

**AGENDA**  
**Borrego Water District Board of Directors**  
**Regular Meeting**  
**October 26, 2011, 9:00**  
**806 Palm Canyon Drive**  
**Borrego Springs, CA 92004**

**I. OPENING PROCEDURES**

- A. Call to Order
- B. Pledge of Allegiance
- C. Roll Call
- D. Approval of Agenda
- E. Approval of Minutes
  - Special meeting of September 20, 2011 (page 3-5)
  - Regular meeting of September 28, 2011 (page 6-10)
- F. Comments from Directors and Requests for Future Agenda Items
- G. Comments from the Public and Requests for Future Agenda Items (comments will be limited to 3 minutes)
- H. Correspondence: (page 11-15)
  - Letter from C. Stuart
  - Letter from B. Mills
  - Letter from Diehl, Evans & Company, LLP
- I. Staff Reports:
  - A. Financial Reports – September 2011 (page 16-34)
  - B. Manager / Operations Report (page 35-70)
- J. Attorney's Report

**II. CURRENT BUSINESS MATTERS**

- A. Solar presentation by Lane Sharman
- B. Discussion of Best Management Practices for commercial and irrigation customers.
- C. Discussion and possible action regarding the San Diego County Proposed Groundwater Ordinance Amendment and BWD MOA (page 71-86)
- D. Discussion of General Counsel's research regarding potential mechanisms for collecting water extraction fees. (page 87-117)
- E. Discussion and possible approval of ***Resolution 2011-10-02 Cal Pers Second Tier Plan***
- F. Discussion and possible approval of ***Resolution 2011-10-01 revising the schedule of Regular Meetings*** (page 119-120)

**III. COMMITTEE REPORTS & PROPOSALS**

**Ad Hoc Committees**

- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| 1. Audit Committee                   | (M. Brecht, L. Brecht)                |
| 2. Due-Diligence                     | (M. Brecht, L. Brecht) (page 121-122) |
| 3. Strategic Planning Committee/IRWM | (Hart, L. Brecht) (page 123-139)      |
| 4. Executive Committee (Cameron)     | (Estep, Hart)                         |
| 5. Operations & Management Committee | (M. Brecht, Hart)                     |
| 6. Asset Ad Hoc Committee            | (Hart, M. Brecht)                     |
| 7. Christmas Circle Committee        | (Estep, Hart)                         |
| 8. Negotiating                       | (Estep, M. Brecht)                    |

**IV. STAFF REPORTS**

- A. Water and Wastewater Operations Report – September 2011 (page 141)
- B. Water Production/Use Records – September 2011 (page 142-145)
- C. Year to Date Meter Installations (page 146)
- D. Meter Installation History (page 147)

**V. INFORMATIONAL ITEM**

**VI. CLOSED SESSION**

- A. Conference with Real Property Negotiators pursuant to Gov't Code section 54956.8
  - Property: 199-080-21
  - Agency negotiators: Lee Estep, Beth Hart, and Jerry Rolwing
  - Negotiating party: Jack Cameron
  - Under negotiation: price and terms

**VII. CLOSING PROCEDURE, Adjournment**

The next Regular Meeting of the Board of Directors is scheduled for November 16, 2011 at the Borrego Water District.

**Borrego Water District**  
**MINUTES**  
**Special Meeting of the Board of Directors**  
**September 20, 2011**  
**9:00 a.m.**  
**806 Palm Canyon Drive**  
**Borrego Springs, CA 92004**

**I. OPENING PROCEDURES**

- A. Call to Order: President Hart called the meeting to order at 9:00 a.m.
- B. Pledge of Allegiance: Those present stood for the Pledge of Allegiance.
- C. Roll Call: Directors: Present: President Hart, Vice President Lyle Brecht, Secretary/Treasurer Marshal Brecht, Estep, Shimeall  
Staff: Jerry Rolwing, General Manager/Operations Manager  
Allison Burns, Stradling, Yocca, Carlson & Rauth (via teleconference for one item)  
Wendy Quinn, Recording Secretary  
Public: Doug Wilson, Mesquite Trails Ranch Judy Meier, *Borrego Sun*  
Ray Delahay  
Dick Walker Jim Engelke, Lundberg  
D.R. Walsh Dennis Dickinson  
Thomas Ray, Seley Ranches Paul Nordman

D. Approval of Agenda: *MSC: Approving the Agenda as written.*

E. Comments from Directors and Requests for Future Agenda Items: Director Lyle Brecht reported that during the recent widespread electrical outage, he was asked how long our water would last without power. Jerry Rolwing estimated at least three days and maybe a week or more, depending on diesel availability and area of town.

F. Comments from the Public and Requests for Future Agenda Items: Jim Engelke inquired about Christmas Circle's request for assistance with their high water costs, and Mr. Rolwing replied that it would be on next week's Agenda.

**II. CURRENT BUSINESS MATTERS**

A. Discussion and possible action regarding Resolution 2011-09-01 & NOI for New Delinquencies & NOI for Existing Delinquencies of Montesoro properties: *A motion was made by Director Lyle Brecht and seconded by Director Estep to adopt Resolution 2011-09-01 and Notice of Intent for New Delinquencies and Notice of Intent for Existing Delinquencies of Montesoro properties.* Director Marshal Brecht asked why both Notices of Intent state, "Delinquencies occurring subsequent to the recordation of this notice may also be removed from the County Tax Roll." Mr. Rolwing explained it was to give the District the option to pursue its own collections instead of waiting five years for the County to foreclose on its tax lien. Director Estep stated that the NOIs were properly worded. Allison Burns joined the meeting via teleconference and confirmed Mr. Rolwing's explanation. She added that there were two NOIs because one is for current delinquencies and the second is for new delinquencies. Judy Meier requested the total amount of the existing delinquencies, and Mr. Rolwing agreed to obtain the figure and provide it to her. The conference call terminated. *The motion to adopt Resolution 2011-09-01 and the two NOIs carried.*

B. Discussion and possible action regarding County of San Diego Proposed Groundwater Ordinance Amendment and BWD MOA: Director Lyle Brecht recommended that the County's proposed Groundwater Ordinance Amendment and BWD MOA be referred to the Strategic Planning Committee for public input and due diligence. President Hart asked that

the item be placed on a future Board Agenda as well, so all Directors could provide input. She expressed concern regarding the ongoing issue of the County's requirement that all water use cease in order to provide mitigation credits for fallowing. This would impact partial fallowing for solar farms and golf courses. Enforcement is an issue, and the District would have to activate its latent police powers in order to assume this task. It was agreed to schedule a Strategic Planning Committee meeting for September 27 at 9:00 a.m. and include the matter on the Board Agenda for September 28.

Discussion followed regarding the accuracy of the County's data on water usage as applied to Borrego Springs, potential costs if the District were to enforce the County ordinance, and the importance of seeking input from the agricultural community.

**C. Discussion and possible action regarding the collection of availability charges due the District from Montesororo properties and other Montesororo-related questions:** Director Marshal Brecht raised several questions relative to the availability charges due the District from Montesororo. Do these charges constitute liens on the property? Does the District have to wait until the County forecloses before pursuing collection? If so, would the District be a junior lien holder after the County's tax lien? Should we foreclose now, as we did with the Community Facilities District? The debt is currently \$357,000, and he suggested it might be worth spending some money to clarify these issues. Mr. Rolwing agreed to contact the County Tax Collector's office, and suggested we may also need to seek legal advice. Director Estep explained that the District would not be a junior lien holder if we waited for the County to foreclose. The proceeds would be divided on a pro rata basis. He suggested consulting Lisa Foster, however. ***MSC: L.Brecht/Estep agreeing to schedule a conference call among Directors Marshal Brecht and Estep, Mr. Rolwing and Ms. Foster regarding the collection of availability charges from Montesororo.***

**D. Discussion and possible action regarding committee structure for FY 2012 GWM and ABD-IRWM planning process:** Director Lyle Brecht announced that the Integrated Regional Water Management stakeholders would be meeting this afternoon, and the Strategic Planning Committee had asked the Board's concurrence to participate. He further noted that the standing Groundwater Management and Conservation Committees had been suspended, and wondered if they should be combined, or if the GWM Committee and IRWM should be combined. Mr. Rolwing recommended keeping the two standing committees separate, perhaps combining GWM and IRWM and waiting to reactivate the Conservation Committee. He suggested asking Anna Aljabiry from the Department of Water Resources.

Discussion followed regarding potential IRWM stakeholders, including the State Park, Salton City, Anza, and all those previously invited (Indian tribes, Jacumba, Whispering Pines and Canebrake). RMC Consultants will make recommendations, and Dale Schafer will serve as facilitator. The Board concurred that the Strategic Planning Committee would be a good addition.

**E. Discussion and possible action regarding FY 2012 "BWD Cash Flow 2011-2012" report:** Director Marshal Brecht summarized his new report, a consolidation of the 18-month cash flow projection and the monthly income and expense reports. Also included were monthly actuals, year-to-date and projection figures. The projections were developed by Kim Pitman and Mr. Rolwing. The charts will be updated monthly. Director Marshal Brecht invited the Board's attention to Column L, the year-to-date plus projection figures, showing an estimated status at year end. He felt this was the most important. He explained that the report uses a cash basis, rather than accrual. Non-operations and maintenance expenses were included, as well as goals for reserves.

Director Lyle Brecht asked whether the Board wanted to approve each expenditure as a non-budgeted item comes up, and suggested they think about it and decide in the future. Director Marshal Brecht suggested simply asking, "can we afford it?" when a non-budgeted project is considered.

F. Discussion and possible action regarding recommendations in "FY 2013 Rate Model Memorandum": Director Lyle Brecht explained that a possible FY 2013 Rate Model had been discussed by the Due Diligence Committee. He noted that the Raftelis model had demonstrated the need for an 80 percent rate increase, but the Board had implemented a 30 percent increase this year to avoid an undue burden on the rate payers. He asked what kind of input we would need for the model to indicate whether another 30 percent increase will be needed in 2013, or a lesser increase would be acceptable. A committee could study the issue in more detail and bring a recommendation to the Board. Director Estep was opposed to spending money on experts to develop this proposal, feeling there was sufficient expertise among the Board members and staff to address the issue. Director Lyle Brecht disagreed on the grounds that disinterested advisors would provide more credibility with the public. President Hart requested a list of exactly what needs to be done before proceeding further. The matter was referred to the Strategic Planning Committee.

G. Discussion and possible action regarding "Good Governance Standards for Financial Decision Making" policy: Director Lyle Brecht reported that many members of the public had discussed with him the matter of how to avoid a recurrence of the District's present financial difficulties. He felt transparency was important, as well as a "business case" for financial transactions, consulting outside experts if necessary. He asked the Board members to think about it and be prepared to discuss it at the next meeting.

H. Discussion of USGS Basin MODFLOW modeling results and community technical input: Director Lyle Brecht emphasized the importance of public involvement in the USGS Basin Study and the need to ensure their technical data is understandable to the average person. Mr. Rolwing stated he planned to reconvene the citizens' advisory group soon, probably in October.

I. Review of FYE 2011, Water Usage calculations by customer class: Mr. Rolwing invited the Board's attention to a chart showing water usage last year for each customer class (residential, public agencies, irrigation, multiple units, commercial and golf courses). President Hart requested a comparison of each class's current uses with those calculated in the past.

President Hart suggested scheduling periodic meetings at 5:00 p.m. on weeknights, where one or two Board members would be present at the District office and the public could come in and ask questions or discuss issues. She and Director Lyle Brecht agreed to try it in October and see how much response there is.

### III. CLOSING PROCEDURE

Adjournment: There being no further business, the meeting adjourned at 11:10 a.m. The next Regular Meeting of the Board of Directors is scheduled for September 28, 2011 at the Borrego Water District. The next meeting of the ABD-IRWM stakeholders planning group is scheduled for today, September 20 at 1:00 p.m.

**Borrego Water District  
MINUTES  
Regular Meeting of the Board of Directors  
Wednesday, September 28, 2011  
9:00 AM  
806 Palm Canyon Drive  
Borrego Springs, CA 92004**

**I. OPENING PROCEDURES**

- A. Call to Order:** President Hart called the meeting to order at 9:00 a.m.
- B. Pledge of Allegiance:** Those present stood for the Pledge of Allegiance.
- C. Roll Call:**     **Directors:**     **Present:** President Hart, Vice-President Lyle Brecht, Secretary/Treasurer Marshal Brecht, Estep, Shimeall
- Staff:**         Jerry Rolwing, General Manager/Operations Manager  
                          Kim Pitman, Administration Manager  
                          Diana Del Bono, Administrative Assistant  
                          Wendy Quinn, Recording Secretary
- Public:**         Judy Meier, *Borrego Sun*             Ray Delahay  
                          Dick Walker                             Bob McKee  
                          Jim Engelke                             Greg Locke, County of San Diego  
                          Jim Wilson, CCCP                         Bob Bull, CCCP  
                          Lance Sharman, Solana Energy     Randi Sharman, Solana Energy  
                          Dennis Dickinson                     Roger Ries, American Legion  
                          Okie McNatt

**D. Approval of Agenda:** President Hart announced an urgent addition to the Agenda, III.B in closed session, a personnel matter. ***MSC: L.Brecht/M.Brecht approving the Agenda as amended.***

**E. Approval of Minutes:**  
                          Special meeting of July 19, 2011  
***MSC: L.Brecht/M.Brecht approving the Minutes of the Special Meeting of July 19, 2011 as written.***

                          Regular meeting of July 27, 2011  
***MSC: L.Brecht/Estep approving the Minutes of the Regular Meeting of July 27, 2011 as written.***

**F. Comments from Directors and Requests for Future Agenda Items:** President Hart requested that Director Marshal Brecht replace her on the ad hoc committee negotiating with the Camerons.

Director Shimeall announced that she would be retiring from the Board after today's meeting.

**G. Comments from the Public and Requests for Future Agenda Items:** Bob McKee requested that the Agenda for October 26 include a discussion of best management practices for commercial and irrigation customers.

Okie McNatt expressed concern regarding the recent increase in water rates, and suggested the District consider selling some of its real property to generate income. He also suggested that the Viking Ranch purchase include the well on the property. President Hart asked Jerry Rolwing to schedule a meeting with her and Mr. McNatt.

Roger Ries asked whether the increased water rates are used to cover District costs or to replenish reserves. President Hart replied that it all currently goes for the cost of operating the water

system, and the sewer for those served by it. Mr. Ries suggested cutting back on expenses and reducing the rates once the reserves have been replenished. President Hart invited him to attend the meeting with Mr. McNatt.

**H. Correspondence:**

Borrego Springs Chamber sponsorship pledge

Mr. Rolwing explained that District could not contribute ratepayers' funds to support Borrego Days, as requested by the Chamber.

Letter from R. Viora

Robert Viora had written two letters expressing concern regarding the fact that he was being charged more for his one-inch water meter than those with three-quarter-inch meters. Mr. Rolwing responded that the larger meter costs more because it has the potential to convey a larger quantity of water. Director Lyle Brecht asked Mr. Rolwing to investigate alternatives and perhaps consult with Raftelis.

Letter from William Landry

Mr. Landry suggested waiving the water credit and mitigation program fees and reducing the water meter hook-up fees until the economy improves. Mr. Rolwing will respond.

Letter from L. Sharman

On behalf of the owners of the Dragon Fruit Farm and Solana Energy, Lane Sharman requested that the Board consider a long-term contract to provide the District with electricity at a cost savings. The matter will be placed on the next Agenda.

Letter from W. Quinn

Mr. Rolwing reported that Wendy Quinn had submitted her resignation as Recording Secretary, effective at the end of the calendar year.

**I. Staff Reports:**

**A. Financial Reports – July and August 2011**

Kim Pitman offered to answer questions. Director Marshal Brecht pointed out that the projection for cash at the end of the fiscal year is \$740,000. We started with \$779,000. Mr. McKee asked whether the District's cash supply was now exhausted, as had once been predicted to happen in the fall of 2011. President Hart replied that it was not, due to the rate increase and savings programs.

**B. Manager/Operations Report**

Mr. Rolwing offered to answer questions. In response to Director Marshal Brecht, he reported that he, Greg Holloway and another employee had completed all the on-line FEMA classes and were waiting for an in-person session to be scheduled.

**J. Attorney's Report: None**

**II. CURRENT BUSINESS MATTERS**

**A. Discussion and possible approval of request from County of San Diego to amend the existing Borrego Water District and County of San Diego Lease agreement for 800 MHZ radio communications site and to request to negotiate the purchase of the Sheriff regional radio site:** Greg Locke from the County Real Estate Services Division requested the Board's consideration of an amendment to its existing radio communications site lease agreement and the negotiation of a purchase of the Sheriff's radio site. The purchase is requested because the County hopes to obtain control of as many of these sites as possible in order to streamline the permitting requirements. The lease amendment is recommended because San Diego Gas and Electric Company has co-located in some sites, and this should be memorialized in the lease. *MSC: L.Brecht/Estep approving the amendment of the existing lease between the Borrego Water District and County of San Diego for 800 MHZ radio communication site and referring the purchase negotiation for the Sheriff regional radio site to the Asset Ad Hoc Committee.*

**B. Discussion of and possible approval of request from Christmas Circle Community Park to establish a water rate for "non-profit Community Benefit Parks" or to permit the installation of a well:** Jim Wilson, President of the Christmas Circle Community Park, requested the Board's consideration of transferring its water rights to the park so they could drill a well, or in the alternative, establish a lower water rate for non-profit community benefit parks. He explained that the park is funded by grants and donations, and the County's grant was recently reduced by \$10,000. Mr. Sharman suggested instituting an association fee for residents. Mr. Wilson explained that it would require creation of a park district, and this is being considered. Jim Engelke suggested deeding the park to the Water District. Ray Delahay suggested charging people who use the park. Judy Meier suggested asking attendees at the Borrego Days festivities to donate to the park's upkeep. Mr. McNatt distributed a letter in support of the park's request for assistance. President Hart requested that an ad hoc committee be established to look into the various suggestions and legal issues involved. *MSC: L.Brecht/M.Brecht establishing an ad hoc committee composed of President Hart and Director Estep to investigate alternatives and answer questions relative to Christmas Circle Community Park.* Messrs. Wilson and Sharman were asked to work with the committee. Dennis Dickinson suggested partial fallowing to reduce water use. A committee meeting was scheduled for October 12 at 9:00 a.m.

**C. Discussion and possible action regarding San Diego County Proposed Groundwater Ordinance Amendment and BWD MOA:** Mr. Rolwing reported that the Strategic Planning Committee had reviewed the County's proposed Groundwater Ordinance Amendment and Memorandum of Agreement yesterday. Input from the agricultural community, golf courses and residents was considered. He explained that the MOA would provide for the Water District to enforce the water mitigation credit policy. The public comment period ends October 28, and anyone wishing to comment was invited to submit input to Mr. Rolwing.

Director Lyle Brecht suggested that the table on Agenda page 108 be transferred to an exhibit, making future amendment of the Ordinance easier. Mr. Rolwing will submit the suggestion to Jim Bennett at the County. Director Lyle Brecht questioned the provision on Agenda page 108 (page 1 of the proposed Ordinance) that the groundwater investigation will be conducted by a State Registered Geologist or Civil Engineer. He felt it should be a groundwater geologist or hydrogeologist.

Mr. Rolwing summarized concerns brought up at yesterday's committee meeting, including the water efficiency assumptions used in calculation of water credits, the impact of the MOA on real estate development and the question of credits for partial fallowing.

Referring to section 10 of the MOA (Agenda page 115), it was agreed that it might be preferable to provide for a 120-day notice of termination by either party instead of 30 days.

### **III. CLOSED SESSION**

**A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS – Reference Government Code section 54956.8:**

Property: 199-080-21  
District Negotiator: Lee Estep, Beth Hart, and Jerry Rolwing  
Negotiating Party: Jack Cameron  
Under negotiation: Price and terms

**B. PERSONNEL MATTER:**

The Board adjourned to closed session at 11:10 a.m., and the open session reconvened at 12:20 p.m. Mr. Rolwing announced that as to Item III.A, negotiations will continue and a report will be presented upon conclusion. As to Item III.B, Greg Holloway will assume the position of Operations Manager. There will be no budget impact. President Hart announced that the District office will now be open from 8:00 a.m. to 3:00 p.m., instead of 9:00 a.m. to 4:00 p.m.

#### IV. ADDITIONAL BUSINESS MATTERS

D. Discussion and possible approval of the Club Circle Golf Course lease agreement: Agreement had not yet been reached.

E. Motion to request District general counsel to research potential mechanisms for collecting water extraction fees: Director Lyle Brecht reported that in 2004, then District counsel Fritz Stradling had concluded that the District had the ability to impose a water extraction fee but probably not the ability to collect it. *MSC: L.Brecht/Estep authorizing Lisa Foster to research the water extraction fee issue for a maximum of three hours.*

F. Discussion and possible approval of revisions in Personnel Policy #112 and #302: Mr. Rolwing proposed revisions to the Personnel Policies to define a person working over 26 hours per week as full time and therefore entitled to health benefits under PERS guidelines. The office staff would then be reduced to a seven hour work day, saving the District \$21,500 per year in salaries, \$877 in workers' compensation and \$4,800 in PERS. Ms. Pitman added that District employees will take over the office cleaning for a \$7,200 annual savings. A second "on-call" assignment was cut, saving \$5,200 yearly; and employees with company vehicles no longer take them home unless they are on call. Other savings included Mr. Rolwing's assumption of the General Manager position at no salary increase, the resignation (without replacement) of the golf course maintenance person and other office procedures streamlining for a total annual savings of \$330,588. *MSC: L.Brecht/Estep approving revisions in Personnel Policy #112 and #302 as proposed.*

G. Discussion and possible action to give direction to General Manager for casting vote for ACWA and LAFCO: *MSC: L.Brecht/Shimeall directing the General Manager to cast votes for ACWA and LAFCO on behalf of the District.*

H. Consideration of approval of sewer transfer from Richard Tynan to Borrego Art Institute. All fees have been paid and paperwork is in order: *MSC: L.Brecht/M.Brecht approving sewer transfer from Richard Tynan to Borrego Art Institute.*

I. Discussion of cost saving items: This item was covered under Item IV.F.

#### V. COMMITTEE REPORTS & PROPOSALS

##### Ad Hoc Committees

##### 1. Audit Committee

Director Lyle Brecht reported that he had the draft of the final audit, and the committee would be meeting within the next few weeks.

##### 2. Due-Diligence

No report.

##### 3. Strategic Planning Committee

This was covered earlier in the meeting.

##### 4. IRWM Committee

The Strategic Planning Committee has been working with the IRWM. *MSC: L.Brecht/Estep disbanding the IRWM Committee.*

##### 5. Executive Committee (Cameron)

President Hart reported that the committee was continuing negotiations and working on document preparation.

##### 6. Operations & Management Committee

This was covered earlier in the meeting.

##### 7. Asset Ad Hoc Committee

With Director Shimeall's resignation, President Hart will participate on the committee until a new Board member is appointed. This next meeting is scheduled for October 6 at 9:00 a.m. President Hart suggested inviting Mr. McNatt.

## **VI. STAFF REPORTS**

**A. Water and Wastewater Operations Report – July and August 2011:** Mr. Rolwing reported that in August a breaker blew on Well 4. The cause has not been determined.

**B. Water Production/Use Records – July and August 2011:**

In response to Director Marshal Brecht, Mr. Rolwing confirmed that water use in ID 1 declined due to the closure of the golf course.

## **VII. INFORMATIONAL ITEMS**

After discussion, it was agreed to run the same ad used last time there was a vacancy on the Board, set a November 10 deadline and interview the applicants at the November 16 Board meeting.

## **VIII. CLOSING PROCEDURE**

Adjournment. There being no further business, the meeting adjourned at 1:05 p.m. The next Special Meeting of the Board of Directors is scheduled for October 18, 2011 at the Borrego Water District. The next Regular Meeting of the Board of Directors is scheduled for October 26, 2011 at the Borrego Water District.

1481 Tunnel Road  
Santa Barbara, CA 93105

October 5, 2011

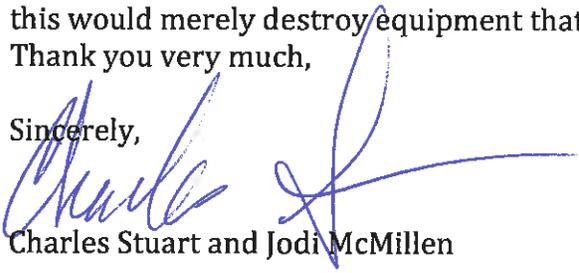
Board of Directors  
Borrego Water District  
P.O. Box 1870  
Borrego Springs, CA 92004

Re: **account number 06-3114-0**; following up on conversation with Jerry Rowling

My wife and I have owned lot 110 on Verbena Drive for a number of years and had a water meter installed in anticipation of building a second home. Our main house burned down in the Jesusita Fire in Santa Barbara, however, and we are still trying to figure out what to do in Santa Barbara so it is impossible for us to plan for a second home in Borrego Springs, for the time being at least.

Because we have never used any water and do not expect to do so in the foreseeable future, we ask that our water service be discontinued. At the same time, we ask that the physical hardware for the water connection that we paid for not be removed-- this would merely destroy equipment that undoubtedly will be useful in the future. Thank you very much,

Sincerely,



Charles Stuart and Jodi McMillen



# **BORREGO WATER DISTRICT**

October 14, 2011

Mr. Charles Stuart  
Ms. Jodi McMillen  
1481 Tunnel Road  
Santa Barbara, CA 93105

Dear Ms. McMillen and Mr. Stuart:

Thank you for your letter dated October 5, 2011. This letter will be included as a "correspondence" item in the agenda of the next regular Board of Directors' Meeting, scheduled for October 26, 2011.

Sincerely,

Jerry Rolwing  
General Manager

**William R Mills & Associates**  
5141 Siesta Lane, Yorba Linda, CA 92886  
Telephone 714.993.7868; Fax 714.961.8041

**Water Resources Management Consultants**

E-mail: [wrmills@sbcglobal.net](mailto:wrmills@sbcglobal.net)

October 17, 2011

Jerry Rolwing, General Manager  
Borrego Water District  
P O Box 1870  
Borrego Springs, CA 92004

Dear Jerry,

I have been asked to engage in work in the Borrego area which could create a conflict of interest while working for the District.

In view of the fact that I am no longer involved with the IRWMP, the USGS model and other consultants have been engaged to do the work I had been doing, it is apparent that my involvement with the District is limited to wrap-up activities with the STAG grant. Since the grant is all but complete and I have provided all the technical input I can, I am officially terminating my work with the District as of the end of this week (October 21, 2011).

I will, of course, continue to be available to provide, on a 'no-fee' basis, clarification on any work that I have performed.

It has been a great pleasure to work for the District and especially with you and your dedicated staff. I sincerely believe that my association has been most helpful to the District. I wish you success and will miss working with you.

Best regards,



William R. Mills, President  
William R. Mills & Associates



**DIEHL, EVANS & COMPANY, LLP**  
CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

A PARTNERSHIP INCLUDING ACCOUNTANCY CORPORATIONS

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\* A PROFESSIONAL CORPORATION

October 6, 2011

**BORREGO WATER DISTRICT**  
P.O. BOX 1870 806 PALM CANYON DRIVE  
C/O JERRY ROLWING  
BORREGO, CA 92004

Dear BORREGO WATER DISTRICT,

We are pleased to announce our merger with White, Nelson and Company, LLP. Our combined firm now is practicing as White Nelson Diehl Evans LLP.

Diehl, Evans and Company, LLP began its professional practice as a partnership in the 1950s, after Ellis Diehl had been practicing on his own for about 25 years. The growth of the firm over the past several decades has been predominantly internal, stemming from the referrals of our current clients and other professionals, except for the acquisition of existing firms in Carlsbad and Newport Beach. The growth and development of our professional staff has evolved in a similar manner. We have attracted high-quality, committed professionals and have invested in their training, development and growth. As a result of these efforts, we have experienced good growth throughout the years. This has been in no small way also directly related to the success our clients have had in their business and personal pursuits.

We decided to seek a merger with another firm because we believe that a larger organization will allow us to provide a wider array of services with more depth. As you may know, finding and retaining excellent people is a constant challenge. Our new, larger firm will help us be more successful in recruiting and our associates will benefit from even more and stronger career opportunities. Our new combined firm has 18 partners and over 100 associates.

White, Nelson and Company shares the same values as Diehl, Evans and Company. We conducted an extensive search over many years looking for an opportunity like this. White, Nelson and Company exceeded our hopes for a firm we can combine with and continue the tradition for excellent service, expertise, and an environment our clients and associates want to be a part of.

OTHER OFFICES AT:

613 W. VALLEY PARKWAY, SUITE 330  
ESCONDIDO, CALIFORNIA 92025-2598  
(760) 741-3141 • FAX (760) 741-9890

5 CORPORATE PARK SUITE 100  
IRVINE, CALIFORNIA 92614-4099  
(949)-399-0600 • FAX (949) 399-0610

As a result of this merger, we will be able to provide many new services and areas of expertise. We look forward to discussing those in more depth with you. However, there are several things we want to point out that will not change:

- You will continue to work with the same people in our firm that you have in the past. All of our accountants will continue in their current roles.
- We will continue with governmental accounting, auditing, and consulting as a primary focus of the firm.
- Our fee structure will not change.
- Services provided in the past will continue to be offered by White Nelson Diehl Evans LLP.

Around December 1, our Irvine office will be moving just over a mile away to White, Nelson and Company's location at 2875 Michelle Drive, Suite 300, Irvine, CA 92606. Our existing phone numbers will continue to be operational for the time being although we anticipate consolidating phone numbers as soon as possible.

There will be no changes to our Carlsbad and Escondido offices locations or phone numbers.

If you have any questions about this exciting news and what it will mean for you, please contact any of us at any time. We look forward to introducing you to some of our new partners and associates.

We are grateful to you not only for giving us the opportunity to provide you with accounting services but for your loyalty and friendship, which have enriched our relationship. We are confident that our new affiliation will serve us all well.

We are presently working on an engagement for you under an engagement letter signed by us as Diehl, Evans and Company, LLP. We anticipate completing the engagement after the merger has been completed and anticipate signing the auditors' report as "White Nelson Diehl Evans LLP". As this is a change from what is in the engagement letter, we will appreciate your acknowledgement of the merger and your approval of the change from Diehl, Evans and Company, LLP to White Nelson Diehl Evans LLP by signing a copy of this letter below and returning it to us.

The Partners and Associates of  
Diehl, Evans and Company, LLP

Acknowledgement of the merger:

\_\_\_\_\_  
BORREGO WATER DISTRICT

By: \_\_\_\_\_

Name

\_\_\_\_\_  
Date

10/12/11

# BWD CASH FLOW 2011-2012

	C	D	E	H	I	J	K	L	M
4									
5	<b>SEPTEMBER 2011</b>		<b>BUDGET</b>	<b>PRIOR</b>	<b>ACTUAL</b>	<b>PROJECTED</b>	<b>ACTUAL</b>	<b>YTD + PROJ MONTHS-&gt;</b>	<b>PROJECTED</b>
6			<b>FY 2012</b>	<b>MONTHS</b>	<b>SEPTEMBER</b>	<b>SEPT</b>	<b>YTD</b>	<b>PROJECTED</b>	<b>OCT</b>
7				<b>2011-2012</b>	<b>2011</b>	<b>2011</b>	<b>2011-2012</b>	<b>2011-2012</b>	<b>2011</b>
8	<b>REVENUE</b>								
9	<b>WATER REVENUE</b>								
10	Residential Water Sales (Assume no water use on Montesorro GC)		424,312	146,872	55,857	83,669	202,729	690,776	68,263
11	Commercial Water Sales		98,000	18,935	8,304	16,757	27,239	109,506	10,611
12	Irrigation Water Sales		99,000	20,414	12,942	12,678	33,356	119,870	13,685
13	GWM Surcharge		94,000	19,849	8,194	11,347	28,043	91,792	9,183
14	Water Sales Power Portion		277,000	63,355	26,951	32,495	90,307	276,512	26,841
15	Readiness Water Charge		635,000	124,654	70,007	68,764	194,661	814,013	69,514
16	Meter Installation		40,000	0	2,020	2,040	2,020	37,020	5,000
17	Water hook-up charge		0	19,875	0	-	19,875	19,875	0
18	Reconnect Fees		6,500	5,014	1,700	680	6,714	12,834	680
19	Backflow Testing/installation		3,300	300	104	300	404	1,404	
20	Bulk Water Sales		1,200	497	150	150	647	1,547	100
21	Penalty & Interest Water Collection		24,000	4,974	3,272	2,000	8,246	26,246	2,000
22	<b>TOTAL WATER REVENUE:</b>		<b>1,702,312</b>	<b>424,739</b>	<b>189,501</b>	<b>230,879</b>	<b>614,240</b>	<b>2,201,394</b>	<b>205,876</b>
23									
24	<b>PROPERTY ASSESSMENTS/AVAILABILITY CHARGES</b>	Receivables as of 10/04/11							
25	641500 1% Property Assessments	72,965	69,080	1,432	950	950	2,382	72,360	898
26	641502 Property Assessments wtr/swr/flld		45,000	147	236	0	383	45,534	151
27	641502/641503 Property Assess.-delinq-Montesorro	427,621		0	0	236	-	-	0
28	641501 Water avail Standby	101,331	82,673	1,554	1,297	1,297	2,851	63,273	422
29	641504 ID 3 Water Standby			0	0	0	-	33,760	0
30	641504 ID 3 Water Standby-delinquent La Casa	36,067	33,760	0	320	320	320	30,320	0
31	641503 Pest standby	25,050	17,953	175	172	172	347	18,361	52
32	Penalty & Interest-Avail Charges		1,000	0	0	0	-	1,000	0
33	<b>TOTAL PROPERTY ASSES/AVAIL CHARGES:</b>	<b>663,034</b>	<b>249,466</b>	<b>3,309</b>	<b>2,974</b>	<b>2,974</b>	<b>6,283</b>	<b>264,608</b>	<b>1,523</b>
34									
35	<b>SEWER SERVICE CHARGES</b>								
36	Town Center Sewer Holder's Fees		180,140	30,024	15,012	15,012	45,035	180,143	15,012
37	Sewer user Fees		221,400	42,005	20,807	23,102	62,812	251,812	21,000
38	Penalty Interest-Sewer		1,800	0	0	150	-	1,350	150
39	Sewer Inspection Fees		200	663	0	0	663	663	0
40	Sewer Capacity Fees		12,138	9,445	0	0	9,445	12,138	0
41	<b>TOTAL SEWER SERVICE CHARGES:</b>		<b>415,678</b>	<b>82,135</b>	<b>35,818</b>	<b>38,264</b>	<b>117,955</b>	<b>446,106</b>	<b>36,162</b>
42									
43	<b>PARK/GOLF INCOME</b>								
44	CSD Fees-(golf/trash WEA -2,500)			11,447	5,725	5,608	17,172	22,780	5,608
45	CC Golf Income			0	115	0	115	115	0
46	<b>TOTAL PARK/GOLF INCOME:</b>			<b>11,447</b>	<b>5,840</b>	<b>5,608</b>	<b>17,287</b>	<b>22,895</b>	<b>5,608</b>
47									
48	<b>OTHER INCOME</b>								
49	Rent Income-San Diego County		7,715	1,286	643	643	1,929	7,715	643
50	Annexation Fees		0	0	0	0	-	-	0
51	Fire Hydrant Installation		5,000	0	0	0	-	5,000	0
52	Miscellaneous Income		5,000	0	0	417	-	3,749	417
53	Administrative Fee-Water Credits		5,000	0	0	0	-	2,000	500
54	Gain on Asset Sold		1,500	0	0	0	-	1,500	0
55	Stag Grant		125,000	60,590	0	0	60,590	125,590	0
56	Interest Income		1,550	66	11	30	77	347	30
57	<b>TOTAL OTHER INCOME:</b>		<b>150,765</b>	<b>61,941</b>	<b>654</b>	<b>1,090</b>	<b>62,596</b>	<b>145,901</b>	<b>1,590</b>
58									
59	<b>CASH BASIS ADJUSTMENTS</b>								
60	Decrease (Increase) in Accounts Receivable			(84,339)	17,497		(66,842)	(66,842)	
61	Other Cash Basis Adjustments						-	-	
62	<b>TOTAL CASH BASIS ADJUSTMENTS:</b>		<b>0</b>	<b>(84,339)</b>	<b>17,497</b>	<b>0</b>	<b>(66,842)</b>	<b>(66,842)</b>	<b>0</b>
63									
64	<b>TOTAL INCOME RECEIVED</b>		<b>2,518,221</b>	<b>499,231</b>	<b>252,284</b>	<b>278,816</b>	<b>751,518</b>	<b>3,014,061</b>	<b>250,759</b>
65									

# BWD CASH FLOW 2011-2012

	N	O	P	Q	R	S	T	U	W	X	Y	Z
4												
5	PROJECTED		PROJECTED	PROJECTED	PROJECTED							
6	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	PROJECTED	JULY	AUGUST	SEPT
7	2011	2011	2012	2012	2012	2012	2012	2012	2012-2013	2012	2012	2012
8												
9												
10	63,908	59,287	39,276	19,238	39,382	52,353	61,408	84,933	941,757	93,482	103,668	106,002
11	8,819	9,104	7,459	7,002	8,490	9,988	9,754	11,040	149,388	9,826	17,686	20,624
12	9,529	9,369	4,498	3,102	7,335	11,881	11,556	15,560	147,340	12,697	12,562	15,603
13	8,258	7,730	5,071	2,609	5,506	7,263	8,477	9,651	118,706	8,136	13,396	14,317
14	24,293	22,509	14,690	7,566	16,080	21,311	24,884	28,031	346,629	23,787	38,832	41,089
15	68,747	68,777	68,845	68,472	68,713	68,442	68,627	69,216	983,811	54,387	82,512	84,632
16	-	5,000	0	5,000	0	10,000	5,000	5,000	40,000	-	5,000	-
17	-	0	0	0	0	0	0	0	19,875	19,875	0	-
18	680	680	680	680	680	680	680	680	8,160	680	680	680
19			1,000						1,000			
20	100	100	100	100	100	100	100	100	1,304	204	100	100
21	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000	2,000	2,000	2,000
22	186,334	184,555	143,619	115,769	148,287	184,018	192,485	226,211	2,781,969	225,074	276,436	285,047
23												
24												
25	0	34,540	0	0	0	34,540	0	0	69,080	0	0	0
26	0	20,000	0	0	0	25,000	0	0	158,801	0	0	0
27	0	0	0	0	0	0	0	0	-	0	0	0
28	0	30,000	0	0	0	30,000	0	0	82,764	0	0	0
29	0	16,880	0	0	0	16,880	0	0	33,760	0	0	0
30	0	15,000	0	0	0	15,000	0	0	-	0	0	0
31	0	8,981	0	0	0	8,981	0	0	17,963	0	0	0
32	0	500	0	0	0	500	0	0	1,000	0	0	0
33	0	125,901	0	0	0	130,901	0	0	363,367	0	0	0
34												
35												
36	15,012	15,012	15,012	15,012	15,012	15,012	15,012	15,012	196,407	31,275	15,012	15,012
37	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	377,203	31,434	31,434	31,434
38	150	150	150	150	150	150	150	150	1,938	288	150	150
39	0	0	0	0	0	0	0	0	663	663	0	0
40	0	1,012				1,010		671	16,523	9,445	0	0
41	36,162	37,174	36,162	36,162	36,162	37,172	36,162	36,833	592,733	73,104	46,596	46,596
42												
43												
44	0	0	0	0	0	0	0	0	-			
45	0	0	0	0	0	0	0	0	-	0	0	0
46	0	0	0	0	0	0	0	0	0	0	0	0
47												
48												
49	643	643	643	643	643	643	643	643	8,304	1,232	643	643
50	0	0	0	0	0	0	0	0	-	0	0	0
51	0	0	0	5,000	0	0	0	0	5,000	0	0	0
52	417	417	417	417	417	417	417	413	5,382	799	417	417
53	500	500	500	0	0	0	0	0	5,000	1,000	1,000	1,000
54	0	0	0	0	0	0	0	1,500	1,500	0	0	0
55	0	40,000	0	0	25,000	0	0	0	-	0	0	0
56	30	30	30	30	30	30	30	30	1,627	252	125	125
57	1,590	41,590	1,590	6,090	26,090	1,090	1,090	2,586	25,186	3,031	2,060	2,060
58												
59												
60									-			
61												
62	0	0	0	0	0	0	0	0	0	0	0	0
63												
64	224,086	389,220	181,371	158,021	210,538	353,181	229,737	265,630	3,763,256	301,208	325,091	333,703
65												

# BWD CASH FLOW

## 2011-2012

	C	D	E	H	I	J	K	L	M
4									
5	<b>SEPTEMBER 2011</b>		<b>BUDGET</b>	<b>PRIOR</b>	<b>ACTUAL</b>	<b>PROJECTED</b>	<b>ACTUAL</b>	<b>YTD + PROJ MONTHS&gt;&gt;</b>	<b>PROJECTED</b>
6			<b>FY 2012</b>	<b>MONTHS</b>	<b>SEPTEMBER</b>	<b>SEPT</b>	<b>YTD</b>	<b>PROJECTED</b>	<b>OCT</b>
7				<b>2011-2012</b>	<b>2011</b>	<b>2011</b>	<b>2011-2012</b>	<b>2011-2012</b>	<b>2011</b>
66	<b>EXPENSES</b>								
67									
68	<b>MAINTENANCE EXPENSE</b>								
69	R & M Buildings & Equipment		110,000	20,829	6,823	6,672	27,652	110,151	9,167
70	R & M Wells/pipelines/Pumps - VVWTP		35,000	11,473	7,054	2,000	18,527	40,054	2,000
71	Telemetry		20,000	3,393	0	0	3,393	23,393	7,000
72	Trash Removal		7,500	938	469	500	1,407	5,907	500
73	Vehicle Expense		17,000	893	124	1,417	1,017	13,766	1,417
74	Fuel & Oil		38,000	5,186	6,283	2,500	11,469	33,969	2,500
75	<b>TOTAL MAINTENANCE EXPENSE:</b>		<b>227,500</b>	<b>42,713</b>	<b>20,753</b>	<b>13,089</b>	<b>63,466</b>	<b>227,241</b>	<b>22,584</b>
76									
77	<b>PROFESSIONAL SERVICES EXPENSE</b>								
78	Accounting		8,000	3,521	0	667	3,521	9,520	667
79	Administrative Services		4,000	908	294	333	1,202	4,203	333
80	Audit Fees		26,000	11,600	0		11,600	32,400	5,200
81	Computer billing		12,000	9,111	1,755	3,500	10,866	19,866	1,000
82	Consulting/Technical		25,000	0	0	2,083	-	18,751	2,083
83	Engineering		25,000	0	0	2,083	-	18,751	2,083
84	Legal Services		60,000	4,037	1,229	5,000	5,266	27,766	2,500
85	Testing/lab work		25,000	6,995	1,070	2,083	8,065	26,816	2,083
86	Regulatory Permit Fees		45,000	4,140	3,419	5,500	7,559	43,959	3,508
87	<b>TOTAL PROFESSIONAL SERVICES EXPENSE:</b>		<b>230,000</b>	<b>42,378</b>	<b>7,768</b>	<b>21,249</b>	<b>48,081</b>	<b>202,034</b>	<b>19,457</b>
88									
89	<b>INSURANCE/INTEREST EXPENSE</b>								
90	ACWA Insurance		102,774	31,393	0	0	31,393	70,521	0
91	Workers Comp		20,000	0	4,920	0	4,920	14,920	0
92	Interest-COP 2008/Well 12 Purchase Agreement		194,875	132,438	0	0	132,438	194,876	0
93	<b>TOTAL INSURANCE/INTEREST EXPENSE:</b>		<b>317,649</b>	<b>163,831</b>	<b>4,920</b>	<b>0</b>	<b>168,751</b>	<b>280,316</b>	<b>0</b>
94									
95	<b>PERSONNEL EXPENSE</b>								
96	Board Meeting Expense (board stipend/board secretary)		22,000	1,475	715	1,200	2,190	12,990	1,200
97	Salaries & Wages (gross)		826,918	151,312	71,178	70,500	222,490	852,898	70,500
98	Taxes on Payroll		32,930	2,450	1,141	1,000	3,591	19,364	800
99	Medical Insurance Benefits		232,733	34,099	17,378	18,725	51,477	210,759	17,378
100	Calpers Retirement Benefits		178,000	29,336	14,575	14,833	43,911	174,792	14,833
101	Salaries & Wages contra account		(18,000)	(6,999)	(495)	(3,000)	(7,494)	(20,994)	(1,500)
102	Conference/Conventions/Training/Seminars		10,500	1,749	2,350	2,500	4,099	11,974	875
103	<b>TOTAL PERSONNEL EXPENSE:</b>		<b>1,285,081</b>	<b>213,423</b>	<b>106,842</b>	<b>105,758</b>	<b>320,265</b>	<b>1,261,784</b>	<b>104,086</b>
104									
105	<b>OFFICE EXPENSE</b>								
106	Office Supplies		20,000	4,007	474	2,000	4,481	18,481	1,500
107	Office Equipment/ Rental/Maintenance Agreements		32,500	4,046	3,388	2,708	7,433	31,805	2,708
108	Postage & Freight		11,000	2,138	0	66	2,138	10,988	2,000
109	Taxes on Property		2,291	0	0	0	-	2,291	2,291
110	Telephone/Answering Service		10,700	1,084	622	892	1,705	9,729	892
111	Bad Debt Collection		4,000	228	71	333	298	3,299	333
112	Dues & Subscriptions		8,000	368	685	667	1,053	7,052	667
113	Printing, Publications & Notices		5,000	184	53	417	237	3,990	417
114	Uniforms		7,000	959	464	583	1,423	6,674	583
115	Osha Requirements/Emergency preparedness		7,500	871	137	625	1,008	6,633	625
116	<b>TOTAL OFFICE EXPENSE:</b>		<b>107,991</b>	<b>13,884</b>	<b>5,892</b>	<b>8,291</b>	<b>19,776</b>	<b>100,942</b>	<b>12,016</b>
117									
118	<b>UTILITIES EXPENSE</b>								
119	Pumping-Electricity		320,000	59,196	29,365	37,853	88,561	316,985	32,189
120	Office/Shop Utilities		15,000	3,858	1,878	1,250	5,736	16,986	1,250
121	Cellular Phone		10,000	1,371	902	833	2,273	9,774	833
122	<b>TOTAL UTILITIES EXPENSE:</b>		<b>345,000</b>	<b>64,424</b>	<b>32,145</b>	<b>39,936</b>	<b>96,570</b>	<b>343,745</b>	<b>34,272</b>
123									
124	<b>CASH BASIS ADJUSTMENTS</b>								
125	Decrease (Increase) in Accounts Payable			22,209	1,516		23,724	23,724	
126	Increase (Decrease) in Inventory			4,012	(3,426)		586	586	
127	Other Cash Basis Adjustments			0	0		-	-	
128	<b>TOTAL CASH BASIS ADJUSTMENTS:</b>			<b>26,221</b>	<b>(1,910)</b>	<b>0</b>	<b>24,310</b>	<b>24,310</b>	<b>0</b>
129									
130	<b>TOTAL EXPENSES PAID</b>		<b>2,513,221</b>	<b>566,874</b>	<b>176,408</b>	<b>188,323</b>	<b>741,218</b>	<b>2,440,372</b>	<b>192,415</b>
131									

# BWD CASH FLOW 2011-2012

	N	O	P	Q	R	S	T	U	W	X	Y	Z
4												
5	PROJECTED		PROJECTED	PROJECTED	PROJECTED							
6	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	PROJECTED	JULY	AUGUST	SEPT
7	2011	2011	2012	2012	2012	2012	2012	2012	2012-2013	2012	2012	2012
66												
67												
68												
69	9,167	9,167	9,167	9,167	9,167	9,167	9,167	9,163	120,245	19,412	9,167	9,167
70	2,000	2,000	2,000	2,000	2,780	2,917	2,917	2,913	39,344	7,261	2,917	2,917
71	0	6,000	0	0	0	0	7,000	0	20,000	0	0	7,000
72	500	500	500	500	500	500	500	500	7,500	625	625	625
73	1,417	1,417	1,417	1,417	1,416	1,416	1,416	1,416	18,385	2,802	1,417	1,417
74	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	41,386	6,553	3,167	3,167
75	15,584	21,584	15,584	15,584	16,363	16,500	23,500	16,492	246,860	36,653	17,293	24,293
76												
77												
78	667	667	667	667	666	666	666	666	8,611	1,278	667	667
79	333	333	333	333	334	334	334	334	4,358	691	333	333
80		5,200				5,200		5,200	31,800	11,000		5,200
81	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000	1,000	1,000	1,000
82	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,087	26,910	3,993	2,083	2,083
83	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,087	26,910	3,993	2,083	2,083
84	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	64,583	9,583	5,000	5,000
85	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,087	27,786	4,869	2,083	2,083
86	8,985	12,507	3,800	400	1,000	5,000	200	1,000	45,000	2,500	600	5,500
87	19,734	28,456	14,549	11,149	11,749	20,949	10,949	16,961	247,958	38,907	13,849	23,949
88												
89												
90	0	0	0	0	10,075	29,053	0	0	70,521	0	0	31,393
91	0	0	5,000	0	0	5,000	0	0	23,750	8,750	0	0
92	0	0	0	0	62,438	0	0	0	222,875	98,000	0	0
93	0	0	5,000	0	72,513	34,053	0	0	317,146	106,750	0	31,393
94												
95												
96	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	23,811	3,644	1,833	1,833
97	76,551	69,051	69,051	69,051	69,051	69,051	69,051	69,051	803,144	45,136	68,910	68,910
98	700	600	5,341	3,001	1,380	1,375	1,162	1,414	35,658	5,472	2,744	2,744
99	17,738	17,738	17,738	17,738	17,738	17,738	17,738	17,738	253,158	39,819	19,394	19,394
100	14,506	14,506	14,506	14,506	14,506	14,506	14,506	14,506	194,006	30,839	14,833	14,833
101	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(18,000)	(1,500)	(1,500)	(1,500)
102	875	875	875	875	875	875	875	875	11,563	1,938	875	875
103	110,070	102,470	107,211	104,871	103,250	103,245	103,032	103,284	1,303,340	125,348	107,089	107,089
104												
105												
106	2,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	44,280	3,690	3,690	3,690
107	2,708	2,708	2,708	2,708	2,708	2,708	2,708	2,708	-			
108	50	2,000	50	100	2,000	50	2,000	600	11,854	1,771	917	913
109	0	0	0	0	0	0	0	0	2,291	0	0	0
110	892	892	892	892	892	892	890	890	11,595	1,787	892	892
111	333	333	333	333	334	334	334	334	4,337	670	333	333
112	667	667	667	667	667	667	667	663	8,672	1,339	667	667
113	417	417	417	417	417	417	417	417	5,417	830	417	417
114	583	583	583	583	583	583	583	587	7,611	1,194	583	583
115	625	625	625	625	625	625	625	625	8,115	1,240	625	625
116	8,275	9,725	7,775	7,825	9,726	7,776	9,724	8,324	96,057	11,281	7,499	7,495
117												
118												
119	28,606	27,042	17,817	10,204	19,199	25,812	28,767	38,788	349,123	55,786	26,667	26,667
120	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	16,475	2,725	1,250	1,250
121	833	833	833	833	833	833	833	837	10,880	1,713	833	833
122	30,689	29,125	19,900	12,287	21,282	27,895	30,850	40,875	376,478	60,224	28,750	28,750
123												
124												
125												
126												
127												
128	0	0	0	0	0	0	0	0	0	0	0	0
129												
130	184,352	191,360	170,020	151,716	234,883	210,418	178,055	185,936	2,587,839	379,163	174,480	222,969
131												

# BWD CASH FLOW 2011-2012

4	C	D	E	H	I	J	K	L	M
5	SEPTEMBER 2011		BUDGET	PRIOR	ACTUAL	PROJECTED	ACTUAL	YTD + PROJ MONTHS>>	PROJECTED
6			FY 2012	MONTHS	SEPTEMBER	SEPT	YTD	PROJECTED	OCT
7				2011-2012	2011	2011	2011-2012	2011-2012	2011
132									
133	<u>O&amp;M</u>								
134	NET CASH FLOW (O&M)		5,000	(67,643)	75,876	90,493	10,300	573,689	58,344
135									
136									
137	<u>NON O &amp; M EXPENSES</u>								
138	USGS Basin study		131,500	6,717	21,030		27,747	128,500	0
139	GWM Planning Costs - unallocated		20,000	2,066	(1,396)	400	670	670	
140	Integrated Regional Water Management Plan/Staff time		47,000	6,496	1,108		7,604	50,811	10,000
141	BOR S.E. California Regional Basin Study/Staff Time		20,000	0			-	12,000	12,000
142	STAG Grant/Staff time		40,000	8,224	30,976	5,000	39,200	44,888	5,688
143	Viking Ranch Purchase		69,000	6,210	551	0	6,761	75,761	
144	GWM/ABD-IRWM Legal Expenses		10,000	0	411		411	5,000	4,589
145	Water Credit Policy legal expenses		12,000	0	0	4,000	-	12,000	1,000
146	Catchment berm WWTP		0	0			-	5,000	
147	ID1-10 150 Hp , rewind motor in year 2, pump & casing cleaning in year 5		0	0			-	-	
148	ID4-11 200 Hp, pump & casing cleaning in yr 1 and rewind motor in year 2		60,000	0			-	60,000	
149	Rams Hill #1 1980 steel needs inside coating, 1.25mg		150,000	0			-	150,000	50,000
150	Twin Tanks, 1970's-inside coating		40,000	0			-	40,000	
151	Pickup		0	0			-	-	
152	ID4, Reducing Station design and installation		0	0			-	-	
153	Circle J Drive pipeline (2013)		0	0			-	-	
154	Montezuma Road pipeline project-final		0	11,900			11,900	11,900	
155	Two water credit refunds-less admin processing fee		10,000	10,000			10,000	10,000	
156	Telemetry Radio & PLC Upgrades		29,081					29,081	
157	<b>TOTAL NON O&amp;M EXPENSES</b>		<b>638,581</b>	<b>49,548</b>	<b>52,680</b>	<b>9,400</b>	<b>104,293</b>	<b>635,611</b>	<b>83,277</b>
158									
159	<u>CASH RECAP</u>								
160	Cash beginning of period		779,356	1,488,412	662,165	1,371,221	779,356	779,356	685,361
161	Net Cash Flow (O&M)		5,000	(67,643)	75,876	90,493	10,300	573,689	58,344
162	Total Non O&M Expenses		(638,581)	(49,548)	(52,680)	(9,400)	(104,293)	(635,611)	(83,277)
163	Transfer To/From Reserves		0	0	0		-	0	
164	<b>CASH AT END OF PERIOD</b>		<b>145,775</b>	<b>1,371,221</b>	<b>685,361</b>	<b>1,452,314</b>	<b>685,363</b>	<b>717,434</b>	<b>660,429</b>
165									
166	Actual cash at end of month				1,371,221	685,361		685,361	
167	Difference				0	(0)		(2)	
168									
169	<u>RESERVES</u>								
170	Working Capital		629,555						
171	Contingency (3%)		75,546						
172	Asset replacement		114,791						
173	Emergency		2,500,000						
174	<b>TOTAL RESERVES</b>		<b>3,319,892</b>						
175									
176									
177	<u>SIGNIFICANT ITEMS</u>	<u>ACTUAL</u>		<u>PROJECT</u>	<u>DIFF.</u>				
178	Water Revenue	189,501		230,879	(41,378)			Customer refund contributed to \$17,667 of the difference (paid bill twice)	
179									
180	Decrease in Accounts Receivable	35,164		0	35,164			Cash receipts exceeding revenue earned	
181	Pumping-Electricity	(29,365)		(37,853)	8,488			Projection estimated on previous year usage	
182	Fuel & Oil	(6,283)		(2,500)	(3,783)			Used extra diesel at Wilcox well/WWTP during power outage	
183	Workers Compensation	(4,920)		0	(4,920)			Projected in October, paid in September	
184	USGS Basin Study	(21,030)		0	(21,030)			Projected in October, paid in September	
185	Stag Grant	(30,976)		(5,000)	(25,976)			\$29,000 engineering costs to complete Task A2 and task C1 of Stag Grant-Projected in Oct paid Sept	
186									
187									
188	Total Significant Items:	132,091		185,526	(53,435)				
189									
190									
191									
192									
193									
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203									
204									

# BWD CASH FLOW 2011-2012

	N	O	P	Q	R	S	T	U	W	X	Y	Z
4												
5	PROJECTED		PROJECTED	PROJECTED	PROJECTED							
6	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	PROJECTED	JULY	AUGUST	SEPT
7	2011	2011	2012	2012	2012	2012	2012	2012	2012-2013	2012	2012	2012
132												
133												
134	39,734	197,859	11,351	6,305	(24,345)	142,763	51,683	79,694	1,175,417	(77,955)	150,611	110,734
135												
136												
137												
138			57,533			43,220			-			
139									-			
140		33,207							-			
141									-			
142									-			
143	69,000								57,000			14,250
144									-			
145	4,000	5,000	2,000						-			
146			5,000						-			
147									10,000	10,000		
148		60,000							15,000	15,000		
149	50,000		50,000						-			
150					40,000				-			
151									20,000	20,000		
152									25,000		25,000	
153									108,000	58,000		50,000
154									-			
155									-			
156	10,935	18,146										
157	133,935	116,353	114,533	0	40,000	43,220	0	0	235,000	103,000	25,000	64,250
158												
159												
160	660,429	566,228	647,734	544,552	550,857	486,512	586,055	637,738	717,432	717,432	536,477	662,088
161	39,734	197,859	11,351	6,305	(24,345)	142,763	51,683	79,694	1,175,417	(77,955)	150,611	110,734
162	(133,935)	(116,353)	(114,533)	0	(40,000)	(43,220)	0	0	(235,000)	(103,000)	(25,000)	(64,250)
163												
164	566,228	647,734	544,552	550,857	486,512	586,055	637,738	717,432	1,657,849	536,477	662,088	708,572
165												
166												
167												
168												
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# BORREGO WATER DISTRICT

	<b>BALANCE SHEET</b> <b>September 30, 2011</b> <i>(unaudited)</i>	<b>BALANCE SHEET</b> <b>August 31, 2011</b> <i>(unaudited)</i>	<b>MONTHLY</b> <b>CHANGE</b> <i>(unaudited)</i>
<b>ASSETS:</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	\$ 685,361.26	\$ 662,165.18	\$ 23,196.08
Accounts receivable from water sales and sewer charges	\$ 318,722.09	\$ 336,219.18	\$ (17,497.09)
Interest receivable	\$ -	\$ -	\$ -
Inventory	\$ 125,527.90	\$ 128,953.99	\$ (3,426.09)
Availability charges receivable	\$ 335,659.21	\$ 335,659.21	\$ -
Grant Receivable	\$ 39,278.97	\$ 39,278.97	\$ -
Prepaid expenses	\$ 47,678.52	\$ 47,678.52	\$ -
Other Receivables	\$ 323,604.02	\$ 323,604.02	\$ -
<b>TOTAL CURRENT ASSETS</b>	<b>\$ 1,875,831.97</b>	<b>\$ 1,873,559.07</b>	<b>\$ 2,272.90</b>
<b>RESTRICTED ASSETS</b>			
<b>Debt Service:</b>			
Deferred amount of COP Refunding	\$ 162,566.97	\$ 162,566.97	\$ -
Unamortized bond issue costs	\$ 111,917.95	\$ 111,917.95	\$ -
Total Debt service	\$ 274,484.92	\$ 274,484.92	\$ -
<b>Trust fund:</b>			
Investments with fiscal agent -CFD 2007-1	\$ 175,462.70	\$ 186,267.70	\$ (10,805.00)
Total Trust fund	\$ 175,462.70	\$ 186,267.70	\$ (10,805.00)
<b>TOTAL RESTRICTED ASSETS</b>	<b>\$ 449,947.62</b>	<b>\$ 460,752.62</b>	
<b>UTILITY PLANT IN SERVICE</b>			
Land	\$ 2,027,868.94	\$ 2,027,868.94	\$ -
Flood Control Facilities	\$ 4,319,603.58	\$ 4,319,603.58	\$ -
Capital Improvement Projects	\$ 1,556,930.96	\$ 1,502,854.56	\$ 54,076.40
Sewer Facilities	\$ 5,514,571.59	\$ 5,514,571.59	\$ -
Water facilities	\$ 10,339,941.84	\$ 10,339,941.84	\$ -
Pipelines,wells and tanks	\$ 700,300.53	\$ 700,300.53	\$ -
General facilities	\$ 1,009,059.92	\$ 1,009,059.92	\$ -
Equipment and furniture	\$ 376,263.30	\$ 376,263.30	\$ -
Vehicles	\$ 471,545.28	\$ 471,545.28	\$ -
Accumulated depreciation	\$ (9,937,381.05)	\$ (9,937,381.05)	\$ -
<b>NET UTILITY PLANT IN SERVICE</b>	<b>\$ 16,378,704.89</b>	<b>\$ 16,324,628.49</b>	<b>\$ 54,076.40</b>
<b>OTHER ASSETS</b>			
Water rights -ID4	\$ 185,000.00	\$ 185,000.00	\$ -
<b>TOTAL OTHER ASSETS</b>	<b>\$ 185,000.00</b>	<b>\$ 185,000.00</b>	
<b>TOTAL ASSETS</b>	<b>\$ 18,889,484.48</b>	<b>\$ 18,843,940.18</b>	<b>\$ 45,544.30</b>

<b>LIABILITIES:</b>	<b>BALANCE SHEET September 30, 2011 (unaudited)</b>	<b>BALANCE SHEET August 31, 2011 (unaudited)</b>	<b>MONTHLY CHANGE (unaudited)</b>
<b><i>CURRENT LIABILITIES PAYABLE FROM CURRENT ASSETS</i></b>			
Accounts Payable	\$ 98,458.97	\$ 99,974.80	\$ (1,515.83)
Accrued expenses	\$ 172,261.50	\$ 172,261.50	\$ -
Deferred Revenue	\$ -	\$ -	\$ -
Deposits	\$ 27,571.25	\$ 27,571.25	\$ -
<b>TOTAL CURRENT LIABILITIES PAYABLE FROM CURRENT ASSETS</b>	<b>\$ 298,291.72</b>	<b>\$ 299,807.55</b>	<b>\$ (1,515.83)</b>
<b><i>CURRENT LIABILITIES PAYABLE FOM RESTRICTED ASSETS</i></b>			
Debt Service:			
Accounts Payable to CFD 2007-1	\$ 175,462.70	\$ 186,267.70	\$ (10,805.00)
<b>TOTAL CURRENT LIABILITIES PAYABLE FROM RESTRICTED ASSETS</b>	<b>\$ 175,462.70</b>	<b>\$ 186,267.70</b>	<b>\$ (10,805.00)</b>
<b><i>LONG TERM LIABILITIES</i></b>			
2008 Certificates of participation (payable from restricted assets)	\$ 2,775,000.00	\$ 2,775,000.00	\$ -
Montesoro Note Payable	\$ 644,557.51	\$ 644,557.51	\$ -
<b>TOTAL LONG TERM LIABILITIES</b>	<b>\$ 3,419,557.51</b>	<b>\$ 3,419,557.51</b>	<b>\$ -</b>
<b>TOTAL LIABILITIES</b>	<b>\$ 3,893,311.93</b>	<b>\$ 3,905,632.76</b>	<b>\$ (12,320.83)</b>
<b><i>FUND EQUITY</i></b>			
Contributed equity	\$ 9,649,544.17	\$ 9,649,544.17	\$ -
Retained Earnings:			
Unrestricted Reserves/Retained Earnings	\$ 5,346,628.38	\$ 5,288,763.25	\$ 57,865.13
Total retained earnings	\$ 5,346,628.38	\$ 5,288,763.25	\$ 57,865.13
<b>TOTAL FUND EQUITY</b>	<b>\$ 14,996,172.55</b>	<b>\$ 14,938,307.42</b>	<b>\$ 57,865.13</b>
<b>TOTAL LIABILITIES AND FUND EQUITY</b>	<b>\$ 18,889,484.48</b>	<b>\$ 18,843,940.18</b>	<b>\$ 45,544.30</b>



# BORREGO WATER DISTRICT

## Treasurer's Report September, 2011

Bank Balance	Carrying Value	Fair Value	% of Portfolio				
			Current Actual	Imposed Limit	Rate of Interest	Maturity Date	Valuation Source

### Cash and Cash Equivalents:

Demand Accounts at Wells Fargo Bank/BSB

General Account/Petty Cash	\$ 411,619	\$ 394,006	\$ 394,006	57.49%	n/a	0.00%	n/a	WFB/BSB
Payroll Account	\$ 23,539	\$ 20,371	\$ 20,371	2.97%	n/a	0.05%	n/a	WFB
LAIF	\$ 20,737	\$ 20,737	\$ 20,737	3.03%	n/a	0.56%	n/a	LAIF
MMA	\$ 250,248	\$ 250,248	\$ 250,248	36.51%	n/a	0.05%	n/a	WFB
<b>Total Cash and Cash Equivalents</b>	<b>\$ 706,142</b>	<b>\$ 685,361</b>	<b>\$ 685,361</b>	<b>100.00%</b>				

### Facilities District No. 2007-1

First American Treas Obligation -US BANK	175,463	175,463	175,463
<b>Total Cash,Cash Equivalents &amp; Investments</b>	<b>\$ 881,604</b>	<b>\$ 860,824</b>	<b>\$ 860,824</b>

Cash and investments conform to the District's Investment Policy statement filed with the Board of Directors on July 27, 2011. Cash, investments and future cash flows are sufficient to meet the needs of the District for the next six months. Sources of valuations are Borrego Springs Bank (BSB), Wells Fargo Bank (WFB), LAIF and US Trust Bank.

  
Kim Pitman, Administration Manager



# BORREGO WATER DISTRICT

To: BWD Board of Directors

From: Kim Pitman

Subject: Consideration of the Disbursements and Claims Paid  
Month Ending September, 2011

I.

<b>A. Vendor disbursements paid during this period:</b>	<b>\$</b>	<b>181,552.07</b>
<u>Significant items:</u>		
1 Utilities	\$	30,939.61
2 CalPERS Payments	\$	17,165.55
3 Employee Health Benefits	\$	19,344.44
4 ACWA-JPIA Workers Comp quarterly payment	\$	4,920.00
5 Refund water bill-Ray Bolanos (paid twice)	\$	17,666.44
<b>B. Capital Projects Outlays:</b>		
<i>(included in vendor disbursements paid above)</i>		
1 USGS - Installment on contract	\$	19,530.00
<b>C. Total Professional Services for this Period:</b>		
<i>(included in vendor disbursements paid above)</i>		
McDougal, Love, Eckis                      Legal	\$	2,191.34
	<b>Total Invoice:</b>	<b>\$ 2,191.34</b>
Dynamic Consulting Engineers - Stag Grant	\$	29,050.00
	<b>Total Invoice:</b>	<b>\$ 29,050.00</b>
William Mills & Associates - Stag Grant	\$	1,187.50
	<b>Total Invoice:</b>	<b>\$ 1,187.50</b>
<b>D. Payroll for this Period:</b>		
Gross Payroll	\$	71,177.96
Employer Payroll Taxes and ADP Fee	\$	1,140.73
<b>Total</b>	<b>\$</b>	<b>72,318.69</b>

BORREGO WATER DISTRICT  
 FOR BOARD CONSIDERATION AND APPROVAL  
 SEPTEMBER 30, 2011

GENERAL ACCOUNT

CHECK#	DATE	PAYEE & DESCRIPTION	AMOUNT
17327	10/13/11	U.S.BANK CORPORATE PAYMENT SYS SEE INVOICES FOR DETAILS	
17328	10/13/11	A-1 IRRIGATION, INC. FOR DETAILS PRESSURE GAUGES FOR WELLS	2,540.32
17329	10/13/11	ABILITY ANSWERING/PAGING SER ANSWERING & PAGING SERVICE-SEPT.2011	133.53
17330	10/13/11	ACWA JOINT POWER INS AUTHORITY WORKER'S COMP	172.01
17331	10/13/11	ACWA HEALTH BENEFITS AUTHORITY EMPLOYEE BENEFITS: 11/01/11-12/01-11	4,920.00
17306	09/26/11	AdvizeX Technologies, LLC HARDWARE SUPPORT 11/2011-10/2012	19,344.44
17307	09/26/11	DATA STREAM SERVER AFLAC	938.52
17332	10/13/11	EMPLOYEE PAID SUPPLEMENTAL INSURANCE-OCTOBER	587.84
17357	10/18/11	AIRGAS - WEST ACETYLENE CYLINDERS ALLIED WASTE SERVICES #467 3-0467-0701728 4861 BORREGO SPRINGS RD 2475 STIRRUP RD BASIC SERVICE 467-0007554 3155 HONOR COURT BASIC SERVICE 467-001274608 2990 BORREGO VALLEY RD BASIC SERVICE AMERICAN LINEN INC. UNIFORMS FOR CREW	347.44
17333	10/13/11	AMERICAN LINEN INC.	2,786.82
17338	09/26/11	AMERICAN WATER MEMBERSHIP RENEWAL/DUES	463.97
17334	10/13/11	AT CONFERENCE IRWM CONFERENCE CALLS	413.00
17305	10/13/11	AT&T MOBILITY CELL PHONE CHARGES-SEPT.2011	19.53
17306			818.32

BORREGO WATER DISTRICT  
 FOR BOARD CONSIDERATION AND APPROVAL  
 SEPTEMBER 30, 2011

CHECK#	DATE	PAYEE & DESCRIPTION	AMOUNT
17336	10/13/11	AT&T-CALNET 2 760-767-4230 WWTP 760-767-5806 MAIN OFFICE 760-767-5559 MAINT SHOP/YARD BARRETT ENGINEERED PUMPS REPAIR PARTS FOR ID1 SEWER BORREGO COMMUNITY HEALTH FND HEP B VACCINE TROY DEPRIEST BORREGO SPRINGS BOTTLED WATER BOTTLED WATER FOR OFFICES - YARD & WWTP BORREGO SUN ADVERTISING SEPTEMBER 2011 BRIAN J. BRADY PROFESSIONAL FEES PER AGREEMENT:GMM COUNTY OF SAN DIEGO EXCAVATION PERMIT FEES, VARIOUS JOBS DATASTREAM BUSINESS SOLUTIONS, WATER BILLING PROGRAMMING JAMES G HORMUTH/DBA TRUE VALUE SEE INVOICES FOR DETAILS DEBBIE MORETTI PEST CONTROL FOR ALL SERVICE OFFICES DESERT TIRE CENTER GMC P/U LICENSE#1252455CA BASIC SERVICE & BRAKE FILTER DYNAMIC CONSULTING ENGINEERS PROFESSIONAL FEES PER AGREEMENT E. S. BABCOCK & SONS, INC. WATER SAMPLES ON ALL WELLS EMPIRE SOUTHWEST GENERATOR EXHAUST RAIN CAP FRONTIER ODOR CONTROL & SEWER LINE CLEANER HIDDEN VALLEY PUMP SYSTEMS INC PUMP SET FOR\USGS	290.09 2,553.88 137.00 42.18 52.50 450.00 3,419.07 1,425.00 282.34 145.00 76.64 29,050.00 920.00 120.69 102.47
17309	09/26/11		
17337	10/13/11		
17338	10/13/11		
17310	09/26/11		
17311	09/26/11		
17312	09/26/11		
17339	10/13/11		
17340	10/13/11		
17313	09/26/11		
17314	09/26/11		
17341	10/13/11		
17342	10/13/11		
17343	10/13/11		
17344	10/13/11		
17345	09/26/11		

BORREGO WATER DISTRICT  
 FOR BOARD CONSIDERATION AND APPROVAL  
 SEPTEMBER 30, 2011

CHECK#	DATE	PAYEE & DESCRIPTION	AMOUNT
17350	10/13/11	5035 410 733 7 3528 COUNTRY CLUB RD ID4-10 8364 482 055 9 5073 BORREGO SPRINGS RD ID1-1 9489 482 054 6 5065 BORREGO SPRINGS RD ID1-2 2700 523 335 7 806 PALM CANYON DR OFFICE/MAINT SHOP 6954 509 423 8 STIRRUP RD E OLD SHOP 2881 512 118 8 1111 INDIAN HEAD RANCH RD ID4-18 3909 503 745 7 1775 BORREG SPRINGS RD ID4-4 9534 569 937 1 2201 DIEGUENO RD ID4-11 6159 441 279 1 2473 STIRRUP RD LUGO BLDG. SAN DIEGO MAILING SOLUTIONS CONTRACT BASE CHARGE FOR: 10/07/11-10/06/12 TURF STAR, INC. & REPAIR MOWER SERVICE UNDERGROUND SERVICE ALERT DIG ALERT TICKETS, VARIOUS JOBS UNITED STATES DOWNPAYMENT- USGS STUDY 09W4CAD23400 VERIZON WIRELESS EMERGENCY CELL PHONES FOR POWER OUTAGES WENDY QUINN RECORDING SERVICE FOR SEPTEMBER 2011 WEST GROUP PAYMENT CTR. SUBSCRIPTION-GOV.CODES RENEWAL: 08/15/11- 09/04/11 WILLIAM R. MILLS & ASSOC	30,939.61
17351	10/13/11		1,190.00
17352	10/13/11		1,117.64
17353	10/13/11		7.50
17354	10/13/11		19,530.00
17355	10/13/11		83.69
17356	09/26/11		220.00
17358	09/26/11		271.53

BOREGO WATER DISTRICT  
 FOR BOARD CONSIDERATION AND APPROVAL  
 SEPTEMBER 30, 2011

CHECK#	DATE	PAYEE & DESCRIPTION	AMOUNT
		PROFESSIONAL FEES	1,187.50
		STAG GRANT	181,552.07
		TOTAL	182,739.57

SUSTAINABLE WATER PROGRAM  
 FYE 2012  
 ACCT #1712

DATE	DESCRIPTION	CLARK LAKE PROJECT CIP	STAFF SUPPORT CLARK LAKE PROJECT CIP	S.E. FEASIBILITY STUDY CIP	STAFF SUPPORT S.E. TRANS LINE SURVEY CIP	STAG GRANT	STAFF SUPPORT STAG GRANT CIP	IRWMP	STAFF SUPPORT IRWMP CIP	BOR	TOTALS
	<b>BALANCE BROUGHT FORWARD-FYE 2011</b>	<b>\$ 419,676.19</b>	<b>\$ 73,388.24</b>	<b>\$ 145,981.09</b>	<b>\$ 58,851.66</b>	<b>\$ 70.00</b>	<b>\$ 4,516.74</b>	<b>\$ 90,963.46</b>	<b>\$ 59,912.53</b>		<b>\$ 853,359.91</b>
07/15/11	Record Staff Time-Rolwing-IRWMP								184.64		184.64
07/15/11	Record Staff Time-Rolwing-Stag Grant						738.56				738.56
07/19/11	William Mills & Associates-Stag Grant					2,687.50					2,687.50
07/16/11	William Mills & Associates-Stag Grant					3,875.00					3,875.00
07/31/11	Record Staff Time-Rolwing-IRWMP								1,107.84		1,107.84
07/31/11	Record Staff Time-Rolwing-Stag Grant						553.92				553.92
08/12/11	Record Staff Time-Rolwing-IRWMP								369.28		369.28
08/12/11	Record Staff Time-Rolwing-Stag Grant						184.64				184.64
08/31/11	McDougal, Love, Eckis-Attorney fee							26.25			26.25
08/31/11	RMC Water & Environment							4,255.00			4,255.00
08/31/11	Record Staff Time-Rolwing-IRWMP								553.92		553.92
08/31/11	Record Staff Time-Rolwing-Stag Grant						184.64				184.64
09/15/11	Record Staff Time-Rolwing-IRWMP								553.92		553.92
09/15/11	Record Staff Time-Rolwing-Stag Grant										
09/26/11	McDougal, Love, Eckis-Attorney fee							411.25			411.25
09/26/11	William Mills & Associates-Stag Grant					1,187.50					1,187.50
09/30/11	Dynamic Consulting Engineers					29,050.00					29,050.00
09/30/11	Record Staff Time-Rolwing-IRWMP								553.92		553.92
09/30/11	Record Staff Time-Rolwing-Stag Grant						369.28				369.28
	<b>CIP PROJECTS TOTAL:</b>	<b>\$ 419,676.19</b>	<b>\$ 73,388.24</b>	<b>\$ 145,981.09</b>	<b>\$ 58,851.66</b>	<b>\$ 36,870.00</b>	<b>\$ 6,917.06</b>	<b>\$ 95,655.96</b>	<b>\$ 63,236.05</b>		<b>\$ 900,576.25</b>





GWM PROGRAM  
FYE 2011  
ACCT #1722

DATE	DESCRIPTION	USGS GROUNDWATER BASIN STUDY	VIKING RANCH FALLOWING PROJECT	TOTALS
<b>07/01/11</b>	<b>BALANCE BROUGHT FORWARD FYE 2011:</b>	<b>\$ 334,593.91</b>		<b>\$ 334,593.91</b>
07/22/11	Lance Lundberg-to cover expenses per agreement		6,000.00	\$ 6,000.00
08/23/11	Hidden Valley Pump Test-USGS	6,716.62		\$ 6,716.62
08/31/11	McDougal, Love, Eckis-Attorney		210.00	\$ 210.00
09/26/11	hIDden Valley Pump set for-USGS	1,500.00		\$ 1,500.00
09/26/11	McDougal, Love, Eckis-Attorney		551.25	\$ 551.25
09/30/11	USGS-payment on contract	19,530.00		\$ 19,530.00
				\$ -
				\$ -
				369,101.78
	<b>CIP PROJECTS TOTAL:</b>	<b>\$ 362,340.53</b>	<b>\$ 6,761.25</b>	<b>\$ 369,101.78</b>

**BORREGO WATER DISTRICT  
CAPITAL PROJECT EXPENSES  
FYE 2012**

DESCRIPTION OF CAPITAL IMPROVEMENT PROGRAMS	BUDGET FYE 2012	PREVIOUS YEAR BALANCE BR FWRD	Beginning Balance 9/1/2011	Monthly Activity September	Actual as of 9/30/2011
<b>1712 - SUSTAINABLE WATER</b>					
TOTAL 1712:	\$ 104,000	\$ 853,360	\$ 868,081	\$ 32,495	\$ 900,576
<b>1716 - NEW RESERVOIRS</b>					
TOTAL 1716:	\$ 250,000	\$ 287,253	\$ 287,253	\$ -	\$ 287,253
<b>1717 - SEWER SYSTEM IMPROVEMENTS</b>					
TOTAL 1717:	\$ 5,000	\$ -	\$ -	\$ -	\$ -
<b>1722 - GROUNDWATER MANAGEMENT</b>					
Total 1722:	\$ 225,500	\$ 334,594	\$ 347,521	\$ 21,581	\$ 369,102
<b>TOTAL C.I.P. COSTS TO DATE:</b>			\$ 1,502,855	\$ 54,076	\$ 1,556,931

## **Borrego Water District Management Report – October 2011**

*By: Jerry Rolwing*

### **BOARD REQUEST**

There was a request that I compare the FYE 2011 residential water usage to the previous years (attachment A). The five year average was 0.78 which is still below the 0.95 used by the County for a single family residence.

### **FEDERAL LEVEL**

U.S. Geological Survey: I am presently arranging for the citizens advisory committee to meet and determine the model runs to be incorporated into the USGS final report. In addition, I am coordinating the sampling of an agricultural well completed to the middle aquifer through the USGS GAMA (groundwater ambient monitoring and assessment) program.

U.S. Department of Reclamation: Working with Reclamation to get a letter on water availability for part of "task G" of the EPA STAG work plan. As part of the MOA with Reclamation, we are required to pay \$12,000 in October. We have not received an invoice and they are aware of this and the Temecula office is resolving the oversight.

State and Tribal Assistance Grant (STAG): Attached (attachment B) are the three reports I drafted after meetings with the Anza Borrego Desert State Park, California Department of Fish and Game and the Bureau of Land Management. Bill Mills has finished "tasks F and the remainder of "task G" (attachment C). Bill has resigned from performing any more work for the District and his expertise will be greatly missed. The quarterly report is in progress and we should be able to invoice approximately \$39,000. This will leave a balance of approximately \$32,000 which will be invoiced with the final report that I will prepare by December 2011.

U.S. Department of Agriculture: I am working with District consulting Engineer David Dale to evaluate preparing a pre-application for one of our future capital improvement projects. The proposed 10" water main for Borrego Springs Road has been set up in segments for future construction over the next ten years. This possible funding opportunity could be in the form of a low interest loan, grant or combination of the two. This project is still in progress.

### **STATE LEVEL**

The Integrated Regional Water Management (IRWM) program held a very productive stakeholder meeting on October 11th. The minutes of the September meeting are featured with the Strategic Planning Committee report in the Board packet and the October minutes are not yet available from the consultant, RMC Water and Environmental. We are still waiting on confirmation from the Department of Water Resources (DWR) for continued facilitation by State contractors Dale Schafer and Ali Taghavi.

I have been working with DWR staff in designing the District's CASGEM (California Statewide Groundwater Elevation Monitoring) program. As the designated local groundwater management agency, the District will be submitting a monitoring plan in accordance with the program. Matt Zimmerman of the DWR staff has been a great asset in helping us design our program. The program

does not allow the inclusion of public production wells so we must build a plan utilizing our monitor wells and a few other wells in the Valley. The legislature did not provide any funding for local agencies to comply CASGEM program; however, if we do not participate, the District will not be eligible for future grant opportunities. The DWR will be offering another round of LGA (Local Groundwater Assistance) grants in the Spring of 2012. This would be an opportunity to increase our knowledge of the aquifer by drilling another monitor well to help comply with this program.

### **COUNTY LEVEL**

The Strategic Planning Committee has had two meetings with local stakeholders on the draft amendment of the County Groundwater Ordinance. Extra effort has been made to ensure that affected parties are aware of the amendment and encourage public comment. The comment period ends on October 28, 2011.

### **LOCAL LEVEL**

Be sure to stop by the Borrego Water District booth at the Borrego Days Festival. Information on the IRWM and groundwater issues will be featured along with water saving literature and children's coloring books.

### **DISTRICT LEVEL**

District staff continues to investigate and implement cost saving measures in every aspect of our operations.

District engineering consultant David Dale is assisting the operations manager in the permitting of our backup diesel motors and generators. Last year the San Diego County Air Pollution Control District cited us for not having a permit for the Wilcox installation. Since that time we have been working with the County to bring the District into compliance but some of the detailed information required the input for our engineers.

We experienced a communication problem with the District SCADA (supervisor control and data acquisition) system. The ten year old radios have performed well but are now failing, partly from age but mostly, from the harsh desert conditions on electronics. A program has been established to replace the failing equipment over the next few months.

### **GENERAL**

Salton Sea: The County of Imperial has approved an expansion of an eight acre landfill to more than 287 acres. The site is located east of State Route 86, between the Borrego-Salton Seaway and State Route 78 near the Salton Sea Airport. Trash will come from Imperial, Los Angeles, Orange, San Diego and San Bernardino Counties over the next twenty years.

<b>FYE 2011 Customer Usage by User Code</b>			
<b>USER CODE</b>	<b>AF/Yr/Account</b>	<b># of Accounts</b>	<b>Zero Accounts</b>
Residential	0.64	1707	206
Public Agency	3.05	34	0
Irrigation	4.53	58	9
Multiple Units	6.98	25	2
Commercial	2.42	104	16
Golf Course	376.16	3	0
<b>Sub-total</b>		<b>1931</b>	<b>233</b>
Residential = Single family residences			
Public Agency = schools, parks, St. Park, churches			
Irrigation = Homeowners asso., common areas			
Multiple Units = Apartments, mobile home parks, duplexes			
Commercial =Resturants, retail shops, hotels, RV parks			
Golf Course = Montesorro and Club Circle			
Zero Accounts = Meters in ground with no usage			
AF/Yr = Acre feet per year			
1 Acre foot = 435.63 units			
<b>Residential Historical Usage</b>			
2005	0.78		
2006	0.78		
2007	1.08		
2008	0.79		
2009	0.73		
2010	0.64		
2011	0.64		
<b>5 Year Average</b>	<b>0.78</b>		

**TASK PROGRESS REPORT - Borrego Springs Pipeline Feasibility Study**  
**EPA Region 9, Tracking #10-430**  
**Task # E1**  
**Meeting with Anza-Borrego Desert State Park Staff**  
September 14, 2011  
By: Jerry Rolwing, General Manager

On September 13, 2011 a meeting was held with Ms. Gail Servens, Mr. Jim Dice and Mr. Eric Hollenbeck of the California State Parks to discuss the possible environmental issues associated with the construction and operation of the Borrego Springs Importation Pipeline. We reviewed the set of detailed maps prepared by Dynamic Engineering and several potential issues were referenced. Three areas of concern were identified and discussed separately below.

**San Sebastian Marsh Area of Critical Environmental Concern (ACEC)**

This area is under the control of the U.S. Bureau of Land Management (BLM) and is located southeast of the Allegretti Farm on sheets 16, 17 and 18 (of 37), between stationing 1325+00 and 1210+00 of the map book entitled "Borrego Springs Pipeline Feasibility Study, Study Element Task A2 and C1", September 2011. Work performed in this area must adhere to the guidelines as outlined in the "Flat-tailed Horned Lizard Rangeland Management Strategy", May 2003 revision.

**San Felipe Creek Ecological Reserve**

This area lies approximately one mile east of the power line easement and should not be affected by the construction or operation of a pipeline in the same easement. Issues such as construction dust control can be addressed in the environmental documents.

**West Mesa ACEC**

This area is located along the power line easement, four miles south of the San Sebastian Marsh ACEC on sheets 22 through 32 between stationing 965+00 and 300+00 of the afore mentioned map book. There are private in-holdings on sheet 25 and 26, between stationing 785+00 and 725+00. Another private in-holding is located on sheet 27 between stationing 655+00 and 620+00. Work performed in this area must adhere to the guidelines as outlined in the "Flat-tailed Horned Lizard Rangeland Management Strategy", May 2003 revision.

Several points in general were discussed beyond the flora and fauna issues. Paleontology sites have been located throughout the region and could be identified through geologic mapping. All known sites are located in specific rock types and are used as markers for potential areas of interest. Sites have been identified at various depths in the soil. One possible idea for mitigation from the park staff was to bury the power line at the same time with the pipelines. This issue would greatly increase the construction costs but could be addressed during the preliminary assessments with Imperial Irrigation District, the agency which owns and operates the power line.

## TASK PROGRESS REPORT - Borrego Springs Pipeline Feasibility Study

### EPA Region 9, Tracking #10-430

#### Task # E1

### Interview with California Department of Fish and Game

September 19, 2011

By: Jerry Rolwing, General Manager

At the recommendation of the Anza-Borrego Desert State Park Staff, I had several conversations with Mr. Paul Schlitt of the south Coast Region office of the California Department of Fish and Game (F&G) regarding the environmental concerns of the proposed pipeline route. The final conversation resulted in the information below which outlines the various plants and animals that at this time, would present fish and Game concerns. In addition, Mr. Schlitt directed his GIS (geographical information system) specialist to take our pipeline route map and delineate areas of concern (attachment). The data shows the potential sensitive plant/animal resources that could occur within the proposed pipeline alignment that are on file with the California Natural Diversity Database (CNDDDB). The information was also routed by senior biologist Mr. Randy Botta. Mr. Botta did not feel that any portion of the pipeline alignment falls within lands managed by Region 5 and that there appears to be no potential impact on bighorn sheep. I will contact Mr. Eddy Konno of the F&G Region 6 to see if there are any concerns as we cross over into their region at the Imperial County line. In addition, Mr. Schlitt offered contacts with the U.S. Fish and Wildlife Service for further guidance on USFWS concerns with the project.

Below is a list of plants/animals depicted on the CNDDDB Map.

#### Plants

Brown Turbans (*Malperia tenuis*) <http://sandiego.sierraclub.org/rareplants/158.html>

Peirson's Pincushion (*Chaenactis carphoclinia*) <http://sandiego.sierraclub.org/rareplants/052.html>

Coves' Cassia (*Senna covesii*) <http://sandiego.sierraclub.org/rareplants/222.html>

Orcutt's Woody-aster (*Xylorhiza orcuttii*)  
<http://sandiego.sierraclub.org/rareplants/234.html>

#### Animals

Supplemental information can be found on the department's wildlife species matrix link below:

Carlson's dune beetle (*Anomala carlsoni*)

Colorado Desert fringe-toed lizard (*Uma notata*)

Colorado Valley woodrat (*Neotoma albigula venusta*)

flat-tailed horned lizard (*Phrynosoma mcallii*)

leopard frog (*Lithobates yavapaiensis*)

prairie falcon (*Falco mexicanus*)

Department of Fish and Game, Wildlife Species Matrix web link:

[http://www.dfg.ca.gov/wildlife/WAP/matrix\\_results.asp?cnddb=cnddb&sc=1&se=1&fe=1&fep=1&ft=1&ftp=1&fd=1&fdp=1&iucn=1&blm=1&usfs=1&fws=1&cdf=1&dfg=CSC&fsc=1&xerces=1&other=1&checkall=on](http://www.dfg.ca.gov/wildlife/WAP/matrix_results.asp?cnddb=cnddb&sc=1&se=1&fe=1&fep=1&ft=1&ftp=1&fd=1&fdp=1&iucn=1&blm=1&usfs=1&fws=1&cdf=1&dfg=CSC&fsc=1&xerces=1&other=1&checkall=on)

**TASK PROGRESS REPORT - Borrego Springs Pipeline Feasibility Study  
EPA Region 9, Tracking #10-430**

**Task # E1**

**Interview with U.S. Bureau of Land Management**

October 5, 2011

By: Jerry Rolwing, General Manager

On October 5, 2011 I met with Daniel Steward and Nicollee Gaddis of the U.S. Bureau of Land Management (BLM) at their El Centro, California field office. We discussed issues of concern they may have with the proposed imported water pipeline alignment. The preferred alignment runs along the western portion of the San Sebastian Marsh Area of Critical Environmental Concern (ACEC), the West Mesa ACEC and across BLM land holdings in western Imperial County.

BLM management guidelines allow for 1% disturbance over their area, which means they can be very selective of the projects brought before them. In addition, they can require a 1:6 compensation on lands disturbed. That would require the purchase of mitigation property six times larger than the area disturbed. Some of the property managed by the BLM was donated through various non-profit organizations. These "acquired lands" often have caveats prohibiting any other use which includes the granting of easements over the properties. The area located between State Route 78 and Wheeler Road in El Centro is a designated "off road" recreational area and in accordance with the Western Colorado Routes of Travel Designation (WECO), the construction cannot hinder access of these "open" road areas. This might best be mitigated by performing construction during the summer months where off-road activity is at a minimum. Any lands that are used for military purposes must also be subject to military approval as well as the BLM.

The preferred alignment follows the historic Juan Batista de Anza Trail which is managed by the National Parks system. In addition, there is a high probability that the area just east of the Allegretti Farm is the site of an ancient Native-American village. As many as 18 tribes lay claim to this historic site but to date has not been subject to an archeological survey. The only mitigation if such a site does exist, is to relocate the pipeline alignment. Archeological sites have also been located along the ancient Lake Cahuilla shoreline which corresponds to the 40' above sea level contour. The mesquite forest adjacent to the Allegretti Farm also holds potential. Cultural reporting must be performed at early stages of the permitting process to allow for re-alignment of the route if necessary. Contractors who will be performing these studies must be pre-approved as well as the methodology the consultant plans to utilize.

The proposed alignment crosses the San Felipe Wash which also poses environmental concerns from the endangered pupfish and will require a 404 permit from the U.S. Army Corps of Engineers as well as a streambed alteration permit from the California Department of Fish and Game. Work performed in the Flat-tailed horned lizard habitat must follow guidelines outlined in the "Flat-tailed Horned Lizard Rangeland Management Strategy", 2003 version. As this species moves closer to the endangered species list, the requirements will increase greatly. Biological and wildlife studies should also begin in the early stages of the permitting process to allow for seasonal changes and to include periods of precipitation which may not be significant in certain years.

The BLM staff suggested following a pathway where the property was already disturbed and to perform all studies early enough to allow for design changes to be made, prior to final submittal.

**Draft Interim Report**

**Study Element F: Allegretti Sub Basin as a Source Water Study  
Study Element G: IID as a Source Water Study**

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## **Draft Interim Report**

### **Study Element F: Allegretti Sub Basin as a Source Water Study Study Element G: IID as a Source Water Study**

#### **1.0 Introduction**

This report describes and analyzes the water source availability from the Allegretti Sub Basin for importation into the Borrego Valley. The water banking potential of the Sub Basin is also preliminarily evaluated.

This interim summary report covers the following study elements of Task F: Allegretti Sub-basin as a Source Water Study:

- Task F1 – Coordinate with IID’s storage and recovery investigation
- Task F2 – Groundwater export issues
- Task F3 – Obtain all published reports on the Allegretti Groundwater sub-basin
- Task F4 – Obtain well completion reports, production and quality data for the sub-basin
- Task F5 – Review of ‘source’ data from the existing groundwater model
- Task F5a – Evaluate the potential use of the County groundwater model
- Task F6 - Conduct additional sampling and testing
- Task F7 – Identify water level trends and water quality trends
- Task F8 – Prepare technical memorandum report
- Task F9 – Identify alternative brine disposal options
- Task F10 - Evaluate Water Banking issues in the Sub-basin
- Task F11- Environmental and regulatory issues identification
- Task F12 – Prepare a summary report

The interim report also covers Study Element G: IID as a Source Water Supply for the Borrego Valley and includes the following tasks as included in the scope of work:

- Task G1 – Discuss with IID the possibility of ‘wheeling’ water through their system –
- Task G2 – Analysis of IID delivery system for ‘Task G3

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

#### **2.0 Allegretti Sub Basin as a Source Water Supply**

##### **2.1 Description of the Allegretti Sub Basin**

The Allegretti Sub-basin is located directly east and adjacent to the Salton Sea (Fig. 1). The Sub-basin is situated within the Lower Borrego Valley and within Ocotillo Clark Valley (Ref. 1, basin 7-25) as defined by the California Department of Water Resources (DWR).

##### **2.2 Boundaries of Sub Basin**

DWR describes the Ocotillo Valley Ground Water Basin as a 410 square mile basin drained by San Felipe Creek. Based on the map in (Ref. 1) showing ground water basins

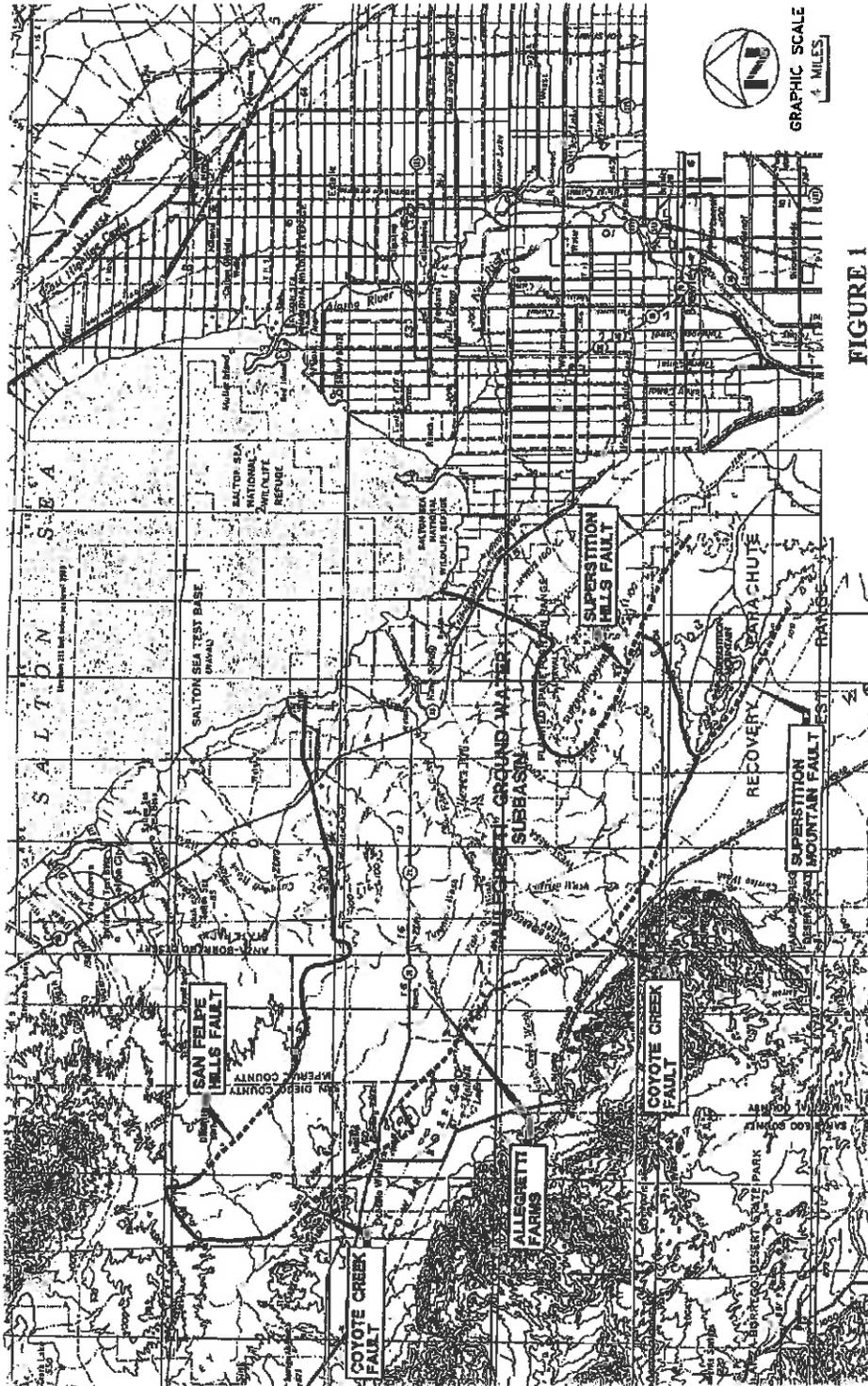


FIGURE 1  
ALLEGRETTI GROUNDWATER SUB BASIN

within the Colorado Desert Hydrologic Study Area, the Ocotillo Valley Basin includes Lower Borrego Valley, both upstream and downstream of the Coyote Creek. The natural recharge is estimated at about 1,100 afy.

The Ocotillo Valley Ground Water Basin and its sub basins have not been clearly defined and data pertaining to the basin and sub basin boundaries are sparse.

The Allegretti sub basin has been defined (Ref. 6 - 8) generally as that area bounded on the southwest by the Ocotillo Badlands and the Coyote Creek fault, on the south by the Superstition Hills and the topographic divide between the Coyote Creek Fault and the Superstition Hills Fault, on the north by the San Felipe Hills Fault and the topographic divide between Tule Wash and San Felipe Creek, and on the east by the Salton Sea. For lack of a specific name designation, the ground water sub basin has been named the "Allegretti" sub basin.

### **2.3 Hydrogeologic Data from Wells within the Sub Basin**

Driller's well construction logs for several of the wells identified in this report are included in Appendix A.

A large farming operation, the Allegretti Farms (Farm), has developed within the sub basin a well field for its operation. Much of the data on the hydrology of the sub basin is derived from the Farm's and nearby wells. The locations of the Farm and nearby wells are shown on Figure 2. DWR and the U S Geological Survey (USGS) supplied data concerning water levels and water quality.

The Farm is located situated easterly of the Ocotillo Badlands and the northwest/southeast trending Coyote Creek Fault. The fault is northeasterly of Fish Creek Mountains and northerly of Superstition Hills.

The Coyote Creek fault appears to constitute a ground water barrier as evidenced by data contained USGS Water Resources Investigations (Ref. 10). The reports indicate ground water levels much higher, up to 100 feet, and water quality much better, 1/4th the TDS, west of Coyote Creek fault. The sub basin easterly of Coyote Creek fault, from which the Farm derives its water supply, constitutes the easterly portion of the Ocotillo Valley Ground Water Basin.

There are 13 wells within the immediate vicinity of the Farm, Allegretti Wells 1 through 7, the Jacobs abandoned domestic well within the Allegretti property and the Payne, Gann, Scholl, Steinruck, and Blu-In Park Wells west of Allegretti Farm. There are 5 wells east of Allegretti Farm, the USGS test wells (12S/11E - 18J1 and J2), Harper's Well (12S/10E - 26M), and the two Three Flags Ranch wells (12S/11E - 5 Q).

Jacobs Ranch or Ranch Oasis, the Farm predecessor, constructed the first two wells in 1953 and began farming in 1954. Jacobs Ranch constructed additional wells in 1961 (Wells 2 and 3) and in 1976 (Wells 4, 5, and 6). The Farm assumed ownership of the ranch in the early 1980's and constructed a small domestic well (Well 7) in 1982. Construction and pump discharge data pertaining to Allegretti Farm wells are shown in Table 1.

**TABLE 1 ALLEGRETTI FARMS WELL DATA**

	WELL NUMBER							SAN FELIPE
	1	2	3	4	5	6	7	
	(12S/9E- 23D2)	(12S/9E- 22A2)	(12S/9E- 15Q)	(12S/9E- 27A)	(12S/9E- 23G)	(12S/9E- 25D)	(12S/9E- 23B)	(12S/9E- 23D1)
Constructed (year)	1965	1960	1969	1976	1976	1976	1982	1953
Well Depth (feet)	675	667	1,200±	1000	1130	1000	400	580
Perforated Intervals (feet)	260-674	380-667		380-980	350-780, 930-1120	380- 1000	340-400	250-565
Pump Discharge (gpm)	1,500	1,800	3,000	2,800	1,800	3,100	N/A	N/A

Water quality data for the Farm wells and nearby by wells are shown in Table 2. The available water quality record was considered sufficient to negate any further testing of the identified wells.



(Ref. 9) also substantiates this finding.

The USGS drilled two test wells in 1964 in Section 18 (12S/11E - J1 and J2). Well J1 (artesian), which was drilled to a depth of 958 feet, cased to a depth of 650 feet, and perforated from 310 to 650 feet, had a TDS of 1,420 mg/L. Well J2 (on the same site), which was drilled to a depth of 55 feet and was perforated from 35 to 55 feet, had a TDS of 8,420 mg/L. The USGS concluded that "at this locality the shallow water and deep artesian water evidently are separated by very poorly permeable deposits".

**2.41 Shallow Aquifer:** The Farm's existing wells extend through the shallow aquifer and the underlying aquitard and penetrate the deep aquifer; however, the original Jacobs Ranch domestic well, now abandoned, may have penetrated either aquifers or only the shallow aquifer. For the Jacobs Ranch domestic well, water level data is unavailable; however, water quality data (TDS 5,910 mg/L) indicates significant influence from the shallow aquifer. At least two (Scholl and Steinruck) of five wells situated westerly of the Farm, only penetrate or are only perforated within the shallow aquifer based on water level and water quality. Another well (Payne) penetrates and is perforated within both aquifers, but based on water level and water quality data, it derives its water supply from the deep aquifer. Well and water level data are not available for the Blu-In Park Well and the Gann Well, Gann's property being adjacent to the Payne property; however, a water quality analysis is available for the Blu-In Park well.

The static water levels measured (1995) in the Scholl Well in the southwest corner of Section 21 (12S/19E) and the Steinruck Well in the southeast corner of Section 21 were 91 and 77 feet below ground surface, respectively. The water levels are consistent with an easterly ground water gradient. The static water levels in the Farm's wells and the Payne Well to the west are about 100 feet deeper than the static water levels in the Scholl and Steinruck wells. This significant differential within a short distance appears to also indicate at least two distinct and separate aquifers, one shallow and one deep.

The water quality analyses for the Scholl Well and the Jacobs Ranch domestic well with TDS of 7,900 mg/L and 5,910 mg/L, respectively, indicate markedly higher concentrations than the Farm Wells, the Payne Well, and the Blu-In Park Well with TDS concentrations of 930 to 1,800 mg/L, 4,790 mg/L, and 1,630 mg/L, respectively. TDS concentrations of three to four times greater than the previously mentioned wells appears also confirm the existence of distinct and separate aquifers as indicated by water level differences.

Although water levels and water samples are available from the Scholl Well, the well log is not.

Higher TDS in the shallow aquifer is probably a direct result of residual salts precipitated interstitially with sediments by receding waters of Lake Cahuilla with salts being periodically leached from the soil into the shallow aquifer during infiltration and percolation of surface runoff. The shallow aquifer can be conceptualized as ground water on laterally continuous clay layers, which effectively isolate the lower, less saline aquifer from the higher TDS water above. Few drillers' logs are available to facilitate lateral extrapolation of clay beds, but the logs which are available are credible indicators of persistent clay strata in the subsurface.

**TABLE 2 WATER QUALITY DATA (mg/L)**

Well	STATE WELL NUMBER	SAMPLE DATE	TOTAL DISSOLVED SOLIDS	Hardness	Sodium	Sulfate	Chloride
Alleghetti Well No. 1	12S/9E-23D2	9/25/1962	1,650	530	381	388	628
		7/29/1963	1,740	534	409	425	645
		2/26/1965	1,687	488	380	393	574
		12/3/1969	1,724	492	387	--	568
		8/23/1991	1,673	--	370	405	630
		6/20/2002	1,400	390	360	350	500
		9/22/1995	1,790	510	390	630	61C
Alleghetti Well No. 2	12S/9E-22A2	9/25/1962	1,580	486	372	388	578
		7/29/1963	1,560	442	383	400	55C
		8/15/1967	1,817	344	468	--	682
		12/3/1969	1,852	516	413	--	653
		4/18/1983	--	---	425	566	603
		8/23/1991	1,477	-	345	349	530
		9/22/1995	1,540	423	350	380	550
Alleghetti Well No. 3	12S/9E-2281	6/20/2002	1,200	350	280	270	450
		8/29/1967	---	480	390	450	603
		12/2/1969	1,806	344	441	---	596
Alleghetti Well No. 4	12S/9E-27A	8/29/1967	--	250	520	405	710
		4/18/1983		-	418	499	561
		11/10/1984	---		320	310	485
		8/23/1991	1,553		355	391	528
		4/7/1993	1,548	--	370	380	54C
		9/22/1995	1,660	445	365	510	58C
Alleghetti Well No. 6	12S/9E-25D	4/18/1983	---	---	258	345	348
		8/23/1991	1,243	---	258	256	490
		9/22/1995	1,200	350	256	280	500
Alleghetti Well No. 7 (domestic)	12S/9E-236	4/7/1982	880	217	232	240	312
		9/22/1995	930	198	245	230	410
Jacobs Abandoned Domestic Well	12S/9E-22A1	7/29/1963	5,910	1,880	1,360	1,850	2,000
Payne Well	12S/9E-17L	9/22/1995	1,790	451	455	520	800
Scholl Well	12S/19E-21N	9/22/1995	7,900	2,090	1,740	3,200	3,100
Blu-In Park Well	12S/19E-16M	9/22/1995	1,630	253	455	640	510
San Felipe Well	12S/9E-23D1	3/5/1955	1,840	602	439	412	724
San Felipe Spring		9/22/1995	14,800	3,460	3,900	5,800	5,000
Fish Creek Spring		8/21/1995	11,000	2,240	2,750	4,000	2,800
San Felipe Creek @ Highway 86 (99)		8/21/1995	9,700	1,950	2,550	3,600	2,800

#### 2.411 Surface Discharge of Shallow Aquifer Water to San Felipe and Fish Creek Springs

The shallow aquifer is an unconfined system. The ground water levels at the School and Steinruck wells when projected eastward, intersect the ground surface at approximately the same elevation as the springs in San Felipe and Fish Creeks in Section 32, (12S/9E). Thus, it is reasonably certain that the spring's water emanates from the shallow aquifer.

### **2.32 Deep Aquifer**

The deep aquifer is, according to well logs, at least partially confined. The paucity of well logs for local wells makes lateral correlation of confining clay layers difficult; however, the well logs that are available indicate persistent clay layers from 2 to approximately 200 feet below ground surface.

The Farm is the principal pumper from the deep aquifer. Westerly of the Farm, the Payne, Gann, and Blu-In Park are the only pumpers that depend on the deep aquifer and they produce small quantities of ground water for limited use, essentially dust control and landscape irrigation.

Easterly of the Farm, the Three Flags Ranch extracted ground water for irrigation purposes for a very short period of time after the property was developed in the mid-1980's. Its first ground water extraction well was constructed in 1982 and 1,000 to 1,200 acres of citrus crops were planted. Reportedly, Three Flags Ranch immediately discontinued use of the ground water in favor of Colorado River water from Imperial Irrigation District. Three Flags Ranch longer pumps ground water from the deep aquifer, but it is allowing artesian surface water discharge.

The Farm (and its predecessors) began farming in 1954. From 1983 through 1996, excluding 1990, ground water production ranged from 3,250 afy to 6,050 af, averaging 4,400 afy during the last four years. During the 42 year period, ground water levels have declined but water quality has remained unchanged, particularly in Wells 1 through 4 where TDS has ranged between 1,500 mg/L and 1,850 mg/L. The TDS for Well 7 has ranged from 880 mg/L to 950 mg/L, about half the maximum TDS recorded in the deep aquifer and very similar to TDS in Harper's Well.

Harper's Well (12S/I0E-26M) constructed to a depth of 320 feet but perforation intervals are unknown. TDS was measured at 995 mg/L, 1,030 mg/L, and 1,030 mg/L in 1918, 1949, and 1962, respectively, indicating the well is perforated in the deep aquifer. TDS concentrations in Well 7 and Harper's Well indicate potentially better water quality in the upper levels of the deep aquifer, at least easterly of the Farm.

The Payne Well penetrates and is perforated within both the shallow and deep aquifers, indicating water extracted from the well would be a mixture of higher TDS water (shallow aquifer) and lower TDS water (deep aquifer); however, static water levels indicate water extracted from the well is water from the deep aquifer. An extraction blend of about 8% from the shallow aquifer (TDS 7,900 mg/L per Scholl Well) and about 92% from the upper levels of the deep aquifer (TDS 900 mg/L per Well 7) could account for TDS in the Payne Well being similar to TDS in the deeper Farm Wells.

The San Felipe Well, designated here as the USGS Monitoring Well, (12S/9E - 23D1) and located adjacent to Allegretti Well No. 1, was a producing well until the early 1960's, when the pumping unit was removed and it became a monitoring well. The USGS has monitored the well since 1953. Figure 3 shows the long term decline in water levels at the well.

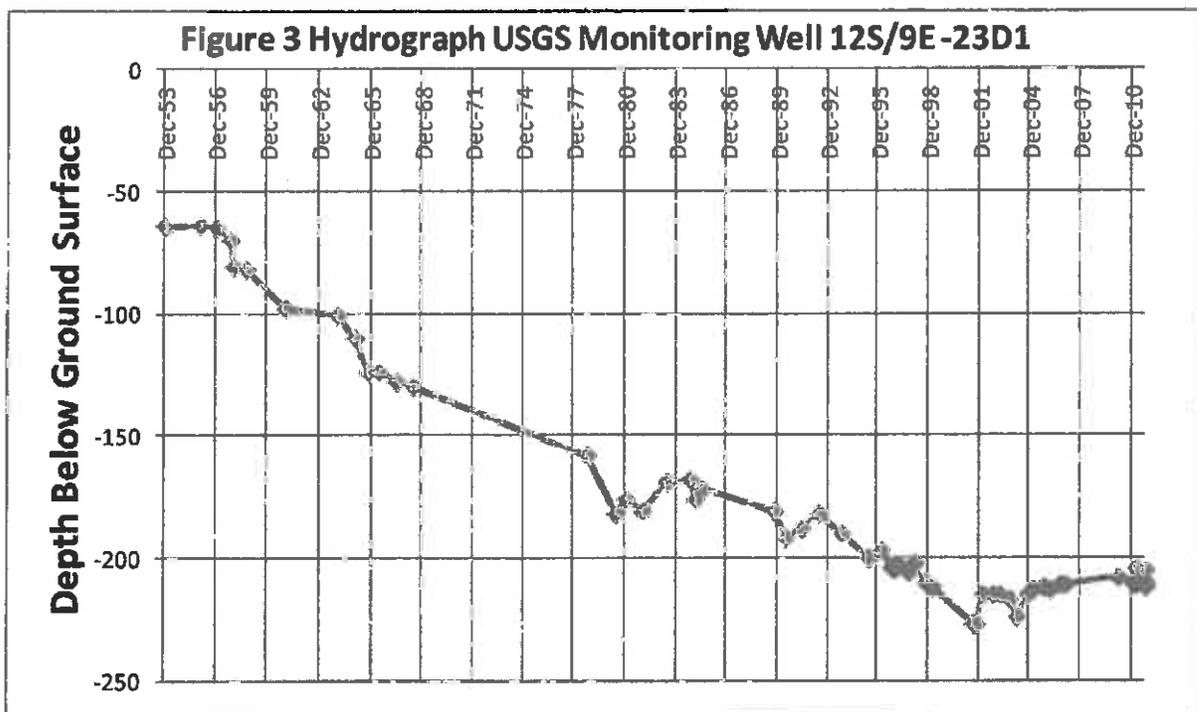
### **2.4 Groundwater Overdraft**

2004 report (Ref. 11) using satellite information concluded that there was land subsidence at the Farm due to groundwater withdrawal. This, coupled with the long term decline in groundwater levels to about the year 2001, is evidence that the Allegretti Sub Basin was in a

state of overdraft for many years. However, Figure 3 shows that the long term decline has been reversed and that water levels are slowly rising. This would indicate that the basin is no longer in overdraft.

It is uncertain why the reversal occurred, but a court decision in 2004 suggests that the Farm needed to redevelop one of their production wells but were denied that action. The following is a brief summary of the findings of the Appeals Court.

In 1994, Allegretti & Company, which owns 2,400 acres of land, filed an application for a conditional use permit to redrill an inoperable well. The well, one of several on the property, would provide water for crop production on 200 acres. Nearly three years later, the county approved the permit but with a condition limiting Allegretti's draw of groundwater to 12,000 acre-feet per year from all wells on site." The court stated that although Allegretti has superior groundwater rights as an overlying user, those rights are restricted to reasonable beneficial use consistent with Article X, §2 of the state constitution. The court also said that Allegretti did not identify or challenge county's underlying reasons for the county's action, nor did it explain why county's limitation is in any way arbitrary and that as long as a governmental entity engages "in decision-making whose purpose is not delay for delay's sake but legitimate oversight," there is no compensable taking, the court concluded.



**2.6 Storage Capacity**

In 1970 a consulting firm (Ref. 5) defined the ground water basin from which Allegretti Farm derives its water supply as encompassing 150 square miles. The capacity was defined by assuming an average aquifer specific yield 20% and a thickness of 300 feet at 5,800,000 af.

**2.7 Discharge to Salton Sea**

Based on tests performed by the USGS, ground water discharge to the Salton Sea is

estimated at about 2,240 afy (Ref. 9).

### **2.8 Water Banking Issues in the Sub Basin**

For this analysis, it is assumed that the storage water for a water bank would be Colorado River Water (CR) with a TDS of approximately 700 mg/L, as CR water is the only available water in the region.

The development of a water bank in the Sub Basin would be difficult for several reasons. First is that surface recharge to the basin would store water in the shallow aquifer. This aquifer contains ambient water with high concentrations of salts (6,000 – 8,000 mg/L TDS). Recharge waters would gradually mix with the native waters producing water requiring substantial demineralization for the recovery phase of a water bank. Further, since it appears that the shallow aquifer is discharging to the San Filipe and Fish Creek springs, the recharged water would increase the eastward gradient toward the spring discharge and in time would be lost through increased spring discharge. The amount of increased discharge would be considered a loss of banked water thus diminishing the amount storage water available for recovery.

Since the deep aquifer is considered to be confined, the recharge of banking water must be by injection wells. Several issues must be considered: the injection pressure 'mound' at the injection well field could limit the injection amounts as higher deep aquifer water levels might cause upward leakage into the shallow aquifer. The upward seepage would reduce the amount of stored water. An injection mound would also increase the eastward gradient and accelerate the subsurface discharge to the Salton Sea. The amount of increased discharge would be considered a loss of banked water thus diminishing the amount storage water available for recovery.

Additionally, the extraction of the injected water would at some point would begin to extract a blend of the native deep groundwater (1,600 – 1,800 mg/l TDS) and to a level above the 700 mg/L concentration. This would limit the storage of bank storage water.

Further, recharge by injection would require that the water be treated to reduce the suspended solids levels to near zero in order to reduce well clogging. The treatment would be by microfiltration but would add an additional layer of expense to a water banking operation.

While the recharge of CR water would not be considered a discharge of a waste, the California Water Quality Control Board maintains authority over the discharge of any waters into the waters of the state, including ground waters. The Board's interest is in the 'non-degradation' of the ambient ground water. The recharge of CR water into the shallow or deep aquifers of the Allegretti Sub Basin having higher TDS concentrations than CR water therefore would not be problematic to the Board. However, the Board would need to consider and approve the project. A waste discharge requirement (WDR) permit would be issued by the Board.

One positive factor in developing a water bank in the sub basin is the low pumping lift that would be required to transport the bank water from the IID system to the Farm area. The IID West Side Main Canal is at an approximate elevation of 30 feet below sea level and the Allegretti Farms elevation is about 15 feet below sea level.

A major issue in any banking project is the location of the area that would beneficially use the recovered bank water. There must be sufficient beneficial use downstream from the point of entry of the banked water into the distribution system of the receiving agency. If there were insufficient demand for the water at the distribution system entry point, a pumping station and delivery pipeline would need to be constructed to deliver the water to some other location, but this would add additional costs to the banking program. No study has been made regarding

this issue. However, as indicated in Section 2.9, the Allegretti Sub Basin is not an attractive location for a water bank.

### **2.81 Imperial County 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 (Ref. 16). 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. However, the IID staff conducting the storage and recover investigation described in Section 3.1 of this report, indicate that the model is not being used by IID to evaluate potential water banking projects. Further, their evaluation of the model is that it is basically a water balance model and not useful for storage and recovery analyses.

A verified model is a necessary tool to evaluate any water banking project. Unfortunately, none are available for the study area.

### **2.9 Conclusions**

While the Sub Basin is located near the IID water transmission system and the pumping lift from the IID system to the recharge area is small, the hydrogeologic nature of the sub basin has several major drawbacks: (1) the water quality of the shallow aquifer and its apparent hydraulic connection with the San Felipe and Fish Creek Springs would require the recharge water to be injected into the deep aquifer, (2) the quality of the deep aquifer is nearly 2 1/2 times saltier than the CR water, thus reducing the amount of recovery of the banked water due to mixing with the native waters, (3) recharge by injection would require filtration of the injected water prior to injection and (4) the injection mound would likely cause upward leakage into the shallow aquifer as well as an increase in subsurface discharge into the Salton Sea.

For these reasons, the Allegretti Sub Basin is considered a poor prospect for developing a water bank.

## **3.0 Imperial Irrigation District as a Source Water Source for Borrego Valley**

### **3.1 Imperial Irrigation District's (IID) Storage and Recovery Investigation**

In December of 2009, 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. These recharged supplies would be available for subsequent extracting and deliver into the system in years when their need exceeds their available supplies. With storage criteria established, the IID investigation proceeded to conduct a preliminary assessment of four groundwater recharge sites located in basins in or near their delivery system. Unfortunately, these sites did not include the Borrego Valley area or the Allegretti Sub-basin as neither site met the established criteria. The primary criteria included storage within IID's service area and at minimal cost.

The preliminary assessment of these four recharge sites was presented to the IID Board at a workshop on March 29, 2011. The assessment identified the opportunities and challenges of each site. The sites included East Mesa, Painted Canyon, Thomas Levey and Martinez Canyon.

The potential of recharge and groundwater storage (and water banking opportunities) of surplus Colorado River water in the Borrego Valley groundwater basin and the Allegretti Sub-basin have been presented to the management team at IID on numerous occasions (7/07, 8/08

and 1/10). Additionally, Mr. Jerry Rolwing informed the IID Board at the March meeting that the Bureau of Reclamation (BOR) was under an agreement to conduct a regional study of the water banking opportunities. Also, a citizen resident of Borrego Valley spoke in favor of including the Borrego Valley groundwater basin for further analysis.

Nonetheless, the IID did not agree to include Borrego or Allegretti for further study. They selected, for future study; the East Mesa site in Imperial County and the Painted Canyon site in Coachella Valley (Riverside County). Discussions with the IID staff indicated the following problems are associated with recharging the Borrego and Allegretti basins:

While their primary reason for not proceeding with the Borrego Basin was the lack of a pipeline to convey and recover the water they indicated that the cost to transport water to the Borrego basin is the major inhibitor. They cited an elevation difference of more than 700 feet between IID and Borrego and a distance of more than 30 miles. The cost of transportation was far more that IID considered acceptable, which is the range of \$25 to \$50 per af. (Preliminary estimated costs to import water into the Borrego area are about \$425 per af, of which about \$165/af is for energy – Ref. 12).

### **3.2 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. Excerpts from the General Plan appear to generally prevent export of groundwater from the Imperial County, as indicated by the following sections:

92203.01 Exportation permit: Unless otherwise exempt, no groundwater shall be exported from the county or from the groundwater basin from which the groundwater is derived unless the operator of the exportation facility has applied for and obtained a permit which establishes the quantity of groundwater which may be exported and the conditions on such exportation.

92203.02 Excess supply required for exportation : The commission shall not issue any permit to export water from the county or from the groundwater basin from which the groundwater is derived unless the applicant has established that there is an available supply in excess of the amount currently required for reasonable and beneficial uses within the county, and the commission determines that such export, if permitted, would not adversely affect the rights of groundwater users within the county or the groundwater basin from which the groundwater is derived. The commission shall issue permits for export for such time periods and under such other terms and conditions, including the right to reduce or suspend exports, as the commission determines appropriate.

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.

### **3.3 Wheeling Water through the Imperial Irrigation District System**

Since the only imported water available in the region is CR water, it has been proposed that a connection to the IID system for a pipeline that would deliver CR water to the Borrego Valley be constructed. This proposed project is the subject of this study and has been conceptualized on several occasions. Routing of the pipeline to BV is discussed earlier in this report.

Conceptually, CR water is fully appropriated by several entities that have established long term rights to the CR water. Thus, in order to obtain an imported supply to BV, a contract for State Water Project (SWP) water must be obtained. That water would be exchanged through the MWD system into the CR for delivery through the IID system to some point of discharge to the proposed pipeline to BV. Thus, the conveyance of water from the CR through the All American Canal and the IID system must be evaluated for delivery capacity in those two conveyance systems.

Conceptually, the transmission of water through the All American Canal could be through the use of the capacity rights in that canal held by the City of San Diego.

The IID West Side Main Canal is the probable delivery system to an export pipeline to BV. The capacity of the canal, which has recently been increased, is 1,200 cfs.

Prior to this discussion, it should be realized that the quantity and rates of flow of water to BV are almost *de minimis* as compared to the flows of the IID and Coachella Valley Water District. For example, the IID water right on the CR is 3,100,000 afy.

Prior studies have estimated the need for imported water in BV at about 14,000 afy. (If this amount were delivered on continuous basis, the flow rate would be about 20 cfs.) This is the estimated current overdraft. The overdraft is considered stable in accordance with existing development restrictions.

Water Banking needs for water would be in addition to the overdraft correction amount. For example, a 100,000 af water bank would be developed over a series of years. Current thinking is that surplus waters in the SWP may occur in only 3 years in a 10 year period. Thus, the 100,000 af water bank would require roughly 33,000 af of delivery capacity in each of the three years. To this amount, the annual overdraft would need to be added bringing the total to about 50,000 af in a few years. If this were delivered on a continuous basis, the capacity flow rate would be about 70 cfs. Assuming that IID's delivery capacity during the height of the growing season might require their entire capacity, it is assumed that the BV deliveries would require about twice the 70 cfs during the irrigation off peak season. Thus, about 11% of the capacity of that canal would be need in those years. In other years, 7 of 10, the BV need would be only about 20 cfs.

While the required BV flows appear small relative to canal capacities, the IID has indicated that their system occasionally delivers at maximum rate in order to satisfy their customers and that a BV export would be treated as an additional customer, subject to the IID water delivery policies and regulations.

Negotiations with IID coupled with a thorough distribution system study, which should be conducted by IID, would needed in order to appropriately assess any capacity limitations and possible mitigation for the BV deliveries to occur.

### 3.4 IID Irrigation Return Flows

A potential source of water for the Borrego Valley might be the irrigation return flows emanating from the vast agricultural area of the Imperial Valley. These flows are subject to water quality regulations of the Colorado River Basin Water Quality Control Board, Region 7 (Board). The regulations are designed to protect several Board designated beneficial uses, including Recreation 1 and 2 and Wildlife. Nonetheless, the chemical composition of these flows is typical of agricultural return flows and as such would require substantial treatment, including microfiltration, reverse osmosis and ultra-violet disinfection to meet direct drinking water standards or ground water recharge in the Borrego Valley. The water quality standards to meet the designated beneficial uses are contained in Ref. 14.

In order to obtain a right to reclaim this water, an appropriation permit would need to be obtained from the State Water Resources Control Board (State Board). These flows appear to be subject to appropriation under the California Water Code, Section 1202:

*The following are hereby declared to constitute unappropriated water:*

- (a) All water which has never been appropriated and,*
- (d) Water which having been appropriated or used flows back into a stream, lake or other body of water.*

Further, Section 1243 of that code states:

*The use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water. In determining the amount of water available for appropriation for other beneficial uses, the board shall take into account, whenever it is in the public interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources.*

And Section 1243.5 states:

*In determining the amount of water available for appropriation, the board shall take into account, whenever it is in the public interest, the amounts of water needed to remain in the source for protection of beneficial uses, including any uses specified to be protected in any relevant water quality control plan established pursuant to Division 7 commencing with Section 13000) of this code.*

The return flows are an essential water supply component of the Salton Sea and are currently serving downstream beneficial uses. With Salton Sea water levels falling, it is very likely that any attempt to appropriate a portion of these return flows would be met with opposition from several sources. The probable outcome would most likely be denial of the permit.

In the unlikely event that a permit were granted, as indicated earlier, a costly water treatment system would need to be constructed to convert the irrigation flow quality to meet drinking water standards. And, since the irrigation flow result from the application of irrigation water in the Imperial Valley, any modification to the irrigation practices, such as the development of on farm return flow recycle systems, would diminish the return flow quantities. In other words, a permit to appropriate the return flows, would not guarantee the continuation of those flows in the future.

Consequently, the prospect of obtaining Imperial Valley irrigation return flow as a potential source of water for Borrego Valley is dismissed from future consideration.

### **3.5 Brine Disposal**

In spite of the conclusion in Section 2.9 of this report, which concluded that the Allegretti Sub Basin is a poor prospect for developing a water bank, it should be evaluated as a possible water supply source for BV.

As indicated in Section 3.2 of this report, the County requires a permit for ground water export and the demonstration that the proposed ground water export is in excess of the amount currently required for reasonable and beneficial uses within the county, and would not adversely affect the rights of ground water users within the county or the ground water basin from which the ground water is derived.

Figure 3, in Section 2.4 of this report, clearly indicate that the Sub Basin was in a state of overdraft until about 2001. The rise in water levels after that point appears to indicate that the basin is no longer in overdraft and that there is an excess above present needs in the basin. Such a statement is speculative and would need to be confirmed by other water level data.

However, if the Allegretti sub-basin is determined to be a feasible water supply source for BV, then a desalting facility would be needed to reduce the salinity of the deep aquifer water to meet direct potable use or for ground water recharge. It is assumed that the facility would be located on the Farm property. Thus, brine disposal alternatives would need to be developed and analyzed. The alternatives 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.

Evaporation ponds would need to be double lined in order to protect ground waters. Even with the high evaporations rates in the area, evaporation ponds require large areas to be effective. BWD's experience is that the requirement for double liners make this brine disposal alternative expensive as compared to surface discharge to nearby areas via a pipeline.

Discharge directly to the Salton Sea would require a 22 mile pipeline. A much closer discharge point would be to the San Felipe or Fish Creek Springs, a distance of about 4 miles from a desalting facility at the Farm. Table 2 includes water quality analyses at these two springs. TDS values, respectively, were 14,800 mg/L and 11,000 mg/L at these springs (sampled in 1995).

A desalting facility with an 85% recovery would produce a brine flow with a concentration (assuming an input concentration of 1,800 mg/L from the deep aquifer) of about 12,000 mg/L. Thus, the permeate quality would be compatible with the concentration of either spring water.

There are a number of environmental issues associated with a discharge to either spring. For example, the San Felipe Spring is the residence of an endangered fish, which is sensitive to chemicals that are or have been used in agricultural operations at the Farm. Since the deep aquifer appears to be confined, any agricultural chemicals that may have percolated through the soil would have been prevented from penetrating the deep aquifer by its' overlying aquitard. Further testing of the deep aquifer's water would be necessary.

Also, the permeate from the desalting facility is a waste discharge and as such is subject to permit requirements from the Colorado River Water Quality Board.

The above analysis assumes a water treatment facility located at the Farm. An alternative is the placement of the treatment facility in the BV. This would allow the deep aquifer well water to be transported and distributed with minimal treatment for landscape and recreation uses. Only the water intended for direct or indirect potable use would need the advanced treatment. The major drawback to this alternative would be the disposal of the brine flow. Costly

evaporation ponds would appear to be the only reasonable disposal means. Further study of this issue would be need and is beyond the scope of this feasibility study.

#### 4.0 References

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12. Borrego Water District. Integrated Water Resources Mangement Plan, Mach , 2010
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15. Borrego Water District, Integrated Water Resources Management Plan, March 2009
16. County of Imperial, Imperial County Groundwater Study, final report, prepared by Montgomery Watson, December, 1995.

**5.0 APPENDIX A**  
**Well Log Information**

JACOBS ABANDONED DOMESTIC WELL

**WATER WELL DRILLERS REPORT**  
(Sections 7074, 7077, 7078, Water Code)

STATE OF CALIFORNIA—DEPARTMENT OF PUBLIC WORKS  
**DIVISION OF WATER RESOURCES**

ABANDONED DOMESTIC WELL NEAR WELL 2

File Original, Duplicate and Triplicate with the  
DIVISION OF WATER RESOURCES  
P. O. BOX 10729  
SACRAMENTO 8, CALIFORNIA

State Well No. 125/96-22  
Other Well No. \_\_\_\_\_  
Region 7

(1) DRILLER: (person, firm, or corporation)  
Name MANN BROTHERS  
Address P.O. BOX #755  
THERMAL, CALIFORNIA.

OWNER: Plotted on Extreme Mountain SE 1/4  
Name PAUL B. ZILKA ERT 11/6/53  
Address 3501 STERNE STREET  
SAN DIEGO, CALIFORNIA.

(2) Proposed Use (Check)      Equipment

Domestic <input checked="" type="checkbox"/>	Industrial <input type="checkbox"/>	Rotary <input type="checkbox"/>
Irrigation <input checked="" type="checkbox"/>	Test Well <input type="checkbox"/>	Cable <input type="checkbox"/>
Municipal <input type="checkbox"/>	Other <input type="checkbox"/>	Dug Well <input type="checkbox"/>
		Other <input type="checkbox"/>

(3) CASING:

Top and size of shoe or well ring	Depth	Size	Material	Weight	Left in well
	151	6"	I.D.	10 ga	
	161	6"	I.D.	10 ga	
	100	6"	O.D.	10 ga	

(4) PERFORATIONS:

Type of perforator used	Depth	Size	Material	Weight	Left in well
Acetylene Torch	312	6"	6 ROWS	6"	

(5) WATER LEVELS:

Was electric log made of well?  Yes  No. If yes, attach copy.

Depth to which water was first found Rotary Drilling ft.

Standing level before performing \_\_\_\_\_ ft.

Standing level after performing \_\_\_\_\_ ft.

Was your observation of any change in water level while drilling? --

Was a surface sanitary seal provided? No

(6) WELL PUMPING TEST:

Capacity \_\_\_\_\_ gal./min.      ft. draw down

Was well gravel packed? No

Were any struts sealed against pollution? Upper stratas w/mud

Temperature \_\_\_\_\_      Was a chemical analysis made? \_\_\_\_\_      Attach copy \_\_\_\_\_

If abandoned was well capped? Not abandoned

(7) TYPE OF WORK (check):  
New well       Reconditioning of well

(8) LOCATION OF WELL:  
County San Diego Imperial  
R. F. D. or Street No. \_\_\_\_\_  
NE 1/4 of NE 1/4 of Sec. 22 Twp 12  
Range 9E S.B.B.M.

(9) WELL LOG:  
Total depth of well 412

Formation: (Mention size of water gravel—)

Depth	Formation
0	25 ft. Clay w/Fine Sand Straks
25	47 " Coarse Sand
47	69 " Coarse & Medium Sand
69	90 " Gravel w/Clay
90	111 " Coarse Sand w/Clay Straks
111	133 " Coarse Sand w/gravel
133	143 " Clay
143	153 " Coarse Sand
153	166 " Clay w/Coarse Sand Straks
166	174 " Gravel
174	194 " Clay
194	217 " Clay w/Fine Sand Straks
217	244 " Fine Sand w/Clay Straks
244	270 " Clay w/Coarse Sand Straks
270	283 " Gravel and Rocks
283	304 " Gravel, Coarse Sand w/Sh
304	316 " Clay w/Large Gravel
316	326 " Medium & Coarse Sand
326	343 " Med & Coarse Sand w/Clay
343	347 " Cemented Sand
347	368 " Clay w/Coarse Sand Straks
368	379 " Coarse Sand w/Clay
379	390 " Clay w/Coarse Sand Straks
390	402 " Clay
402	412 " Clay w/Coarse Sand
412	445 " Clay w/Coarse Sand

**CONFIDENTIAL - NOT FOR PUBLIC RELEASE**

**MICROFILMED**

Work started \_\_\_\_\_      Completed \_\_\_\_\_  
Date of Report April 28, 1953.

WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(Signed) MANN BROTHERS  
Well Driller  
By David A. Mann Partner  
License No. 113457      Classification C-57  
Dated April 28, 1953.

PAYNE WELL

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES

Do not  
No. 093882

WATER WELL DRILLERS REPORT

PAYNE WELL

State Well No. \_\_\_\_\_  
Other Well No. \_\_\_\_\_

OWNER: Gary S. Payne

Address: 15 La. Ronde Dr.

City: San Diego Zip: 92119

LOCATION OF WELL (See instructions):  
City: San Diego Owner's Well Number: \_\_\_\_\_

Address of nearest face shown: Off Hwy 78-Ocotillo wells

Map: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_

since from \_\_\_\_\_ roads, railroads, fences, etc.

(12) WELL LOG		Total depth	Depth of completed well
from ft.	to ft.	ft.	ft.
0	23	23	23
23	25	25	25
25	38	38	38
38	48	48	48
48	50	50	50
50	107	107	107
107	114	114	114
114	115	115	115
115	124	124	124
124	130	130	130
130	138	138	138
138	141	141	141
141	156	156	156
156	162	162	162
162	175	175	175
175	193	193	193
193	202	202	202
202	213	213	213
213	220	220	220
220	228	228	228
228	253	253	253
253	262	262	262
262	282	282	282
282	295	295	295
295	297	297	297
297	295-216	295-216	295-216
295-216	245-247	245-247	245-247
245-247	253-260	253-260	253-260
253-260	280-307	280-307	280-307

(3) TYPE OF WORK:

New Well  Deepening

Reconstruction

Reconditioning

Horizontal Well

Destruction  (Describe destruction materials and procedures in Item 11)

(4) PROPOSED USE:

Domestic

Irrigation

Industrial

Test Well

Stock

Municipal

Other

WELL LOCATION SKETCH

EQUIPMENT:

Drill  Air  Mud

(6) GRAVEL PACK:

Yes  No  Size \_\_\_\_\_

Number of bars \_\_\_\_\_

Spaced from \_\_\_\_\_ yds.

(8) PERFORATIONS:

Type of perforation or size of screen

From ft.	To ft.	Size
140	170	1 7/8" x 7/8"
228	255	1 1/2" x 7/8"
160	160	row

PERFORATIONS CON'T

From ft.	To ft.	Size
245	247	1/16" x 1 1/2" x 7 row
253	260	" " " "
280	307	" " " "

WELL SEAL:

Surface sanitary seal provided? Yes  No  If yes, to depth 50 ft.

Seals sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.

Kind of sealant: Cement Grout

WATER LEVELS:

of first water, if known \_\_\_\_\_ ft.

ing level after well completion: 202.5 ft.

WELL TESTS:

Well test made? Yes  No  If yes, by whom? R. Anderson

of test: Pump  Bailor  Air lift

Initial water at start of test \_\_\_\_\_ ft. At end of test \_\_\_\_\_ ft.

Charge: 90 gal/min after \_\_\_\_\_ hours. Water temperature \_\_\_\_\_

Subsidence under? Yes  No  If yes, by whom? \_\_\_\_\_

Log made? Yes  No  If yes, attach copy to this report

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed: R. Anderson (Well Driller)

NAME: Ray E. Anderson (Firm, firm, or corporation) (Typed or printed)

Address: P.O. BOX 384

City: Julian No. 920

License No. A 305239 Date of this report: 7/16/81

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

DUPLICATE  
File Original, Duplicate and Triplicate with the  
REGIONAL WATER POLLUTION  
CONTROL BOARD No. \_\_\_\_\_  
(Project number)

**WATER WELL DRILLERS REPORT**  
(Sections 7074, 7077, 7078, Water Code)  
**STATE OF CALIFORNIA**  
**WELL 2**

ALLEGRETTI WELL NO.  
Do Not Fill In  
**No 59043**  
State Well No. 123/3E-22  
Other Well No. \_\_\_\_\_

**OWNER:**  
**Theodore M. Jacobs**  
530 Broadway  
San Diego, California

**(2) LOCATION OF WELL:**  
County **Imperial** Owner's number, if any \_\_\_\_\_  
P. O. or Street No \_\_\_\_\_  
The NE 1/4 of the NE 1/4 of Section  
22, T 12, S., R 9E, SBB&M

**(3) TYPE OF WORK (check):**  
New well  Deepening  Reconditioning  Abandon   
If abandonment, describe material and procedure in item 11.

**(4) PROPOSED USE (check):** **(5) EQUIPMENT:**  
Domestic  Industrial  Municipal  Rotary   
Irrigation  Test Well  Other  Cable   
Dug Well

**(6) CASING INSTALLED:** If gravel packed  
SINGLE  DOUBLE  Gauge of Well \_\_\_\_\_  
From 0 to 287 ft. Diam. \_\_\_\_\_  
14" C. D. x 5/16"  
287 to 667 ft. \_\_\_\_\_  
12-3/4" O.D. x 1/4"  
Size of gravel: **Pea**

**(7) PERFORATIONS:**  
Type of perforator used **Torch**  
Size of perforations **6** in. length by **1/8** in.  
From 389 to 667 ft. Perf. per foot \_\_\_\_\_

**(8) CONSTRUCTION: Concrete Foundation**  
Was a surface sanitary seal provided?  Yes  No To what depth \_\_\_\_\_ ft.  
Were any seals sealed against pollution?  Yes  No If yes, state depth of struts \_\_\_\_\_ ft.  
From 0 to 245 ft.  
Method of Sealing **Rotary Mud and Cutting from hole**

**(9) WATER LEVELS:**  
Water was first found \_\_\_\_\_ ft.  
before perforating \_\_\_\_\_ ft.  
After perforating **85** ft.

**WELL TESTS:** **Drilling Contractor**  
Is water  Yes  No If yes, by whom \_\_\_\_\_  
**00** gal./min. with **21** ft. draw down after \_\_\_\_\_ hrs.  
Was a chemical analysis made?  Yes  No

**(11) WELL LOG:**  
Total depth **667** ft. Depth of completed well **667** ft.

Formation: Describe by color, character, size of material, and structure.

0	193	fine Sand
193	303	Clay
303	333	Medium and Coarse Sand
333	421	Clay and Medium Sand
421	450	Clay
450	480	Clay and Sand Strata
480	620	Clay and Medium Sand
620	655	Coarse Sand with Clay and Root
655	667	Coarsened Sand

**CONFIDENTIAL - NOT FOR PUBLIC RELEASE**

U.S.G.S. 5240 N. & 250 W. SE. Cor. of SE 1/4 Sect 22  
Plotted on Borrego Mount. well log card made  
ECS 11/6/52

**MICROFILMED**

Work started **May 8** '61. Completed **May 26**

**WELL DRILLER'S STATEMENT:**  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME **MANN BROS.**  
Address **Box 755, Thermal, Calif.**

[Signature]  
License **057-148880** Dated **July 1** 19**61**



ORIGINAL  
File with DW/2

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT  
WELL 5

ALLEGRETTI WELL NO.

Do Not Fill In

No 103832

State Well No.

Other Well No.

1) OWNER:  
Name Ranch Oasis Ltd.  
Address 10960 Wilshire Blvd.  
Los Angeles, Calif.

2) LOCATION OF WELL:  
County Imperial  
Township, Range, and Section T12S R9E S33&M Sec. 23  
Distance from cities, roads, landmarks, etc.

(3) TYPE OF WORK (check):  
New Well  Deepening  Reconditioning  Destroying   
If destruction, describe material and procedure in item 1).

(4) PROPOSED USE (check):  
Domestic  Industrial  Municipal  Irrigation  Test Well  Other

(5) EQUIPMENT:  
Rotary  Cable  Other

(6) CASING INSTALLED:  
STEEL: SINGLE  DOUBLE  OTHER: \_\_\_\_\_  
If gravel packed

From ft.	To ft.	Diam.	Type or W'all	Diameter of Box	Frame ft.	To ft.
0	400	16"OD	5/16	24"	0	1130
400	1130	14"OD	5/16			
1	14" x 16"	reducer		1 - Bull nose		
Size of shoe or well rings						
Describe what collared & welded						

(7) PERFORATIONS OR SCREEN:  
Type of perforation or name of screen Roscoe Moss Louver

From ft.	To ft.	Perf. per foot	Row per ft.	Size in. x in.
350	400	.090 standard	Louver-16"	
400	280	.090 standard	Louver-14"	
930	1000	.090 standard	Louver-14"	
1000	1120	.090 full flo	-14"	
1	14" x 16"	reducer	1 - Bull nose	

(8) CONSTRUCTION:  
Was a surface casing seal provided? Yes  No  To what depth 360 ft.  
Were any screens used against pollution? Yes  No  If yes, note depth of screen

From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Type of casing Rotary mud slurry

(9) WATER LEVELS:  
Depth to which water was first found, if known \_\_\_\_\_ ft.  
Standing level before perforating, if known \_\_\_\_\_ ft.  
Standing level after perforating and developing \_\_\_\_\_ ft. 114

(10) WELL TESTS:

(11) WELL LOG:  
Total depth 1130 ft. Depth of completed well 1130 ft.  
Excavations, Drifts, etc., color, character, size of material, and structure

0 - 25	Fine to medium sand.
25 - 33	Clay.
33 - 83	Fine, medium, some coarse sand with clay streaks
83 - 137	Clay.
137 - 205	Clay with small streaks of sand.
205 - 265	Fine, medium and coarse sand.
265 - 292	Fine, medium and coarse sand with streaks of clay.
292 - 324	Good medium to coarse sand with very small clay streaks.
324 - 386	Good medium to coarse sand with clay streaks.
386 - 540	In and out of fine, medium coarse sand and clay.
540 - 604	Good medium to coarse sand with clay streaks.
604 - 635	In and out of medium to coarse sand and clay.
635 - 740	Clay.
740 - 769	Good medium to coarse sand with some gravel mixed.
769 - 946	Clay.
946 - 977	Clay with small streak of good medium to coarse sand
977 - 1008	Clay with good streaks of medium to coarse sand.
1008 - 1130	Good medium to coarse sand with some gravel mixed.

WELL DRILLER'S STATEMENT  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Coachella Valley Pump & Supply, I.  
(Print name, firm, or corporation, if not drilled)

Address P.O. Box 1274

ORIGINAL  
File with DWR

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT  
WELL 5

ALLEGRETTI WELL NO.

Do Not Fill In

No 103832

State Well No.

Other Well No.

1) OWNER:  
Name Ranch Oasis Ltd  
Address 10960 Wilshire Blvd.  
Los Angeles, Calif.

2) LOCATION OF WELL:  
County Imperial  
Township, Range, and Section T12S R9E SBB&M Sec. 23  
Distance from corner, road, railroad, etc.

(3) TYPE OF WORK (check):  
New Well  Deepening  Reconditioning  Destroying   
If destruction, describe material and procedure in item 11.

(4) PROPOSED USE (check):  
Domestic  Industrial  Municipal  Irrigation  Test Well  Other   
(5) EQUIPMENT:  
Rotary  Cable  Other

(6) CASING INSTALLED:  
STEEL: SINGLE  DOUBLE  OTHER:   
If gravel packed

From ft.	To ft.	Diam.	Type or W.H.	Diameter of liner	Frame ft.	T. ft.
0	400	16" OD	5/16	24"	0	1130
400	1130	14" OD	5/16			
		14" x 16" reducer		1 - Bull nose		
Size of gravel: <u>Mixed pea</u>						

(7) PERFORATIONS OR SCREEN:  
Describe point collared & welded  
Type of perforation or name of screen Roscoe Moss Louver

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.
350	400	.090 standard	1	16"
400	780	.090 standard	1	14"
930	1000	.090 standard	1	14"
1000	1120	.090 full flo	1	14"
			1 - Bull nose	

(8) CONSTRUCTION:  
Was a surface sanitary seal provided? Yes  No  To what depth 360 ft.  
Were any grout seals against pollution? Yes  No  If yes, name depth of grout

From          ft. to          ft.  
To          ft. to          ft.  
Method of casing Rotary mud slurry

(9) WATER LEVELS:  
Depth to which water was first found, if known          ft.  
Standing level before performance of borehole          ft.  
Standing level after performance and development 114 ft.

(10) WELL TESTS:

(11) WELL LOG:  
Total depth 1130 ft. Depth of completed well 1130 ft.  
Formation, Depth (to color, contrast, etc. of material, and structure)          ft.

0 - 25	Fine to medium sand.
25 - 33	Clay.
33 - 83	Fine, medium, some coarse sand with clay streaks.
83 - 137	Clay.
137 - 205	Clay with small streaks of sand.
205 - 265	Fine, medium and coarse sand.
265 - 292	Fine, medium and coarse sand with streaks of clay.
292 - 324	Good medium to coarse sand with very small clay streaks.
324 - 386	Good medium to coarse sand with clay streaks.
386 - 540	In and out of fine, medium coarse sand and clay.
540 - 604	Good medium to coarse sand with clay streaks.
604 - 635	In and out of medium to coarse sand and clay.
635 - 740	Clay.
740 - 769	Good medium to coarse sand with some gravel mixed.
769 - 946	Clay.
946 - 977	Clay with small streak of good medium to coarse sand.
977 - 1008	Clay with good streaks of medium to coarse sand.
1008 - 1130	Good medium to coarse sand with some gravel mixed.

Work started 10/20/76 completed 11/17/76  
WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
NAME Coachella Valley Pump & Supply, Inc.  
(Name, firm, or corporation) (Typed or printed)  
Address P.O. Box 1274

01-06/97

ARI-CAL PUMP 2

210

ALLEGRETTI WELL NO.

DUPLICATE  
Retain this copy

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

Do Not Fill In  
No 103833  
State Well No.  
Other Well No.

WELL 6

1) OWNER:  
Name Ranch Oasis Ltd.  
Address 10-960 Wilshire Blvd. Suite 1928  
Los Angeles, Calif. 90024

2) LOCATION OF WELL:  
County Imperial Owner's number, if any  
Locality, Range, and Section T12S, R9E SBB&N Sec. 25  
(State from cities, roads, railroads, etc.)

3) TYPE OF WORK (check):  
New Well  Deepening  Reconditioning  Destroying   
Instruction, describe material and procedure in item 11.

4) PROPOSED USE (check):  
Domestic  Industrial  Municipal   
Irrigation  Test Well  Other

5) EQUIPMENT:  
Rotary   
Cable   
Other

6) CASING INSTALLED:  
SPEEL  OTHER:   
INSIDE  DOUBLE

From ft.	To ft.	Diam.	Cage or Wall	Diameter of Bore	From ft.	To ft.
0	100	16" OD	5/16"	24"	0	1000
100	1000	14" OD	5/16"			
1000	1038	14" to 12"	Reducer	1" Bull	1000	1038

If gravel packed: mixed pea

7) PERFORATIONS OR SCREEN:  
Type of perforation or name of screen: Boscoe Moss Louver

From ft.	To ft.	Perf. per row	Rows per ft.	Size in x in.
880	1000	.090	standard	louver

8) CONSTRUCTION:  
Is a mud pit used? Yes  No  To what depth: 340 ft.  
Are any screens used against pollution? Yes  No  If yes, how deep of screen:  
From \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

9) WATER LEVELS:  
Depth at which water was first found, if known \_\_\_\_\_ ft.  
Standing level before perforating, if known \_\_\_\_\_ ft.  
Standing level after perforating and developing: 104 ft.

10) WELL TESTS:  
Was pump test made? Yes  No  If yes, by whom: G.V. Pump  
Flow rate: 3000 gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
Temperature of water: \_\_\_\_\_ Was a chemical analysis made? Yes  No   
Was electric log made of well? Yes  No  If yes, attach copy

11) WELL LOG:  
Total depth: 1038 ft. Depth of completed well: 1000 ft.  
Remarks: Describe by color, character, size of material, and structure

0 - 115	Fine, medium with streaks of coarse sand.
115 - 388	Clay with some small streaks of sand.
388 - 511	Good medium to coarse sand with streaks of clay.
511 - 573	Clay with streaks of good medium to coarse sand.
573 - 604	Clay with streaks of fine to medium sand.
604 - 628	Clay.
628 - 720	In and out of clay and some fine to medium sand, some coarse mix.
720 - 759	Good medium to coarse sand with streaks of clay.
759 - 790	Good medium to coarse sand.
790 - 880	Clay.
880 - 914	Clay with streaks of medium to coarse sand.
914 - 956	Clay.
956 - 995	In and out of clay and medium to coarse sand.
995 - 1008	Good medium to coarse sand.
1008 - 1038	Clay.

Work started 12/13/76 Completed 12/23/76

WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Coachella Valley Pump & Supply, Inc  
(Partner, firm, or corporation) (Type or print)

Address P.O. Box 4274  
Indio, Calif. 92201

(Signature) \_\_\_\_\_ (Well Driller)  
License No. 161541 Date \_\_\_\_\_

September 29, 2011



01-08-97 11:34 FAX 8193961222

ARI-CAL PUMP 2

08

ALLEGRETTI WELL NO.

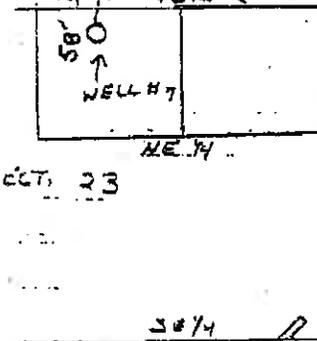
STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT  
WELL 7

Do not fill in  
No. 058135

Well No. 195449  
Well No. or Date

State Well No. 29  
Other Well No.

OWNER: <b>Allegretti Farms</b> P.O. Box 1029 Brawley, Ca. 92227	(13) WELL LOC: Total depth 400 ft. Depth of completed well 400 ft. from ft. to ft. Formation (Describe by color, character, size or material):
LOCATION OF WELL (See instructions): Owner's Well Number: 7 NW/4, NE/4, Sec 23, T12S, R12E	0 - 40 Med sand
125 Range 9E Section 23	40 - 80 Brown clay
	80 - 120 Fine sand
	120 - 180 Fine Med. & coarse sand
	with short streaks of brown clay.
	180 - 280 Med. sand & some Med. mix
	280 - 335 Brown clay
	335 - 400 Med. & coarse sand.



- (3) TYPE OF WORK:  
 New Well  Deepening   
 Reconditioning   
 Horizontal Well   
 Destruction  (Describe destruction methods and procedures in Item 2)
- (4) PROPOSED USE:  
 Domestic   
 Irrigation   
 Industrial   
 Test Well   
 Stock   
 Municipal   
 Other

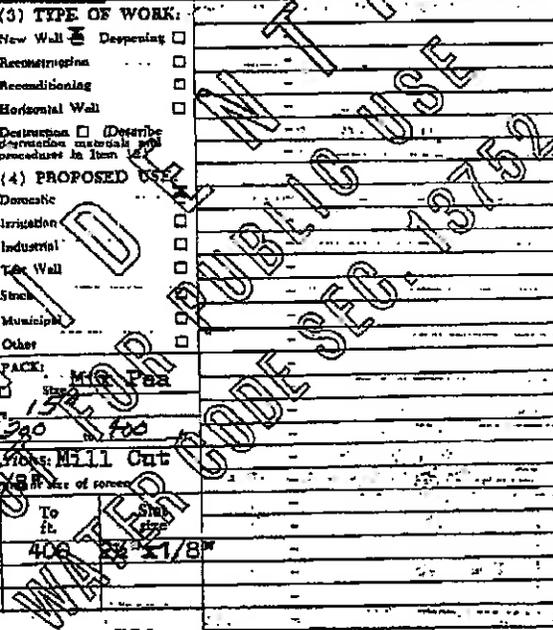
WELL LOCATION SKETCH		(6) GRAVEL PACK: M/G PER
Drill Pipe	Reverse <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Drill Bit	Air <input type="checkbox"/>	Drill bit of hole 3 1/2"
Drill Mud	Bucket <input type="checkbox"/>	Packed from 340 to 400
SING INSTALLED: Plastic <input type="checkbox"/> Concrete <input type="checkbox"/>		(8) PERFORATIONS: Mill Cut
in	To ft.	From ft.
	400	340
	Dis. in.	To ft.
	188	400
	Gage or Well	Size of screen
		2 1/2" x 1/8"

WELL SEAL:  
 surface sanitary seal provided? Yes  No  If yes, to depth 300 ft.  
 screen sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
 of sealing Rotary Mud Slurry

WATER LEVELS:  
 Is of Spst water, if known \_\_\_\_\_ ft.  
 line level after well construction 168 ft.

WELL TESTS:  
 Well test made? Yes  No  If yes, by whom?  
 of test Pump  Bailor  Air lift   
 th to water at start of test \_\_\_\_\_ ft. At end of test \_\_\_\_\_ ft.

WELL DRILLER'S STATEMENT:  
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
 Signature: \_\_\_\_\_  
 NAME: Coachella Valley Pump & Supply, Inc.  
 P.O. Drawer 326



ORIGINAL

with DWR

*Attachment*

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

Do not fill

No. 058134

State Well No. 125/11E/50  
Other Well No. \_\_\_\_\_

Permit No. 125/11E/50  
Contract No. or Date \_\_\_\_\_

**THREE FLAGS RANCH**

1. OWNER: Name THE CO. ENTERPRISES, INC. (12) WELL LOG: Total depth 1174 ft. Depth of completed well 1174 ft.  
from ft. to ft. Formation: Describe by color, character, size or material:  
0 - 1000 fine sand w/ streaks of clay  
1000 - 1174 brown clay

2. LOCATION OF WELL (See instructions):  
City: \_\_\_\_\_ Owner's Well Number: 125/11E/50  
Address if different from above: \_\_\_\_\_  
Range: 14 Section: 5  
Distance from cities, roads, railroads, fences, etc.: \_\_\_\_\_

(3) TYPE OF WORK:  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 12)  
(4) PROPOSED USE:  
Domestic   
Irrigation   
Industrial   
Test Well   
Stock   
Municipal   
Other

WELL LOCATION SKETCH:

(6) GRAVEL PACK:  
Yes  No  size: \_\_\_\_\_  
Diameter of bore: 100  
Bucket size: 350 1174 ft.

7. CASING INSTALLED:

From ft.	To ft.	Dia. in.	Material	Perforations	To ft.	Size
0	1000	10	Steel	None	-	-
1000	1174	10	Steel	None	-	-

8. WELL SEAL:  
Is surface sanitary seal provided? Yes  No  If yes, to depth 100 ft.  
Was there any gas or oil pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing: \_\_\_\_\_

9. WATER LEVELS:  
Depth of first water, if known: \_\_\_\_\_ ft.  
Standing level after well completion: \_\_\_\_\_ ft.

10. WELL TESTS:  
Was well test under? Yes  No  If yes, by whom? \_\_\_\_\_  
Type of test: Pump  Bailor  Air lift   
Depth to water at start of test: \_\_\_\_\_ ft. At end of test: \_\_\_\_\_ ft.  
Time test run after \_\_\_\_\_ hours. Water temperature: \_\_\_\_\_  
Was analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Was electric log run? Yes  No  If yes, attach copy to this report.

WELL DRILLER'S STATEMENT:  
I, the undersigned, declare under my certification that this report is true to the best of my knowledge and belief.  
SIGNED: Juan M. Mendez  
NAME: Coconella Wells, Inc.  
Address: P.O. Box 100  
City: Indio, California 92202  
License No. 12154 Date of this report: 9/29/11

DWR 168 (REV. 7-74) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

9-042  
(December 1943)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WATER RESOURCES DIVISION

No. 12S/11E-18J

OTHER Nos. L.C.R.P. #19

WELL LOG

State California County Imperial Subarea San Felipe Cr.

Owner U.S. GEOLOGICAL SURVEY, Tuma, Arizona

Location Near junction State Highway 73 and U. S. 39

Drilled by Coachella Valley Pump & Supply, Inc. Address Indio, California

Date April 1954 Casing diam. 10" & 8" Land-surf. alt. ±175 feet

Source of data Interpretation of driller's log, cuttings, & electrical log by J. H. Robison  
(Enter type of well, performance, yield, and drawdown at end of log)

CORRELATION	THICKNESS (feet)	DEPTH (feet)
Clay, silty brown, and fine sand	19	19
Sand, coarse to v. coarse	14	33
Clay, silty brown	33	40
Sand, med. to v. coarse and v. fine gravel	25	65
Clay, silty brown and silt. Few streaks of gray clay	76	116
Silt, brown and v. fine sand	8	124
Clay, silty brown, and silt. Few streaks of gray clay	29	153
Sand, fine to coarse and some brown silt	29	133
Clay, silty brown	20	212
Sand, fine, and brown silt	12	224
Clay, silty brown, with some fine to coarse sand	53	227
Sand, med. to coarse	12	289
Clay, silty brown, with fine sand	25	302
Sand, partly cemented, fine to med. and silty brown clay	30	332
Sand, fine to v. coarse, with small amount v. fine gravel. Subangular to sub rounded feldspar & quartz	73	405
Clay, silty brown, with some gray clay	33	438
Sand, fine to v. coarse, with layers of silty brown clay	32	470
Sand, fine to v. coarse, and small amount v. fine gravel	18	488
Clay, silty brown	40	528
Sand, fine to coarse	29	557
Clay, silty brown and gray with layers of fine to med. sand	43	600
Sand, fine to v. coarse, partly cemented, with layers of brown and gray silty clay	68	668
Clay, silty brown and clay, with layers of med. to coarse sand	32	700
Sand, fine to v. coarse	25	725
Clay, brown and gray silty	18	743
Sand, fine to v. coarse, with some clay	25	768

Record by \_\_\_\_\_ DATE \_\_\_\_\_ SHEET 1 OF 2  
51753



DATE: October 19, 2011

FROM: Jerry Rolwing

TO: Strategic Planning committee

RE: Response from Jim Bennett phone call

I spoke with Jim Bennett this morning on the questions we had from the last meeting. In so far as banking, or pre-fallowing, the ordinance does not address this issue. We should make this one of our strong points to be included in the ordinance for our public comment. On the subdivision issue, yes, the farmer would have to create multiple 4-acre easements to be able to have credits for the subdivision. The County does not want to have any other use on top of the easement even if they purchase additional credits due to tracking concerns - they do not want to have to keep up with usage after the easement. Jim stated that the January 1, 2008 came from our Water Credit Policy.



County of San Diego Department of Planning and Land Use  
**Assumptions Used for Calculation of Water Offset Credits**

The amount of water credit (in acre-feet/acre) to be granted for land with an actively irrigated use that will be permanently taken out of production is listed for the most common vegetation types in Borrego Valley:

Vegetation Type	Groundwater Offset Credit (acre-feet/acre/year)
Citrus (all types)	4.6 <b>5.1</b>
Nursery plants	4.2 <b>4.7</b>
Palms (all types)	3.5 <b>3.9</b>
Tamarisk	1.6 <b>1.8</b>
Turf (warm season)	4.7 <b>5.4</b>
Turf (winter cool/summer warm)	5.2 <b>5.9</b>

**Comment [j1]:** Change numbers to reflect less irrigation efficiency factor.

This was determined by the following equation:

**Annual Groundwater Consumptive Use (acre-feet/year) = [Reference Evapotranspiration (feet/year) x Plant Factor x 1 acre] / Irrigation Efficiency**

Where:

**Annual Groundwater Consumptive Use** (acre-feet per year), defined as the amount of groundwater lost through evapotranspiration (evaporation from the soil and transpiration from the plant).

**Reference Evapotranspiration (ETo)** (feet per year), defined as the approximation of water loss from a field of 4 to 7-inch-tall cool season grass that is not water stressed. ETo values are published by the California Irrigation Management System (CIMIS). For the calculation, please use the most currently published average annual ETo from CIMIS Station 207 in Borrego Springs. As of May 18, 2011, Station 207 had an average annual ETo of 6.3 feet (source for ETo: <http://www.cimis.water.ca.gov>).

**Plant Factor** (or Crop Coefficient), defined as the fraction of water lost from the plant relative to ETo. The annual plant factor is listed for the most common vegetation types in Borrego Valley:

Vegetation Type	*Plant Factor
Citrus (all types)	0.65
Nursery plants	0.6
Palms (all types)	0.5
Tamarisk	0.2
Turf (warm season)	0.6
Turf (winter cool/summer warm)	0.66

\*Plant factor for other plant types shall be obtained from publications by the State of California or University of California Sources for Plant Factor: [http://www.water.ca.gov/pubs/planning/guide\\_to\\_estimating\\_irrigation\\_water\\_needs\\_of\\_landscape\\_plantings\\_in\\_ca/wucols.pdf](http://www.water.ca.gov/pubs/planning/guide_to_estimating_irrigation_water_needs_of_landscape_plantings_in_ca/wucols.pdf) <http://celosangeles.ucdavis.edu/newsletterfiles/Co-Hort11051.pdf>

**Irrigation Efficiency**, defined as a measure of the portion of total applied irrigation water beneficially used to satisfy the plants needs. Losses (non-beneficial use) include runoff, evaporation from wet soil surfaces, and irrigation return flow to the aquifer. The numbers below were adjusted to take into consideration the assumption that 10% of the total applied water is irrigation return flow back to the aquifer.

**Comment [j2]:** This is not the case, please see attached comments from Peter Martin of the USGS and Tim Ross of DWR

Irrigation Method	Irrigation Efficiency
Spray/Rotor (turf, tamarisk)	0.8
Drip (Citrus, nursery plants, palms)	0.9

**Comment [j3]:** Change to 0.7

**Comment [j4]:** Change to 0.8

Source for Irrigation Efficiency: Turf and Landscape Irrigation Best Management Practices, April 2005, Water Management Committee of the Irrigation Association

**Notes:**

For Reference Evapotranspiration (ET<sub>o</sub>), Station 207 (attached see **Reference Evapotranspiration – Borrego Valley CIMIS Station 207**) was used to best estimate the amount of reference evapotranspiration for Borrego Valley (approximately 75.39 inches or 6.3 feet per year). This value is higher than the regional CIMIS value for Region 18 in which Borrego Valley is located (approximately 71.61 inches or 6 feet per year).

For plant factor (or crop coefficient), data was taken from two attachments:

***CIMIS Guide to Estimating Crop Coefficients:***

Citrus – See page 6

Nursery Plants – considered on the high end of moderate water use (0.6)

Palms – considered a moderate water use (0.5) based on the following plants with a M category:

Mediterranean Fan Palm, Sago Palm, Madagascar Palm, Canary Island Date Palm, Date Palm, Pigmy Date Palm, Queen Palm, California Fan Palm, Mexican Fan Palm, Queen Palm

Tamarisk: considered a low water use (0.2)

***K<sub>c</sub> for grass UCR:***

Warm Season Grass: The value is listed as 0.6

Warm Season with Cool Season Overseed: This was based on the assumption of cool season grass being active from November through March each year and warm season grass being active from April to October. On average, this equates to an annual crop coefficient of 0.66

Potato crop was based on information in the BWD IRWMP.

For irrigation efficiency, this was taken from the attached **IA BMP April 2005** (page 3-5). The values for rotor and drip were 0.7 and 0.8 respectively and were bumped up by 10% to 0.8 and 0.9 to take into account the loss of water back to the aquifer which would not be something to give credit for.

Strikeout/Underline Version  
REVISED 9/7/11

## SAN DIEGO COUNTY GROUNDWATER ORDINANCE

ORDINANCE NO. 7994 (N.S.)  
ORDINANCE NO. 9644 (N.S.)  
ORDINANCE NO. 9826 (N.S.)

SAN DIEGO COUNTY CODE TITLE 6, DIVISION 7

CHAPTER 7 GROUNDWATER

### **Sec. 67.701 Short Title.**

This chapter shall be known as the San Diego County Groundwater Ordinance.

### **Sec. 67.702 Purpose and Intent.**

San Diego County overlies a complex groundwater resource that varies greatly throughout the entire County. This resource provides the only source of water for approximately 35,000 residents. Development has occurred and will continue to occur within this area, impacting the safe utilization of this valuable, finite and yet renewable resource. The purpose of this chapter is to establish regulations for the protection, preservation, and maintenance of this resource. It is not the purpose of this ordinance to limit or restrict agricultural activities, but to ensure that development will not occur in groundwater-dependent areas of the County unless adequate groundwater supplies are available to serve both the existing uses within the affected groundwater basin and the proposed uses. The economic, social, and environmental benefits of maintaining viable agriculture in San Diego County are expressly recognized in the adoption of this ordinance.

### **Sec. 67.703 Definitions.**

The following words shall have the meaning provided in this section. These definitions are to be broadly interpreted and construed to promote maximum conservation and prudent management of the groundwater resources within San Diego County.

Director: The Director of Planning and Land Use.

Groundwater Investigation: A study ~~designed to that~~ evaluates the geologic and hydrologic conditions, ~~and is~~ prepared in accordance with standards approved by the Director. The study ~~must~~ shall be prepared by a California State Registered Geologist or

Registered Civil Engineer and be approved by the Director. The Director may require the study to demonstrate the groundwater adequacy of the groundwater basin to serve both the project and the entire basin if developed to the maximum density and intensity permitted by the General Plan. For residential uses, the study shall assume an annual consumptive use requirement of 0.5 acre-feet (163,000 gallons) of water per dwelling unit. ("Consumptive use" is the amount of groundwater lost from the groundwater resource due to human use, including evaporation and transpiration (plant use) losses associated with human use.)

**Comment [LB1]:** 0.5 acre-feet/EDU is not the proper consumptive use for Borrego. Q1: where should Borrego's annual consumptive use be included in the Ordinance? Q2: how best to determine this consumptive use today and over time?

**Residual Drawdown:** The difference between the initial (static) water level before a well test is conducted and the water level after recovery. Projected residual drawdown indicates an aquifer of limited extent and the long-term well yield may be lower than what is indicated in a well test.

**Specific Capacity:** An expression of the productivity of a well, obtained by dividing the rate of discharge of water (in gallons per minute) from the well by the drawdown (in feet) of the water level in the well.

**Water Intensive Use:** Any land use that requires a permit listed in Section 67.711 and is not exempt from this ordinance, and that will require more water than 20 acre-feet per year or more than 20,000 gallons per day.

**Water Service Agency:** Any city, mutual or municipal water district, or any other private or public agency which provides water at retail from either: (1) groundwater resources, to two or more users; or (2) imported water resources. Such water service agency must be in existence prior to the date of submittal of any project relying on service from that agency.

**Well Test:** The production procedure, reviewed and approved by the Director, by which water is produced from a water well and resulting water levels are monitored. If the results of the testing are inconclusive or improperly conducted, additional testing will be required. (All wells must have a valid San Diego County Health Department well permit prior to construction.)

1. Residential Well Test: A test of a well on property with zoning which permits residential use, or which is for a residential project, shall be conducted by or under the direct supervision of a California State Professional (or Registered) Geologist, who shall conduct all analysis. The Residential Well Test shall meet or exceed all of the following minimum requirements unless the Director has first approved an alternate procedure:
  - a. Well production during the Residential Well Test must be maintained at a rate of no less than three gallons per minute.

- b. The Residential Well Test must be conducted over a period of at least 24 hours, unless after eight hours of pumping, the measured specific capacity is equal to or greater than 0.5 gallons per minute per foot of drawdown, at which time pumping can be terminated. In addition, all Residential Well Tests must produce at least two full well bore volumes of water (a bore volume is that quantity of water which is stored within the saturated portion of the drilled annulus of the well).
  - c. The analysis of the Residential Well Test must indicate that no residual drawdown is projected (taking into account minor inaccuracies inherent in collecting and analyzing well test data).
  - d. The analysis of the Residential Well Test must also indicate that the amount of drawdown predicted to occur in the well after five years of continual pumping at the rate of projected water demand, will not interfere with the continued production of sufficient water to meet the needs of the anticipated residential use(s).
2. Nonresidential Well Test: A test of a well for a nonresidential project (such as a golf course) shall be in accordance with procedures approved by the Director and may be more extensive than those applicable to a Residential Well Test.

**Sec. 67.710 Director to Enforce.**

The Director shall have the authority to enforce all the provisions of this Chapter. The Director may designate the County Groundwater Geologist as the employee responsible for implementing this Chapter, to:

1. Review and perform groundwater studies.
2. Conduct research on the groundwater resources of the County.
3. Review and make recommendations on all discretionary projects which fall under this ordinance.
4. Monitor and maintain files on the status of the resource.
5. Assist consultants, community groups, water service agencies and residents of the County in assessing groundwater concerns.
6. Identify groundwater impacted basins.
7. Prepare recommended revisions to the Groundwater Limitations Map.

**Sec. 67.711 Application.**

Prior to approval of any of the following discretionary land development applications for a project which proposes the use of groundwater (hereinafter referred to as "Projects"), the applicant shall comply with the provisions of Article 3 below:

General Plan and Specific Plan Adoptions and Amendments

Tentative Parcel Maps

Tentative Maps

Revised Tentative Parcel Maps and Revised Tentative Maps (Review shall exclude areas unaffected by the revisions proposed by the Revised Map)

~~Expired Tentative Parcel Maps and Expired Tentative Maps~~

Zoning Reclassifications Amending Use Regulations Applicable to Particular Property

Major Use Permits

Major Use Permit Modifications (Review shall exclude areas unaffected by the proposed modifications)

Certificates of Compliance filed pursuant to San Diego County Code Section 81.616.1 or 81.616.2 (Excluding Condominium Conversions)

Adjustment Plats filed pursuant to San Diego County Code Section 81.901 et seq., on property zoned to permit residential use, if the Director determines that the Adjustment Plat will create a lot which would potentially worsen existing or future groundwater conditions at the maximum density and intensity permitted by the General Plan and Zoning, taking into consideration long-term groundwater sustainability, groundwater overdraft, low well yield, and well interference. If the Director makes this determination, the Adjustment Plat shall comply with Section 67.722 but not Sections 67.720 or 67.721.

**Sec. 67.720 Borrego Valley.**

For any project located within The following provisions apply to Projects in the Borrego Valley Exemption Area. This area is as shown on the map entitled "Groundwater

Limitations Map", approved by the Board of Supervisors on May 5, 2004 (Item 15), on file with the Clerk of the Board of Supervisors as Document No. 0770050, any application listed in Section 67.711 which either (1) includes a water-intensive use, or (2) consists of a total project area of 100 acres or more, and any application for a General Plan Amendment, shall be accompanied by a Groundwater Investigation. The application shall not be approved unless the approving authority finds that based upon the Groundwater Investigation, groundwater resources are adequate to meet the groundwater demands of the project.

A. A Project listed in Section 67.711 which will use at least one acre-foot (325,851 gallons) of water per year shall include one or more groundwater use reduction measures listed in subsection B below. The groundwater use reduction measures shall fully offset the amount of groundwater that the proposed project will use and shall result in "no net increase" in the amount of groundwater extracted from the Borrego Valley Exemption Area. The groundwater use reduction measures shall be implemented within the Borrego Valley Exemption Area as shown on the "Groundwater Limitations Map."

B. One or more of the following groundwater use reduction measures may be used:

1. Grant an easement to the County of San Diego on off-site land that is being actively irrigated in accordance with the following provisions:

a) The easement shall permanently and completely prohibit the use, extraction, storage, distribution or diversion of groundwater on the property subject to the easement, except for the use of a maximum of one acre-foot of groundwater per year for a single-family residence.

**Comment [j2]:** Add: or any other lawful use.

b) The amount and evidence of historic groundwater use and the terms and conditions of the easement shall be subject to the approval of the Director.

**Comment [j3]:** What type of evidence will be accepted?

c) The use of the water on the land subject to the easement shall have started by January 1, 2008 and shall have continued to the date the proposed easement is submitted to the Department of Planning and Land Use.

**Comment [j4]:** Why this date?

d) The quantity of water available for offset shall be based on the total groundwater consumptive use for each vegetation type on the land subject to the easement as determined by the values in the following table:

<u>Vegetation Type</u>	<u>Groundwater Consumptive Use Per Acre (acre-feet/acre/year)</u>
Citrus (all types)	4.6
Nursery plants	4.2
Palms (all types)	3.5
Tamarisk	1.6
Turf (warm season)	4.7
Turf (winter cool/ summer warm)	5.2
Potatoes	0.75

Comment [j5]: Change to 5.1

Comment [j6]: Change to 4.7

Comment [j7]: Change to 3.9

Comment [j8]: Change to 1.8

Comment [j9]: Change to 5.4

Comment [j10]: Change to 5.9

Comment [j11]: Change to 0.86

To determine the groundwater consumptive use for each vegetation type within the easement area, the acreage of irrigated land for a particular vegetation type is multiplied by the "Groundwater Consumptive Use Per Acre" as listed in the table above. The "Groundwater Consumptive Use Per Acre" value for any vegetation types not listed in table above shall be determined by the Director.

e) Submit the easement to the Department of Planning and Land Use for review, approval and recordation.

2. Water credits issued by the Borrego Water District that comply with the Memorandum of Agreement between the Borrego Water District and the County of San Diego regarding Water Credits dated XX/XX/XX, and any amendments thereto, on file with the Clerk of the Board of Supervisors.

3. Provide evidence to the satisfaction of the Director that all (or a portion of) the on-site water use occurring prior to the date of permit application will be permanently eliminated as a result of the Project.

4. Any other legally enforceable mechanism that achieves permanent water savings, subject to approval by the Director.

**Sec. 67.721 Groundwater Impacted Basins.**

A. Identification and Mapping. Areas within the County which are characterized by one or more of the following groundwater problems shall be known as Groundwater Impacted Basins and shall be identified and mapped:

1. Low yielding wells having an overall average yield of less than 3 gallons per minute.
2. Basins with previously approved developments at a parcel size smaller than those stated in the table in paragraph A of Section 67.722 and in excess of available water resources.
3. Declining groundwater levels and a measurable groundwater overdraft.

The Groundwater Impacted Basins shall be designated on a map known as the "Groundwater Limitations Map" which shall be adopted by the Board of Supervisors and kept on file with the Clerk of the Board of Supervisors. Prior to adding any area to said map or making any deletions from or revisions to said map, the Board of Supervisors shall hold a public hearing. Notice of such hearing shall be mailed at least 30 days in advance, to the owner (as shown on the latest equalized assessment roll) of any property proposed to be added to or deleted from said map. The Director of Planning and Land Use shall annually review said map and may recommend such revisions as the Director finds appropriate.

- B. Regulations. Any application listed in Section 67.711 for a project within a Groundwater Impacted Basin shall be accompanied by a Groundwater Investigation. In addition, a Well Test shall be performed for each lot proposed to be created by or included within the project. The application shall not be approved unless the approving authority finds that based upon the Groundwater Investigation, groundwater resources are adequate to meet the groundwater demands both of the project and the groundwater basin if the basin were developed to the maximum density and intensity permitted by the General Plan.

#### **67.722 All Other Projects.**

Any application listed at Section 67.711 for a project not subject to Section 67.720 or Section 67.721, which proposes the use of groundwater not provided by a Water Service Agency, for all or any portion of the project, shall comply with the following regulations:

- A. Residential Density Controls.

Tentative Maps, Tentative Parcel Maps, and Certificates of Compliance proposing parcels for single-family dwellings must comply with the minimum parcel sizes set forth in the following table; Adjustment Plats on property zoned to permit residential use shall also comply with these minimum parcel sizes, except that an existing parcel smaller than the applicable minimum parcel size

need not be made to conform to the minimum, so long as it is not further reduced in size by the Adjustment Plat:

Mean Annual Precipitation* (inches)	Minimum Parcel Size**(Gross Acres)
Less than 9	20
9 to 12	15
12 to 15	11
15 to 18	8
18 to 21	5
More than 21	4

\*Mean annual precipitation is to be determined from the County of San Diego map entitled "Groundwater Limitations Map", approved by the Board of Supervisors on May 5, 2004 (Item 15), on file with the Clerk of the Board of Supervisors as Document No. 0770050.

\*\*Compliance with the minimum parcel size does not guarantee project approval; site-specific characteristics may indicate that either larger parcel sizes are required or that the project should not be approved in individual cases.

- B. Groundwater Investigations. Any application listed in Section 67.711 and not subject to Sections ~~67.720~~, 67.721 or Paragraph A above, shall be accompanied by a Groundwater Investigation. The application shall not be approved unless the approving authority finds, based upon the Groundwater Investigation or other available information, either: (1) for a water intensive use, that groundwater resources are adequate to meet the groundwater demands both of the project and the groundwater basin if the basin were developed to the maximum density and intensity permitted by the General Plan; or (2) for all other projects, that groundwater resources are adequate to meet the groundwater demands of the project.
- C. Well Tests. For any application for a Tentative Map, Specific Plan or Specific Plan Amendment, Tentative Parcel Map, Adjustment Plat or a Certificate of Compliance, well tests shall be performed for the number of lots shown in the following table. Tests shall be on lots which appear to have the least access to a viable groundwater supply as determined in advance of testing by the Director, who shall also specify nearby wells to be monitored while the testing is being conducted. If any well does not pass the requirements for Well Tests stated in Section 67.703 above, the Director may require additional well tests beyond what is required in the following table:

Number of Proposed Lots*	Number of Required Well Tests
1 through 10	1
11 through 20	2
21 through 30	3
31 through 40	4
Greater than 40	5

\* Excluding remainder parcels and "not a part" areas

**Sec. 67.750 Exemptions.**

- (a) A proposed subdivision which pursuant to the terms of Government Code Section 66424 or 66426 is exempt from the requirement to file a Tentative Map or Tentative Parcel Map is not subject to this Ordinance unless it also involves an application for a General Plan or Specific Plan adoption or amendment, a Zoning Reclassification, or a Major Use Permit or modification thereof.
- (b) The following Major Use Permits or Major Use Permit modifications are exempt from this ordinance:
  - (1) Those involving the construction of agricultural and ranch support structures used in the production, storage, or processing of food, fiber, and flowers, including but not limited to roadside stands, barns, sheds, packing houses, and greenhouses, except that this exception does not apply to feed lots.
  - (2) Those involving new or expanded agricultural land uses, including but not limited to changes in commodities produced on the property, operations performed upon such commodities, and development of additional irrigated acreage on the property unless accompanied by subdivision.

This agricultural exemption does not supersede or limit the application of any law or regulation otherwise applicable to the above-listed categories of agricultural support activities including the California Environmental Quality Act. For purposes of this exemption, "agricultural and ranch support structures" do not include the commercial exportation of groundwater for purposes of resale outside the basin.

- (c) Director may grant an exemption from the requirement for a Groundwater Investigation imposed by Section ~~67.720~~, 67.721 or 67.722.B, the requirement for Well Tests imposed by Section 67.721 or 67.722.C, or the requirement for minimum parcel sizes imposed by Section 67.722.A, upon a finding that existing

- 10 -

data clearly demonstrate that the finding required by Section 67.722.B. can be made without additional study. Such data may include a recent history (minimum of five years) of groundwater withdrawals or streamflow data and other geomorphic evidence which indicates that replenishment of groundwater resources is rapid and reliable, and is controlled primarily by infiltration of streamflow rather than on-site recharge.

DRAFT

MEMORANDUM OF AGREEMENT  
BETWEEN THE BORREGO WATER DISTRICT  
AND THE COUNTY OF SAN DIEGO  
REGARDING WATER CREDITS

Comment [j1]: Correct spelling

This Memorandum of Agreement (MOA) between the Borrego Water District (BWD), a water district formed pursuant to California law, and the County of San Diego (County), a political subdivision of the State of California, is entered into on

Whereas, the Borrego Aquifer is in a state of overdraft due to the extensive use of groundwater in the Borrego Valley.

Whereas, due to the overdraft condition, BWD plans to implement a program to encourage the voluntary and immediate cessation and/or reduction of measurable water uses to reduce the demand on the groundwater aquifer that is under the Borrego Valley.

Whereas, a key element in BWD's program is the issuance of water credits for the cessation and reduction in the use of groundwater in accordance with BWD's program.

Whereas, due to the overdraft condition, County wants to ensure that proposed uses in the Borrego Valley offset their demand for groundwater by a ratio of least a one-to-one, and water credits issued by BWD that also meet County's requirements are one method that project applicants can use to provide this offset.

Whereas, BWD and County wish to enter into this MOA to set forth the terms by which the County will recognize water credits issued by BWD.

NOW, THEREFORE, the parties agree as follows:

1. The County will recognize water credits issued by BWD if the water credits meet all of the criteria set forth in this MOA.
2. The water credits shall have been issued in exchange for an easement granted to BWD. The easement shall include the following provisions:
  - a. The easement shall permanently and completely eliminate the extraction, use, storage, distribution or diversion of groundwater on the land subject to the easement, except for one-acre foot of groundwater per year to serve a single-family dwelling.
  - b. The easement shall designate County as a third-party beneficiary with the right, but not the obligation to enforce the easement. The easement shall give

Comment [LB2]: Add or any other lawful use.

County the same right of access for purposes of monitoring compliance with the easement and the same options for enforcing the easement as the easement gives to BWD.

3. Before accepting the easement, BWD shall verify that all extraction, use, storage, distribution or diversion of groundwater on the property subject to the easement has ceased, that all crops or turf have been removed and that all pumps and wells on the property, if any, have been disengaged or rendered inoperable.

4. Each water credit shall be equal to one-acre foot of water per year.

**Comment [LB3]:** Q do we need to add rounding language here?

5. The number of water credits issued shall be based on the water use as determined on the chart attached to this MOA as Exhibit A. The water use shall be calculated based on the vegetation types, vegetation area being actively irrigated and corresponding annual groundwater consumptive use as specified in Exhibit A. BWD shall obtain the prior written approval of County for any vegetation not listed in Exhibit A and for the amount of water use calculated for that vegetation.

6. The irrigation of the land for which the water credits are issued shall have begun before January 1, 2008 and shall have continued until the date the application was submitted to BWD for the water credits.

**Comment [J4]:** Why this Date?

**Comment [J5]:** Change to the easement has been issued

7. BWD shall include the following certification on each Water Credit Certificate that BWD issues for water credits granted in compliance with this MOA:

The Borrego Water District certifies that the water credits listed on this Water Credit Certificate comply with all of the requirements of the Memorandum of Agreement Between the Borrego Water District and the County of San Diego Regarding Water Credits dated \_\_\_\_\_.

\_\_\_\_\_  
Borrego Water District  
General Manager

\_\_\_\_\_  
Date

8. BWD may issue water credits that do not comply with this MOA, but County will recognize only those water credits that comply with the requirements of this MOA.

9. County reserves the right to verify that water credits issued by BWD comply with this MOA. BWD shall provide information and answer questions related to water credits presented to County for offsets or related to BWD's groundwater use reduction program as requested by County. If, in spite of the certification described in paragraph 7 above, County determines that the water credits do not comply with this MOA, County will not recognize the water credits for offsets.

10. Either party may terminate this MOA on 30 days prior written notice to the other party. Notice of termination shall be addressed as follows:

**Comment [j6]:** Change to 120 days to allow for projects in progress

To County:  
Director of Planning and Land Use  
[Address]

To BWD:  
\_\_\_\_\_  
\_\_\_\_\_

11. This MOA may be amended or changed only by a written amendment signed by both parties.

12. This MOA is an enforceable agreement.

Now, therefore, the parties execute this MOA as of the date first written above.

COUNTY OF SAN DIEGO

BORREGO WATER DISTRICT

By: \_\_\_\_\_  
Clerk of the Board of  
Supervisors

By: \_\_\_\_\_  
[title]

Approved as to form and legality  
County Counsel

Approved as to form and legality

By: \_\_\_\_\_  
Senior Deputy

By: \_\_\_\_\_  
[title]

TO: Members of the Borrego Water District Board of Directors  
Jerry Rolwing, General Manager

FROM: Lisa Foster, General Counsel

DATE: October 18, 2011

SUBJECT: Issues Related to Imposition and Collection of Groundwater Extraction Fees

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### Introduction

You asked for information about the process that the District is required to follow to impose and collect water extraction fees. This memorandum summarizes the advice that the District has previously received regarding that issue, and discusses some more recent developments in this area of law. As noted in the Fritz Stradling 2004 memorandum, there are various methods for imposing and collecting this type of fee. These methods include: 1) imposing the fee based on the District's current authority pursuant to the Groundwater Management Act; 2) imposing the fee as a groundwater replenishment District; 3) adjudication; 4) pursuing new legislation authorizing the District to impose a groundwater extraction fee, and to collect unpaid fees as a lien on property. While all of these alternatives have advantages and disadvantages, the options of establishing a fee pursuant to the Groundwater Management Act, or by special legislation, are arguably the most viable options, for the reasons discussed below.

### Summary of Prior Memoranda

In 2004, the District Board received a memorandum from former General Counsel Fritz Stradling, which in part discussed issues related to establishing and collecting a water extraction fee. The following is a summary of the highlights of that memorandum:

- The terms "pump tax", "water extraction fee", "water extraction assessment" and "water replenishment assessment" are used in different statutes, but have essentially the same meaning – a fee or assessment based on the amount of water that a public or private entity pumps from a groundwater basin. (Consistent with the 2004 memorandum, this memorandum will use the term "water extraction fee").
- The California Water District Law (Water Code §§ 34000 et seq.) does not contain any provisions authorizing the District to levy a water extraction fee.
- There is statutory authority in the Groundwater Management Act (also known as AB 3030) (Water Code §§ 10750 et seq.) that provides the District the authority to levy a water extraction fee, as an agency with a Groundwater Management Plan. Water Code §§ 10754.2; 10754.3.

- In order to establish a water extraction fee pursuant to the Groundwater Management Act, an election on a proposition must be held, and a majority vote in favor of the proposition is required. The law does not provide clear authority regarding who is entitled to vote in the election.
- At the time of the 2004 memorandum, it was unsettled whether or not Proposition 218 would apply to a water extraction fee established pursuant to the Groundwater Management Act, as either an assessment, or a property related fee or charge.
- The state Water Replenishment Act (Water Code §§ 60000 et seq.) authorizes the District to levy a water replenishment assessment, however, the assessment funds appear to be for the limited purpose of replenishing water in the District, when no replenishment water is available (unlike a fee charged pursuant to the Groundwater Management Act, which can be used for any groundwater management related purpose).
- If a water extraction fee was established and levied by the District pursuant to the Groundwater Management Act, there would be no clear mechanism for collecting unpaid fees. The Stradling memorandum concludes that there would be two options: a) civil suit against an individual pumper who does not pay the fee; b) adjudication against all lands in the Basin, which could lead to a court judgment imposing the fee, and/or limiting pumping. The adjudication option would be very expensive and time consuming and was not recommended by Mr. Stradling.
- The final option discussed in the Stradling memorandum was pursuing legislation to clearly give the District authority to levy a water extraction fee, and to provide a clear method for collecting the fee, as a lien on property.

In 2008, Mr. Stradling's colleague Allison Burns wrote a follow up memorandum on this topic, which included the following additional information:

- Ms. Burns' memorandum primarily repeats the points made in the 2004 memorandum, but on the subject of whether a water extraction fee would be subject to Proposition 218, concluded that the issue was still unsettled, but noting that the Bighorn-Desert View case held that fees for ongoing water service being subject to Proposition 218, and that this was a cause for concern that water extraction fees could also be determined by a court to be subject to Proposition 218.

### Legal Developments and Discussion of Alternatives

The most significant legal development on this subject is the 2007 decision in Pajaro Valley Water Management Agency v. Amrhein (2007) 150 Cal. App. 4<sup>th</sup> 1364. That decision settled the question of whether Proposition 218 applies to water extraction fees, holding that such fees are property related fees and charges subject to the procedural requirements of Proposition 218.

The Pajaro agency is a water agency responsible for a jurisdiction relying on groundwater for 95% of its supply. It is governed by special legislation which authorizes it to levy groundwater management fees. Water Appen. Chapter 124, §§ 124-1 et seq. After adopting a Basin Management Plan in 2002, the agency began charging water

extraction fees to all extractors of groundwater to pay for the costs of the plan, and occasionally increasing the fees by ordinance. The agency's 2003 fee increase, which was accomplished by ordinance, was the subject of the litigation. After the agency filed a validation action (seeking a ruling from the court confirming the validity of their own fee) objectors filed an answer arguing alternatively that: 1) the fee was a special tax that should have been subject to a vote of the public; 2) the fee was not valid because it was subject to the procedural requirements of Proposition 218 for a special assessment; and 3) the fee was not valid because it had been increased without satisfying the procedural requirements of Proposition 218 for a property related fee (i.e., a majority protest hearing). The court disagreed with the objectors that the fee was a tax or assessment, but agreed that it was a property based fee that should have complied with the Proposition 218 majority protest procedure for that type of fee.<sup>1</sup>

Another interesting case that has been decided about Proposition 218 and water extraction fees is a Superior Court case in Los Angeles County, City of Cerritos, et al. v. Water Replenishment District of Southern California (Superior Court of Los Angeles, Case No. BS128136). This case is interesting because in ruling that a water replenishment fee charged pursuant to the Water Replenishment Act (Water Code 60000 et seq.) was a property related fee subject to Proposition 218, the court specifically ruled that agencies cannot avoid compliance with Proposition 218 simply by following the procedural requirements set forth in the Water Code for establishing fees, because Proposition 218, as a provision of the California Constitution, is a higher authority than the Water Code. Unfortunately, this case has no actual precedential value, because it is an unpublished Superior Court case, applicable only to the parties to the case. It does provide some insight, however, into how a higher court might analyze the same issue.

With that legal development in mind, the following is an updated discussion of the four alternatives for levying a water extraction fee that were discussed in the prior memoranda.

1. Levying/Collecting a Water Extraction Fee Based on the Groundwater Management Act

The relevant statutory provisions of this Act have not changed since the 2004/2008 memos, and these provisions still authorize the District, as an agency that has adopted a Groundwater Management Plan ("Plan"), to impose equitable annual fees based on the amount of groundwater extracted from the basin in the area included in the Plan, to pay for costs incurred by the agency for groundwater management, including, but not limited to, replenishment water, administrative and operation costs, and costs of constructing capital facilities. Water Code §10754.2.

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<sup>1</sup> Ironically, following this decision, the Pajaro agency increased its water extraction fee by complying with the Proposition 218 majority protest procedure, but was sued again in October 2010 by plaintiffs who are now arguing that the fee is invalid, based on lack of compliance with Gov't Code sections 53720-53730 (requiring voter approval for general and special taxes). Pendry, et al. v. Pajaro Valley Mgmt. Agency, Monterey Superior Court case no. CV 169080.

While the right of the District to impose this fee is clear, the process for doing so is not clear. The Act provides, as noted in the 2004 memorandum, that a majority vote on a proposition is required to impose the fee, but does not clarify who is eligible to vote in the election. The Act simply says that the election shall be conducted in the manner prescribed by laws applicable to the agency, or as prescribed by the laws relating to local elections. Water Code § 10754.3.

Additionally, I have found no authority that reconciles the discrepancy between the requirement to hold an election in the Water Code with the requirement established by the Pajaro case that any new or increased water extraction fees comply with the requirements for property related fees in Proposition 218. It should be noted that in the Pajaro case, the agency was imposing the fee pursuant to special legislation that did not contain an election requirement. It seems illogical that both an election and a Proposition 218 majority protest process would be required for establishing a fee pursuant to the Groundwater Management Act. One possible way to reconcile these requirements would be to hold the election for the original establishment of the fee, and then to comply with Proposition 218 for future increases in the fee. However, without clear authority, anything short of complying with both requirements to establish the fee could subject the fee to a legal challenge, and there is no certainty that a majority of the voters would support the fee.

In addition to the establishing a water extraction fee under the Groundwater Management Act, another problem with a fee established under this Act is the absence of authority to collect unpaid fees through a lien on property. The Act itself is silent with regard to the process for collecting unpaid water extraction fees. A lien can only be created by a contract, or by operation of law, therefore, without a contract or a statute specifically authorizing a lien, it is not available. Civil Code § 2881. In the absence of authority to impose a lien, the District's options for collecting unpaid fees and charges are limited to discontinuing water service when that is feasible, which would not be the case with a water extraction fee (Water Code § 35423); or civil action to collect the delinquent charge from the customer, as noted in the 2004 memorandum.

With regard to the collection of unpaid charges from individual customers, some public agencies contract with a third party collection agency to handle this function for various types of unpaid bills and charges. The collection agency typically provides its services in exchange for retaining a percentage of the delinquent bills that are collected. The agency's services include sending demand letters, making demand phone calls, credit reporting to credit bureaus and legal proceedings, including lawsuits. The use of credit reporting often provides delinquent customers with additional incentive to pay the bills, particularly if they are in the process of trying to obtain a loan or credit. Another benefit of using a collection agency is that the agency is responsible for ensuring that the collection process complies with applicable laws, particularly the Fair Debt Collection Practices Act.

Summary: The advantages of establishing a water extraction fee based on the Groundwater Management Act are that the authority to do so currently exists, and the use of the fees is broad, and includes uses such as administrative, operating and capital expenses. The disadvantages include the legal uncertainty about the process for enacting the fees, the uncertainty of obtaining voter approval, and the limited ability to collect unpaid fees.

## 2. Levying/Collecting a Water Extraction Fee Based on the Groundwater Replenishment Act

The Water Replenishment District Act, Water Code §§ 60000 et seq., is incorporated by reference into the Groundwater Management Act at Water Code section 10754, which provides that an agency that adopts a groundwater management plan automatically has the authority of a groundwater replenishment district pursuant to Water Code section 60220. As an agency with a Groundwater Management Plan, therefore, the District has the authority to “do any act necessary to replenish the ground water of said district.” Water Code section 60220. The specific authorities of a Water Replenishment District include the establishment of a Water Replenishment Assessment, for the purpose of purchasing water for replenishment in the next ensuing fiscal year. Water Code § 60305. This can be in the form of a water charge, or an assessment, or a combination of the two. Id. The process for establishing the charge or assessment consists of a resolution, a subsequent notice and public hearing, and the making of specific findings by the board to support the charge.

The unpublished City of Cerritos case discussed above resulted in a finding that a Proposition 218 process was required in order to establish this type of fee, therefore, it is likely that an appellate court would reach the same conclusion, and find that compliance with the procedures set forth in the Water Replenishment District Act alone would not be legally sufficient. This is not a settled issue, therefore, uncertainty exists about the process required to establish a groundwater replenishment fee.

Once established, an agency imposing a groundwater replenishment fee can charge interest of 1% per month for delinquent bills, and can bring a lawsuit to collect the delinquent amount, interest and costs of suit. Water Code §§ 60335, 60341.

Summary: The establishment of a water extraction fee using this process does not have any advantages over establishment of a fee pursuant to the Groundwater Management Act. Both involve existing authority applicable to the District, however, the water replenishment fee process involves multiple disadvantages, including limitation on the permissible use of the funds for replenishment activity only, uncertainty in the process for establishing the fee, and inability to impose liens on property for collection of delinquent bills.

## 3. Levying/Collecting a Water Extraction Fee through Adjudication

The 2004 memorandum briefly discussed the use of the adjudication process for establishment of a water extraction fee. A detailed discussion of the adjudication process is beyond the scope of this memorandum, but the following is a brief summary of how this process relates to the establishment of extraction fees. In an adjudication of a groundwater basin, the Superior Court for the county where the basin is located is asked to make a determination/judgment regarding various issues related to management of the basin. The judgment can include limits on each landowner's right to extract water from the basin, and other provisions such as extraction fees. These decisions are based on court-directed studies that are paid for by the litigants. A Watermaster is appointed by the court to oversee the court's judgment, which can be the California Department of Water Resources, a water agency, an individual, or a board or committee.

As noted in the 2004 memorandum, this process can be lengthy and costly. One example of a groundwater basin adjudication is the Seaside Basin in the Monterey area, which serves the cities of Seaside, Sand City, Del Rey Oaks, Monterey, Carmel, Pacific Grove and areas of Monterey County. The local water purveyor, California American Water Co., filed the adjudication action in 2003 in cooperation with the city defendants, and a judgment was rendered in 2006. The court established each party's water rights, and established a board to serve as the Watermaster, over the objection of the local water management agency, which argued that it should serve as the Watermaster.

Advantages of this process include that the procedure is certain, and that any fee or other provision established in the adjudication process would be enforceable as a court order. Disadvantages include the time consumption and cost, and the uncertainty of the outcome, which is determined by the court. This uncertain outcome could include court appointment a party other than the local water agency to serve as the Watermaster. Although some cases result in settlements known as stipulated judgments, which can reduce the cost and time of the process, there is no guarantee in a particular case that such a settlement will occur.

#### 4. Levying/Collecting a Water Extraction Fee Pursuant to Special Legislation

According to the California Department of Water Resources in 2009, there were thirteen groundwater management districts in California that were established by special act legislation. Each of these districts has been created individually by special legislation; there is no generic groundwater management district act in the Water Code. Some of the existing groundwater management districts were former water districts who had their statutory authority modified to give them the powers of a groundwater management district. The districts are typically managed by an elected board. Because formation of a groundwater management district requires the Legislature to pass a bill, the process requires collaboration with a state legislator, who authors and introduces the bill. According to a somewhat dated 1996 fact sheet entitled "Groundwater Management Districts or Agencies in California", (available on the California Department of Water Resources website, [www.water.ca.gov](http://www.water.ca.gov)) this process generally takes several years of effort on the part of interested citizens in the affected area.

Some of the statutory authorities of groundwater management districts include:

- The authority to require water extractors to register with the agency, to use water flow measuring devices, and/or to file periodic statements with the agency regarding water extraction activities
- The authority to suspend or limit extractions to prevent conditions of overdraft, and to allocate existing supply among users, based on acreage, or pro rata amount of water use compared to overall water use for the agency
- The authority to levy groundwater extraction fees
- Some of these agencies, but not all, have the statutory authority to collect their groundwater extraction fees through the county tax rolls, and to impose liens on property for unpaid fees. See, Pajaro Valley Water Management Dist. v. Amrhein (2007) 150 Cal. App. 4<sup>th</sup> 1364, n.20.

Summary. The advantages of pursuing special legislation to become a groundwater management district would include the ability to establish clear authority for the District to levy a water extraction fee, as well as the clear authority to collect such a fee through the county tax rolls, and to lien property in the case of unpaid fees. The fees could potentially be used for broad purposes related to groundwater management. Another advantage would be the ability to expand the District's authority in other regards in relation to managing the basin, including the ability to: require registration of extraction facilities; require use of water flow measuring devices; require filing of water extraction activity statements with the District; limit or suspend extraction to prevent overdraft conditions, and allocate supply among users. The process for seeking this authority is clear. The disadvantage of this alternative would be the necessity to collaborate with a legislator to sponsor the bill, and the uncertainty that the legislation would be passed, as well as the time that would be required to go through the process, which could be several years. According to one 2005 article discussing groundwater management districts in California<sup>2</sup>, only few of the existing groundwater management districts in California have successfully enacted a water extraction fee. The example of the Pajaro Valley agency and its ongoing litigation over this issue illustrates some of the difficulties that can be encountered in attempting to establish such a fee.

I hope that this information has been helpful.

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<sup>2</sup> Water Allocation, Use and Regulation in California,  
[www.waterplan.water.ca.gov/docs/cwpu2005/vol4/vol4-background-waterallocationusereregulation.pdf](http://www.waterplan.water.ca.gov/docs/cwpu2005/vol4/vol4-background-waterallocationusereregulation.pdf)



Liquid Assets:

# Improving Management of the State's Groundwater Resources

MAC TAYLOR • LEGISLATIVE ANALYST • MARCH 24, 2010



AN LAO REPORT

## EXECUTIVE SUMMARY

California's water system is facing a series of challenges affecting water availability, reliability, and delivery. Groundwater management is one of the state's most critical liquid assets—a key component of both local and statewide efforts to better manage water supply and water quality in the state. This report builds upon our previous 2008 publication, *California's Water: An LAO Primer*, in which we provided an overview of California's water system and related legislative policy considerations, including issues related to groundwater. Our focus and primary goal of this report is to outline ways that groundwater management could be improved from a statewide perspective in a way that builds on recent legislative efforts to address this subject area and, to the extent possible, maintains local control over day-to-day management of groundwater systems.

In our view, reevaluating how groundwater is managed is necessary if it is to achieve its full potential as a reliable source of water. In this report, we (1) provide more background on the state's current approach to groundwater management; (2) address current issues with groundwater management, including the impact of water quality on water supply; (3) address the disconnect between the law and science of groundwater; and (4) review other states' approaches to groundwater management.

We also present the Legislature with a series of actions that would be phased in over a period of time to address current and emerging groundwater management issues. In particular, we recommend that the Legislature:

- Phase in a more comprehensive groundwater monitoring system to allow the state to focus funding and technical assistance efforts in the areas of greatest need.
- Establish Active Management Areas (a defined geographic area where specific rules are established to govern the withdrawal and use of groundwater), in circumstances where groundwater overdraft potential or the extent of pollution problems are the highest.
- Bring science and law together to modernize groundwater law to accurately reflect the physical interconnection of surface water and groundwater.
- Consider phasing in statewide groundwater permitting over a multiyear period, based on data from expanded monitoring requirements, while maintaining local control over implementation of permitting to the extent possible.

AN LAO REPORT

## BACKGROUND

### **Water System Facing Challenges— Groundwater Part of the Solution**

#### ***California's Water System Facing Challenges.***

California's water delivery system is facing a series of challenges due in part to a combination of increasingly variable weather conditions, legal requirements, and system operation and conveyance constraints. These challenges affect water availability, reliability, and delivery. Recent public and private efforts have sought ways to address these challenges. These measures include proposals for groundwater storage, surface storage, infrastructure changes, system operation improvements, and water recycling, among others.

***Building on Prior LAO Groundwater Recommendations.*** This report builds on our 2008 publication, *California's Water: An LAO Primer*, in which we provided an overview of California's water governance, supply, demand, costs, and financing. In that primer, we introduced several issues for legislative consideration, including a recommendation to reevaluate how groundwater is regulated and managed in the state. In our view, such reevaluation is necessary if groundwater is to fully serve its potential as a reliable source of water supply. In this report, we further develop this policy approach and offer specific recommendations for legislative action. Our recommendations were informed by our review of groundwater management success stories in local areas of the state and in other western states.

***Local Control Essential—With Accountability.*** In many areas of the state, local agencies are the first to notice and deal with groundwater problems—from water quality issues to supply challenges. As we will discuss, a number of local areas of the state provide models for groundwa-

ter management and monitoring. This report will lay out issues affecting both local and statewide water supply and suggest methods to strengthen local groundwater management. Our approach is consistent with the Legislature's expressed desire to retain some level of local control over groundwater management, while allowing the state to intervene when problems go beyond the capabilities of local authorities, or when the impact of problems in the groundwater basin is regional in nature. We recommend that the retention of local control be combined with improved accountability for local management actions.

In reviewing groundwater management issues, we interviewed a broad range of interested parties, including the staff of state, local, and federal agencies that have a role in the regulation and/or management of water; private water developers and consultants; members of the public; and researchers with expertise in the subject, including the Water Education Foundation. We also reviewed relevant state law, local regulations, case studies, and federal agency activities.

### **What Is Groundwater and Why Is it Important?**

Groundwater is the portion of water from precipitation that does not run into surface streams but rather infiltrates (either naturally or deliberately) under the surface of the ground. In a sense, all groundwater starts as some form of surface water, meaning that the two types of water are integrally connected. Much like a sponge, the ground, depending on soil type, soaks up the groundwater into basins available for use. This can happen over a period ranging from several years to over a millennium in some cases. Areas

where groundwater is present or saturated are called aquifers, which generally have boundaries defined as basins. As water is drawn out of these basins, via wells or seepage into surface streams, groundwater availability can be reduced.

**Groundwater Is a Major Contributor to State’s Water Supply.** Groundwater supplies about 30 percent of California’s overall dedicated water supplies in average precipitation years, as shown in Figure 1. In dry years, this increases statewide to about 40 percent. This is because when surface water supplies are restricted, both local water agencies and irrigators (farmers) increase groundwater pumping to meet water supply needs. At least 43 percent of Californians obtain at least a portion of their drinking water annually from groundwater sources.

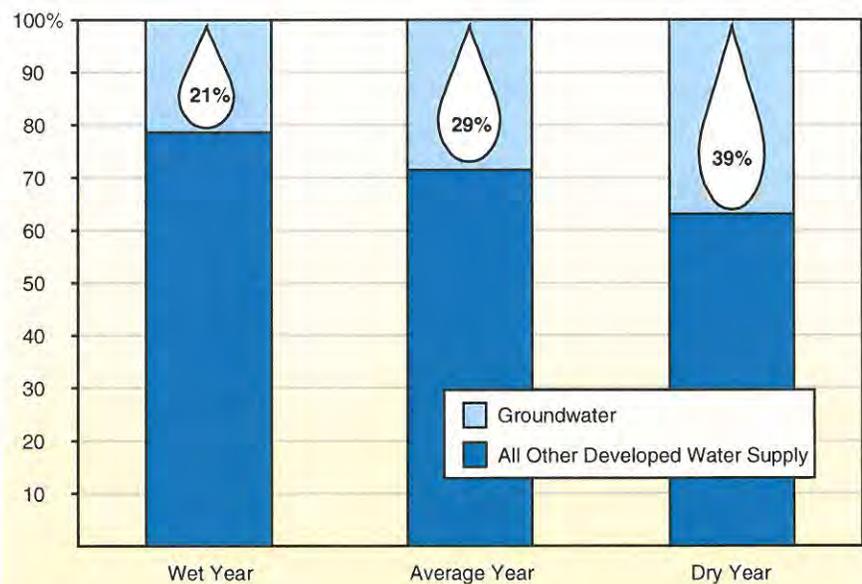
During years where surface water deliveries are not available and rainfall is scarce, groundwater may provide up to 100 percent of irrigation water for certain areas. In some areas where surface supplies are not accessible or economically feasible, groundwater provides 100 percent of a community’s public water.

**Future Water Supply Reliability Uncertain.** The Department of Water Resources (DWR) projects that the state is likely to have an adequate water supply in the aggregate to meet its water demands in average precipitation years under current trends

as shown in Figure 2. However, in dry years, projected demand by category of use will exceed the available supply in 2030 in most cases. It is for these dry cycles that the state must plan to ensure a reliable water supply.

**Groundwater Is an Important Contributor to Water Reliability Solutions.** There are several options available to the state to ensure that, during the driest years, disruptions from water shortages are minimized on a statewide basis. The DWR has analyzed a number of short- and long-term options to strengthen water supply reliability throughout the state, as shown in Figure 3 (see page 8). The options presented in the figure generally involve reducing water demand or increasing water supplies. They also vary in their potential to produce additional water. Basic groundwater replenishment is considered a solution that generally can be developed in the short term, potentially

**Figure 1**  
**Groundwater Is Major Contributor to California’s Water Supply, More So in Dry Years**



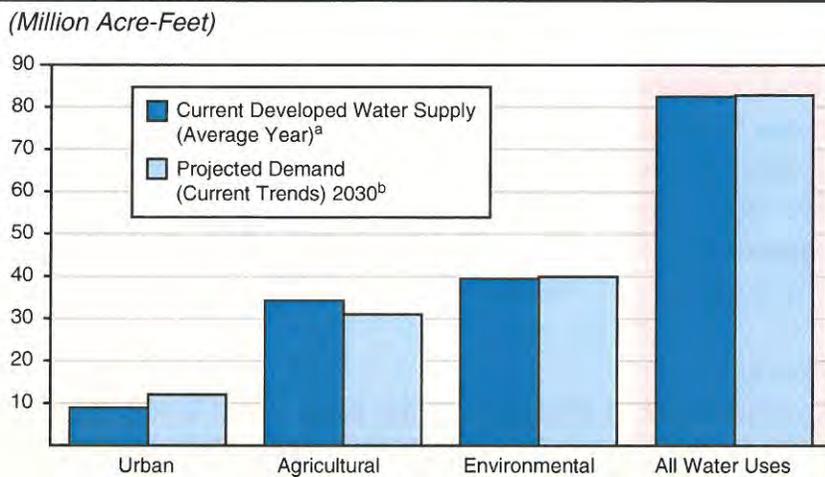
providing significant additional water supplies over time. The related options of brackish desalination (the desalting of either groundwater or reused water) as well as water recycling (re-use of water after treatment which may include reintroduction to the groundwater system) are also key water supply reliability solutions to which the management of groundwater contributes.

**Key Groundwater Laws**

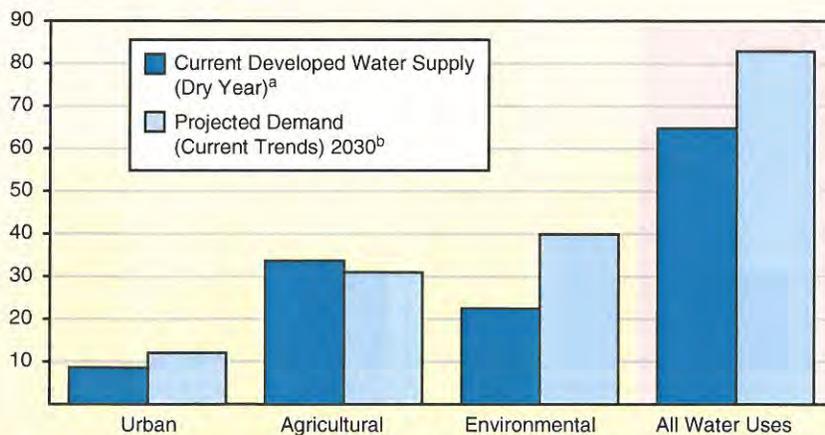
**Key Laws Governing Groundwater Focus on Water Quality, Local Management.** Groundwater is mainly managed at a local level, but several state laws govern how locals are to manage this resource. In general, groundwater law at the state level can be categorized in two ways:

- (1) laws that support and provide incentives for local management or
  - (2) laws designed to protect and monitor groundwater quality.
- Figure 4 (see page 9) lists selected key state laws governing groundwater. This list includes recent legislation, approved as part of a package of proposals to address the state’s water problems, to enhance groundwater monitoring and reporting. We discuss some of these key laws in further detail below.

**Figure 2**  
**Supply and Demand Projected to Be Nearly Equal Under Average-Year Conditions in 2030...**



**...But Dry-Year Demand Projected to Exceed Supply**



<sup>a</sup>Developed water supply is the amount of precipitation, surface water, or groundwater made available for use, generally through construction of storage or delivery systems.  
<sup>b</sup>Demand projections from Department of Water Resources, 2005 California Water Plan.

**“AB 3030”—Voluntary Approach to Groundwater Management.** Law enacted in 1992 (commonly referred to as AB 3030), allows local governments to create groundwater management districts and gives the districts the authority to raise fee revenues to pay for management of the groundwater. Of the

10,000 public water systems in the state (at least 15 service connections), less than 1,000 are water districts that are eligible to form groundwater districts. Under the initial version of this legislation, districts submit groundwater management plans to DWR. However, beyond using these plans for general water planning, the department's role was extremely limited. Subsequent legislation required the department to report on which districts had completed AB 3030 plans. (Over 140 such plans have been submitted to DWR.)

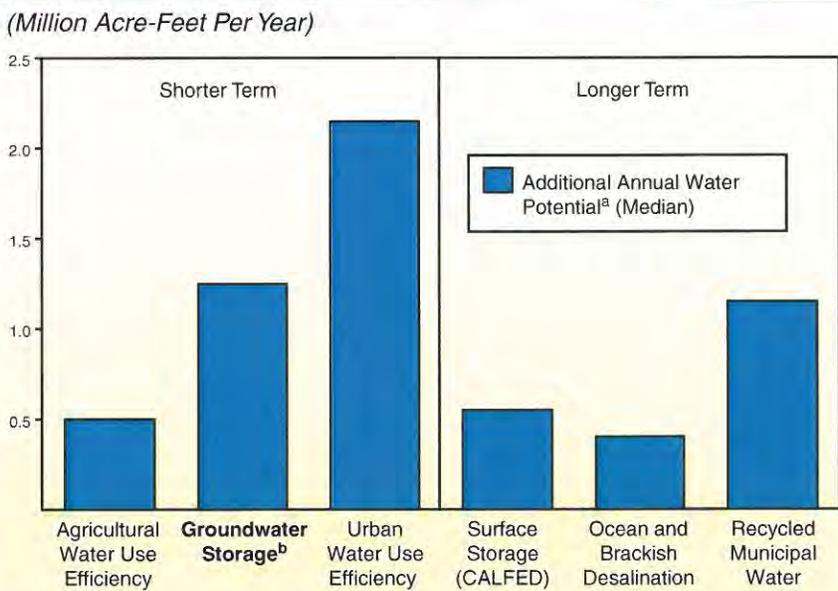
**SBX7 6—2009 Water and Groundwater Legislation Package.** A series of legislative bills enacted in the 2009 session attempted a comprehensive reform of California's water policy. While the focus of the package was on addressing problems in the Sacramento-San Joaquin River Delta system, one bill was wholly dedicated to groundwater. Chapter 1, Statutes of 2009 (SBX7 6, Steinberg), requires monitoring and public reporting of groundwater elevations in all groundwater basins in California. Local agencies are required to conduct the monitoring, which will then be reported to DWR. The department is then required to report periodically on the status of groundwater across the state, including these reported elevations, in a public report. As an incentive to enforce compliance with this monitoring requirement, the legislation bars counties from

receiving state water grants and loans when certain local agencies do not conduct required monitoring. As part of the package, an \$11.1 billion bond measure was passed by the Legislature which includes \$1 billion specifically for groundwater supply and quality. There is potential additional funding for groundwater management in various other provisions of the bond measure. This measure has been placed on the November 2010 ballot.

**Managing Groundwater—  
State Law, Local Rules**

**State Has No Statewide Groundwater Use Permitting System.** As further discussed later in this report, California is one of two western states without a comprehensive state-managed groundwater use permitting system (also sometimes referred to as a groundwater rights system). In

**Figure 3  
Groundwater: A Key Option for Additional Water Supply**



<sup>a</sup>Reflects the midrange of estimates of water supply development potential of particular solutions, Department of Water Resources, California Water Plan 2005.  
<sup>b</sup>Includes integrated management of groundwater and surface water.

California, landowners are in general entitled to the reasonable use of groundwater on property overlying the groundwater basin. In contrast, the state’s surface water generally is not an entitlement—surface water rights generally are appropriated through a state-administered permitting system.

**Court Adjudications and Local Regulations.**

Groundwater rights in some parts of the state (mainly in urban Southern California) have been adjudicated in the courts. Elsewhere, groundwater use is regulated on an ad-hoc basis by a disparate group of local agencies. These agencies include local districts with statutory authority to manage groundwater (such as water conservation districts), local water agencies that have adopted groundwater management plans pursuant to statute, and cities and counties that have adopted local groundwater ordinances.

**Local Rules to Protect Local Water.** Local groundwater ordinances are largely designed to protect the availability of water supplies to users within the local jurisdiction. In general, these

local ordinances operate to limit groundwater transfers out of the local area, for example, by pumping groundwater and moving it through canals or rivers to another area. Also, local rules may limit the ability to transfer surface water to another area because this in turn could increase the use of groundwater to the detriment of other groundwater users. Finally, local areas are beginning to limit certain types of water uses, including for bottled water, where the sole purpose is to export the water out of the local government area.

**State Supports Local Groundwater Management, Including Water Quality Improvement.**

As discussed in more detail below, while the state does not directly regulate groundwater use, it has taken some steps to encourage local groundwater management. This is done mainly through financial incentives, including bond-funded and federally funded local assistance programs for water-related purposes that could include groundwater-related projects. For example, the State Clean Water Revolving Loan Fund, a fund seeded with federal funds and most

**Figure 4**  
**Selected Key State Laws Governing Groundwater**

Law Name or Purpose	Support/Incentives for Local Management	Protect or Monitor Groundwater Quality
Porter-Cologne Water Quality Act (1969)		X
The Pesticide Contamination Prevention Act of 1985		X
Local Groundwater Management Act of 1992 (AB 3030)	X	
Local Groundwater Management Assistance Act of 2000 (AB 303)	X	
Groundwater Quality Monitoring Act of 2001		X
Amendment to Land Use Laws—2001 (SB 221)	X	
Amendment to the Urban Water Management Act—2001 (SB 610)	X	
Groundwater Management Water Code Amendment—2002 (SB 1938)	X	
Groundwater Monitoring—2009 (SBX7 6)	X	X

recently augmented by funding from the federal American Recovery and Reinvestment Act of 2009, provides low-interest loans to water agencies to improve water treatment and wastewater facilities. A similar fund for public drinking water systems is operated by the Department of Public Health (DPH). Both of these funding sources can be used for groundwater management projects.

Many state financial incentive programs relevant to groundwater are jointly operated by multiple state agencies. For example, the Integrated Regional Water Management Program, which provides financial and technical assistance to local agencies to increase water supply in part through the cleanup and removal of contaminated water in groundwater basins, is jointly administered by the State Water Resources Control Board (SWRCB) and DWR.

The state regulates water quality through pollution discharge permits (issued by SWRCB) and various industry-specific programs. However, groundwater quality is not protected under state regulation and enforcement to the same extent as surface water quality. This is in part due to the nature of groundwater, as it is more difficult to

systematically monitor groundwater than surface water. However, this situation is also to the result of jurisdictional issues where the state is unable to conduct monitoring on private property without permission. The most comprehensive water quality monitoring required by the state is done by DPH through its drinking water monitoring programs.

**State and Federal Agency Roles in Groundwater**

*Many State Agencies Involved in Groundwater.* While the state has encouraged local management of groundwater, several state agencies have roles and responsibilities related to groundwater management. Figure 5 lists state agencies involved with groundwater management and their general roles. Although groundwater management is not the primary mission of any state agency, many have been assigned significant tasks in this area, including monitoring water supply, regulating water quality, developing science and monitoring, cleanup of groundwater contamination, and local financial and technical assistance. The DPH enforces drinking water standards,

**Figure 5**  
**Many State Agencies Are Involved in Groundwater**

	Water Supply	Regulate to Protect Water Quality	Science and Monitoring	Cleanup	Local Financial Assistance
California Public Utilities Commission	X	X			
Department of Food and Agriculture			X		X
Department of Pesticide Regulation		X	X		
Department of Public Health		X	X		X
Department of Toxic Substances Control		X	X	X	X
Department of Water Resources	X		X		X
Integrated Waste Management Board		X			
Office of Environmental Health Hazard Assessment			X		
Pollution Control Financing Authority					X
State Water Resources Control Board		X	X	X	X

which apply to all drinking water sources, including groundwater. (For more information on DPH’s role in this area, see the box on page 14.)

**Federal Government—A Limited Direct Regulatory Role.** The federal government does not directly administer programs to regulate the quality of groundwater as it does with surface water under the U.S. Clean Water Act. In most cases, administration of federal water quality responsibilities has been delegated to the state, such as for implementing federal safe drinking water standards. Figure 6 provides more detailed information on the three key federal agencies involved with groundwater management in California and their role in groundwater regulation.

**Federal Direct Spending and Programs Nonetheless Important.** Federal legislation and federal agencies have, however, played an important role in supporting California groundwater management through technical and financial assistance and through direct groundwater cleanup programs. For example, in 2009, the

U.S. Geological Survey published a comprehensive report on groundwater overdraft (the withdrawal of water at a rate faster than the basin is able to recharge) in the Central San Joaquin Valley, providing key technical information for groundwater users and planners in the area. In addition, direct spending by federal agencies has included between \$3 million and \$5 million per year over the past five years for groundwater cleanups. This includes funding to clean up leaking underground storage tanks. In addition, the federal government has appropriated funding for federal defense site cleanups, groundwater elevation monitoring by the National Aeronautic and Space Administration, and for various technical groundwater studies conducted by the U.S. Geological Survey.

**State Funding for Groundwater Programs**

**Separating Groundwater Expenditures Difficult.** As discussed earlier, many agencies work

on groundwater (and related drinking water) issues. However, much of this work is done in conjunction with other programs. For example, a program addressing groundwater contamination might also address surface water and soil contamination. For this reason, groundwater expenditures in state agencies are difficult to separately identify and therefore quantify.

**Figure 6**  
**Key Federal Agencies and Roles**

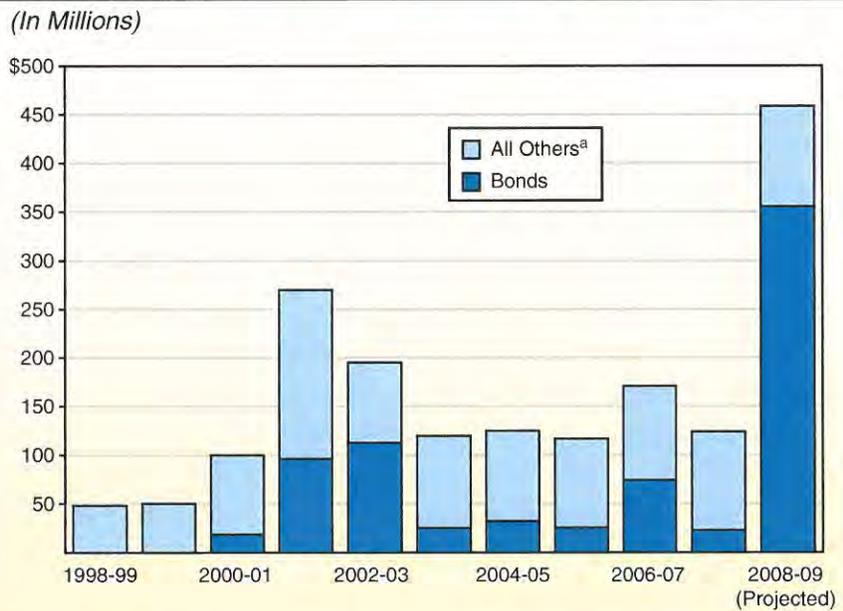
Agency	Role
U.S. Environmental Protection Agency	Works with California Department of Public Health to ensure that groundwater drinking water supply sources comply with mandated federal drinking water programs and standards. Administers grant and loan programs for water treatment and cleanup.
U.S. Geological Survey	Conducts studies and provides groundwater monitoring for the State Water Resources Control Board’s Groundwater Ambient Monitoring and Assessment Program. Monitors national water use and conducts scientific studies.
U.S. Bureau of Reclamation	Monitors the impact of the surface water on groundwater basins in areas of the Central Valley Project, a surface water distribution project similar to the State Water Project.

**Groundwater Program Expenditures Vary Greatly Over Time.**

As shown in Figure 7, funding for ongoing groundwater programs has varied greatly over time. Such funding has in many years come heavily from special funds (mainly fees), for such purposes as regulating water quality, reducing leaks from underground storage tanks, cleaning up groundwater sources, and managing groundwater resources. The General Fund has been the main funding source for DPH’s drinking water regulatory program, although federal funds and bond funds have been in the main source of support for DPH’s financial assistance programs. These programs are designed to assist local and private water agencies in meeting safe drinking water standards.

**Bond Funds Provide Large One-Time Influxes.** As shown in Figure 7, bond funds have provided large one-time influxes of funding. These funds have been a source of support for many different programs, including drinking wa-

**Figure 7  
Groundwater Program Expenditures, by Fund Source**



<sup>a</sup> Excludes about \$250 million annual appropriation for Underground Storage Tank Cleanup Fund programs funded by fees.

ter and integrated regional water management. For example, the Groundwater Ambient Monitoring and Assessment (GAMA) program, relies on a \$50 million appropriation from Proposition 50 bond funds (in addition to a small amount of baseline special fund support) to conduct a comprehensive multiyear assessment of statewide groundwater quality. In recent years, federal direct spending has supported the GAMA program when bond funds were temporarily unavailable. These federal funds are limited, however, and the program will need to find other funding starting in 2011-12 in order to continue.

## CURRENT ISSUES WITH GROUNDWATER MANAGEMENT

### **The Groundwater Challenge—When Contamination Reduces Water Supply**

The potential to use groundwater to increase water supply, either by introducing water from another source into the ground as a storage basin or encouraging the natural refilling of groundwater basins, is a significant option to address water supply needs. However, there are potential barriers to this water reliability strategy. Communities are increasingly discovering that many primary groundwater basins are contaminated. Pollution from industrial activities (such as military facilities), commercial businesses (such as dry cleaners), leaking underground storage tanks (USTs), septic systems, and agricultural activities have reduced or eliminated the availability of usable groundwater in many parts of the state. In some cases, when a contaminant is discovered, it may take decades to remove pollution and bring the water back to usable condition.

**Loss of Water Source Can Be Expensive to Locals.** As discussed earlier, while 43 percent of Californians rely in part on groundwater for their drinking water needs, some communities rely on groundwater for 100 percent of their water needs. As part of routine testing of drinking water, the DPH has sometimes discovered that a source of water (such as groundwater) is contaminated to a level that violates state and/or federal safe drinking water standards. Discovery of contamination in a drinking water well often leads to closure of the well. Users of the well must then find replacement sources of water. In areas where other sources such as surface water or alternate groundwater resources are not avail-

able, relatively expensive bottled water may be the only available drinking water supply.

The DPH reported that nitrate (a groundwater contaminant) was detected in levels that exceed safe drinking water standards in 921 public drinking water sources, mostly in agricultural areas. In many of these areas, groundwater is the sole source of drinking water for the community.

**Cleanup Is Costly.** Cleaning up contaminated groundwater can be very expensive. For this reason, the state established an Underground Storage Tank Cleanup Fund in 1989 to provide financial assistance to the owners and operators of USTs containing petroleum. The fund, which is administered by SWRCB and supported by an annual assessment on tank owners, is used to remediate conditions caused by leaking USTs, including the contamination of groundwater supplies. Expenditures from the fund have varied between about \$180 million to \$280 million annually over the last ten years for hundreds of sites. For 2010-11, the Governor's budget proposes expenditures of \$400 million from this fund—the highest level ever.

### **Most Supply Projections Do Not Account For Groundwater Contamination**

In many cases, contamination of a groundwater basin is known to local water managers, who are able to use this information to plan for water supply needs. However, state projections often disregard contamination, particularly where groundwater basins have had historical pollution problems that, when not addressed, remain within that groundwater basin. This situation

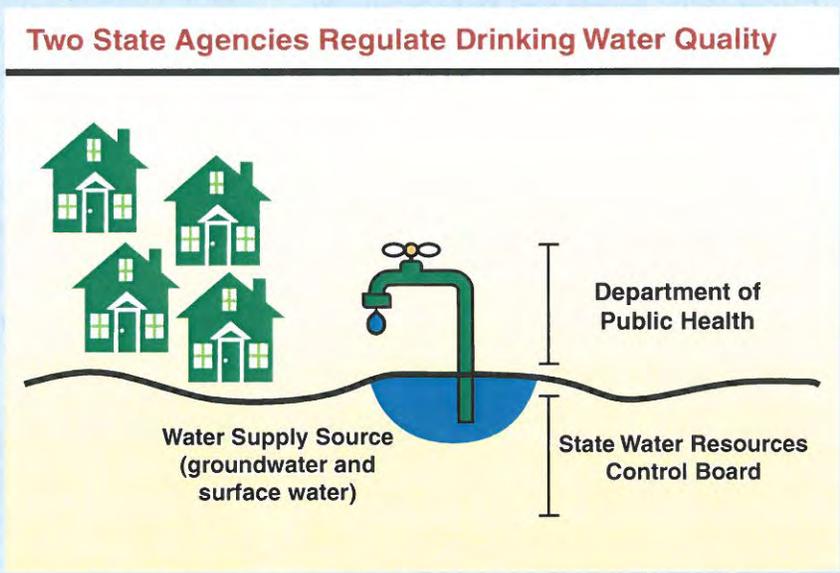
**KEY STATE PLAYERS IN WATER QUALITY REGULATION**

✓ **Department of Public Health—Drinking Water Program**

- Regulates public water systems with over 15 service connections for drinking water quality; oversees water-recycling projects, permits water treatment devices; and provides various technical assistance and financial assistance programs for water system operators—including bond and federally funded programs for infrastructure improvements in public water systems—to meet state and federal safe drinking water standards.
- Prior to approval of the Proposition 50 bond measure, the department had a limited role direct in groundwater issues through the Public Water Supervision System program funded mainly by fees on public water systems, federal grants, and the General Fund. Propositions 50 and 84 (bond measures) expanded the department’s role to include local assistance grant programs for source water protection projects, many of which are groundwater projects.

✓ **State Water Resources Control Board**

- Primary state entity responsible for meeting state and federal water quality standards within the state.
- State and regional water boards assess groundwater quality, permit pollution discharges which may impact ground and surface waters, and investigate and direct the cleanup of contaminated groundwater resources. May require groundwater monitoring to assess the extent of contamination and impact of treatment technologies.
- Administers the Groundwater Ambient Monitoring and Assessment Program, a multiyear program designed to obtain information on groundwater quality in California.
- Works with Department of Water Resources to administer and set guidelines for the Integrated Regional Water Management Program and other programs where crossovers exist between water quality and water supply.



poses challenges for estimating how much water is available for water supply and the cost to treat contaminated water. In some cases, this is because of a lack of adequate monitoring of water quality in groundwater basins, and in others it is because groundwater monitoring data that is gathered is not shared systematically or comprehensively with state agency officials.

***Land Use Decisions May Also Be Affected.*** Chapter 642, Statutes of 2001 (SB 221, Kuehl), requires land use developers to prove that water is available before proceeding with a development of over 500 units or other specific size requirements. However, the measure does not explicitly require that the developer prove that the groundwater supply that a project may be relying upon, for purposes of showing the availability of water, is actually usable. Most local land use development does not have to take into account likely trends for current and future groundwater contamination when determining the availability of water supplies to serve the new development. This can be the case where the inhabitants of a proposed development would have to rely on wells that have contaminants that cause public health concerns, either as the result of natural sources of contamination (such as from the leaching of arsenic into the water supply) or human causes (such as pollution by perchlorate). Land use decisions about such new development projects do not always take into account the potentially high cost on an ongoing basis of treating water supplies for the new residents.

### **The “Disconnect” Between Groundwater Law and Science**

***Groundwater and Surface Water Interconnected.*** In a 2003 publication, DWR describes groundwater and surface water as being physi-

cally connected. Groundwater aquifers are portrayed as a sort of sponge, with the water that fills the area between soil particles akin to an expansion of the sponge. If a stream or river moves through, in, and around that sponge, the two interact. If the groundwater sponge is dry, some water from the surface stream will be pulled into the groundwater area. If the groundwater basin is full (picture a fully expanded sponge) and the stream is dry, water will leach into the stream, providing it water. In this way, most groundwater (usually called “percolating groundwater”) can be understood to have a direct physical connection to surface water, rather than existing as a separate entity or underground river.

***State Water Laws Do Not Reflect Accepted Science.*** Despite this scientific understanding of how groundwater works, under California law, water is characterized as either surface water, subterranean streams, or percolating groundwater. Water rights are required to use water taken from surface water and subterranean streams, but not for percolating groundwater.

This legal scheme for permitting of water rights, however, is inconsistent with hydrological science, because it does not taken into account the interactions discussed above between groundwater and surface water. According to a report on water rights commissioned by SWRCB, “the (legal) distinction between percolating groundwater and subterranean streams is meaningless, or nearly so.”

In some cases, the SWRCB has attempted to address this problem by administratively defining the groundwater surrounding a number of rivers (currently less than 15 statewide) as subterranean streams, which are within the purview of water rights permitting. However, these conflicts between state law and scientific reality make

regulating groundwater difficult and mean that litigation is often necessary to adjudicate groundwater rights issues.

### **Practical Implications of State's Gaps in Groundwater Management**

#### ***Added Difficulties in State Water Planning.***

Currently, the DWR is charged under state law with assessing California's urban, agricultural, and environmental water needs; evaluating potential water supplies; and reviewing whether any actions are needed to reduce demand to help address any shortages. As part of the assessments prepared for these purposes by DWR every five years (commonly referred to as the California Water Plan), the department estimates groundwater basin yields and attempts to take into account general water quality efforts (including those related specifically to groundwater). However, as discussed below, the state's water planning efforts are impeded by weaknesses in the statewide management of groundwater.

In its 2009 update to the California Water Plan, the department reports on a number of problems it faces with estimating groundwater supply, including a lack of data that would indicate what role groundwater can play in addressing statewide water needs. Our analysis of the available data similarly indicates that the lack of information about groundwater quality can lead to incorrect conclusions about the availability of groundwater supplies. For example, this disconnect between actual groundwater supply and reported supply might prompt the state to make inaccurate assumptions about overall water supply. In doing so, state funds appropriated for water management purposes may not be going to projects that reflect the least cost and highest

gain for water supply, either on a local or statewide basis.

As groundwater quality and supply challenges grow, the cost to the department to make accurate estimates, having to use disparate and conflicting information to create a statewide water supply picture, could increase. Integrating data from multiple sources, which are generally not standardized in their presentation, is a very difficult task. The cost to create new information technology programs to integrate these data can also be very expensive.

The potential for local groundwater plans to advise state water planning efforts is far from being met. With the passage of AB 3030 in 1992, groundwater management plans prepared locally were voluntarily submitted to DWR in attempt to support local management of groundwater while allowing the state some certainty that locals had a plan for future management of their groundwater. As we discussed, these plans (generally called AB 3030 plans) are required to be developed in a local public process and the law provides local fee and assessment powers to implement the plans. Over 140 plans have been submitted statewide.

The mandated AB 3030 groundwater management plans generally have not been used in statewide water planning because (1) the plans were voluntary, and a number of jurisdictions did not submit plans or did not submit complete and useful plans, and (2) there were no requirements that the plans that were submitted be implemented or improve the balance of the groundwater in the affected basin, the original plans have largely have been of little practical use to the department.

Notably, the information contained in the plans reflects data from a single point in time

that is not presented in a standard format that would permit comparisons in the status among groundwater basins. This makes it difficult to publicize the data in a meaningful way or use the data to make policy decisions from a statewide perspective. The legislation did prompt some local governments that might not otherwise have done so to take an active role in managing their groundwater basin. However, lacking any plans for some areas of the state, DWR has not used the plans as a basis to prioritize state funding for groundwater management efforts.

The department neither was charged with determining an AB 3030 plan's accuracy nor were they given the authority or funding to review the validity of a plan. In some cases, AB 3030 plans are no more than a page long, though many are relatively comprehensive. The department still is not funded to review these plans, and while they may help the department paint the picture for water supply statewide, the plans have not become a solid tool for consolidating information about groundwater management statewide.

***State and Federal Government Response—Well Drilling and Cleanup.*** Often when wells run dry, either in a series of dry years or even under normal pumping practices, locals turn to the state for assistance. Similarly, when wells become contaminated and are unable to be used, locals may turn to the state or federal government for assistance in providing clean water supplies.

For example, the Office of Emergency Services (now known as the California Emergency Management Agency, or CalEMA) spent \$5 million in 2000-01 to pay for a well in Klamath County to respond to a water shortage emergency that resulted when several wells went dry. In that same year, the Coastal Conservancy spent \$1 million to fix septic systems that were polluting groundwater that flowed out to the ocean. From 1997 to 2007, the Department of Toxic Substances Control spent over \$177 million to clean up groundwater contamination at the Stringfellow hazardous waste site in Riverside County, which posed a major public health risk to local water supplies. In 2009, the federal government authorized \$40 million in economic stimulus funds to drill wells in drought-stricken areas of the state.

## OTHER STATES HAVE TAKEN STRONGER APPROACHES TO GROUNDWATER MANAGEMENT

As shown in Figure 8 (see next page), California differs from other western states in its relative lack of regulation and management of groundwater. For the most part, these other states go further than California in their approach to groundwater and offer specific policies the state may wish to consider to more effectively manage groundwater.

***Permitting, Public Reporting, and Monitoring.*** Most other western states have some form of permitting system for extraction of, or the right to use, groundwater. Most of these states also require well data to be made public and these states either meter, measure, or otherwise actively monitor groundwater. For example, Texas allows local agencies to regulate groundwater

use, but requires well data to be submitted to the state in a standardized format, and makes this data public on the Internet. As will be described in more detail below, Texas (as well as other states) set up specific management areas for those groundwater basins that have the greatest potential for overdraft, or face significant risks of contamination.

**Active Management Areas (AMAs).** Groundwater flows by nature tend to overlap political boundaries, making it more difficult to manage these water resources. Local interests in one area, for example, may wish to withdraw water at a more rapid rate than their neighbors, setting up a potential conflict over management of a groundwater basin they share. In some cases, such conflicts have led either to the overdrafting of a basin or expensive court adjudication of water rights among the competing water users.

To deal with this problem, most western states have established AMAs that cross the boundary lines of local jurisdictions. In general, in an AMA, a water user may withdraw and use groundwater only in accordance with the specific rules governing the storage of water from surface water sources, withdrawal and use of water, and reporting of well logs and extraction. All users in the AMA are known, and their

water use tracked carefully, to ensure the area's groundwater supply is moving toward a long-term equilibrium between the water coming into the aquifer and the water being pumped out for water supplies.

Often the state defines the boundaries of the AMA, and provides technical assistance to water users in the area in negotiating overall water use levels. Some states set rules and goals for management of AMAs, including provisions regulating the overdraft, replenishment, and recharge of groundwater aquifers.

**“Show Me the Water”—Arizona’s Approach.** Arizona generally requires its industries (including both those in urban areas and agriculture) to prove the availability of water for a project’s use over a lengthy period of time, according to a set of laws. Arizona’s unique approach to water management began in the 1970s when it became apparent that its water supplies would not satisfy its population growth under then-current practices. As Arizona negotiated a multistate compact for a share of Colorado River water, it initiated a sweeping change to its water laws, including those for groundwater. The state looked out decades into the future to determine how to grow with a limited water supply. Toward this end, the state:

**Figure 8**  
**California Lagging Other Western States in Groundwater Management**

	California	Arizona	Texas	Colorado	New Mexico
<b>Groundwater Management Components:</b>					
Statewide groundwater use permitting	—	X	—	X	X
Active management areas	—	X	X	X	X
Statewide policy—well data made public	—	X	X	X	X
Statewide policy—metering, measurement, and reporting requirements	— <sup>a</sup>	X	—	X	X

<sup>a</sup> SBX7 6 provides for statewide measurement (at the basin level), but not metering of water extraction.

- Strengthened the state's system for allocating water rights and established a water permitting system. Parties who had water rights that existed prior to 1980 were not subject to all of the new restrictions.
- Prohibited a net increase in agricultural land use in order to restrain overall water use, and strengthened existing statutes giving urban water use priority over agricultural water uses. Placed restrictions on future municipal use of groundwater.
- Enacted strict rules regulating wells, including permitting, monitoring, and standardized reporting of groundwater use.
- Began a major effort to store excess Colorado River water in groundwater basins, as opposed to surface storage, given the high amount of evaporation in hot areas.
- Mandated conservation measures for urban, industrial, and agricultural users. Required new development to assure a 100-year water supply either through surface water or groundwater.

The revamped Arizona laws have been generally accepted and are being met with compliance, though in individual cases the rules have proved controversial. Local control over water resources remains an issue, particularly since the state administers all water rights under the Arizona system. However, the state has made an

effort to work with local authorities to maintain a balance of power, with economic development and industrial growth encouraged where available water supply makes this possible.

**Updating Groundwater Law.** Many western state water laws were initially written in the 1800s and early 1900s, when the scientific knowledge of groundwater was extremely limited. Much like California, most states had statutory definitions of groundwater that had no basis in hydrology. Colorado and New Mexico are among the states that have taken steps to modernize their definitions of groundwater, linking surface water and groundwater in law. Arizona, through its major permitting law change, also allows for the interaction between surface water and groundwater to be reflected in the allocation of water rights.

**Financing Groundwater Management Programs.** Funding of state and local groundwater management programs is often a challenge. Most states we surveyed, such as Texas, use some amount of their General Fund monies to support state mapping and technical assistance programs. However, states that directly operate groundwater permitting programs generally use fees to at least partially support these activities, including the resources needed for planning and technical assistance to local agencies for groundwater programs. In all states we surveyed except Arizona, local districts or management areas have the authority to recover their groundwater program costs from the users of the water, whether through direct permitting fees or other types of fees for water use.

## RECOMMENDED STEPS TO MORE EFFECTIVELY MANAGE CALIFORNIA'S GROUNDWATER

**The Stakes Are High in Groundwater Management.** As we have mentioned, the potential to use groundwater to increase water supply, either by introducing water from another source into the ground as a storage basin or by encouraging the natural refilling of groundwater basins is a significant option to address the state's water supply needs. However, successful implementation of this solution into the state's management of water is hampered by the state's lack of regulation or monitoring of groundwater resources. Management of groundwater supplies—to the extent that it does occur—resides mainly at the local level and thus, by its very nature, does not address water needs from a statewide perspective. As a result, groundwater quality is not protected under state regulation and enforcement as comprehensively as surface water quality. As we have discussed, the consequences of insufficient action to protect these water resources are high. Once contaminated, groundwater loses some of its potential to serve as a water supply source. The situation has already led to costly emergency

efforts to clean up contaminated supplies and to provide substitute sources of water to communities dependent upon groundwater.

For the reasons stated above, and to build upon the work the Legislature has already done, we recommend that the Legislature adopt four fundamental changes to the way the state manages groundwater. These recommendations, which are summarized in Figure 9, represent the first steps that the state could take so that, in the long run, it is in a position to more strongly and effectively manage its groundwater resources. We recommend a shift to a more comprehensive groundwater management regime, similar to those being implemented successfully by other states, in order to avoid future water emergencies from the contamination of groundwater supplies and to make California's statewide water supply system more reliable.

### Strengthen Monitoring Requirements

The state needs, but now lacks, comprehensive data on groundwater extraction, ground-

Figure 9

### LAO Recommendations for Improving Groundwater Management

Problem	Recommendation
Monitoring not comprehensive statewide	Phase in a comprehensive monitoring system to allow the state to focus funding and technical assistance efforts to the areas in greatest need.
Current management efforts not necessarily focused on most challenged groundwater areas	Establish Active Management Areas where groundwater overdraft potential and/or extent of pollution problems are the highest.
Groundwater law does not reflect scientific reality	Bring science and law together by modernizing groundwater law to accurately reflect the physical interconnection of surface water and groundwater.
Groundwater use and rights unclear, leading to distribution and management issues	Consider establishing statewide groundwater permitting over a multiyear period based on data from expanded monitoring requirements. Maintain local control over implementation of state permit granted at either district or basin level to the extent possible.

water levels, and groundwater quality. For this reason, we recommend that the state phase in a comprehensive groundwater monitoring program over a period of years modeled after the best such measures adopted by other western states. Our analysis of other states finds that while no other single state program is an obvious perfect fit as a model for California, there is much to be learned from the examples of other state programs. Building on recent legislation that strengthens monitoring requirements, the Legislature should further require local water districts to submit standardized extraction data from all groundwater wells, as in Texas and Arizona.

The DWR should be directed to assess and integrate this information into the California Water Plan, thereby helping the state to more effectively plan for future water supplies, especially during dry years. The state will then be in a position to target assistance to groundwater basins with supply or contamination problems, while allowing local authorities who do not need state fiscal or technical assistance in their management of groundwater supplies to continue working on their own.

### **Establish AMAs**

In some areas of the state, local management will be sufficient to both plan for and manage groundwater basins. Indeed, many areas of the state are successful in their management of groundwater, as is demonstrated by the Orange County Water District's approach to water management (see box on next page). There, a long-term approach to groundwater management has led to relatively reliable water supply, with a significant portion derived from groundwater.

However, for those groundwater basins with the potential for established overdraft or with groundwater pollution, we recommend the state

establishment of an AMA, as is the policy in most western states. In these basins, the state would recognize that issues of statewide importance—ensuring the preservation of water quality and reliability of the state's water supply—must in some instances take precedence over a local desire for full control over management in the basin. However, as in Arizona, it is possible for there to be significant local input into the AMA process and for each AMA to have varying goals that reflect each locality's unique circumstances. For example, some AMAs may require restrictions on certain uses of water for a period of time (such as the imposition of certain conservation measures), while others may have more stringent or permanent rules aimed at restricting overdrafting of the basin as a whole.

### **Bring Law and Science Together**

The erroneous distinction now reflected in California law between surface water and groundwater is an impediment to the establishment of surface water rights that accurately reflect the science of water. As DWR has stated, and as is acknowledged in other western states, groundwater can have a significant impact on the availability of surface water supplies. Indeed, all groundwater at some time starts as surface water. The lack of legal and regulatory acknowledgment of this interaction has led to time-consuming and expensive litigation involving both public and private entities. As a starting point for reform in this area, we recommend that the Legislature amend statute to remove the current legal distinction between percolating groundwater and subterranean streams. This is a necessary step to allowing the interaction of surface and groundwater to be integrated into the administration of water rights in the state.

### **Consider Groundwater Permitting, While Maintaining Some Local Control**

Our prior three recommendations provide a good starting point for improving state groundwater policy, in that they (1) provide better information through monitoring on the status of groundwater supplies, (2) integrate science and law in this area, and (3) test AMAs as a tool to manage these water supplies primarily locally. However, the Legislature may ultimately determine that further steps are needed in the longer run to address the state's groundwater problems. Thus, we recommend that the Legislature con-

sider phasing in the establishment of a state-administered water rights system for groundwater as is the case in most other western states.

Additional information is expected from DWR in 2012 regarding the status of the state's major groundwater basins. Once it has reviewed this additional information, the Legislature should evaluate how a groundwater permitting system could complement the Legislature's policy as reflected in existing groundwater statutes, and in conjunction with any existing AMAs. The Legislature would then be in a position to direct both DWR and SWRCB to develop an appropri-

### **ORANGE COUNTY WATER DISTRICT: A LONG-TERM APPROACH TO GROUNDWATER MANAGEMENT**

Following a precipitous drop in groundwater levels in some areas of the Orange County groundwater basin, the Orange County Water District was formed in 1933 by an act of the Legislature to "represent the water users and landowners of the Coastal Plain in all litigation involving outsiders." The basis for the creation of the district was to protect the water supply serving the over 160,000 acres of then-mainly agricultural land in the district.

The act did not restrict water use within the basin. Rather, it allowed the district to charge water users to both protect existing water supply as well as to purchase or develop water supplies from outside sources to satisfy the demand of water users in the district. In 1953, a replenishment assessment ("pump tax") and monitoring program was established by amending the original act. Those who pumped groundwater were required to report twice per year the amount of groundwater extracted (a district-run water quality monitoring program was later added), and to pay an assessment per acre-foot of water extracted.

Using mainly income from the pump tax, the district's activities have included (1) efforts to reduce sea water intrusion (a situation in which groundwater levels drop below sea level, allowing salt water to enter the groundwater); (2) the extensive purchase of surplus water from outside sources, including from the State Water Project and Colorado River supplies, to offset overdraft in the basin; and (3) the development of a project to de-mineralize and purify wastewater into pure drinking water, known as Water Factory 21. The efforts of the basin are largely considered a success as they have been able to hold back seawater intrusion into the groundwater basin and to maintain an adequate level of water supply for customers using their various groundwater management methods.

ate groundwater rights system that, as we discuss below, maintains local control to the extent possible and that is based off of standardized monitoring data and established science. We do not, however, recommend that the state mirror entirely the existing water rights system that now exists in California for surface water. To acknowledge the significant achievements of local groundwater management efforts, and to build on our recommendations for increased monitoring and establishment of AMAs, we recommend the Legislature consider establishing statewide groundwater use permitting while retaining some local control. To accomplish this, permits could be granted at either the basin or district level (rather than to individual water users), thereby allowing locals some discretion as to the use of water within their jurisdictional boundaries. We recommend that DWR have the authority to set levels of water use within a basin as a whole for each water user if more deliberate management is required due to overdraft problems or the contamination of groundwater supplies.

We recommend phasing in this new statewide permitting system over a ten-year period after other strategies have been put in place that are a prerequisite to establishing an effective permitting system. Specifically, the state at present does not have standardized groundwater use reporting, nor does it have a clear picture of the full extent to which groundwater supplies are being contaminated. By first implementing comprehensive groundwater monitoring and establishing AMAs, the SWRCB would be in a better position to work with locals to establish clear parameters for groundwater-related water rights based on standardized data and established science. It would also have the experience of managing groundwater within AMAs.

### **New Groundwater Strategies Likely to Result in Long-Term Savings**

In the short term, implementation of the various recommendations we have proposed above would result in modest administrative costs for state and local water agencies. We recommend that these costs be offset by fees similar to the way the state pays for the regulation of surface water use and water quality. We believe a strong case can be made for having groundwater users and polluters of groundwater pay for the costs of state groundwater regulatory programs.

In the long term, we believe it is likely that the set of strategies we propose would result in savings to public and private entities across the state. This is because these efforts would eventually decrease the need for costly water rights adjudications and help to avoid the cost of clean up or treatment of degraded groundwater for use in water supply. There would also likely be reduced long-term future costs related to overdrafting of groundwater basins, including emergency response measures to aid communities for which valuable groundwater supplies have been depleted.

### **Fine-Tuning These Reform Concepts**

This report addresses, in a high-level conceptual way, the basic set of changes we have concluded are needed to improve groundwater monitoring and management from the state's perspective. However, implementation of these concepts would involve resolving many important technical issues. If the Legislature wishes to pursue the approaches we have outlined, we recommend that it direct the three state agencies primarily responsible for groundwater management—the DPH, DWR, and SWRCB—to jointly report at hearings on the groundwater management models we have identified in other states

and their practical application for California. The hearings would engage the departments and other important stakeholders, such as local water jurisdictions, in a review of other state models relevant to the management and regulation of groundwater. California state agencies should weigh in on

the implications of changes on local control, state-wide planning, information gathering, and forecasting. The Legislature could then be apprised of current best practices in the field of groundwater management most suitable to protect the state's valuable liquid asset, its groundwater.

### LAO Publications

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This report was prepared by Catherine Freeman with assistance from Heather May, and reviewed by Mark Newton. The Legislative Analyst's Office (LAO) is a nonpartisan office which provides fiscal and policy information and advice to the Legislature.

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**RESOLUTION NO. 2011-11-01**

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
BORREGO WATER DISTRICT REVISING THE SCHEDULE  
OF REGULAR MEETINGS**

**WHEREAS**, on June 14, 1983, this Board of Directors adopted Ordinance No. 83-1 establishing the Administrative Code of the Borrego Water District (“Administrative Code”) pursuant to the specific and implied grants of authority in Division 13, commencing with Section 34000, of the Water Code of the State of California to serve in part as the Bylaws of the Borrego Water District as required by Section 35300 et seq. of the Water Code; and

**WHEREAS**, Section 4.1.1 of the Administrative Code as adopted by Ordinance No. 83-1 established a schedule of the regular meetings of the Board of Directors; and

**WHEREAS**, on February 28, 2007 the Board of Directors adopted Ordinance No. 07-1 amending Section 4.1.1 of the Administrative Code governing the date and time of regular meetings of the Board of Directors to read: “4.1.1 Regular Meetings. Regular meetings of the Board shall be held pursuant to such schedule as the Board may adopt by Resolution from time to time. In the event the regular meeting date falls on a holiday designated in Section 6700 of the Government Code, a regular meeting of the Board of the cancellation of a regular meeting or meetings may be made by a majority vote of the members of the Board at least fifteen (15) days prior to the change or cancellation. A determination to change or cancel a regular meeting must be made at a regular or special meeting of the Board;” and

**WHEREAS**, the Board of Directors adopted Resolution 2007-2-1 on February 28, 2007 setting its regular board meetings at 9:00 a.m. on the second and fourth Wednesday of each month.

**WHEREAS**, the Board of Directors Adopted Resolution 2008-9-03 on September 24, 2008 setting its regular board meetings at 9:15 a.m. on the fourth Wednesday of every month.

**WHEREAS**, the Board of Directors adopted Resolution 2009-09-03 on September 16, 2009 setting its regular meetings for the months of October, November and December 2009 on the third Wednesday of such months.

**WHEREAS**, the Board of Directors adopted Resolution 2011-02-01 on February 15, 2011 setting its regular meetings at 9:00 a.m. on the fourth Wednesday of the month.

**WHEREAS**, pursuant to Ordinance 07-1, the Board of Directors desires to revise the schedule for its regular meetings.

**NOW, THEREFORE**, the Board of Directors of the Borrego Water District does hereby resolve, determine and order as follows:

Section 1. The Board of Directors of the Borrego Water District shall hold its regular meetings on November 16, 2011 and December 14, 2011.

**ADOPTED, SIGNED AND APPROVED** this 26th day of October, 2011.

President of the Board of Directors of Borrego Water District

ATTEST:

\_\_\_\_\_  
Secretary of the Board of Directors  
of Borrego Water District

STATE OF CALIFORNIA    )  
  ) ss.  
COUNTY OF SAN DIEGO    )

I, Marshal Brecht, Secretary of the Board of Directors of the Borrego Water District, do hereby certify that the foregoing resolution was duly adopted by the Board of Directors of said District at a regular meeting held on the 26<sup>th</sup> day of October, 2011, and that it was so adopted by the following vote:

AYES:           DIRECTORS:  
NOES:           DIRECTORS:  
ABSENT:         DIRECTORS:  
ABSTAIN:        DIRECTORS:

\_\_\_\_\_  
Secretary of the Board of Directors of Borrego Water District

STATE OF CALIFORNIA    )  
  ) ss.  
COUNTY OF SAN DIEGO    )

I, Marshal Brecht, Secretary of the Board of Directors of the Borrego Water District, do hereby certify that the above and foregoing is a full, true and correct copy of RESOLUTION NO. 2011-10-01, of said Board, and that the same has not been amended or repealed.

Dated:

\_\_\_\_\_  
Secretary of the Board of Directors of Borrego Water District

## TIERED RATES - DUE DILIGENCE COMMITTEE FINDINGS

Over the course of a few months persons have made a number of assertions and asked questions regarding the District's tiered rates: In summary, the gist of these propositions and questions appear to assert that:

- tiered rates are unfair or illegal;
- not including commercial and irrigation accounts in tier 2 rates is unfair or illegal;
- not following through on mandating “best practices” for exclusion from tier 2 rates for commercial and irrigation accounts renders tiered rates unfair or illegal;
- the District could arbitrarily offer lower rates for some customers of the same class as others.

Findings:

- what is fair and what is legal are two separate and distinct questions. That something is legal does not make it fair in the eyes of all people. And, just because someone views a decision as unfair does not make that decision illegal;
- the tiered rates were instituted by the District in a 2008 218 process. This was a legally constituted process. The tiered rate structure is not only legal, it is a normal rate structure among water districts in this region. The primary difference between the District's tiered rates and others is that others typically have more tiers with greater differentiation of rates;
- why are rates tiered? Rates are typically tiered to avoid or to slow down incurring capital costs associated with augmenting existing water supply. That is, by slowing the annual increases of growth in demand, the water utility can forestall adding new supply, treatment and/or distribution capacity and ratepayers win by not having to pay the annual amortization amount for this new water supply, treatment or distribution capacity;
- how are tiered rates typically calculated? The economic reality is that reserve supply, distribution, and treatment capacity costs the water utility something. All these costs must, by law, be passed through to ratepayers. But typically the truly big cost to a water utility is adding new supply to the system. Thus, rates are tiered to accomplish two purposes: to allocate capacity costs for treatment and distribution by the amount of water a customer uses and to create incentives for a customer to use water in an economically efficient manner to forestall supply augmentation. To accomplish these dual purposes, typically if rates are tiered, there may be 3-5 tiers and a large differential between the costs of water in the lowest vs. the highest tiers.
- commercial accounts regularly pay the lowest or near the lowest tiers if there are many tiers. This is often justified as commercial accounts typically cost the water utility less than

## TIERED RATES - DUE DILIGENCE COMMITTEE FINDINGS

residential accounts. They cost the utility less because commercial accounts typically have less peaking of demand than residential accounts. It is peak demand that drive requirements for reserve supply, distribution, and treatment capacity. If a water utility pays for its water supply, irrigation accounts that use domestic water may pay a higher tiered rate than the lower tiers. In Coachella, however, public parks pay for irrigation water at the lowest tier rate;

- In the 2008 218 process was this economic analysis done? Probably not. At least we were not able to find written documentation for this analysis. Does this lack of economic analysis make tiered rates or tiered 1 rates for commercial and irrigation accounts illegal? No;
- If an economic analysis regarding rates was performed now by this Board, what might be the outcome? Probably more tiers and different breaks for those tiers. But, the rates for commercial accounts could stay the same, go up, or go down. It is more likely that irrigation account rates for domestic water use would go up. Irrigation rates for non-potable water would be less. An economic analysis would determine whether rates would go up or down;
- Is this Board planning on doing such an economic analysis of tiered rates at this time? No. The 218 process to change the rate structure would cost around \$55,000. It's too costly to accomplish presently and there is still insufficient data to believe the present tiers are uneconomic for the District;
- Did the District implement "best practices" for commercial and irrigation accounts as it promised in the 2008 218 process? Probably not. However, the District did implement a "best practice" conservation initiative that provided rebates for customers who installed water saving technology (drip irrigation, front loading washers, low flush toilets, low flow shower heads). Such a rebate program is presently considered a best practice for water utilities to reduce the costs of supply augmentation and has often produced many millions of dollars in savings for ratepayers over time. Is there evidence that this best conservation practice of the District was targeted specifically for commercial and irrigation accounts? No. Then is the exclusion from tier 2 rates for commercial and irrigation accounts invalid? No;
- Was the District's best practice conservation program successful? Economically, no. The program cost more than the Tier 2 rates brought in. Thus, the program was not self-sustaining as it consumed cash reserves. In terms of saving water, however, the program was very successful;
- Can the District arbitrarily offer some customers of the same class different rates as others? No. In California this is illegal. E.g. the District can not decide to offer Joe better rates than Sam because it likes Joe better than Sam. The District can decide to offer different rates to all members of a class (e.g. residential vs. commercial). This is the rate structure. The rate structure can only be altered by a 218 process.

# Anza Borrego Desert Planning Region Integrated Regional Water Management Plan

Tuesday September 20, 2011  
1:00 – 3:30 p.m.

**Borrego Water District (BWD)**  
806 Palm Canyon Drive, Borrego Springs, CA 92004

## NOTES

*Action items are shown in italics*

### Attendees:

Jerry Rolwing, BWD	Judy Meier, Borrego Sun	<b><i>Non-Participating</i></b>
Lyle Brecht, BWD	Clark Shimeall, Resident	<b><i>Observers</i></b>
Beth Hart, BWD	Don McKelvey, Resident	Eleanor Shimeall, BWD
Anna Aljabiry, DWR	Dale Schafer, Center for	Marshal Brecht, BWD
Lauma Jurkevics, DWR	Collaborative Policy	
Michael Rodriques, Anza- Borrego Desert State Park	Tish Berge, RMC	
Brad Ray, Seley Ranches	Rosalyn Prickett, RMC	
	Crystal Mohr, RMC	

### Agenda:

#### Welcome and Introductions

- The group made self introductions, and Tish Berge gave an overview of the meeting agenda.

#### Review Outcomes of Last Meeting, July 19, 2011

- Jerry Rolwing discussed the previous meeting, which was a Special Meeting of the Board of Directors of Borrego Water District (BWD) held on July 19, 2011.
- Mr. Rolwing noted that during the previous meeting the group discussed the IRWM process that has been completed to date within the Anza Borrego Desert (ABD) IRWM Region (Region). This process included development of a draft IRWM Plan and submittal of a Planning Grant application in 2010, which was not funded by Department of Water Resources (DWR).
- Mr. Rolwing explained that at this meeting the group discussed that now is a good time to re-group and move forward with the Region's IRWM process, including hiring RMC to write a Planning Grant Round 2 application and increasing stakeholder input in the process.
- The group discussed stakeholders that they would like to add to the process, including:
  - Majestic Pines Community Service District (CSD);
  - Canebrake County Water District (CWD);
  - Jacumba CSD;
  - Terwilliger Valley located in the northern portion of the Region;

- Salton CSD;
  - Golf course interests;
  - Business interests;
  - More agricultural interests; and
  - More residents.
- Lyle Brecht inquired about two deliverables from the July 19<sup>th</sup> meeting, including a letter of invite to all potential stakeholders and a draft MOU to participants of the IRWM Program.
  - Mr. Rolwing noted that the invite has been sent out, and that they have received a draft MOU from DWR that could be modified for the Region.
  - Dale Schafer noted that the stakeholder focus is recommended to engage other players that were not previously included in the process and increase general participation.
  - Ms. Schafer gave an overview of outreach activities completed to date, which include multiple interviews with representatives of such organizations as the golf community, State Parks Department, Chamber of Commerce, Community Sponsor Group, and the Resource Conservation District of San Diego County. She noted that there is a lot of support, and that people would like to work together to achieve consensus. Many people felt that previous IRWM decisions were made by a few players and did not necessarily have regional buy-in.
  - *Dale Schafer to send Jerry Rolwing a list of all stakeholders on her contact list to ensure that they are also on the IRWM stakeholder list.*
  - Ms. Schafer noted that she is currently working with Ali Taghavi for RMC-Wrime on developing a scope for technical support.
  - Tish Berge noted that she spoke with Mr. Taghavi, and he is recommending that the Region produce a “State of Basin” report, which provides better definition of the existing groundwater overdraft issue and also provides possible solutions.
  - There was a question if the State of Basin report would need to cover more groundwater basins than the Borrego basin and discuss issues within other parts of the Region. It was clarified that while the IRWM Plan must cover all issues throughout the Region, special studies in the Planning Grant application and individual projects can be focused to address a specific issue within a specific geographic location.

### **IRWM Goals and Objectives**

- Tish Berge provided an overview of DWR’s Program Preferences, which IRWM-related items such as the IRWM Plan and IRWM grant applications must meet to be successful.
- Anna Aljabiry noted that it is not enough to simply use the key words expressed in the program preferences, but rather that applications and plans will only receive points for meeting the program preferences if they include language that clearly demonstrates how the preferences are met.
- Rosalyn Prickett added that often IRWM regions evaluate items through the lens of DWR’s Program Preferences at the beginning of the process as part of the project or study selection process to ensure that these items truly meet such preferences.

- Tish Berge then provided an overview of the Region's current goals and began a discussion with the group on how they would potentially like to expand on the existing goals or determine new goals.
  - Lyle Brecht noted that the overall vision/purpose of the IRWM Program is to solve a fairly large, looming, complicated, and expensive problem (groundwater overdraft) in a sustainable way. He noted that the Region is currently reaching an economic cliff regarding this issue where if they do not do something the problem will become increasingly (possibly prohibitively) expensive by requiring such things as additional treatment and land use changes. On this note the Region needs to establish a managed basin to avoid potential future costs. Mr. Brecht added that while the Borrego basin does not cover the entire Region, it does supply water to most of the Region's population.
  - Mr. Rolwing added that he would like to add groundwater quality and flood control into the list of the Region's main issues.
  - Clark Shimeall noted that parts of the Region, specifically Canebrake are on the verge of having no water. Due to infrastructure issues and the reliance on a single groundwater well, this region is a small disaster (earthquake, storm, etc.) away from losing their entire water supply.
  - Beth Hart noted that she would like to add the idea of exploring such options as using the Borrego basin as a storage basin for San Diego County, which would require establishing a pipeline or route for bringing in and retrieving water.
  - Lyle Brecht noted that he has heard that no other region will be involved with storage and recovery or other groundwater activities until the Borrego basin is managed.
  - Rosalyn Prickett noted that there is an opportunity to establish relationships with neighboring IRWM regions, and that the IRWM program is a good opportunity for meeting with other regions to discuss potential inter-regional ideas.
  - Don McKelvey noted that the Region is missing a large potential revenue source in terms of flood insurance. He noted that there are likely other revenue streams available, which the Region should explore.
  - Beth Hart noted that on the topic of flooding, flood retention basins on such areas as Coyote Creek should be explored to look at costs, feasibility, and analyze if flood flows could be captured and reused.
  - Lyle Brecht noted that in addition to overdraft, groundwater pumping could exacerbate water quality issues. It was noted that it is possible that reducing groundwater pumping could allow contaminants from agriculture or other sources to seep deep into the groundwater aquifer. It was also noted that while there are high nitrates in some groundwater wells, nitrates have been found in the local groundwater for a long time and it is possibly due to natural rather than man-made sources.

### **Meeting Goals and Objectives**

- Tish Berge presented the proposed goals and objectives for the meeting at hand, and inquired if anybody in the group had additions.

- Lyle Brecht asked about how the Region is to prepare a vetted Planning Grant Proposal with review and input. He would like to ensure that the stakeholders have a chance to review the application before it is sent to DWR.
- Beth Hart added that as a member of the Board of BWD, she would like to know how she can be involved to help and support the Region in this application process.
- Tish Berge replied that she would like to ensure that there is an appropriate amount of time between soliciting/receiving input and preparing the comprehensive application package, especially when considering that the application needs to be completed on a fairly short timeline.
- Dale Schafer noted that from her perspective the team can help the process by getting stakeholders to the table and increasing participation. She added that the group needs to work on getting the community on-board with the IRWM Program, and making sure that everyone knows this is not just a water district issue, because the issues at hand impact everyone.
- Lyle Brecht inquired if the work with Ali Taghavi regarding the State of the Basin report would be compiled in time to include within this process? He noted that he is interested in addressing this issue through a data-driven process.
- Anna Aljabiry noted that the technical assistance grant for Mr. Taghavi's work is currently held up at the Department of General Services (not DWR). She noted that this is a long process, and she is unable to estimate when the grant contract will be finalized.
- Mr. Lyle Brecht noted that in the future the Region will need to address these types of bureaucratic issues that are potentially hindering work.

### **IRWM Plan and Funding Opportunities**

- Rosalyn Prickett introduced this item and gave an overview of the Purpose of an IRWM Plan.
- Ms. Prickett also discussed IRWM Plan Update requirements, and noted that the scope of the Planning Grant Application will be sure to include all of the latest IRWM Plan requirements. She noted that while the DWR requirements denote what items must be included in the Plan, they do not dictate how these things are accomplished. In this way the Region has flexibility to adopt DWR's requirements to their specific issues and goals.
  - Beth Hart inquired if the IRWM Plan requirements are something that stakeholders should be familiar with and understand.
  - It was noted that while a general understanding of the guidelines may be helpful, stakeholders do not need to go through and clearly understand the entire guidelines package.
- Ms. Prickett then explained the difference between planning projects and implementation projects with respect to the IRWM Program.

- Lyle Brecht noted that from a political perspective the Region has been “studied-out,” and they would prefer not to use that term and instead refer to studies as “plans/alternatives development.”
- Ms. Prickett noted that both the Planning Grant and Implementation Grant applications must contain a 25% funding match, which can be sourced from a variety of non-state sources (including federal sources).
- Anna Aljabiry noted that there is a waiver of the funding match for disadvantaged communities (DACs), which are defined as communities with median household incomes less than 80% of the statewide average.
- Rosalyn Prickett noted that as a general rule, individual projects and plans/alternatives development may request a DAC waiver, but the overall application package must have a 25% match. This means that other components of the application will need to put forth more than a 25% match to make up the difference.
- Anna Aljabiry noted that while Rosalyn is correct in her assessment, the 25% overall match policy is a general rule, and DWR is open to working with the region on this issue.
- Lyle Brecht asked how the budgets are generally scoped for work. Do individual proponents do this?
- Rosalyn Prickett responded that generally it is recommended that the folks slated to complete the work also complete the budgets. If this is not an option, RMC can work with the RWMG to complete detailed and accurate budgets.
- Rosalyn Prickett also noted that the plans/alternative development must be relevant to and included within the IRWM Plan. These items must also have a direct nexus to water issues. It was asked if these items could include legal analysis. Rosalyn Prickett responded that scopes can be beyond engineering studies, but that the outcomes must be weaved into the IRWM Plan.
- Ms. Prickett then gave an overview of eligible applicants, noting that the Anza-Borrego Desert State Park qualifies as an eligible applicant.

### **Review of Prop 84 Planning Grant Round 1 Submission**

- Jerry Rolwing gave an overview of the previous Planning Grant Application, noting that it scored 36 points, which was not enough to be funded.
- Anna Aljabiry noted that more detail needs to be included within the Work Plan and Schedule. There needs to be more information to describe to DWR what will actually be done, and what the work will achieve.
- Dale Schafer noted that she thinks the process should include stakeholders as much as possible to increase success.

### **Development of Prop 84 Planning Grant Round 2 Submission**

- The group discussed the proposed schedule, and Anna Aljabiry noted that while DWR is not certain when the final Project Solicitation Package (guidelines) for the Planning Grants will be released, they are working on finalizing the February 2012 deadline. She added that DWR anticipates the next round of Proposition 1E

applications to be due in June 2012, and the next round of Proposition 84 Implementation grants to be due in October 2012.

- Next, Tish Berge led the group in a discussion regarding submittal of the next (Round 2) Planning Grant Application.
  - Ms. Berge noted that the main focus will be on the Work Plan, and that RMC wants to ensure that there is consensus regarding tasks and plans/alternatives development.
  - Anna Aljabiry noted that if the group is looking to obtain Proposition 1E funding, they will need to have an IRWM Plan adopted by June 2012, and any projects proposed for funding will need to be within the Plan.
  - It was asked if the Plan has to be amended every time new stakeholders or projects are proposed.
    - Rosalyn Prickett replied that generally IRWM regions have a “living” project database that is open to be amended without requiring IRWM Plan amendment.
  - The group then discussed the feasibility of having an IRWM Plan in place by June 2012. The group noted that while this is a tight timeframe, it has been done in other regions.
- Tish Berge provided an overview of the (proposed) items within the Preliminary Draft Work Plan Outline:
  - Task 2-1: Integrated Flood Management through Invasive Species Control
    - The group noted that flooding is a serious issue, which is anticipated to increase with climate change. Therefore, this plan/alternatives development will include a climate change component.
    - As far as invasive species are concerned, the group discussed tamarisk and Saharan mustard. The group was unclear if these invasive species pose issues relating to groundwater supply and flooding. These hypotheses could be explored within the plan/alternatives development.
    - It was also mentioned that cane in Canebrake can cause a lot of damage relating to floods.
    - The idea was brought up of including retention basins within this plan/alternatives development.
    - The group discussed issues relating to flooding, and how flood diversion could potentially alter existing hydrologic patterns. Analysis will have to take these issues into consideration, especially when concerning re-routing water within the Anza-Borrego Desert State Park.
  - Task 2-2: Develop a Comprehensive Groundwater Management Program
    - The idea behind this plan/alternatives development would be to take the region a couple steps further toward groundwater management.
    - It was noted that this item should be considered as a portion of a future Groundwater Management Plan (GWMP). It should include

analysis of mechanisms (and their costs) of how to implement a GWMP and how to get all users to pay for a sustainable groundwater solution.

- It was inquired about who is going to manage coordination between this item and the State of the Basin report. Generally RWMG staff will take care of managing these efforts, but RMC can help manage as long as these efforts fit within the budget.
- The group discussed information sharing, and the need to develop a database or other mechanism for gathering and storing information so that it can be easily shared with stakeholders. The group decided that at this point meetings are the best place for information sharing.

## **DWR Report**

Please refer to conversation above.

## **Next Steps**

- Lauma Jurkevics noted that DWR anticipates releasing a Climate Change handbook in October 2011.
- Meetings:
  - The group discussed best days to meet and how many stakeholder meetings should be held. It was noted that one per month (4) prior to the Planning Grant Application may not allow enough time for stakeholders to provide input and maintain involvement. The group decided that they would convene one full stakeholder meeting per month with ad-hoc workgroups as necessary.
  - *RMC to put together a proposed calendar (schedule) to share with the group. RMC to also provide guidance to Jerry Rolwing regarding coordination.*
  - *RMC to provide information to group regarding improvements that can be made to website to increase information sharing capabilities.*
- Mr. Don McKelvey noted his concern for potential environmental roadblocks and how policies such as climate change analysis would impact the Region.

# Anza Borrego Desert Planning Region Integrated Regional Water Management (IRWM) Plan

Tuesday October 11, 2011  
2:00 – 4:30 p.m.

Borrego Water District (BWD)  
806 Palm Canyon Drive, Borrego Springs, CA 92004

## **DRAFT NOTES**

*Action items are shown in italics*

### **Attendees:**

Jerry Rolwing, BWD  
Lyle Brecht, BWD  
Marshal Brecht, BWD  
Abby King, Borrego Springs  
Community Sponsor Group  
Linda Haddock, Borrego  
Springs Chamber of  
Commerce  
Kathy Dice, Anza-Borrego  
Desert State Park  
Ray Schindler, Consultant

Mike Spieckerman,  
Roadrunner Tree Farm  
Jim Warner, De Anza  
Country Club  
Jim Engelke, Resident  
Don McKelvey, Resident  
Dale Schafer, Center for  
Collaborative Policy  
Tish Berge, RMC  
Crystal Mohr, RMC

***Attending by Phone:***  
Anna Aljabiry, DWR  
Jennifer Wong, DWR  
Vicki Long, Elsinore-  
Murrieta-Anza Resource  
Conservation District  
(EMARCD)  
Pam Nelson, EMARCD  
Anthony Barry, San Diego  
County Flood Control  
Ali Taghavi, RMC-WRIME

### **Agenda:**

#### **Welcome and Introductions**

- The group made self introductions, and Jerry Rolwing welcomed the group.
- Tish Berge provided an overview of the agenda, noting that there were a few changes to the meeting agenda. Such changes include the following:
  - Addition of a stakeholder exercise;
  - Brainstorming on regional issues; and
  - Discussing the Regional Alternatives Development Projects.

#### **Review Outcomes of Last Meeting, September 20, 2011**

- Jerry Rolwing provided an overview of the Anza Borrego Desert (ABD) IRWM process, which was started about a year ago. He noted that the Region applied for a Planning Grant in 2010, but was not awarded. Since that time, the Borrego Water District (BWD) has had a change in the Board of Directors, has a new General Manager, and has hired RMC Water and Environment to write another Planning Grant application.
- Mr. Rolwing noted that the Region would like to provide a more robust and complete Planning Grant application this round, and he is very appreciative to all those who are participating in this meeting today in person and via conference call.

- Mr. Rolwing explained that representatives from the Elsinore-Murrieta-Anza Resource Conservation District (EMARCD) will be attending the meeting by conference call. He explained that a portion of the Anza-Terwilliger Valley in EMARCD's jurisdiction lies within the northern area of the ABD IRWM Region, within the upper watershed area of Coyote Canyon. When the Anza-Terwilliger area has flooding issues, silt comes down into the ABD Region through Coyote Canyon and potentially creates water-related impacts. Mr. Rolwing noted that due to these circumstances, the Region could potentially work together with EMARCD on a regional project to address these issues.
  - Some clarification was requested regarding EMARCD and the Anza-Terwilliger area, the following are those clarifying statements:
    - The Anza-Terwilliger Valley itself is not located within the ABD Region, but rather within the Upper Santa Margarita Watershed IRWM Region;
    - Projects that would be required to address flooding and siltation would likely be implementation projects rather than planning projects, and would therefore likely not be suitable to include within the Planning Grant application. However, the Region will be sure to address flooding and siltation issues within Coyote Canyon within the background section of the Planning Grant application.
- Mr. Rolwing also noted that at the previous meeting, the group decided on tentative times to meet in the future. It was decided that the second Tuesday of the month would work, and that is what is proposed for future meetings.
- There was a comment that in order to increase participation and have more people attend meetings, the Region will need to do more than send out reminders via email. There was a suggestion to follow-up email notices with personal phone calls to folks considered to be key stakeholders.

## **DWR Report**

- Anna Aljabiry noted that DWR has more clear dates and preliminary award amounts for upcoming grant cycles as follows:
  - Planning Grant (Round 2) applications are anticipated to be due in February of 2012. DWR anticipates making \$9 million available in this round of funding.
    - The Project Solicitation Package (PSP), which constitutes the guidelines for the application process, will be available for public review. DWR will hold five meetings to discuss the PSP, of which Chino would be the closest to Borrego Springs.
  - The PSP for the Local Groundwater Assistance (LGA) Program will be open for public review in January of 2012 and finalized in March of 2012. DWR anticipates that applications will be due in May 2012.
    - For this program, a total of \$4.7 million will be available this round, with a cap of \$250,000 per application.
  - Implementation Grant (Round 2) applications are anticipated to be due in Fall of 2012. DWR anticipates making \$131 million available in this round.

- Proposition 1E Grant (Round 2) applications will likely be due in Summer of 2012. DWR anticipates making between \$50 million and \$107 million available.
- Anna Aljabiry then asked the group if they had any questions on these items:
  - Who can apply for Proposition 1E funding? What are the restrictions?
    - Anna Aljabiry noted that individual project sponsors can submit applications as long as projects lie within designated IRWM regions and are included within an IRWM Plan.
  - Do LGA projects have to be included within an IRWM Plan?
    - Anna Aljabiry responded that no, they do not.

### **Meeting Goals and Objectives**

- Tish Berge presented the proposed goals and objectives for the meeting at hand, and inquired if anybody in the group had additions. The group did not have additions.

### **Planning Grant and IRWM Schedule**

- Tish Berge presented this item, noting that at the previous meeting a question was asked regarding what the overall schedule for the planning grant application and IRWM Plan Update would look like. A draft of what the overall schedule may look like was provided as a meeting handout. Tish Berge also noted that a more detailed schedule of the IRWM Plan Update will be included within the Planning Grant application.
- A question was asked if the schedule will be updated to include the more precise grant dates provided by Anna Aljabiry.
  - *RMC to update overall schedule with revised DWR grant dates.*

### **Governance**

- Dale Schafer provided an overview of governance, noting that the Region is currently working on a Planning Grant application that will assist in development of an IRWM Plan to guide water management within the Region, and particularly within the Borrego groundwater basin. The fact is that these planning processes are anticipated to occur over multiple years, and establishing a governance system and structure for the Region's IRWM program will not happen overnight.
- Ms. Schafer noted that the first thing the group must decide is: who are going to be the stakeholders that drive this process, starting with establishing what a stakeholder is. She noted that the process must be driven by and inclusive of stakeholders. The general idea is to get a representative group of people that are willing to put time in to come to meetings and participate in the IRWM process.
- Ms. Schafer explained that as far as formal decision-making goes, the Region does not have to include all stakeholders within official voting, but that they should have a lot of input in the process. Ms. Schafer then solicited input from the group regarding what a stakeholder is, the following is the discussion on this topic:
  - It was noted that a stakeholder is somebody that has "skin in the game," meaning somebody who has a deep and abiding interest in regional water

issues. For example, folks that would be economically impacted by water supply issues, such as homeowners and homeowners associations.

- The question was brought about if there are limitations from DWR's perspective with regards to defining stakeholders as those that have economic interests in water-related issues.
  - Anna Aljabiry of DWR noted that from DWR's perspective anybody can be a stakeholder, and it is not their desire to interfere with any region's definition of a stakeholder. She noted that the main thing for the region to consider is who they would like to be a part of their decision-making body.
- The group then had a discussion regarding the definition of a stakeholder, the following is the discussion on this topic:
  - Somebody who has skin in the game, meaning they are going to be impacted directly by the outcome of the IRWM Plan. In other words, somebody who has a stake in the outcome of the Plan.
  - Those whose actions may impact water-related resources in the Region.
  - Somebody who is willing to participate in the process; specifically somebody who is willing to commit to attending meetings and being involved.
  - Potentially the stakeholders do not have to be individual people, but rather a group. Within each stakeholder group there can be a designated person that is selected to represent the group.
  - There should be a limitation regarding the number of people with the same interests who are allowed to participate and vote. Too many people from one group could skew the outcome.
  - At the same time, the group would like to hear divergent view points and increase participation as much as possible.
- Next, the group went through an exercise of defining stakeholder categories that should be included within the process (note that **bold** stakeholder groups indicate that this group was not represented at the meeting):
  - **Anza-Borrego Foundation**
    - This group could be combined with others such as Resource Conservation Districts (as an environmental stakeholder group), or with the State Park as an interest dedicated to issues specific to the Anza-Borrego Desert State Park.
  - **Homeowners Associations**
  - **School District**
  - **Commercial Development**
    - It was noted that this is not a cohesive or organized group at this time.
  - **Residential Development**
    - It was noted that this is not a cohesive or organized group at this time.

- **Resource Conservation District of Greater San Diego County**
  - It was noted that the role of this group may be similar to the County in that they are more of an advisor than a stakeholder group.
- **Outlying communities within the Region: Canebrake, Ocotillo Wells, Jacumba, Boulevard.**
- **Ocotillo Wells State Vehicular Recreation Area (HOV Park)**
- **Majestic Pines CSD**
- **Jacumba CSD**
- **Canebrake CWD**
- **Salton CSD**
  - Note, this jurisdiction is not located within the Region.
- **Tribal Representatives:**
  - **Ramona Band of Cahuilla Indians;**
  - **Campo/Manzanita band of Indians.**
- **Lodging Interests**
- **RV Park Interests**
- Anza-Borrego Desert State Park
- Borrego Water District
- Developer Interests
- Agricultural Interests
  - It was noted that the Agricultural Alliance for Water and Resource Education (AAWARE) may be re-forming.
- Golf Course Interests
- Community Sponsor Group
- Chamber of Commerce
  - It was noted that while the Chamber of Commerce does not at this time speak for all business interests, they can be responsible for communicating information to the business community.
- County of San Diego
  - Anthony Barry of San Diego County Flood Control noted that the County sees themselves as an advisor rather than a stakeholder within this process.
- Elsinore-Murrieta-Anza Resource Conservation District
  - Note: this RCD does not have jurisdiction within the Region.
- The group reviewed the stakeholder list, noting that it is very large and unlikely to form before the Planning Grant application is due in February 2012. However, this can be a good stakeholder list moving forward, as the Region will try to get the most people from this list (and others) together as possible to commit to being involved in developing the IRWM Plan.
- Dale Schafer then led a conversation regarding next steps to address the Region's governance structure.
  - Ms. Schafer recommended convening a Governance Workgroup to start investigating various governance plans, and find the best plan for the

Region. The desired deliverable from this workgroup would be to develop a proposal that could be taken to the larger stakeholder group (when formed), and this would be signed or otherwise formalized.

- The group then reviewed two governance proposals that were made available at the meeting, including a charter for the Imperial IRWM as well as Governance Principles that were modified from the Mokelumne-Amador-Calaveras (MAC) IRWM Region. The group decided that a formal Governance Workgroup should be formed to discuss governance issues, but that the workgroup should be given direction with regards to what is expected from them.
  - *The next e-mail sent out for IRWM-related activities will include a request to form a Governance Workgroup, and will include guidelines for what the committee is expected to achieve.*
- The group then discussed what the goals of the Governance Workgroup should be, the following provides an overview of that discussion:
  - Perhaps they should establish a draft charter, which will be a road map for how the IRWM stakeholders will work together.
  - The workgroup's deliverable should be a draft governance document that is proposed to the larger stakeholder group.
  - Should the workgroup be in charge of recruiting people to serve as representatives for the various stakeholder groups?
  - Perhaps the charter could identify desired stakeholder groups, potential representatives, and their alternates.
  - *Dale Schafer will find out if she can help out with this effort through her contract with DWR.*

### **Regional “Big” Issues**

- Tish Berge provided an overview of the goal of this process, which is to hold a brainstorming exercise to identify water-related issues within the Region.
- Dale Schafer added that the consultant team is looking to the group to identify the big issues and goals of the Region, which will be identified and addressed through the IRWM Plan.
- Through brainstorming, the group decided there are four big issues:
  - Water Supply
  - Water Quality
  - Flood Control
  - Environmental Integrity
- The next step in this exercise involved prioritizing the four regional issues. The group was divided into three subgroups. Each subgroup spent some time to talk about the issues and determine how the four big issues rank in terms of importance. The group then shared their results, which are as follows:
  - Water Supply: chosen by all four groups as the main (highest priority issue);
  - There was no agreement among the subgroups regarding what would be the second-most important issue (one vote water quality, one vote flood control, and one vote environmental integrity);

- There was some agreement for the third-most important issue (two votes for flood control, one vote for water quality);
- There was also some agreement for the fourth-most important issue (two votes for environmental integrity, one vote for water quality).
- Ali Taghavi then joined the meeting via conference call to discuss if there is agreement within the group on what work he can provide to the Region through the technical assistance contract he has with DWR. The following is an overview of his presentation to the group:
  - At this point Mr. Taghavi has interviewed and spoken with many people within the Region. His conclusion is that there is little consensus, and in some cases no consensus with regards to the issues (particularly groundwater) that the Region is grappling with.
  - Ali surmises that he needs to go back to the science and the fundamental technical basis of the issue before the Region can move forward with solving their groundwater issues.
  - In order for Ali to move forward with scoping out what DWR can assist the group with the following needs to be done: need to collect all of the data and information available, go through it in a stakeholder process to agree on the basis of the issue, go through with formulation of the problem to defining the problem and the scope (depth of the problem).
    - Will rely on USGS and past studies to the extent that data and information is available.
    - Need to not just focus on the Valley floor, but groundwater throughout the Region.
    - Part of this work would be to complete technical work as necessary for the Planning Grant application. Following the submittal (of the application), it would be beneficial to go forward with the information gathered in a stakeholder process (open process) before work can be done on the formal IRWM Plan or the groundwater-related alternatives development being proposed within the Planning Grant application.
    - Mr. Taghavi proposes the following work product would come out of his technical assistance work (through the existing DWR contract): A State of the Basin report, which gets the Region to agree on what the current state of the basin is. In particular, this work product will address: the scale of overdraft, and how the Region can move forward in managing the basin in a sustainable manner.
- Mr. Taghavi then solicited questions from the group. The following is an overview of the discussion:
  - How would you address this issue in a more regional fashion (not just analyzing the Valley floor)?
    - Mr. Taghavi noted that while most of the data is available for the Valley floor, given that the Region is involved with a regional process (IRWM), they need to start addressing groundwater in the rest of the region as well to see what the most effective areas are

- and where the most “bang for the buck” is with regards to addressing groundwater.
- Despite the regional focus, because the majority of the region’s population lives in the Valley floor, the focus of the State of the Basin would be this area.
- Will this study be looking at interregional issues, such as those in the Anza-Terwilliger area north of the Anza Borrego Desert IRWM Region?
    - Mr. Taghavi noted that the Region needs to focus on its own challenges before they can start looking at interregional issues. While these interregional issues may be important, they are not the priority at this time.
  - There are still obviously things we do not know about the basin, and therefore these things cannot be resolved by looking at past studies. Such unknowns include:
    - Comprehensive understanding of groundwater quality;
    - Economic impact(s) as they relate to water quality and/or groundwater overdraft;
  - Given that there are unknown pieces of information, would those unknowns be addressed and called out for future studies as part of the IRWM process?
    - Mr. Taghavi noted that as we see where there are data gaps and missing pieces of information, we will definitely make recommendations for future actions to address such shortfalls.
  - It is a common question that people ask: why now? Why is groundwater such a large issue now? The economic impacts will likely answer the why now question, because it is likely that they will show that if something is not done soon, it will become prohibitively expensive to resolve the Region’s groundwater issues.
    - Mr. Taghavi noted that in addition, there are many economic and financial incentives to looking for solutions and options. The IRWM program is such an incentive, and going through this process will potentially bring money into the Region.
  - Is it necessary to get consensus on these issues now?
    - Ms. Dale Schafer noted that most people agree that there is an overdraft issue, but there is a serious discrepancy regarding the details resulting from this conclusion such as how much water is left, how long the Region has before water is inaccessible, and what the basin’s future is. The purpose of this work is to begin resolving groundwater issues, which must start with agreeing on the current state of the groundwater basin.
  - Mr. Taghavi noted that he will not be starting from scratch or going through a detailed analysis of the geology/water data. The point will be to present work that has been done to date to set the issue within the right

policy context. He added that rather than providing the group with a conclusion and next steps, he would like to work with stakeholders to develop a conclusion to ensure that everybody is on the same level and will not be fighting over the science. The goal at the end of this process will be an agreement on the current conditions of the basin.

- How much information do we need to have regarding the other basins within the Region?
  - Mr. Taghavi noted that ultimately the IRWM Plan needs to at least demonstrate that work will be done in other regions, and therefore will show where data gaps are throughout the Region. The IRWM Plan needs to address the entire Region, even if there is not robust information available.
- What about the regions and places in the region that do not want to be involved? During the last round of planning grant funding we were led to believe that while we cannot force them to be involved, we have to make a good faith effort to get regional stakeholders involved.
  - Ms. Tish Berge noted that RMC will be sure to provide information within the work plan that demonstrates outreach to groups outside of Borrego Springs. The group could also decide to include further outreach to other areas as a task within the Work Plan for the Planning Grant.
- Ms. Dale Schafer inquired if the group was in agreement with Mr. Taghavi's proposed "State of the Basin" plan.
  - It was added that if the USGS study is released during this process (anticipated December 2011), the State of the Basin should be sure to include this information.
  - Nobody present was opposed to Mr. Taghavi's proposed scope of work (State of Basin Plan). Mr. Taghavi will move forward with formalizing a scope and getting it into DWR.
- The group continued a discussion on outreach and involving others within the region. A suggestion was made to include a more personal touch in outreach efforts, such as following up email invitations with phone calls.
- Mr. Rolwing noted that there is a substantial amount of mistrust for the Borrego Water District and DWR from other areas (particularly Canebrake CWD), which will need to be overcome.

### **Regional Alternatives Development Projects**

- Tish Berge provided an overview of this item. The Alternatives Development Projects (planning studies according to DWR) will be components of the Planning Grant application. These projects will need to have individual work plans, budgets, and schedules similar to a regular scope of work. In addition, each project must be supported with background information that describes the need for each project. Due to the amount of work that needs to be done to formalize these projects, it is proposed that a Work Plan Committee is formed.

- The group then discussed the potential Work Plan Committee. The following is a summary of that discussion:
  - What kinds of minds are you looking for? Highly technical?
    - Ms. Berge noted that while these items are technical, there is also a substantial amount of content and background needed to develop the work plan.
    - Ms. Berge added that there is not a formal governance structure, so the group will need to facilitate as much stakeholder input as possible, but will need to also get something completed by DWR's timeline. There will always be more chances to refine and develop further planning studies in the future as IRWM planning is an iterative process.
  - How far can we go with this? What is the scope of these projects?
    - Ms. Berge replied that this is very broad. The Planning Grant application essentially sets a "plan to plan" in that it proposes future planning-related work that will be done when developing the IRWM Plan.
  - Ultimately these projects will be seen as "hole-closers" in that they will be soliciting answers to very practical questions and issues within the Region. These projects will be answering the "so what" of issues raised within the background section of the work plan.
  - Who will be willing to participate in development of the Work Plan? This will involve holding two conference calls before November 8<sup>th</sup> (next full Anza Borrego Desert IRWM Meeting).
    - Lyle Brecht of BWD volunteered;
    - Vicki Long of EMARCD volunteered;
    - Linda Haddock of the Chamber of Commerce volunteered;
    - *Kathy Dice will ask John Peterson of the Anza-Borrego Desert State Park if he would like to participate.*

### **Next Steps**

- Tish Berge noted that the next meeting is scheduled for November 8<sup>th</sup>, 2011.
- *Jerry Rolwing to send future meeting dates to the stakeholder group and include information about the Governance Workgroup.*
- A question was raised about the Governance Workgroup, how will these meetings be conducted?
  - *Jerry Rolwing will ask Beth Hart of BWD if she would like to be involved.*
  - *Dale Schafer will contact Kathy Dice (and other participants) regarding this committee.*
- Tish Berge wrapped up the meeting by inquiring if folks got what they wanted out of the meeting.
  - Participants responded that this has provided a solid road map of where this process is headed.

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# BORREGO WATER DISTRICT

September 2011

## WATER OPERATIONS REPORT

<u>WELL</u>	<u>TYPE</u>	<u>FLOW RATE</u>	<u>STATUS</u>	<u>COMMENT</u>
ID1-1	Irrigation	150	Standby	Backup well for Rams Hill Golf Course
ID1-2	Irrigation	150	Standby	Backup well for Rams Hill Golf Course
ID1-8	Production	350	In Use	
ID1-10	Production	300	In Use	
ID1-12	Production	950	In Use	
ID1-16	Production	950	In Use	
Wilcox	Production	150	In Use	Diesel backup well for ID-4
ID4-4	Production	350	In Use	
ID4-10	Production	80	In Use	
ID4-11	Production	1000	In Use	Diesel engine drive exercised monthly
ID4-18	Production	250	In Use	
ID5-5	Production	900	In Use	Diesel engine drive exercised monthly

**System Problems:** SCADA radio problems

## WASTEWATER OPERATIONS REPORT

Rams Hill Water Reclamation Plant serving ID-1, ID-2 and ID-5 Total Cap. 0.25 MGD (million gallons per day):

**Average flow:** 56,897 (gallons per day)

**Peak flow:** 83,440 gpd Friday September 9th

All restaurant grease traps were clean.

**System Problems:** None.

**WATER PRODUCTION SUMMARY**  
**September 2011**

<b>DATE</b>	<b>ID-1</b>	<b>ID-3</b>	<b>ID-4</b>	<b>ID-5</b>	<b>DISTRICT-WIDE TOTALS</b>
Sep '10	82.96	21.12	163.18	22.01	289.27
-----	-----	-----	-----	-----	-----
Oct '10	65.95	13.47	146.34	9.03	234.79
Nov '10	138.01	11.14	100.44	16.60	266.19
Dec '10	103.41	11.68	130.03	10.98	256.10
Jan '11	39.57	8.20	73.97	5.16	126.90
Feb '11	74.16	9.36	109.79	8.68	201.99
Mar '11	58.56	7.87	93.55	8.57	168.55
Apr '11	109.04	11.86	111.39	16.08	248.37
May '11	107.04	13.94	137.00	21.15	279.13
Jun '11	70.10	14.25	123.58	17.21	225.14
Jul '11	70.51	15.94	136.64	17.81	240.90
Aug '11	56.10	16.67	165.82	22.17	260.76
Sep '11	39.01	15.88	131.35	14.81	201.05
<b>12 Mo. TOTAL</b>	<b>931.46</b>	<b>150.26</b>	<b>1459.90</b>	<b>168.25</b>	<b>2709.87</b>

*Totals reflect individual improvement district usage. Interties from ID-3 and ID-5 have been subtracted from well pumpage totals and applied to respective ID's. All figures in Acre Feet of water pumped or recorded on intertie meters.*

**WATER LOSS SUMMARY (%)**

<b>DATE</b>	<b>ID-1</b>	<b>ID-3</b>	<b>ID-4</b>	<b>ID-5</b>	<b>DISTRICT-WIDE AVERAGE</b>
Sep '11	4.61	1.70	9.46	N/A	5.26
<b>12 Mo. Average</b>	<b>1.71</b>	<b>0.94</b>	<b>11.00</b>	<b>N/A</b>	<b>4.55</b>

BORREGO WATER DISTRICT  
Water Production / Use Records  
ID # 1  
Month of September 2011

Water Production (Acre Feet)								
Date	Well 1	Well 2	Well 8	Well 10	Well 12	Well 16	Total	LessID3&4
SEP'10	0.00	0.00	0.03	13.12	52.24	38.69	104.08	83.14
OCT'10	0.00	0.00	17.06	10.48	16.20	35.58	79.42	66.32
NOV'10	10.53	12.70	16.83	14.81	43.96	50.32	149.15	138.45
DEC'10	0.00	0.00	0.00	21.85	33.05	60.19	115.09	103.47
JAN'11	0.93	1.18	0.00	21.04	22.62	2.00	47.77	39.61
FEB'11	0.00	0.00	0.00	14.73	39.51	29.28	83.52	74.20
MAR'11	0.00	0.00	0.16	10.67	26.97	28.63	66.43	58.59
APR'11	0.00	0.00	0.00	37.56	32.95	50.39	120.90	109.04
MAY'11	0.00	0.00	0.18	20.87	52.92	47.01	120.98	107.04
JUN'11	0.00	0.00	0.19	8.14	41.35	34.67	84.35	70.10
JUL'11	0.00	0.00	0.07	11.42	35.99	38.97	86.45	70.47
AUG'11	0.00	0.00	1.59	3.85	41.01	26.32	72.77	56.10
SEP'11	0.00	0.00	0.00	0.00	38.01	16.88	54.89	39.01
<b>TOTALS</b>	<b>11.46</b>	<b>13.88</b>	<b>36.08</b>	<b>175.42</b>	<b>424.54</b>	<b>420.34</b>	<b>1081.72</b>	<b>932.40</b>

Water Use (Acre Feet)									
Date	Domestic	Irrigat'n	Constrt'n	Golf Course	ID 3	ID 4	Total	Water Loss	% Loss
SEP'10	16.18	22.21	0.00	43.61	20.94	0.00	102.94	1.14	1.10%
OCT'10	12.08	19.42	0.00	37.57	13.10	0.00	82.17	-2.75	-3.45%
NOV'10	12.11	14.23	0.00	108.88	10.70	0.00	145.92	3.23	2.17%
DEC'10	11.79	14.14	0.00	76.70	11.62	0.00	114.25	0.84	0.74%
JAN'11	6.89	6.46	0.00	24.30	8.16	0.00	45.81	1.96	4.11%
FEB'11	8.99	12.35	0.00	51.33	9.32	0.00	81.99	1.53	1.82%
MAR'11	7.66	7.49	0.00	42.24	7.84	0.00	65.23	1.20	1.79%
APR'11	11.42	12.69	0.00	84.16	11.86	0.00	120.13	0.77	0.64%
MAY'11	12.25	15.56	0.00	78.08	13.94	0.00	119.83	1.15	0.95%
JUN'11	11.78	14.75	0.00	41.15	14.25	0.00	81.93	2.42	2.88%
JUL'11	14.71	16.18	0.00	39.19	15.98	0.00	86.06	0.39	0.46%
AUG'11	13.40	21.35	0.00	16.10	16.67	0.00	67.52	5.25	7.21%
SEP'11	12.93	23.54	0.00	0.00	15.88	0.00	52.35	2.54	4.61%
<b>TOTALS</b>	<b>136.01</b>	<b>178.16</b>	<b>0.00</b>	<b>599.70</b>	<b>149.32</b>	<b>0.00</b>	<b>1063.19</b>	<b>18.53</b>	<b>1.71%</b>

BORREGO WATER DISTRICT  
 Water Production / Use Records  
 ID # 3  
 Month of September 2011

Date	La Casa del Zorro Total Acre Feet		Deep Well Trail / Others Acre Feet			Total Irrigat'n	Total Domestic	Total Acre Feet
	Irrigat'n	Domestic	Irrigat'n	Domestic	Total			
SEP'10	0.00	0.79	2.27	17.33	19.60	2.27	18.12	20.39
OCT'10	0.00	0.67	1.18	11.19	12.37	1.18	11.86	13.04
NOV'10	0.00	0.69	1.02	8.91	9.93	1.02	9.60	10.62
DEC'10	0.00	0.71	1.93	8.82	10.75	1.93	9.53	11.46
JAN'11	0.00	0.67	0.66	6.70	7.36	0.66	7.37	8.03
FEB'11	0.00	0.65	0.57	8.03	8.60	0.57	8.68	9.25
MAR'11	0.00	0.61	0.45	6.79	7.24	0.45	7.40	7.85
APR'11	0.00	0.69	0.66	10.40	11.06	0.66	11.09	11.75
MAY'11	0.00	0.72	1.29	11.96	13.25	1.29	12.68	13.97
JUN'11	0.00	0.68	1.66	11.66	13.32	1.56	12.34	14.00
JUL'11	0.00	0.65	1.60	13.63	15.23	1.60	14.28	15.88
AUG'11	0.00	0.69	2.45	13.31	15.76	2.45	14.00	16.45
SEP'11	0.00	0.69	1.44	13.48	14.92	1.44	14.17	15.61
TOTALS	0.00	3.12	14.91	124.88	139.79	14.91	133.00	147.91

Date	Water Produced Acre Feet	Water Delivered Acre Feet	Wtr Loss	% Loss
SEP'10	20.94	20.39	0.55	2.63%
OCT'10	13.10	13.04	0.06	0.46%
NOV'10	10.70	10.62	0.08	0.75%
DEC'10	11.62	11.46	0.16	1.38%
JAN'11	8.16	8.03	0.13	1.59%
FEB'11	9.32	9.25	0.07	0.75%
MAR'11	7.84	7.85	- .01	- .13%
APR'11	11.86	11.75	0.11	0.93%
MAY'11	13.94	13.97	- .03	- .22%
JUN'11	14.25	14.00	0.25	1.75%
JUL'11	15.98	15.88	0.10	0.63%
AUG'11	16.67	16.45	0.22	1.32%
SEP'11	15.88	15.61	0.27	1.70%
TOTALS	149.32	147.51	1.41	0.94%

BORREGO WATER DISTRICT  
 Water Production / Use Records  
 ID # 4  
 Month of September 2011

Water Production (Acre Feet)											
Date	Well 2	Well 3	Well 4	Well 5	Well 10	Well 11	Well 18	Wilcox	Well 85	Total	Less ID5
SEP'10	0.00	0.00	62.96	27.26	12.16	77.04	4.97	0.00	0.00	185.19	163.18
OCT'10	0.00	0.00	56.41	17.80	10.32	65.75	4.50	0.09	0.00	155.37	146.34
NOV'10	0.00	0.00	53.64	23.36	0.00	36.08	3.56	0.40	0.00	117.04	100.44
DEC'10	0.00	0.00	63.71	13.91	23.03	29.06	4.59	0.06	0.00	134.36	123.38
JAN'11	0.00	0.00	4.11	5.74	10.47	56.25	2.56	0.00	0.00	79.13	73.97
FEB'11	0.00	0.00	59.61	13.52	12.22	25.75	7.37	0.00	0.00	118.47	109.79
MAR'11	0.00	0.00	52.95	12.56	9.76	23.31	3.54	0.00	0.00	102.12	93.55
APR'11	0.00	0.00	55.03	17.90	10.56	39.41	4.44	0.13	0.00	127.47	111.39
MAY'11	0.00	0.00	61.63	26.75	12.22	49.97	7.46	0.12	0.00	158.15	137.00
JUN'11	0.00	0.00	52.61	23.50	10.02	49.34	5.10	0.22	0.00	140.79	123.58
JUL'11	0.00	0.00	44.98	23.97	10.17	69.69	5.05	0.59	0.00	154.45	136.64
AUG'11	0.00	0.00	57.82	31.32	11.85	79.87	6.34	0.79	0.00	187.99	165.82
SEP'11	0.00	0.00	50.27	23.27	9.38	50.06	4.92	0.26	0.00	146.16	131.35
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>	<b>612.77</b>	<b>233.60</b>	<b>130.50</b>	<b>582.54</b>	<b>59.43</b>	<b>2.66</b>	<b>0.00</b>	<b>1621.50</b>	<b>1453.25</b>

Date	Water Produced Acre Feet	Water Use Acre Feet	Wtr Loss	% Loss	ID 5 Acre Feet
SEP'10	185.19	163.88	21.31	11.51%	22.01
OCT'10	155.37	137.26	18.11	11.66%	9.03
NOV'10	117.04	112.10	4.94	4.22%	16.60
DEC'10	134.36	105.42	28.94	21.54%	10.95
JAN'11	79.13	78.23	0.90	1.14%	5.16
FEB'11	118.47	97.28	21.19	17.89%	8.60
MAR'11	102.12	87.19	14.93	14.62%	8.57
APR'11	127.47	117.51	9.96	7.81%	16.08
MAY'11	158.15	142.96	15.19	9.60%	21.15
JUN'11	140.79	127.47	13.32	9.46%	17.21
JUL'11	154.45	136.19	18.26	11.82%	17.81
AUG'11	187.99	169.17	18.82	10.01%	22.17
SEP'11	146.16	132.34	13.82	9.46%	14.81
<b>TOTALS</b>	<b>1621.50</b>	<b>1443.12</b>	<b>178.38</b>	<b>11.00%</b>	<b>168.25</b>

# BORREGO WATER DISTRICT NEW METER INSTALLATION

## EXISTING ACCOUNTS

SA-1	SA-3	SA-4	SA-5	TOTAL
345	135	1549	105	2134

New meter installation since July 1, 2011

	SA-1	SA-3	SA-4	SA-5	TOTAL
JULY	0	0	0	0	0
AUGUST	0	0	0	0	0
SEPTEMBER	0	0	0	0	0
OCTOBER					
NOVEMBER					
DECEMBER					
JANUARY					
FEBRUARY					
MARCH					
APRIL					
MAY					
JUNE					
Y-T-D TOTAL					0

**9 New Meter Installations 2010/11**  
**7 New Meter Installations 2009/10**  
**5 New Meter Installations 2008/9**  
**22 New Meter Installations 2007/8**  
**61 New Meter Installations 2006/07**  
**110 New Meter Installations 2005/06**  
**90 New Meter Installations 2004/05**

## BORREGO WATER DISTRICT METER INSTALLATION HISTORY

<u>YEAR</u>	<u>SA# 4</u> <u>NEW METERS</u>	<u>TOTAL METERS</u>
<u>2011/12</u>	<u>0</u>	<u>1549</u>
2010/11	9	1549
2009/10	7	1540
	3 meters removed/1 per owner 2 unpaid	
2008/9	3	1536
2007/8	10	1533
2006/7	39	1523
2005/6	96	1484
2004/5	79	1388
2003/4	58	1308
2002/3	32	1250
2001/2	23	1218

<u>YEAR</u>	<u>SA # 3</u> <u>NEW METERS</u>	<u>TOTAL METERS</u>
<u>2011/12</u>	<u>0</u>	<u>135</u>
2010/11	0	135
2009/10	0	135
2008/9	0	133
2007/8	0	133
2006/7	4	133
2005/6	11	129
2004/5	6	118
	(29) METERS REMOVED FROM LA CASA	
2003/4	7	141
2002/3	3	134
2001/2	0	131

<u>YEAR</u>	<u>SA # 1</u> <u>NEW METERS</u>	<u>TOTAL METERS</u>
<u>2011/12</u>	<u>0</u>	<u>345</u>
2010/11	0	345
2009/10	0	345
2008/9	1	345
2007/8	12	344
2006/7	18	332
2005/6	3	314
2004/5	5	311
2003/4	3	306
2002/3	6	303
2001/2	1	297

<u>YEAR</u>	<u>SA# 5</u>	<u>TOTAL METERS</u>
<u>2011/12</u>	<u>0</u>	<u>105</u>
2010/11		105

TOTAL SA 1, 3, 4, and 5  
TOTAL METERS IN GROUND 2134

updated 07/20/11