

Proposal Full View

Applicant Information

Organization Name *

Tax ID **946000374**

Proposal Name Modesto Groundwater Basin
Characterization and Recharge Feasibility
Study *

The Modesto Groundwater Basin Characterization and Recharge Study (Project) is a study proposed specifically to identify areas in the Modesto Groundwater Subbasin where either direct and/or indirect groundwater augmentation may occur to both aid in maintaining basin groundwater levels and to provide for storage of seasonally-available surplus surface water (obtained via existing infrastructure from the Modesto Regional Water Treatment Plant (MRWTP) as supplied under agreements with the Modesto Irrigation District [MID]) in the subsurface for future use. The Project will result in the preparation of an Integrated Groundwater Management and Augmentation Plan (IGMAP) that will present a conceptual model of the basin, prepared from the standpoint of basin management, groundwater banking, and conjunctive use, and will identify potential studies, projects and/or programs that may be implemented to further develop such a program. The proposed Project is a key step in understanding basin hydrodynamics for development of a long-term groundwater banking, conjunctive use and basin management program. This Project will contribute to a better understanding of the location, quantity, and quality of the groundwater within the Modesto Subbasin (which is the principal source of domestic water in the region) and will help to determine which strata would be good candidates for use in a potential groundwater banking program. Given the region's dependency on groundwater as a principal water supply source, this understanding will, in turn, improve the ability to effectively manage the groundwater subbasin, an essential element in the region's ability to adapt to climate change in the near future. *

Proposal Objective

Budget

| | |
|----------------------|----------------|
| Other Contribution | \$0.00 |
| Local Contribution | \$0.00 |
| Federal Contribution | \$0.00 |
| Inkind Contribution | \$0.00 |
| Amount Requested | \$249,990.00 * |
| Total Project Cost | \$249,990.00 * |

Geographic Information

Latitude * DD(+/-) MM SS

Longitude * DD(+/-) MM SS

| | | | |
|----------------------------------|--|----------------------------|-----------------------------|
| Longitude/Latitude Clarification | NA | Location | East Stanislaus IRWM region |
| County | | Stanislaus * | |
| Ground Water Basin | | San Joaquin Valley-Modesto | |
| Hydrologic Region | | San Joaquin | |
| Watershed | Tuolumne and Stanislaus River Watersheds | | |

Legislative Information

| | |
|---------------------------|--|
| Assembly District | 17th Assembly District,25th Assembly District,26th Assembly District * |
| Senate District | 12th Senate District,14th Senate District * |
| US Congressional District | District 18 (CA),District 19 (CA) * |

Project Information

Project Name Modesto Groundwater Basin Char

| | |
|-------------------------------------|--|
| Implementing Organization | City of Modesto |
| Secondary Implementing Organization | Stanislaus and Tuolumne Rivers Groundwater Basin Association |
| Proposed Start Date | 4/13/2013 |
| Proposed End Date | 12/31/2014 |
| Project Scope | The proposed scope of work will result in an Integrated Groundwater Management and Augmentation Plan for the Modesto Subbasin |
| Project Description | This Project was developed specifically to identify areas in the Modesto Groundwater Subbasin where either direct and/or indirect groundwater augmentation may occur to both maintain basin groundwater levels and to provide for banking of seasonally-available surplus treated surface water in the subsurface for future use. Specifically, the purpose of this Project is three-fold: (1) to develop a comprehensive characterization of the basin hydrogeology, especially the deeper aquifers where domestic water is typically extracted via municipal production wells, with a focus on future augmentation of these aquifers; (2) to identify studies and projects that can be implemented to further development of a groundwater banking, augmentation and management program for the Modesto Subbasin; and (3) to analyze the feasibility of pursuing a pilot study and subsequent demonstration project regarding potential groundwater recharge of the basin. This Project will contribute to a better understanding of the location, quantity, and quality of the groundwater within the subbasin (which is the principal source of domestic water in the region) and will help to determine which strata would be good candidates for use in a potential groundwater banking program. Additionally, completion of the proposed Project will provide key data necessary to develop follow-on studies and projects that will correct existing supply deficiencies by providing the water needed to meet existing and future demands (developing new wells has been problematic due to groundwater quality issues); avoid further over-draft of the groundwater supply (future groundwater use is anticipated to exceed natural recharge); improve water quality; increase basin reliability under changing climate conditions; and create operational flexibility, improving the adaptability of the region changing hydrologic conditions. |
| Project Objective | The Modesto Groundwater Basin Characterization and Recharge Study (Project) is a study to identify areas where groundwater augmentation may occur in the Modesto Subbasin to maintain basin groundwater levels and provide for banking of seasonally-available surplus surface water in the subsurface. This Project will help understanding of basin |

hydrodynamics and conditions which will improve the ability to effectively manage the basin and promote adaptation to anticipated climate changes.

Project Benefits Information

| Project Benefit Type | Benefit Type | Measurement | Description |
|----------------------|---|-------------|---|
| Primary | Water Storage -- Conjunctive-Water Supply Enhancement | 0 | This study will form the basis for development of a conjunctive use program in the Modesto Subbasin. |
| Primary | Water Storage -- Groundwater-Water Supply Enhancement | 0 | This study will form the foundation for development of a groundwater banking program for subsurface storage of seasonally-available surplus treated surface water. |
| Primary | Other-Groundwater Studies | 0 | This Project will result in an IGMAP to identify areas where groundwater augmentation may occur in the Modesto Subbasin to maintain basin groundwater levels and provide for banking of seasonally-available surplus treated surface water in the subsurface. |

Project Objective

Budget

| | |
|----------------------|-------------------------------------|
| Other Contribution | <input type="text" value="0"/> |
| Local Contribution | <input type="text" value="0"/> |
| Federal Contribution | <input type="text" value="0"/> |
| Inkind Contribution | <input type="text" value="0"/> |
| Amount Requested | <input type="text" value="249990"/> |
| Total Project Cost | <input type="text" value="249990"/> |

Geographic Information

| | | | |
|----------------------------------|-----------------------------------|------------------------------------|---|
| Latitude DD(+/-) | <input type="text" value="37"/> | MM <input type="text" value="37"/> | SS <input type="text" value="46"/> |
| Longitude DD(+/-) | <input type="text" value="-120"/> | MM <input type="text" value="52"/> | SS <input type="text" value="26"/> |
| Longitude/Latitude Clarification | <input type="text" value="NA"/> | Location | <input type="text" value="East Stanislaus IF"/> |

County Stanislaus Ground Water Basin San Joaquin Valley-Modesto Hydrologic Region San Joaquin WaterShed

Tuolumne and Stanislaus River Watersheds

Legislative Information

| | |
|---------------------------|--|
| Assembly District | 17th Assembly District,25th Assembly District,26th Assembly District |
| Senate District | 12th Senate District,14th Senate District |
| US Congressional District | District 18 (CA),District 19 (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.

City of Modesto 1010 Tenth Street P.O. Box 642 Modesto, CA 95353

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.

The City of Modesto, in cooperation with the Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRGBA), is submitting this 2012 Local Groundwater Assistance (LGA) Grant Application in order to obtain grant funds from DWR to prepare an Integrated Groundwater Management and Augmentation Plan (IGMAP). The Modesto Groundwater Basin Characterization and Recharge Study (Project) was developed specifically to identify areas in the Modesto Groundwater Subbasin where either direct and/or indirect groundwater augmentation may occur to both maintain basin groundwater levels and to provide for banking of seasonally-available surplus surface water in the subsurface for future use. Specifically, the purpose of this Project is three-fold: (1) to develop a comprehensive characterization of the basin hydrogeology, especially the deeper aquifers where domestic (potable) water is typically extracted via municipal production wells, with a focus on future augmentation of these aquifers; (2) to identify studies and projects that can be implemented to further development of a groundwater banking, augmentation and management program for the Modesto Subbasin; and (3) to analyze the feasibility of pursuing a pilot study and subsequent demonstration project regarding potential groundwater recharge of the basin. This Project will contribute to a better understanding of the location, quantity, and quality of the groundwater within the Modesto Subbasin (which is the principal source of domestic water in the region) and will help to determine which strata would be good candidates for use in a potential groundwater banking program. Additionally, completion of the proposed Project will provide key data necessary to develop follow-on studies and projects that will correct existing supply deficiencies by providing the water needed to meet existing and future demands (developing new wells has been problematic due to groundwater quality issues); avoid further over-drafting of the groundwater supply (future groundwater use is anticipated to exceed natural recharge); improve water quality; increase basin reliability under changing climate conditions; and create operational flexibility, improving the adaptability of the region changing hydrologic conditions. These studies and projects will then be submitted for inclusion in the East Stanislaus Integrated Regional Water Management Plan (ESIRWMP), currently under development, and will be incorporated in updates to the Integrated Regional Groundwater Management Plan for the Modesto Subbasin (IRGMP). This proposed Project is consistent with both the IRGMP and the East Stanislaus IRWM planning regional goals and objectives. Specifically, the IRGMP includes "Maintain Groundwater Levels?", "Control Degradation of Groundwater Quality?" and "Protect Against Potential Inelastic Land Surface Subsidence?" as three of its overall basin management objectives (BMOs). Implementation of the proposed Project will provide information necessary to identify and develop studies and projects that, when implemented, will support these BMOs, and will provide recommendations that can be implemented both in the short- and long-term to achieve these BMOs. Preparation of the IGMAP contributes directly to the following ESIRWMP regional water supply goal of protecting existing water supplies and water rights, and improve regional water supply reliability, and two of the associated objectives: Promoting the use of groundwater storage and conjunctive use options to reduce groundwater overdraft; and Supporting monitoring and research to improve understanding of water supplies and needs. Preparation of the IGMAP is consistent with these objectives and will result in the development of projects that can be included in the ESIRWMP to help achieve these goals and objectives.

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.

Greg Nyhoff City Manager City of Modesto 1010 Tenth Street P.O. Box 642 Modesto, CA 95353 209-577-5224
GNyhoff@modestogov.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.

Jack Bond Senior Civil Engineer City of Modesto 1010 10th Street Modesto, CA 95354 209-577-5424
JBond@modestogov.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.

City of Modesto Resolution No. 2005-340 for the Modesto Subbasin and City of Modesto Resolution No. 2008-206 for the Turlock Subbasin. Both resolutions are pursuant to California Water Code Section 10750 et seq.

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).

The City of Modesto is part of the Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRGBA), the entity responsible for the preparation and implementation of the Integrated Regional Groundwater management Plan for the Modesto Subbasin. The STRGBA functions under a Memorandum of Understanding, outlining the relative responsibilities for the formation and operation of the association. A copy of this MOU is included in Appendix A of the GWMP (submitted as attachment Att3_LGA12_Modesto_GWMP_3of3.pdf). In addition, letters of support for this application from other STRGBA members is included as part of Attachment 1 of this grant application.

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.

City of Modesto 209-577-5424 JBond@modestogov.com

Q10. Eligibility:

Yes

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_Modesto_AuthDoc_1of1.pdf

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_Modesto_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_Modesto_GWMP_2of3.pdf,Att3_LGA12_Modesto_GWMP_3of3.pdf,Att3_LGA12_Modesto_GWMP_1of3.pdf

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_Modesto_ProjD_1of1.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_Modesto_WrkPln_1of1.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_Modesto_BUDGET_1of1.pdf

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_Modesto_SCHED_1of1.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_Modesto_QA_1of1.pdf

Attachment 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_Modesto_PERFORM_1of1.pdf

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 Submit An Application".

Last Uploaded Attachments: Att10_LGA12_Modesto_1420_1of1.pdf
