may be appealed to a water shortage committee appointed by LVMWD's Board of Directors. The committee shall review the General Manager's decision and approve or deny the petition based on the circumstances of each case. Decisions of the committee shall be final.

TERMINATION

The decision to discontinue one or more elements of this Water Shortage Response Plan in response to improved water supply outlook will be made by LVMWD Board of Directors based upon the recommendation of the General Manager.

****

Questions regarding this Water Shortage Response Plan should be referred to:

Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302
(818) 251-2130

Information regarding LVMWD conservation programs and rebates may be found at:

www.lvmwd.com

APPENDIX G

BMP ACTIVITY REPORTS 2005-2010

In later versions of this report, this Appendix will include the 2009 and 2010 BMP activity reports. As these reports are not yet available from the CUWCC, the 2008 BMP activity report has been included.

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Water Supply & Reuse

Reporting Unit:
Las Virgenes Municipal Water District

Year:
2008

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
Metropolitan Water District of Southern California	27065	Imported
Ventura County	114	Imported
City of Simi Valley	21	Imported
Las Virgenes Municipal Water District	5446	Recycled

Total AF: 32646

Reported as of 10/13/10

Accounts & Water Use

Reporting Unit Name:	Submitted to	Year:
Las Virgenes Municipal Water District	CUWCC **12/30/2008**	**2008**

What is the reporting year? Fiscal **Month Ending** June

A. Service Area Population Information:

1. Total service area population 71854

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	18192	19211	0	0
2. Multi-Family	553	1726	0	0
3. Commercial	694	2265	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	258	1486	0	0
7. Recycled Water	605	5696	0	0
8. Other	481	90	0	0
9. Unaccounted	NA	462	NA	0
Total	20783	30936	0	0

Metered **Unmetered**

Reported as of 10/13/10

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit:	BMP Form Status:	Year:
Las Virgenes Municipal Water District	**100% Complete**	**2008**

A. Implementation

1. Based on your signed MOU date, 09/01/1991, your Agency STRATEGY DUE DATE is:	08/31/1993
2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys?	yes
a. If YES, when was it implemented?	1/1/1991
3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys?	yes
a. If YES, when was it implemented?	1/1/1991

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	35	1
2. Number of surveys completed:	35	0
Indoor Survey:		
3. Check for leaks, including toilets, faucets and meter checks	yes	yes
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	yes	yes
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as neccesary; replace leaking toilet flapper, as necessary	yes	yes
Outdoor Survey:		
6. Check irrigation system and timers	yes	yes
7. Review or develop customer irrigation schedule	yes	yes
8. Measure landscaped area (Recommended but not required for surveys)	yes	yes
9. Measure total irrigable area (Recommended but not required for surveys)	yes	yes
10. Which measurement method is typically used (Recommended but not required for surveys)	Odometer Wheel	
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	yes	yes

12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?	yes	yes
a. If yes, in what form are surveys tracked?		database

b. Describe how your agency tracks this information.

Agency retains water auditor data collection forms, calculated water budgets and customer correspondance. Budget related information is databased.

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 10/13/10

BMP 02: Residential Plumbing Retrofit

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? — no

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

While there is no explicit enforcement mechanism, In March of 1989, the LVMWD board of directors adopted a water conservation ordinance #3-89-173 which stated that all new showerheads within the district must flow at a rate less than 2.5 gallons per minute at 80 psi.

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? — no

3. Estimated percent of single-family households with low-flow showerheads: — 32.77%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? — yes

5. Estimated percent of multi-family households with low-flow showerheads: — 80%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The 2.5 gpm fixture saturation levels were determined by taking the pre-1989 housing stock (14,085 single and 6,805 multi-family dwellings) and multiplying them by the average number of showerheads found in that setting as determined by the AWWARF North American End Use Study. For the single-family sector, we combined the figures for the average number of "shower only" bathrooms and "tub/shower" bathrooms. These figures: 1.25 and 1.56, respectively, combine to suggest an average of 2.81 showerheads per dwelling. Multiplied by the base SFR housing stock, the result is a calculated showerhead population of 39,579 (14,085 x 2.81) and a replacement target of 29,684 (75%). For the multi-family setting we assumed that 75% of all dwellings would have just one shower fixture, and 25% of all dwellings would have two. This resulted in an average of 1.25 showerheads per dwelling. Multiplied by the base MFR housing stock, the result is a calculated showerhead population of 8506 (6,805 x 1.25) and a replacement target of 6,380 (75%). By the end of fiscal year 00-01, LVMWD had distributed over 24,500 showerheads, but we assume an installation rate of less than 100%. Installation rates for programs in our area that were carried out by the Metropolitan Water District of Southern California (MWD) were estimated by MWD. Installation rates for programs carried out by Las Virgenes are estimated at 70% prior to 1998, and 100% from that point on. The change in installation rate is based on the perception that the combination of normal to surplus rainfall and "by customer request only" distribution programs has resulted in people only taking showerheads when they plan to install them. The resulting number of showerheads installed through the end of FY 03-04 is 19,212. We assume that because owners of multi-family complexes have a greater financial incentive to install low flow

showerheads, without much consideration for shower quality, it is safe to assume a 75% installation rate. With these assumptions in mind, 6,796 low flow showerheads had been installed in the multi-family sector by the end of 04-05. There were no installations in 05-06. Sector saturation = 80% (6,798 / 8,506). The remaining 12,832 of the original 19,212 fixtures are then credited to the single family sector. By the end of FY 06-07, 12,891 low flow showerheads had been installed. Sector saturation = 32.77% (12,972 / 39,579).

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 1/1/1990

b. Describe your targeting/ marketing strategy.

Advertising in newspapers, on District bills, voice mail on District phone system, District newletter, and special events held throughout the year.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	32	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0

6. Does your agency track the distribution and cost of low-flow devices? yes

a. If YES, in what format are low-flow devices tracked? Spreadsheet

b. If yes, describe your tracking and distribution system :

Tracking begins as a manual tally which is transferred to an Excel spreadsheet. Distribution is made in response to requests from customers visiting District headquarters, requests to Water Efficiency Survey Staff, and to staff at special events.

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

LVMWD staff understands the goal of BMP2 to be the lowering of shower fixture flow rates to the 2.5 gpm level as a means of conserving water. Knowing that the 2.5 gpm rate is measured at 80 psi, and realizing that house pressures are regulated to below 80 psi to protect the interior fixtures, staff believes that these lower pressures result in a lower showerhead flow rate. To investigate this theory, staff reviewed the American Water Works Association Research Foundation*s North American Residential End Use Study, a study in which Las Virgenes participated during 1997 and 1998. The study population, randomly

selected, consisted of 100 homes, 94 of which were built prior to 1992. The study confirms the idea that showerheads within the Las Virgenes service area flow at less than 2.5 gpm. The finding, shown in Table 5.6, is that the average flow rate for showerheads in this area is 2.19 gpm. In this case, the "At least As Effective As" variant is the use of lower pressures to accomplish the stated goal of conserving water by reducing shower flow rates below 2.5 gpm rather than changing fixtures.

D. Comments

Reported as of 10/13/10

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. Does your agency own or operate a water distribution system? yes

2. Has your agency completed a pre-screening system audit for this reporting year? yes

3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:

   a. Determine metered sales (AF) 30380

   b. Determine other system verifiable uses (AF) 90

   c. Determine total supply into the system (AF) 30932

   d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.99

4. Does your agency keep necessary data on file to verify the values entered in question 3? yes

5. Did your agency complete a full-scale audit during this report year? no

6. Does your agency maintain in-house records of audit results or completed AWWA M36 audit worksheets for the completed audit which could be forwarded to CUWCC? yes

7. Does your agency operate a system leak detection program? yes

   a. If yes, describe the leak detection program:

   Visual inspection of distribution routes. Comparison of supply to sales. Helicopter survey of 8.1 miles of pipeline traversing rugged terrain.

B. Survey Data

1. Total number of miles of distribution system line. 414.86

2. Number of miles of distribution system line surveyed. 414.86

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

   a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Voluntary Questions (Not used to calculate compliance)

E. Volumes

	Estimated	Verified
1. Volume of raw water supplied to the system:		
2. Volume treated water supplied into the system:		25449
3. Volume of water exported from the system:		0
4. Volume of billed authorized metered consumption:		
5. Volume of billed authorized unmetered consumption:		
6. Volume of unbilled authorized metered consumption:		
7. Volume of unbilled authorized unmetered consumption:		

F. Infrastructure and Hydraulics

1. System input (source or master meter) volumes metered at the entry to the:	
2. How frequently are they tested and calibrated?	12
3. Length of mains:	414.86
4. What % of distribution mains are rigid pipes (metal, ac, concrete)?	
5. Number of service connections:	20783
6. What % of service connections are rigid pipes (metal)?	90
7. Are residential properties fully metered?	yes
8. Are non-residential properties fully metered?	yes
9. Provide an estimate of customer meter under-registration:	.02
10. Average length of customer service line from the main to the point of the meter:	20
11. Average system pressure:	
12. Range of system pressures:	From 41 to 580
13. What percentage of the system is fed from gravity feed?	65
14. What percentage of the system is fed by pumping and re-pumping?	35

G. Maintenance Questions

1. Who is responsible for providing, testing, repairing and replacing customer meters?	Utility
2. Does your agency test, repair and replace your meters on a regular timed schedule?	yes
a. If yes, does your agency test by meter size or customer category?:	Meter Size

b. If yes to meter size, please provide the frequency of testing by meter size:

Less than or equal to 1"	
1.5" to 2"	10 years
3" and Larger	36 months

c. If yes to customer category, provide the frequency of testing by customer category:

SF residential	
MF residential	
Commercial	
Industrial & Institutional	

3. Who is responsible for repairs to the customer lateral or customer service line?	Utility
4. Who is responsible for service line repairs downstream of the customer meter?	Customer
5. Does your agency proactively search for leaks using leak survey techniques or does your utility reactively repair leaks which are called in, or both?	both

6. What is the utility budget breakdown for:

Leak Detection	$
Leak Repair	$
Auditing and Water Loss Evaluation	$
Meter Testing	$

H. Comments

Reported as of 10/13/10

BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. Does your agency have any unmetered service connections? No

   a. If YES, has your agency completed a meter retrofit plan?

   b. If YES, number of previously unmetered accounts fitted with meters during report year:

2. Are all new service connections being metered and billed by volume of use? Yes

3. Are all new service connections being billed volumetrically with meters? Yes

4. Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? Yes

5. Please fill out the following matrix:

Account Type	Number of Metered Accounts	Number of Metered Accounts Read	Number of Metered Accounts Billed by Volume	Billing Frequency Per Year	Number of Volume Estimates
a. Single Family	18192	18192	18192	6	43
b. Multi-Family	553	553	553	6	6
c. Commercial	694	694	694	6	0
d. Industrial	0	0	0	0	0
e. Institutional	0	0	0	0	0
f. Landscape Irrigation	863	863	863	6	2

B. Feasibility Study

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? yes

   a. If YES, when was the feasibility study conducted? (mm/dd/yy) 1/1/1991

   b. Describe the feasibility study:
   During the 1970's, LVMWD determined that the conversion of existing commercial landscape irrigation from potable to recycled water use was cost effective in most cases and would be aggressively pursued. The current criteria for LVMWD to extend a recycled water distribution mainline to an existing customer site is %5,500 per acre foot of recycled water that would be used instead of potable water.

2. Number of CII accounts with mixed-use meters: 473

3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period.	0

C. "At Least As Effective As"

1. Is your agency implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

A.4.: See BMP 3 section G. A.5.: All estimated reads are resolved within one or two billing cycles.

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:	BMP Form Status:	Year:
Las Virgenes Municipal Water District	**100% Complete**	**2008**

A. Water Use Budgets

1. Number of Dedicated Irrigation Meter Accounts:	863
2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:	163
3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):	1567
4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):	0
5. Does your agency provide water use notices to accounts with budgets each billing cycle?	yes

B. Landscape Surveys

1. Has your agency developed a marketing / targeting strategy for landscape surveys?	yes
a. If YES, when did your agency begin implementing this strategy?	1/1/1990

b. Description of marketing / targeting strategy:

Customer request.

2. Number of Surveys Offered.	20
3. Number of Surveys Completed.	3
4. Indicate which of the following Landscape Elements are part of your survey:	
a. Irrigation System Check	yes
b. Distribution Uniformity Analysis	yes
c. Review / Develop Irrigation Schedules	yes
d. Measure Landscape Area	yes
e. Measure Total Irrigable Area	yes
f. Provide Customer Report / Information	yes
5. Do you track survey offers and results?	yes
6. Does your agency provide follow-up surveys for previously completed surveys?	yes

a. If YES, describe below:

Upon customer request.

C. Other BMP 5 Actions

1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program.	yes

Does your agency provide mixed-use accounts with landscape budgets?

2. Number of CII mixed-use accounts with landscape budgets. 105

3. Do you offer landscape irrigation training? yes

4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/ Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

5. Do you provide landscape water use efficiency information to new customers and customers changing services? yes

a. If YES, describe below:

New account information packages include a variety of brochures on water efficient plantings and irrigation.

6. Do you have irrigated landscaping at your facilities? yes

a. If yes, is it water-efficient? yes

b. If yes, does it have dedicated irrigation metering? yes

7. Do you provide customer notices at the start of the irrigation season? yes

8. Do you provide customer notices at the end of the irrigation season? yes

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? yes

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

In the 1970's Las Virgenes Municipal Water District (LVMWD) realized the value of total beneficial reuse of all resources. Ever since, LVMWD has aggressively pursued the development of a reclaimed water market. By requiring all non-residential landscaping located along the district's reclaimed water distribution main lines to be designed or converted to utilize reclaimed water for landscape irrigation, LVMWD now serves 605 of the 863 dedicated irrigation accounts within our service area with reclaimed water. This year, that equated to 5696 acre-feet of water out of a total of 7182 acre-feet (79%)consumed.

E. Comments

Reported as of 10/13/10

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers?

    a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate?

4. Number of rebates awarded.

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures		
2. Actual Expenditures		

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

    a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 10/13/10

BMP 07: Public Information Programs

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. How is your public information program implemented?
   Retailer runs program without wholesaler sponsorship

2. Describe the program and how it's organized:

Las Virgenes Municipal Water District maintains an intensive outreach commitment to customers regarding water conservation benefits and practices. In cooperation with Metropolitan Water District of Southern California, LVMWD hosted one water education tour of the Colorado River Aqueduct and one of the State Water Project. Exposure to the complexities of water delivery and the grand scope of the infrastructure and efforts to provide local residents safe and reliable water make strong impressions on the value of water as a resource and the importance of conservation. In addition to ongoing tours available of district facilities, specialized tours were provided to leadership from local cities and local environmental groups and their volunteers. The district continued its outreach through traditional media, including newsletter ads, portions of the Water Quality Report dedicated to conservation messages, on-hold messages for incoming calls, publications, web information, presence at events, and presentations to local groups. Efforts continue to refine these programs to maximize their impact. In celebration of water awareness month, books and resource materials were provided to local libraries, and live water-awareness theater performances were presented in elementary schools before 4,206students. Public awareness of the printed resources was expanded through book presentations scheduled at local City Council meetings, all of which are carried on public access TV. In addition, posters in public and school libraries displayed throughout the month depicted new materials and promoted the program. Also, the district web site, www.lvmwd.com , now carries a comprehensive listing of all materials provided to local libraries. We added more plant species to our California Friendly plant booklet, with information and photos from the ongoing newsletter column; and promoted community compost distribution. These accompany other water conservation information included in displays and are provided to all new customers as part of their welcome packets when service is initiated. Conservation messages are further distributed in conjunction with a local weekly paper, which has agreed to carry articles prepared by the district. The District continued point of purchase advertising in conjunction with a rebate program for High Efficiency Washers. Water Awareness baskets provided as auction items and prizes at silent auctions, chamber and civic events, and other venues offer yet another opportunity to promote conservation awareness and practices. With contents targeted to each specific event, these baskets include garden tools, seeds and bulbs for drought tolerant plantings, books on water-wise and xeriscape gardening, and children's books about conservation.

3. Indicate which and how many of the following activities are included in your public information program:

Public Information Program Activity in Retail Service Area	Yes/No	Number of Events
a. Paid Advertising	yes	50
b. Public Service Announcement	yes	6
c. Bill Inserts / Newsletters / Brochures	yes	6

d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	no	
f. Special Events, Media Events	yes	12
g. Speaker's Bureau	yes	10
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

1. Annual Expenditures (Excluding Staffing) 146000

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

A.1.c. Minimal wholesaler materials are used, no other wholesaler participation. A.3.f. CRA Tour, Facility Tours, Westlake Village Street Fair, Salvation Army Camp Event, Reyes Adobe Days, Pumpkin Festival, Mountains Restoration Trust "Stream to Sea Day", Water Runoff Conference 2008; City of Calabasas Earth Day Event, Sheriff's Station Open House.

Reported as of 10/13/10

BMP 08: School Education Programs

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. How is your public information program implemented?
   Retailer runs program without wholesaler sponsorship

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	0	4206	0
Grades 4th-6th	yes	0	2807	0
Grades 7th-8th	yes	0	50	0
High School	yes	0	50	0

4. Did your Agency's materials meet state education framework requirements? yes

5. When did your Agency begin implementing this program? 5/1/1991

B. School Education Program Expenditures

1. Annual Expenditures (Excluding Staffing) 14400

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

   a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 10/13/10

BMP 09: Conservation Programs for CII Accounts

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. Has your agency identified and ranked COMMERCIAL customers according to use?	yes
2. Has your agency identified and ranked INDUSTRIAL customers according to use?	yes
3. Has your agency identified and ranked INSTITUTIONAL customers according to use?	yes

Option A: CII Water Use Survey and Customer Incentives Program

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? If so, please describe activity during reporting period: yes

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	3	3	3
b. Number of New Surveys Completed	1	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	**Commercial Accounts**	**Industrial Accounts**	**Institutional Accounts**
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	yes	yes	yes

Agency CII Customer Incentives	Budget ($/Year)	# Awarded to Customers	Total $ Amount Awarded
h. Rebates	0	51	20400
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? yes

6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? no

7. **System Calculated** annual savings (AF/yr):

CII Programs	# Device Installations
a. Ultra Low Flush Toilets	0
b. Dual Flush Toilets	0
c. High Efficiency Toilets	0
d. High Efficiency Urinals	0
e. Non-Water Urinals	51
f. Commercial Clothes Washers (coin-op only; not industrial)	0
g. Cooling Tower Controllers	0
h. Food Steamers	0
i. Ice Machines	0
j. Pre-Rinse Spray Valves	0
k. Steam Sterilizer Retrofits	0
l. X-ray Film Processors	0

8. **Estimated** annual savings (AF/yr) from agency programs not including the devices listed in Option B. 7., above:

CII Programs	Annual Savings (AF/yr)
a. Site-verified actions taken by agency:	0
b. Non-site-verified actions taken by agency:	0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	2000	5600
2. Actual Expenditures	374	

C. "At Least As Effective As"

1. Is your agency implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Device installations accomplished through wholesaler's regional program.

BMP 11: Conservation Pricing

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

Water Service Rate Structure Data by Customer Class

1. Single Family Residential

a. Rate Structure	Increasing Block
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 17,269,107
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 2,235,812

2. Multi-Family Residential

a. Rate Structure	Increasing Block
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 1,101,415
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 185,025

3. Commercial

a. Rate Structure	Increasing Block
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 1,895,498
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 241,544

4. Industrial

a. Rate Structure	Service Not Provided
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 0

5. Institutional / Government

a. Rate Structure	Service Not Provided
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 0

6. Dedicated Irrigation (potable)

a. Rate Structure	Increasing Block
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 1,321,515
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 58,891

7. Recycled-Reclaimed

a. Rate Structure	Increasing Block

b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 17,269,107
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 2,235,812

8. Raw

a. Rate Structure	Service Not Provided
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 0

9. Other

a. Rate Structure	Increasing Block
b. Total Revenue from Commodity Charges (Volumetric Rates)	$ 188,634
c. Total Revenue from Customer Meter/Service (Fixed) Charges	$ 123,283

B. Implementation Options

Select Either Option 1 or Option 2:

1. Option 1: Use Annual Revenue As Reported

V/(V+M) >= 70% — Selected

V = Total annual revenue from volumetric rates

M = Total annual revenue from customer meter/service (fixed) charges

2. Option 2: Use Canadian Water & Wastewater Association Rate Design Model

V/(V+M) >= V'/(V'+M')

V = Total annual revenue from volumetric rates

M = Total annual revenue from customer meter/service (fixed) charges

V' = The uniform volume rate based on the signatory's long-run incremental cost of service

M' = The associated meter charge

a. If you selected Option 2, has your agency submitted to the Council a completed Canadian Water & Wastewater Association rate design model?

b. Value for **V'** (uniform volume rate based on agency's long-run incremental cost of service) as determined by the Canadian Water & Wastewater Association rate design model:

c. Value for **M'** (meter charge associated with V' uniform volume rate) as determined by the Canadian Water & Wastewater Association rate design model:

C. Retail Wastewater (Sewer) Rate Structure Data by Customer Class

1. Does your agency provide sewer service? (If YES, answer questions 2 - 7 below, else continue to section D.) — yes

2. Single Family Residential

a. Sewer Rate Structure	Non-volumetric Flat Rate

b. Total Annual Revenue	$ 6,872,556
c. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
3. Multi-Family Residential	
a. Sewer Rate Structure	Non-volumetric Flat Rate
b. Total Annual Revenue	$ 2,131,389
c. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
4. Commercial	
a. Sewer Rate Structure	Increasing Block
b. Total Annual Revenue	$ 3,240,631
c. Total Revenue from Commodity Charges (Volumetric Rates)	$ 868,742
5. Industrial	
a. Sewer Rate Structure	Service Not Provided
b. Total Annual Revenue	$ 0
c. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
6. Institutional / Government	
a. Sewer Rate Structure	Service Not Provided
b. Total Annual Revenue	$ 0
c. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0
7. Recycled-reclaimed water	
a. Sewer Rate Structure	Service Not Provided
b. Total Annual Revenue	$ 0
c. Total Revenue from Commodity Charges (Volumetric Rates)	$ 0

D. "At Least As Effective As"

1. Is your agency implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

C.: Single and multi family customers using no more than 16 hcf of water (billing tier 1) receive a 10% discount on their sewer bill. This discount resulted in a revenue loss of $54,211.50 from SFR customers and $73,219.50 from MFR customers.

BMP 12: Conservation Coordinator

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

1. Does your Agency have a conservation coordinator?	yes
2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ?	no
a. Partner agency's name:	
3. If your agency supplies the conservation coordinator:	
a. What percent is this conservation coordinator's position?	26%
b. Coordinator's Name	Scott W. Harris
c. Coordinator's Title	Water Conservation and Reuse Supervisor
d. Coordinator's Experience and Number of Years	17 years in water conservation programs
e. Date Coordinator's position was created (mm/dd/yyyy)	9/1/1990
4. Number of conservation staff (FTEs), including Conservation Coordinator.	1.26

B. Conservation Staff Program Expenditures

1. Staffing Expenditures (In-house Only)	84115
2. BMP Program Implementation Expenditures	272116

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	no
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

A.4. One field staff 100% and one supervisor 26%. B.1. Estimate based on percentage of salaries only. B.2. FY end program actuals including allocated G and A.

BMP 13: Water Waste Prohibition

Reporting Unit:
Las Virgenes Municipal Water District

BMP Form Status: **100% Complete**

Year: **2008**

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

WASTE OF WATER PROHIBITED: No customer shall knowingly permit waste or leaks of water. Where water is wastefully or negligently used on the customer's premises, the District may discontinue the service, if such conditions are not corrected within five days after the General Manager gives the customer written notice thereof. WATER CONSERVATION: It is the desire of District to effect conservation of water resources whenever possible, such measures being consistent with legal responsibilities to seek to wisely utilize the water resources of the State of California and the District. No irrigation of new or existing parks, median strips, landscaped public areas or landscaped areas, lawns, or gardens surrounding single family homes, condominiums, town-houses, apartments, and industrial parks shall occur in such a way as to waste water. The rate and extent of application of water shall be controlled by the consumer so as to minimize run-off from the irrigated areas.

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

LVMWD and Los Angeles County	Ordinance 11-86-161, Section 3-4.203. Ordinance 1-88-168, Section 4-4.205.

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections yes

c. Non-recirculating systems in all new conveyor or car wash systems yes

d. Non-recirculating systems in all new commercial laundry systems yes

e. Non-recirculating systems in all new decorative fountains yes

f. Other, please name no

2. Describe measures that prohibit water uses listed above:

See Ordinances.

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. no

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no

4. Does your agency include water softener checks in home water audit programs? no

5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

District does not track water waste expenditures.

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Las Virgenes Municipal Water District**

BMP Form Status: **100% Complete**

Year: **2008**

A. Implementation

Number of 1.6 gpf Toilets Replaced by Agency Program During Report Year

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Replacement Method	**SF Accounts**	**MF Units**
2. Rebate	116	8
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	0	0
Total	**116**	**8**

Number of 1.2 gpf High-Efficiency Toilets (HETs) Replaced by Agency Program During Report Year

	Single-Family Accounts	Multi-Family Units
6. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Replacement Method	**SF Accounts**	**MF Units**
7. Rebate	24	1
8. Direct Install	0	0
9. CBO Distribution	0	0
10. Other	0	0
Total	**24**	**1**

Number of Dual-Flush Toilets Replaced by Agency Program During Report Year

	Single-Family Accounts	Multi-Family Units
11. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
Replacement Method	**SF Accounts**	**MF Units**
12. Rebate	0	0
13. Direct Install	0	0
14. CBO Distribution	0	0

15. Other	0	0
Total	**0**	**0**

16. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for single-family residences.

60 per high volume fixture replaced with a ULFT, $165 per high volume fixture replaced with a HET, $30 for each ULFT replaced with a HET, and an additional $40 per fixture when replacing two or more high flush volume (HFV) toilets and completing the retrofit of all HFV toilets at the residence with either ULF or HE toilets.

17. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for multi-family residences.

$60 per high volume fixture replaced with a ULFT, $165 per high volume fixture replaced with a HET, $30 for each ULFT replaced with a HET, and an additional $40 per fixture when replacing two or more high flush volume (HFV) toilets and completing the retrofit of all HFV toilets at the residence with either ULF or HE toilets.

18. Is a toilet retrofit on resale ordinance in effect for your service area? no

19. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

B. Residential ULFT Program Expenditures

1. Estimated cost per ULFT/HET replacement: 105.6

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

APPENDIX H

MAPS FROM PREVIOUS REPORTS

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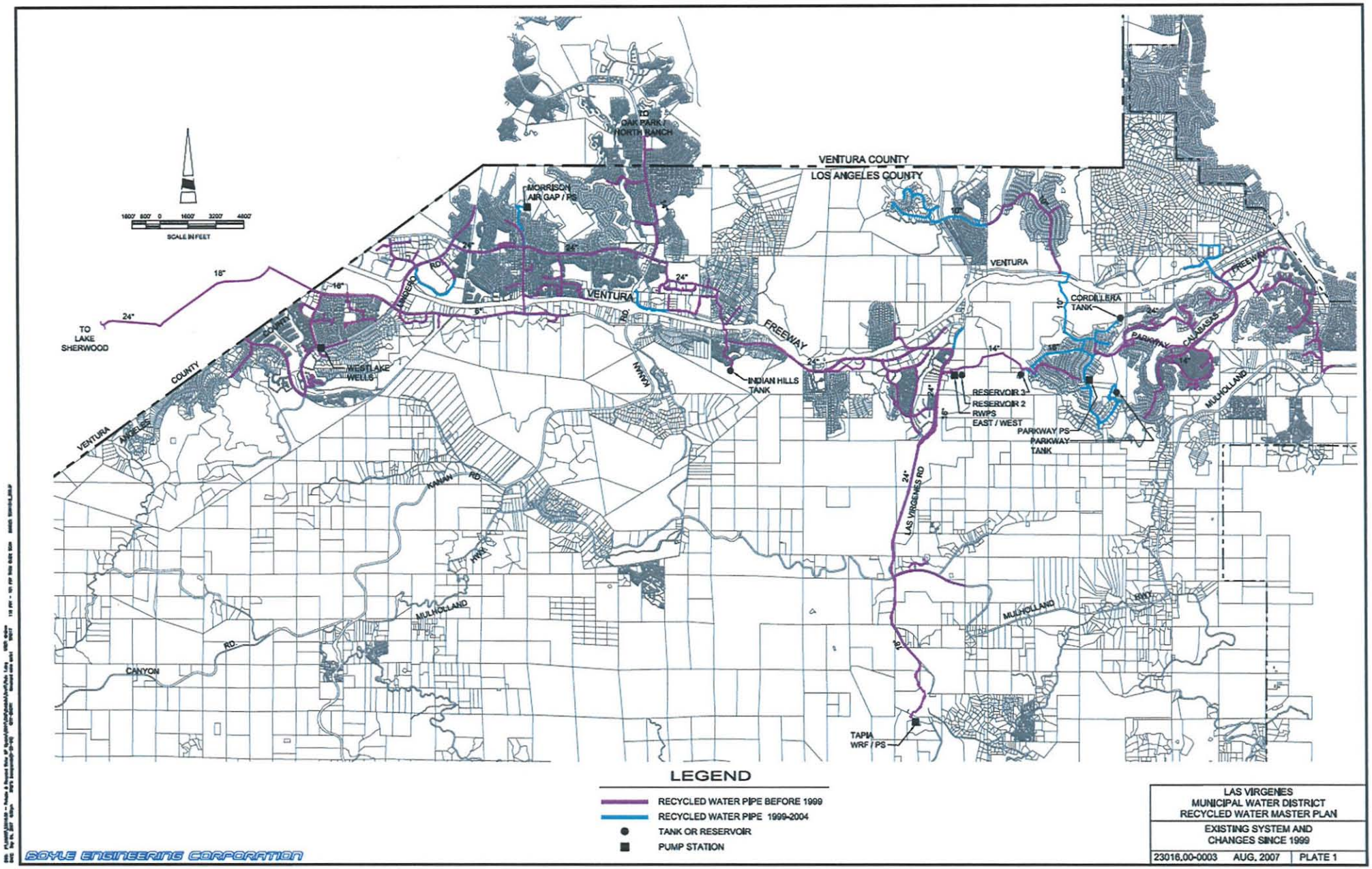
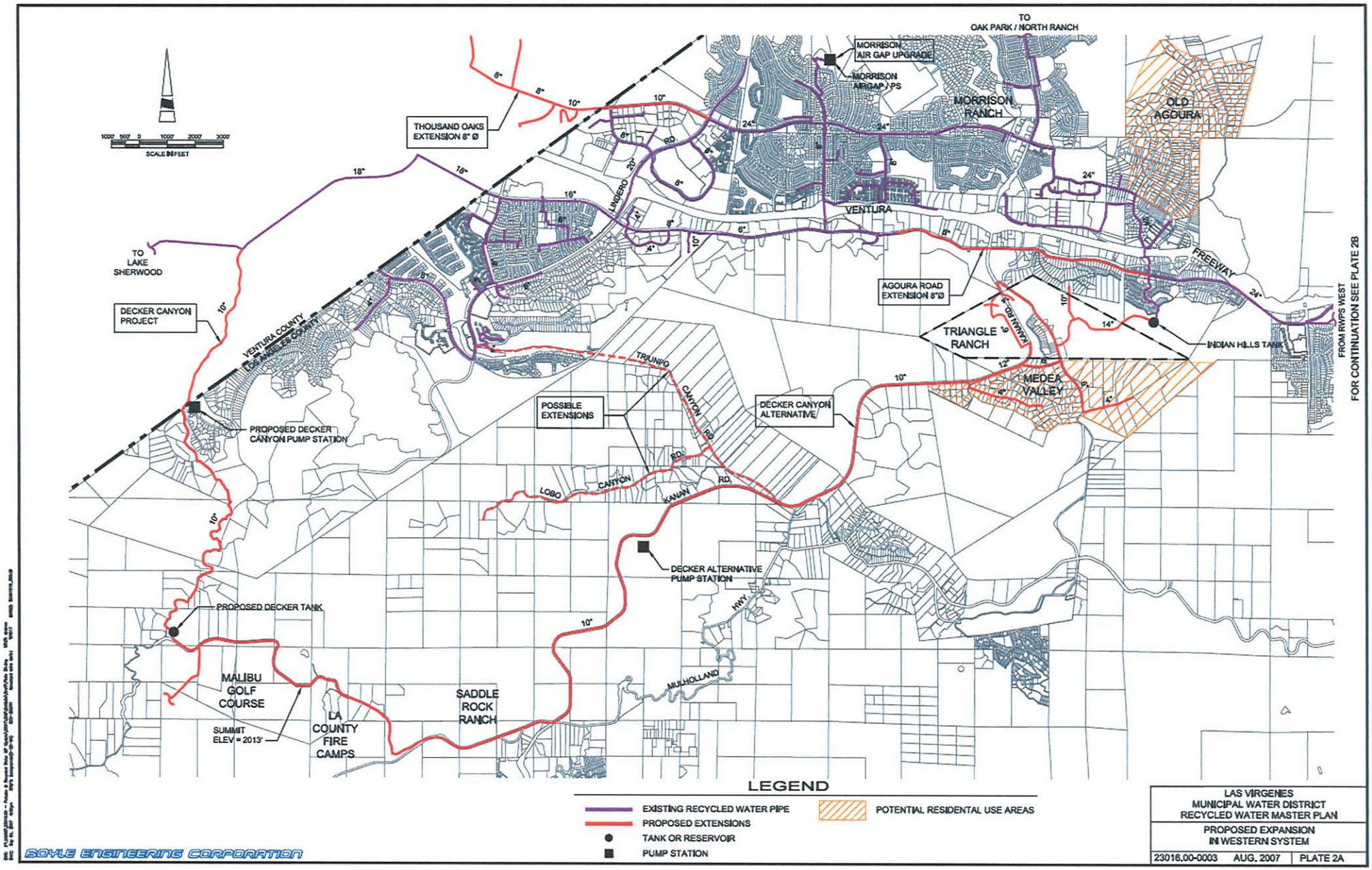


BOYLE ENGINEERING CORPORATION

LAS VIRGENES MUNICIPAL WATER DISTRICT
RECYCLED WATER MASTER PLAN

EXISTING SYSTEM AND CHANGES SINCE 1999

23016.00-0003 AUG. 2007 PLATE 1

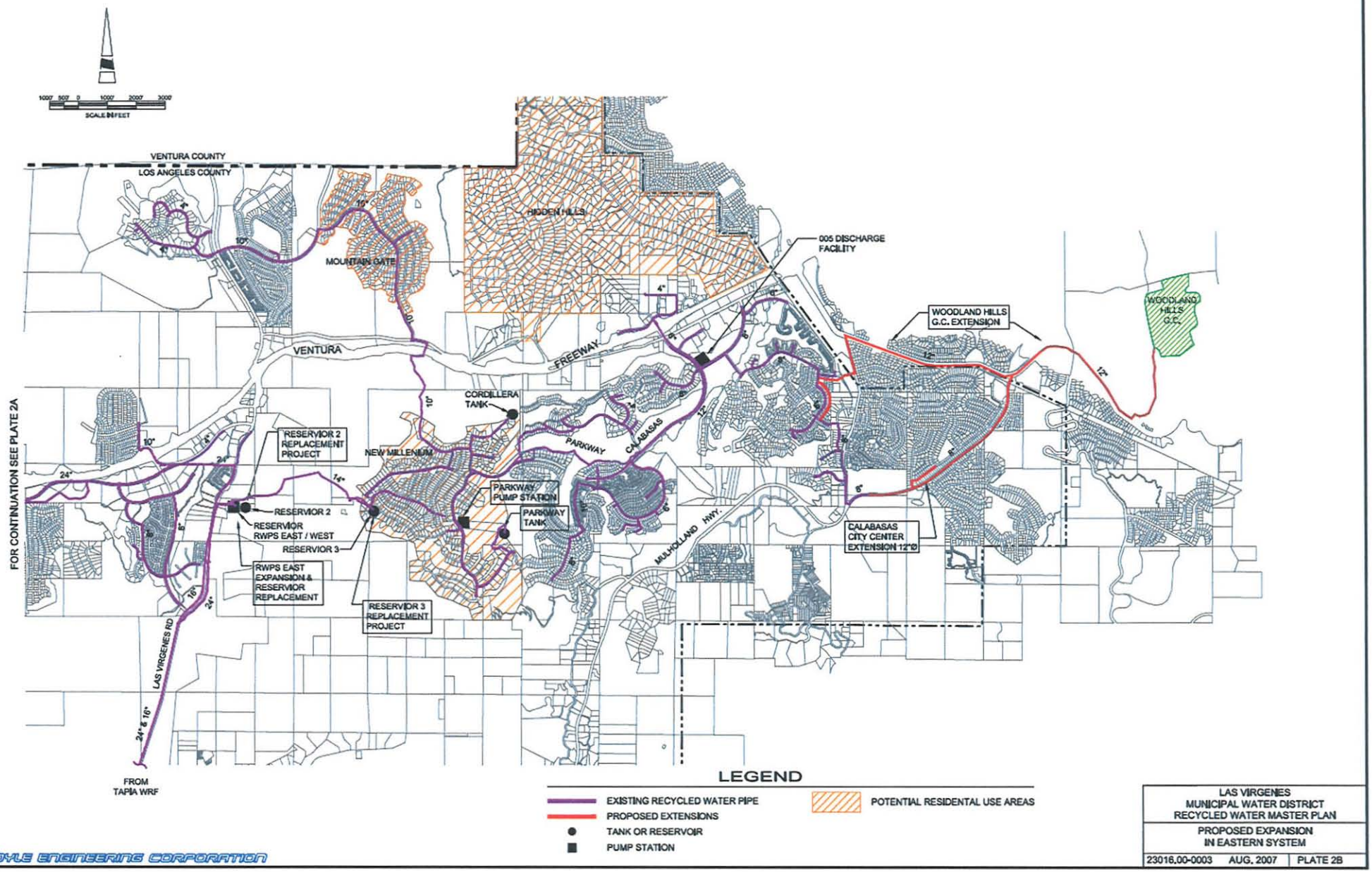


BOYLE ENGINEERING CORPORATION

LAS VIRGENES
MUNICIPAL WATER DISTRICT
RECYCLED WATER MASTER PLAN

PROPOSED EXPANSION
IN WESTERN SYSTEM

23016.00-0003 | AUG. 2007 | PLATE 2A



BOYLE ENGINEERING CORPORATION

LAS VIRGENES MUNICIPAL WATER DISTRICT
RECYCLED WATER MASTER PLAN

PROPOSED EXPANSION IN EASTERN SYSTEM

23016.00-0003 | AUG. 2007 | PLATE 2B

APPENDIX I

WATER SUPPLY RELIABILITY CALCULATION DETAILS

1. Average Year Conditions

Table 1 LVWMD Projected Average Year Water Demands

Description	2015	2020	2025	2030	2035
Projected Average Year Demand (afy)	23,951	22,034	22,787	23,504	24,190
Increase Compared to 2010[(1)] (afy)	(2,007)	(3,924)	(3,171)	(2,454)	(1,768)
Increase Compared to 2010	-8%	-15%	-12%	-9%	-7%
Demand as % of 2010 Demand	92%	85%	88%	91%	93%

Notes:

1) Based on an 2010 Average Year Demand of 25,958 afy.

Table 2 MWDSC Projected Average Year Supplies

Description	2015	2020	2025	2030	2035
Average Year Supply[(1)] (afy)	3,485,000	3,810,000	4,089,000	3,947,000	3,814,000
Increase Compared to 2010[(2)] (afy)	817,000	1,142,000	1,421,000	1,279,000	1,146,000
Increase Compared to 2010	31%	43%	53%	48%	43%
Supply as % of 2010 Supply	131%	143%	153%	148%	143%

Notes:

1) Based on the current supply programs as listed in Table 2-11 from the 2010 Regional UWMP.

2) Based on the projected supply capacity of 2,668,000 afy obtained from 2005 Regional UWMP.

Table 3 MWDSC Projected Average Year Supply as Percentage of Demand

Description	2015	2020	2025	2030	2035
Average Year Supply[(1)] (afy)	3,485,000	3,810,000	4,089,000	3,947,000	3,814,000
Average Year Demand[(2)] (afy)	2,006,000	1,933,000	1,985,000	2,049,000	2,106,000
MWDSC Supply as % of Demand	174%	197%	206%	193%	181%

Notes:

1) Based on the current supply programs as listed in Table 2-11 from the 2010 Regional UWMP.

2) Based on total demands on Metropolitan as listed in Table 2-11 from the 2010 Regional UWMP.

Table 4	Comparison of Supply and Demands under a Normal Year					
Row	**Description**	**2015**	**2020**	**2025**	**2030**	**2035**
1	LVMWD Demand Increase as % of 2010 Demand (from Table 1)	92%	85%	88%	91%	93%
2	MWDSC Supply Increase as % of 2010 Supply (from Table 2)	131%	143%	153%	148%	143%
3	MWDSC Supply as % of Demand (from Table 3)	174%	197%	206%	193%	181%
4	**Difference MWDSC Supply Increase and LVMWD Demand Increase (Row 3 – Row 1)**	**81%**	**112%**	**118%**	**102%**	**88%**

2. Single Dry Year Conditions

Table 5	LVWMD Projected Single Dry Year Water Demands				
Description	**2015**	**2020**	**2025**	**2030**	**2035**
Projected Average Year Demand (afy)	28,231	25,971	26,858	27,704	28,512
Increase Compared to 2010[(1)] (afy)	(2,725)	(4,985)	(4,098)	(3,252)	(2,444)
Increase Compared to 2010	-9%	-16%	-13%	-11%	-8%
Demand as % of 2010 Demand	91%	84%	87%	89%	92%

Notes:

1) Based on an 2010 Average Year Demand of 30,596 afy.

Table 6	MWDSC Projected Single Dry Year Supplies				
Description	**2015**	**2020**	**2025**	**2030**	**2035**
Average Year Supply[(1)] (afy)	2,457,000	2,782,000	2,977,000	2,823,000	2,690,000
Increase Compared to 2010[(2)] (afy)	(385,000)	(60,000)	135,000	(19,000)	(152,000)
Increase Compared to 2010	-14%	-2%	5%	-1%	-5%
Supply as % of 2010 Supply	86%	98%	105%	99%	95%

Notes:

1) Based on the current supply programs as listed in Table 2-9 from the 2010 Regional UWMP.

2) Based on the projected supply capacity of 2,842,000 afy obtained from 2005 Regional UWMP.

Table 7 MWDSC Projected Single Dry Year Supply as Percentage of Demand

Description	2015	2020	2025	2030	2035
Average Year Supply[(1)] (afy)	2,457,000	2,782,000	2,977,000	2,823,000	2,690,000
Average Year Demand[(2)] (afy)	2,171,000	2,162,000	2,201,000	2,254,000	2,319,000
MWDSC Supply as % of Demand	113%	129%	135%	125%	116%

Notes:

1) Based on the current supply programs as listed in Table 2-9 from the 2010 Regional UWMP.

2) Based on total demands on Metropolitan as listed in Table 2-9 from the 2010 Regional UWMP.

Table 8 Comparison of Supply and Demands under a Single Dry Year

Row	Description	2015	2020	2025	2030	2035
1	LVMWD Demand Increase as % of 2010 Demand (from Table 5)	91%	84%	87%	89%	92%
2	MWDSC Supply Increase as % of 2010 Supply (from Table 6)	86%	98%	105%	99%	95%
3	MWDSC Supply as % of Demand (from Table 7)	113%	129%	135%	125%	116%
4	**Difference MWDSC Supply Increase and LVMWD Demand Increase (Row 3 – Row 1)**	**21%**	**44%**	**47%**	**35%**	**23%**

3. Multiple Dry Year Conditions

Table 9 LVWMD Projected Multiple Dry Year Water Demands

Description	2015	2020	2025	2030	2035
Projected Average Year Demand (afy)	28,231	25,971	26,859	27,704	28,512
Increase Compared to 2010[(1)] (afy)	(2,365)	(4,625)	(3,737)	(2,892)	(2,084)
Increase Compared to 2010	-8%	-15%	-12%	-9%	-7%
Demand as % of 2010 Demand	92%	85%	88%	91%	93%

Notes:

1) Based on an 2010 Average Year Demand of 30,596 afy.

Table 10 MWDSC Projected Multiple Dry Year Supplies

Description	2015	2020	2025	2030	2035
Average Year Supply[1] (afy)	2,248,000	2,417,000	2,520,000	2,459,000	2,415,000
Increase Compared to 2010[2] (afy)	(371,000)	(202,000)	(99,000)	(160,000)	(204,000)
Increase Compared to 2010	-14%	-8%	-4%	-6%	-8%
Supply as % of 2010 Supply	86%	92%	96%	94%	92%

Notes:

1) Based on the current supply programs as listed in Table 2-10 from the 2010 Regional UWMP.

2) Based on the projected supply capacity of 2,619,000 afy obtained from 2005 Regional UWMP.

Table 11 MWDSC Projected Multiple Dry Year Supply as Percentage of Demand

Description	2015	2020	2025	2030	2035
Average Year Supply[1] (afy)	2,248,000	2,417,000	2,520,000	2,459,000	2,415,000
Average Year Demand[2] (afy)	2,236,000	2,188,000	2,283,000	2,339,000	2,399,000
MWDSC Supply as % of Demand	101%	110%	110%	105%	101%

Notes:

1) Based on the current supply programs as listed in Table 2-10 from the 2010 Regional UWMP.

2) Based on total demands on Metropolitan as listed in Table 2-10 from the 2010 Regional UWMP.

Table 12 Comparison of Supply and Demands under Multiple Dry Years

Row	Description	2015	2020	2025	2030	2035
1	LVMWD Demand Increase as % of 2010 Demand (from Table 9)	92%	85%	88%	91%	93%
2	MWDSC Supply Increase as % of 2010 Supply (from Table 10)	86%	92%	96%	94%	92%
3	MWDSC Supply as % of Demand (from Table 11)	101%	110%	110%	105%	101%
4	**Difference MWDSC Supply Increase and LVMWD Demand Increase (Row 3 – Row 1)**	**8%**	**26%**	**23%**	**15%**	**7%**