

**Borrego Water District
AGENDA
Board Workshop
Board of Directors
January 5, 2011
9:00 A.M.
806 Palm Canyon Drive
Borrego Springs, CA 92004**

I. OPENING PROCEDURES

- A. Call to Order
- B. Pledge of Allegiance
- C. Roll Call
- D. Comments from the Public and Requests for Future Agenda Items (comments will be limited to 3 minutes)
- E. Comments from Directors and Requests for Future Agenda Items

II. DISCUSSION TOPICS

- A. Discussion of District Finances (pages 2-25)
 - A 1. Staff Report
- B. Review of MOA AND Plan of Study from Bureau of Reclamation (pages 26-50)
- C. Review of Glenn Reiter financial models.

III. CLOSING PROCEDURE

- A. **Adjournment** The next Regular Meeting of the Board of Directors is scheduled for January 26, 2011.

Teleconference site available to the public: offices of Stradling Yocca Carlson & Rauth, 660 Newport Center Drive, suite 1600, Newport Beach, CA 92660

REMAINING FY2011 PRO FORMA BUDGET QUESTIONS

- (1) On a pro forma basis, what do you project the FY'11 operating income (loss) will be?
- (2) Given the use of cash reserves in the first half of FY'11, what changes to the FY budget, if any, may need to be made in order to break-even in income from operations for the FY?
- (3) What amount of cash reserves have been spent so far in FY'11?
- (4) What additional cash reserves may be necessary to spend to finish out the year?
- (5) What are the cash surplus (deficits) in each of the 1-5 Improvement Districts?
- (6) What is the unrestricted cash on hand as of today, not including cash that is already allocated to be spent during FY'11?
- (7) What changes in budget, borrowing, and/or rates will be required to generate a \$300,000 operating income in FY'12? Positive cash flow from operations?
- (8) Please produce the I-Bank documentation that discusses why BWD is not presently eligible for I-Bank financing.
- (9) Please discuss any ideas you may have for the district to become eligible for I-Bank financing in the future.
- (10) Please discuss your interactions and work with Glen Reiter in formulating his cost-of-service model and rate recommendations for the district.
- (11) Please describe the budget process envisioned for establishing the FY'12 budget.
- (12) Please describe any return on invested capital (ROIC) analyses that may have been performed prior to cash reserves being used for district projects.

DATA REQUIREMENTS FOR ESTABLISHING SUSTAINABLE YIELD

DATA	QUANTITY	SOURCE
What is the safe yield of the basin?		USGS
At present annual withdrawal rates (~20,000 af/y), approximately how many years before the upper aquifer is dewatered?		USGS
At what water table levels is it probable that the Anza-Borrego Desert State Park's ecosystems may be severely disrupted and/or destroyed from their present state? When will this occur?		
What is the estimated volume of water in the middle and lower aquifers?		
What is the quality of water contained in the middle and lower aquifers?		
Given the porosity of water in the middle and lower aquifers and its expected quality, will this water be economically extractable for use?		
What is the estimated volume of the basin?		
What levels of withdrawals can the basin accommodate without compaction of the aquifer occurring that materially reduces this volume?		
What levels of withdrawals can the basin accommodate without material subsidence occurring that impacts the structural integrity of the built environment in the Borrego Basin?		

DATA REQUIREMENTS FOR ESTABLISHING SUSTAINABLE YIELD

DATA	QUANTITY	SOURCE
What is the safe yield of Clark Dry Lake		
What is the sustainable yield of Clark Dry Lake		
What is the quality of the water in the Clark Dry Lake aquifer?		
What is the unit cost of water withdrawn from the Clark Dry Lake aquifer?		
What is the cost to satisfy the ABD-SP study requirements set out in its 4/17/2009 correspondence?		
What pumping fee should pumpers of the basin expect to pay if the basin is not recharged?		
Given the results of the BoR study, what is the projected unit cost of water that will be available from recharging the basin?		
If the basin is recharged, what are the projected replenishment fees pumpers will be charged?		
Does the present fallowing/ water credits BWD program that is essentially a demand management program to extend the life of the aquifer make economic sense?		
Are there needed modifications to the fallowing program?		

District Finance Workshop

January 5, 2011

By: Jerry Rolwing, Interim General Manager and Operations Manager

The District has several financial obligations that have been committed to date. In addition, proposed construction projects that were to have been financed by the California Infrastructure Bank deferred several capital improvement projects and should be addressed at this time for future budgeting concerns. The purpose of this workshop is to provide an open venue to discuss the current finances of the District.

Finance Officer, Kim Pitman, has compiled a report of the District's cash position and future obligations that have been approved by the Board (**Exhibit A**). In addition, I have prepared a proposed capital improvement budget and schedule to accommodate the future needs of the District's water distribution system (**Exhibit B**). Future sewer system needs are being addressed with the new lift station project which is currently being completed.

The District presently has financial involvement in two studies and one water resources plan. There is also a new groundwater monitoring requirement from 2009 legislature (SB 7 6 or "CASGEM"). This legislation requires groundwater levels to be reported to the California Department of Water Resources (DWR) beginning January 1, 2012 and will have little budgetary impacts at this time. There is also an existing STAG (State and Tribal Assistance Grant) that has invoices to submit to the EPA (Environmental Protection Agency) for payment (**Exhibit C**). This project was handled by the former general manager and District consultant Bill Mills and I will need to review the progress to date and address in January.

The U.S. Geological Survey (USGS) is beginning the final year of a three year study of the Borrego Valley Groundwater Basin. At the December 15th meeting, the Board approved the contract for \$131,500 to complete the project as outlined by the USGS. At that meeting, additional project requests were discussed and forwarded to Peter Martin, project chief. The projects include an assessment of the middle and lower aquifers from the groundwater model and a report on the age-dating of water in our aquifer. Mr. Martin will respond after the first of the year on these requests.

The District has been actively involved in the DWR's IRWM (Integrated Regional Water Management) Program. The IRWM is a mechanism for the State to disburse grant funds approved by the State Legislature. The District attempted to join into other "regional" groups in the area but were unsuccessful due to various geographical and political barriers. Success was achieved in creating our own "regional" area with the cooperation of the County of San Diego and the Resource Conservation District of Greater San Diego County. The group has made progress in creating an IRWM Plan that is scheduled for completion prior to the next funding cycle in the summer of 2011. Once the plan is adopted by all agencies slated to receive funds, the list of projects can be submitted for future funding cycles of proposition 84. To date the District has expended approximately \$32,000 on consulting fees to build this plan. The plan is approximately 85% complete. A recent application for State funding to finish the plan, recoup these consultant fees and other District costs (USGS study) did not make the initial short list for funding. With the assistance of DWR staff and consultant Bill Mills, a follow up letter was submitted in the public comment period on December 23rd and we stand a good chance to increase our score for possible funding (**Exhibit D**). The DWR staff has also offered to assist in finishing the plan with their staff and/or consultants if funding is not secured in this round. A scope of work will be submitted

to the DWR in January detailing the items needed to complete the plan. A second opportunity will be available in the future to re-apply for the planning portion of the program.

The U.S. Bureau of Reclamation (Reclamation) is presently seeking final approval with their regional office to perform the Southeast California Basin Study. This study will be an update of a 1968 reconnaissance report and incorporate the possibilities of storing water in the Borrego Valley aquifer for other water agencies. The study will be financed by a \$450,000 grant to be utilized by Reclamation staff and consultants. The District will contribute \$12,500 cash and matching funds of \$450,000 from in-kind services (non-federal funds). These matching funds will be met by previous expenditures with the USGS, DWR and other consultant fees paid by the District. The proposed study document and draft agreement are included with agenda item II-B for your perusal. A formal presentation will follow at a future meeting.

At the Board's request, Glenn Reiter will submit a list of possible finance scenarios that the District can utilize for possible future finance measures. These are attached with agenda item II-C. Mr. Reiter is also available for a presentation at a future meeting.

The U.S. Department of Agriculture is a source of funding both through loans and grants. The regional representative, Daniel Cardona, located in the El Centro office, is available for a presentation at the January meeting.



BORREGO WATER DISTRICT

December 23, 2010

To: Jerry Rolwing

From: Kim Pitman

Subject: Financial Information for Special Meeting - January 5, 2011

I have prepared the following information for you to report on at the Special Meeting of January 5, 2011.

- Cash Position as of 12/23/10 - \$1,117,179
- CIP Obligations:

Lift Station - Total Left to pay \$227,605, which includes \$41,000 for manhole rehab. (Total cost \$616,987) plus an additional \$5,200 due MSA, which hasn't been approved.

Montezuma Pipeline Replacement- Approximately \$40,000

Brian Polley - Approximately \$49,700 left to pay

Cocopah -Total due - \$2,500,000 - Paid \$150,000 11/29/10 which expires on 5/29/10 and can be extended another 90 days with another payment of \$50,000. By 8/29/10 \$1,200,000 is due and then a note will be executed in the amount of \$1,150,000.

Viking Ranch - Total due - \$1,500,000 - \$25,000 due upon execution; \$50,000 due upon closing and a note to be executed in the amount of \$1,425,000 @4% interest to be paid back with quarterly payments of \$20,228.82 for 25 years.

Club Circle Golf Course - Runs approximately a negative (\$49,317) annually. We are obligated for 20 years to maintain the golf course. We will need to hire someone to bid out the cost to remove turf and possibly pay to have the turf removed, if we decide to remove turf to save water (approximately 60%), water usage currently is approx. \$43,000 annually. AND, Santiago Estates is requesting to have their CSD fees removed which would reduce the fees by \$19,000 annually.

- COP Obligation:
\$124,875 Annual debt service through April, 2013 - Then we begin paying principal (\$25,000-245,000 ending in 2028)

I feel that our Operations Budget should be fine through the end of the year as long as we hold back on any more capital expenditures for this year.

Borrego Springs Road Pipeline Project

Linking Christmas Circle south to San Pablo Road

SEGMENT #	PRIORITY	LOCATION	FOOTAGE	APPROX. COST
1	6	Christmas Circle*	822	49,320.00
2	4	Christmas Cir. To Diamond Bar Rd.	1,040	62,400.00
3	5	Diamond Bar Rd. to T Anchor Dr.	1,580	94,800.00
4	DONE	T Anchor Dr. to Weathervane Dr.	1,480	88,800.00
5	1	Weathervane Dr. to Barrel Dr.	1,500	90,000.00
6	DONE	Barrel Dr. to Walking H Dr.	1,200	72,000.00
7	2	Walking H Dr. to Tilting T Dr.	2,170	130,200.00
8	3	Tilting T Dr. to Country Club Rd.	3,700	222,000.00
9	7	Country Club Rd. to San Pablo Rd.**	2,200	132,000.00
10	8	North 660 ft. of Weathervane Dr.***	660	39,600.00
SUB-TOTAL			16,352	\$ 981,120.00

Water Distribution System

PROJECT #	PRIORITY	LOCATION	CAPACITY	APPROX. COST
1	1	ID-4 WaterCAD study on high pressure	Estimate	3,000.00
Report back to Board for future budget consideration				
2	1	Distict-wide SCADA radio upgrades	Estimate	7,000.00
Report back to Board for future budget consideration				
SUB-TOTAL			Estimate	10,000.00

Reservoir Lining and Resurfacing

PROJECT #	PRIORITY	LOCATION	CAPACITY	APPROX. COST
3	1	Rams Hill #1 - serving 900 Hydraulic Grade	1.0 MG	125,000.00
4	2	800 Reservoir - serving ID-3	0.75 MG	110,000.00
SUB-TOTAL				\$ 235,000.00

Future Capital Improvement Projects

PROJECT #	PRIORITY	LOCATION	CAPACITY	APPROX. COST
5	3	Wilcox Reservoir Construction	2.0 MG	\$ 3,300,000.00
6	3	Well # ID1-16 Booster Station	1,500 GPM	\$400,000
7	4	New well for ID-4 North area	750 GPM	\$400,000
SUB-TOTAL				\$ 4,100,000.00

Proposed Five Year Schedule

FISCAL YEAR	PRIORITY	SEGMENT/PROJECT	FOOTAGE	APPROX. COST
2010-11	1	ID-4 WaterCAD study on high pressure	Estimate	3,000.00
2010-11	1	Distict-wide SCADA radio upgrades	Estimate	7,000.00
		Estimate		10,000.00
2011-12	1	Rams Hill #1 - serving 900 Hydraulic Gr.		125,000.00
2011-12	2	Weathervane Dr. to Barrel Dr.	1,500	90,000.00
		FY TOTAL	1,500	\$ 235,000.00
2012-13	2	800 Reservoir - serving ID-3****		110,000.00
2012-13	2	Walking H Dr. to Tilting T Dr.	2,170	130,200.00
2012-13		FY TOTAL	2,170	\$ 240,200.00
2013-14	3	Tilting T Dr. to Country Club Rd.	3,700	222,000.00
		FY TOTAL	3,700	\$ 222,000.00
2014-15	4	Christmas Cir. To Diamond Bar Rd.	1,040	62,400.00
2014-15	5	Diamond Bar Rd. to T Anchor Dr.	1,580	94,800.00
2014-15	6	Christmas Circle	822	49,320.00
		FY TOTAL	3,442	\$ 206,520.00
2015-16	7	Country Club Rd. to San Pablo Rd.	2,200	132,000.00
2015-16	8	North 660 ft. of Weathervane Dr.	660	39,600.00
		FY TOTAL	2,860	\$ 171,600.00

Annual CIP budgets always include replacing one or two pumps with casing cleaning - +/- \$80,000

NOTES:

Approximate piping cost based on \$60/ft. from historical projects and present supply costs

Pipeline segment priorty based on current access to water and/or hydrant supply

* Complete loop on Christmas Circle, south half from W. Palm Canyon Dr. to E. Palm Canyon Dr.

** Exisiting 6" AC pipeline on east side of BS Rd., upgrade to 10" on west side - low priority

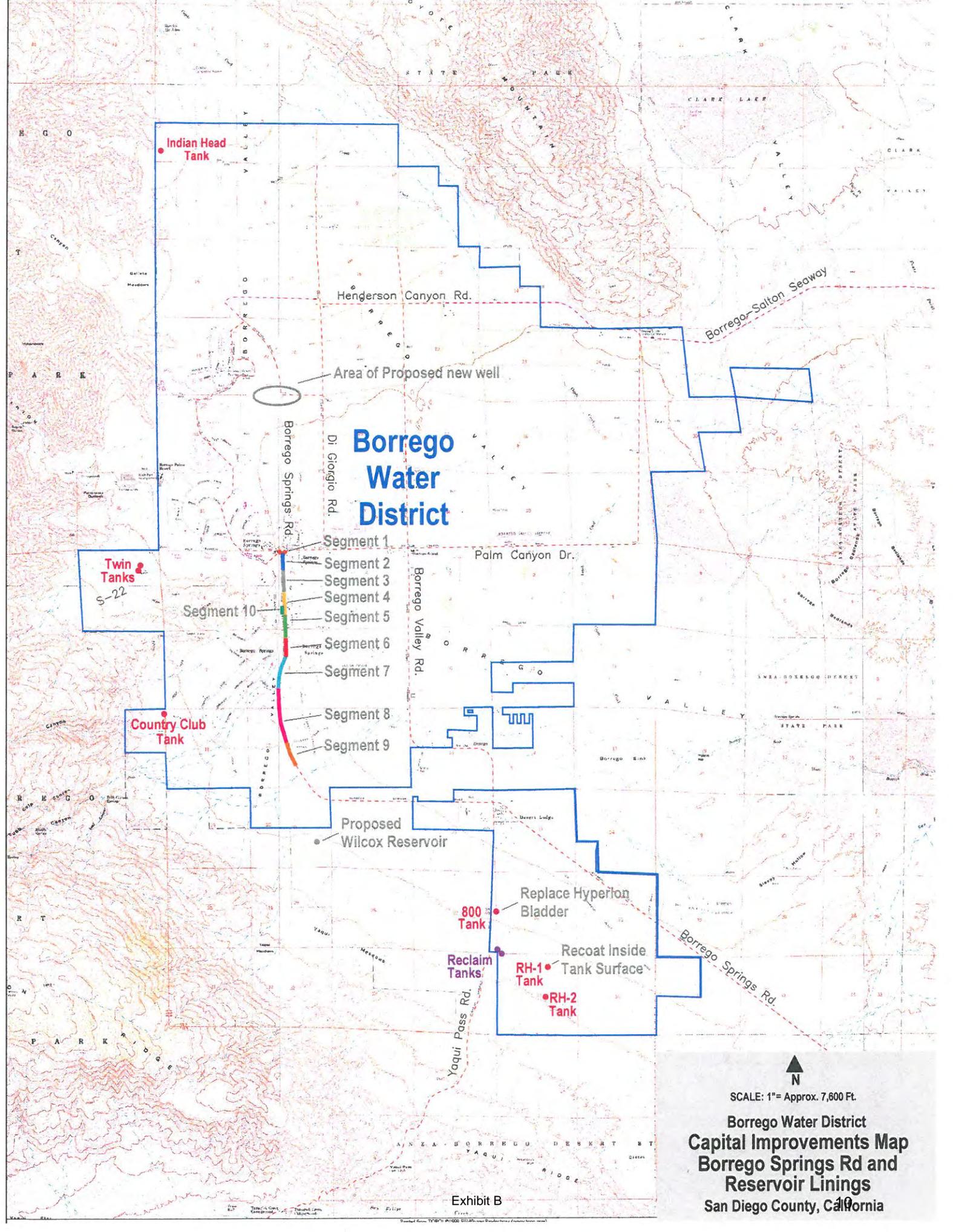
*** First segment installed 8" pvc pipe, upgrade to 10" - lowest priority

**** 800 reservoir can be removed from service if Wilcox or other new reservoir built in south.

MG = million gallons, volume units for public water system reservoirs

GPM = gallons per minute, volume units for distribution piping and pumping

SCADA = Supervisory Control and Data Acquisition, automated control of wells and pumps



Indian Head Tank

Twin Tanks
S-22

Country Club Tank

Borrego Water District

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- Segment 7
- Segment 8
- Segment 9
- Segment 10

Proposed Wilcox Reservoir

800 Tank

Reclaim Tanks

Replace Hyperton Bladder

Recoat Inside Tank Surface

RH-1 Tank

RH-2 Tank

Exhibit B



SCALE: 1"= Approx. 7,600 Ft.

**Borrego Water District
Capital Improvements Map
Borrego Springs Rd and
Reservoir Linings
San Diego County, California**

Digitized from TYPED 91000 01000, using Borrego Water District Survey Data



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

July 2, 2010

*File -
EPA
5784 Grant
2009.*

Richard S. Williamson
General Manager
Borrego Water District
PO Box 1870
Borrego Springs, CA 92004

Re: Comments on the June 21, 2010 Submittal – Borrego Springs Pipeline Feasibility Study

Dear Mr. Williamson:

Thank you for taking the time to meet with me last month and for providing the Application for Federal Assistance SF-424, the Environmental Information Document, and Work Plan & Budget for the Borrego Water District, Borrego Springs Pipeline Feasibility Study. Aside from the comments listed below, I enjoyed meeting you and appreciate that your submittals were organized and well written.

My preliminary review and analysis of your Scope of Work and Environmental Information Document was sufficient to determine that the National Environmental Protection Act will not apply at this stage in the development of options that pertain to supplying the Borrego Springs Community with water supply, enhancement projects. Therefore, the NEPA process will be undertaken once the Feasibility Study has been completed and if your community pursues additional federal funding.

Your Application of Federal Assistance looks complete but I encourage you to contact your EPA Grants Management Specialist, Veronica Adams at (415) 972-3677 for confirmation and to see if she has any suggestions.

General Comments on your Work Plan & Budget:

- A. The Scope of Work is divided into Study Elements A-H with tasks and where necessary, sub-tasks, along with deliverables. In most instances, the deliverable for that task is clearly identified. However, a few activities/outcomes can be construed to be a deliverable but is not stated as such. For example, under Task C1 the last two sentences states “Property maps and easements that may exist will be obtained and reviewed. An aerial survey may be needed.” And for Task E2, “Potential impacts and alternative mitigation measures for both the park area and areas outside the park will be identified.”
- B. Under Task F8, a technical memorandum report is the deliverable and will be comprised of information from tasks 1-7, yet Task F12 – a summary report is the deliverable and is comprised of Tasks F1-11. I think I understand there is no redundancy but please clarify.
- C. Task F11 identifies the possibility that a solution may be technically feasible, dependent on the outcome of Task F10. A similar situation exists for Task F9 in that alternative brine disposal options would explored, if the Allegretti sub-basin is determined to be a feasible source of supply. As some deliverables are dependent on other outcomes, and as stated in earlier comments, not all deliverables are clearly identified or may be incorporated into final

products, it would be visually appealing and helpful for tracking purposes if all “hard” deliverables (i.e. reports, maps generated, final study analyses,) and significant “soft” deliverables, (i.e. results of any meetings held, record and documents searches) and any “potential” deliverables (see Task F11 above) were identified in a chart or similar format. This would assist in associating the project timeline and costs with the deliverable also. We should discuss this format suggestion over the telephone.

- D. During our meeting you identified that Exhibit 1 needs to be revised, as the map could be more detailed and if my notes are correct, the north option pipeline is positioned incorrectly.

I look forward to your revised Work Plan and as we discussed, we should schedule a teleconference to review these comments prior to your edits. I will also be available throughout the project award and implementation periods. You may contact me at (415) 972-3806 or alternatively, at ryan.kevin@epa.gov and I look forward to working with you on this important project.

Sincerely,

Kevin J. Ryan
Environmental Scientist
Drinking Water Office

cc: Veronica Adams MTS-7

**Work Plan
Borrego Water District
Borrego Springs Pipeline Feasibility Study**

BACKGROUND:

The Borrego Springs Community relies on a sole source aquifer to meet overlying water demands. Since these demands are projected to continue to exceed the natural supply to the basin, it is appropriate to seek supplemental, non-native water sources to support the long-term economic viability of the area. In order to satisfy this overdraft, it is necessary to evaluate alternative pipeline routings into Borrego for delivering a water supply source.

A water banking operation is also a possibility in another nearby groundwater basin (Allegretti Sub-basin). Thus, the importation of water into the area should consider not only the need to satisfy the current and near term overdraft on the basin, but should also consider the possibility of a combined importation project and a water banking operation in that sub-basin.

The work effort under this grant includes (1) the final design of a conveyance system that is common to all conveyance alternatives, and could provide a 'bridge' supply to BV from an area known as the Dr Nel property and (2) a feasibility study of extending the conveyance system along either of two alignments to the east. One alignment would be along HWY 78 to the Allegretti Sub-basin, a potential water supply source and then further east to a reservoir in the Imperial Irrigation District's system. Another alignment to be studied would be along a power line easement from Ocotillo Wells to the IID distribution system.

The work under this grant also includes a preliminary evaluation of the Allegretti Sub-basin as a water source for BV and for water banking operation.

The work described in this scope is consistent with the water supply enhancement projects described in the district's Integrated Water Resources Management Plan (March, 2009)

PIPELINE ALIGNMENTS:

There are three general alignments to be studied, but common to two of the alignments is an initial conveyance system from BV to HWY 78.

Common Conveyance System: Phase 1 of this conveyance system would be from BV to the HWY 78. BWD owns property at this location and prior exploration indicated that the groundwater in this area could provide a limited water supply for BV, perhaps as a temporary or 'bridge' supply. This pipeline segment (Phase 1) will be designed, along with a grading plan for the terminal reservoir, under this effort. From this location, the common conveyance system would continue along HWY 78 to an area known as the Allegretti Sub-basin near Ocotillo Wells

Conveyance System to Carter Reservoir: This section of the conveyance system would be from the terminus near Ocotillo Wells to IID's Carter Reservoir. This section would not be needed if the Allegretti Sub-basin were found to provide adequate water supplies for BV.

Conveyance System to Westside Canal: An alternate to the routing described above, would be from the Ocotillo Wells area along an existing power transmission line to IID's Westside Canal.

The third conveyance system to be addressed is from Borrego Springs to the Clark Dry Lake area.

Sources of Supplemental Water

Four sources of water appear to be available for importation into the Borrego Valley (BV). All sources are located to the southeast of BV¹ and could be conveyed to BV along alternate conveyance system routes.

Dr Nel Source: The nearest source to BV is the groundwater in the Dr Nel area. The groundwater reservoir in this area does not readily yield water, but the groundwater is of good quality. It is thought that this resource could provide a "bridge" source until plans can be developed to pursue the more extensive water found in the Allegretti sub-basin.

Allegretti Sub-basin: This groundwater basin has been defined as occurring in a 150 square mile area extending from San Diego County into Imperial County. Groundwater is currently extracted from this sub-basin and applied to a farming operation known as the Allegretti Farms (Farms). A 1995 report on the hydrogeologic character of the groundwater beneath the Farms reported that several high capacity wells (2,000 gpm), but with lower quality (1,200 to 1,800 mg/L), supplied the farming operation and that the historic estimated annual production for the period 1983-1994 ranged from about 3,500 to 6,500 acre feet per year (afy). Further, the report concluded that the water levels in the Farm's wells were dropping at a rate of about 3 ft/yr. If the water in this sub-basin were extracted for transport to BV, the extracted water would need to be treated for domestic consumption because of the salt concentration exceeds drinking water standards.

Very little is known about the characteristics of this sub-basin, but a 1970 report estimated the recoverable amount of groundwater in the sub-basin was about 5.75 million acre-feet.

Should an analysis of available data indicate that there is potential for developing a 'water bank' in the sub-basin, that possibility will be considered in this study.

Sources within IID: Two potential sources of water are within the Imperial Irrigation District.

'Exchanged' Colorado River Water: While it is understood that the Colorado River (CR) waters are fully appropriated and obligated, it may be possible to obtain a contract for northern California water and exchange that water for CR delivered into IID and subsequently transported to BV. This would require concurrence of several agencies and an analysis of the ability of the IID system to 'wheel' water through its canals to a convenient location for export to BV.

Irrigation Return Water: A second source within the IID system is the returned flows in the IID farm drainage system that conveys these waters to the Salton Sea. These waters are more saline than the CR waters and contain fertilizer and other chemicals. Consequently, a treatment facility would be needed to purify these waters for domestic use.

The fourth source is the groundwater basin underneath Clark Dry Lake to the Northeast of the Borrego Springs community.

¹ A third source of supplemental water could be from the Coachella Valley Water District (CVWD). However, that area is currently in an overdraft situation and their supplemental water supply is Colorado River water conveyed from the Colorado River via the All American (AM) Canal. Since IID also obtains its water supply from the AM Canal and their water distribution system is nearer the potential take-out to supply the Borrego area, the CVWD source will not be considered in this investigation.

Scope of Work

Study Element A- Pipeline Routing from Borrego to Ocotillo Wells

This Study Element will provide a design for the routing of a pipeline from the BWD to HWY 78 (Phase 1) and an evaluation of the opportunities and constraints associated with a conveyance system extension to Ocotillo Wells.

Task A1 – Survey and final design of Phase 1 of the common conveyance pipeline – Our current state of knowledge suggests that there is a relatively high certainty that, a water importation into Borrego would originate southeast of BV. Thus, even though this is a feasibility study for the most part, it is desirable at this juncture to prepare a survey and design of a Phase 1 pipeline and grading plan for the terminal reservoir, from the Rams Hill treatment plant along Borrego Springs Road to Highway 78.

Task A2 – Second leg of the common conveyance system to Ocotillo Wells - This investigation would be a review of the route from the intersection of highway S22 and HWY 78 along highway 78 to the vicinity of Ocotillo Wells near the Allegretti Sub-basin. State Property ownership maps and public right-of-way easements will be obtained along this route. The most appropriate alignment would be along public rights-away adjacent to or within the transportation system. The use of this existing transportation system would be carefully reviewed for crossing the Anza Borrego Desert State Park. To ensure and prevent encroachment on to the Park lands, an aerial topographic survey will be conducted. The deliverable will be a map of the alignment showing the opportunities and constrains of various segments of the route.

Task A2a – ROW along HWY 78 - This ROW corridor is very wide for most of SR 78 and there are existing utilities already allowed under an encroachment permit, e.g. a fiber optics project was installed in the early 1990's within SR 78. Additionally a large portion of SR 78 ROW goes through federal (BLM) lands, thus concurrent use would require approval from BLM as well as Caltrans. Normally, Caltrans does not allow for a longitudinal encroachment within access controlled ROW and discourages it within conventional highway rights of way. Thus, a formal exception approved by Caltrans HQ Permits in Sacramento will most likely be needed. An early meeting with Caltrans to discuss a conceptual idea well in advance of any engineering studies would be appropriate.

Study Element B- Pipeline Routing from Ocotillo Wells to Carter Reservoir

Task B1 - Conceptual pipeline routing to Carter Reservoir - This investigation would include a review of the route from Ocotillo Wells to IID's Carter Reservoir. Property ownership maps and public right-of-way easements will be obtained along this route. The most appropriate alignment would be along public rights-away adjacent to or within the transportation system. The use of

this existing transportation system would be carefully reviewed. The deliverable will be a map of the alignment showing the opportunities and constrains of various segments of the route.

Study Element C- Pipeline Routing Investigation along Power Line from Ocotillo Wells to IID's Westside Canal

Task C1 – Alignment along IID power line easement – One of the most attractive pipeline routings appears to be from the Ocotillo Wells area along an existing power line alignment to upper reaches of the IID's Westside Canal and. This alignment would appear to be the most direct route from Borrego, but would not incorporate the groundwater benefits of the Allegretti sub-basin (potential water source). A question has arisen as to the existence of an easement for the power line. A thorough investigation is needed to determine if this alignment is a potential route for a pipeline. Discussions will be held with IID. Property maps and easements that may exist will be obtained and reviewed. A satellite photo will be obtained and used to evaluate routing options and land uses along the proposed route.

Study Element D – Pipeline from Borrego Springs to Clark Lake Aquifer

Task D1 – Identify alignment for transmission line from Borrego Springs to Clark Lake – One of the closest areas that may yield additional water supply to the Borrego Springs area is the area to the Northeast known as Clark Dry Lake ("Clark Lake") Water samples from the northern side of the lake show that the water quality of the area is suitable for drinking water, and well pumping rates are the subject of another possible grant to address the amount of water that is available. However, the first task, as identified herein, is to delineate the best route to obtain the water through alternative routes to the north side of the lake, and perform preliminary designs of the selected route. Deliverables: a memorandum report relative to right-of-way issues, and preliminary survey and design drawings for the transmission main.

Study Element E – Pipeline Routing Environmental and Permitting Issues

Task E1 - Identify environmental issues for all pipeline routings - Crossing the State park will present a difficult problem with respect to minimizing any environmental impacts to the flora and fauna of the park. Meetings will be held with the park authorities to identify existing environmental surveys that have been conducted along the proposed pipeline routing segment. Environmental issues will also be identified for pipeline routings in the areas located outside the State Park. Deliverable: A memorandum report documenting the meetings and discussions. CEQA, NEPA and other permits needed to construct along each routing will be identified.

The following agencies will be contacted:

California Department of Parks and Recreation
U S Bureau of Land Management
U S Fish and Wildlife Service

California Department of Fish and Game
State Lands Commission
Air Quality Management District
California Department of Transportation
County of San Diego Department of Transportation

Each agency will be contacted to determine agency concerns, approvals and permits required for the project. Significant CEQA issues under the California Environmental Quality Act, including growth inducement, will also be identified. Deliverable: A technical memorandum describing the approval and permits required and the identification of significant environmental issues.

Task E2 – Modify pipeline maps - The opportunities/constraints maps developed in Study Element A will be modified to reflect environmental concerns as identified in Study Element E. Potential impacts and alternative mitigation measures for both the park area and the areas outside the park will be identified. These mitigation measures will be included in the final environmental documents to be prepared for the selected project.

Study Element F: Allegretti Sub-basin as a Source Water Study

This Study Element will analyze and define water source availability from the Allegretti Sub-basin for importation into the Borrego Valley. The storage potential (water banking) of the Sub-basin will also be preliminarily evaluated.

Task F1 – Coordinate with IID’s storage and recovery investigation – Recently, the IID announced the initiation of a water storage and recovery investigation to store surplus water in such times that their needs are less than their available supplies for subsequent extracting and deliver into the system in years when their need exceed their available supplies. Their investigation will study groundwater basins in or near their delivery system and may include the BV area and the Allegretti Sub-basin. Thus, early coordination with IID will be essential to expedite both studies and avoid duplicative efforts.

Task F2 – Groundwater export issues. – The Allegretti sub-basin area is located within the Imperial County. The County has adopted a General Plan component which requires obtaining a license to export groundwater out of the County. Discussions with Imperial County will be necessary to determine if they would accept a water trade to allow for export of the water from the Allegretti Farm or some other form of compensation. Deliverable: a memorandum report documenting the meetings and discussions.

Task F3 – Obtain all published reports on the Allegretti Groundwater sub-basin - Reports have been published by the USGS and a consulting firm. These will be reviewed in detail.

Task F4 – Obtain well completion reports, production and quality data for the sub-basin - Well completion reports exist with the DWR and the County of Imperial. These sources will be visited for data availability. Groundwater production information from the ‘Farms’ would be essential in the study. Some data exists as part of a lawsuit by the Farms against the County.

These and other sources will be investigated, such as information derived from the drilling of geothermal wells to the north of the area.

Of special interest is the area to the northwest of the Allegretti Farms, especially that area of the sub-basin that lies with San Diego County. A report published in 2002 indicated that a well, known as the Payne Well, located within the sub-basin, about 1-1/4 miles east of the San Diego-Imperial Counties boundary, indicated that the groundwater pumped from this well contained a relatively low TDS concentration for the region (<2000 mg/L). And further, the well was perforated in both the shallow and deep aquifers and it is known that the shallow aquifer contains relatively saline water. Thus, the deep aquifer at this location may provide good quality water.

Task F5 – Review of ‘source’ data from the existing groundwater model - The County of Imperial contracted with a consulting firm in the 1990s to develop a numerical model of the groundwater resources in the county. It is known as an Integrated Groundwater Surface Water Model (IGSM) and is finite element based. The 1995 model included a large portion of the sub-basin of interest. The model and report will be obtained from the Imperial County and its source data will be reviewed for possible updating and future use in a ‘water bank’ facility in the sub-basin. The input data to the model will be scrutinized for sources and accuracy.

Task F5a – Evaluate the potential use of the County groundwater model - A working model of the sub-basin would be useful in identifying any impacts on the springs that discharge groundwater below the farms and in estimating the potential for developing a water bank. Since the recharge into the sub-basin would necessarily be by well injection (the deep aquifer is confined by overlying clay strata) mounding potential and upward migration of the injected water into the shallow aquifer should be studied. This task will define the level of effort and approximate cost to bring the existing model to a useful condition. However, it is not envisioned that the model would be operated as part of this study.

Task F6 - Conduct additional sampling and testing - It may be necessary to collect samples from existing wells, such as the Payne well and other wells for identification of constituents that maybe problematic for the Reverse Osmosis process that may be necessary to remove salinity from the source water.

Task F7 – Identify water level trends and water quality trends - All water quality data for the sub-basin will be graphed for possible trend indications.

Task F8 – Prepare technical memorandum report - All information obtained in tasks 1 - 7 will be reviewed and analyzed to define the characteristics of the sub-basin. A technical memorandum report will be prepared to note progress to date.

Task F9 – Identify alternative brine disposal options – If the Allegretti sub-basin is determined to be a feasible water supply source for BV, then brine disposal alternatives would need to be developed and analyzed. These would include discharge into an existing spring located east of the Farm, a pipeline from the desalting facility to the Salton Sea or the use of evaporation ponds.

Task F10 - Evaluate Water Banking issues in the Sub-basin - Since the deep aquifer is considered to be confined, the recharge of banking water must be by injection wells. Several issues must be considered: will the injection mound at the injection well field limit the injection amounts and what percentage of the injected water can be extracted during the recovery phase of the storage before the native waters of poor quality begin to degrade the injection 'bubble' and what percentage of the injected water is likely to escape from the injection bubble, considering the eastward gradient in the sub-basin. These issues will be preliminarily identified qualitatively addressed for future detailed evaluation.

Task F11 Environmental and regulatory issues identification – If the storage and extraction of ground waters appears to be technically feasible, a cursory environment review will be necessary to identify the signification issues that affect the banking and extraction concepts. A discussion with the Colorado River Basin Regional Water Quality Control Board will be necessary.

Task F12 – Prepare a summary report – A report will be prepared summarize the findings, conclusions and recommendations concerning the Tasks F1-11, and will incorporate the progress report in Task F8, as amended following review from stakeholders.

Study Element G - IID as a Source Water Study

As indicated earlier, two sources of water may be available within IID. Colorado River (CR) waters through an 'exchange' and 'returned' flows in the IID farm drainage system that conveys these waters to the Salton Sea. These waters are more saline than the CR waters and contain fertilizer and other chemicals. Consequently, a treatment facility would be needed to purify these waters for domestic use.

Task G1 – Discuss with IID the possibility of 'wheeling' water through their system – Should it be possible to obtain a contract for northern California water and exchange that water for CR delivered into IID and subsequent transported to BV, the concurrence of IID would be required.

Task G2 – Analysis of IID delivery system for 'wheeling' - An analysis of the ability of the IID system to 'wheel' water through its canals to a convenient location for export to BV would be required. It is expected that this analysis would be performed by IID.

Task G3- Identify Colorado River 'place of use' restrictions and other constraints - In prior discussions with CR water rights holders, it was mentioned that there are restrictions concerning the use of Colorado River water outside the designated 'place of use' or the defined service area boundaries of those agencies having rights to the River. If a 'water bank' at the Allegretti Sub-basin appears technically feasible, then this Task will needed to be conducted as CR water would be stored, with some loss in quantity, outside the CR service area. The following agencies will be contacted:

- U S Bureau of Reclamation
- Colorado River Board of California
- State Water Resources Control Board

Deliverable: a memorandum report.

Task G4 - Return flow capture issues – As indicated earlier, a potential source of water is the returned flows in the IID farm drainage system that conveys these waters to the Salton Sea. There are a multitude of issues with regard to obtaining the ‘right’ to use these waters:

- Ownership of these waters
- Water quality - These waters are more saline than the CR waters and contain fertilizer and other chemicals. Consequently, a treatment facility would be needed to purify these waters for domestic use.
- Impacts on the Salton Sea if these waters are diverted from the sea.

These issues will be briefly explored to define any ‘fatal’ flaws in their potential use as a supply source for BV.

Task G5 – Determine the quality of ‘return’ flows and the need for demineralization – This task will identify the level of water treatment required to reduce the mineral quality to drinking water standards.

Study Element H – Final Pre-feasibility Report and Phase 1 of Common Conveyance System Design

Task H1 – Final report preparation – A final report will be prepared summarizing the findings, conclusions and recommendations of the study.

Task H2--Survey and design of common conveyance system and terminal reservoir site--Aerial Surveying of the importation line will be conducted and Engineering Plan Drawings prepared from that data, as well as a siting and grading plan for the terminal reservoir.

PROJECT SCHEDULE AND COSTS

TASK	COMPLETION DATE	COST(\$)
A	December, 2010	20,000
B	March, 2011	30,000
C	March, 2011	20,000
D	December, 2010	140,000
E	September, 2011	35,000
F	June, 2011	100,000
G	August, 2011	30,000
H1	September, 2011	20,000
H2	December, 2010	90,000
<u>TOTAL:</u>		<u>\$485,000</u>

ENVIRONMENTAL EFFECTS

The environmental impacts of the proposed study are addressed in the Environmental Information Document (EID) which is a part of this application.



Anza Borrego Desert
Integrated Regional Water
Management

P.O. BOX 1870
806 PALM CANYON DRIVE,
BORREGO SPRINGS, CA 92004
(760) 767-5806
FAX (760) 767-5994
www.borregoird.org

December 23, 2010

Department of Water Resources
DIRWM PO BOX 942836
Sacramento, CA 94236-0001
Attention: Joe Yun

Thank you for the evaluation and comments on our application for IRWM Planning Grant funds and for the opportunity to respond to your evaluation.

We ask for your consideration, based on a few items that we believe were not given sufficient credit, in the possible rescoring of our application. We have included in this response notations as to where documentation is included either in the application or the attached draft plan.

In the event that our final score remains below the award level, we request DWR's technical assistance in completing our application and/or the partial funding of various tasks so that the Plan can be completed and adopted prior to the initiation of your Implementation Grants program.

The IRWM process thus far has been very successful in that it has brought together several conflicting interests that have developed programs and projects that are beneficial to the region.

Request for Scoring Review

Our assessment of your comments suggests that some of the evaluation criteria included in our application may have been overlooked. The following are our comments in response to some of the criteria mentioned as deficiencies in our application. These appear in italics.

1 - DAC Involvement-The applicant provides full description of the DAC areas within the region, which consisted of the entire region. Historical information and future collaboration is discussed. DACs are notified of meetings through a local newspaper and the Borrego Water District website. The RWMG did attempt to involve local tribes in the process, but they declined to participate. The applicant is planning to have projects implemented within the DACs; however, the application did not provide enough detail about how the DACs will continue to be involved in the process in the future.

With regard to the comment about how the DACs would continue to be involved: our application described the current involvement procedure. AB DESERT WRMG does not anticipate any change in the future. Please note that in our Schedule, Task 1 Continue Monthly Stakeholder

and Policy Cmte. Mtgs., illustrates that the current involvement process continues throughout 2011 and 2012, a period of 18 months after the Plan is finalized. Thus, the DACs which are represented on the Stakeholder committee will continue to be involved in the process. In fact, with the sole exception of one committee member from Canebrake, the entire committee is made up of residents from Borrego Springs, a DAC community.

2 - Program Preference -The proposal demonstrates a high degree of certainty that three program preferences will be implemented through the plan. Those program preferences are: include regional projects or programs, address critical water supply or water quality needs of DACs, and effectively integrate water management with land use planning.

AB DESERT WRMG believes that the plan as describe in our application will implement additional program preferences. (We are not clear how this evaluation criteria, while listing in the Guidelines of only 8 program preferences, how some applications were awarded a total of 10 points for meeting the preferences) In any event, we list the additional program preferences that are met by our application in the following (2a-2d):

2a - Address Statewide Priorities: *Page 16 of the application (Section 1.10) describes the Stakeholder process exercise utilized to identify projects that conform to the statewide priorities. (Note that all candidate projects meet statewide priorities). Additionally, page 17 contains Table 6-2 (excerpted from the Draft IRWM Plan) that displays each of the candidate projects and their benefits and is grouped under each of the statewide priorities. Thus, statewide priorities were addressed as preferences in both in the draft plan and in the application.*

2b - Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; the Regional Water Quality Control Board (RWQCB) region or subdivision; or other region or sub-region specifically identified by DWR

We believe that our application and draft Plan as submitted address as program preference the effective integration of water management programs and projects within a region or sub-region specifically identified by DWR or programs identified by the Regional Water Quality Control Board .

The California Water Board Control Plan (2006) of the Colorado Basin - Regional 7 identifies the Borrego Valley as hydrologic region (Anza Borrego Hydrologic Unit). See page 22 and 23 of the draft plan attached to the application.

Further, the Borrego Valley groundwater basin has been identified by DWR, in the following reports and activities:

- *The California Water Plan, Projected Use and Available Water supplies to 2010, Bulletin 160-83, December 1983.*
- *Borrego Valley Water Management Plan, 1984.*
- *Southern District, Groundwater Basin Assessment, 2002.*
- *California's Groundwater, Update 2003, Bulletin 118, October 2003.*

2c - Effectively resolve significant water-related conflicts within or between regions

Page 9 of the application (Section 1.2.12) describes the issues and conflicts for the region. This section states that the Borrego Groundwater Basin is the paramount issue in the northern area

of the region. Three interest groups are identified: local residents, growers and environmental organizations that make up the parties representing differing views in the conflict. Section 1.6 of the application (page 11), describes how the four goals of the Plan (Section 3.1 of the draft plan, p.30) were established and that these goals address the major issues and conflicts facing the region. (Goal No. 1 – Improve water supply reliability is particularly significant in resolving water supply conflicts.)

2d - Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program

One of the CALFED objectives is Water Supply Reliability. Their program is achieved through five program elements: Conveyance, Storage, Environmental Water Account, Water Use Efficiency and Water Transfers.

Although our region is not presently connected to the California water importation systems, several of the projects proposed in the draft plan seek to develop a connection to the Colorado River Aqueduct and indirectly to the State Water Project. Additionally, projects in the attached draft plan envision the Borrego Groundwater Basin becoming a significant water bank for water storage. The project 'Imperial Irrigation District and Potential Water Banking' illustrates compliance with these two program elements (See Table 5-1 and Table 6-2 of the application - IID and Water Banking). Still other projects in the draft plan seek to increase water use efficiency (same tables –e.g., Purchase of Water Easements from Agricultural Lands).

Request for DWR Technical Assistance and/or Partial Funding

As indicated earlier, in the event that our final score remains below the award level, we request DWR's technical assistance in completing our application and/or the partial funding of various tasks so that the Plan can be completed and adopted prior to the initiation of your Implementation Grants program.

Please call if you have any questions.

Thank you.



Jerry Rolwing
Acting Chairman of the AB Desert RWMG
Interim General Manager, Borrego Water District



William R. Mills, MsE., P.E., P.G.
Water Resources Consultant

AGREEMENT
BETWEEN
Borrego Water District
AND
Bureau of Reclamation, Department of the Interior
for the
SOUTHEAST CALIFORNIA REGIONAL BASIN STUDY

THIS AGREEMENT for the Southeast California Regional Basin Study (Study) is made and entered into this _____ day of _____ 201_, by the Borrego Water District (BWD) and the United States Department of the Interior, Bureau of Reclamation (Reclamation) Southern California Area Office (SCAO), hereinafter collectively referred to as the “Partners.”

I. Purpose of the Agreement:

The Partners agree to work collaboratively to perform the Study. This Agreement establishes the terms for funding the Study and the terms and conditions that will help guide the performance of the Study.

II. Definitions:

- A. Reclamation means the United States Department of the Interior, Bureau of Reclamation.
- B. LC Region means the Lower Colorado Region of the Bureau of Reclamation.
- C. SCAO means the Southern California Area Office, Bureau of Reclamation.
- D. BWD means the Borrego Water District (or the District) who contributes monetary value and/or in-kind services during the course of this study.
- E. Partners means Reclamation and the District, also referred collectively as the parties.
- F. Parties mean either Reclamation or the District.
- G. Stakeholder means any entity that is not Reclamation or another water agency that may provide input, data, comments, or participate in the public involvement process related to the Study. Reclamation and the District may invite Stakeholders to study-related meetings where their input and/or expertise is desired.
- H. Confidential Information means trade secrets or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. §552(b)(4). However, this

Agreement and the documents that are shared pursuant to this Agreement must comply with relevant Freedom of Information Act (FOIA) and State open records act laws.

- I. Term of Agreement means that period set forth under Section X, Article A.
- J. Subject Invention means any invention or discovery, which is or may be patentable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this Agreement.
- K. Project Team provides expertise, experience, and knowledge that relate to the Study's scope and objectives. Members include staff from Reclamation's SCAO, LC Region, Technical Services Center (TSC), and the District and other water agencies staff who may be contacted to provide specific information, knowledge, and/or support.

III. Purpose of the Study:

Reclamation's (SCAO collaborated with the District and three other regional water districts – Imperial Irrigation District (IID), San Diego County Water Authority (SDCWA), and Coachella Valley Water District (CVWD) – to develop a proposal that was submitted in June 2010 to the Basin Study Program. Additional stakeholders provided letters of support. This proposed study approach incorporates the following:

- 1- Past and present regional and local planning studies within the Borrego, Coachella and Imperial Valleys and any relative basin areas west of Borrego Valley;
- 2- A "bottom-up" approach to regional water and related resources planning that integrates and engages partner collaboration;
- 3- Use of advanced science and technology regarding climate change scenario and greenhouse emissions modeling, watershed adaptation planning; and,
- 4- Expanded collaborative outreach to major water users and stakeholders within the designated watersheds.

The District acknowledges that Reclamation may utilize this Study to meet portions of the Secure Water Act (42U.S.C. §10363).

IV. Study Approach, Expected Outcomes and Deliverables:

- A. The Study will be technically oriented, incorporating information from the latest science, engineering technology, climate models, and innovations. The level of analysis of the strategies and options will be similar to an appraisal-level study. The Study will take a collaborative approach and foster Stakeholder participation and input throughout the Study process.
- B. Management of the Study will be accomplished through the designation of Co-Study Managers:

1. One Co-Study Manager will be designated from Reclamation and one from the District. The Co-Study Managers will comprise the Study Steering Team.
 2. The Study Steering Team will guide the study efforts such that the objectives are met in an effective and efficient manner and within both financial and time constraints.
 3. The Project Team will ensure that the five major tasks and related sub-tasks in this Study are completed in a cost-effective, timely manner and are technically sound. Members of the Project Team may provide expertise, experience, and/or knowledge that relates to the Study's scope and objectives, or they may form workgroups with other water and related agency staff or other interested entities who may be contracted to provide specific information, knowledge, and/or support. The Co-Study Managers will lead the Project Team.
- C. The primary products of this Study will be an interim written reports to be integrated into a final report that will include the following key task elements, they will:

Assess optimal water utilization, conveyance and storage alternatives that address southeastern California issues;

Characterize current regional water supply and demand, and conveyance and storage alternatives in southeastern California;

Assess risk(s) to southeastern California water supplies through historical climate change variability, and future climate change and scenario modeling projections;

Identify potential strategies and options to resolve southeastern California water supply and demand imbalances including:

Identify potential legal and regulatory constraints and analysis of potential impacts to water users and southeastern California resources for the strategies and options considered; and

Prioritize identified strategies and options and recommendations for potential future actions, including an engineering and economic feasibility study, Congressional authorization, environmental compliance activities, demonstration programs, and/or implementation as appropriate.

V. Plan of Study

The Plan of Study (POS) is attached hereto and incorporated herein as Exhibit B. All Parties acknowledge that as the Study progresses, additional detailed tasks and/or sub-tasks may be determined by the Project Team and must be approved by the Steering Team. If the Project Team determines that substantial changes or modifications to the POS are necessary, the Parties may amend Exhibit B by mutual written agreement.

VI. Study Cost and Funding

- A. The total estimated cost of this Study is \$850,000 and will be cost-shared (50/50) between the Parties (each contributing half, or \$425,000 respectively). \$12,500
- B. No later than December 30, 2010, the District shall contribute to this study with an in-kind services listing; and no later than October 30, 2011 \$27,500 (cash) will be provided to Reclamation. In addition, by the expiration date of this Agreement, the District will contribute the balance of their financial obligation as cash or in-kind services by performing concurrent studies to provide information and data integral to this Study's objective. All cash funds contributed by the District will be deposited within a designated Reclamation study cost account.
- C. In the event that any funds advanced to Reclamation by the District are not required to complete the work under the Study, such excess funds shall be returned by Reclamation without interest upon completion of the work defined by the Study provided, however, that in the event the Parties agree on additional work consistent with the direction of this Agreement, such excess funds may be retained by Reclamation.

VII. Authorities

- A. Nothing in this Agreement alters the statutory authorities or any other authorities of Reclamation or the District. This Agreement is intended to facilitate cooperative efforts for mutual provision of services and support and technical assistance by both Parties in the conduct of meeting the objectives and scope of the Study. This Agreement does not supersede or void existing agreements between Reclamation and the District.
- B. Reclamation's authority to enter into this Agreement:
1. Reclamation Act of June 17, 1902 (Ch. 1093, 32 Stat. 388; 43 U.S.C. §372, et seq.) and acts amendatory thereof and supplementary thereto.
 2. The Sundry Civil Expenses Appropriations Act, March 4, 1921, 43 U.S.C. §395 (Contributed Funds Act).
- C. The District's authority to enter into this Agreement:
1. The Borrego Water District (District) is a public agency;
 2. The District has legal authority to construct, operate, maintain and rehabilitate projects for irrigation, municipal, and/or industrial water supplies pursuant to; and
 3. The District has legal authority to enter into agreement and participate as a full partner with Reclamation under the WaterSMART's Basin Study Program.

VIII. Anti-Deficiency Act:

The expenditure or contribution of any funds for the performance of any obligation of any Party under this Agreement shall be contingent upon appropriation or allotment of funds for the payment of such obligation. No liability shall accrue to any Party in case funds are not appropriated or allotted. No provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. §1341.

IX. Reports:

- A. Freedom of Information Act (FOIA), 5 U.S.C. §522, Disclosures: The Parties understand and agree that all communications, including this Agreement, may be disclosed to the public in accordance with the FOIA process unless protected under any FOIA exemption. And, similarly, there is a State open records act in California (Code §§ 6250-6276.48) that may require the Parties to disclosure to the public in accordance with State law, unless protected by exemption.
- B. Final Reports: The results of this Agreement and the science, engineering, and technology data that are collected, compiled, and evaluated under this Agreement shall be shared and mutually interchanged by the District and Reclamation. A final report summarizing all data and findings shall be prepared by Reclamation and the District. Reclamation and the District shall have 60-days to review the manuscript prior to submission for publication. The report shall acknowledge this Agreement and the contribution of each Party's personnel and any Stakeholders contributions that are requested by Reclamation and/or the District. The final content of the Report will be determined by Reclamation and the District.

X. Term and Termination:

- A. Term: This Agreement shall take effect upon the approval of the Parties and, unless earlier terminated by the Parties, will expire on January 31, 2012, unless amended.
- B. Amendment: If any Party desires to modify this Agreement, all Parties shall confer in good faith to determine the desirability of such modification. Such modification shall not be effective until a written amendment is signed by all Parties.
- C. Withdrawal: Either Party may withdraw from this Agreement at any time, with or without cause, and without incurring liability or obligation to the other Party by providing notice to the other Party at least ninety (90) calendar days prior to withdrawing from this Agreement. Notwithstanding the above, if the District withdraws from this Agreement it shall forfeit any funds provided to Reclamation under this Agreement prior to the date of withdrawal.

XI. Key Personnel:

- A. Each Party shall designate key personnel for receipt of notices and other purposes under this Agreement (Key Personnel). The Key Personnel for each Party are listed in Exhibit A, which is attached hereto and incorporated herein.
- B. Should a Party designate new Key Personnel during the term of this Agreement, the Party shall provide the other Parties with notice of the name of its new designated Key Personnel in accordance with Section XII.
- C. The Key Personnel are not authorized to change or interpret with authority the terms and conditions of this Agreement.

XII. Notices:

Notices, requests, demands, or other communications between the Parties under this Agreement, including copies of any correspondence among the scientific and/or technical representatives of each Party that interpret or may have a bearing on the legal effect of this Agreement's terms and conditions, shall be sent to the Key Personnel listed in Exhibit A. Notice will be sufficiently given for all purposes as follows:

- A. Personal Delivery: When delivered to the recipient, notice is effective upon delivery.
- B. United States Mail: When mailed, postage prepaid, by first class mail, notice is effective three business days after the date the notice is mailed by the sender. When mailed, postage prepaid, by certified mail, return receipt requested, notice is effective on receipt, if a return receipt confirms delivery.
- C. Overnight Delivery: When delivered by an overnight delivery service such as Federal Express, charges prepaid or charged to the sender's account, notice is effective on delivery, if delivery is confirmed by the delivery service.

XIII. General Provisions:

- A. Limitations: This Agreement sets out the Parties' intentions and objectives and does not direct or apply to any person besides the District and Reclamation. This Agreement is not intended to, and does not create, any right, benefit, and/or trust responsibility, substantive or procedural, enforceable at law or equity, by anyone against the United States, its agencies, its officers, or any person.
- B. Subcontracting Approval: A Party hereto desiring to obtain and use the services of a third party via contract or otherwise shall give prior notice to the other Parties, including details of the contract or other arrangement. This requirement is to assure that

confidentiality is not breached and rights in Subject Inventions are not compromised.

- C. Assignment: No Party has the right to assign this Agreement or any of its responsibilities hereunder.
- D. Endorsement: This Agreement and/or the results of the Study funded under this Agreement are not to be construed as an endorsement of the results of the Study by the Federal government or BWD, except as may be explicitly stated by an authorized representative of the Federal government or by an authorized representative of the District.
- E. Disputes: Any dispute arising under this Agreement, which cannot be readily resolved, shall be submitted jointly to the Key Personnel, identified in Exhibit A, Key Personnel. Each Party agrees to seek in good faith to resolve the issue through negotiation or other forms of nonbinding dispute resolution processes mutually acceptable to the Parties. Pending the resolution of any dispute or claim, each Party agrees that performance of all obligations shall be pursued diligently.
- F. Force Majeure: No Party shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such Party:
 - 1. Which causes the Party to be unable to perform its obligations under this Agreement; and
 - 2. Which it has been unable to overcome by the exercise of due diligence.
 - 3. This includes, but is not limited to, flood, drought, earthquake, storm, fire, pestilence, lightning and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, strikes, labor dispute, failure or sabotage of any Party's facilities or any order or injunction made by a court or public agency.
- G. Governing Law: The construction, validity, performance, and effect of this entire Agreement shall be governed by the laws applicable to the Government of the United States of America in accordance with applicable Federal Law as interpreted by Federal Courts.
- H. Waiver: The failure of any Party to enforce any term hereof shall not be deemed a waiver of any rights contained herein.
- I. Severability: In the event any provision of this Agreement is determined to be invalid or unenforceable under any controlling law, the invalidity or unenforceability of that provision shall not in any way affect the validity or enforceability of the remaining provisions of this Agreement.
- J. Counterparts: This Agreement may be executed in duplicate and each original shall be equally effective.
- K. Sovereign Immunity: The Parties do not waive their sovereign immunity by entering into this Agreement, and each fully retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of this Agreement.

- L. Third Party Beneficiary Rights: The Parties do not intend to create in any other individual or entity the status of third party beneficiary. The rights, duties, and obligations contained in this Agreement shall operate only among the Parties and shall inure solely to the benefit of the Parties to this Agreement.
- M. All contractors shall strictly comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.
- N. Drafting Considerations: Each Party has participated fully in the drafting, review and revision of this Agreement, each of whom is sophisticated in the matters to which this Agreement pertains, and no Party shall be considered to be the sole drafter of this Agreement.
- O. Officials Not To Benefit: No Member of or Delegate to the Congress, or Resident Commissioner, shall benefit from this Agreement other than as a water user or landowner in the same manner as other water users or landowners.
- P. Entire Agreement: The terms and conditions contained in this Agreement constitute the entire Agreement and understanding by and among the Parties and shall supersede all other communications, negotiations, arrangements and agreements either oral or written, with respect to the subject matter herein.

IN WITNESS WHEREOF, the Partners hereto have caused this Agreement to be executed.

Approved as to form: **Borrego Water District**

By _____
Jerry Rolwing, Acting General Manager Date

Approved as to form: **Bureau of Reclamation**

By _____
William J. Steele, Area Manager Date

SOUTHEAST CALIFORNIA REGIONAL BASIN STUDY

**Exhibit A
Key Personnel:**

Organization	Primary Contact	Contact Information
Borrego Water District (BWD)	Jerry Rolwing	Engineering & Operations Manager 760-767-5806 jerry@borregowd.org

Reclamation Key Personnel

Region	Primary Contact	Contact Information
SCAO	Bill Steele	Area Manager 951-695-5310 ext. 13 wsteele@usbr.gov
SCAO	Greg Krzys	Water Resources Planner 951-695-5310 ext. 19 gkrzys@usbr.gov

Exhibit B.

**Southeast California Basin Study
Plan of Study**

RECLAMATION

Managing Water in the West

Plan of Study for the Southeast California Regional Basin Study

A Water Supply, Conveyance and Storage Assessment



**U.S. Department of the Interior
Bureau of Reclamation**

December 2010

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Appendix B – Location Map	1

Introduction

The Bureau of Reclamation (Reclamation) completed a series of Inland Basins Project reports from 1965-1972. The reports inventoried the land and water resources in a region, development levels, and potential future water needs. In 1968, an interim report in this series was completed for the Borrego Valley area. Two report sections have strong implications for the southeast California region of today. The first section was the expected population, agricultural and industrial growth in the Borrego Valley, which would place more demand on the sole source of water supply – groundwater – resulting in overdraft. The second report section detailed three (3) potential sources of water and the possible conveyance routes to deliver the water to the Borrego area. These sources and routes included seawater desalination or import through the San Diego County Water Authority (SDCWA) system delivered via Pauma Valley and Lake Henshaw; brackish groundwater, import or treated agricultural return flows from Coachella Valley Water District (CVWD) delivered along the northwest side of the Salton Sea; and seawater/brackish groundwater desalination, treated agricultural return flows or import from Imperial Irrigation District (IID) delivered along southwest side of the Salton Sea.

Today, all three sectors – population, agriculture and industry – have expanded since the 1960's along with their water demands placing the Borrego Valley aquifer in an overdraft of 15,000 acre-feet per year (AFY). The USGS estimates that the upper aquifer may be depleted in as little as 50 years. Just as in Borrego, water supply demands have grown throughout the southeast California region. The San Diego, Riverside and Imperial county areas identified in 1968 as possible water supply sources for the Borrego Valley now face their own supply challenges. Reclamation proposes to work with a broad range of stakeholders including the Borrego Water District (BWD), IID, CVWD and SDCWA to update the 1968 reconnaissance report to an appraisal level evaluating a range of water supply, storage and conveyance alternatives including the 1968 sources that could be a regional benefit to all parties. The study area will be eastern Riverside County, and all of Imperial and San Diego counties.

Issues that will be addressed in the study include Borrego Valley aquifer overdraft and potential storage capabilities; IID's Colorado River entitlement over/under-runs and storage alternatives; CVWD's Colorado River entitlement over/under-runs and storage alternatives, and supply delivery alternatives to the Salton City area; treatment and storage alternatives of IID and CVWD agricultural return flows and perched groundwater; alternative delivery and storage options for SDCWA's Colorado River allotment; and maintaining a no adverse effect on the Salton Sea and/or associated archaeological-cultural resources and biological resources.

Study Purpose & Objectives

Reclamation's Southern California Area Office (SCAO) in partnership with the Borrego Water District collaborated with three regional water districts – Imperial Irrigation District, Coachella Valley Water District, and San Diego County Water Authority – to develop a proposal that was submitted in June 2010 to Reclamation's Basins Study Program (Program). Additional stakeholders in this Region provided letters of support. In September 2010, the study was selected for partial funding to develop a plan of study. If that plan is approved by Reclamation then additional Federal funds will be available to match the District's cost share.

The primary goals of this study are to develop and analyze alternative solutions to improve southeast California's regional water supply utilization, storage and conveyance capabilities. This study will also coordinate with other regional planning efforts (e.g., California's Integrated Regional Water Management Planning efforts, and the Colorado River Basin Study), and other federal agencies (USGS) working on water related issues.

The study will assess optimal water utilization, conveyance and storage alternatives that address southeastern California issues through:

- Characterize current regional water supply and demand, and conveyance and storage alternatives in southeastern California;
- Assess risk(s) to southeastern California water supplies through historical climate change variability, and future climate change and scenario modeling projections;
- Identify potential strategies and options to resolve southeastern California water supply and demand imbalances including:
 - Modifications to the operating guidelines or procedures of water supply systems;
 - Modifications to existing facilities and development of new facilities;
 - Modifications to existing water conservation and management programs and development of new programs;
 - Modifications to existing water supply enhancement programs and development of new programs; and
 - Other structural and non-structural solutions.
- Identification of potential legal and regulatory constraints and analysis of potential impacts to water users and southeastern California resources for the strategies and options considered; and
- Prioritization of identified strategies and options and the recommendation for potential future actions, including an engineering and economic feasibility study, Congressional authorization, environmental compliance activities, demonstration programs, and/or implementation as appropriate.

Study Management

One Co-Study Manager will be designated from Reclamation and Borrego Water District. The Co-Study Managers will sit on and lead the Steering Team. The Steering Team will consist of technical representatives from Reclamation, BWD, CVWD, IID, and SDCWA. Other technical members may be appointed to the Steering Team if needed. Team members will collaborate and ensure all the Study tasks are completed in a cost-effective, timely manner, and are technically sound. Members of the Steering Team provide the expertise, experience, and knowledge that relate to the Study’s scope and objectives.

Study Schedule, Phases, & Products

The proposed Study will upgrade the 1968 reconnaissance investigation to an appraisal-level analysis. The Study will be broken out into five tasks with corresponding subtasks that address three major phases: Water Supply and Demand Assessment, Climate Change and Scenario Modeling Analysis, and Strategies, Options and Appraisal Level Analysis.

Schedule

The Study will be conducted over a two year period beginning in January 2011.

Phase	2011				2012			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Characterize water supply & demand ¹								
Climate change & scenario modeling ²								
Options & appraisal level analysis								
Identify strategies & Options ³								
Identify legal & regulatory constraints ⁴								
Prioritize strategies & options ⁵								

See last footnote⁶

¹ These tasks were covered in the original June 2010 Basin Study proposal under Tasks 1 and 5

² This task was covered in the original proposal under Task 2

³ This task was covered in the original proposal under Task 3 & 4

⁴ This task was covered in the original proposal under Tasks 1, 3 and 7

⁵ This task was covered in the original proposal under Tasks 6 and 7

⁶ Task 8 in the original proposal is addressed throughout current Tasks 1-5

Study Milestones

Milestone:	Deliverable Description:
Dec 10	Update Plan of Study, Define Scope of Work
Jun 11	Water supply and demand assessment report
Dec11	Draft climate change and scenario modeling report
Mar 12	Draft report on study strategies and options
Jun 12	Draft report on legal and regulatory constraints
Sep 12	Draft final report and appendices
Dec 12	Final Study report and appendices

Tasks

Task 1 Water Supply Assessment:
1.1 Review & Select Methods to Estimate Current Supply: <ul style="list-style-type: none"> 1.1.1 Historic Observed Record 1.1.2 Paleo Record 1.2 Review & Select Methods to Project Future Supply 1.3 Conduct Assessment of Current Supply 1.4 Conduct Assessment of Future Supply
Task 2 Water Demand Assessment:
2.1 Review & Select Methods to Estimate Current Demands 2.2 Review & Select Methods to Project Future Demands 2.3 Conduct Assessment of Current Demands 2.4 Conduct Assessment of Future Demands
Task 3 Water Supply and Demand Assessment Report:
3.1 Prepare Draft Interim Report 3.2 Peer Review Report 3.3 Prepare & Publish Interim Report
Task 4 Climate Change and Scenario Modeling:
4.1 Coordinate BCM-climate change modeling efforts with local and regional stakeholders <ul style="list-style-type: none"> 4.1.1 Enhance, modeling capability as needed to incorporate methods to project future supply 4.1.2 Conduct sensitivity analysis of selected methods to project future supply 4.2 Develop range of 3-5 future demand scenarios for residential, agricultural and industrial demands <ul style="list-style-type: none"> 4.2.1 Develop model parameters to incorporate methods to project future demands 4.3 Determine Baseline System Reliability <ul style="list-style-type: none"> 4.3.1 Determine Baseline Scenario Modeling Assumptions 4.3.2 Prepare Model to Simulate Baseline Scenario 4.3.3 Perform Model Simulations 4.3.4 Synthesize & Analyze Model Results

- 4.3.5 Summarize Model Results
- 4.4 Project Future System Reliability
 - 4.4.1 Determine Future Scenario Modeling Assumptions
 - 4.4.2 Prepare Model to Simulate Future Scenarios
 - 4.4.3 Perform Model Simulations
 - 4.4.4 Synthesize & Analyze Model Results
 - 4.4.5 Determine Modeling Assumptions for Supply/Demand Opportunities
 - 4.4.6 Prepare Model to Simulate Future Conditions Under Supply/Demand Opportunities
 - 4.4.7 Perform Model Simulations with Supply/Demand Opportunities
 - 4.4.8 Synthesize & Analyze Model Results
- 4.5 Prepare Draft Interim Report
- 4.6 Peer Review Report
- 4.7 Prepare & Publish Interim Report

Task 5 Strategies, Options and Appraisal Level Analysis:

- 5.1 Develop Opportunities:
 - 5.1.1 Identify Opportunities
 - 5.1.2 Determine Preliminary Opportunities for Evaluation
 - 5.1.3 Analyze Opportunities (Preliminary)
- 5.2 Evaluate & Refine Opportunities:
 - 5.2.1 Technical & Economic Feasibility
 - 5.2.2 Uniform Cost Comparison
 - 5.2.3 Environmental Impacts/Permitting Requirements
(e.g., Salton Sea, Environmental Justice, ESA)
 - 5.2.4 Economic and Socioeconomic Impacts
 - 5.2.5 Legal and Public Policy Considerations
(e.g., Law of the River, QSA)
 - 5.2.6 Risk and Uncertainty
 - 5.2.7 Others
 - 5.2.8 Assessment of Effectiveness
 - 5.2.9 Potential Yield
 - 5.2.10 Timeframe for Implementation
 - 5.2.11 Agreements or Partnerships Needed
 - 5.2.12 Cost Allocation
 - 5.2.13 Sitting
- 5.3 Finalize Opportunities:
 - 5.3.1 Determine Ability of Opportunities to Resolve Imbalances
- 5.4 Prepare Draft Interim Report
- 5.5 Peer Review Report
- 5.6 Prepare & Publish Interim Report

Budget

Task	Role / Responsibility	Estimated Cost
Task 1	Study Team	\$57,270.00
Task 2	Study Team	\$40,050.00
Task 3	Study Team	\$10,500.00
Task 4	Reclamation	\$254,000.00
Task 5	Study Team	\$395,391.00
	Subtotal	\$757,211.00
	Study Management (10%)	\$832,932.10
	Total	\$832,932.10
Note: In Task 4 & 5 additional funding may be requested to complete these actions		

Products

The primary products produced in this Study will be interim written reports to be integrated into a final report that will include the following elements:

- Characterization of current and projected water supply and demand;
- Characterization of climate change impacts on supply and demand;
- Assessment of future residential, agricultural and industrial demand scenarios;
- Development and evaluation of options for balancing supply and demand;
- Description of methods and research processes, including assumptions, models and data used in the Study; and
- Description of stakeholder involvement.

Appendix A – References

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Appendix B – Location Map



