

ERIC GARCETTI  
Mayor

Commission  
MEL LEVINE, *President*  
WILLIAM W. FUNDERBURK JR., *Vice President*  
JILL BANKS BARAD  
MICHAEL F. FLEMING  
CHRISTINA E. NOONAN  
BARBARA E. MOSCHOS, *Secretary*

MARCIE L. EDWARDS  
*General Manager*

June 30, 2015

Felicia Marcus, Chair  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, California 95814

Dear Chair Marcus:

Subject: Proposition 1 Chapter 10 Groundwater Sustainability Funding Program  
(Program) Scoping Questions

On behalf of the Los Angeles Department of Water and Power (LADWP), I would like to thank the State Water Resources Control Board (State Board) and your staff for the efforts made to develop the Groundwater Sustainability Funding Program in an open, thoughtful, and expedient manner. The \$800 million provided in Proposition 1, Chapter 10, for the prevention and cleanup of groundwater contamination is an important source of funding to protect and ensure the availability of valuable local groundwater resources for drinking water supply.

The City of Los Angeles (City) is in the process of reducing its reliance on imported water supplies and further developing local water resources, including conservation, groundwater, captured stormwater, and recycled water. These efforts become increasingly critical as California endures its fourth year of dry conditions and as climate change threatens to permanently shift the state's hydrologic patterns towards more rain precipitation and less snow. As such, groundwater basins are becoming an essential part of state and local water systems, providing water supply when surface water is not available and storage for when it is.

One example of a critical groundwater basin is the San Fernando Groundwater Basin (Basin), which is the linchpin to the City's efforts to develop local water resources including stormwater and recycled water. It provides drinking water to over 800,000 residents within the City and acts as a natural storage reservoir for captured stormwater and potentially advanced treated recycled water for future indirect potable water supply. Unfortunately, over 70 percent of LADWP groundwater production wells in the Basin are no longer available due to contamination caused by historical commercial and industrial activities, including aerospace and defense manufacturing, dating back to the 1940s.

**Los Angeles Aqueduct Centennial Celebrating 100 Years of Water 1913-2013**

Chair Felicia Marcus  
Page 2  
June 30, 2015

LADWP has been working with Burbank Water and Power, Glendale Water and Power, and state and federal agencies since the 1980 discovery of volatile organic compound contamination in the Basin. However, without comprehensive contaminant plume containment and remediation, the City will lose its ability to use this valuable local resource within the next decade. A Basin Fact Sheet summarizing the history and progress of cleanup efforts is enclosed.

The Groundwater Sustainability Funding provided by Proposition 1, Chapter 10, will provide critical support for the City's efforts to remediate the Basin and restore the multiple beneficial uses it can provide for the public. Funding provided by the State Board through this Program will help alleviate the cost burden of Basin cleanup to City residents, who did not cause the contamination and are not the responsible parties. Given that the median household income of City residents is at 81 percent of the statewide average, just one percentage point above the threshold for the City as a whole to be classified as a disadvantaged community (Water Code Section 79505.5), funding from this Program will provide significant benefits to many low-income residents.

LADWP staff attended the Groundwater Quality Funding Scoping Meeting held June 8, 2015, in Los Angeles and provided some brief answers and comments on the scoping questions that were posed by State Board staff. Enclosed are LADWP's more comprehensive Responses to Program Scoping Questions and Comments on Draft FFAST Pre-application.

Again, on behalf of LADWP, I thank you and your staff for your collaborative approach and for your consideration of our comments as you develop the Program. Please contact me at (213) 367-1022 if you have any questions or comments.

Sincerely,



Martin L. Adams  
Senior Assistant General Manager – Water System

KO:yrq  
Enclosures  
By e-mail  
c: David R. Pettijohn  
Kimberly Ohara

# San Fernando Groundwater Basin

## Background

The City of Los Angeles (City) encompasses an area of 465 square miles with a population of nearly 4 million residents and an annual average water consumption of approximately 215 billion gallons. Local groundwater provides approximately 11% of the City's total water supply and has provided up to 30% of the City's total supply in drought years.

Unfortunately, over 70% of the Los Angeles Department of Water and Power (LADWP) groundwater production wells in the San Fernando Basin (SFB) are no longer available due to contamination caused by various commercial and industrial activities. The SFB is an aquifer which provides drinking water to over 800,000 residents within the City of Los Angeles.

## History of Contamination

Groundwater basin contamination is found in the northeast San Fernando Valley. Contamination was likely caused by improper storage, handling, and disposal of hazardous chemicals used in the aircraft manufacturing industry, as well as commercial and heavy industrial activities dating back to the 1940s. Potentially responsible parties are still being identified.

Since the 1980 discovery of volatile organic compound (VOC) contamination of groundwater in the SFB, LADWP, Burbank Water and Power, and Glendale Water and Power have been working regionally with state and federal agencies to contain and remediate man-made contaminants in the SFB. Chlorinated solvents such as trichloroethylene (TCE), tetrachloroethylene (PCE) and carbon tetrachloride account for the majority of this groundwater contamination.

## Clean Up Efforts

Efforts to clean up the SFB were initiated by the United States Environmental Protection Agency (USEPA) through their Superfund program. The North Hollywood Operable Unit (NHO) groundwater treatment facility began operation in the City of Los Angeles in 1989. The Burbank Operable Unit (BOU) began operation in the City of Burbank in 1996, and the Glendale Operable Unit (GOU) began operation in the City of Glendale in 2000.

The USEPA's selected remedy for the NHO area was designed to contain a small portion of the contamination. However, the remedy was not as effective as planned. The contamination continued to spread to other areas of the SFB and forced LADWP to shut down groundwater wells previously serving drinking water to Los Angeles residents. In response to this USEPA has undertaken new containment and remediation efforts through their planning for the NHO 2<sup>nd</sup> Interim Remedy. The 2<sup>nd</sup> Interim Remedy will address VOCs as well as hexavalent chromium and perchlorate, which have emerged as additional contaminants of concern. This 2<sup>nd</sup> Interim Remedy is anticipated to contain concentrated areas of the plumes, but will not address contamination that has escaped and polluted many of the groundwater basin production wells in the adjacent areas.

Without comprehensive containment and groundwater basin remediation, the City will lose the ability to use this valuable local resource within the next decade.

## LADWP's Comprehensive Remediation Strategy

In early 2015, LADWP completed an \$11.5 million, 6-year study characterizing the groundwater basin contamination in the SFB. Twenty-five new monitoring wells were drilled in support of the groundwater characterization at a cost of approximately \$22 million.

In mid-2015, planning will begin for state-of-the-art groundwater basin remediation facilities, which may consist of centralized and localized treatment. Design and construction costs are estimated to be approximately \$600 million, with treatment and remediation costs of up to \$50 million per year. The facilities will be designed to utilize multiple best-available technologies to clean up the majority of contaminants impacting LADWP's highest producing wellfields, including TCE, PCE, and 1,4-dioxane.

LADWP has begun the necessary planning for the groundwater basin remediation facilities to effectively cleanup and remove contaminants from the SFB, and restore its beneficial use. Next steps will include environmental reviews, facility design, permitting, construction, and startup. The remediation facilities are anticipated to be operational by 2021.

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
RESPONSES TO PROGRAM SCOPING QUESTIONS**

**1. What types of projects should be eligible or given higher priority?**

*What the law says: "...projects to prevent or clean up the contamination of groundwater that serves or has served as a source of drinking water...projects necessary to protect public health by preventing or reducing the contamination of groundwater that serves or has served as a major source of drinking water for a community."*

LADWP recommends giving the highest priority to projects that are cleaning up contaminated groundwater and groundwater basins that currently serve as or provide a source of drinking water. The contamination being addressed should be impacting the project proponent's current or future ability to put the groundwater towards the highest beneficial use as a drinking water supply. Higher priority may also be considered for remediation projects in groundwater basins defined by the State Board as being severely impaired drinking water sources and those that reduce reliance on other constrained sources of supply. Given the State's current water supply challenges, groundwater has become essential to the health and safety of many State residents and, in many cases, the loss of these supplies is likely to result in increased reliance on imported water.

LADWP also recommends that special consideration should be given to projects that address known contamination sites for which site characterization has already begun to ensure the timely and effective allocation and utilization of state funding. Special consideration should also be given to projects that are leveraging federal resources, through programs such as Superfund.

**2. Should some funds be used for loans? If so, how much?**

*What the law says: "...The sum of nine hundred million dollars (\$900,000,000) shall be available, upon appropriation by the Legislature from the fund, for expenditures on, and competitive grants, and loans for..."*

LADWP agrees that setting aside a portion of the Proposition 1 (Prop 1) funds for loans can be an effective way to leverage the existing dollars and provide additional funding for future projects. Repayment of the loan dollars would provide the State with a sustained funding source to disburse in future cycles for projects that may not yet be identified or fully developed.

LADWP recommends that about 30% of the total Prop 1 appropriation for groundwater sustainability be made available in the form of low-interest loans.

**3. How much funding should be set aside for technical assistance to disadvantaged communities? What kind of technical assistance is needed?**

*What the law says: "...Funding authorized by this chapter shall include funding for technical assistance to disadvantaged communities. The agency*

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
RESPONSES TO PROGRAM SCOPING QUESTIONS**

*administering this funding shall operate a multidisciplinary technical assistance program for small and disadvantaged communities...”*

While it is critical to provide disadvantaged communities with technical assistance, the State Water Resources Control Board (State Board) does provide such assistance via the Drinking Water State Revolving Fund to communities who are reliant upon groundwater as their sole drinking water source. As such, LADWP recommends that the State Board promote coordination between the various programs it is administering to maximize the effectiveness and sustainability of its funding sources.

**4. What kind of limits should there be on grant funding amounts?**

*What the law says: ...There are no funding limits specified.*

LADWP believes that the minimum cost share defined by statute ensures the effective distribution of grant funding and does not recommend additional limits.

**5. What factors should we consider in determining cost share? How should leveraging of private, federal, and local funds be considered in project selection?**

*What the law says: “...added consideration for those projects that leverage private, federal, or local funding....” “...a local cost share of not less than 50 percent of the total costs of the project shall be required...”*

LADWP believes that added consideration should be given to applicants who can demonstrate that the required local cost share is immediately available, which will assist the State in determining whether the project in question can proceed upon provision of Prop 1 support. In order to minimize impacts on ratepayers, other sources, including but not limited to the Safe Drinking Water State Revolving Fund, should be considered viable sources of match. Proposition 84 guidelines allow the local cost share to include Federal, State, local, and private funding. To maintain consistency, LADWP suggests also allowing these types of funding to be included in local cost share.

Additionally, reimbursements from responsible parties should also be allowed as part of the 50% local cost share. Los Angeles ratepayers are not the responsible parties for contamination in the San Fernando Groundwater Basin and other basins, but absent State funding, will have to bear the cost of remediation until the responsible parties are identified and agree to provide their fair share of the cost. Full cost recovery from responsible parties may not occur if some parties responsible for groundwater contamination no longer exist or are unable to provide financial support. LADWP believes that given the public benefits of cleaning up groundwater contamination and ensuring the availability of local

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
RESPONSES TO PROGRAM SCOPING QUESTIONS**

water supplies, it is appropriate to use State funding to fill the gap left by defunct or insolvent responsible parties.

State funding provided to LADWP to offset ratepayer costs would alleviate impacts to many low-income residents. In fact, the City of Los Angeles has qualified as a disadvantaged community for funding from the Safe Drinking Water State Revolving Fund in two of the last six years.

**6. What kind of project benefits should we look for or focus on?**

*What the law says [paraphrased priorities]:*

- *Threat posed by groundwater contamination to drinking water supply*
- *Potential for groundwater contamination to spread/impair*
- *Potential of project to enhance local water supply reliability*
- *Potential of project to recharge vulnerable, high-use basins*
- *Projects with no viable responsible party(ies) or responsible parties unwilling/unable to pay total cleanup cost*
- *Each state agency shall be responsible for establishing metrics of success*

Overall, LADWP agrees with the criteria specified in Water Code Section 79771 (b)(1) through (b)(5). As mentioned previously, projects that are cleaning up contaminated groundwater or contaminated groundwater basins that currently serve as or provide a source of drinking water should have the highest priority. The contamination being addressed should be impacting the project proponent's current or future ability to use the groundwater or the groundwater basin to support the highest beneficial use of the water, which in the case of LADWP is as a drinking water supply.

LADWP recommends that the metrics of success should be based on the volume of water restored for drinking water use as an appropriate indicator of groundwater or groundwater basin cleanup.

**7. How should the timing of a project completion and timeline for project benefits to be realized be considered in project selection?**

*What the law says:*

- *Not explicitly discussed in Proposition 1...*

LADWP believes that while the timing of project completion and benefits to be realized should be a consideration, the overall scope and impact of the benefits should be the higher priority in terms of project selection. In many cases, larger and more complex projects will provide greater benefits when compared to cost, but can also be more susceptible to schedule and permitting delays that are often unavoidable.

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
RESPONSES TO PROGRAM SCOPING QUESTIONS**

Based on the 60-month project duration included in the draft FFAST pre-application online tool, LADWP is assuming that the State Board intends to include a specific timeframe for the expenditure of funds. LADWP recommends that this timeframe should be 72 months, starting when a funding agreement is executed and ending with substantial completion of project construction. This timeframe will account for the varying complexity of proposed projects, such as the remediation of multiple contaminants at multiple sites.

Applicants should be expected to provide a realistic project schedule that meets the parameters of the program. However, LADWP recommends that the State Board provide a mechanism in the funding agreements to allow for some flexibility for complex projects that may be susceptible to construction and permitting delays beyond the control of the project applicant. This mechanism should allow the State Board to work closely with Prop 1 recipients to monitor project progress and determine whether funding-related deadlines should be extended.

**8. How should we assess a community's ability to pay for operations and maintenance of a facility funded by Proposition 1 funds?**

*What the law says: "An agency administering grants or loans for the purposes of this chapter shall assess the capacity of a community to pay for the operation and maintenance of the facility to be funded."*

The State Board currently conducts Technical, Managerial, and Financial assessments of applicants for Clean and Safe Drinking Water State Revolving Loan funds. Similar tools should be used to assess a community's ability to operate and maintain Prop 1 improvements or facilities.

**9. What would constitute a reasonable effort to identify responsible parties and recover costs by parties receiving funding?**

*What the law says: "Parties that receive funding for remediating groundwater storage aquifers shall exercise reasonable efforts to recover the costs of groundwater cleanup from the parties responsible for the contamination."*

LADWP recommends that funding applicants be required demonstrate a good faith effort to identify responsible parties (RPs) by, at a minimum, providing documentation on searches of existing, publically available databases and communications with local, state, and/or federal regulatory agencies with oversight responsibility for groundwater cleanup. Efforts to recover funds from RPs may have to be evaluated case by case based on the resources available to the funding applicant. A "reasonable effort" should be defined to include the use of internal staff time, as well as external resources, consultants, and legal advisors, but could vary in scope depending on the size of and resources available to the funding applicant.

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
RESPONSES TO PROGRAM SCOPING QUESTIONS**

**10. How should responsible parties' unwillingness or inability to pay for the total cost of cleanup be evaluated?**

*What the law says: "The project addresses contamination at a site ...where the identified responsible parties are unwilling or unable to pay for the total cost of cleanup..." [Note - this is a prioritization criteria]*

The groundwater and groundwater basin contamination issues currently faced by LADWP tend to relate to historical industrial contamination -- sometimes occurring decades in the past -- in an urban environment. Our reasonable expectation is that a significant percentage of RPs identified will no longer exist or will not be financially viable to support their fair share of the cost of groundwater cleanup. As a result, LADWP recommends that these prioritization criteria be used more of a threshold for funding eligibility than a sliding scale to determine project worthiness or funding amount. It may be more practical for the State Board to rely on the funding applicant's good faith or "reasonable" effort to identify RPs and recover funds with the understanding that the applicant will consider the costs and benefits of working with or pursuing funding from each RP in a manner that optimizes the use of limited resources.

**11. When considering a potential project funded under this program should any of the contaminants listed in Proposition 1 or other contaminants not listed, be given higher priority?**

*What the law says: "The contaminants that may be addressed ...may include, but shall not be limited to, nitrates, perchlorate, MTBE (methyl tertiary butyl ether), arsenic, selenium, hexavalent chromium, mercury, PCE (perchloroethylene), TCE (trichloroethylene), DCE (dichloroethene), DCA (dichloroethane), 1,2,3-TCP (trichloropropane), carbon tetrachloride, 1,4-dioxane, 1,4-dioxacyclohexane, nitrosodimethylamine, bromide, iron, manganese, and uranium."*

LADWP recommends that projects addressing man-made, industrial contaminants should be given higher priority.

**12. What areas of the Groundwater Sustainability section of Proposition 1 should be further defined or clarified in the guidelines?**

*What the law says: "...each state agency that receives an appropriation ...shall develop and adopt project solicitation and evaluation guidelines. The guidelines shall include monitoring and reporting requirements and may include a limitation on the dollar amount of grants or loans to be awarded."*

In order to minimize duplicative reporting for recipients, monitoring and reporting requirements should be consistent with any other reports required by the State regulatory agencies (i.e. drinking water permit-related reports, court-appointed "watermaster" reports, etc.). Wherever possible, submittal of or referral to these

---

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
RESPONSES TO PROGRAM SCOPING QUESTIONS**

existing reports should be specified to satisfy program monitoring and reporting requirements.

Water agencies are currently working to comply with many new mandates, some of which require new reports. Any efforts that can be made by the State Board to streamline and coordinate reporting will help water agencies utilize their internal resources in the most efficient and effective manner possible.

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
COMMENTS ON DRAFT FAAS PRE-APPLICATION**

**1.3 *Enter the street address of the Project.***

LADWP suggests modifying the pre-application to allow for a proposed project area instead of a single location. This change will address projects for which the specific site is pending CEQA review and projects that encompass a larger geographical area, multiple contaminants/plumes, etc.

**3.1 *Are other funding sources available for the Project?***

LADWP will pursue other, compatible funding sources as they become available, but we are concerned about characterizing lawsuit/settlement funds (i.e. Potentially Responsible Parties) as “available.” As such, LADWP suggests that the question is revised as follows: “Are other potential funding sources being evaluated or pursued for the Project?” Question 3.2 already addresses whether other funding sources have been secured.

**3.2 *Has funding been received for work performed for this Project?***

The pre-application alternately refers to “GWQF Applicant” and “Grant Applicant.” LADWP recommends making this reference consistent throughout the document.

**5.1 *Has the responsible party been located?***

LADWP requests additional clarification on the appropriate response when some responsible parties have been identified, but there is still an ongoing search for others.

**6 *Is there a current regulatory directive associated with the Project?***

LADWP suggests broadening this question to account for projects where there may be a regulatory directive associated with only a portion of the project site, or where there are multiple regulatory directives forthcoming.

**7.1 *Check all chemicals of concern to be addressed by the Project that have recent concentrations greater than the MCL for drinking water supply.***

LADWP requests clarification as to whether this involves concentrations at the regulatory compliance point or at a single monitoring location. Also, should contaminants with a notification level but not a formal MCL (i.e. 1,4-dioxane) should be listed? LADWP believes that it is in the long-term interest of the State to have these chemicals removed from the drinking water supply.

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
COMMENTS ON DRAFT FAAST PRE-APPLICATION**

**7.2 *What is the most recent concentration of the chemical of greatest concern in groundwater to be addressed by the Project?***

LADWP requests clarification on the definition of “contaminant of greatest concern” and how projects addressing multiple sites/contaminants should be documented. Also, should the response represent a single sampling event or an average concentration over a specified period of time?

**7.7 *What is the length of the groundwater area impacted by the primary contaminant (i.e. concentration is greater than the MCL)?***

LADWP requests clarification: is “primary contaminant” being used interchangeably with “contaminant of greatest concern?”

**7.8 *What is the depth to the top of the contaminated groundwater?***

See comment/question for 7.7.

**7.9 *What is the depth to the base of the contaminated groundwater?***

See comment/question for 7.7.

**7.11 *What is the most recent concentration of the chemical of greatest concern in soil to be addressed by the Project?***

LADWP requests clarification on how to account for projects that are not designed to address soil remediation. Many projects may be designed to remediate groundwater contamination that has migrated a significant distance from known or unknown contaminant release sites. LADWP recommends that a response of “Not Applicable” should not be detrimental to project eligibility to receive funding.

**8.4 *Describe the effectiveness of all efforts to address groundwater contamination performed to date.***

LADWP requests clarification on the intent of this question, and how the term “effectiveness” is being defined.

**8.5 *Has the source of the release to the environment of the chemical of concern been stopped?***

LADWP requests clarification on how projects addressing multiple sites/contaminants should be documented. We also request that the pre-application include additional space to provide comments.

**LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP)  
PROPOSITION 1 GROUNDWATER SUSTAINABILITY FUNDING PROGRAM  
COMMENTS ON DRAFT FAAS PRE-APPLICATION**

**9.6 *What is the estimated duration of the Project?***

LADWP requests clarification: does “duration of the Project” include past activities and costs that have already been incurred? LADWP would like previous activities and associated costs to be included as part of the local cost share or to be eligible for grant or loan reimbursement.

LADWP suggests that an option for a project “duration” of up to 72 months be provided in the pre-application and requests clarification on the starting point of that timeline (i.e. project inception, pre-application, funding commitment from the State, execution of funding agreement, initiation of construction, etc.). As indicated in our comments on the scoping questions, LADWP recommends that the timeline starting point be the execution of the funding agreement.