JOSHUA BASIN WATER DISTRICT

P.O. BOX 675 ▪ 61750 CHOLLITA ROAD ▪ JOSHUA TREE ▪ CALIFORNIA 92252
TELEPHONE (760) 366-8438 FAX (760) 366-9528 E-MAIL jbwd@jbwd.com

JOSHUA BASIN WATER DISTRICT
REGULAR MEETING OF THE BOARD OF DIRECTORS
WEDNESDAY APRIL 20, 2011 7:00 PM
61750 CHOLLITA ROAD, JOSHUA TREE, CA 92252

AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. DETERMINATION OF QUORUM
4. APPROVAL OF AGENDA
5. PUBLIC COMMENT
6. CONSENT CALENDAR

Pg 1-3 A. Approve the Minutes of the April 6, 2011 Regular Meeting

Pg 4-10 7. DEPOSITS REQUIRED FOR NEW ACCOUNTS AND ACCOUNTS THAT HAVE BEEN TURNED OFF FOR NON-PAYMENT
Recommend that the board determine the amount of deposits based on "green, yellow or red" scores from a credit-rating agency; adopt resolution 11-868 with the appropriate deposit amount.

Pg. 11-39 8. UNITED STATES GEOLOGICAL SURVEY (USGS) STUDY CONTINUATION AND STATUS REPORT
Recommend that the Board approve a "No Cost Extension Joint Funding Agreement" with USGS to complete the report of the ground water recharge project and the Transport Solute Model septic study. Funding for this was previously approved by the Board.

Pg. 40-41 9. CRISIS COMMUNICATIONS AND DISASTER PREPAREDNESS TRAINING
Recommend that the Board receive the information and consider attending the training.

Pg 42-60 10. DIRECTOR LUHRS INFORMATION REQUESTS
Recommend that the Board receive the report and determine whether staff should create requested information.

Pg 61-63 11. PROJECT PRIORITY LIST

12. PUBLIC COMMENT

13. GENERAL MANAGER REPORT

14. DIRECTORS COMMENTS/REPORTS

Pg 64

1. PRESIDENT LUCKMAN: REIMBURSED EXPENSES FOR BOARD MEMBERS
   Recommend that the Board direct staff to propose revisions of the Administrative Code to designate specific conferences or meetings that qualify for daily pay and reimbursement of expenses.

2. AD HOC GENERAL MANAGER PERFORMANCE "FACILITATED REVIEW PROCESS: VICE PRESIDENT REYNOLDS AND DIRECTOR LONG

3. AD HOC PIPELINE REPLACEMENT FUNDING COMMITTEE: DIRECTOR LUHRS AND DIRECTOR WILSON

15. CLOSED SESSION

1. At this time, the Board will go into Closed Session pursuant to Government Code Section 54956.8 to confer with & instruct the District's Real Property Negotiator, Joe Guzzetta, as to terms & conditions of the potential purchase of land for a reservoir site.
It is anticipated that negotiations will be with the record owners of the specific sites/parcels under consideration which are as follows: 0607-041-06; 0600-271-09; 0602-011-10; 0602-011-16; 0602-011-03; 0588-131-73; 0589-192-21; 0588-121-22; 0588-121-68

2. At this time, the Board will go into Closed Session to confer with Legal Counsel on existing litigation pursuant to subdivision (a) of Government Code Section 54956.9. (Re Joshua Basin Water District v. Robert Ellis, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 900168).

3. At this time, the Board will go into Closed Session to confer with Legal Counsel on existing litigation pursuant to subdivision (a) of Government Code Section 54956.9. (Re Joshua Basin Water District v. Ironhead LLC a California Limited Liability Company, Praxedes Beard and Does 1 – 10 inclusive, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 1100087).

16. REPORT ON CLOSED SESSION ITEMS

Pg 65-70

17. ACQUISITION OF PROPERTIES FOR FUTURE RESERVOIR SITES
Recommend that the Board confirm its goal of acquiring properties for future reservoir sites and authorize staff to retain CE Prime Inc. at a cost not to exceed $80,075 or $ $11,055 per site.

18. ADJOURNMENT

The Board of Directors reserves the right to take action on items reserved for discussion only.

INFORMATION

During either "Public Comment" Item, please use the podium microphone. State your name and have your information prepared and be ready to provide your comments to the Board. The District is interested and appreciates your comments. A 3-minute time limit may be imposed. Thank you.

Any person with a disability who requires accommodation in order to participate in this meeting should telephone Joshua Basin Water District at (760) 366-8438, at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

Materials related to an item on this Agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the District's office located at 61750 Chollita Road, Joshua Tree, California 92252 during normal business hours.

JOSHUA BASIN WATER DISTRICT
Minutes of the
REGULAR MEETING OF THE BOARD OF DIRECTORS
April 6, 2011

1. CALL TO ORDER 7:00 PM

2. PLEDGE OF ALLEGIANCE

3. DETERMINATION OF QUORUM:

Bill Long	Present
Mickey Luckman	Present
Mike Luhrs	Present
Mike Reynolds	Present
Gary Wilson	Present

STAFF PRESENT: Joe Guzzetta, General Manager
Terry Spurrier, HR/Administrative Services Supervisor

CONSULTANTS PRESENT: Gil Granito, District Counsel
Kathleen Radnich, Public Outreach Consultant

GUESTS 8

4. APPROVAL OF AGENDA
MSC Long/Wilson 5/0 to approve the Agenda for the April 6, 2011 Regular Meeting of the Board of Directors.

5. PUBLIC COMMENT
Cynthia Leahy commented on her experience when the District solicited for bids from landscape contractors in 2008. Gary Lovelace of Joshua Tree commented on statements made by Director Luhrs in the past. Kathleen Radnich, JBWD Public Outreach Consultant, invited the community to the anniversary of the *Water Wise Demonstration Garden* on April 16th where there will be an art show and activities.

6. CONSENT CALENDAR
Director Luhrs requested that the Draft Minutes of the March 16th Regular Meeting be revised with the deletion of President Luckman's reference to the ACWA conference under Item 17.
MSC Reynolds/Long 5/0 to approve the Minutes of the March 16, 2011 Regular Meeting with the revision as noted; and to approve the Financial Report for February 2011.

7. REPORT ON UPCOMING JBWD/AWAC FREE TOILET GIVEAWAY
General Manager Guzzetta reported that Mojave Water Agency has provided a grant that will supply 300 high efficiency toilets to JBWD customers. JBWD customers can apply online to qualify to exchange toilets that use more than 1.6 gallons per flush for high efficiency toilets.

8. CONSIDER ADOPTION OF RESOLUTION 11-868 REGARDING GUARANTEE DEPOSITS
GM Guzzetta reported on the proposed policy that would provide for new account deposits of zero, one hundred dollars, or two hundred dollars, based on "green, yellow, or red" scores from a credit-rating agency. Board and staff discussion ensued. Barbara Delph of Joshua Tree commented that many people might not be able to afford a higher deposit at this time. Discussion continued. It was suggested that the

District's Citizens Advisory Committee review the subject and make a recommendation to the Board.

MSC Long/Wilson 5/0 to table the item; to refer the item to the Citizens Advisory Committee to review and make recommendation to the Board, and that the Board will revisit the subject at a future date.

9. WATER ACCOUNT ASSISTANCE PROGRAM

GM Guzzetta reported that the District is considering some revisions to the Water Account Assistance Program, which is in place to offer assistance to customers who are victims of unusual or extraordinary circumstances that result in high water bills. Staff has requested feedback from the Board regarding guidelines for the program. President Luckman noted that this program is different from a service that pays bills for low-income customers. Vice-President Reynolds suggested that a customer should be allowed assistance only one time. The consensus of the Board was that the program should continue. District Counsel Gil Granito stated he will review the legal aspects of any proposed changes.

10. PROJECT PRIORITY LIST

GM Guzzetta reported that a public hearing for the Urban Water Management Plan update will be scheduled for June 15th; the Citizens Advisory Committee will review the drafted chapters.

11. PUBLIC COMMENT

None.

12. GENERAL MANAGER REPORT

GM Guzzetta reminded the Board that volunteers are needed to help with the toilet exchange program on May 7th and May 21st. Director Wilson asked whether rates charged by Canyon Automotive are the same now as when the District contracted with them; GM Guzzetta replied that rates have not increased.

13. DIRECTORS COMMENTS/REPORTS

Director Luhrs asked if GM Guzzetta and President Luckman attended ACWA conference in Washington DC; GM Guzzetta answered they did not, they met with legislators. Director Luhrs asked several questions related to his prior request for documents. GM Guzzetta commented that, according to Board policy, staff provides document copies to Directors who request information, and if information requested by a Director requires staff to research and compile a report, Board authorization is needed. District Counsel Gil Granito stated that Director Luhrs is correct in that Directors should be provided information as requested and that GM Guzzetta is also correct in requesting Board authorization for information requests that cause extraordinary work effort from staff. President Luckman stated that Director Luhrs' request can be put on the agenda for the next Board meeting in two weeks.

Director Wilson commented on statements made by the GM Guzzetta regarding attending meetings.

President Luckman commented that she and GM Guzzetta had gone to Washington DC to attend the ACWA Conference but after arriving, she decided the time would be better spent in other meetings that were already arranged. Director Wilson stated his opinion that Board approval was not needed for the ACWA Conference but was needed for other travel.

14. CLOSED SESSION

1. At this time, the Board will go into Closed Session pursuant to Government Code Section 54956.8 to confer with & instruct the District's Real Property Negotiator, Joe Guzzetta, as to terms & conditions of the potential purchase of land for a reservoir site.

It is anticipated that negotiations will be with the record owners of the specific sites/parcels under consideration which are as follows: 0607-041-06; 0600-271-09; 0602-011-10; 0602-011-16; 0602-011-03; 0588-131-73; 0589-192-21; 0588-121-22; 0588-121-68

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Ellis, San Bernardino Superior Court - Joshua Tree District, Case No. CIVMS 900168).
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The Board went to closed session at: 8:18 pm and returned at 8:58 pm.

15. REPORT ON CLOSED SESSION ITEMS

District Counsel Granito reported that Closed Session Item 2 was heard first. Director Luhrs recused himself, not due to any financial relationship with Mr. Ellis but because he had had several conversations with Robert Ellis prior to becoming a board member.

The Board met in Closed Session with Joe Currie of CE Prime who is assisting in the negotiations, and who will present a proposal at the next Board meeting; no reportable action was taken during discussion of item 3.

No reportable action was taken for item 1.

20. ADJOURNMENT 9:00 PM

MSC Long/Reynolds 5/0 to adjourn the April 6, 2011 Regular Meeting of the Board of Directors.

Respectfully submitted;

_____

Joe Guzzetta, General Manager

The next Regular Meeting of the Board of Directors is scheduled for Wednesday April 20, 2011 at 7:00 pm.

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 20, 2011

Report to: President and Members of the Board
From: Joe Guzzetta, General Manager

TOPIC: DEPOSITS REQUIRED FOR NEW ACCOUNTS AND ACCOUNTS THAT HAVE BEEN TURNED OFF FOR NON-PAYMENT

RECOMMENDATION: That the Board determine determine the amount of deposits based on "green, yellow or red" scores from a credit-rating agency and adopt Resolution 11-868 with the appropriate deposit amount.

ANALYSIS: At the last meeting the Board considered implementing a new credit-rating program and requiring no deposit for new accounts with a "green" credit rating, $100 for new accounts with a "yellow" credit rating, and $200 for new accounts with a "red" credit rating. Under current rules, those with a yellow or red credit rating would be eligible to have the deposit applied to the account after 24 months of excellent payment history. After public discussion the Board referred this matter to the Citizens Advisory Committee (CAC) held last Tuesday.

At that meeting it the CAC voted 4 to 2 in favor of recommending no deposit for accounts with a "green" credit rating, $100 for accounts with a "yellow" credit rating to be held for 24 months, and $100 for accounts with a "red" credit rating to be held for 48 months of excellent payment history before applying the deposits to the accounts. Since Social Security numbers cannot be required, but are necessary to determine the color score, lack of a Social Security number will result in a red light credit score. Two members were opposed either because the 48-month period was considered too long or there was preference to require property owners to sign up for water rather than tenants.

The Board asked the basis for the green, yellow, and red scoring. It is based on a mathematical model that considers a number of factors. While not precisely related to credit scores, it is somewhat parallel to the following credit scores:

	National Risk Factor	Credit Score
Green Light	0 to 10%	685-850
Yellow Light	10.1 to 25%	630-684
Red Light	25.1% and up	0-629

The Board could set a different percentage risk factor if it desired to do so.

Approval of a credit deposit amount will allow the new rating system to be used.

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 6, 2011

To: President and Board of Directors

From: Susan Greer

TOPIC: Consider Adoption of Resolution 11-XXX Regarding Guarantee Deposits

RECOMMENDATION: Adopt Resolution 11-XXX, providing for deposits for new accounts of zero, $100, or $200 based on "green, yellow or red" scores from a credit-rating agency.

ANALYSIS: The Federal Trade Commission Red Flag Rules require creditors such as the District to implement an Identity Theft Prevention Program. Required implementation of the Rules has been delayed over and over but is finally mandated. The District adopted our Program in 2008 and has already contracted with a third party to assist with the required ID verification. Online Utility Exchange ("Online") provides verification of social security numbers and alerts us to any fraud.

Online also provides another service, the Deposit Decision, which staff believes is a good solution for the District. I've attached a one-page excerpt from the training manual regarding the deposit decision. Basically, a credit report is run on each applicant and a deposit decision is provided to the District. The credit report is a 'soft hit' and does not affect the credit score. The results provided will rate the credit, based using a green-good, yellow-moderate, red-poor score.

The District currently provides a credit report option, used by customers who want to avoid paying a guarantee deposit. This process is much more labor-intensive and costly. It is also a 'hard hit' to the credit report, affecting the credit score. In addition, the District receives credit reports and must store those. The reports include confidential information that must be protected, increasing the District's potential liability. The proposed system with Online does not release any actual credit information except for the score to the District.

The proposed resolution, amending Article 1.2 and 13.3 of the Rules and Regulations is also attached. Changes to Article 1.2 include the removal of the references to an optional background

credit check which will no longer be necessary. References to owner's guarantee of payment have also been removed, as well as the statement that owners are ultimately responsible for any unpaid water bill. An owner is only legally responsible if the account is in his name.

Changes to Article 13.3 include removal of the current $100 generic deposit requirement and references to the background credit check fee and the owner guarantee of payment. The owner guarantee of payment was an option eliminated years ago. This option allowed an owner to guarantee the payment of his tenant. We found over time that we had owners guaranteeing payment that were no better at making good on the payments than the tenants they were guaranteeing and eliminated the option.

Staff proposes the following guarantee deposit options, utilizing the Online deposit decision system.

SCORE	MEANING	DEPOSIT AMOUNT
Green	Good Credit	No Deposit
Yellow	Moderate Credit	$100
Red	Poor Credit	$200
No Score	No credit or no recent credit	$200

Obtaining the deposit decision is dependent upon the Applicant providing a social security number. Unfortunately, we are unable to legally *require* a social security number as a condition of service. An Applicant that will not provide a social security number will be required to pay the $200 double deposit as we must assume the worst case scenario. Note that most customers *do* provide social security numbers.

Now the good part. Because every deposit will either be based upon the Applicant's actual credit history or we will automatically charge a double deposit, bad debt should decrease; hopefully quite a bit although impossible to tell. Currently, virtually every customer pays a $100 deposit. Many customers have poor payment records, never get locked off but ultimately leave us with bad debt. Presumably, these same customers would also have poor credit and would be required to pay a double deposit with the new system. In addition to the bad debt decrease, it is a fairer system in that Applicants with good credit will be rewarded and those with poor credit will assume their appropriate responsibility.

There is some additional cost for the deposit decision if the results are yellow or red. An adverse action letter is required by the Credit Reporting Act when credit data results in an adverse or negative decision from a creditor. The cost of each letter is 95¢ but that cost should easily be offset by savings on bad debt, so staff estimates there will actually be no net increase in cost.

The costs associated with the Program will be evaluated during the next fee study to determine if there are additional charges that should be passed on to the Applicant.

Recall a few months ago that we presented the bad debt write-off for the Board's approval and discussed several other guarantee deposit issues. We still intend to revisit those issues at a later date, but want to implement the deposit decision system right away.

Fiscal Impact: Net fiscal impact estimated to be a decrease to bad debt expense.

Deposit Decision Box

This information is derived from the applicant's credit report. Deposits are determined by your policy. You may only have 2 different deposit options. This section will be customized to your specifications.

Red Light: Maximum Deposit

Yellow Light: Moderate Deposit

Green Light: Minimum Deposit

Green Light: This applicant has good credit. Either waive or charge a minimum deposit.

Yellow Light: This applicant has moderate credit. Charge a moderate deposit or 1 times the average monthly bill.
Special Circumstances resulting in a yellow light include:

"No Score Available", which could mean one of the following:

- The customer simply has no credit on their file to score

- Can happen when there is no recently reported credit information on the file. What this means is that they may have had credit in the past (over 2 years ago) but none of the accounts have been updated within the last two years.

- The final reason this may happen is that an applicant's credit file only has derogatory (collection accounts) trade line information reported. The bureaus will not score a file that has only derogatory information. ONLINE normally forces this situation to a red light. Charge a maximum deposit or 2 times the average monthly bill.

  - **If the customer has shown poor credit history** on a previous account or is paying an inactive account long after the cut out date. Secure the account with a maximum deposit.
  - **If you fax an application to a customer,** inform them that a deposit decision may be required based on their credit record. If their credit is bad, the deposit must be paid to establish service.

RESOLUTION 11-XXX

A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE JOSHUA BASIN WATER DISTRICT
AMENDING RESOLUTION XX-XXX, AS AMENDED,
REGARDING GUARANTEE DEPOSITS

WHEREAS, the Joshua Basin Water District has previously adopted Rules and Regulations, Resolution 97-572 as amended, as required to conduct the District's business, including rules relating to guarantee deposits; and

WHEREAS, the District previously adopted Resolution 98-838 establishing an Identity Theft Prevention Program ("Program") as required by the Federal Trade Commission, the nation's consumer protection agency. The purpose of the Program is to identify 'red flags' that signal possible identity theft, then detect and respond promptly to any identified red flags; and

WHEREAS, implementation of the Program requires that additional steps are taken to ensure that applicants are properly identified before accounts are established in order to prevent identity theft; and

WHEREAS, the District is currently complying with the requirements of the Program by obtaining social security number verification from Online Utility Exchange. The District has identified that Online provides another service at no additional cost that will rate the Applicant's credit and provide a 'deposit decision' without requiring the District to maintain credit reports.

NOW, THEREFORE, BE IT RESOLVED, the Rules and Regulations (Resolution 97-572, as amended) are further amended as follows:

Article 1.2 Guarantee Deposit
Before water service will be started for any new or existing meter, the Applicant shall deposit with the District the amount specified in Article 13.3.

When the Applicant has established a satisfactory payment record for twenty-four consecutive months, the District will refund the guarantee deposit by crediting the customer's account. If service is discontinued before twenty-four months, the deposit will be deducted from the closing bill, and a check for the balance or a water bill will be mailed to the customer at his last known address. A satisfactory payment record is defined as no more than two late payments, no lock-offs for non-payment and no NSF checks.

Water service will not be installed, connected, or turned on for any Applicant or customer until all delinquent charges for service or other charges on any or all accounts have been paid in full.

Article 13.3 Guarantee Deposit
Applicants who provide a social security number will have their credit checked. The results of the credit check will provide either a green, yellow or red 'score'. Deposit amounts, based upon the score are indicated below.

Green = good credit, no deposit required
Yellow = moderate credit, $100 deposit required
Red = poor credit, $200 double deposit required

No Score = $200 deposit required

Applicants that don't provide a social security number will be required to pay a $200 double deposit.

Existing JBWD customers transferring service from one address to another who meet the satisfactory payment requirements of Article 1.2 will not be required to provide a new guarantee deposit to start service at the new address.

The District uses a third party for this deposit decision service and is not responsible for inaccuracies in the Applicant credit report. Applicants must address concerns to the credit reporting bureaus or the District's contractor, Online Utility Exchange. The District will provide an Adverse Decision Letter to the Applicant whenever a yellow or red score is received. The letter provides contact information to assist the Applicant in correcting credit reporting inaccuracies.

ADOPTED this 6th day of April 2011.

By: _____
Mickey Luckman, President

Attest: _____
Joe Guzzetta, Secretary

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 20, 2011

Report to: President and Members of the Board
From: Joe Guzzetta, General Manager

TOPIC: UNITED STATES GEOLOGICAL SURVEY (USGS) STUDY CONTINUATION

RECOMMENDATION: That the Board take the following action:
Approve a "No Cost Extension Joint Funding Agreement" with USGS to complete the report of the ground water recharge project and the Transport Solute Model septic study. Funding for this was previously approved by the Board.

ANALYSIS: All field work has been completed by USGS for the above two studies. Originally, USGS expected to complete its reports in 2010. However, delay in selecting the ground water recharge site has delayed compilation of the final report to the 2011.

In October, 2006, the Board approved a four-year cooperative study with USGS at a total cost of $1,200,000. Although the agreement is for four years the federal budget process requires USGS to have a new contract each year in order to assure that federal funding for the USGS share. The purpose of the study is to determine the residential density that can be supported by a standard septic system, and to study geological characteristics that would be important to know for a water recharge program.

The 4-year projection for the District's share of the studies is $1,200,000. The District spent $385,000 in year one, and $164,000 in year two. The expected costs for years three and four are $514,000 and $70,000 respectively for a total of $1,133,000 million. With the $300,000 from the federal allocation, total costs should be about $367,000 under budget for the total project.

Approval of this agreement will provide the best possible data to assure that waste water treatment is provided to protect the aquifer and that JBWD receives a complete report on the ground water recharge site.

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
California Water Science Center
6000 J Street, Placer Hall
California State University
Sacramento, California 95819-6129
Phone: (916) 278-3000 Fax: (916) 278-3070
http://water.wr.usgs.gov

April 4, 2011

Mr. Joseph Guzzetta, General Manager
Joshua Basin Water District
Post Office Box 675
61750 Chollita Road
Joshua Tree, California 92252

Dear Mr. Guzzetta:

This letter requests the processing of a No Cost Extension (NCE) Joint Funding Agreement (JFA) between the Joshua Basin Water District and the U.S. Geological Survey (USGS) California Water Science Center for our existing Investigations Program agreement that currently ends March 31, 2011. This NCE would extend the end date of this currently agreement through September 30, 2012.

As originally planned, Federal Fiscal year 2010 (FFY10) was scheduled to be the final year of the four-year study. However, due to delays in selecting an artificial recharge site, the unsaturated-zone monitoring site adjacent to the proposed recharge ponds was not constructed until April 2010. In order to include data collected from the site into the summary report, the USGS is requesting the above extension date. The progress and plans for the cooperative program for FFY11 are presented as an attachment to this letter.

A total of $323,978 remains available for the completion of the study JBWD is responsible for $264,810, and subject to the availability of Federal Matching Funds (FMF), the USGS will contribute $59,168. A breakdown of the costs associated with each task in FFY11 is provided in table 1. Note that the entire FMF is budgeted; however, only $150,732 in JBWD is budgeted leaving a balance of about $49,078 available for future work.

Form 9-1366
(Oct. 2005)

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement

Customer #:	CA281
Agreement #:	07W4CAD28100 Amd 7
Project #:	
TIN #:	95-2387111
Fixed Cost Agreement	☑ Yes ☐ No

FOR
WATER RESOURCES INVESTIGATIONS

THIS AGREEMENT is entered into as of the 31 day of March, 2011, by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the JOSHUA BASIN WATER DISTRICT, party of the second part.

1. The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation for the Joshua Basin Nitrate study, herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50; and 43 USC 50b.
2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) includes In-Kind Services in the amount of $0.

(a) $0.00 by the party of the first part during the period November 1, 2006 **to** September 30, 2012

(b) $0.00 by the party of the second part during the period November 1, 2006 **to** September 30, 2012

USGS DUNS IS 1761-38857. This JFA extends the period of agreement only. Total funding for JBWD portion of this agreement including this amendment is $855,900. Total funding for the USGS portion of this agreement, including this amendment is $497,000.00

(c) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.

(d) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.
5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.
6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.
7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

Page 2 of 2

Form 9-1366 continued	U.S. Department of the Interior U.S. Geological Survey Joint Funding Agreement	Customer #: Agreement #: Project #: TIN #:	CA281 07W4CAD28100 Amd 7 95-2387111

8. The maps, records, or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records, or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program and, if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at costs, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records, or reports published by either party shall contain a statement of the cooperative relations between the parties.
9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered **quarterly**. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983).

U.S. Geological Survey
United States
Department of the Interior

USGS Point of Contact

Name: Irene A. Rios
Address: 6000 J. Street, Placer Hall
Sacramento, California 95819-6129
Telephone: 619-225-6156
Email: iarios@usgs.gov

Signatures

By_____ Date_____
Name: Eric G. Reichard
Title: Director, USGS California Water Science Center

By_____ Date_____
Name:
Title:

By_____ Date_____
Name:
Title:

JOSHUA BASIN WATER DISTRICT

Customer Point of Contact

Name: Joseph Guzzetta, General Manager
Address: Post Office Box 675
61750 Chollita Road
Joshua Tree, California 92252
Telephone: 760-366-8438
Email:

Signatures

By_____ Date_____
Name: Joseph Guzzetta
Title: General Manager

By_____ Date_____
Name:
Title:

By_____ Date_____
Name:
Title:

Joshua Basin Water District Cooperative Program: Progress, Plans, and Costs through December 2010

Task 1 - Characterize the Unsaturated Zone

Progress

Two monitoring sites were installed in Federal Fiscal Year 2010 (FFY10) within the boundary of the planned artificial-recharge site (JTUZ-3 and 4) (fig. 1). JTUZ-3 is shallow (about 100 ft) and JTUZ-4 is 538 ft deep. The USGS installed JTUZ-3 in December 2009 using an auger rig downgradient of the proposed site for JTUZ-4. Drill cuttings were collected and inspected for strata that may inhibit artificial recharge; no such strata were encountered. JTUZ-3 has a lysimeter and two heat-dissipation probes installed. The USGS installed JTUZ-4 in April 2010 using an ODEX rig. JTUZ-4 has five lysimeters, six heat-dissipation probes, three advanced tensiometers, and seven DEPS installed (fig. 2).

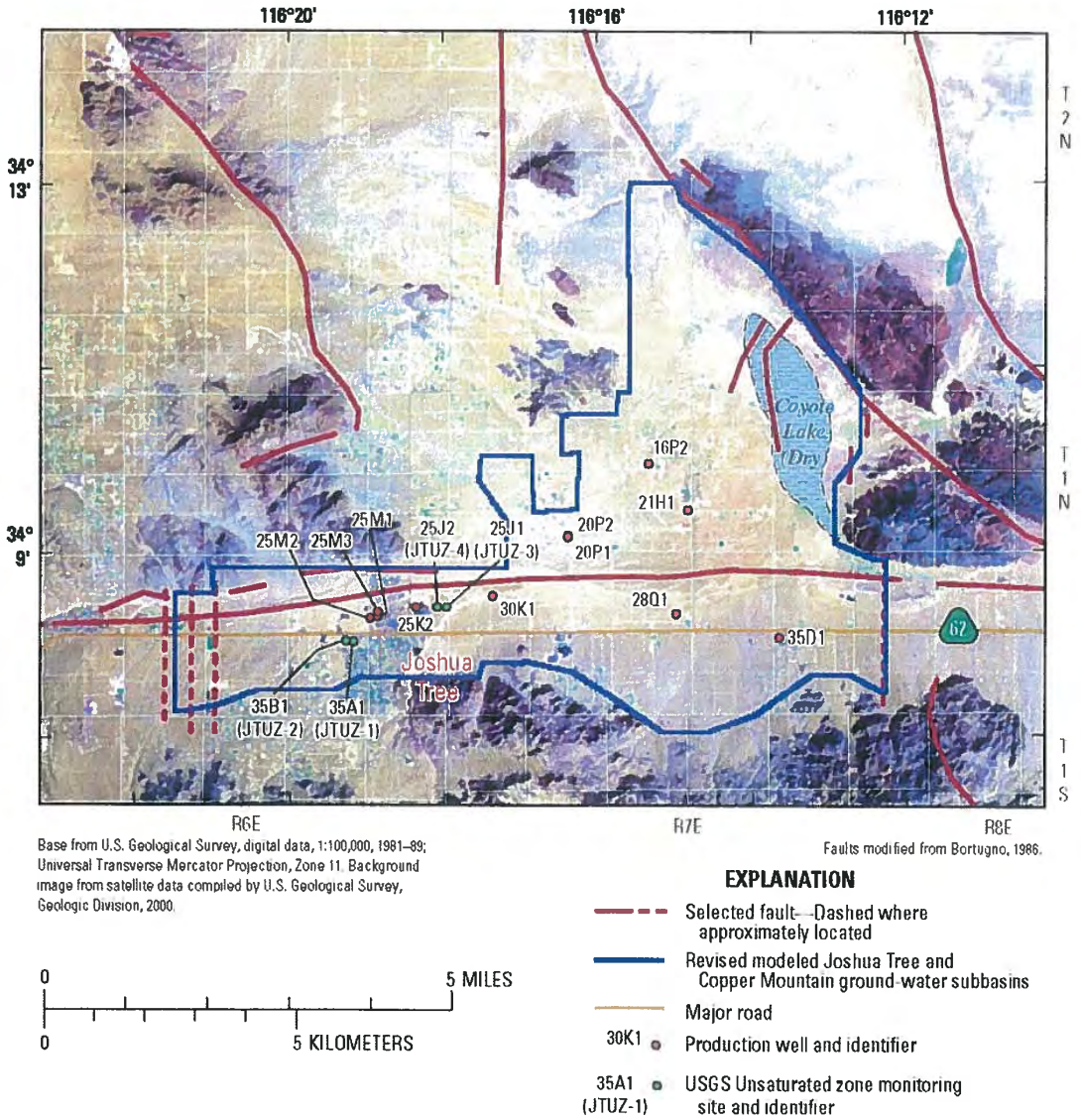


Figure 1. Locations of unsaturated-zone monitoring sites installed by the USGS in the Joshua Tree groundwater subbasin.

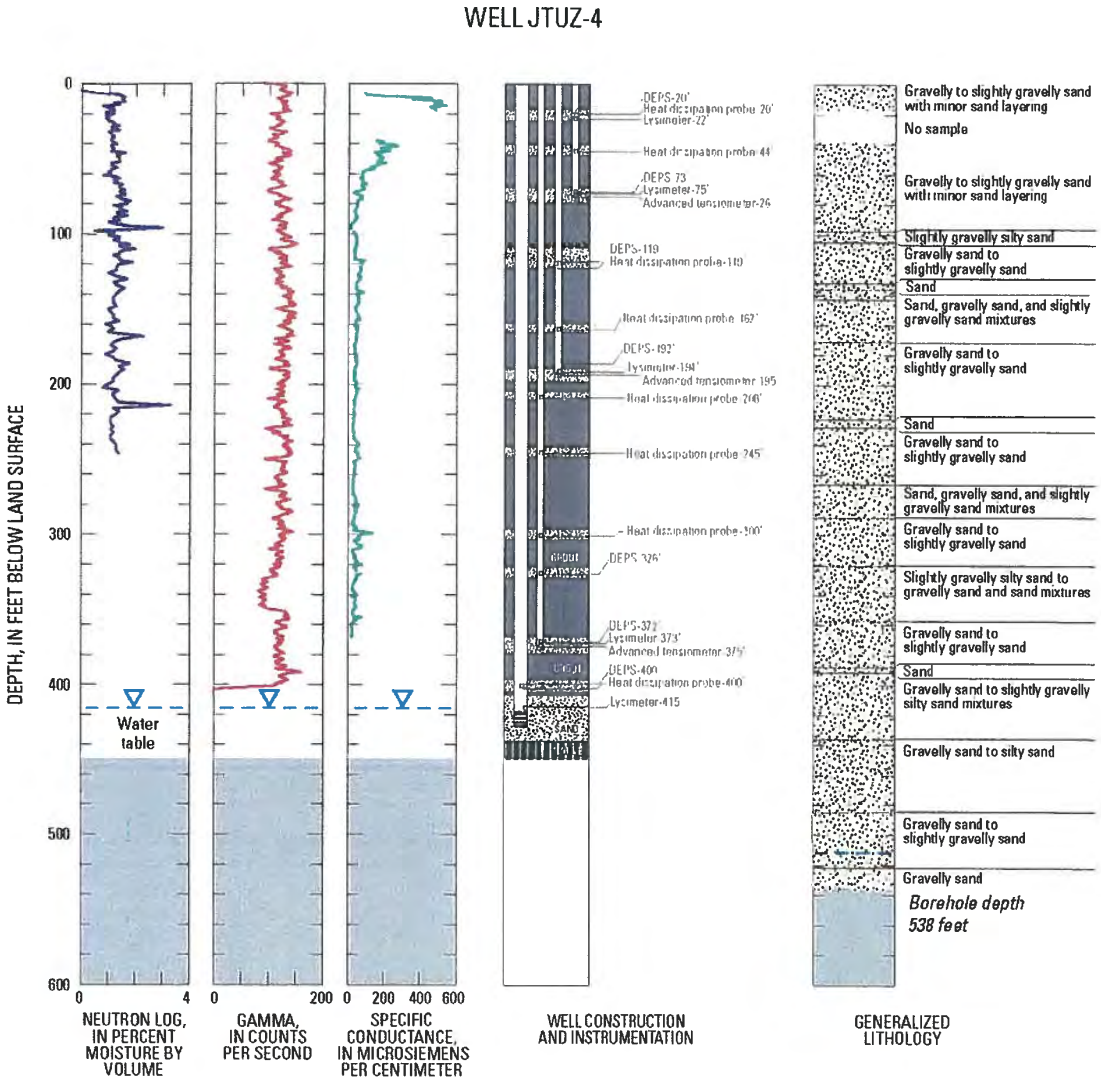


Figure 2. JTUZ-4 geophysical logs, well construction, instrumentation, and general lithology.

Proposed Work

No new work is planned for FFY11.

Total FFY 2011 cost for Task 1 - ***$0***

Task 2 – Evaluate Potential Artificial Recharge Sites

Progress

The U.S. Geological Survey (USGS), in cooperation with Joshua Basin Water District (JBWD), performed double-ring infiltrometer tests at the proposed JBWD artificial-recharge site during November 15-17, 2010. The purpose of the tests was to determine infiltration rates and hydraulic conductivity values at three locations at the artificial recharge site (fig. 3).

Figure 3. Infiltrometer test site locations, USGS boreholes JTUZ-3 and JTUZ-4, and the area under consideration for artificial recharge sites, Joshua Tree, California.

Methodology

Constant-head and falling-head tests were done at three locations within the study area (fig. 3). At each test location and for each test, the infiltrometer was inserted into the ground to a depth of approximately 0.5 foot. The outside walls of the infiltrometer were bermed with soil to prevent leakage. A shallow core was collected at each site to determine the lithology directly beneath the test location. Visual inspection of the cores indicated the presence of well-sorted medium to coarse sand at sites 1 and 2 and well-sorted medium sand at site 3.

A constant-head test was used to measure infiltration, and data from a falling-head test was used to estimate hydraulic conductivity at each location. For a constant-head test, each ring of the infiltrometer is connected to an individual calibrated water tank. The rings are then filled with water to a stage height of one foot. As water from the rings infiltrates into the ground, flow of water from the calibrated tanks into the rings is adjusted to maintain the initial one-foot stage height for the complete test period. Infiltration through the outer ring acts as a barrier to lateral spreading of the water infiltrating through the inner ring, allowing for a measurement of mostly vertical infiltration. Time is recorded for every five-gallon volume transferred from the calibrated water tank to the inner ring. The rate of water flow from the calibrated water tank is assumed to equal the rate of infiltration (Youngs, 1991).

A falling-head test is usually performed after completing the constant-head infiltration test. For a falling-head test, flow to the infiltrometer rings from the calibrated water tank is stopped and the falling head is measured at ten-second intervals with pressure transducers, until all water from each ring has completely infiltrated (Arriaga et al., 2010). Infiltration rates decrease with decreasing head and a polynomial equation is fitted to the data. Because the infiltration rate is controlled by a pressure force due to head and hydraulic conductivity, as the head in the ring approaches zero the infiltration rate approaches the hydraulic conductivity of the sediment. Therefore, the slope of a tangent to the polynomial at a head equal to zero is equal to the hydraulic conductivity (fig. 4).

Infiltration is the rate at which water moves through the surface and into the subsurface. The infiltration process can be explained by the Green-Ampt version of Darcy's equation for saturated flow: $i = K\,(H+L-h)/L$, where i is the infiltration rate, K is the hydraulic conductivity (ft/d), H is the ponding depth, h is the pressure head at the wetting front, and L is the depth to the wetting front (Green-Ampt, 1911). As infiltration progresses, the depth of the wetting front approaches a value significantly greater than the pressure head at which point the infiltration rate approaches the hydraulic conductivity.

For infiltration tests done in areas with deep water tables, the final infiltration rate is generally greater than the hydraulic conductivity due to drainage at the wetting front (Jury et al., 1991). The effect of drainage can be explained using the equation: $J_w = -K_s(H_2 - H_1) / (z_2 - z_1)$, where J_w is the infiltration rate, K_s is the hydraulic conductivity, H_1 is the hydraulic head at the wetting front, H_2 is the hydraulic head at land surface, and $(z_2 - z_1)$ is equal to the depth of the wetting front (Jury et al., 1991). If the wetting front from the infiltrated water does not encounter the water table, water is allowed to drain at the wetting front and the hydraulic head at the wetting front is zero. The infiltration rate will then be a product of the hydraulic conductivity and the hydraulic head at land surface divided by the depth of the wetting front. The Green-Ampt and Jury equations for infiltration can also be used to explain the estimation of hydraulic conductivity values from falling-head test data. As the depth of the ponded water inside the infiltrometer approaches zero, the Green-Ampt equation becomes $i = K$, and the Jury equation becomes $J_w = -K_s$.

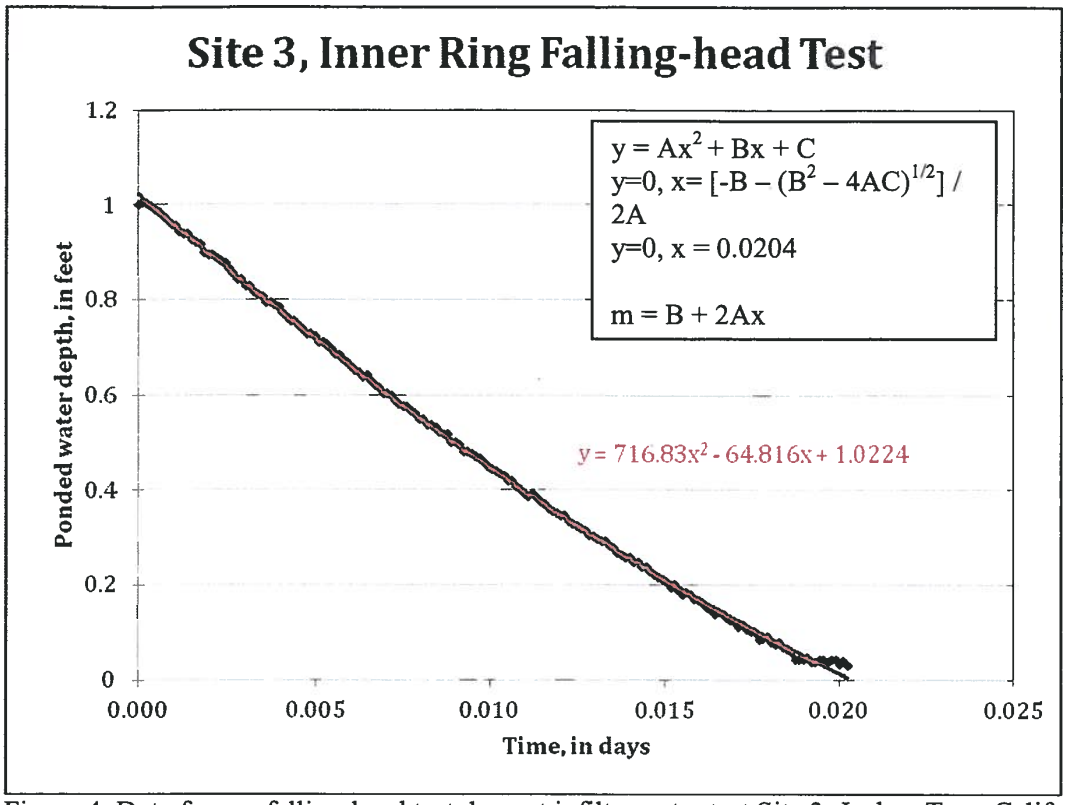


Figure 4. Data from a falling-head test done at infiltrometer test Site 3, Joshua Tree, California, displaying non-linearity of the data and the calculation of the slope of a tangent at y=0.

Results

All data from the constant-head tests displayed linearity, suggesting a constant infiltration rate throughout the test period (fig. 5). Sediments with high values of hydraulic conductivity will reach a constant infiltration rate quickly compared to sediments with low values of hydraulic conductivity, due to faster progression of the wetting front. It is possible that infiltration rates were higher for all of the tests, but decreased to a constant value before the first measurement was recorded. The measured infiltration rates are high at all three sites, ranging from 67 to 72 feet per day (ft/d) (table 1). The infiltration rates for all sites were similar to the hydraulic conductivity values for well-sorted sands to well-sorted gravels (table 2).

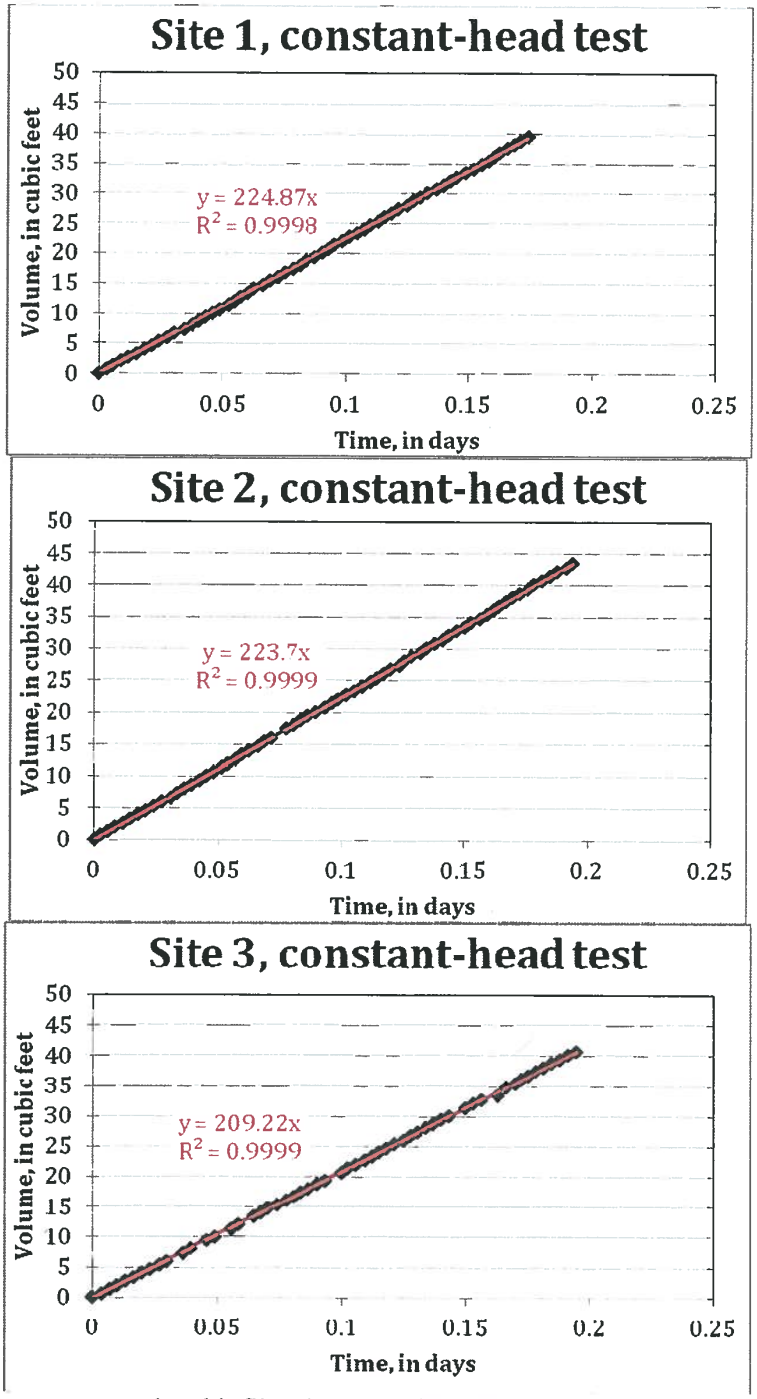


Figure 5. Data from constant-head infiltration tests done November 15-17, 2010 in Joshua Tree, California, displaying linearity.

Site	Latitude	Longitude	Date		Infiltration Rate (ft/d)	Hydraulic Conductivity (ft/d)
1	34.141	116.302	11/15/2010	Inner	71.62	48.03
				Outer		47.08
2	34.14	116.304	11/16/2010	Inner	71.24	69.57
				Outer		54.89
3	34.14	116.301	11/17/2010	Inner	66.63	35.63
				Outer		39.66

Table 1. Calculated infiltration rates and hydraulic-conductivity values from infiltrometer test locations in Joshua Tree, California.

Material	Hydraulic Conductivity (ft/d)
Clay	10^{-6} –10^{-3}
Silt, sandy silts, clayey sands, till	10^{-3} – 10^{-1}
Silty sands, fine sands	10^{-2} – 1
Well-sorted sands, glacial outwash	1 – 100
Well-sorted gravel	10 – 1000+

Table 2. Hydraulic-conductivity values of common materials.

The hydraulic-conductivity value at each site was estimated from data collected from the inner ring as well as the outer ring during the falling-head tests (table 1). A second-degree polynomial was fit to the falling-head test data for the three test sites to estimate hydraulic conductivity (fig. 4). The estimated hydraulic conductivity ranges from about 36 ft/d in the inner ring at site 3 to about 70 ft/d in the inner circle at site 2 (table 2). There is good agreement between the inner-ring and outer-ring hydraulic-conductivity values at all the test sites and all of the estimated hydraulic-conductivity values are in the range for well-sorted sands and well-sorted gravels (table 2). The difference in hydraulic-conductivity values measured at the sites probably is related to the grain size of the sediments at the sites. Sites 1 and 2 are predominately medium to coarse well-sorted sand, and their measured hydraulic conductivity values are higher than site 3, which is predominately medium well-sorted sand. The infiltration-rate values are greater than the estimated hydraulic conductivities at each site indicating that the wetting fronts at each test site did not reach the water table by the end of the test.

Proposed Work

No work is proposed for FFY11.

Total FFY 2011 cost for Task 2 - ***$0***

Task 3 – Data Collection

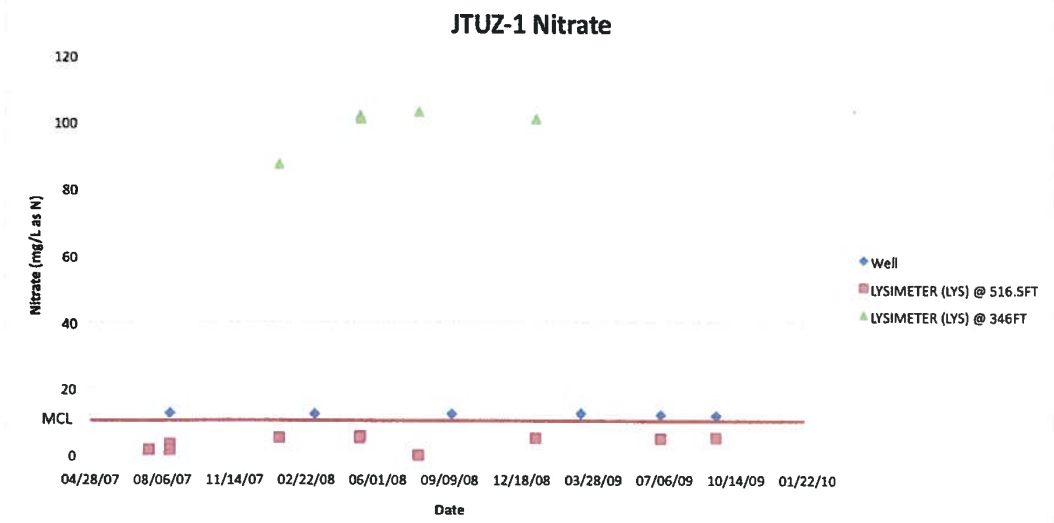
Progress

In FFY10, water-quality samples were collected from the lysimeters at JTUZ-1 and 2, volume permitting. The nitrate concentrations were very high (well above the MCL of 10 mg/L as N) in samples from JTUZ-1 lysimeters at 91 and 346 ft below land surface (bls) (fig. 6B). The nitrate concentrations in samples from the lysimeter at 91 ft bls were as high as 1,000 mg/L as N. These nitrate concentrations greatly exceed the nitrogen concentration commonly associated with septic-tank effluent. A possible source for these high concentrations is the mineralization and subsequent leaching of naturally occurring nitrogen in the unsaturated zone. Because of the desert climate, nitrogen from buried plant material has not been mineralized and leached by the percolation of rainfall for many thousands of years. The nitrate concentrations in samples from the lysimeter at 346 ft bls are about 100 mg/L as N (fig. 6A). These nitrate concentrations are on the high end of reported nitrate concentrations in septic-tank effluent. The nitrate concentrations were low (< 6 mg/L as N) in samples collected from JTUZ-1 lysimeter at 516 ft bls (fig. 6A). The low nitrate concentrations may indicate that the wastewater front has not yet reached the depth of the lysimeter or that denitrification is occurring in the unsaturated zone. Nitrate concentrations in samples from JTUZ-2 lysimeter at 61 ft bls ranged from about 20-45 mg/L as N (fig. 7). These nitrate concentrations are in the range of reported nitrate concentrations in septic-tank effluent.

The dissolved-organic carbon (DOC) concentrations exceeded 350 mg/L in samples from JTUZ-1 lysimeters at 346 and 516.5 ft bls; however, the DOC concentrations were low in samples from the well at JTUZ-1 (fig. 8). The DOC concentrations in samples from JTUZ-1 lysimeters at 346 and 516.5 ft bls are significantly higher than reported DOC concentrations in septic-tank effluent. Additional data need to be collected to determine the source of the high DOC concentrations. The tri-halomethane formation potential (THMFP) concentrations are very high in samples from JTUZ-1 lysimeters at 91 and 516.5 ft bls; THMFP concentrations were not analyzed in samples collected from the lysimeter at 346 ft bls because of low sample volume.

In addition to water-quality data, the water-level, matric-potential, and temperature data were collected from the unsaturated-zone instrumentation at JTUZ-1 and 2 (figs 10-13). Recent data are relatively constant with a slight decline in the JTUZ-1 water-level data (fig. 10). The data indicate that the wetting front monitored at JTUZ-1 has not reached the water table. The matric-potential data indicate that the front is between 343 and 461 ft bls (fig. 11A) while the suction-cup lysimeter data indicate that the wetting front is at least at 346 ft bls (fig. 6A).

A



B

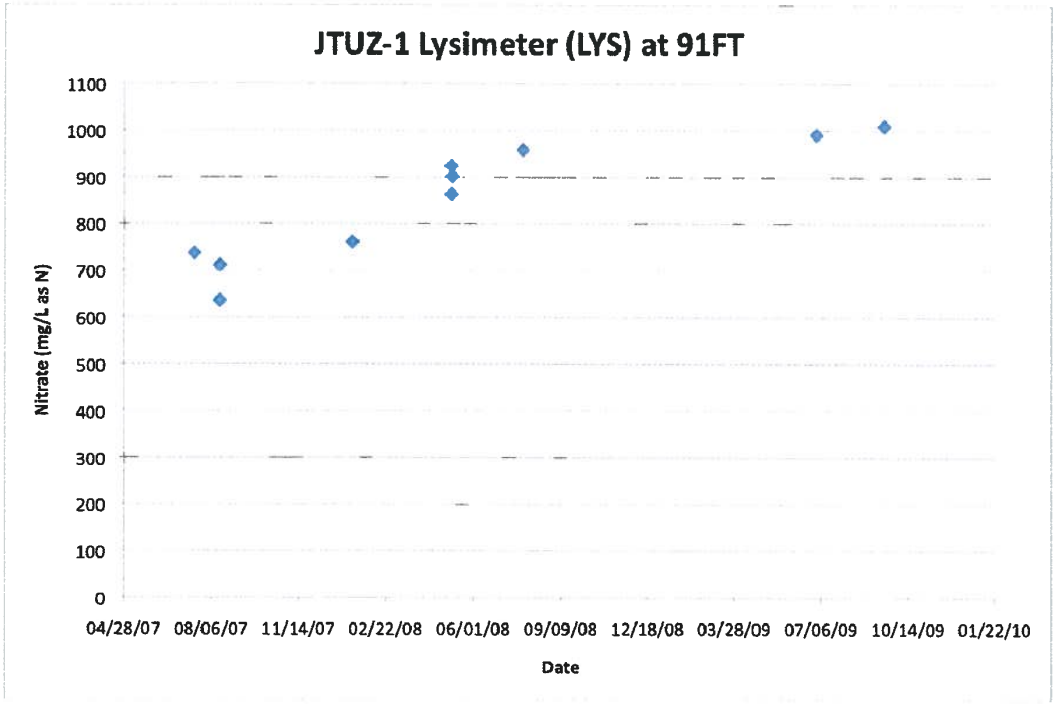


Figure 6: Time-varying nitrate concentrations collected from lysimeters at site YVUZ-1: A) Well, lysimeter at 516.5 ft and lysimeter at 346 ft; and B) lysimeter at 91 ft.

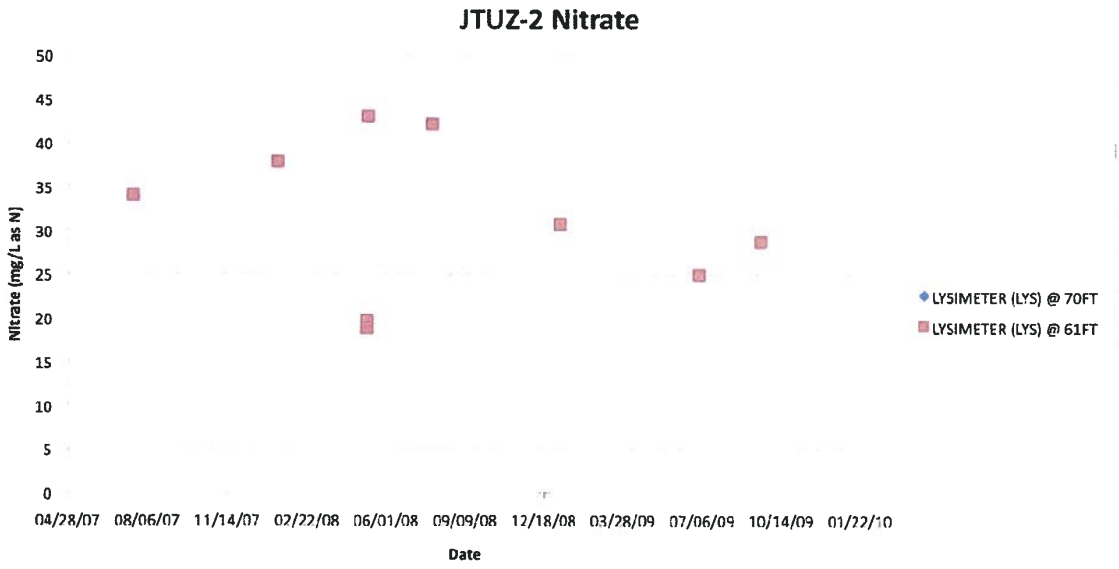


Figure 7: Time-varying nitrate concentrations collected from a lysimeter at site JTUZ-2

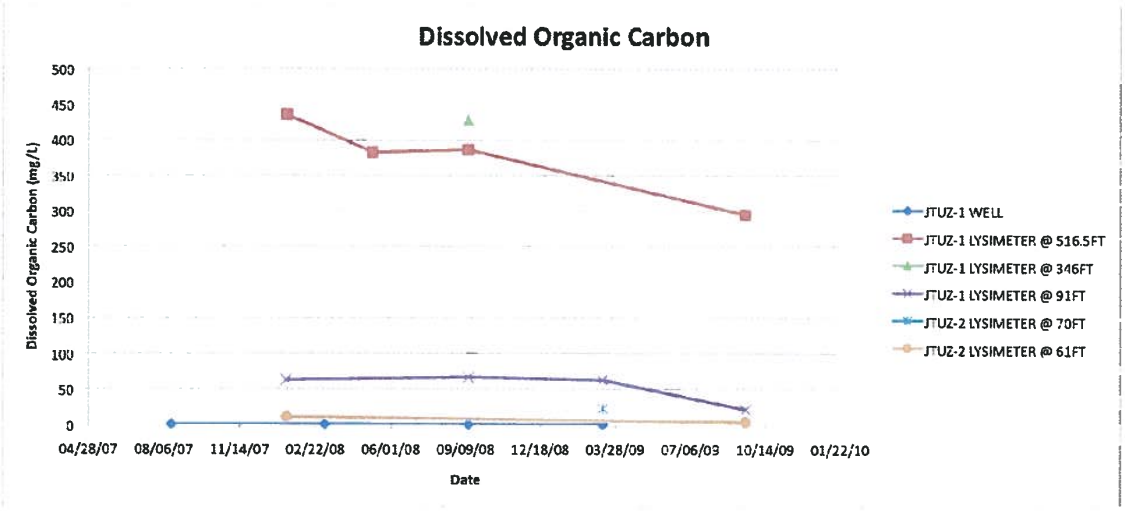


Figure 8: Time-varying dissolved-organic carbon concentrations from lysimeters at JTUZ-1 and 2 and the piezometer at JTUZ-1.

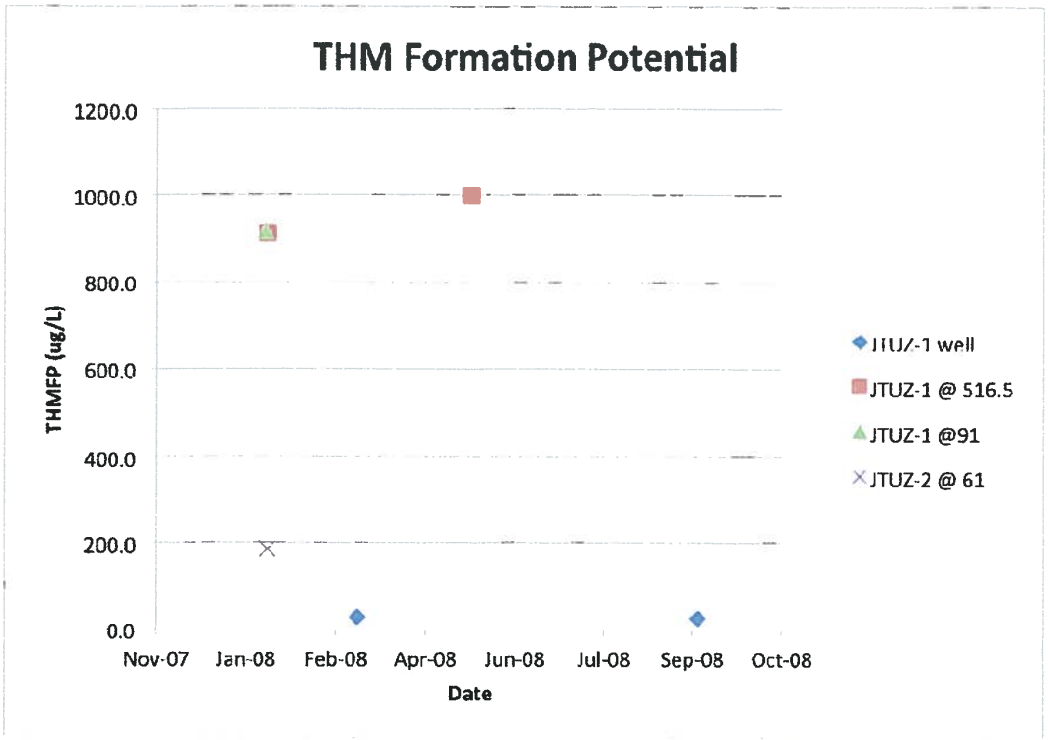


Figure 9: Time-varying tri-halomethane formation potential concentrations from lysimeters at JTUZ-1 and 2 and the piezometer at JTUZ-1.

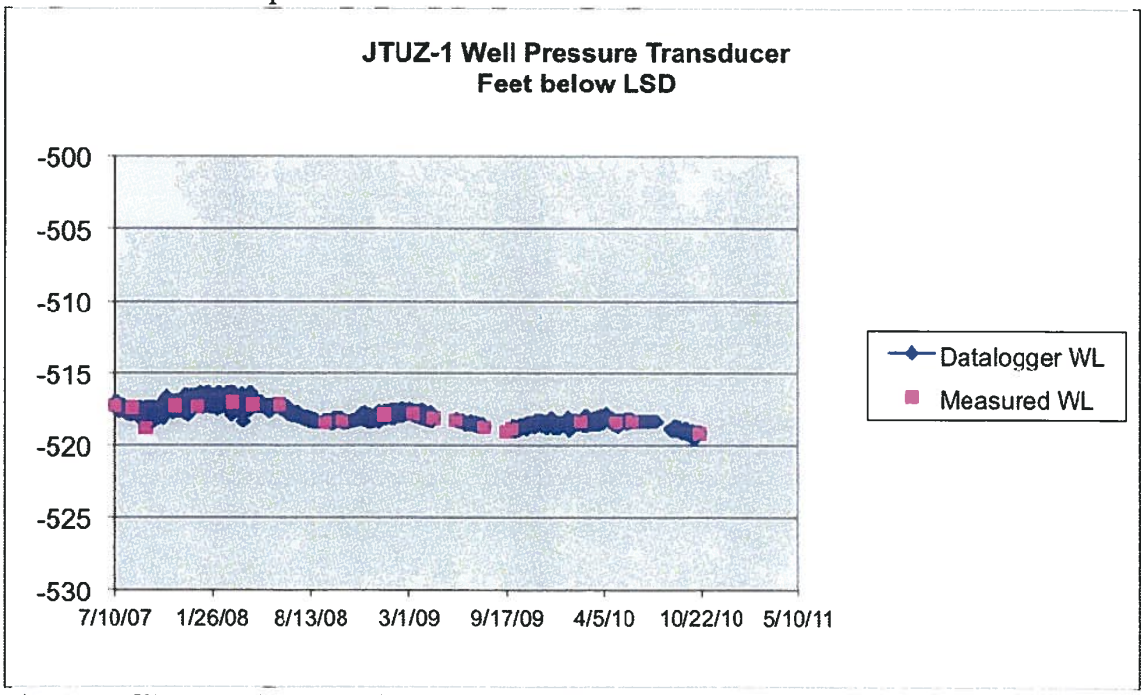
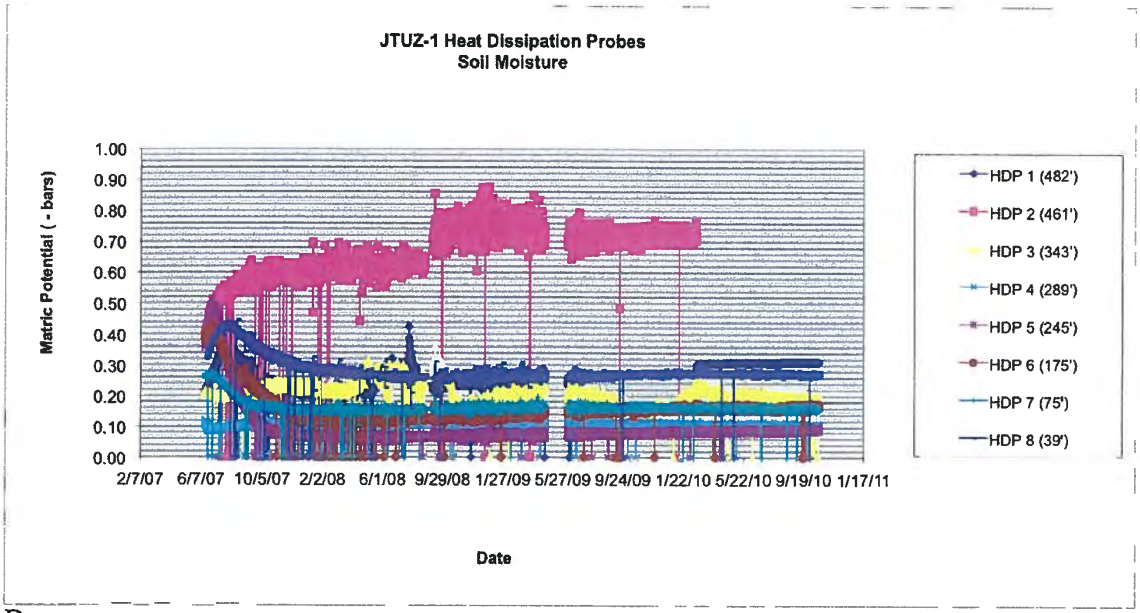


Figure 10: Time-varying water-level data from the piezometer at JTUZ-1.

A



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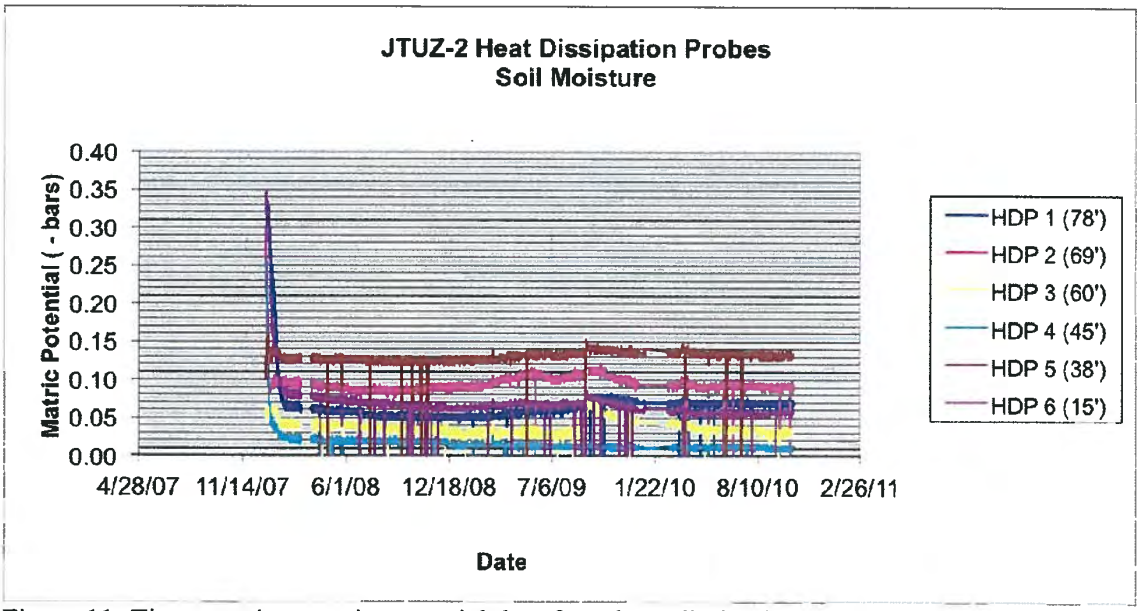
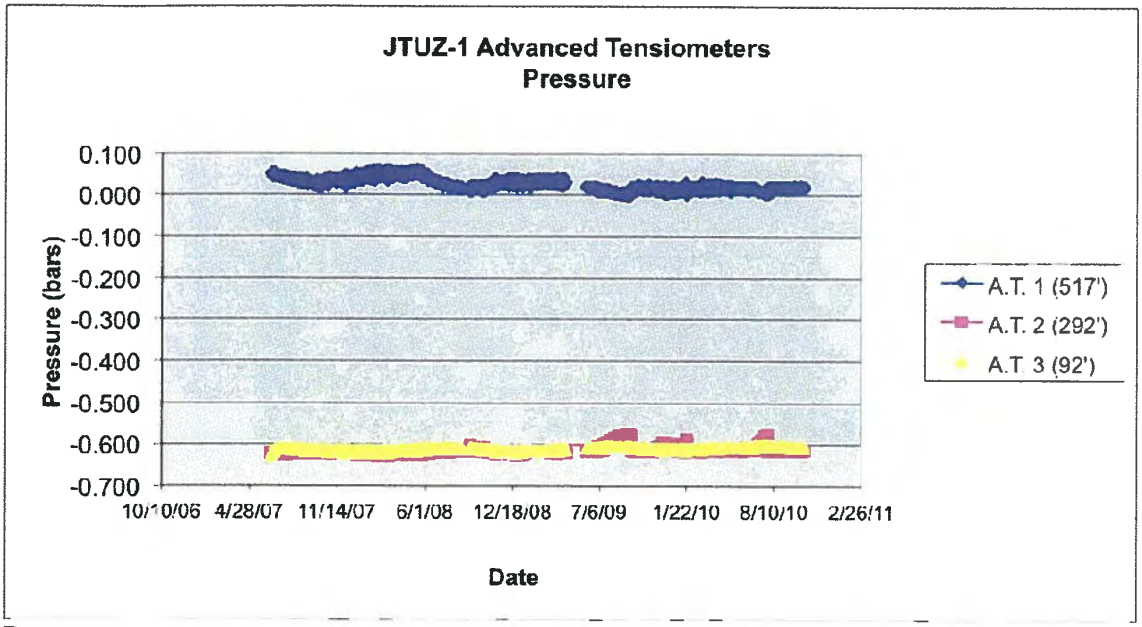


Figure 11: Time-varying matric-potential data from heat-dissipation probes at A) JTUZ-1 and B) JTUZ-2.

A



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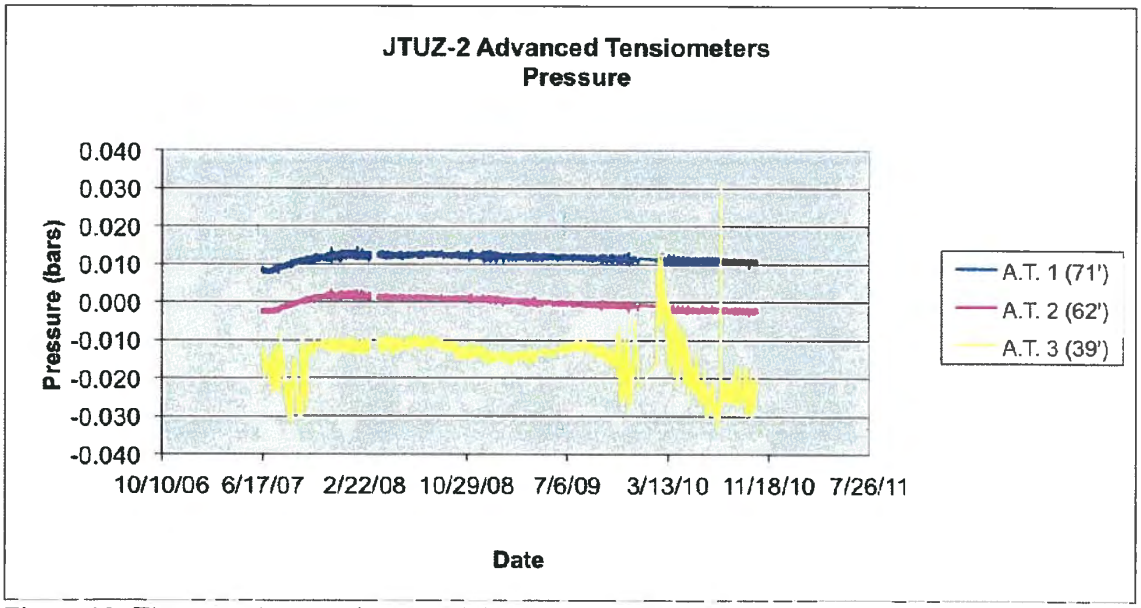
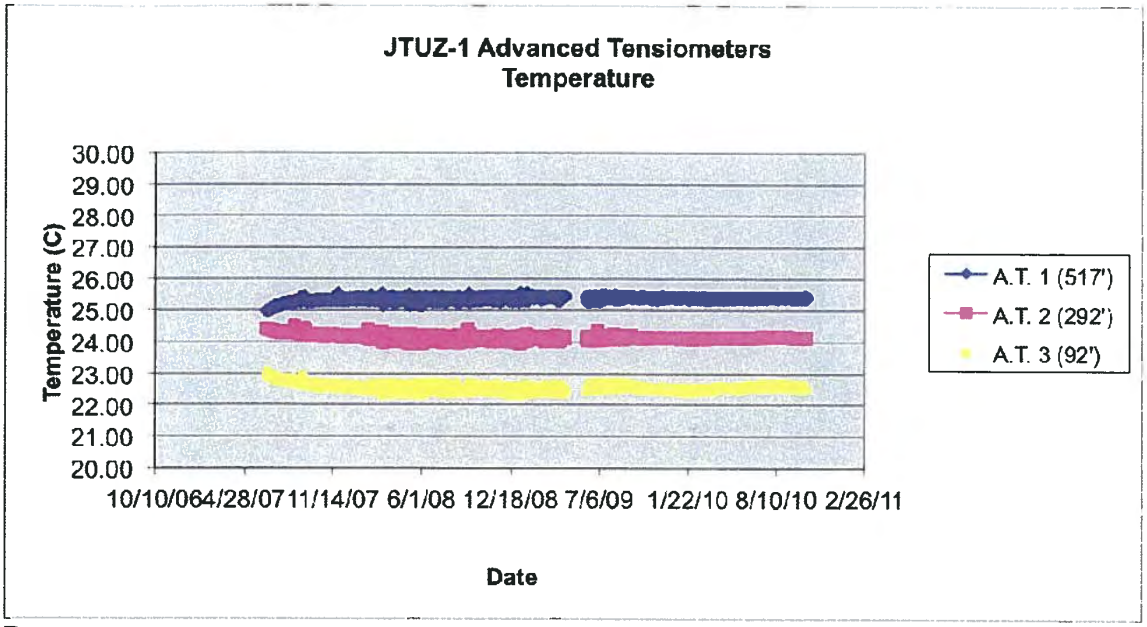


Figure 12: Time-varying matric-potential data from advanced tensiometers at A) JTUZ-1 and B) JTUZ-2.

A



B

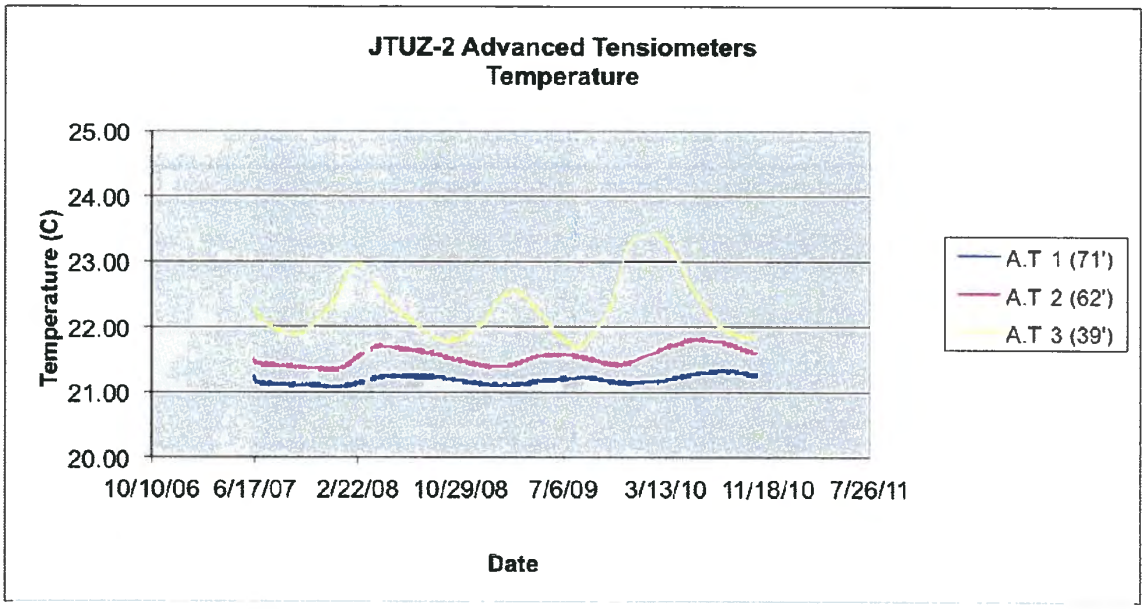


Figure 13: Time-varying temperature data from advanced tensiometers at A) JTUZ-1 and B) JTUZ-2.

Proposed Work

Water-level, matric-potential, and temperature data will be collected from the unsaturated-zone monitoring sites JTUZ1-4 at 4-hour intervals and downloaded bi-monthly. The water-quality data collected from JTUZ-1 lysimeters at 91 and 291 ft bls and the JTUZ-2 lysimeters are not changing with time; therefore, samples will not be collected from these sites in FFY11. Samples will be collected from the JTUZ-1 lysimeters at 346, 464, and 517 ft bls on a bi-monthly basis to monitor the downward movement of septic-tank effluent at the site. An electro-magnetic (EM) log will be collected at JTUZ-1 in FFY10 to determine the location of the wetting front. The cost of maintaining the instruments and data analysis is $26,500. The total cost of the lab analyses is $6,500. The cost of collecting the EM log and analyzing the results is $8,000.

Total FFY 2010 cost for Task 3 - ***$41,000***

Task 4 –Unsaturated-Zone Flow and Nitrate Transport

Progress

The purpose of this task is to develop an unsaturated-zone flow and transport model that will allow a detailed, local-scale investigation of the effects of land use, and subsequent septic load, on groundwater quality in the Joshua Tree groundwater subbasin. A preliminary numerical model of the unsaturated zone in the Joshua Tree area was developed using the new simulator TOUGHREACT (Xu et al., 2004), which is TOUGH2 (Pruess et al., 1999) with the addition of reactive transport. TOUGHREACT is a numerical simulation program for chemically reactive non-isothermal flows of multiphase fluids in porous media. Basically, TOUGHREACT adds multi-component reactive solute transport to TOUGH2 and will better deal with the reactive chemistry of nitrates and other constituents in the unsaturated zone. At this time, the released version of TOUGHREACT does not contain biogeochemistry for biological decomposition of nitrate; however, the biogeochemistry has been successfully added to the research version and will be released within 3 months. The model being developed with the current version will be easily converted when the new code is released.

The initial modeling domain was approximately 1,476 ft (450 m) by 1,476 ft (450 m) (approximately 50 acres) (fig. 9). The model domain is 540 ft (165 m) deep with 13 alluvial layers based on review of the geophysical logs and laboratory analysis of borehole samples. The model contained approximately 67,500 grid elements with the surface area containing 16 model elements per acre. The preliminary results (discussed later) suggest that small lateral flow (fig. 10 and fig. 11); therefore, the modeling domain can be reduced by 70 percent and still provide similar results. This will greatly reduce the run time of the model to allow additional scenario development. One surface-model element is approximately 2,400 ft^2 (the approximate area of a typical leach field). This configuration allows for quarter acre parcel to contain four grid cells to test various locations for a septic leach field in the simulation and allows for development of as small as a quarter acre and maintains the flexibility to locate septic-leach fields within four locations in each quarter-acre parcel (larger parcels also will be tested). The lateral boundaries of the model are no-flow boundaries. The bottom boundary is the water table and the upper boundary is a standard atmospheric with specified flux of septic tank effluent. By assuming symmetry the modeling domain can be used to represent one quarter of the housing development by putting the housing in the corner of the domain such that coalescent leach fields can only migrate outward from the center of the housing development. This also allows for faster

simulation time but would get the same results as long as the leach field migration does not reach the edge of the modeling domain.

The initial housing density of four housing units per acre in a 25-acre development centered in a 200 acre open space was used test TOUGHREACT (fig. 10). We assume that each housing unit contributes 220 gallons per day as septic-tank effluent. Under these conditions the septic-tank effluent reaches the water table in 25 years and reaches steady state in about 100 years (fig. 11). The effluent plume extends approximately 200 feet (60 m) beyond the edge of the housing development into the open space in the unsaturated zone by the time it reaches the water table. The vertical distribution of calibrated saturated vertical hydraulic conductivity values is shown in figure 12.

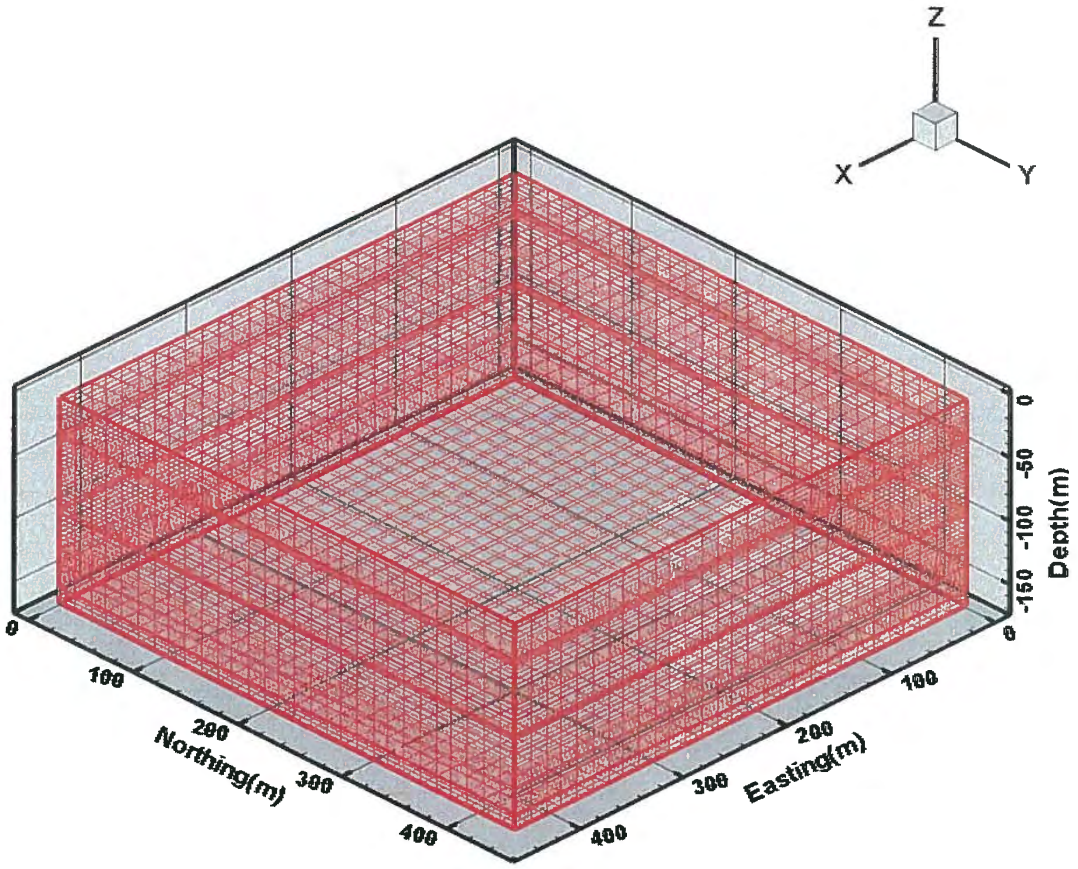


Figure 9: TOUGHREACT finite-element model grid

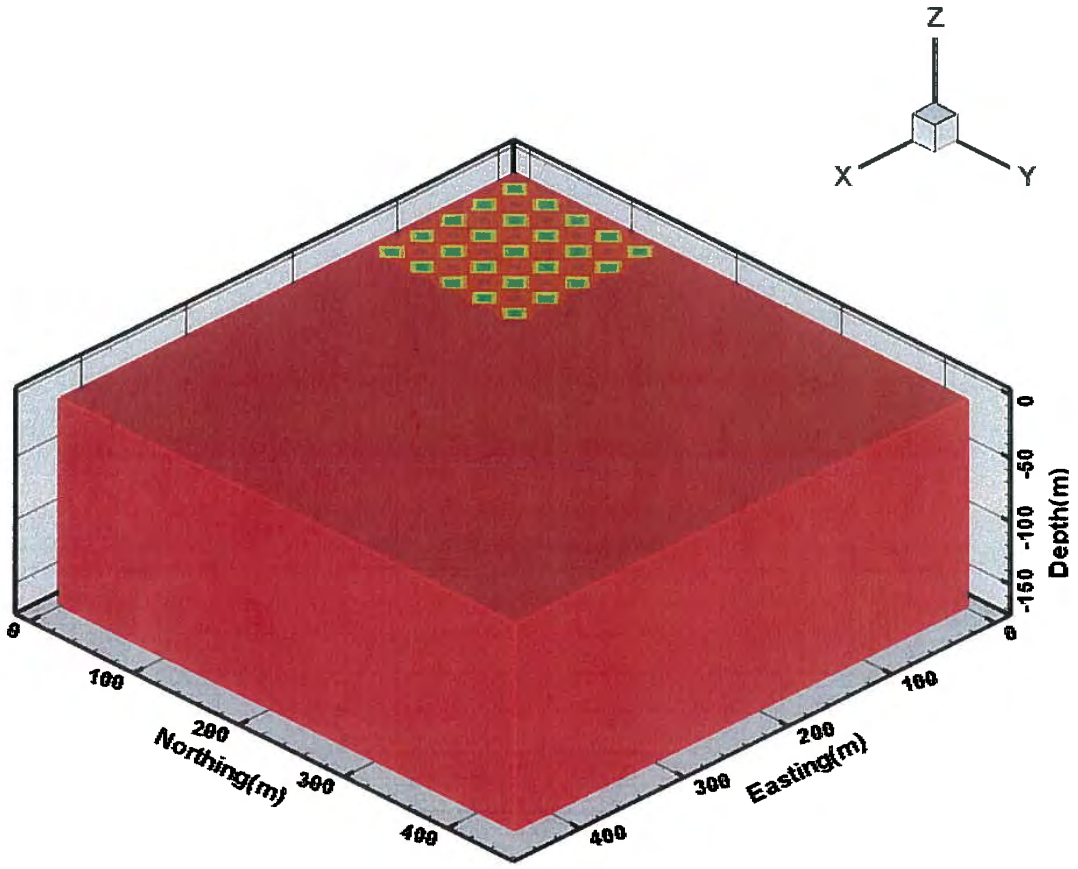


Figure 10: Locations of septic tanks for quarter-acre development TOUGHREACT simulations.

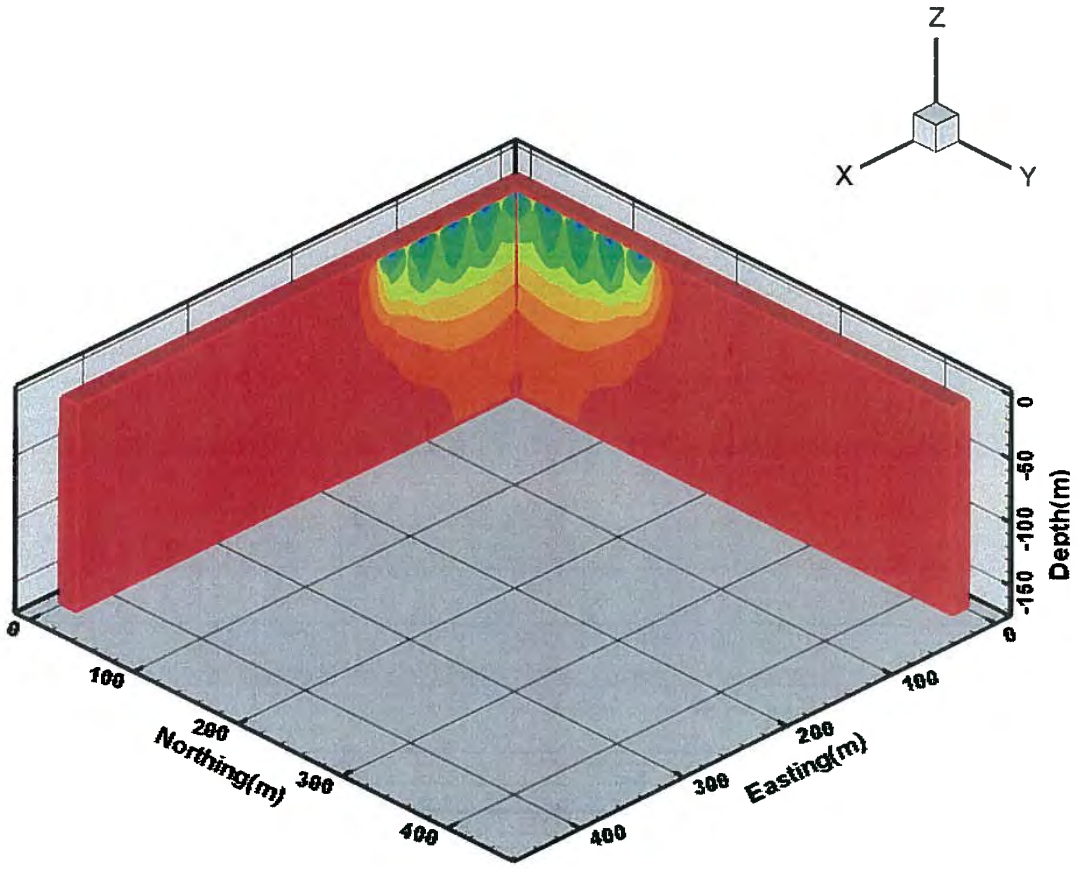

Z
X
Y
0
-50
-100
-150
Depth(m)
0
100
200
300
400
Northing(m)
0
100
200
300
400
Easting(m)

Figure 11A

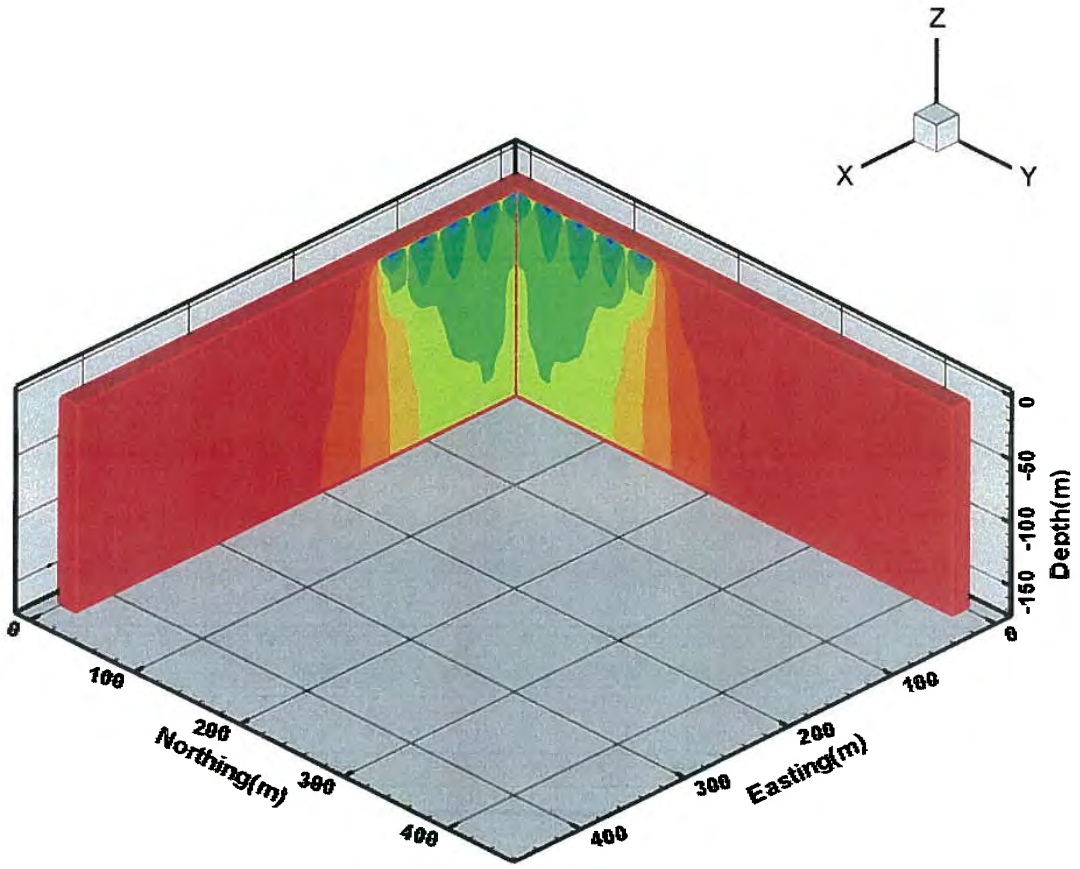


Figure 11B

Figure 11: Simulated water content for: A) 25 years and B) 100 years; the cooler colors indicate higher fluxes.

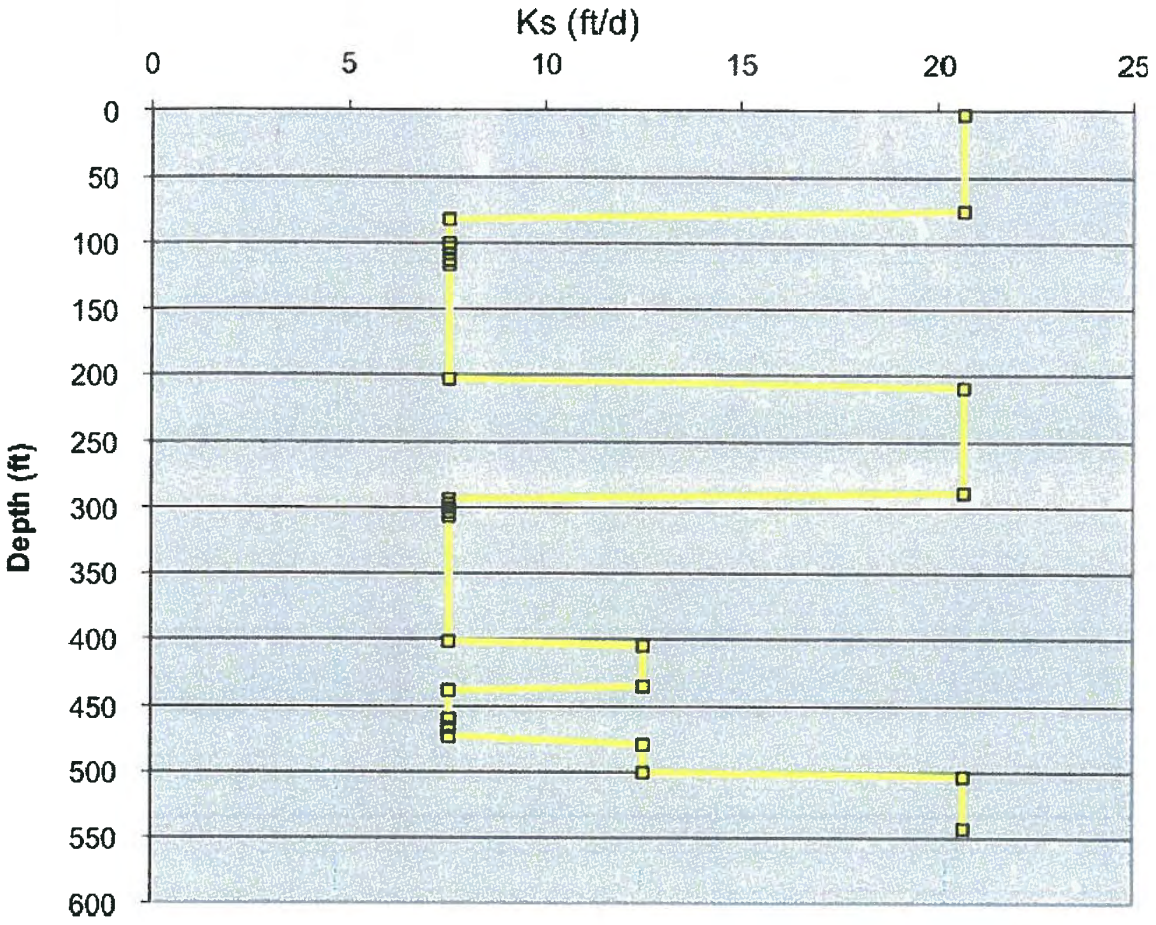


Figure 12: Vertical distribution of calibrated saturated vertical hydraulic conductivity values used in the TOUGHREACT model.

Proposed Work

The TOUGHREACT model will be run to steady state using multiple housing density configurations to determine the time require for equilibrium, the concentration of nitrate in the unsaturated at the water table, and the total amount of recharge. These simulations will allow for the evaluation of the potential for interaction between leach fields, the interaction with natural unsaturated (and saturated) zone water with a different chemistry (to evaluate chemical interaction), the potential for perched water developing and the travel time from the leach field to the saturated zone.

A radial, axi-symetric TOUGHREACT model will be used to determine the dimensions of a septage wetting front from a typical domestic septage leach field where it intersects the water table. As the septage migrates downward from the leach field to the water table it spreads out laterally as it encounters changes in grain size and permeability in the unsaturated zone. The area of the footprint will be used as a minimum size of the solute transport grid described in Task 5. The solute transport model will be used to estimate the maximum housing density that could be maintained in the Joshua Tree area without creating water-quality problems.

The radial, axi-symetric TOUGHREACT model also will be used to determine if the lateral migration of septage and the subsequent leaching of natural soil nitrogen, could be the source of the high nitrate concentrations measured in samples from JTUZ-1. Naturally occurring nitrate, are present in desert soils (Walvoord et al., 2003) and may be the source of the observed high nitrate concentrations in JTUZ-1. Naturally occurring high nitrate concentration will be simulated in the surficial soils under predevelopment conditions to investigate the fate of naturally occurring nitrates when mixed with water from septic-tank leech fields. A fixed flux of septic-tank effluent with known concentrations of nitrate and DOC will be simulated at near-surface model nodes representing a typical septic-tank leach field. Initial soil and water-quality characteristics, estimated from data collected from JTUZ-1 and other test holes in the study area, will be input into the model domain. The model will simulate the moisture content and solute concentration for each model cell in the model domain after 50 years of septic-tank operation.

The housing units upgradient of JTUZ-1 were established between the mid 1950's - mid 1980's based on available on-line data (fig. 13). These dates will be used as a constraint in the evaluation of vertical infiltration rates from septic-tank effluent at JTUZ-1. As stated previously, soil-moisture data indicate that the septic-tank wetting front has reached a depth of at least 343 ft but not 461 ft (fig. 6A). In addition, the temperature data observed at JTUZ-2 (fig. 8) will be used to refine the model calibration by incorporating heat flow in the TOUGHREACT model.

Total FFY 2011 cost for Task 4 - ***$35,300***

Figure 13: Approximate construction dates of houses upgradient of JTUZ-1 and 2.

Task 5 – Evaluate Regional Effects

The purpose of this task is to test the regional effects of land–use plans and associated septic-discharge fluxes on groundwater quality. The effect of different pumping and artificial-recharge schedules on regional water quality will be investigated. These results will help guide groundwater development by JBWD.

Progress

In FFY08, the existing groundwater-flow model was converted to MODFLOW-2005 (MF2005) (Harbaugh, 2005) and updated to June 2008 conditions. To better define the mixing of septic-tank effluent with the underlying groundwater, layer 1 of the original model was divided into two layers. There are now four layers in the regional groundwater-flow model. The top of layer 1 is the water table and the top of layer 2 is 2,150 ft. The horizontal discretization was refined from 820-ft grids to 105-ft grids; therefore, each model cell represents about one-quarter acre.

Geophysical and well data collected since the original groundwater-flow model was developed were used to update the spatial distribution of hydraulic parameters to better reflect the hydrogeology of the Joshua Tree groundwater basin. The unknown hydraulic parameters of layers 1 and 2 were estimated using trial-and-error.

Water-use, aerial photos, assumed water-demand, and year-2000 census data were used to estimate the historic septic load on the groundwater system. Projected wastewater loads on a per parcel basis assuming that every parcel is developed were used to estimate the maximum septic load on the groundwater system. JBWD supplied 2004-07 water-use data by parcel. It was assumed that the average winter (November-March) water demand was representative of domestic water use (i.e., minimal irrigation). The build-out (i.e., every parcel within the JBWD service area is developed) wastewater loads assuming 220 gal/day/EDU were provided by Dudek and Associates (Michael Metts, Dudek and Assoc., personal commun., 2009), a JBWD consultant.

It is assumed that the average septic-tank effluent flux at an individual parcel is equal to 80 percent of the average volume of water supplied during the winter months at that parcel. The septic-tank effluent is routed to the water table using the recharge (RCH) package. The RCH simulates recharge as instantaneously reaching the water table; this is not realistic because it may take decades for recharge to flow through the unsaturated zone. Therefore, the estimated effluent was delayed by 25 years per the TOUGHREACT results. For example, the 1951 effluent was assumed to reach the water table in 1976. Prior to 1976, only natural recharge reached the water table. The total estimated septic-tank effluent by aerial-photo timeframes are shown in table 1.

Years	Natural Recharge (AFY)	Septic-Tank Effluent (AFY)	Total Recharge (AFY)
1951-1955	122.57	51.89	174.45
1956-1960	122.57	76.69	199.26
1961-1965	122.57	96.30	218.87
1966-1971	122.57	110.94	233.51
1972-1979	122.57	140.15	262.72
1980-1986	122.57	170.23	292.79
1987-1991	122.57	223.12	345.68
1992-1995	122.57	225.69	348.26
1996-2001	122.57	234.47	357.03
2002-2008	122.57	240.86	363.43
Build-out	122.57	3,621.87	3,744.44
2 Houses per acre	122.57	4,531.48	4,654.04

Table 3: Simulated and projected flowrates for natural recharge, septic-tank effluent, and total in acre-ft/yr (AFY).

The solute-transport model was developed using MT3DMS (Zheng and Wang, 1999). MT3DMS simulates the three-dimensional advective-dispersive transport of multiple species. MT3DMS requires groundwater-flux data simulated by MF2005. The primary unknown parameters affecting solute transport are longitudinal and transverse (horizontal and vertical) dispersivity. The solute-transport model was not calibrated due to a lack of measured nitrate data; therefore, representative values of longitudinal and transverse dispersivities used by Nishikawa et al. (2003) to model the neighboring Warren subbasin were used (750 ft, 250 ft and 2.5 ft for longitudinal, horizontal transverse, and vertical transverse dispersivities, respectively). Currently, the UZF package is not compatible with MT3DMS; the author of MT3DMS and the USGS is addressing this.

The nitrate concentration of the natural recharge was assumed to equal 10 mg/L as nitrate (Nishikawa et al., 2003). Nishikawa et al. (2003) showed that the nitrate concentration of the septic-tank effluent in the neighboring Warren subbasin ranged between 220 and 350 mg/L as nitrate. For this work, a nitrate concentration of 278 mg/L as nitrate was assumed for the septic-tank effluent.

Three 50-year scenarios were tested: (1) the build-out occurs instantaneously in July 2008 and septic-tank effluent from the build-out reaches the water table in 2033; (2) scenario 1 with 4,000 acre-ft/year of artificial recharge starting in July 2008; and (3) uniform housing density of two houses per acre starting in 1958 with the septic-tank effluent reaching the water table in 1983. The simulation period for scenarios 1 and 2 was July 2008 to June 2058. Note that reported pumping for July 2007 to June 2008 were used for the scenarios and were assumed to be constant over the simulation period. This assumption implies that any additional water-supply is provided by imported water. The total septic-tank effluent for build-out conditions is shown in table 1.

The simulated results for Scenario 1 indicate year-50 nitrate concentrations greater than 180 mg/L as N in the Joshua Tree subbasin and greater than 180 mg/L as N in the Copper Mountain subbasin. If 4,000 acre-ft/yr of imported water is recharged (Scenario 2) the simulated year-50 nitrate concentrations are between 20 mg/L (near the artificial-recharge site) and 160 mg/L as N

in the Joshua Tree subbasin and as high as 180 mg/L in the Copper Mountain subbasin. Assuming a housing density of 2 houses per acre (Scenario 3) results in year-50 nitrate concentrations of about 100 mg/L as N throughout the Joshua Tree subbasin and are as high as 220 mg/L as N in the Copper Mountain subbasin.

In FFY10, the MT3DMS model was calibrated to measured nitrate data. The USGS and the authors of MT3DMS did not complete the link between MODFLOW-2005 and MT3DMS using the UZF package; however, a work-around was developed. The UZF parameters were refined via trial and error to better reflect the 25-year travel time for septic-tank effluent to reach the water table. The calibrated models were used to test the regional effects of land-use plans and associated septic-discharge fluxes on groundwater quality.

Proposed Work

No work is proposed in FFY11.

Total FFY 2011 cost for Task 5 - ***$0***

Task 6: Report Results

At least three publications will result from this project. The construction of monitoring site JTUZ-4 and the data collected from this site will be incorporated into the Open-File Report (OFR) describing the construction of JTUZ-1 and 2. The OFR for JTUZ-1 and 2 is ready for publication; however, for completeness and timeliness, the data for JTUZ-3 and 4 will be added to this report. A journal paper describing the geochemistry of the high nitrate and DOC in the unsaturated zone will be submitted for publication by September 30, 2011. A Scientific Investigations Report describing the results of the groundwater-flow and solute-transport modeling and the TOUGHREACT modeling will be completed for review by September 30, 2011.

Total FFY 2011 cost for Task 6 - ***$183,600***

References

Arriaga, F.J., Kornecki, T.S., Balkcom, K.S., Raper, R.L., 2010, A method for automating data collection from a double-ring infiltrometer under falling head conditions: Soil Use and Management, v. 26, p. 61-67.

Doherty, J., 2004, PEST: Model-independent parameter estimation user manual: 5th edition: Watermark Numerical Computing, Brisbane, Australia.

Green, W.H., and Ampt, G.A., 1911, Studies in soil physics. I. The flow of air and water through soils: J. Agr. Sci., v. 4, p. 1–24.

Harbaugh, A.W., 2005, MODFLOW-2005, The U.S. Geological Survey modular ground-water model–the Ground-Water Flow Process: U.S. Geological Survey Techniques and Methods 6-A16, variously p.

Jury, W.A., Gardner, W.R., Gardner, W.H., 1991, Soil Physics: John Wiley and Sons, Inc., New York, 328 p.

Nishikawa, Tracy, Izbicki, J.A., Hevesi, J.A., Stamos, C.L., and Martin, Peter, 2004, Evaluation of geohydrologic framework, recharge rates, and ground-water flow of the Joshua Tree area, San Bernardino County, California: U.S. Geological Survey Scientific Investigations Report 2004-5267, 115 p.

Pruess, K., Oldenburg, C., and Moridis, G., 1999, TOUGH2 users guide, version 2.0: Lawrence Berkeley National Laboratory Report LBNL-43134.

Walvoord, M.A., Phillips, F.M., Stonestrom, D.A., Evans, R.D, Hartsough, P.C., Newman, B.D., Striegl, R.G., 2003, A reservoir of nitrate beneath desert soils: Science, 302, p. 1021–1024.

Xu, T., Sonnenthal, E., Spycher, N., and Pruess, K., 2004, TOUGHREACT user's guide: a simulation program for non-isothermal multiphase reactive geochemical transport in variably saturated geologic media: Earth Sciences Division, Lawrence Berkeley National Laboratory Report 55460.

Youngs, E.G., 1991, Infiltration measurements – a review: Hydrological Processes, v. 5, p. 309–320.

Zheng, C., and Wang, P.P., 1999, MT3DMS: A modular three-dimensional multi-species transport model for simulation of advection, dispersion, and chemical reactions of contaminants in groundwater system; documentation and user's guide, Report SERDP-99-1, 202 p.

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 20, 2011

Report to: President and Members of the Board
From: Joe Guzzetta, General Manager

TOPIC: CRISIS COMMUNICATIONS AND DISASTER PREPAREDNESS TRAINING

RECOMMENDATION: That the Board receive the information and consider attending the training.

ANALYSIS: The District will host a Crisis Communications and Disaster Preparedness seminar on Monday May 23rd at 1:00 pm. The two-hour seminar was developed by, and is presented by the California Emergency Management Agency and the UC Institute on Global Conflict and Cooperation.

The training focuses on public officials' roles and responsibilities, lessons learned from previous disasters, and crisis communications during an "Incident of National Significance".

It is recommended for elected and appointed officials and senior staff members. This is a rare opportunity for our Directors and Management Staff to participate in disaster response and communication training without the need to travel. The training comes from respected authorities in the field. There is no registration fee for attendees.

The District is also inviting other local agencies to participate.

CRISIS COMMUNICATIONS AND DISASTER PREPAREDNESS

A Workshop for California's Public Officials

Monday, May 23, 2011

1:00 p.m. to 3:00 p.m.

Joshua Basin Water District Boardroom
61750 Chollita Road
Joshua Tree, CA 92252

The **Crisis Communications and Disaster Preparedness Workshop** is based on the need for leaders to prepare for the management of the aftermath of both man-made and natural disasters in California.

The customized training focuses on elected officials' roles and responsibilities, lessons learned from previous disasters, and crisis communications during an "Incident of National Significance", defined by the U.S. Department of Homeland Security as one of more than a dozen scenarios which includes terrorist attacks using weapons of mass destruction as well as catastrophic natural disasters.

The program provides public officials with an introduction to the tools needed to engage in effective risk and crisis communication during times of disaster.

All interested public officials are welcome to attend, but space is limited.

For more information or to RSVP, contact

Marie Salsberry, Joshua Basin Water District
760/366-2042 ext. 234
jbwd@jbwd.com

Presented by
The California Emergency Management Agency
The UC Institute on Global Conflict and Cooperation

Cal EMA CALIFORNIA EMERGENCY MANAGEMENT AGENCY

IGCC UC INSTITUTE ON GLOBAL CONFLICT AND COOPERATION

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 20, 2011

To: President and Board of Directors
From: Susan Greer

TOPIC: DIRECTOR LUHRS INFORMATION REQUESTS

RECOMMENDATION: Receive oral report and determine whether staff should create requested information.

ANALYSIS: Director Luhrs has requested certain information as described on the attachment. Some of the information requested does not exist in the format requested. We have attempted to give him documents that already exist such as check registers back to 1/1/05 to provide the requested information without creating documents. We have already provided information on every item and believe only items number one and six remain unresolved. In some instances, much more information than Director Luhrs requested was provided, making it difficult and time-consuming for him to sort through.

The Board's policy, through its adopted "Best Practices" has been to provide Board members with documents that are required by law. If the information amounts to a few pages or is pertinent to issues under study, the documents are to be provided at no charge. If the documents are extensive and not relevant to current issues the request is considered to be made as a member of the public and a copy cost is charged. The Board policy further has been that if a Board member requests information, studies, or analysis that will take more than a short time to provide, the request is to be presented to the Board for approval. Generally, the Public Information Act and similar laws require the District to provide documents which exist, but do not require staff to create, compile, sort or analyze documents.

Director Luhrs has been provided with all existing documents related to his request as required by state or federal law, amounting to 853 pages. This has taken several days of staff time to go to the archives, search through boxes, pull the information, copy it, return original documents to the file, put the file in the box and return the box to storage.

Beyond this information already provided, staff has created the Director compensation information in the format requested by

Director Luhrs (#6 on list). This took approximately 10 more hours of staff time pulling records, analyzing information back to 1/1/05 and creating a spreadsheet. Per Director Luhrs instructions, he did not need information about payments to himself and Director Wilson so it is not included. The other Director compensation information is attached.

Director Luhrs is requesting a similar analysis of all consultants used since 1/1/05 (item #1). Staff estimates this will take substantially more staff time than the Director compensation request. This is due primarily to "consultant" not being a general ledger category that can be queried (unlike Director compensation above). Identifying the consultants will require review of more than 10,000 checks issued since 1/1/05. Some consultants are obvious, such as engineers, and have already been identified to me by Director Luhrs. Others are unknown to him and may have only been used a few times by the District. Since the period in question goes back to 1/1/05, I am the only staff member that could possibly attempt to identify the consultants by name. For records prior to 11/08, the old software provides limited information and boxes will have to be pulled and spreadsheets created. Reports are available from the current system for records dated 11/08 and after so additional spreadsheet work will be more limited Once we identify the consultants, we can print the reports that provide the detailed description of each check issued to the consultant. We will then manually add all of the separate payments for a particular task together. The system reports will also give Director Luhrs more than he is requesting (vendor and GL account numbers, etc.).

Based upon direction in the Board's Best Practices and advice of counsel, we are bringing this issue to the Board for a determination of whether staff should spend the time required to compile the requested information. More information will be presented in an oral report at the meeting.

Director Luhrs has also requested information about the costs associated with the recent Washington DC trip made by President Luckman and Manager Guzzetta. Those costs are outlined in a separate memo attached.

FISCAL IMPACT: Dependent upon Board decision and amount of staff time required.

Request from Dir Lukes at Director report.

1 **A list of all consultants used by the district since 01/01/05.**
What each consultant was used for.
How much they were paid in total for each.

2 **I want a copy of the General Manager's current contract and copies of all past contracts.**

3 **Total number of current employees.**
A list of all positions and the total number in each position.
I want the hourly rate and benefits for each position.

4 **Calpers**
What is the cost per year for the district in total?
What does it cost to pull out of the program?
How much will the General Manager receive when he retires?
What will the districts cost be for him and for how long?
How much is the district now indebted for and how long?

5 **I want to see the contract for the E & D booster station project.**
I want a list of all payments made to the contractor and when they were made.
I want a list of all consultants used on the project.
I want a list of all payments made to these consultants and when they were made and how much.

6 **I want a list of all payments made to current and past directors from 01/01/05 to present. It should be broken down to:**
- **a. Regular meetings**
- **b. Special meetings**
- **c. All other meetings and what the meeting was for.**
- **d. All reimbursements**
- **e. The dates of the above payments and when each meeting or reimbursable occurred.**

7 **I want a list of all reimbursements made to the General Manager since 01/01/05**
a What they were for.
b Billing date and amount.

8 **List all seminars, meeting or other events paid for by the district not covered by the above requests since 01/01/05. I will need a list of all costs and when the event occurred.**

Michael Luhrs

Director
Joshua Basin Water District

DIRECTOR COMPENSATION 1/1/05 TO PRESENT

Per Director Luhrs request, does not include Directors Luhrs or Wilson

FISCAL 04/05, BEGINNING 1/1/05

BILL LONG DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	JBWD Meeting Dates	Other/Reimbursement Description
1/11/05	35424	100.00	100.00				01/05/2005	
1/25/05	35489	100.00	100.00				01/19/2005	
2/8/05	35542	100.00	100.00				02/02/2005	
2/23/05	35606	100.00		100.00			02/09/2005	
3/9/05	35658	200.00	200.00				2/16, 3/2/05	
3/23/05	35725	100.00	100.00				03/16/2005	
4/21/05	35853	100.00	100.00				04/06/2005	
5/4/05	35926	100.00	100.00				04/20/2005	
5/31/05	36059	100.00	100.00				05/18/2005	
6/14/05	36126	100.00	100.00				06/01/2005	
6/30/05	36197	100.00	100.00				06/15/2005	
		1,200.00	1,100.00	100.00				
GARY LOVELACE								
1/11/05	35425	100.00	100.00				01/05/2005	
1/20/05	35490	100.00	100.00				01/19/2005	
2/8/05	35543	100.00	100.00				02/02/2005	
2/23/05	35607	100.00		100.00			02/09/2005	
3/9/05	35659	200.00	200.00				2/16, 3/2/05	
3/23/05	35726	100.00	100.00				03/16/2005	
4/6/05	35778	89.17				89.17		mileage, parking-legislative symp
4/21/05	35854	100.00	100.00				04/06/2005	
5/4/05	35927	100.00	100.00				04/20/2005	
5/31/05	36060	100.00	100.00				05/18/2005	
6/14/05	36127	100.00	100.00				06/01/2005	
6/30/05	36198	200.00	200.00				6/15/05 plus $50 bal from 6/1 meeting	
		1,389.17	1,200.00	100.00		89.17		
KARL WYNE								
1/11/05	35447	100.00	100.00				01/05/2005	
1/25/05	35514	100.00	100.00				01/19/2005	
2/8/05	35570	100.00	100.00				02/02/2005	
2/23/05	35631	100.00		100.00			02/09/2005	

3/9/05	35686	200.00	200.00				2/16, 3/2/05	
3/23/05	35756	100.00	100.00				03/16/2005	
4/21/05	35893	100.00	100.00				04/06/2005	
5/4/05	35952	100.00	100.00				04/20/2005	
5/18/05	35988	64.80				64.80		mileage to ASBCSD
5/31/05	36075	100.00	100.00				05/18/2005	
6/14/05	36161	100.00	100.00				06/01/2005	
6/30/05	36194	35.64				35.64		mileage to Desert Water Agency
6/30/05	36224	100.00	100.00				06/15/2005	
		1,300.44	1,100.00	100.00		100.44		

FISCAL 05/06

DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	JBWD Meeting Dates	Other/Reimbursement Description
GARY GIVEN								
No Director Compensation Paid								
BILL LONG								
7/13/05	36273	100.00	100.00				07/06/2005	
8/11/05	36389	100.00	100.00				08/04/2006	
9/20/05	36629	167.22	100.00			67.22	09/07/2005	mileage to TAC
10/19/05	36754	300.00	100.00		200.00		10/05/2005	"seminar"
11/2/05	36843	100.00	100.00				10/19/2005	
11/16/05	36906	100.00	100.00				11/02/2005	
12/1/05	36979	100.00	100.00				11/16/2005	
12/14/05	37046	150.00	150.00				12/07/2005	
12/28/05	37109	150.00		150.00			12/14/2005	
1/10/06	37160	150.00		150.00			12/28/2005	
1/25/06	37246	100.00	100.00				01/18/2006	
2/22/06	37391	189.97	125.00			64.97	02/15/2006	mileage to ASBCSD
3/23/06	37506	125.00	125.00				03/15/2006	
4/5/06	37582	250.00		125.00	125.00		03/29/2005	Ethics training
4/19/06	37672	125.00	125.00				04/05/2006	
5/3/06	37756	125.00	125.00				04/19/2006	
5/17/06	37822	182.41	125.00			57.41	05/03/2006	mileage to TAC
6/14/06	37952	125.00	125.00				06/07/2006	
6/28/06	38030	125.00	125.00				06/21/2006	
		2,764.60	1,825.00	425.00	325.00	189.60		

GARY LOVELACE

7/13/05	36274	150.00	150.00				07/06/2005	
8/11/05	36390	150.00	150.00				08/03/2005	
9/8/05	36571	71.28				71.28		mileage to meet w/ Gil Granito
9/20/05	36630	150.00	150.00				09/07/2005	
10/19/05	36755	553.31	150.00		300.00	103.31	10/05/2005	"seminar" & mileage
11/2/05	36844	150.00	150.00				10/19/2005	
11/16/05	36907	150.00	150.00				11/02/2005	
12/1/05	36980	217.90	150.00			67.90	11/16/2005	mileage MWA tour
12/14/05	37047	832.63	150.00		450.00	232.63	12/07/2005	ACWA conference & mileage & meals
12/28/05	37110	150.00		150.00			12/14/2005	
1/10/06	37161	150.00		150.00			12/28/2005	
1/25/06	37247	150.00	150.00				01/18/2006	
2/22/06	37392	473.80			300.00	173.80		SDI seminar & mileage & meals
3/23/06	37507	150.00	150.00				03/15/2006	
4/5/06	37583	351.62		150.00	150.00	51.62	03/29/2006	Ethics training & mileage
4/19/06	37673	150.00	150.00				04/05/2006	
5/3/06	37757	150.00	150.00				04/19/2006	
5/17/06	37823	356.96	150.00		150.00	56.96	05/03/2006	MWA & mileage
6/14/06	37953	150.00	150.00				06/07/2006	
6/28/06	38031	150.00	150.00				06/21/2006	
		4,807.50	2,250.00	450.00	1,350.00	757.50		

KARL WYNE

7/13/05	36287	100.00	100.00				07/06/2005	
8/11/05	36421	150.00	150.00				08/03/2005	
10/19/05	36793	450.00	150.00		300.00		10/05/2005	"seminar"
11/2/05	36840	150.00	150.00				10/19/2005	
11/16/05	36901	150.00	150.00				11/02/2005	
12/1/05	36999	224.69	150.00			74.69	11/16/2005	mileage ASBCSD
12/9/05	36950	33.00				33.00		ASBCSD expense
12/14/05	37079	150.00	150.00				12/07/2005	
12/28/05	37123	150.00		150.00			12/14/2005	
1/10/06	37188	150.00		150.00			12/28/2005	
1/25/06	37295	230.55	150.00			80.55	01/18/2006	mileage to ASBCSD
2/22/06	37429	198.51	150.00			48.51	02/15/2006	mileage to ASBCSD
3/23/06	37530	112.50	112.50				03/15/2006	
4/5/06	37632	225.00	112.50		112.50		03/29/2006	Ethics training
4/19/06	37709	123.85	112.50			11.35	04/05/2006	mileage to ethics
5/3/06	37790	112.50	112.50				04/19/2006	

5/17/06	37844	112.50	112.50				05/03/2006	
6/14/06	37990	150.00	150.00				06/07/2006	
6/28/06	38066	150.00	150.00				06/21/2006	
		3,123.10	2,162.50	300.00	412.50	248.10		

FISCAL 06/07

DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	JBWD Meeting Dates	Other/Reimbursement Description
GARY GIVEN								
No Director Compensation Paid								
BILL LONG								
7/12/06	38120	125.00	125.00				07/05/2006	
8/9/06	38249	125.00	125.00				08/02/2006	
8/23/06	38320	125.00	125.00				08/16/2006	
9/20/06	38475	250.00	125.00	125.00			9/6/06, 9/15/06	
9/29/06	38513	125.00	125.00				09/20/2006	
10/18/06	38632	125.00	125.00				10/04/2006	
10/31/06	38690	38.00				38.00		ASBCSD mileage
11/15/06	38780	125.00	125.00				11/01/2006	
11/29/06	38865	125.00	125.00				11/15/2006	
12/15/06	38936	250.00	125.00	125.00			12/6/06, 12/13/06	
12/31/06	39007	125.00		125.00			12/27/2006	
1/24/07	39133	300.00	150.00	150.00			1/10/07, 1/17/07	
2/7/07	39222	183.95		150.00		33.95	01/26/2007	water rights seminar mileage
2/21/07	39287	150.00	150.00				02/07/2007	
3/7/07	39367	300.00	150.00	150.00			2/21/07, 2/24/07	
3/20/07	39434	150.00		150.00			03/08/2007	
4/4/07	39501	150.00	150.00				03/21/2007	
4/18/07	39585	150.00	150.00				04/04/2007	
5/16/07	39723	150.00	150.00				05/02/2007	
5/30/07	39796	150.00	150.00				05/16/2007	
6/27/07	39956	150.00	150.00				06/20/2007	
		3,371.95	2,325.00	975.00		71.95		
GARY LOVELACE								
7/12/06	38121	150.00	150.00				07/05/2006	
7/26/06	38138	56.96				56.96		mileage to TAC
8/9/06	38250	150.00	150.00				08/02/2006	

9/20/06	38476	300.00	150.00	150.00			9/6/06, 9/15/06	
9/29/06	38514	150.00	150.00				09/20/2006	
10/4/06	38563	66.75				66.75		mileage to MWA
10/18/06	38634	150.00	150.00				10/04/2006	
11/15/06	38781	150.00	150.00				11/01/2006	
11/29/06	38866	150.00	150.00				11/15/2006	
							12/06/2006	
12/15/06	38937	376.54	150.00	150.00		76.54	12/13/2006	mileage to TAC
12/31/06	39008	150.00		150.00			12/27/2006	
1/24/07	39134	300.00	150.00	150.00			1/10/07, 1/17/07	
2/7/07	39223	150.00		150.00			01/26/2007	
2/21/07	39288	150.00	150.00				02/07/2007	
3/7/07	39368	300.00	150.00	150.00			2/21/07, 2/24/07	
3/20/07	39436	150.00		150.00			03/08/2007	
4/4/07	39502	300.00	150.00		150.00		03/21/2007	Pipeline Comm. Mtg.
4/18/07	39586	150.00	150.00				04/04/2007	
5/16/07	39725	150.00	150.00				05/02/2007	
5/30/07	39797	150.00	150.00				05/16/2007	
6/27/07	39958	300.00	150.00		150.00		06/20/2007	Pipeline Comm. Mtg.
		3,950.25	2,400.00	1,050.00	300.00	200.25		

KARL WYNE

7/12/06	38134	150.00	150.00				07/05/2006	
8/9/06	38285	150.00	150.00				08/02/2006	
8/23/06	38351	150.00	150.00				08/16/2006	
9/20/06	38505	370.31	150.00	150.00		70.31	9/6, 9/15/06	mileage to ASBCSD
9/29/06	38532	150.00	150.00				09/20/2006	
10/18/06	38662	150.00	150.00				10/04/2006	
10/31/06	38719	68.53				68.53		mileage to ASBCSD
11/15/06	38828	150.00	150.00				11/01/2006	
11/29/06	38892	150.00	150.00				11/15/2006	
12/15/06	38970	300.00	150.00	150.00			12/6/06, 12/13/06	
12/31/06	39046	150.00		150.00			12/27/2006	
1/24/07	39167	300.00	150.00	150.00			1/10/07, 1/17/07	
2/7/07	39254	150.00		150.00			01/26/2007	
2/21/07	39325	150.00	150.00				02/07/2007	
3/7/07	39394	300.00	150.00	150.00			2/21/07, 2/24/07	
3/20/07	39464	150.00		150.00			03/08/2007	
4/4/07	39534	150.00	150.00				03/21/2007	
4/18/07	39621	150.00	150.00				04/04/2007	
5/30/07	39824	150.00	150.00				05/16/2007	
		3,438.84	2,250.00	1,050.00	0.00	138.84		

FISCAL 07/08

DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	JBWD Meeting Dates	Other/Reimbursement Description
GARY GIVEN								
No Director Compensation Paid								
BILL LONG								
7/25/07	40087	150.00	150.00				07/18/2007	
8/8/07	40187	300.00	150.00	150.00			8/1/07, 8/6/07	
8/22/07	40251	228.38	150.00			78.38	08/15/2007	mileage to SB City Hall
9/25/07	40416	300.00	150.00	150.00			9/6/07, 9/19/07	
10/16/07	40505	150.00	150.00				10/03/2007	
10/30/07	40563	365.96	150.00		150.00	65.96	10/17/2007	ASBCSD Meeting & mileage
11/14/07	40650	150.00		150.00			11/01/2007	
11/28/07	40705	150.00		150.00			11/14/2007	
12/11/07	40779	450.00	150.00		300.00		12/05/2007	ACWA Conference
1/23/08	40967	150.00	150.00				01/16/2008	
2/21/08	41089	216.91			150.00	66.91		TAC meeting, mileage to ABC's of Water
3/19/08	41863	150.00	150.00				03/05/2008	
4/3/08	41941	150.00	150.00				04/02/2008	
5/15/08	42225	300.00	150.00	150.00			4/30, 5/7/08	
5/1/08	42179	229.29			150.00	79.29		State Water concerns & mileage
6/27/08	42482	150.00	150.00				06/18/2008	
		3,590.54	1,800.00	750.00	750.00	290.54		
GARY LOVELACE								
7/25/07	40090	150.00	150.00				07/18/2007	
8/8/07	40188	150.00		150.00			08/06/2007	
8/29/07	40283	228.38	150.00			78.38	08/15/2007	mileage to LAFCO
9/17/07	40379	150.00		150.00			09/06/2007	
9/25/07	40417	173.28	150.00			23.28	09/19/2007	Pipeline Commission Mileage
10/16/07	40506	150.00	150.00				10/03/2007	
10/30/07	40564	372.75	150.00		150.00	72.75	10/17/2007	ASBCSD & mileage
11/14/07	40651	150.00		150.00			11/01/2007	
11/28/07	40706	150.00		150.00			11/14/2007	
12/11/07	40780	568.34	150.00		300.00	118.34	12/05/2007	ACWA conference & mileage
12/26/07	40850	150.00			150.00			Pipeline Commission meeting
1/23/08	40968	150.00	150.00				01/16/2008	
2/7/08	41050	225.25			150.00	75.25		TAC meeting and mileage

3/19/08	41864	300.00	150.00		150.00		03/05/2008	Pipeline Commission Mtg
4/3/08	41942	364.14	150.00		150.00	64.14	04/02/2008	RWQCB meeting & mileage
4/17/08	42032	150.00			150.00			MWA Water Issues
5/15/08	42226	300.00	150.00	150.00			4/30/08, 5/7/08	
6/13/08	42408	372.22	150.00		150.00	72.22	06/04/2008	ABC's of Water & mileage
6/27/08	42483	674.90	150.00		300.00	224.90	06/18/2008	ASBCSD & mileage
								O'Reilly PR meeting & mileage
		4,929.26	1,800.00	750.00	1,650.00	729.26		

KARL WYNE

7/25/07	40131	150.00		150.00			07/18/2007
8/8/07	40215	300.00	150.00	150.00			8/1, 8/6/07
8/22/07	40277	150.00	150.00				08/15/2007
9/25/07	40433	300.00	150.00	150.00			9/6, 9/19/07
10/16/07	40528	150.00	150.00				10/03/2007
10/30/07	40596	150.00	150.00				10/17/2007
11/28/07	40735	150.00		150.00			11/14/2007
12/11/07	40817	150.00	150.00				12/05/2007
1/23/08	40998	150.00	150.00				01/16/2008
3/19/08	41890	150.00	150.00				03/05/2008
4/3/08	41965	150.00	150.00				04/02/2008
5/15/08	42248	300.00	150.00	150.00			4/30, 5/7/08
6/13/08	42442	150.00	150.00				06/04/2008
6/27/08	42512	150.00	150.00				06/18/2008
		2,550.00	1,800.00	750.00			

FISCAL 08/09

DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	
GARY GIVEN							
12/18/08	45189	173.63	173.63				12/10/2008
1/7/09	45308	173.63	173.63				01/07/2009
2/6/09	45414	173.63	173.63				02/04/2009
2/20/09	45496	173.63		173.63			02/11/2009
3/5/09	45596	173.63	173.63				03/04/2009
3/24/09	45663	173.63	173.63				03/18/2009
4/9/09	45743	173.63	173.63				04/01/2009
4/23/09	45797	173.63	173.63				04/15/2009
6/12/09	46036	173.63	173.63				06/03/2009
		1,562.67	1,389.04	173.63			

GARY LOVELACE								
7/11/08	42545	150.00		150.00			06/25/2008	
7/25/08	42620	150.00		150.00			07/16/2008	
8/8/08	42726	150.00	150.00				08/06/2008	
8/22/08	42805	277.34			150.00	127.34		SB Water Conf & mileage & parking
9/196/08	42933	150.00		150.00			09/10/2008	
10/17/08	43096	150.00	150.00				10/01/2008	
10/31/08	43165	450.00	150.00		300.00		10/15/2008	Water symposium, ASBCSD
11/14/08	45039	230.15			150.00	80.15		TAC and mileage
11/26/08	45102	150.00	150.00				11/19/2008	
		1,857.49	600.00	450.00	600.00	207.49		
BILL LONG								
7/11/08	42544	150.00		150.00			06/25/2008	
7/25/08	42619	150.00	150.00				07/16/2008	
8/8/08	42725	150.00	150.00				08/06/2008	
9/19/08	42932	150.00		150.00			09/10/2008	
10/17/08	43095	150.00	150.00				10/01/2008	
10/31/08	43163	150.00	150.00				10/15/2008	
11/14/08	45038	150.00	150.00				11/05/2008	
11/26/08	45101	150.00	150.00				11/19/2008	
12/17/08	45196	233.07		150.00		83.07	12/10/2008	TAC mileage
1/9/09	45309	150.00	150.00				01/07/2009	
2/6/09	45420	371.50	150.00		150.00	71.50	02/04/2009	TAC & mileage
2/20/09	45503	150.00		150.00			02/11/2009	
2/27/09	45525	71.50				71.50		MWA mileage
3/5/09	45597	173.63	173.63				03/04/2009	
3/24/09	45664	173.63	173.63				03/18/2009	
4/9/09	45745	173.63	173.63				04/01/2009	
4/23/09	45798	245.13	173.63			71.50	04/15/2009	MWA mileage
5/15/09	45933	173.63	173.63				05/06/2009	
6/12/09	46043	353.26	173.63		173.63	6.00	06/03/2009	Water Symposium & mileage
		3,468.98	2,241.78	600.00	323.63	303.57		
MICKEY LUCKMAN								
12/17/08	45197	914.42		173.63	512.63	228.16	12/10/2008	MWA, ACWA & mileage
1/9/09	45310	173.63	173.63				01/07/2009	
2/6/09	45421	173.63	173.63				02/04/2009	
2/20/09	45504	173.63		173.63			02/11/2009	

3/5/09	45598	1,041.78	173.63		868.15		03/04/2009	Governance & ACWA
3/20/09	45628	162.74				162.74		Governance seminar expenses
3/24/09	45665	347.26	173.63		173.63		03/18/2009	ASBCSD meeting
4/9/09	45746	173.63	173.63				04/01/2009	
4/23/09	45799	173.63	173.63				04/15/2009	
5/15/09	45934	173.63	173.63				05/06/2009	
6/12/09	46044	1,916.18	173.63		694.52	1,048.03	06/03/2009	JPIA/ACWA conference & expense.
6/30/09	46185	1,279.93			520.89	759.04		SD Admin conference + expense
								ASBCSD meeting
		6,704.09	1,389.04	347.26	2,769.82	2,197.97		
MIKE REYNOLDS								
12/17/08	45206	740.79		173.63	339.00	228.16	12/10/2008	MWA,ACWA & mileage
1/9/09	45311	173.63	173.63				01/07/2009	
2/6/09	45430	173.63	173.63				02/04/2009	
2/20/09	45508	1,021.05		173.63	694.52	152.90	02/11/2009	JT Chamber, JT MAC, MWA
								ABC's of Water & mileage
	45599	423.71	173.63		173.63	76.45	03/04/2009	MWA & mileage
3/5/09	45601	173.63			173.63			HDWD meeting
3/24/09	45666	820.25	173.63		520.89	125.73	03/18/2009	Pipeline Commission, MWA,
								ASBCSD & mileage
4/9/09	45749	173.63	173.63				04/01/2009	
5/15/09	45944	173.63	173.63				05/06/2009	
5/21/09	45971	694.91			520.89	174.02		MWA x 2, Basinwide & mileage
6/12/09	46051	173.63	173.63				06/03/2009	
6/12/09	46105	1,163.27			868.15	295.12		ACWA conf & exp, MWA & mil.
		5,905.76	1,215.41	347.26	3,290.71	1,052.38		
KARL WYNE								
7/11/08	42561	150.00		150.00			06/25/2008	
7/25/08	42634	150.00	150.00				07/16/2008	
8/8/08	42751	150.00	150.00				08/06/2008	
9/19/08	42966	150.00		150.00			09/10/2008	
10/17/08	43121	150.00	150.00				10/01/2008	
10/31/08	43182	150.00	150.00				10/15/2008	
11/14/08	45059	150.00	150.00				11/05/2008	
11/26/08	45117	150.00	150.00				11/19/2008	
		1,200.00	900.00	300.00				

FISCAL 09/10

DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	JBWD Meeting Dates	Other/Reimbursement Description
GARY GIVEN								
7/24/09	46301	173.63	173.63				07/15/2009	
8/13/09	46433	173.63	173.63				08/05/2009	
8/21/09	46459	173.63		173.63			08/19/2009	
9/24/09	46633	173.63	173.63				09/16/2009	
10/2/09	46681	173.63		173.63			09/23/2009	
10/16/09	46760	173.63	173.63				10/07/2009	
10/30/09	46843	173.63	173.63				10/21/2009	
11/25/09	46994	173.63	173.63				11/18/2009	
12/11/09	47049	173.63		173.63			12/09/2009	
2/11/10	47395	173.63	173.63				02/03/2010	
2/19/10	47475	173.63	173.63				02/17/2010	
3/11/10	47563	173.63	173.63				03/03/2010	
4/2/10	47649	173.63		173.63			03/24/2010	
		2,257.19	1,562.67	694.52				
BILL LONG								
7/24/09	46306	173.63	173.63				07/15/2009	
7/30/09	46387	245.68			173.63	72.05		MWA & mileage
8/13/09	46436	173.63	173.63				08/05/2009	
8/21/09	46464	173.63		173.63			08/19/2009	
9/18/09	46611	280.63			173.63	107.00		Water Conference & parking & mileage
9/24/09	46635	173.63	173.63				09/16/2009	
10/2/09	46687	173.63		173.63			09/23/2009	
10/16/09	46765	173.63	173.63				10/07/2009	
10/30/09	46848	173.63	173.63				10/21/2009	
11/6/09	46878	72.05				72.05		MWA mileage
11/25/09	46996	173.63	173.63				11/18/2009	
12/11/09	47056	245.68		173.63		72.05	12/09/2009	Pipeline Commission mileage
2/11/10	47398	416.76	173.63		173.63	69.50	02/03/2010	MWA & mileage
2/19/10	47476	173.63	173.63				02/17/2010	
3/11/10	47566	416.76	173.63	173.63		69.50	2/19,3/3/10	MWA mileage
4/2/10	47652	173.63		173.63			03/24/2010	
4/16/10	47764	173.63	173.63				04/07/2010	
5/20/10	47959	69.50				69.50		MWA mileage
5/14/10	47938	173.63		173.63			05/11/2010	
5/28/10	47997	173.63	173.63				05/19/2010	

6/3/10	48041	69.50				69.50		MWA mileage
6/17/10	48102	173.63		173.63			06/09/2010	
		4,247.38	1,909.93	1,215.41	520.89	601.15		
MICKEY LUCKMAN								
7/24/09	46307	173.63	173.63				07/15/2009	
8/13/09	46437	173.63	173.63				08/05/2009	
8/21/09	46465	173.63		173.63			08/19/2009	
9/24/09	46636	173.63	173.63				09/16/2009	
10/2/09	46688	173.63		173.63			09/23/2009	
10/16/09	46766	444.61	173.63		173.63	97.35	10/07/2009	ASBCSD & mileage
10/30/09	46849	368.26	173.63		173.63	21.00	10/21/2009	ASBCSD mtg & dinner
11/20/09	46976	547.46			347.26	200.20		SDI Finance Seminar & mileage & Parking
11/25/09	46997	173.63	173.63				11/18/2009	
12/11/09	47057	1,168.09		173.63	694.52	299.94	12/08/2009	ACWA conference & mileage & expenses
2/5/10	47361	173.63		173.63			12/09/2009	
2/11/10	47399	375.63	173.63			202.00	02/03/2010	ASBCSD/SCAG/TAC mileage
2/19/10	47477	228.63	173.63			55.00	02/17/2010	MWA mileage
3/5/10	47512	347.26		347.26			2/18, 2/19/10	
3/11/10	47567	173.63	173.63				03/03/2010	
4/2/10	47653	2,173.12		173.63	520.89	1,478.60	03/24/2010	MWA/ASBCSD mileage, Washington DC & mileage & airfare & expenses
4/16/10	47765	239.63	173.63			66.00	04/07/2010	ASBCSD dinner reimb (2 months)
5/14/10	47939	173.63		173.63			05/11/2010	
5/20/10	47960	1,210.85			694.52	516.33		JPIA/ACWA conference & mileage & expenses
5/28/10	47998	173.63	173.63				05/19/2010	
6/17/10	48103	452.63		173.63		279.00	06/09/2010	MWA (2), TAC and Bureau of Recl mileage
6/25/10	48158	195.00				195.00		MWA and TAC mileage
		9,487.47	1,909.93	1,562.67	2,604.45	3,410.42		
MIKE REYNOLDS								
7/24/09	46316	173.63	173.63				07/15/2009	
8/13/09	46441	173.63	173.63				08/05/2009	
8/21/09	46472	173.63		173.63			08/19/2009	
8/28/09	46503	1,300.62			694.52	606.10		Water Conf & mileage/SDBMI training & mileage
9/24/09	46638	173.63	173.63				09/16/2009	
10/2/09	46697	173.63		173.63			09/23/2009	
10/16/09	46778	173.63	173.63				10/07/2009	
10/30/09	46854	173.63	173.63				10/21/2009	
11/25/09	46998	173.63	173.63				11/18/2009	
12/11/09	47069	2,678.69		347.26	1,736.30	595.13	12/08/2010	Meet w/ Teserra, shop pipeline meeting, ABC's &

							12/09/2010	mileage, YV Meet the Town, MWA BoD & mileage, ASBCSD, SDBMI training & mileage, ACWA conference & mileage & expenses
2/11/10	47403	173.63	173.63				02/03/2010	
2/19/10	47478	173.63	173.63				02/17/2010	
2/25/10	47488	347.26		347.26			2/18, 2/19/10	
4/16/10	47773	173.63	173.63				04/07/2010	
4/30/10	47866	859.72			694.52	165.20		JBWD PI Comm, MWA & mileage, Demo Garden Grand Opening, ASBCSD meeting & mileage
5/14/10	47945	173.63		173.63			05/11/2010	
5/28/10	48006	1,874.43	173.63		1,041.78	659.02	05/19/2010	ACWA conf & mileage & exp, ASBCSD & mileage, Morongo Basin ABC's of Water
6/17/10	48107	173.63		173.63			06/09/2010	
		9,317.91	1,736.30	1,389.04	4,167.12	2,025.45		
STEVEN WHITMAN								
6/17/10	48114	173.63		173.63			06/09/2010	ONE PAYMENT ONLY

FISCAL 10/11

DATE	CK #	AMOUNT	JBWD Regular	JBWD Special	Other Meetings	Reimb	JBWD Meeting Dates	Other/Reimbursement Description
BILL LONG								
7/9/10	48200	173.63		173.63			06/30/2010	
7/15/10	48257	173.63	173.63				07/07/2010	
7/29/10	48354	69.50				69.50		MWA mileage
8/12/10	48435	173.63	173.63				08/04/2010	
9/2/10	48529	8.00				8.00		Water Conf parking
9/2/10	48512	267.88			173.63	94.25		Water conf & mileage
9/9/10	48535	173.63	173.63				09/01/2010	
9/23/10	48637	173.63	173.63				09/15/2010	
10/29/10	48809	173.63	173.63				10/20/2010	
10/7/10	48691	173.63	173.63				10/06/2010	
11/12/10	48881	347.26	173.63	173.63			10/29, 11/3/10	
11/18/10	48906	243.13			173.63	69.50		MWA & mileage
11/24/10	48952	173.63	173.63				11/17/2010	
12/23/10	49085	173.63	173.63				12/15/2010	
2/4/11	Payroll	418.15	347.26			70.89	1/5,1/19/11	MWA mileage

2/18/11	Payroll	173.63	173.63				02/02/2011	
3/4/11	Payroll	70.89				70.89		MWA mileage
		3,161.11	2,083.56	347.26	347.26	383.03		
MICKEY LUCKMAN								
7/9/10	48201	238.63		173.63		65.00	06/30/2010	MWA mileage
7/15/10	48258	238.63	173.63			65.00	07/07/2010	TAC mileage
7/29/10	48355	75.50				75.50		ACWA mileage
8/12/10	48437	238.63	173.63			65.00	08/04/2010	TAC mileage
8/20/10	48462	173.63			173.63			Water symposium
9/9/10	48536	173.63	173.63				09/01/2010	
9/23/10	48639	251.63	173.63			78.00	09/15/2010	ASBCSD mileage
10/15/10	48740	245.63	173.63			72.00	10/06/2010	LAFCO retirement mileage
10/29/10	48810	267.13	173.63			93.50	10/20/2010	ASBCSD mileage
11/2/10	48840	238.63		173.63		65.00	10/29/2010	MWA mileage
11/12/10	48883	173.63	173.63				11/03/2010	
11/24/10	48953	173.63	173.63				11/17/2010	
12/10/10	49012	907.52			694.52	213.00		ACWA conference & mileage & park
12/16/10	49051	131.40				131.40		MWA BoD, TAC, Pipeline Comm. Mileage
12/23/10	49086	413.26	173.63		173.63	66.00	12/15/2010	MWA ethics & mileage
2/4/11	Payroll	423.76	347.26			76.50	1/5,1/19/11	LAFCO mileage
2/18/11	Payroll	173.63	173.63				02/02/2011	
3/4/11	Payroll	173.63	173.63				02/16/2011	
3/18/11	Payroll	734.86			520.89	213.97		Wash DC & mileage & exp, MWA mileage
		5,446.99	2,257.19	347.26	1,562.67	1,279.87		
MIKE REYNOLDS								
7/9/10	48210	1,167.78		173.63	868.15	126.00	06/30/2010	4 JBWD finance mtgs, ASBCSD mtg &mileage &dinner
7/15/10	48261	173.63	173.63				07/07/2010	
8/12/10	48440	776.52	173.63	173.63	347.26	82.00	8/4,8/9/10	ASBCSD, MWA & mileage
8/20/10	48471	266.13			173.63	92.50		Water conference & mileage
9/9/10	48539	173.63	173.63				09/01/2010	
9/23/10	48642	173.63	173.63				09/15/2010	
10/7/10	48695	173.63	173.63				10/06/2010	
10/29/10	48818	173.63	173.63				10/20/2010	
11/12/10	48888	1,295.05	173.63	173.63	694.52	253.27	10/29/2010	LAFCO retirement & mileage, MWA-mileage &
							11/03/2010	exp, ASBCSD & mileage, MB ABC's of Water
11/24/10	48956	173.63	173.63				11/17/2010	
12/16/10	49060	529.86			347.26	182.60		ASBCSD (2) & mileage
12/23/10	49090	173.63	173.63				12/15/2010	
2/4/11	Payroll	347.26	347.26				1/5/11, 1/19/11	

2/18/11	Payroll	1,495.18	173.63		868.15	453.40	02/02/2011	ACWA conf x 2 & mileage, Ethics, ASBCSD x 2 &
		7,093.19	2,083.56	520.89	3,298.97	1,189.77		mileage, MWA & mileage
STEVEN WHITMAN								
7/9/10	48222	173.63		173.63			06/30/2010	
7/15/10	48263	173.63	173.63				07/07/2010	
8/12/10	48443	173.63	173.63				08/04/2010	
8/26/10	48499	670.89		173.63	347.26	150.00	08/09/2010	MWA & mileage, Water conference & mileage
9/9/10	48542	173.63	173.63				09/01/2010	
9/23/10	48648	173.63	173.63				09/15/2010	
10/7/10	48701	173.63	173.63				10/06/2010	
10/29/10	48827	1,275.41	173.63		1,041.78	60.00	10/20/2010	4 JBWD finance mtgs, MWA & mileage, HDMC hospital contract meeting
11/12/10	48892	347.26		173.63	173.63		10/29, 11/3/10	
11/24/10	48962	407.26	173.63		173.63	60.00	11/07/2010	MWA & mileage
		3,742.60	1,215.41	520.89	1,736.30	270.00		

JOSHUA BASIN WATER DISTRICT

To: Board of Directors

cc: Joe Guzzetta

From: Susan Greer

Date: April 14, 2011

Re: Costs related to Washington DC Trip

Costs related to the Washington DC trip made by President Luckman and Manager Guzzetta are indicated below:

Description	Amount	Comments
Airfare	$1,901.60	See note below
Baggage	75.00	
Food	185.35	
Lodging	1,369.44	
Mileage & Parking	121.65	
Luckman-Director Comp.	520.89	
TOTAL	$4,173.93	

Note: In addition to the costs above, changes to the return tickets resulted in additional charges of $1,081.60. A credit is being pursued. If unsuccessful, Manager Guzzetta and President Luckman have agreed to reimburse the District this cost.

Project Priority List

PROJECTS NEARING COMPLETION

Personnel Policy Manual (Joe Guzzetta)
This will be considered during labor negotiations this year.

PROJECTS UNDERWAY

Election to Charge Private Wells for Replacement Water
Attorney is reviewing election options.
Update Urban Water Management Plan (Joe Guzzetta – Year 1)
Contract was awarded to Kennedy Jenks at the August 4th 2010 Board meeting. State law requires this update to be completed by July 1, 2011. Three chapters have been drafted.
Property Acquisition for Future Water Facilities (Joe Guzzetta – Year 1)
The Master Plan identifies 27 to 37 million gallons of additional reservoir storage that will be needed to operate the District in the future. Staff proposes to begin acquiring the land before the most ideal parcels are developed, especially for reservoirs which are constrained by altitude, proximity to the existing system, and other considerations. Potential sites are under evaluation. . The Board's next agenda will have a proposed contract with our property consultants, CE Prime, to provide services to acquire the proposed parcels.
Recharge Basin & Pipeline Project (Joe Guzzetta)
Property has been purchased. Monitoring well has been installed. Final design contract was awarded to Krieger & Stewart Engineers at August 4th Board meeting and is 40% complete. Construction is contingent on Proposition 84 and other funding.
Final Phase of 4" Pipe Replacement (Director Luhrs, Director Wilson, Joe Guzzetta)
Priorities have been established. 15,000' of pipeline has been designed with 60,000' yet to be designed. Completion design and construction of this project is pending a financial strategy to be considered by the Board. Referred to Board Committee (Luhrs/Wilson) at the January 19, 2011 Regular Board Meeting.
Record Archival System (Susan Greer – Year 1)
Staff had second presentation. This will eventually enable the District to maintain more electronic files for easier access and less physical storage.
Hauling Station Coin/Card Reader – Under Study (Jim Corbin – Year 1)
Staff is considering a system to enable selling of water at the hauling station.

PROJECTS COMPLETED

Field Laptop Computers (Keith Faul – Year 1)
Laptops are installed
Well #16 (Randy Little)
The well has been completed and is permitted by Department of Health Services.
Hot Master + Backup Computer – SCADA (Randy Little – Year 1)
Complete. This computer provides backup to the Telemetry System.
LAFCO Mandatory Municipal Services Review (Joe Guzzetta – Year 1)
State law requires LAFCO to conduct a review of each agency's boundaries and services (at agency cost) to determine the appropriateness and to recommend any changes. LAFCO will conduct a hearing on January 19.

PROJECTS NOT BEGUN: YEAR 1

Develop/Update Board Policies and Procedures (Susan Greer)

Update 3030 Plan (Joe Guzzetta)
Staff intends to solicit proposals for this project.
Fire Cabinet for Maps (Keith Faul – Year 1)
Custom Software Programming (Susan Greer/Keith Faul – Year 1)
Adds lacking features to the District's main software program, such as reports or functions, and specific items not yet identified.
Conduct Fee Study/Update Rate Study (Susan Greer – Year 1)
Miscellaneous fees are being developed based upon resources used; staff, vehicle, equipment, etc.
A rate study update will determine what rate changes are needed in the next several years to maintain services. A proposal is under consideration by the Board.
GIS Server for Field Login (Keith Faul – Year 1)
Field crew will receive laptop computers to be used in the field for more accuracy and efficiency. This server is needed in order to connect to the GIS system.
Storage Bays for Rock, Sand, Asphalt (Jim Corbin – Year 1)
This will allow for more orderly storage of rock, sand, and asphalt which are used regularly in normal district operations.
Pressure Reducing Station Replace/Refurbishment (Randy Little – Years 1-2)
Assess and overhaul or replace PRV/PSV/Altitude valve over a three year period. Twelve in use, one completed.

PROJECTS NOT BEGUN: YEAR 2

Carpet for Office (Terry Spurrier – Year 2)
D31 New Booster Pumps and Housing (Randy Little – Year 2)
The pumps at this booster station operate at a low efficiency rate such that it is timely to replace them.
Chlorine Analyzers With Telemetry Programming (Randy Little – Year 2)
Install analyzers to monitor chlorine residual at up to four remote sites.
***Flow Meter* Refurbishment** (Randy Little – Year 2)
Four remaining flow meters (2 this year) with digital displays and telemetry plus DTS programming.
Asphalt Installation Equipment – Under Study (Jim Corbin – Year 2)
Pipe Holder (Jim Corbin – Year 2)
The District stores small amounts of plastic pipe for repairs. There is nowhere out of the sun to do so. Over time the pipe can deteriorate when exposed to the sun. This will provide shade.
Altitude Valves at C2B, SCADA Electric Controls C1 and C3 Tanks (Randy Little – Year 2)
These valves will prevent the overflowing of the C Zone tanks.
Space Needs Assessment for Office Building Addition (Joe Guzzetta – Year 2 (per Board deferral)
A needs assessment will determine how much space the District needs for an Emergency Operations Center in order to apply for grant construction funds. This item was discussed at the August 4, 2010 Board meeting, and deferred.
Relocate C2 Tank & J Booster (Randy Little – Years 2-3)
This project has been designed and would relocate a 500,000 gallon tank from the C Zone where it is no longer needed to the H Zone where it is severely needed. The project was deferred pending funding.
System Reliability Upgrade for Hospital and County Complex; C, B and D3 zones (Jim Corbin – Years 2-3)
This entire area has one single water supply feed. It does not have a redundant water supply for emergency situations. Staff has proposed a secondary "emergency" source.

PROJECTS NOT BEGUN: YEAR 3

Security (Motion Sensors) at Shop and Well 10 (Randy Little – Year 3)
This would provide security to an expanded area at the shop.

EMERGENCY PREPAREDNESS PROJECTS: (Postponed to determine funding potential)

Well 10 and 14 Soft Start Bypass – Generator Controls (Randy Little – Year 1)
The new 600 KW generators need this equipment in order to operate properly at the two largest producing wells.

Earthquake Shutoff Valves for Three Tanks (Randy Little – Year 1)
Currently, if a pipe from a reservoir is broken the entire reservoir can be drained unless a valve is manually located and shut off. This will provide automatic shutoff in case of earthquake to the two major C tanks and the B tank serving the hospital.

Transfer Switches at Remaining Booster Sites (Randy Little – Year 1)
The switches are needed in order to be able to use the emergency generators at the pump stations.

Large Meter Bypasses (Jim Corbin – Year 1)
Currently, in order to test or remove a large meter, the service needs to be disconnected. This is a serious problem for some large meters such as the hospital. The bypass will allow the meter to be removed and replaced without discontinuing service.

Emergency Supplies (Rick Cook – Years 1-2)
These include food, water, cots, etc. for serious emergencies for employees.

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 20, 2011

Report to: Members of the Board
From: Mickey Luckman, Board President

TOPIC: REIMBURSED EXPENSES FOR BOARD MEMBERS

RECOMMENDATION: That the Board direct staff to propose revisions of the Administrative Code to designate specific conferences or meetings that qualify for daily pay and reimbursement of expenses

ANALYSIS: Article 2 of the Administrative Code identifies the ***types*** of activities that qualify for reimbursement of expenses by board members. It does not name the specific meetings, conferences, or activities that qualify for reimbursement. Since many other agencies state the specific activities that qualify for reimbursement, this has led to some confusion as to when JBWD directors can be reimbursed.

I'm proposing that the Administrative Code be amended to require the board to establish a list of specific meetings, conferences, or other activities that will be eligible for reimbursement without further board authorization. Activities not on the list would have to be authorized by the board either before the activity occurs or at a board meeting following the activity.

Although legal counsel has confirmed that the existing Code meets the requirements of state law, he agrees that specifying the activities would be preferable since many other agencies do so.

It is proposed that staff prepare a new administrative code provision, survey other local agencies to consider the types of events typically reimbursed, and bring back a potential list for the board.

Approval of this action will result in a clearer definition of the board activities that qualify for reimbursement of expenses.

JOSHUA BASIN WATER DISTRICT
SUPPLEMENTAL DATA SHEET

Regular Meeting of the Board of Directors April 20, 2011

Report to: President and Members of the Board
From: Joe Guzzetta, General Manager

TOPIC: ACQUISITION OF PROPERTIES FOR FUTURE RESERVOIR SITES

RECOMMENDATION: That the Board confirm its goal of acquiring properties for future reservoir sites and authorize staff to retain CE Prime Inc at a cost not to exceed $80,075 or $11,055 per site.

ANALYSIS: One of the Board's goals is to acquire additional reservoir sites that will be needed for the future long term. Reservoir sites must be at specific elevations and specific geographic areas of the District in order to address the needs of the 17 hydrologic elevation zones. Acquiring them during this economy and before they are developed will keep the cost to a minimum.

CE Prime Inc, the District's real property services consultants, was asked to provide a cost that includes all services including initial contact, basic appraisal, basic survey, escrow, title, and other related fees, excluding costs of eminent domain if that were to be necessary. CE Prime has provided a cost of $11,055 per parcel not to exceed $80,075 for the nine parcels identified by the District. Two of the parcels are "alternate parcels" which will not require all of the work.

This assumes that the parcels can be acquired without using eminent domain (condemnation) authority. Cost of acquisition under eminent domain would be far greater. This also assumes that the basic surveys and appraisals will suffice. If more extensive work is required by the District then costs could increase, but that would be due to unusual, unanticipated circumstances.

The proposed parcels will be presented at the Board meeting in closed session. They were determined by Dudek Engineering through a comprehensive analysis.

Approval of this work will continue the Board's goal of acquiring strategic parcels that will be needed in the future.

March 24, 2011

Mr. Joe Guzzetta, General Manager
Joshua Basin Water District
61750 Chollita Road
P.O. Box 675
Joshua Tree, CA 92252

Re: Right of Way Acquisition Services for the Reservoir Sites

Dear Mr. Guzzetta:

CE Prime is prepared to provide land acquisition services for the nine properties listed in the 2009 Reservoir Property Acquisition Survey Report completed for Joshua Basin Water District (JBWD) by Dudek and from the findings from our recent discussions with you and your staff regarding the same properties located in Joshua Tree, California. Our approach to the project, acquisition plan, schedule and cost summary are as follows:

Project Approach

CE Prime understands that JBWD has a need to increase reservoir capacity within various pressure zones throughout the District. Although building has slowed due to the current economic conditions, it makes strategic sense for JBWD to purchase properties now needed for future capacity while property values are low.

Our approach to this acquisition is based on the CE Prime team's familiarity with the requirements of this project and a thorough process that has been applied on numerous acquisitions. This approach will be governed by our Right-of-Way Acquisition Plan. This plan will guide the CE Prime team and JBWD through the various phases of the acquisition process. The plan will be a foundation for negotiations, property owner coordination, preparing information letters and offer letters, and issuing certifications. This approach contains a clear process for maintaining records of negotiations and all acquisition activities will be documented and contained in a monthly report. This report will be delivered to JBWD to keep them informed of the status of the process.

Right of Way Acquisition Plan

The following plan makes the assumption that condemnation will not be required for any of the properties. JBWD does have the power of eminent domain and could use it on this project. If all other avenues of approach to acquiring any parcel are exhausted and unsuccessful, we will discuss with JBWD the potential for using condemnation law and detail a plan to move forward.

Task 1 – Research

We must verify the exact ownership of the properties in question. Information already gathered indicates private ownership for most of the properties. CE Prime will verify all research done to date to assure accurate ownership information and attain an accurate history of the property rights in order to have complete information for use during the acquisition process.

Task 2 – Initial Interviews

CE Prime will provide a Letter of Introduction to each property owner. The letter will come from JBWD and let the owners know that Mr. Joe Currie with CE Prime is speaking on their behalf. We will then set up individual meetings to discuss the acquisition and land rights issues with the owners. The quickest and most efficient way to handle the land transfer is to have the owners agree to the acquisition through negotiated settlement.

The CE Prime team will then conduct an on-site inspection of the subject properties with the Appraiser. It is understood that the first option is to acquire the land through negotiation providing fair market value for each property. However, it is wise to have a current appraisal completed in case there is legal action by any party. Having an appraisal also gives an indication of what value the property has to all parties.

Mr. Currie will be responsible for answering all questions and will provide written material. He will also leave names and telephone numbers of contact personnel available to the owners for future questions and discussions.

Task 3 – Appraisals/Just Compensation Review

CE Prime will instigate the appraisals required for the proposed land acquisition. CE Prime will utilize the services of Ted Hendrickson Appraisal Company, Inc.

In order to properly value the properties the following steps will be completed as part of the appraisal process: send a letter from the appraiser to the property owners and inspect the properties as they choose to meet with the appraiser; research and develop an opinion of each property's highest and best private use as though vacant and available for development for each property; research market data that is consistent with a conclusion on highest and best use; after confirming the transaction details of the comparable sales with buyers, sellers, and brokers, value the properties based on their value as potential building sites for typical buyer/owners.

Task 4 –Survey Work

CE Prime will coordinate and manage the survey work performed by Right of Way Engineering, Inc. Our in-house staff will be utilized for the maintaining control over the schedule, and to ensure quality control. CE Prime will provide land research, written legal descriptions of the acquired land, and maps locating the properties. The plats, legal descriptions and dedication will be signed and stamped by our survey consultant.

There are a couple of options regarding survey that should be discussed. In order to simply purchase the properties in this area, it is important to understand exactly where they are located. Initial research has indicated that these properties have few, if any, field monuments accurately locating property corners. However, it is possible using research techniques to assure the properties are very close to the assumed locations. This method would save the cost of an initial field survey and prevent duplicate field work once the project sites are developed

and exact boundaries located and marked. Our estimate allows for the project sites to be located to an acceptable accuracy without the cost of field work.

Task 5 – Escrow and Title Insurance

Escrow services and title insurance will be provided by Lawyer's Title, Inc. We have history with this company and have experienced a high attention to detail and schedule and believe JBWD will be best served by using Lawyer's Title, Inc. for this project. Final title insurance is based upon property value. An estimate of $1000 for each property has been used and could changed based on value.

Task 6 – Dedication Documents

Using the information gathered from the appraisals and legal descriptions, and based on the agreements with the owners, Grant Deed documents will be generated by CE Prime for review by the participants. A Final Draft will then be prepared for signatures and notarized. Each property will be a separate record document and be transferred. The time required to obtain signatures will depend on this agreement, but should take no longer than 60 days. As signatures are obtained, the documents will be submitted to you for acceptance. The documents will then be returned to CE Prime with any disbursements needed for recordation, and then forwarded to Title/Escrow for closing and Title Policies.

Coordination with JBWD will occur at least on a monthly basis, providing written and verbal information in regular updates. Milestone approvals and critical decisions will be decided with your input at special meetings. Managing these separate activities will keep the project schedule at the top of the priority list.

Schedule

CE Prime is prepared to begin work immediately upon receipt of the notice to proceed and we have the staff immediately available to commit to this project. For illustration purposes, we have assumed that we will receive the notice to proceed by April 18, 2011. CE Prime commits to meeting the schedule outlined in *Table 1*, provided that the owners are agreeable to the meetings and able to meet within the scheduled timeframe.

TABLE 1. PRELIMINARY SCHEDULE

Task	Date
CE Prime receives signed contract/Notice to Proceed	April 18, 2011
Letter of Introduction sent	April 21, 2011
CE Prime to schedule meetings with owners	May 2, 2011 – May 20, 2011
Survey	May 30, 2011 – June 24, 2011
Appraisal	July 1, 2011 – August 31, 2011
Offer letters and follow up meetings with property owners	September 8, 2011 – September 22, 2011
Escrow and final recording procedures	September 29, 2011 - October 27, 2011

Cost Summary

All work will be billed on a time-and-materials basis in accordance with our 2011 Standard Schedule of Charges, a copy of which is attached to this proposal. The CE Prime 2011 Standard Schedule of Charges will remain in effect for the entire duration of the project as described above. Direct costs are billed as a straight through cost with no markup. Mileage will be charged once staff are within the JBWD service boundaries.

The following costs are per parcel with the total for all work at the end of the section.

Acquisition Negotiations and Coordination	$5,265
Survey	$1,440
Appraisal	$2,800
Title, Escrow and Insurance	$1,550
Total per parcel	$11,055

It is assumed that survey, appraisal and at least half of the acquisition time will be required for the nine parcels to allow for the potential of utilizing the two alternate sites. These two parcels will not require the title/escrow services. The time required could be less and the fee shown is a not-to-exceed maximum. Final fees will be dependant on services required to attain the goal of acquiring seven parcels.

Not-to-Exceed Fee for Acquisition Services **$80,075**

Project Management

Mr. Joe Currie will serve as the land agent and project manager for the project, responsible for completing the acquisition services and contact with all owners. Mr. Fred Clark will serve as Project Principal, and as such will provide overall Quality Assurance and Control. CE Prime looks forward to your favorable review of our proposed work plan, schedule, and cost. If any questions should arise during review of this scope of work, please do not hesitate to contact me at 760.710.7528 or joe.currie@ceprimeinc.com.

Sincerely,
CE Prime, Inc.

Joe Currie
Supervisor, Real Property Services

Encl.: 2011 Standard Schedule of Charges

cc: Fred Clark, General Manager, CE Prime

2011 RATES for

REAL PROPERTY SERVICES / UTILITY COORDINATION

CALIFORNIA FEE SCHEDULE

Effective July 1, 2010

Real Property Services

Manager, Real Property Services	150.00
Senior Right of Way Agent	135.00
Right of Way Agent	125.00
Project Coordinator	110.00

Expert witness investigation and court preparation time will be charged at twice the rate listed.

Travel mileage is charged at $.55 per mile, or current IRS Standard Mileage Rate, from JBWD service boundaries.