October 8, 2013

Keith Wallace, Project Manager
California Department of Water Resources
Division of Integrated Regional Water Management
Financial Assistance Branch
PO Box 942836
Sacramento, CA 94236

VIA EMAIL: keith.wallace@water.ca.gov

Re: Draft Funding Recommendations for the Proposition 84 Round 2 Implementation Grant Program

Dear Mr. Wallace,

Olivenhain Municipal Water District (OMWD) provides 80,000 customers in northern San Diego County with water, wastewater, recycled water, hydroelectric, and recreational services. OMWD is also the local project sponsor for the North San Diego County Regional Recycled Water Project, a multi-faceted, cross-jurisdictional approach
to expanding recycled water use that is included in the San Diego funding area’s Proposition 84 Round 2 grant application. This project—a collaboration among ten agencies to maximize recycled water use to address reliability and outfall issues—represents integrated regional water management planning at its finest. Therefore, on OMWD’s behalf, I am writing to express serious concern with the draft funding recommendations for the Proposition 84 Round 2 Implementation Grant Program. Specifically, we assert that the San Diego funding area’s grant proposal was far more complete than acknowledged in DWR’s Proposal Evaluation and thus merits a higher score and 100% funding. Accordingly, we strongly encourage DWR to update its Round 2 funding recommendations before they are finalized.

San Diego’s Proposition 84 Round 2 grant proposal includes detailed and thoughtful analysis of the benefits that would accrue to our region. Our grant proposal is 615 pages long, along with hundreds of additional pages of backup documentation (planning, design, and environmental documents for each project), providing all the key information required by DWR. The level of detail provided in our Round 2 grant proposal is in line with previous grant rounds that received high ratings from DWR. As a result, we were surprised and dismayed to review DWR’s Proposal Evaluation which found significant fault with our proposal. Also surprising was that the Proposal Evaluation relied heavily on subjective remarks; comments such as “this project’s costs seem too high” do not add to an objective evaluation. We have a prepared a formal response to the Proposal Evaluation, attached to this letter, which offers detailed, point-by-point rebuttals of each of DWR’s statements of underperformance.

The San Diego funding area’s project selection process was rigorous and competitive in identifying the region’s high-priority projects. A total of 36 projects were considered for inclusion in our grant proposal, all of which were meticulously vetted by regional officials and pared to a total of seven projects most in line with goals of the Integrated Regional Water Management program. Unlike some other regions, the San Diego IRWM Program coordinated with neighboring regions to assure that our collective proposals did not exceed the maximum funding allocation stated in DWR’s Proposal Solicitation Package (PSP). Despite these efforts, DWR has recommended that some funding areas receive up to 200% of their maximum funding allocations, to the detriment of regions like ours, which is contrary to what is stated in the PSP. All seven of the proposed projects in San Diego’s proposal were asked to reduce their funding requests and are essentially bare-bones proposals; the reduced level of grant funding as proposed in the draft funding recommendations will result in the shelving or termination of viable, ready-to-go, high-priority projects in the San Diego region, which by no means benefits the state.

Broadly, DWR’s grant award process has threatened regional collaboration and goodwill, contrary to IRWM ideals. The San Diego funding area’s suite of projects was forged by an in-depth review process that incorporated input from diverse stakeholder
groups including small non-governmental organizations. Extensive outreach, workshops, and trainings were conducted to facilitate project integration; agencies and non-profits have forged lasting relationships through this effort. The unanimous selection of seven projects out of the original 36 was accomplished with tremendous levels of diverse stakeholder cooperation, collaboration, transparency, and regional goodwill. DWR’s election to un-fund half of the monies that are dedicated to the San Diego region can only serve to destabilize the goodwill that the San Diego IRWM program has worked so hard to establish. Frankly, DWR’s interest in preserving “competition” over “integration” is contrary to the letter and intent of IRWM as was established by Proposition 84 and approved by California’s voters.

I would also caution that DWR’s process for the IRWM program has been challenging at best for our region’s non-governmental organizations, and this must be addressed to maintain IRWM’s longevity. Though San Diego’s IRWM Program has invested significant resources in a process that invites all eligible project sponsors to join forces to design and implement projects from an integrated perspective, NGOs within the San Diego region have expressed that the IRWM program is becoming too volatile to participate in. Smaller NGO and DAC organizations are experiencing increasingly difficult bureaucratic thresholds to be able to afford to participate in the IRWM Program. DWR’s ability to pay invoices and process contractual amendments has elapsed a year in several cases, which severely challenges the ability of NGOs and DACs to participate in IRWM grants. Despite the strong commitment by the San Diego IRWM program to embrace integrated planning, funding decisions like this add to the growing concerns of NGOs about their ability to continue participating.

For the reasons above, OMWD disagrees with draft funding recommendations for the Proposition 84 Round 2 Implementation Grant Program. The San Diego funding area’s grant proposal provides detailed project information and a benefits analysis, which merits a higher score from DWR’s evaluation and 100% funding. We request that DWR update its Round 2 funding recommendations accordingly before they are finalized. Should you or your staff have any questions as to the information above or attached, please contact me at 760-753-6466.

Regards,

Kimberly Thorner
General Manager

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Assemblyman Rocky Chavez, via fax, 916-319-2176
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Senator Joel Anderson, via fax, 916-651-4936
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San Diego IRWM Region Response to DWR’s Proposition 84-Round 2 Implementation Grant Proposal Evaluation

General Response: DWR’s Proposal Evaluation makes statements regarding shortcomings in San Diego’s grant proposal with which we strongly disagree. Provided below is a line-by-line review and response from San Diego’s Regional Water Management Group. Based on this review, we believe that DWR’s scoring of San Diego’s proposal was lower than it should have been and that a recommendation of 100% funding is appropriate.

Each DWR statement is numbered and shown in italics, followed by the San Diego IRWM region response explaining where in our application or supporting documentation the information is found. We have pulled direct quotes from the application or supporting documentation into text boxes, to make DWR’s rescoring process easier. The highlighted text indicates the specific text that DWR’s reviewers thought was missing.

Work Plan: Comments and Responses

1. Page 1 Comments on San Diego’s Work Plan:

“The criterion is less than fully addressed and documentation or rationales are incomplete or insufficient... Tasks are described but not with adequate detail, especially in sections pertaining to construction work. For example project 1 has ten components. Each component is laid out and most of the remaining work is construction related. The construction detail for a majority of the components simply consists of a list of items such as site work, excavation, concrete well structure, pumps (without sizes) etc., with no explanation of how the actual construction will be done, leaving a question of whether the components can be fully implemented.”

San Diego Response: The level of detail included in San Diego's Round 2 proposal is comparable to that in previous applications submitted by the San Diego IRWM region that were recommended for 100% funding by DWR. Implied in DWR’s prior ratings of our work is that the reporting detail is sufficient to once again merit 100% funding.

We disagree with the statement that details associated with construction of Project 1 are lacking. Details abound in both the Work Plan and other sections of the Proposal. The Work Plan includes no fewer than 34 pages of detailed information regarding the implementation of the ten project components included in Project 1. North San Diego County water and wastewater agencies have committed a 60% cost match to the suite of projects identified in Project 1. These are public agencies with excellent track records of undertaking complex public works projects. DWR’s questioning of the agencies’ competence to implement this important suite of water supply projects based on an academic review of this grant proposal is not supportable.

The Work Plan states on page 3-35 that a majority of the project design work associated with the ten project components have been completed or are underway and have been funded through other means. Completed design reports for the NSDCRRWP-Phase II components are included in the list of “Completed Works”.

Page 11 of DWR’s PSP states that “Applications may include attachments with supplemental materials such as design plans and specifications, detailed cost estimates, feasibility studies, pilot projects, additional maps, diagrams, copies of agreements, or other applicable items. **Applicants are encouraged to submit attachments and supporting documentation in an electronic format.**” The “NSDCRRWP” folder in the Supporting Documents CD sent to DWR with the grant proposal contains the completed works from all 10 partner agencies, in a sub-folder titled “Completed Work from Partners.” This folder includes detailed design documents to support the construction efforts for each sub-component of the larger NSDCRRWP. The completed works were organized by agency for easy review by DWR. In total, the supporting documents include a total of 28 completed works for the NSDCRRWP partner agencies, which fully support the tasks included in the Work Plan.

2. **Page 1 Comment on the Reporting of Deliverables in San Diego’s Work Plan:**

   “**Deliverables are provided as basic progress reports, final reports, and technical memorandums. There are no data management or monitoring deliverables provided throughout the work plan.**”

   **San Diego Response:** We disagree with this statement. All selected projects are required to submit performance data to the IRWM Program’s online data management system. Each of the seven projects in San Diego’s application includes the statement in the box below in either Task 1: Project Administration or Task 3: Reporting (depending on the project proponent’s preference). Clearly, our intent was to comply with DWR’s Data Management standard through these project requirements. Deliverables identified in the Work Plan are appropriate for the proposed projects, including reporting, planning, design, and construction-related tasks.

<table>
<thead>
<tr>
<th>Reference: Pages 3-34, 3-52, 3-64, 3-76, 3-89, 3-99, and 3-111</th>
</tr>
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<tbody>
<tr>
<td><strong>Task 3: Reporting</strong></td>
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<tr>
<td>In order to assess progress and accomplishments of the project, OMWD will prepare quarterly reports and invoices for the project. OMWD will also prepare a project completion report to document to DWR completion of the project and attainment of project goals and objectives. In addition, all of the data to be collected as described in Attachment 6 will be submitted to the Water Authority’s grant administrator to be submitted to DWR, compiled in the San Diego IRWM Program’s Data Management System, and made publicly available.</td>
</tr>
</tbody>
</table>

Additionally, Attachment 6 clearly states that monitoring and data management will be conducted for each project in order to determine each project’s compliance with the performance measures established in Attachment 6. Due to the San Diego IRWM Region’s experience contracting with and completing reporting for Proposition 84 and Proposition 50, we are aware that monitoring and data management deliverables will be required from each local project sponsor.

3. **Page 1 Comment on Economic Incentives (we assume for Project 2):**

   “**The applicant states that there are economic incentives for customers but does not go into detail as to what this entails.**”

   **San Diego Response:** We disagree that the economic incentives are not clearly detailed. The purpose of the **Turf Replacement and Agricultural Irrigation Efficiency Program** is to provide economic incentives to customers for replacement of turf grass, upgrade of irrigation systems, and conversion to recycled water – all of which will conserve potable water. Page 3-47 explains the program purpose and the two different types of economic incentives. Page 4-34 explains the incentive values – turf replacement rebates would be offered at $1.50 per square foot and agricultural conversion rebates would be available as necessary to retrofit the estimated 100 acres included in the program.
Reference: Page 3-47

Project Purpose
This regional program will promote outdoor water use efficiency in the residential and commercial sectors by providing financial incentives to replace turf grass with water-wise plant material and to upgrade overhead sprinkler irrigation systems to high-efficiency irrigation systems. The program will also offer incentives to agricultural customers to convert potable water irrigation systems to recycled water systems.

Project Abstract
The *Turf Replacement and Agricultural Irrigation Efficiency Program* will provide financial incentives, technical assistance, on-site support and guidance, training, and resource lists to encourage and support projects that improve irrigation efficiency and reduce water use in urban landscapes and agricultural lands. There are two components of this program:

1. **Turf Replacement Program**: Turf replacement and irrigation upgrades will be incentivized through cash rebates once projects are completed according to program guidelines. The Water Authority will manage the overall grant and administer the incentive program for customers participating throughout its service area, except for those customers located within the City of San Diego's (City's) service area. The City of San Diego Public Utilities Department - Water Conservation Program will administer the incentive program for customers within its own service area and service areas for which it supplies wholesale water such as Coronado and Imperial Beach, and the City of San Diego Transportation & Storm Water Department - Think Blue/Storm Water Pollution Prevention Program, will provide education and outreach regarding the incentive program with an emphasis on dry weather runoff prevention and water quality protection that are achieved with improvements to irrigation efficiency within the City. This program component has been implemented by the Water Authority and the City for several years, and is ready for continued implementation.

2. **Agricultural Irrigation Efficiency Program**: The Water Authority will also administer a program component that will provide incentives to retrofit potable water irrigation systems to recycled water irrigation systems. This program component has been designed, and is ready for implementation. The financial incentives, training, and education that are the main components of this program will encourage customers to replace turf grass and upgrade irrigation systems in urban landscapes and increase water use efficiency in the agricultural sector. This program is designed to reduce regional water demands, reduce energy consumption via reduced water demands (considering the energy required for water use), reduce green waste production, and improve surface water quality. Reducing outdoor water use and increasing irrigation efficiency in both agricultural and urban sectors also helps to minimize dry weather runoff that flows into storm drains and receiving waters, and reduces pollutants that contribute to the impairment of watersheds.

Reference: Page 4-34
This task also includes funding for the rebates themselves. The rebates will cover up to 50% of the cost of the hardware needed to convert agricultural lands to recycled water, and various maximum amounts depending on lot size for urban users. Rebate structures and guidelines are detailed in Water Authority and City of San Diego protocols and informational handouts (see Appendix 3-2). Costs of equipment necessary for conversion were priced and a maximum number of units chosen to estimate total funding for agricultural irrigation efficiency implementation, and a maximum number of square footage at a rate of $1.50 per square foot was used to determine turf replacement rebate totals. The square footage assumed for the Water Authority’s turf replacement activities is 81,800 and the square footage assumed for the City’s turf replacement activities is 237,870. For the agricultural irrigation efficiency program, it is assumed that 50 acres of agricultural land on a minimum of two sites will be converted to recycled water use; the cost estimate provided is based on the necessary hardware to retrofit this amount of land.
In addition to information provided in the Work Plan itself, Appendix 3-2 (an appendix to the Work Plan) includes a variety of supporting documentation for Project 2 that describes how the City and the Water Authority will provide economic incentives to customers. These materials were printed in the grant proposal binder, as well as on the Supporting Documents CD, so that DWR could more easily review these important items. Materials included in Appendix 3-2 pertaining to the economic incentives for Project 2 include:

i. **City of San Diego Public Utilities Department: Commercial-Multi Family Outdoor Water Conservation Rebate Program, Sustainable Landscape – Turf Replacement Rebate Guidelines.**

   This four-page document outlines the rebate amount ($1.50/square-foot) for commercial users and also explains, in detail how the rebate process works, who to call with questions, and any other relevant details for a person who would be interested in receiving this rebate.

ii. **City of San Diego Public Utilities Department: Residential Outdoor Water Conservation Rebate Program, Sustainable Landscape – Turf Replacement Rebate Guidelines.**

   This four-page document outlines the rebate amount ($1.25 or $1.50/square-foot) for residential users and also explains, in detail how the rebate process works, who to call with questions, and any other relevant details for a person who would be interested in receiving this rebate.

iii. **San Diego County Water Authority Turf Replacement Program**

   This screenshot from the existing County Water Authority website (http://www.watersmartsd.org/) explains the Water Authority’s rebate program and was meant to demonstrate to DWR that there is already an extensive existing online information source for those who will benefit from this economic incentive program.

iv. **City of San Diego Rebates and Incentives**

   This screenshot from the existing City of San Diego Public Utilities website (http://www.sandiego.gov/water/conservation/residentialoutdoor/index.shtml) explains the City’s rebate program and was meant to demonstrate to DWR that there is already an extensive existing online information source for those who will benefit from this economic incentive program.

v. **City Internal Protocols: Processing Outdoor Rebate Applications**

   This document is an internal document from the City of San Diego that explains, in detail, the internal protocols that have been established by the City of San Diego regarding conservation rebate applications. This document was intended to demonstrate to DWR that the City is well-equipped to administer a conservation program as the City has been doing this for some time, and has organized and detailed internal protocols for the project. Detailed information about conformance with the rebate program and how much a residential or commercial applicant can receive is included in this document.

4. **Page 2 Comment on Missing Information for Project 6:**

   “Also, for project 6 it is unclear whether the creek realignment portion of the project is consistent with the San Diego Water Board Basin Plan. The proposal does not clearly describe how the Chollas Creek will be realigned.”

**San Diego Response:** We disagree with this statement. Project 6, the Chollas Creek Integration Project – Phase II, is a continuation of a project funded through the San Diego IRWM Region’s Proposition 84-Round 1 Implementation Grant. This project proposes to build upon work that is already being implemented as part of the IRWM Program. This project is located in a disadvantaged neighborhood that suffers from poor water quality stemming from pollutants in runoff, homeless encampments along the banks, invasive species, and trash. Chollas Creek is currently 303(d) listed for numerous pollutants, such as diazinon, nutrients, metals, and trash (Page 7-70).
The proposal explains that construction activities in Phase II will include grading and earthwork; installing drop catch basins, storm drains headwalls, rip-rap segments, irrigation system, and bioswales in the Phase II segment of Northwest Village Chollas Creek. The "realignment" described in the abstract refers to the process of retrofitting and expanding the existing channel in order to protect adjacent properties from flood flows.

In addition to information provided in the Work Plan itself, important supporting documentation was provided in the Supporting Documents CD. These supporting files include:

1. **Northwest Village – FEMA NFHL Floodplain Exhibit**
   - This exhibit shows the alignment of Chollas Creek. This exhibit was produced by a local floodplain firm, and includes detailed site grading information and also demonstrates how the project would reduce flooding.

2. **Chollas Creek Enhancement Program**
   - This document, published by the City of San Diego in 2002, demonstrates the overall vision to enhance the Chollas Creek and explains (on Page 2) that information about revitalizing Chollas Creek dates back to the 1970’s. This document includes information about the need for adequate flood protection (Page 11), which is a primary safety concern. It also indicates (Special Thanks page) that the San Diego Regional Water Quality Control Board (RWQCB) was part of the Technical Team, and has therefore been involved in these efforts.

3. **Water Quality Technical Report for Northwest Village Creek**
   - This technical water quality report, produced in 2012, includes detailed information about the proposed alignment and associated water quality needs of the project area. This report indicates that Chollas Creek is an impaired water body according to the RWQCB.

4. **Northwest Village Creek Biological Technical Letter Report**
   - This technical letter includes detailed biological information about the project site, and states (Pages 10/11) that the RWQCB will be required to permit the project during the CEQA process. Further, Page 3-100 of the Work Plan indicates that environmental documentation (an Initial Study/Mitigated Negative Declaration) will be finalized in 2013. Therefore, information is included that indicates the Regional Board’s involvement in the project and the fact that the Regional Board’s approval (via permitting) will be required for the project.

**Work Plan: Suggested Rescoring**

Considering the clarifications provided above, we request that DWR rescore the Work Plan to a total score of 12 vs. the draft score of 9. This recommendation is based on the information provided above in response to Comments 1-4, as summarized below:

1. Comprehensive information about the Project 1 recycled water components were included in the proposal and provided to DWR on a Supporting Documents CD, which was specifically requested by DWR in the PSP.
2. Reporting deliverables are included in the Work Plan and assumed under the reporting tasks; due to the San Diego Region’s extensive experience with IRWM grant administration, these deliverables were included as part of standard quarterly and post-project reporting.
3. Extensive details about the economic incentives for Project 2 were provided to DWR in Appendix 3-2 and in the Supporting Documents CD.
4. Information in the proposal clearly shows how the Chollas Creek alignment would occur; that information was also provided to DWR on the Supporting Documents CD.
Budget: Comments and Responses

5. Page 2 Comments on San Diego’s Budget:

“Budgets for more than half of the projects in the proposal have detailed cost information but not all costs appear reasonable or supporting documentation is lacking for a majority of the budget categories. Descriptions of how costs were derived were lacking supporting documentation. For example, project 1 component 1-7 (page 4-24) states that a “local pipe supplier provided a detailed cost estimate for the pipeline material.” However, this estimate is not provided. On page 4-6 for Task 5 $96,000 is being requested as grant funding based on Santa Fe Irrigation District’s experience with similar projects but no backup documentation is provided.”

Response: We disagree with this statement. Where local agency staff or their consultants developed a detailed budget based on professional knowledge and experience, that cost estimate was included and formatted within Attachment 4 directly. The narrative was included to inform DWR reviewers about how those costs were derived.

6. Page 2 Comment on Association of a Deliverable with a Task:

“On page 4-39 task 2 – Labor Compliance, costs for this task are $14,042 but there is no actual deliverable listed in the work plan.”

San Diego Response: We disagree with this statement. Page 3-64 and Table 3-24 of the work plan clearly include labor compliance deliverables for Project 4. These deliverables are consistent with the costs on Page 4-39 for Task 2.

Reference: Page 3-64

Task 2: Labor Compliance Program

Labor Compliance Programs (LCP) for the priority projects will be completed in accordance with CCR §16421-16439 and will be submitted to the California Department of Industrial Relations for review and approval prior to commencement of any activities that would require an LCP.

Reference: Page 3-54

Table 3-24: Row (a) Direct Project Administration

Rural DAC Partnership Program

Activity or Deliverable: Preparation, submittal, and implementation of Labor Compliance Program

Schedule: Prior to construction

7. Page 2 Comment on Appearance of Unreasonable Costs:

“Some costs appear unreasonable; for example project 6 includes $10,000 for student water quality monitoring stipends, yet the description on page 7-80 in the technical justification section states, “sampling will be conducted by 30 student volunteers.” It is unclear whether these students are in fact volunteers learning and being educated on water issues in the area or are in fact being employed.”
San Diego Response: We strongly disagree with this general statement and the specifics regarding Project 6. First of all, our region is proposing to make significant local investments to match this grant award. We have every interest in keeping costs as low as possible to protect our own budgets, let alone DWR’s. With regard to Project 6, the community monitoring and engagement component of Project 6 will involve the training and employment of 30 area youth, using a small stipend as an incentive to keep them involved in the monitoring program. This arrangement is introduced on Page 3-95 in the Abstract and then explained in detail on Page 3-100.

Reference: Page 3-95

C. Water Pollution Source Tracking, Citizen Monitoring, Pollution/Conservation Education, and Community Engagement: Phase II will build upon Chollas Creek Integration Project - Phase I’s engagement of institutional stakeholders in the determination of water quality, natural resource, and environmental justice opportunities/constraints. Phase II will expand stakeholder outreach to include residents in water quality monitoring, and conduct targeted educational messaging. Thirty (30) area youth will be trained and employed as water quality monitors. Water quality monitoring will utilize existing City of San Diego stormwater data for pollution source tracking, and will expand upon the San Diego Coastkeeper’s Citizen Science Monitoring and Pollution/Conservation Education programs. The project will also partner with Groundwork’s Green Team Community Service Project for engagement of student volunteers, and a coalition of institutional stakeholders in the determination of water quality, natural resource, and environmental justice opportunities/constraints.

Reference: Page 3-100

As part of the Chollas Creek Integration Project – Phase II, water quality monitoring consisting of pre- and post-project water quality testing will be initiated and documented by San Diego Coastkeeper and Groundworks. Samples will be collected by trained student volunteers (Green Team) and submitted for laboratory analysis and reporting. Groundworks will initiate volunteers training and supervise water monitoring. Note that although the Green Team students are considered ‘volunteers,’ they are paid a small stipend for participating in the water quality monitoring effort.

Reference: Page 4-66

Task 4: Assessment and Evaluation

This task includes costs for development of a Hydrology and Water Quality Study, a Geotechnical Study, and costs associated with pre- and post-project water quality testing. Groundworks will recruit and train student volunteers for water quality monitoring, and will also pay stipends ($10/hour) for their time.

8. Page 2 Comment on Project Costs:

“Project 4 has mileage incorporated into Subtask 5.1a. Travel expenses, which are not allowed, are also embedded in subtask 4.1 and subtask 4.2 of project 7.”

San Diego Response: Travel expenses were included in error. These expenses can be removed.

9. Page 2 Comment on a Budgetary Item:

“Table 4-50 (page 4-73) budgets money ($67,540) to pay for a staff member of the San Diego RWQCB to attend a meeting, which is not allowed.”

San Diego Response: We were not aware that this expense was not allowed. DWR approved and funded the Phase I portion of the project in Proposition 84-Round 1 in which funding for RWQCB staff to attend meetings was included. If the grant program no longer allows this type of reimbursement for RWQCB time, the expense can be removed.
10. Page 2 Comment on Contingency (we assume for Project 6):

   “Also, reviewer does not see a rationale for how the applicant determined their contingency rate.”

San Diego Response: An explanation of the proposed contingency rate for Project 6, which is the only project to include costs in Budget Category (h), is included on page 4-70.

Reference: Page 4-70

Row (h) Construction/Implementation Contingency
The Construction/Implementation Contingency for project is estimated to be $33,544. This was estimated based on approximately 7% of the construction contract amount budgeted for unforeseen emergencies or design shortfalls.

Schedule: Comments and Responses

11. Page 2 Comment on the Schedule:

   “The schedule is consistent with the work plan and the budget, reasonable and demonstrates a readiness to begin construction or implementation of at least one project in the proposal no later than October 2014. The earliest of the projects begins construction October 2013.”

Response: We concur with this statement.

Performance Measures: Comments and Responses

12. Page 2 Comment on Monitoring, Assessment, and Performance Measures:

   “The criterion is marginally addressed and documentation is incomplete and insufficient. The targets provided for the projects are not measurable. Targets such as "reduce recycled water," or "reduce WWTP discharge," or "reduce reliance on imported water supplies," or "reduce energy consumption" do not provide a means of measuring progress, as they do not identify a baseline condition, specific percent reduction, or numeric milestone the project is attempting to achieve.”

San Diego Response: This statement is not consistent with DWR’s PSP. The performance measures included within this grant application were intended to measure progress toward each of the targets identified. The flow of information (goals > desired outcomes > targets > performance indicators > measurement tools and methods) was taken directly from DWR’s PSP.

Page 21 of DWR’s PSP states that “The metrics may include additional acre-feet of water supply, improved water supply reliability and flexibility, water quality measurements, measurement-based estimates of pollution load reductions, acres of habitat successfully restored, feet of stream channel stabilized, groundwater level measurements, stream flow measurements, improved flood control, or other quantitative measures or indicators.” Nowhere in DWR’s PSP does it state that baseline conditions, specific percent reductions, or numeric milestones are required for this attachment.

13. Page 2 Comment on Goal for Project 1:

   “For example, the goal for project 1 is to reduce greenhouse gas (GHG) emissions associated with water use and enhance resource stewardship and the target is to replace existing infrastructure to recycled water. However, the applicant does not specify how replacing existing infrastructure will reduce GHG emissions.”

San Diego’s Response: The desired outcome associated with the Project 1 goal identified above is to “Reduce energy consumption associated with conveyance and treatment of imported water”. As
explained in detail in Attachments 7 and 8, Project 1 would reduce imported water volumes by replacing existing infrastructure and demands with recycled water. See “Benefit C-Reduce Net Production of Greenhouse Gases” on Page 7-10. Because this is a quantifiable benefit described in the application, the San Diego RWMG required the project applicant to document its performance toward the benefit.

Reference: Page 7-10

C-Reduce Net Production of Greenhouse Gases

Imported potable water is more energy intensive than non-potable recycled water. Reduced reliance on imported water will avoid the extensive energy requirements associated with transporting water from Northern California and the Colorado River to San Diego County. This in turn will result in avoided CO2 emissions (a GHG) associated with the production of this energy. The Equinox Center estimates that it requires 2.65 MWh/AF to convey and treat imported water, and 0.8 MWh/AF to convey and treat nonpotable recycled water. This results in 1.85 MWh/AF energy savings by converting from imported potable water to non-potable recycled water. Offsetting 6,790 AFY of imported water with recycled water (as justified in Table 7-3 and explained above) will save 12,561.5 MWh/year.

Converting from energy use to CO2 emissions requires a breakdown of California electricity sources. California generates 70% of its electricity through a combination of hydroelectric, nuclear, coal, oil, natural gas, geothermal, biomass, wind, solar, and other. 10% of California’s electricity is imported from the Pacific Northwest, and the remaining 20% is imported from the Pacific Southwest.

Emission rates associated with electricity production (in lbs of CO2 per MWh) vary based on the energy sources used to produce electricity in a given region (e.g., hydropower, natural gas, coal-fired power plants). EPA’s eGRID data provides average emissions rates associated with electricity production in California (eGRID subregion WECC California), the Pacific Northwest (WECC Northwest), and the Pacific Southwest (WECC Southwest). These regions have a CO2 emission rate of 658.68, 1191.35, and 819.21 lbs./MWh, respectively. Based on the percentage of total electricity used in California from each region, the weighted average emissions associated with electricity use in California is 780.51 lbs./MWh of CO2. With 2204.62 lbs. per MT, the standard conversion rate for California is therefore 0.354 MT of CO2 emitted per MWh of electricity produced. Therefore, the total amount of CO2 emissions expected to be saved by this project is 4,447 MT/year (12,561.5 MWh per year in reduced electricity use multiplied by 0.354 MT/MWh). Over the 60-year project life, a total of 266,833 MT of CO2 emissions will be avoided if the project is implemented. Note that some variation may be due to rounding.

The Supporting Documents CD sent to DWR with the grant proposal included a document produced by the Equinox Center titled, San Diego’s Water Sources: Assessing the Options. In this document (see the Executive Summary), there is a comparison of the energy intensity of different water sources, including recycled water and imported water. This document clearly indicates that replacing imported water use with recycled water would reduce GHG emissions associated with the energy embodied in each water source.

14. Page 2 Comment on Measurement Tools:

“Many of the measurement tools and methods are not consistent with the identified targets making it difficult to determine if they would indeed be sufficient to measure project performance. Many of the desired outcomes do not relate to the project goal.”

San Diego Response: We strongly disagree with this statement. The measurement tools and methods identified are intended to “effectively track performance” as identified in the performance indicators. The flow of information (goals > desired outcomes > targets > performance indicators > measurement tools and methods) was taken directly from DWR’s PSP.
The targets in this grant application are directly connected to the technical justification in Attachment 7. The physical benefits explained in detail in Attachment 7, and thoroughly supported with a variety of supporting documents, provide the technical basis for each performance measure.

Technical Justification: Comments and Responses

15. Page 2 Comment on Technical Justification:

“The proposal appears to be technically justified overall to achieve the claimed benefits but lacks documentation that demonstrates the technical adequacy of the projects and physical benefits are not well described. Project 1 which has 10 components (sub projects) does not address how the proposed recycled water conveyance system will receive tertiary treated effluent. The application states that each of the wastewater treatment plants (WWTPs), that will serve the proposed facilities, currently treats to secondary standards. Nowhere in attachment 7 (or in the work plan and budget) does the applicant describe how or when these upgrades will take place. Without the treatment upgrades, no water can be supplied through this new conveyance system, meaning there are zero water supply benefits.”

San Diego Response: We strongly disagree with this statement and believe that DWR’s reviewers have greatly misunderstood Project 1. Nowhere in the grant proposal does it say that the wastewater treatment plants that will serve project demands treat only to secondary standards. In fact, it states in four places that the relevant plants currently produce tertiary treated recycled water. There is no need for treatment upgrades to serve the projected demands, which is why none have been identified as part of the proposed project nor in the project costs.

Pages 3-12 and 7-4 both explain that the purpose of Project 1 is to regionalize (or interconnect) systems so that agencies with the ability to generate recycled water in excess of local demand can provide recycled water to areas where additional supplies are needed. This means that the agencies that are already producing Title 22-compliant tertiary treated recycled water will be able to fully utilize their treatment capacities by selling that extra water to new users.

Reference: Page 3-12

NSDCRRWP-Phase II represents a coordinated effort between several North San Diego County water and wastewater agencies to maximize recycled water use within the North San Diego County region. The proposed project includes 10 components designed to regionalize recycled water facilities so that agencies with the ability to generate recycled water in excess of local demand (i.e., within their service area) can provide recycled water to areas where additional supplies are needed. Together, the pipelines, pump stations, storage tanks, and interties constructed in this project will cumulatively produce an estimated 6,790 acre-feet per year (AFY) of recycled water and reduce the region’s potable water demands.

Reference: Page 7-4

The proposed project includes 10 project components designed to regionalize recycled water facilities so that agencies with the ability to generate recycled water in excess of local demand (i.e., within their service area) can provide recycled water to other areas where additional supplies are needed. Without the project, the use of local recycled water resources would not be maximized. The 6,790 AFY of recycled water generated by the project would continue to be discharged to the Pacific Ocean as wastewater effluent and would not be put to beneficial use.

Page 3-13 states that Leucadia Wastewater District’s Gafner Water Recycling Plant currently produces recycled water for golf course water use. Because it couldn’t be used on a golf course without Title 22 compliance, this implies that the recycled water is treated to tertiary standards.
3-13 explicitly states that Vallecitos Water District’s Meadowlark WRF treats wastewater to tertiary standards. The proposed Component 1-2 would involve upgrades to a pump station only.

Reference: Page 3-13

**Component 1-1: LWD Regional System Connection**
LWD owns the Gafner Water Recycling Plant (Gafner WRP), in Carlsbad, CA, which has a peak production capacity of 1 million gallons per day (MGD). Approximately one-half of the Gafner WRP’s seasonal demand-dependent production is delivered to the La Costa Resort & Spa’s golf course water feature (275 AFY). The LWD Regional System Connection Project would construct a high pressure pump station and 1,200 feet of transmission pipeline to connect to an existing OMWD transmission pipeline. This would allow up to a half of the Gafner WRP’s capacity (currently unused) to be used by OMWD, stored in the to-be-converted Wanket Tank (see Project 1-10 below), or fed into Carlsbad MWD’s recycled water distribution system, which is being connected to OMWD via a separate future project.

**Component 1-2: VWD Pump Improvements**
VWD currently treats an average of 3.85 MGD of wastewater to tertiary (recycled water) standards at its Meadowlark Water Reclamation Facility (WRF). VWD has an agreement with the Carlsbad MWD to supply up to 3.0 MGD of recycled water from the Meadowlark WRF. VWD has a similar agreement with OMWD to supply up to 1.5 MGD of recycled water from the Meadowlark WRF. By expanding the production capacity at the Meadowlark WRF, VWD will be able to deliver additional recycled water to these two agencies and assist in their individual goals and the regional goal to expand recycled water use. This project component would replace a constant speed motor driven pump with a new higher capacity variable frequency drive at VWD’s Lift Station Number 1. This would increase the station’s capacity to 3,100 gallons per minute and result in an increase in the wastewater flow to Meadowlark from 4.15 MGD to 4.75 MGD. These additional flows will increase the recycled water production at Meadowlark WRF to an average of 4.4 MGD. This project component will also overhaul the discharge pipeline arrangement and the lift station’s electrical package to accommodate the increased flow. Ultimately, this project component will increase the recycled water capacity of the VWD and the region as a whole.

Pages 7-14 and 7-31 state that the City of Escondido’s Hale Avenue Resource Recovery Facility (HARRF) has a Regional Water Quality Control Board permit and produces tertiary treated recycled water.

Reference: Page 7-14, Page 7-31

The amount of nutrients (i.e., pounds of fertilizer) per AF of recycled water can be calculated from average (tertiary-treated) effluent values for the City of Escondido’s HARRF which will produce a majority of the project supply. The HARRF permit limitation for nitrate (N03 as N) is 10 mg/L and the reported 12-month average is 8.66 mg/L.29

The proposal does state that secondary treatment would occur as it relates to ocean discharge of wastewater (see excerpt below). Perhaps this is where DWR’s reviewers misunderstood when agencies generally treat to secondary versus tertiary standards? All wastewater agencies treat only that volume which will be beneficially reused for recycled water to tertiary standards; the remainder is treated to secondary standards and subsequently discharged through ocean outfalls. This in no way suggests that the existing Project 1 wastewater treatment plants are only able to treat to secondary standards.
Without the project, North San Diego County water and wastewater agencies would continue to discharge 6,790 AFY of wastewater effluent (treated to secondary standards) through various local outfalls, including three ocean outfalls (Oceanside, Encina, and SEJPA ocean outfalls) and 1 land outfall (the Escondido land outfall, which ultimately connects to the SEJPA ocean outfall). With the project, the effluent is treated to tertiary standards and used as recycled water.

The proposal took the need for tertiary treatment prior to recycled water distribution into account in our assessment of operations and maintenance (O&M) costs. Given that each treatment plant that would provide water for the NSDCRRWP already exists, cost differentials required to treat water to tertiary levels would only occur with regards to O&M, and would not require additional capital expenses. Operations and maintenance costs for the project were included in the cost-benefit analysis and are described on Page 8-17 of the proposal (see excerpt below). As indicated in the proposal, these costs are based on detailed O&M costs from the North San Diego County Regional Recycled Water Project Facilities Plan. Based on the Facilities Plan, the analysis focused on additional costs required for the specific facilities (pipes, pumps, and storage tanks) included within the project, rather than energy costs because it is likely that tertiary treatment would provide energy savings compared to secondary treatment. The benefit-cost analysis included in the grant proposal comprehensively calculated Project 1 costs, including staff costs and materials for treatment and facility repairs.

O&M costs associated with the various subprojects will total about $281,758 per year. Based on the planning criteria included in the North San Diego County Regional Recycled Water Project Facilities Plan, annual O&M costs for pipeline and pressure reducing stations are assumed to equal 1% of capital costs and O&M costs for pump stations are assumed to equal 5% of capital costs. O&M would include staff costs for operation (e.g., exercising valves) and maintenance, including both staff costs and purchase of materials (e.g., grease or oils for motors, floats for PRVs). In addition, the VWD and OMWD components will both require periodic replacement costs associated with the pumps being installed as part of these projects. These costs will amount to $451,023 and $748,500, respectively, and will be incurred every 15 years.

In addition to the four places in the grant application where tertiary-treated recycled water is mentioned, the Supporting Documents CD sent to DWR with the grant proposal included 2012 Regional Recycled Water Facilities Plan for the NSDCRRWP. The Facilities Plan, which is the primary supporting document for the project, specifically discusses each treatment plant relevant to the project, and describes that they each treat to tertiary standards in accordance with Title 22. Table 3-1 of the Facilities Plan, which can be found on Page 3-5, shows total existing and future recycled water supplies in terms of the existing and future availability of secondary and tertiary supplies. The information in this table clearly demonstrates that there is enough recycled water currently available and available in the short-term to provide recycled water supplies for the NSDCRRWP components.
16. Page 2 Comment on Sufficient Documentation:

“For project 6 the Proposal does not sufficiently demonstrate how the project will benefit water quality or reduce flooding. The proposal states “Without this project, the Chollas Creek riparian zone will not be restored and the creek channel will not be improved to reduce flooding. This leaves the project area (Northwest Village Creek development) vulnerable to flooding, and will hinder the planned development in the neighborhood that is vital to neighborhood revitalization” (Attachment 7, p. 7-69).”

San Diego Response: We disagree with this statement. Pages 7-71 and 7-72 describe how Project 6 will improve drainage and provide flood protection. See “Benefit A-Avoid Flood Damage” which conservatively estimated only flood damage reduction benefits for existing medium-value properties.
Reference: Pages 7-71 and 7-72

Improve Drainage and Provide Flood Protection

Amount/Volume and Unit: 1,704 square feet of medium-value property

Technical Justification of Physical Benefit
According to the Water Quality Technical Report for Northwest Village Creek, runoff from properties near Chollas Creek currently sheet flows towards the creek from surrounding paved surfaces and is discharged over the creek bank. Other properties discharge storm water runoff onto Market Street via surface flow or via public catch basins which collect runoff via private grated inlets and discharge into the public 42"-RCP storm drain pipe in Market Street. The public 42"-RCP storm drain pipe discharges into Chollas Creek at the Market Street culvert.

The Chollas Creek Integration Project – Phase II proposes to regrade, realign, recontour and revegetate the Chollas Creek channel. These efforts will serve to control flows and erosion in the channel and to embody the provisions of the Chollas Creek Enhancement Program by providing better quality riparian habitat, controlling human access and interaction with the creek, and improving public safety. The Drainage Report for Northwest Village Creek provides an assessment of the peak discharge rates in the pre- and post-project condition. This report estimates that 100-year storm flows would be reduced by 0.1% (from 1,925 cfs to 1,923 cfs) in Chollas Creek at Market Street as a result of construction activities associated with the larger Northwest Village Creek project.

Methods Used to Estimate the Physical Benefits
A. Avoid Flood Damage

Rick Engineering prepared the Phase II design plans and conducted flood analyses based on the drainage, geotechnical, and water quality reports (see Completed Works in Attachment 3). These flood analyses resulted in Figure 7-1 showing floodplains for the 50-year, 100-year, 200-year, and 500-year floods. Currently, flooding will occur for each of these flood events, with the majority of flooding occurring to the east of the creek. Much of the floodplain consists of paved and unpaved vacant lots, and neither the 50-year nor the 100-year flood is expected to cause damage to area structures. At the 200-year flood, however, two medium value properties would experience flooding, while the 500-year flood would expose three medium value properties to damage by flooding. The 500-year flood is also expected to damage 0.03 miles of minor roads. According to Rick Engineering, all 200-year floods and lower would be contained within the channel if the Chollas Creek Integration Project - Phase II were implemented. A HEC-RAS analysis of the existing terrain within the project area upstream of Market Street was prepared modeling the 25-year, 50-year, 100-year, 200-year, and 500-year discharge rates for Chollas Creek. A second HEC-RAS analysis of the proposed restoration project and grading for this same area was prepared for the same five storm events. Precipitation floodplain limits and elevations for each event were compared with the surrounding terrain to determine the limits of flooding, and the potential damages to property.

Without-project flood damage was calculated using engineering reports and the Flood Rapid Assessment Model (FRAM). Per the HEC-RAS analysis, all floods at the 200-year level and below would be contained within the stream banks and all damage that would have occurred at these levels (i.e. the two medium value properties and parking lots) will be avoided by project implementation. The two buildings that benefit from this project are 282 square feet and 1,422 square feet, for a total of 1,704 square feet of medium value property protected from flood damage.

For Project 6, extensive backup information was submitted on the Supporting Documents CD in the form of technical studies, mapping, and flood analysis using HEC-RAS. All of these documents sufficiently demonstrate how the project will benefit water quality and reduce flooding. The detailed supporting documents are discussed below:
Improve Drainage and Provide Flood Protection:


This document demonstrates the current drainage features of Chollas Creek, including drainage issues that result in flooding. Page 2 includes information about pre-project drainage characteristics, and Page 3 includes information about post-project drainage characteristics. Information from this report is based on the corresponding Drainage Report (see below).

ii. Drainage Report for Northwest Village Creek (Rick Engineering, 2012):

This document includes a hydraulic analysis of the relevant portion of Chollas Creek and accompanying modeling using HEC-RAS 4.0 to analyze the pre- and post-project conditions (Page 20). This analysis and the HEC-RAS results were interpolated in Attachment 7 of the grant application, and the grant application conservatively assumed that only flood damage reduction benefits would occur for existing medium-value properties. The analysis was conservative, because the project will result in flood benefits for all properties within the project area as described on Page 20 of the technical report.

iii. Chollas Creek Enhancement Program

This document includes information about the need for adequate flood protection (Page 11), which is a primary safety concern. This document clearly establishes the need and baseline conditions for the project.

Benefit Water Quality


This document discusses the existing water quality impairments and pollutants of concern for the project (Page 8 and Page 9) and details the best management practices (BMPs) and features of the project that will be implemented to meet the requirements for low-impact development (LID) and water quality treatment BMPs in accordance with the City of San Diego Storm Water Standards (Page 35 and Page 36).

Page 3 Comment on Technical Justification of Project 6:

“Impervious surfaces in the area would remain, so runoff will remain high and contain an excess of pollutants. This runoff would continue to contribute to degradation of Chollas Creek water quality” (Attachment 7, p.7-70).”

San Diego Response: We disagree with this statement. Page 7-74 quantifies the volume of stormwater runoff reduction that is achieved through the Phase II project (not Village Creek buildout). Page 7-75 describes and quantifies the improvements in creek water quality that are estimated for the Phase II project. See “Benefit C-Improve Water Quality and Avoid More Costly BMPs” which addresses water quality improvement associated with 2.3 acres of construction/restoration within the channel and installation of stormwater BMPs for an additional 2.9-acre catchment area.

Reference: Page 7-74

Consultation with Rick Engineering about the Phase II project led to an estimated reduction in runoff as described herein. Runoff reduction benefits for the restoration project were calculated by comparing the % rainfall runoff (runoff coefficient) before the restoration project (0.95) and after the restoration project (0.45). Based on this comparison, there is approximately a 52% decrease in the anticipated runoff volume from the Phase II restoration site, which includes 2.3 acres of construction/restoration within the channel and installation of stormwater BMPs for an additional 2.9-acre catchment area. This equates to a 0.12 acre-ft per year reduction in runoff based on an average annual rainfall of 9.8 inches over the 5.2 acre site.
C. Improve Water Quality and Avoid More Costly BMPs

According to the State Water Resources Control Board (SWRCB) 2010 Integrated Report, Chollas Creek is listed as impaired by copper, diazinon, indicator bacteria, lead, phosphorus, total nitrogen as N, trash, and zinc. The San Diego Regional Water Quality Control Board (RWQCB) has adopted total maximum daily loads (TMDLs), which mandate load reductions or control actions needed to restore and protect receiving waters, for diazinon (adopted 2002), copper, lead, and zinc (adopted 2007), and indicator bacteria (Revised Project I adopted 2010).

The Water Quality Technical Report for Northwest Village Creek includes permanent stormwater best management practices (BMPs) and low impact development (LID) design guidance. Hydromodification management requirements are addressed to ensure that the creek’s hydrologic regime does not impact downstream channels and habitat integrity.

The Chollas Creek Integration Project – Phase II will restore four acres of land to native habitat, and remove invasive species along a reach of Chollas Creek. Restored native habitat will act as a filter for runoff, reducing the amount of pollutants entering the creek following a storm event or through other sources of runoff. The creek realignment, culvert widening, and installation of drop structures and headwalls will reduce erosion and sedimentation within the channel, while removal of invasives can also improve water quality. Invasive species, namely Arundo and tamarisk, are associated with water quality indicators such as low dissolved oxygen and associated eutrophication. Invasives can also lead to their own erosion and sedimentation issues.

As described in C- Reduce Stormwater Runoff, this project anticipated a 0.12 AFY reduction in runoff due to Phase II restoration activities. This represents a 52% reduction in stormwater runoff and associated nonpoint source pollutant loading to the creek. Although stormwater runoff discharging to Chollas Creek from the Northwest Village properties will comply with the City of San Diego’s Storm Water Standards, this site-specific reduction in runoff will help ensure that the City does not have to implement costly treatment BMPs in the future to address TMDL mandates. Reduced runoff will result in a reduction of pollutants entering the creek. Native plants in the restored riparian habitat will be able to act as filters for pollutants carried by runoff, further reducing the amount of pollutants entering and transported by the creek. However, it is not possible to quantify the amount of pollutant reduction that will be attained by this component of the project.

For Project 6, extensive backup information was submitted on the Supporting Documents CD to demonstrate that water quality would be improved as discussed in Attachment 7. See Comment #17 above. Quantified water quality improvements are based on the project’s ability to implement BMPs and LID features. The BMP and LID features of the proposed project were designed in accordance with the City of San Diego Storm Water Standards, which comply with the RWQCB’s Municipal Storm Water National Pollutant Discharge Elimination System (NPDES) Permit issued in 2007.

18. Page 3 Comment on Project Benefits:

“In addition to the avoided flood damage to existing properties (only 1705 sq ft) this project will provide flood protection for the planned (1.7 million sq ft) development in the area at the Village at Market Creek” (Att. 7, p.7-74). It is unclear if this project is for the benefit of the Creek or for the benefit of the planned future development.”

San Diego Response: We offer the following clarification: the proposed project will benefit both existing development and planned future (re)development in an economically disadvantaged area which suffers from poor surface water quality, flooding, homeless encampments, and invasive species. However, the benefit analysis only included benefits to existing development.
**Technical Justification: Suggested Rescoring**

Considering the clarifications provided above, we request that DWR rescore the Technical Justification to a total score of 8 vs. the draft score of 6. This recommendation is based upon the information provided above in response to Comments 15-18, as summarized below:

15 The proposal states in multiple places that the treatment plants included in the NSDCRRWP already treat to tertiary levels; this information is supported by extensive documentation in the Supporting Documents CD sent to DWR. The proposal also took into consideration (via O&M of existing plants) cost requirements necessary to treat water to tertiary levels compared to secondary levels under existing conditions.

16 The proposal more than adequately states how Project 6 would benefit water quality and reduce flooding. Extensive details about the benefits associated with Project 6 were provided to DWR in the Supporting Documents CD.

17 Project 6 would reduce runoff and improve water quality based on the project's consistency with the City of San Diego Storm Water Standards, which are compliant with RWQCB requirements.

18 Project 6 would result in benefits to both existing development and planned future (re)development; however the benefit analysis conservatively assumed benefits only to the existing development.

| Total Suggested Re-Scoring Based on Information Provided on Technical Justification |
|---------------------------------------------|-----------------|-----------------|
| Max. Possible Score | Draft Score | Recommended Minimum Final Score |
| 10                  | 6            | 8                |

**Benefits and Cost Analysis: Comments and Responses**

19. Page 3 Comment on Benefits in Relationship to Costs:

"Collectively the proposal is likely to provide a medium level of benefits in relationship to cost, but the quality of the analysis or clear and complete documentation is lacking. The total net present value (NPV) costs for the Proposal are $33,914,227. The applicant estimates the Proposal’s total monetized benefits to be $342,095,615 with low level of certainty. Many of these benefits are not well supported."

**San Diego Response:** We strongly disagree with this statement. The grant application has clearly identified those benefits which are unquantifiable or unmonetizable due to low uncertainty. See conclusions of “Benefit I-Improve Water Supply Reliability Due to Use of Local Sources” on Page 8-12 and “G-Improve Water Supply Reliability” on page 8-24.

In the Benefit-Cost Analysis Overview table included for each project (see Table 8-3, Table 8-9, Table 8-14, Table 8-18, Table 8-24, Table 8-27, and Table 8-32), all of the monetizable, quantified, and qualitative benefits are listed along with an assessment of the certainty associated with each – a majority of benefits are rated “+” likely to increase net benefits relative to quantified estimates or “++” likely to increase net benefits significantly.

20. Page 3 Comment on Cost-Benefit Analysis:

"This application includes two projects focused on recycled water (projects 1 and 4). Project 1 accounts for most of the application NPV cost. This does not account for the cost to upgrade the wastewater treatment plant to tertiary treatment costs, which should have been included. Exclusion of tertiary treatment costs in the largest project makes unclear about the total real cost, and the risk that the dedicated delivery of recycled water to avocados might be non-economical."
San Diego Response: Again, we strongly disagree with this statement and believe that DWR’s reviewers have greatly misunderstood Project 1. Nowhere in the grant application does it say that the wastewater treatment plants that will serve project demands treat only to secondary standards. In fact, it states in four places that the relevant plants currently produce tertiary treated recycled water. There is no need for treatment upgrades to serve the projected demands, which is why none have been identified as part of the proposed project nor in the project costs. Please see the above response under “Technical Justification”.

Page 8-17 explains the costs associated with delivery of tertiary treated recycled water that is produced at existing treatment plants to proposed new customers. Production of the recycled water is already occurring and has been funded previously by the participating agencies (it is a sunk cost). Implementation of the proposed project would require the pipelines, pump stations, and tanks identified in the work plan, as well as the agricultural connections and O&M costs explained on page 8-17.

Reference: Page 8-17

Project Benefits and Costs Summary (Section D5)

Project Economic Costs

Total capital costs for the project amount to $19,150,228. Direct construction and implementation costs account for $18,849,668 (about 98%) of total project costs. Project administration, planning, design, environmental documentation and compliance, and mitigation costs account for the remainder of the capital budget. In addition to the project capital costs borne by the project proponents, agricultural customers receiving recycled water from the Escondido subproject will pay to connect to the recycled water system. The project proponent estimates that these costs will amount to $2,160,000 based on assumed pipe size of 8-inch (main lines from tank) and 4-inch (lines to extent of agricultural properties). This is included as an additional project cost for the purposes of this analysis and assumes the agricultural connections are constructed immediately after completion of the recycled water main extension to take advantage of lower recycled water rates.

O&M costs associated with the various subprojects will total about $281,758 per year. Based on the planning criteria included in the North San Diego County Regional Recycled Water Project Facilities Plan, annual O&M costs for pipeline and pressure reducing stations are assumed to equal 1% of capital costs and O&M costs for pump stations are assumed to equal 5% of capital costs. O&M would include staff costs for operation (e.g., exercising valves) and maintenance, including both staff costs and purchase of materials (e.g., grease or oils for motors, floats for PRVs). In addition, the VWD and OMWD components will both require periodic replacement costs associated with the pumps being installed as part of these projects. These costs will amount to $451,023 and $748,500, respectively, and will be incurred every 15 years.

As indicated in Comment #15 above, the Supporting Documents CD includes a 2012 Regional Recycled Water Facilities Plan for the NSDCRRWP. The Facilities Plan, which is the primary supporting document for the project, specifically discusses each treatment plant relevant to the project and describes that they each treat to tertiary standards in accordance with Title 22. The clearly documented presence of tertiary-treatment facilities in the NSCRRWP project area supports the economic claims made in Attachment 8.

Further, there are multiple other documents in the NSDCRRWP Technical Justification folder on the Supporting Documents CD that explain the economic benefits of recycled water production to the agricultural industry, and specifically to avocado growers (Bender, 2012). As explained in the City of Escondido Easterly Recycled Water Main Extension Preliminary Design Report (PDR) (the primary sub-component that would provide recycled water to agricultural users), the City of Escondido has coordinated with the agricultural community (particularly avocado farmers) to calculate recycled water
demands (see Page 2-1 of the PDR). As such, there is no risk that the NSDCRRWP would make delivery of recycled water un-economical for any users, including avocado growers.

Section 2.1.1 (on Page 2-1) of the PDR addresses coordination with agricultural growers for calculation of agricultural water demands. This necessarily implies the growers interest in purchasing recycled water (at a lower rate than potable water) once it becomes available.

“The agricultural parcels to be served have different growers, and it would be difficult at this stage of the project to contact each individual grower separately for information. For this Report, RMC and the City met with representatives of the agricultural community to gather information on irrigation water use and practices and associated user requirements … Agricultural demand primarily consists of irrigation water to serve avocado groves and small patches of citrus trees. Growers have indicated that avocado trees require more water than citrus trees and estimates of demand should assume that all agriculture areas could be converted to avocado groves. Agricultural irrigation demands were developed using an average annual irrigation demand of 5 acre-feet (af) per acre, which was provided by the avocado growers. This usage estimate applies to overall parcel acreage, and therefore accounts for portions of agriculture parcels that are not plant-able.”

21. Page 3 Comment on Project 1’s Benefits:

“Project 1 benefits include the calculation of avoided imported water costs that assumes Metropolitan Water District water rates will increase annually (in real terms) by 3.5% through 2020. Beyond 2020, a 1.5% increase in water rates is assumed.”

Response: We stand by our assumption. Given the trend in imported water rates over the past two decades, this is a reasonable assumption. The description of “Real Price Escalation for Imported Water” begins on page iii of Appendix 8-1. This series of assumptions was developed by an economic consultant and used in the San Diego, Upper Santa Margarita, and Los Angeles grant applications.

Reference Page iii of Appendix 8-1

Real Price Escalation for Imported Water

Several proposed projects enhance local water supplies and, thus, reduce the Region’s reliance on waters imported from the Bay-Delta and the Colorado River. The avoided cost of imported water is thus an important monetized benefit for projects that enhance local supplies. An important aspect in monetizing the value of avoided imports entails predicting the future cost of imported water. The economic analyses in this funding application was developed in real terms (based on $2012), meaning that the future stream of benefits and costs typically are not adjusted for general inflation. This is because most outcomes are expected to see price changes that generally align with broader measures of inflation, such as the Consumer Price Index (CPI), which is measured and reported by the federal Bureau of Labor Statistics.

The price of imported water is an important exception, because various factors have led to rate increases that have considerably outpaced general inflation over the past two decades (as detailed below). This trend of real price increases for imported water (i.e., above the projected CPI) is likely to continue in the future as well, because the same factors that have driven these prices upward will remain relevant for several years to come. These factors principally include limitations on overall supply, due to a variety of factors primarily linked to the declining health of the Bay-Delta system from which these waters are extracted.

Based on these data, it is appropriate for the economic analyses to reflect how imported water costs in southern California are likely to continue to increase at rates considerable above general inflation. To reflect real prices of imported water in the future, we have adopted the following conservative assumptions:
1. For water imported from 2012 and 2013, we use rates published by the Water Authority as of February 2013.124

2. For water imported between 2014 and 2020 (inclusive), we derive a 2012 real cost by escalating by 3.5%. This escalation of 3.5% above CPI is fairly conservative (i.e., low end), given the documented trends over the past 5 to 10 years for which real increases have ranged from 4.8% to 10.2% per year.

3. For water imported in 2021 and years thereafter, we escalate at a rate of 1.5% per year to obtain real prices. This is also a conservative, given that observed 10 to 20 year escalation rates have been in the 1.9% to 5.2% range.

22. Page 3 Comment on Project 1:

"Most water would go to avocado producers, but it’s not clear that California avocado producers will be able to afford their share of the recycled water at this assumed “price” in the future.”

San Diego Response: We disagree with the premise that avocado producers would not be able pay for recycled water in the future. Avocado farmers in the Escondido area currently purchase potable water at rates that are more expensive than recycled water rates. Page 8-10 describes how implementation of Project 1 will help avocado farmers save money as a result of this project.

Reference Page 8-10

B-Avoided Economic Losses Due to Reduced Agricultural Production

Component 1-8: Escondido Recycled Water Easterly Main Extension will supply a total of 4,570 AF of recycled water to farmers in San Diego County. This water will be used to irrigate up to 870 acres of agricultural land within the Escondido service area (no other components involve the use of recycled water for agricultural irrigation).

Agriculture is a primary component of economic activity in Escondido and San Diego County. Agriculture supports more than $5.1 billion of economic activity in the County, with crop value (sales) totaling more than $1.68 billion. The County has the 12th largest farm economy among more than 3000 farm counties in the United States and is the top producer of avocados and nursery crops in the nation.

Within the Escondido component area (870 acres), avocado is the primary crop grown, along with small patches of citrus. In recent years, farmers in the area have been subject to water rate increases on imported water. In 2012, the City of Escondido raised agricultural water rates by 12% in order to cover rising MWD rates and fixed costs associated with their water infrastructure and delivery system. As described in Attachment 7, avocado growers provided figures on average annual irrigation demands for avocados, amounting to 5 AF per acre.

In Escondido, farmers currently pay between $1,200 and $1,300 per acre foot for imported water supplies (their primary source of water). Based on the current cost of imported water and a demand of 5 AF per acre, water costs for avocados can range from $6,000 to $6,500/acre per year. Given an average production of 5,000 lbs of avocados per acre (the average yield in CA for the last 5 years), and a price of $1 per pound, avocado crops are currently valued at approximately $5,000 per acre. Thus, farmers can barely cover their water costs, much less costs associated with labor, supplies, and other inputs. Avocado and other farmers in the region have indicated that further price increases may force them to shut down their operations.

Given the high value of avocado and agriculture in general to the San Diego County economy, this would potentially result in substantial economic impacts. Loss of the 870 acres of farmland intended for recycled water service in the Eastern Block would result in $4,350,000 in annual lost crop productivity should those farmers fallow or abandon their crops. The proposed project will help to
avoid these losses by providing a much less expensive and more reliable source of water supply for farmers within the Escondido region.

Please refer to Comment 20 above. The City of Escondido Easterly Recycled Water Main Extension Preliminary Design Report (PDR), which served as the basis for recycled water demands for the farmers, was prepared in conjunction with the avocado growers. The primary goal of the Escondido sub-component is to “deliver recycled water to a group of agriculture customers in the vicinity of Cloverdale Road and Mountain View Drive” (see Page 1-1 of PDR). The reason this is the primary purpose of the project is because the City of Escondido is committed to providing recycled water as a cost-effective alternative to potable water. This is also discussed in the City of Escondido’s 2010 Urban Water Management Plan (see Page 5-6), which was also included on the Supporting Documents CD sent with the grant proposal.

23. Page 3 Comment on Project 4:

“Project 4 would help make progress toward direct reuse of potable water; a project with potential large benefits for the entire State.”

San Diego Response: We agree that Project 4 is an important project with Statewide benefits that should be funded. We encourage DWR reviewers to reconsider the application’s scoring in light of the clear misunderstandings identified above, specifically as it relates to the technical justification and economic analysis scores.

24. Page 3 Comment on Project 3:

“Project 3 is focused on small DAC potable water systems, but the exact projects to be funded are not specified.”

San Diego Response: Because of the long delays between the time of the application and implementation of projects, it is difficult to state the exact disadvantaged community projects that will be ready to go at the time the funding is made available. Example projects are provided to help DWR reviewers understand the scope and scale of benefits that will accrue to the region as a result of Project 3. This project will be managed as a funding program for disadvantaged communities with clear criteria established for the selection of projects as identified on page 8-33 of the grant application. While it is often difficult for small water systems to implement cost effective projects, secondary criteria address the ability to leverage other funds and manage capital costs. As the projects are implemented, the project sponsors will be able to track and report on cost effective of each project to DWR.

Representatives from Rural Community Assistance Corporation, California Department of Public Health, County Department of Environmental Health, Indian Health Services, and the Regional Water Management Group will ensure that selected projects will address inadequate, unsafe, or unreliable water supply and water quality in rural DACs.

Reference: Page 8-33

Primary Criteria

- Disadvantaged community per 2010 Census data
- Construction project
- Addresses public health issue
- Critical water projects (quantity/quality/reliability)
- Adequate TMF capacity (likely to be successful)
- Shovel ready or ability to complete within project time frame

Secondary Criteria

- Project ability to leverage other funding,
- Capital cost per connection,
25. Page 3 Comment on Project 7:

“Two projects are focused on watershed and riparian restoration, and one project seeks to develop water quality standards through a collaborative project. This project could have statewide benefits as an example project; but claimed economic benefits are speculative.”

San Diego Response: We agree that Project 7 is an important project with Statewide benefits. The economic benefits described in the grant application are our best estimate of the avoided costs (of municipal stormwater treatment) should Project 7 result in water quality objectives geared toward maximum benefit.

Benefits and Cost Analysis: Suggested Rescoring

Considering the clarifications provided above, we request that DWR rescore the Benefits and Cost Analysis to a total score of 18 vs. the draft score of 15. This recommendation is based upon the information provided above in response to Comments 19, 20, 21, 22, and 24, as summarized below:

19 Those benefits with low-certainty were not monetized. The proposal provides substantial supporting information to back-up the monetized benefits.

20 Due to DWR’s misunderstanding of Project 1, DWR reviewers incorrectly assumed that additional costs for tertiary upgrades were necessary, when they aren’t. Project 1 would result in extremely valuable economic benefits to all water users in the North County, including agricultural water users.

21 The imported water rate assumptions are clearly articulated and well-supported in Appendix 8-1 and were also used in other high-scoring grant applications.

22 The projected agricultural water demands for recycled water used in the analysis for Project 1 have been clearly articulated in the proposal and are supported with backup documentation that relied upon direct coordination with agricultural water users.

23 Not applicable.

24 Example projects have been provided to DWR for Project 3 to give an understanding of the scope of this project and its proposed benefits. Actual projects will be selected by a diverse set of professionals who will ensure that the projects address inadequate, unsafe, or unreliable water supply and water quality in rural DACs.

25 Not applicable.

Total Suggested Re-Scoring Based on Information Provided on Benefits and Cost Analysis

<table>
<thead>
<tr>
<th>Max. Possible Score</th>
<th>Draft Score</th>
<th>Recommended Minimum Final Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>15</td>
<td>21</td>
</tr>
</tbody>
</table>

Program Preferences: Comments and Responses

26. Page 3 Comment on Program Preferences:

*Applicant claims that six program preferences and eight statewide priorities will be met with project implementation. However, applicant demonstrates high degree of certainty and adequate documentation for eight of the preferences claimed: (1) Include regional projects or programs; (2)
Effectively integrate water management programs and projects; (3) Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program; (4) Drought Preparedness; (5) Use and Reuse Water More Efficiently; (6) Climate Change Response Actions; (7) Expand Environmental Stewardship; and (8) Protect Surface Water and Ground Quality.”

San Diego Response: We agree that the referenced eight preferences have a high degree of certainty. We also submit that two additional preferences will be attained through our project: “Effectively resolve significant water-related conflicts” (see page 9-4), and “Address Critical Water Supply or Water Quality Needs of DACs” (see page 9-6). Space was limited to 10 pages in Attachment 9, but additional justification of direct contribution to these preferences can be provided.

On water-related conflicts – Project 1 (page 8-10) and Project 4 (page 8-48) both articulate the qualitative benefit “Help Avoid, Reduce or Resolve Various Public Water Resources Conflicts” as part of Attachment 8. Surely DWR reviewers understand the importance of these two projects to the San Diego region. In fact, DWR’s reviewers even stated in Comment 23 that Project 4 would “help make progress toward direct reuse of potable water, a project with potential large benefits for the entire State.” Given that DWR recognizes this statewide benefit, it seems logical that DWR would also acknowledge that the proposal will help to effectively resolve significant water-related conflicts associated with water reliability. Availability of additional potable water across California, which would be moved forward through implementation of Project 4, would reduce ongoing issues associated with water supply availability.

On needs of DACs – Please see the discussion under Comment 24, as the selection criteria for the rural DAC infrastructure improvements in Project 3 clearly require that they address critical health issues associated with critical water projects in rural DACs.

Reference: Page 9-4

Program Preference 3: Effectively Resolve Significant Water-Related Conflicts

The IRWM Plan Objectives were established as a result of an open and transparent stakeholder process, where all RWMG, RAC, and other stakeholders were invited to voice their significant issues and conflicts within the region. In accordance with the 2012 IRWM Guidelines, the draft IRWM Plan Update Objectives were developed such that they specifically address the major water-related issues and conflicts of the Region. Together, the seven projects address all of the twelve draft IRWM Plan Update Objectives (see Table 3-2 in Attachment 3), and therefore will effectively resolve water-related conflicts identified by the comprehensive stakeholder group.

In addition, each project resolves local funding issues through their inclusion in this proposal. Each of these projects will help to alleviate regional conflicts associated with a short supply of regional funding. The analysis below provides specific information on how each project will effectively resolve significant water-related conflicts within the Region. Due to the degree of analysis performed on these projects, it is fully certain that this proposal will meet the Program Preference of effectively resolving significant water-related conflicts throughout the Region (on a regional level).

North San Diego County Regional Recycled Water Project – Phase II: This project is a comprehensive recycled water program that will consolidate individual recycled water components of ten separate agencies to more effectively meet recycled water needs of North County San Diego. The physical scope of this project will eliminate jurisdictional conflicts, and the individual water components will complement and support each other, allowing the Region to move forward with recycled water provisions that will help reduce potential conflicts associated with state-mandated conservation requirements set forth in Senate Bill x7-7. Further, the cooperative inter-agency coordination required for this project will help to reduce potential conflicts that could otherwise arise between the agencies if they were to implement separate, segregated recycled water systems.

Turf Replacement and Agricultural Irrigation Efficiency Program: This program will help make conversion to water-efficient landscaping and irrigation more affordable for both urban and agricultural water users. This will reduce future conflict over water prices between customer groups, as well as reduce conflict between customers and agencies, by reducing the amount of water used by customers. This program also opens up communication between agencies and customers, which can
help build understanding between the two, and reduce future conflicts.

*Rural DAC Partnership Program:* There is a critical need for safe drinking water and wastewater infrastructure in rural DACs in the Region. This program will benefit numerous DACs throughout the Region by implementing projects that will solve critical water supply or water quality needs. These efforts will help reduce jurisdictional conflicts, as well as address potential environmental justice issues and help resolve water-related conflicts between DACs and other communities. DAC projects will be selected by a stakeholder committee, which will allow opportunities for projects to be carefully considered and vetted through interested parties. This comprehensive stakeholder approach will further reduce conflicts by reducing the potential for competing plans and projects.

*Failsafe Potable Reuse at the Advanced Water Purification Facility:* This project brings together experts to develop comprehensive information to support the potential future implementation of failsafe potable reuse. By bringing experts together, competing theories can be tested and conflicting ideas resolved. This project supports water reuse efforts, and will contribute towards future ability to maximize water reuse in the Region and the State. This will reduce water-related conflicts regionally and potentially state-wide.

*Sustaining Healthy Tributaries to the Upper San Diego River:* This project is predicated on the idea that a small investment now will reduce costs associated with continued creek degradation in the future. In so doing, this project will protect the water quality and capacity of an important local water supply. Continued protection of this local water supply will reduce future conflict over a potential for an increase in imported water (due to reduced reservoir capacity) or potential increase in treatment costs to address water quality concerns.

*Chollas Creek Integration Project – Phase II:* This project will improve water quality, reduce flooding, and preserve open green space and habitat for the neighborhood surrounding Chollas Creek. This project involves a multitude of partners, and will therefore help resolve potentially conflicting interests by bringing interested parties together to implement activities associated with Chollas Creek. In addition, this project will address conflicts relating to water quality by effectively reducing sources of pollutants and environmental stressors.

*Implementing Nutrient Management in the Santa Margarita River Watershed – Phase II:* Phase I of this project is currently evaluating nutrient Water Quality Objectives (WQOs) for the Santa Margarita River Estuary and now Phase II aims to establish nutrient WQOs for the entire watershed. Phase I and Phase II efforts will ultimately lead to the implementation of nutrient reduction and water conservation practices in the watershed. This project will address water quality concerns between San Diego and Riverside Counties and avoid jurisdictional interests by bringing the two counties together to achieve project goals. Due to its watershed-level scale, this project will resolve conflicts by complementing existing plans. This project will also resolve water quality-related conflicts by developing nutrient WQOs that will help reduce sources of pollutants and other environmental stressors associated with runoff.

Reference: Page 9-6

**Program Preference 5: Address Critical Water Supply or Water Quality Needs of DACs**

DWR specifies that preference will be given to proposals that include projects that will include safe drinking water and water quality projects that serve DACs. One of the projects included in this proposal directly addresses critical water supply or water quality needs of DACs within the Region. Due to the degree of analysis performed on this project, it is fully certain that this proposal will meet the Program Preference of addressing critical water supply or water quality needs of DACs within the Region (on a regional level).

*Rural DAC Partnership Program:* This project will address inadequate water supply and water quality affecting rural DACs, including tribal communities. The project will reduce potential for high public health risks in water and/or wastewater systems specifically for DACs through the implementation of projects that will solve these critical issues.
Program Preferences: Suggested Rescoring

Considering the clarifications provided above, we request that DWR rescore the Program Preferences to a total score of 10 vs. the draft score of 8. This recommendation is based upon the information provided above in response to Comment 26, as summarized below:

26 DWR reviewers clearly acknowledged in their evaluation the importance of Project 4 in advancing potable reduce and the benefits Statewide. This alone fulfills the “Effectively resolve significant water-related conflicts” program preference. Additionally, the grant proposal demonstrates Project 3’s clear criteria for addressing failing water and wastewater infrastructure in rural DACs. This fulfills the “Address Critical Water Supply or Water Quality Needs of DACs” program preference.

| Total Suggested Re-Scoring Based on Information Provided on Program Preferences |
|-----------------------------|-----------------|-------------------------------|
| Max. Possible Score | Draft Score | Recommended Minimum Final Score |
| 30                        | 8              | 10                           |