

Proposal Full View

Applicant Information

Organization Name Alameda County Water District *
 Tax ID 99999998
 Proposal Name Niles Cone Saltwater Intrusion and Aquifer Characterization Project *
 Proposal Objective To gain a better understanding of the geological processes that formed the Niles Cone; allow long term monitoring of the Centerville and Fremont Aquifers in the western, central, and southern portions of the Niles Cone; evaluate the western and southern extent of brackish water that could impact ACWD's active water supply wells in the Mowry Wellfield; evaluate the relationship between the Centerville and Fremont Aquifers; and to increase ACWD's understanding of the location of inferred major depositional channels in the area. *

Budget

Other Contribution	\$0.00
Local Contribution	\$0.00
Federal Contribution	\$0.00
Inkind Contribution	\$245,446.00
Amount Requested	\$250,000.00 *
Total Project Cost	\$495,446.00 *

Geographic Information

Latitude * DD(+/-) MM SS
 Longitude * DD(+/-) MM SS

Longitude/Latitude Clarification

Location

Location of Site 5, one of four well sites (Sites 5-8); please reference Figure 5 in Attachment 4.

County Alameda *
 Ground Water Basin Santa Clara Valley-Niles Cone
 Hydrologic Region San Francisco Bay
 Watershed Locally, the watershed area is called the Alameda Creek Watershed; Unique Watershed No. 18; Calwater Watershed Code 2204; South Bay

Legislative Information

Assembly District 20th Assembly District *
 Senate District 10th Senate District *
 US Congressional District District 13 (CA) *

Project Information

Project Name Niles Cone Saltwater Intrusion and Aquifer Characterization Project

Implementing Organization	Alameda County Water District
Secondary Implementing Organization	Not Applicable
Proposed Start Date	4/1/2013
Proposed End Date	3/31/2015
Project Scope	Install 6 groundwater monitoring wells and collect 30 groundwater samples for chemical characterization analysis.
Project Description	<p style="font-size: small;">ACWD's grant application, "Niles Cone Saltwater Intrusion and Aquifer Characterization Project," proposes the installation of six groundwater monitoring wells in the western and southern sections of the Niles Cone Groundwater Basin (where brackish water has been detected and potentially threatens ACWD's Mowry Wellfield) and the collection of 30 groundwater samples for groundwater chemistry analyses. At all of the proposed drilling locations, little to no geologic or hydrogeologic information exists. One exploratory boring will be drilled at each site to a depth of 800 feet below ground surface to obtain a detailed geologic profile of the alluvial material. At the proposed sites for Centerville and Fremont Aquifer monitoring wells (Sites 7 and 8), the exploratory boring will be converted into a monitoring well at an approximate depth of 350 feet. An additional Centerville Aquifer monitoring well will be completed (based on the exploratory boring lithology) approximately 10 feet away to a depth of 250 feet. At the locations with only a Centerville Aquifer monitoring well proposed (Sites 5 and 6), the exploratory</p>

	<p>boring will be completed as a monitoring well at a depth of approximately 250 feet.</p> <p>The new monitoring wells will provide long term monitoring points needed for tracking groundwater flow patterns and groundwater quality. In an effort to further identify areas of possible interconnections between the Centerville and Fremont Aquifers in the vicinity of elevated chloride levels, 30 groundwater samples will be collected from monitoring wells (in both the Centerville and Fremont Aquifers) at locations around the basin in an attempt to "fingerprint" unique characteristics of both the Centerville and Fremont Aquifers. The groundwater samples will be analyzed for cations and anions percentages and plotted on ternary plots. A Piper diagram will be created for each groundwater sample and compared for similarities, differences, and commonalities.</p>
<p>Project Objective</p>	<p>To gain a better understanding of the geological processes that formed the Niles Cone; allow long term monitoring of the Centerville and Fremont Aquifers in this area of the basin; evaluate the western and southern extent of brackish water that could impact ACWD's active water supply wells in the Mowry Wellfield; evaluate the relationship between the Centerville and Fremont Aquifers; and to increase ACWD's understanding of the location of inferred major depositional channels in the area.</p>

Project Benefits Information

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Water Restoration	0	Wells will define the extent of brackish water in two aquifers.
Primary	Groundwater Management-Monitoring wells installed	0	Wells will provide long term monitoring of two major aquifers.
Primary	Modeling-Groundwater modeling developed or improved	0	Data will be used to improve ACWD's Integrated Groundwater and Surface Water Model.
Secondary	Desalination-Water Supply Enhancement	0	Data may help identify the need for an addition Aquifer Reclamation Program well that could be used as a source for ACWD's Newark Desalination Facility.

Project Objective

Budget

Other Contribution	0
Local Contribution	0
Federal Contribution	0
Inkind Contribution	245446
Amount Requested	250000
Total Project Cost	495446

Geographic Information

Latitude DD(+/-)	37	MM 29	SS 23
Longitude DD(+/-)	122	MM 1	SS 53
Longitude/Latitude Clarification		Location	Location of Site 5, one of four well sites (Sites 5-

County Alameda Ground Water Basin Santa Clara Valley-Niles Cone Hydrologic Region San Francisco Bay WaterShed
 Locally, the watershed area is called the Alameda Creek Watershed; Unique Watershed No. 18

Legislative Information

Assembly District	20th Assembly District
Senate District	10th Senate District
US Congressional District	District 13 (CA)

Section : Applicant Information and Question's Tab

APPLICANT INFORMATION AND QUESTION'S TAB

Q1. Applicant Information

Provide the agency name, address, city, state, and zip code of the applicant submitting the application.
 Alameda County Water District 43885 South Grimmer Boulevard Fremont, CA 94538

Q2. Proposal Description:

Provide a brief abstract of the Proposal. This abstract must provide an overview of the proposal including the main issues and priorities addressed in the proposal. Within the abstract, please describe how the proposal relates to the GWMP's BMO's.

ACWD's grant application, "Niles Cone Saltwater Intrusion and Aquifer Characterization Project," proposes the installation of six groundwater monitoring wells in the western and southern sections of the Niles Cone Groundwater Basin (where brackish water has been detected and potentially threatens ACWD's Mowry Wellfield) and the collection of 30 groundwater samples for groundwater chemistry analyses. This proposal directly supports the primary goal of ACWD's Groundwater Management Policy since the additional monitoring wells and chemistry analyses will enhance ACWD's ability to efficiently protect and manage the Niles Cone Groundwater Basin and to ensure a reliable supply of high quality water that satisfies the present and future water needs in ACWD's service area (ACWD Groundwater Management Policy Statement). The proposed project would also provide valuable information towards achieving the following objectives of ACWD's Groundwater Management Policy:

"Protect groundwater quality from degradation from any and all sources including: saline water intrusion." "Improve groundwater quality by removing salts and other contaminants from affected areas of the basin." The following information explains the relevance of this project to ACWD's Groundwater Management Policy's goals and objectives. In 2009, ACWD installed 11 monitoring wells specifically targeting the Centerville and Fremont Aquifers in an attempt to delineate the extent of the elevated chloride levels. This well installation project, "Inland Saltwater Intrusion Monitoring Wells Project", was performed under a DWR LGA Grant awarded in 2008. Results from this project supports the supposition that the brackish water in the vicinity of the Mowry Wellfield appears to be concentrated where DWR has documented inferred major depositional channels. The previous project further supports the idea that the Centerville and Fremont Aquifers are distinct water bearing zones with areas of possible interconnection. Unfortunately, due to the complexities of the depositional environment of the Niles Cone, the previous project was unable to delineate the southern and western boundaries of the brackish water in the Centerville and Fremont Aquifers, respectively, and it did not clearly identify where interconnections between the two aquifers were occurring. A total of six wells are proposed to be installed at four sites, two sites with Centerville and Fremont Aquifer wells and two sites with one Centerville Aquifer well. At all of the proposed locations, little to no geologic or hydrogeologic information exists. One exploratory boring will be drilled at each site to a depth of 800 feet below ground surface to obtain a detailed geologic profile of the alluvial material. At the proposed sites for Centerville and Fremont Aquifer monitoring wells, the exploratory boring will be converted into a monitoring well at an approximate depth of 350 feet. An additional Centerville Aquifer monitoring well will be completed approximately 10 feet away to a depth of 250 feet. At the locations with only a Centerville Aquifer monitoring well proposed, the exploratory boring will be completed as a monitoring well at a depth of approximately 250 feet. The new monitoring wells will provide long term monitoring points needed for tracking groundwater flow patterns and groundwater quality. In an effort to further identify areas of possible interconnections between the Centerville and Fremont Aquifers in the vicinity of elevated chloride levels, 30 groundwater samples will be collected from monitoring wells at locations around the basin in an attempt to "fingerprint" unique characteristics of both the Centerville and Fremont Aquifers. The groundwater samples will be analyzed for cations and anions percentages and plotted on ternary plots. A Piper diagram will be created for each groundwater sample and compared for similarities, differences, and commonalities.

Q3. Project Director:

Provide the name and details (including email) of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.

Steven D. Inn Alameda County Water District 43885 South Grimmer Boulevard Fremont, CA, 94538 Phone: (510) 668-4441 Email: steven.inn@acwd.com

Q4. Project Manager:

Provide the name and contact information (including email) of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.

Douglas Young Alameda County Water District 43885 South Grimmer Boulevard Fremont, CA, 94538 Phone: (510) 668-4452 Email: douglas.young@acwd.com

Q5. Additional Information:

Based on the region's location, what is the applicable DWR region office (Northern, North Central, South Central, or Southern)? The following link can be used to view each DWR region office boundaries:

http://www.water.ca.gov/groundwater/groundwater_basics/gw_contacts_info.cfm

- 1) Northern Region
- 2) North Central Region
- 3) South Central Region
- 4) Southern Region

Q6. Additional Information:

Provide the Date of GWMP Adoption, if any, and list the pursuant Water Code Section or other legal Authority in which it was adopted.

ACWD's Groundwater Management Policy was originally adopted on January 26, 1989 and amended on March 22, 2001. As recognized by DWR during previous Local Groundwater Assistance Programs, ACWD's amended policy along with current versions of the Groundwater Monitoring Report and Survey Report on Groundwater Conditions is considered to be an appropriate Groundwater Management Plan. On May 1, 2012, updated versions of these reports were submitted to DWR. ACWD's Groundwater Management Policy is based on the statutory authority granted to ACWD under the County Water District Law (commencing with Section 30000 of the Water Code); the Replenishment Assessment Act of the Alameda County Water District (Section 4, Chapter 1942 of the Statutes of 1961, as amended in 1970 and 1974); the Alameda County Water District Groundwater Protection Act (Division 12, Part 5, Chapter 1, Article 9.3, commencing with Section 31142.20 of the Water Code); and agreements with other agencies.

Q7. Additional Information:

Provide a list of documents that support and indicate collaboration with other local public agencies with regard to the management of the affected groundwater basin (e.g., MOUs, MOAs, JPAs, adoption of a GWMP, recognition of county ordinances in permitting processes, or party to a groundwater basin adjudication order).

City of Fremont * March 25, 1997, Cooperative Agreement Between City of Fremont and ACWD, ACWD to provide the oversight of the investigation and remediation of Leaking Underground Fuel Tank (LUFT) sites and Spills, Leaks, Investigation, and Cleanup (SLIC) sites. City of Newark * June 26, 1997 and October 8, 2009, Cooperative Agreement Between City of Newark and ACWD, ACWD to provide the oversight of LUFT and SLIC sites. Alameda County Department of Environmental Health * October 8, 2009, Cooperative Agreement Between County of Alameda and ACWD, ACWD to provide the oversight of LUFT and SLIC sites in the City of Newark. City of Union City * August 12, 1997, Cooperative Agreement Between City of Union City and ACWD, ACWD to provide the oversight of LUFT and SLIC sites. Cities of Fremont, Newark, and Union City * January 1, 2010, ACWD Groundwater Protection Act, authorizes ACWD to adopt a well ordinance for all three cities to replace individual city ordinances. * December 9, 2010, ACWD Ordinance No. 2010-01, requires any person applying for any land development permit or approval from the cities to obtain documentation from ACWD that existing wells or other excavations are in compliance. City of Hayward * July 27, 2000, Cooperative Agreement Between the City of Hayward and ACWD, agreement to work cooperatively in managing the investigation and cleanup of contaminated properties in southern Hayward. * August 2, 2000, City Well Ordinance No. 00-04, maintains all of ACWD's groundwater rights related to fees and charges and specifies that the city and ACWD will work cooperatively when wells are constructed, operated, or destroyed within areas detached from ACWD. Union Sanitary District * April, 2001, the Southern Alameda

County GIS Authority was formed under a Joint Powers Agreement with the Cities of Fremont, Newark, Union City, ACWD, and USD to collectively develop, operate, and maintain a web-based Geographical Information System. California Regional Water Quality Control Board * June 27, 1996, Cooperative Agreement Between the Regional Board and ACWD, ACWD to oversee the investigation and remediation of LUFT and SLIC sites. East Bay Municipal Utility District * April 2003, East Bay Plain Aquifer Test Project Report, joint hydrogeologic investigation conducted by ACWD, EBMUD, and the City of Hayward that demonstrated the South East Bay Plain and Niles Cone basins are hydraulically connected. Department of Water Resources * June 1, 2004, Agreement No. 4600003644, Local Groundwater Assistance grant for FY 2003-2004 and work completed on April 12, 2006. * June 1, 2005, Agreement No. 4600004071, Local Groundwater Assistance grant for FY 2004-2005 and work completed on May 17, 2007. * November 14, 2008, Agreement No. 4600008186, Local Groundwater Assistance grant for FY 2007/2008 and work completed on May 28, 2009.

Q8. Additional Information

Name the entity(ies) providing the fund(s) reported in the above Budget section under the category "Other Contribution". If there are no "Other Contributions" Please answer this question with, "No Other Contributions".

No Other Contributions

Q9. Eligibility:

List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and email address. Those listed must submit self certification of compliance with CWC §525 et seq. and AB1420, see Attachment 10. If there are none, so indicate.

Urban Water Supplier: Alameda County Water District Contact: Steven Inn Contact Phone No.: (510) 668-4441 Contact email address: steven.inn@acwd.com

Q10. Eligibility:

Have all of the urban water suppliers, listed in Q9 above, submitted complete 2010 UWMP to DWR? If not, explain why. Have those plans been verified as complete by DWR? If not, explain current status.

Yes, ACWD's 2010 Urban Water Management Plan was submitted on July 1, 2011. DWR's October 27, 2011 letter states, "DWR's review of the ACWD's 2010 plan has found that the plan has addressed the requirements of the California Water Code."

Q11. Completeness Check:

Have all of the fields in the application been completed?

Yes

Q.11. Completeness Check (cont)

If no, please explain. If yes, answer this question with "NA".

NA

Section : Application Attachments Tab

APPLICATION ATTACHMENTS TAB

Attachment 1. Authorizing Documentation

Upload authorizing documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att1_LGA12_ACWD_AuthDoc_1of4.pdf,Att1_LGA12_ACWD_AuthDoc_2of4.pdf,Att1_LGA12_ACWD_AuthDoc_3of4.pdf,Att1_LGA12_A

Attachment 2. Eligible Applicant Documentation

Upload eligible documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att2_LGA12_ACWD_EligDoc_1of1.pdf

Attachment 3. Status of GWMP

Upload the GWMP documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att3_LGA12_ACWD_GWMP_1of5.pdf,Att3_LGA12_ACWD_GWMP_2of5.pdf,Att3_LGA12_ACWD_GWMP_3of5.pdf,Att3_LGA12_ACWD_GWMP_4of5.pdf,Att3_L

Attachment 4. Project Description

Upload project description here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att4_LGA12_ACWD_ProjD_1of3.pdf,Att4_LGA12_ACWD_ProjD_2of3.pdf,Att4_LGA12_ACWD_ProjD_3of3.pdf

Attachment 5. Work Plan

Upload work plan here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att5_LGA12_ACWD_WrkPln_1of2.pdf,Att5_LGA12_ACWD_WrkPln_2of2.pdf

Attachment 6. Budget

Upload budget here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att6_LGA12_ACWD_BUDGET_1of4.pdf,Att6_LGA12_ACWD_BUDGET_2of4.pdf,Att6_LGA12_ACWD_BUDGET_3of4.pdf,Att6_LGA12

Attachment 7. Schedule

Upload schedule here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att7_LGA12_ACWD_SCHED_1of2.pdf,Att7_LGA12_ACWD_SCHED_2of2.pdf

Attachment 8. Quality Assurance

Upload quality assurance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att8_LGA12_ACWD_QA_1of4.pdf,Att8_LGA12_ACWD_QA_2of4.pdf,Att8_LGA12_ACWD_QA_3of4.pdf,Att8_LGA12_ACWD_QA_4of4

Attachemnt 9. Past Performance

Upload past performance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments:

Att9_LGA12_ACWD_PERFORM_1of4.pdf,Att9_LGA12_ACWD_PERFORM_2of4.pdf,Att9_LGA12_ACWD_PERFORM_3of4.pdf,Att9_LGA12_ACWD_PERFORM_4

Attachment 10. AB1420 and Water Meter Implementation Compliance

Upload 1420 and water meter implementation documentation here, if applicable. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Subm

Last Uploaded Attachments: Att10_LGA12_ACWD_1420_1of4.pdf,Att10_LGA12_ACWD_1420_2of4.pdf,Att10_LGA12_ACWD_1420_3of4.pdf,Att10_LGA12_ACWD_