



AGENDA

MEETING OF THE BOARD OF DIRECTORS

**WEDNESDAY, APRIL 20, 2016
10:00 A.M.**

**INLAND EMPIRE UTILITIES AGENCY*
AGENCY HEADQUARTERS
6075 KIMBALL AVENUE, BUILDING A
CHINO, CALIFORNIA 91708**

CALL TO ORDER OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS MEETING

FLAG SALUTE

PUBLIC COMMENT

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to complete and submit to the Board Secretary a "Request to Speak" form which are available on the table in the Board Room. Comments will be limited to five minutes per speaker. Thank you.

ADDITIONS TO THE AGENDA

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

NEW HIRE INTRODUCTIONS

- Mr. Christopher Stull, Compost Worker, hired on 3/15/2016 (Jeff King)
- Mr. Jerry Jahn, Wastewater Treatment Plant Operator in Training, hired on 3/21/2016 (Chander Letulle)
- Mr. Andrew Nieto, Wastewater Treatment Plant Operator in Training, hired on 1/31/2016 (Matthew Melendrez)
- Mr. Michael Gallagher, Controls Systems Analyst, hired on 3/28/2016 (David Malm)
- Mr. Gary Te, GIS Specialist, hired on 3/27/2016 (Kanes Pantayatiwong)
- Ms. Sally Lee, Administrative Secretary, hired on 3/31/2016 (April Woodruff)

- Ms. Shaneka Morris, Contracts Administrator II, hired on 4/4/2016 (Warren Green)
- Ms. Courtney Price, Records Management Coordinator, hired on 4/11/2016 (Warren Green)
- Mr. Jason Smith, Mechanic I, hired 4/11/2016 (Ken Tuliau)

1. CONSENT CALENDAR

NOTICE: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by the Board by one motion in the form listed below. There will be no separate discussion on these items prior to the time the Board votes unless any Board members, staff or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

A. MINUTES

The Board will be asked to approve the minutes from the March 16, 2016, Board meeting.

B. REPORT ON GENERAL DISBURSEMENTS

It is recommended that the Board approve the total disbursements for the month of February 2016, in the amount of \$10,070,905.37.

C. GROUNDWATER RECHARGE/RECYCLED WATER SCADA SYSTEM UPGRADES CONSTRUCTION CONTRACT AWARD

It is recommended that the Board:

1. Approve the construction contract for the Groundwater Recharge and Recycled Water Supervisory Control and Data Acquisition (SCADA) System Upgrades, Project No. EN14047, to Trimax Systems, Inc. for \$250,989; and
2. Authorize the General Manager to execute the contract.

D. ADOPTION OF RESOLUTIONS FOR THE USBR WATERSMART

It is recommended that the Board:

1. Adopt Resolution Nos. 2016-4-1, 2016-4-2, and 2016-4-3, authorizing the Agency to enter into financial assistance agreements with the U.S. Department of Interior – Bureau of Reclamation (USBR) for three grant applications submitted in April 2016: 1) Drought Contingency Planning Grant; 2) Drought Resiliency Implementation Grant; and 3) Agricultural Water Conservation Grant; and
2. Authorize the General Manager to execute the financial assistance agreement, any amendments, and any grant related documents thereto.

E. CONTRACT AMENDMENT TO WEST VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT FOR MIDGE FLY TREATMENT

It is recommended that the Board:

1. Ratify the contract amendment No. 4600001970-001 with West Valley Mosquito and Vector Control District (WVMVCD) establishing a contract through June 30, 2016, for midge fly treatment services at Turner, San Sevaine, Victoria, and Ely Basins for a not-to-exceed amount of \$120,000; and
2. Authorize the General Manager to execute the contract amendment.

F. PRADO BASIN HABITAT SUSTAINABILITY PROGRAM REIMBURSEMENT AGREEMENT AMENDMENT

It is recommended that the Board:

1. Amend the reimbursement agreement with the Chino Basin Watermaster for the Prado Basin Habitat Sustainability Program to increase the total program cost from \$600,000 to \$934,500; and
2. Authorize the General Manager to execute the reimbursement agreement amendment.

G. SALE OF ONE INLAND EMPIRE BRINE LINE CAPACITY UNIT TO EASTSIDE WATER TREATMENT PLANT

It is recommended that the Board:

1. Approve the sale of one Brine Line capacity unit to Eastside Water Treatment Plant; and
2. Authorize the General Manager to execute the Brine Line Capacity Right Agreement.

H. PROFESSIONAL SERVICES CONTRACT AWARD FOR SEPTIC USER FEASIBILITY STUDY

It is recommended that the Board:

1. Approve the professional services contract award for the Feasibility Study for Sewer Service in the IEUA Service Area, Project No. PL16015 to RMC Water and Environment for the not-to-exceed amount of \$286,813; and
2. Authorize the General Manager to execute the contract.

I. HEADQUARTERS' PERMIT OFFICE CONSTRUCTION CONTRACT AWARD

It is recommended that the Board:

1. Approve the construction contract for the Headquarters' Permit Office, Project No. EN16068, to Mike Bubalo Construction Corporation, for \$150,000; and
2. Authorize the General Manager to execute the contract.

J. BOND COUNSEL FINANCIAL SERVICES RETAINER AGREEMENT

It is recommended that the Board:

1. Approve the Retainer Agreement for bond counsel and related legal services with Stradling Yocca Carlson & Rauth (SYCR), subject to the fees, terms and conditions set forth in Exhibit A;
2. Approve services previously approved and rendered for a not-to-exceed amount of \$30,000 related to the 2008B Variable Rate Demand Bond Letter of Credit substitution, and completion of financing agreements for regional projects to be financed through the Chino Basin Regional Financing Authority; and
3. Authorize the General Manager or designee to execute the Agreement.

K. CEQA ADOPTION – LOWER DAY BASIN

It is recommended that the Board:

1. Adopt the California Environmental Quality Act (CEQA) Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program for the Lower Day Basin Recharge Master Plan Update (RMPU) Improvements, Project No. RW15004; and
2. Authorize the General Manager to file the Notice of Determination (NOD) with the San Bernardino County Clerk of the Board.

L. ADOPTION OF RESOLUTION NO. 2016-4-5 AMENDING THE SALARY SCHEDULE/MATRIX FOR THE SUPERVISORS' UNIT

It is recommended that the Board adopt Resolution No. 2016-4-5, amending the salary schedule/matrix for the Supervisors' unit.

M. ADOPTION OF RESOLUTION NO. 2016-4-6 AMENDING THE SALARY SCHEDULE/MATRIX

It is recommended that the Board adopt Resolution No. 2016-4-6, amending the salary schedule/matrix for the Unrepresented, Executive Management, Laboratory Unit, Operators' Association, Professional Unit and General Unit.

N. RESOLUTION NO. 2016-4-7, INTERNATIONAL COMPOST AWARENESS WEEK

It is recommended that the Board adopt Resolution No. 2016-4-7, proclaiming May 1, 2016 through May 7, 2016, as International Compost Awareness Week.

O. RESOLUTION NO. 2016-4-8, AUTHORIZING AGENCY ORGANIZATIONAL MEMBERSHIPS AND AFFILIATIONS

It is recommended that the Board:

1. Approve the Agency-wide memberships and affiliations for FY

2016/17, in the amount of \$238,250 (includes 5% contingency); and

2. Adopt Resolution No. 2016-4-8, authorizing Agency organizational memberships and affiliations.

2. ACTION ITEMS

A. EAST DECLEZ PROPERTY ACQUISITION

It is recommended that the Board:

1. Authorize the General Manager to purchase the East Declez property for the sum of \$3.0 million on behalf of Chino Basin Watermaster (Watermaster); contingent upon the approval by the Watermaster Board of Directors;
2. Authorize the General Manager to spend up to \$100,000 on behalf of Watermaster for necessary fees related to the purchase of the property; and
3. Approve a \$3.1 million budget amendment for Project No. EN18007 in FY 2015/16 through an inter-fund loan from the Regional Wastewater Capital Improvement (RC) fund to the Recharge Water (RW) fund.

B. ENTERPRISE CONTENT MANAGEMENT SYSTEM CONTRACT AWARD

It is recommended that the Board:

1. Approve Contract No. 4600002085, to American MicroImaging, Inc. (AMI) for the Enterprise Content Management System, Project No. IS15003, associated licensing agreement and the option for conversion of back file documents, for a not-to-exceed amount of \$670,920; and
2. Authorize the General Manager to execute the contract.

3. INFORMATION ITEMS

A. MWD UPDATE AND DROUGHT UPDATE (ORAL)

B. PROPOSED WATER RATES UPDATE (ORAL)

C. 2015 INTEGRATED WATER RESOURCES PLAN (WRITTEN/POWERPOINT)

D. ENGINEERING AND CONSTRUCTION MANAGEMENT PROJECT UPDATES (POWERPOINT)

RECEIVE AND FILE INFORMATION ITEMS

- E. TREASURER'S REPORT OF FINANCIAL AFFAIRS (WRITTEN/POWERPOINT)
- F. PUBLIC OUTREACH AND COMMUNICATION (WRITTEN)
- G. LEGISLATIVE REPORT FROM INNOVATIVE FEDERAL STRATEGIES (WRITTEN)
- H. LEGISLATIVE REPORT FROM WEST COAST ADVISORS (WRITTEN)
- I. LEGISLATIVE REPORT FROM AGRICULTURAL RESOURCES (WRITTEN)
- J. CALIFORNIA STRATEGIES, LLC MONTHLY ACTIVITY REPORT (WRITTEN)
- K. FEDERAL LEGISLATIVE TRACKING MATRIX (WRITTEN)
- L. STATE LEGISLATIVE TRACKING MATRIX (WRITTEN)
- M. REGIONAL WATER USE EFFICIENCY BUSINESS PLAN (2015-2020) (WRITTEN/POWERPOINT)
- N. THIRD QUARTER PLANNING AND ENVIRONMENTAL COMPLIANCE UPDATE (POWERPOINT)
- O. RP-1/RP-5 EXPANSION PRELIMINARY DESIGN REPORT UPDATE (WRITTEN/POWERPOINT)
- P. FY 2016/17 TEN YEAR CAPITAL IMPROVEMENT PLAN UPDATE (POWERPOINT)
- Q. SUPPORT FOR FEDERAL AND STATE LEGISLATION (WRITTEN)

Materials related to an item on this agenda submitted to the Agency, after distribution of the agenda packet, are available for public inspection at the Agency's office located at 6075 Kimball Avenue, Chino, California during normal business hours.

4. AGENCY REPRESENTATIVES' REPORTS

- A. SAWPA REPORT (WRITTEN)
- B. MWD REPORT (WRITTEN)
- C. REGIONAL SEWERAGE PROGRAM POLICY COMMITTEE REPORT (WRITTEN)
- D. CHINO BASIN WATERMASTER REPORT (WRITTEN)

- 5. **GENERAL MANAGER'S REPORT (WRITTEN)**
- 6. **BOARD OF DIRECTORS' REQUESTED FUTURE AGENDA ITEMS**
- 7. **DIRECTORS' COMMENTS**
 - A. **CONFERENCE REPORTS**

This is the time and place for the Members of the Board to report on prescheduled Committee/District Representative Assignment meetings, which were held since the last regular Board meeting, and/or any other items of interest.

- 8. **CLOSED SESSION**
 - A. **PURSUANT TO GOVERNMENT CODE SECTION 54956.9(a) – CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION**
 - 1. Chino Basin Municipal Water District vs. City of Chino, Case No. RCV51010
 - 2. Martin vs. IEUA, Case No. CIVRS 1000767
 - 3. Mwembu vs. IEUA, Case No. CIVDS 1415762
 - B. **PURSUANT TO GOVERNMENT CODE SECTION 54956.8 – CONFERENCE WITH REAL PROPERTY NEGOTIATOR**
 - 1. Supplemental Water Transfer/Purchase
Negotiating Party: General Manager P. Joseph Grindstaff
Under Negotiation: Price and Terms of Purchase
 - C. **PURSUANT TO GOVERNMENT CODE SECTION 54956.9 CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION**
 - 1. Two (2) Cases
 - D. **PURSUANT TO GOVERNMENT CODE SECTION 54957 – PERSONNEL MATTERS**
 - 1. Various Positions – Compensation Study
 - 2. Various Positions.
 - E. **PURSUANT TO GOVERNMENT CODE SECTION 54957 – PERSONNEL MATTERS – PUBLIC EMPLOYEE PERFORMANCE EVALUATION**
 - 1. General Manager

9. **ADJOURN**

*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909) 993-1736, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Proofed by: 

Declaration of Posting

I, April Woodruff, Board Secretary of the Inland Empire Utilities Agency*, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Thursday, April 14, 2016.

Stephanie Riley

for

April Woodruff


**ACTION
ITEM**


2A


Date: April 20, 2016

To: The Honorable Board of Directors

Through: Public, Legislative Affairs, and Water Resources Committee (04/13/16)
Engineering, Operations, and Biosolids Mgmt. Committee (04/13/16)
Finance, Legal, and Administration Committee (04/13/16)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: East Declez Property Acquisition

RECOMMENDATION

It is recommended that the Board of Directors:

1. Authorize the General Manager to purchase the East Declez property for the sum of \$3.0 million on behalf of Chino Basin Watermaster (Watermaster); contingent upon the approval by the Watermaster Board of Directors;
2. Authorize the General Manager to spend up to \$100,000 on behalf of Watermaster for necessary fees related to the purchase of the property; and
3. Approve a \$3.1 million budget amendment for Project No. EN18007 in FY 2015/16 through an inter-fund loan from the Regional Wastewater Capital Improvement (RC) fund to the Recharge Water (RW) fund.

BACKGROUND

In early 2015, the undeveloped 85-acre property, adjacent to the existing Declez Basin in Riverside County, was identified as a potential site for a new recharge basin for Watermaster. Following an initial field investigation from the Jurupa Community Services District and a preliminary level design evaluation from Wildermuth Environmental, Inc. (WEI), Inland Empire Utilities Agency (IEUA) and Watermaster made a determination that although the site appeared promising for recharge purposes, additional due diligence was required prior to site acquisition.

In November 2015, the IEUA Board authorized execution of the Purchase and Sale Agreement with the property owner, SLPR, LLC. The key terms within the agreement provided the following:

- Allow time to complete a 180 day feasibility study to validate the site’s potential recharge benefit; ending on May 17, 2016.
- Open escrow with a \$50,000 deposit which is fully refundable before the end the feasibility period.
- Establish an agreed property purchase price of \$3.0 million.
- IEUA can terminate the agreement any time before May 17, 2016.

In January 2016, Thomas Harder and Co. (THC) completed a feasibility report which evaluated the site groundwater recharge viability consistent with the direction provided by Watermaster parties. THC’s efforts included examining subsurface geology, describing the results of field investigation, and characterizing and analyzing the area’s infiltration and mounding potential for groundwater recharge. THC’s final “Subsurface Investigation-East Declez Basin Site” report was made available for review and presented to Watermaster’s Appropriative Pool Meeting on March 10, 2016. THC, with support from WEI, conducted an analysis for recharge potential on two conceptual recharge basin configurations: 1) a shallow basin and 2) an expanded Declez Basin. Both concepts were developed based on the subsurface findings where the site revealed a shallow impermeable layer which prevented a deeper or wider new basin.

Unfortunately, the shallow basin concept was deemed unfeasible because it required an extensive pumping and conveyance system to receive stormwater. Therefore, only the expanded basin option was considered and evaluated. The evaluation looked into two potential construction alternatives.

Construction Alternatives	Projected Benefits		Estimated Cost	
	Additional Storage acre-feet (AF)	Additional Recharge acre-feet per year (AFY)	Estimated Capital Cost*	Total Annual Unit Cost (per AF)
Expand Declez eastward	130	144	\$11,210,000	\$5,099
Expand Declez eastward with upstream stormwater improvements	130	414	\$15,090,000	\$2,420

*The capital cost shown assumes a 90% reduction on excavation and hauling cost

In parallel with the feasibility report, staff began initial inquiries into the necessary CEQA requirements for the purchase of the property. IEUA’s environmental consultant, Tom Dodson & Associates opined that the acquisition of this property falls under the following exemption:

the “General Rule” Statutory Exemption (State CEQA Guidelines Section 15061(b)(3) which states that *“where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.”*

As such, IEUA will compile a more detailed environmental determination to comply with CEQA when a specific project is defined in the future. Thus, the property purchase will not incur any adverse environmental effects until a subsequent environmental finding is made by the IEUA Board for a site specific project.

Following the review and presentation of the report to the Appropriative Pool, the Committee Members requested having until April 2016 to recommend one of the following actions:

1. Proceed with the purchase of the property through IEUA; or
2. Cancel the property purchase.

The Watermaster Board will take action on the purchase of the East Declez property at the April 28, 2016, meeting. However, in order to meet the execution date of May 17, 2016, one day before IEUA's May Board of Directors meeting, staff is requesting contingent approval of the property purchase. In the event that the Watermaster Board elects not to purchase the property, IEUA will exercise the option to cancel the Purchase and Sale Agreement prior to the May 17, 2016, cancellation date. Staff will inform the IEUA Board of Watermaster's decision immediately following their action.

The East Declez property site is not currently planned to receive recycled water, or any other supplemental waters; therefore all cost associated with the property purchase, design and construction will be fully funded by Watermaster. Project EN18007 originally budgeted the property purchase in FY 2017/18; however, the decision to accelerate the acquisition to this fiscal year is to take advantage of the availability of the property and avoid losing it to potential developers as was the case with the lower San Sevaive property. IEUA will carry the property purchase until the Recharge Master Plan Update (RMPU) financing plan is implemented which is anticipated to be summer of 2017.

Staff has discussed the property purchase and project with several of the Watermaster Parties and has participated in discussions at the Appropriative Pool meetings. Based on these discussions, there is concern among the group about the value of the project itself due to the yield and associated unit costs. However, there seems to be some level of agreement that purchasing the property may be the right course of action based on its location next to an existing recharge basin. The concern, as noted above, is a repeat of losing a potential site to developers.

The efforts towards the potential purchase of the East Declez property for groundwater recharge are consistent with the IEUA business goal of *Water Reliability*, namely development and investigation of groundwater recharge.

PRIOR BOARD ACTION

On April 15, 2015, the Board of Directors approved the first Amendment to the Recharge Master Plan Task Order No. 1 with Watermaster. This authorized IEUA to conduct preliminary investigations on the East Declez Basin Project.

On June 17, 2015, the Board of Directors approved the Letter of Intent to Purchase the East Declez property.

On November 18, 2015, the Board of Directors approved the Purchase and Sale Agreement with SLPR, LLC for the East Declez property.

IMPACT ON BUDGET

If approved, IEUA will fund the purchase of the East Declez property with an inter-fund loan from the Regional Wastewater Capital Improvement (RC) fund to the Recharge Water (RW) fund to be repaid by Watermaster at the completion of the RMPU financing plan in the summer of 2017.

The RMPU Construction (hard cost), Project No. EN18007 under the RW fund budgeted for the land purchase in FY 2017/18 through the TYCIP. This will be reduced if the purchase is approved for this fiscal year.

Attachments:

Attachment 1: Feasibility Study

PJG:CB:SS:ji

East Declez - Property Purchase Update

Project No. EN18007
April 2016



Joel Ignacio, P.E.
Senior Engineer



Project Request

- Authorize the General Manager to purchase the property for the sum of \$3.0 million on behalf of Chino Basin Watermaster, contingent upon the approval of the Watermaster Board of Directors;
- Authorize the General Manager to spend up to \$100,000 for necessary fees related to the purchase;
- Approve a \$3.1 million budget amendment for EN18007 through an inter-fund loan from the RC Fund to the RW Fund.



85 acres of new property east of Declez Basin

Project Background

Jan. 2015

CBWM &
IEUA

Identified 85-acres east of Declez Basin as a potential new recharge basin

Apr. 2015

CBWM &
IEUA

Executed amendment to Task Order 1 to allow further evaluation on East Declez

Jun. 2015

IEUA

Establish a letter of intent with the property owner to begin discussions on purchasing the site

Jul. 2015

IEUA

Contracted consulting services with Thomas Harder & Co. to prepare the feasibility study and report

Nov. 2015

IEUA

Entered into agreement to establish the terms purchasing the property \$50K refundable deposit

Feb. 2016

IEUA

Completed the initial draft to the East Declez Feasibility Study and Report

- Initially presented Feasibility Report to RIPCom in February 2016
- Presented Feasibility Report to Watermaster's AP in March 2016
- 180 day feasibility study ends on May 17, 2016

Property Location



South of Fontana in the Riverside County



Feasibility Study - Findings

- Site revealed a shallow impermeable layer
- Soil layer limited the depth and width for a large new basin
- Analyzed two recharge design concepts: shallow basin & expand existing
- Shallow basin deemed unfeasible due to extensive SW pumping/pipes
- Evaluated the following potential basin construction approach:

Construction Alternatives	Projected Benefits		Estimated Cost	
	Additional Storage acre-feet (AF)	Additional Recharge acre-feet per year (AFY)	Estimated Capital Cost*	Total Annual Unit Cost (per AF)
Expand Declez eastward	130	144	\$11,210,000	\$5,099
Expand Declez eastward with upstream stormwater improvements	130	414	\$15,090,000	\$2,420

*The capital cost shown assumes a 90% reduction on excavation and hauling cost



Recommendation

- Authorize the General Manager to purchase the property for the sum of \$3.0 million on behalf of Chino Basin Watermaster, contingent upon the approval of the Watermaster Board of Directors;
- Authorize the General Manager to spend up to \$100,000 for necessary fees related to the purchase;
- Approve a \$3.1 million budget amendment for EN18007 through an inter-fund loan from the RC Fund to the RW Fund.

The efforts towards the potential purchase of the East Declez property for groundwater recharge are consistent with the IEUA business goal of *Water Reliability*, namely development and investigation of groundwater recharge.

Subsurface Investigation - East Declez Basin Site



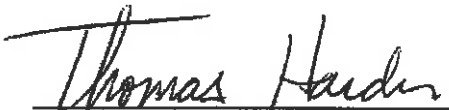


Subsurface Investigation - East Declez Basin Site

2/5/2016

Prepared for
Inland Empire Utilities Agency

Prepared by



Thomas Harder
Principal Hydrogeologist



Ben Lewis
Project Geologist

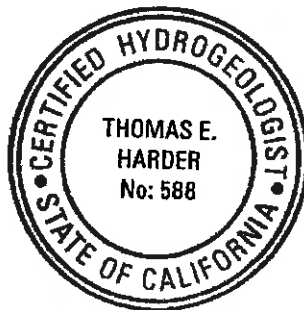
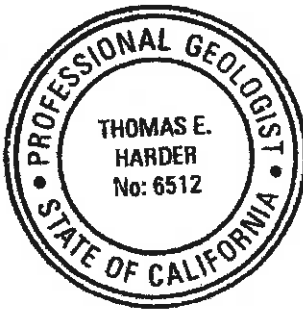


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- 13 Conceptual Basin Layout – Expanded Declez Cell 1 Option

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- A. Previous Investigation Borehole Lithologic Logs
- B. Cone Penetrometer Testing Logs
- C. Soil Physical Properties Testing Laboratory Reports
- D. Borehole Lithologic Logs
- E. Wildermuth Environmental – Assessment of Additional Alternatives for Potential Storm Water Recharge Project East of Declez Basin



1 Introduction

This report describes the results of subsurface field investigations to determine the feasibility of artificial recharge at a parcel of private property referred to herein as the East Declez Site (the Site). The Site covers approximately 22 acres and is located immediately east of Inland Empire Utilities Agency's (IEUA's) existing Declez Basin recharge site on the north slope of the Jurupa Mountains in Riverside County, California (see Figure 1).

The purpose of the field investigations was to characterize the infiltration and mounding potential of subsurface sediments beneath the Site, identify laterally extensive fine-grained layers that could prevent recharge of the regional aquifer system, assess the liquefaction potential of the currently unsaturated sediments in the upper 50 ft beneath the Site, and determine the depth to bedrock. The data collected during the investigation was used to develop estimates of the Site's recharge capacity, subsurface storage potential, and useable area for recharge basins.

Characterization of subsurface sediments was accomplished through the collection and analysis of soil samples. Soil samples were collected from exploratory boreholes. Additional subsurface characterization was conducted using Cone Penetrometer Tests (CPTs).



2 Site Background and Setting

2.1 Site Description

The Site consists of approximately 22 acres of private property located immediately east of the existing Declez Basin recharge site on the north slope of the Jurupa Mountains in Riverside County, California (see Figures 1 and 2). The land surface is relatively flat in the northern two-thirds of the Site. The southern third of the Site slopes up to the south towards the Jurupa Mountains.

2.2 Previous Investigations

The East Declez Site was originally identified for consideration as a recharge basin site by the Jurupa Community Services District (JCSD). As part of an initial due diligence program in consideration of purchasing the property, a borehole drilling and infiltration testing program was conducted in September 2014. The drilling and testing program included two boreholes (BH-1 and BH-2) that were drilled to bedrock and infiltration testing in three test pits (TP-1 through TP-3; see Figure 2).

Based on results from the initial September 2014 investigations, the Chino Basin Watermaster (the Watermaster) and IEUA agreed to consider the East Declez property for purchase and eventual improvements for use as an artificial recharge site. While the September 2014 initial investigation results appeared favorable, there was a desire by stakeholders within the Watermaster to obtain additional subsurface hydrogeological data and refine the cost of recharge basin construction prior to committing to purchase the property.

2.3 Hydrogeologic Conditions

The Site is located along the northern slope of the Jurupa Mountains within the Chino Groundwater Basin. The surface geology of the Site is characterized by young alluvial deposits in the northern and western portions of the Site adjacent to old alluvial fan deposits and crystalline bedrock in the eastern and southern portions of the Site (see Figure 2). Young alluvial valley deposits were reported by Geoscience (2014) to extend between approximately 36 ft and 52 ft below ground surface (bgs) beneath the Site based on boreholes drilled along the northern boundary of the Site (BH-1 and BH-2; see Figure 2 and Appendix A). The young alluvial valley deposits were reported to consist predominantly of sand with minor gravel, silt and clay layers. Older alluvium, which consists of a higher percentage of silt and clay, was reported by Geoscience (2014) between the younger alluvium and bedrock surface. Bedrock, consisting of weathered granite, was observed in previous boreholes along the northern Site boundary at depths from 125 ft bgs (BH-1) to 182 ft bgs (BH-2).



The bedrock that forms the Jurupa Mountains along the southern boundary of the Site consists of granitic and metamorphic (i.e. crystalline) rock that is relatively impermeable. This bedrock extends beneath the Site, as observed in Boreholes BH-1 and BH-2.

During borehole drilling in 2014, groundwater was initially observed in the northwest borehole (BH-2) at a depth of 175 ft bgs but later rose to approximately 153 ft bgs within the borehole, indicating that the aquifer at depth in this area is under pressure. Groundwater was not observed in BH-1 in the northeast portion of the Site. Groundwater has been measured at a depth of approximately 130 ft bgs in the monitoring well adjacent to the existing Declez Basin, located approximately 900 ft west of the Site (DCZ-1; see Figure 3 for location).

2.4 Data Gaps before this Investigation

Although the initial 2014 investigation provided valuable information regarding the characteristics of subsurface conditions along the northern boundary of the Site, the subsurface conditions beneath most of the rest of the Site remained unknown. Specific data gaps included:

1. The thickness of alluvial sediments available for groundwater storage.
2. The lithologic characteristics of sediments beneath the majority of the Site and the lateral extent of fine-grained sediments observed in existing boreholes along the northern boundary of the Site.
3. The lithologic characteristics of the older alluvium mapped at the surface in the southeastern portion of the Site (see Figure 2).
4. The permeability of alluvial sediments, knowledge of which will allow for an estimate of potential groundwater mounding and subsurface flow during artificial recharge conditions.
5. The liquefaction potential of the upper 50 ft of subsurface sediments.



3 Site Investigation

The site investigation to address the data gaps identified in Section 2.4 included data collection from six CPTs and seven boreholes (see Figure 2). The number and location of CPT and exploratory borehole locations were identified to:

1. Provide adequate subsurface data in areas of the Site not explored by previous investigations.
2. Provide a sufficient number of samples for characterization of subsurface sediments.
3. Enable the identification and correlation of fine-grained sediment layers across the Site.
4. Enable estimates of the thickness of alluvial sediments conducive to recharge and subsurface storage of water.
5. Assess the liquefaction potential of the upper 50 ft of sediments.

In general, CPTs and boreholes were located on the portions of the Site where surface sediments consist of younger alluvium, to coincide with the most likely area of future basin bottom. One borehole (BH-6) was drilled directly on the older alluvium in order to assess the potential for this formation to recharge and store water.

3.1 CPT Investigation

3.1.1 CPT Methodology

Cone Penetrometer Testing (CPT) was conducted by Kehoe Testing and Engineering of Huntington Beach, California. Each CPT provided a continuous subsurface soil profile based on the pressure and resistance observed from pushing an instrumented steel rod into the ground. Six CPTs were conducted, as shown on Figure 2.

Shear wave testing was conducted at 10-ft intervals at each CPT location. Shear wave testing involves sending shock waves through the subsurface using a strike plate and measuring the shear wave velocities. This data was used to assess the liquefaction potential of shallow sediments.

3.1.2 CPT Results

The six CPTs were completed to the maximum depth possible with the equipment. The total depths attained ranged from 17 to 39 ft bgs and were limited by the density and characteristics of the soil.



CPT	Total Depth (ft)
CPT-1	37
CPT-2	23
CPT-3	39
CPT-5	23
CPT-7	23
CPT-8	17

Results from the CPTs indicate soils in the upper approximately 20 to 40 ft bgs consist primarily of sand and silty sand (Appendix B). These sediments are likely very permeable and conducive to the percolation of surface water. The inability to extend the CPT probes deeper was likely due to the presence of gravel in the formation and/or the density of the formation.

3.2 Borehole Drilling and Soil Sample Collection

3.2.1 Borehole Drilling and Soil Sample Collection Methodology

A total of seven boreholes (BH-3 through BH-7; BH-4B and BH-5B) were drilled by J&H Drilling of Fullerton, California using a CME 85 truck-mounted hollow-stem auger drilling rig. During drilling, soil samples of the alluvium were collected on a continuous basis in 5-ft long, 2-inch diameter barrel samplers. In addition, the driller conducted Standard Penetration Tests (SPTs) at 10-ft intervals within the upper 50 ft of each borehole. The SPT consists of driving a split barrel sampler 18 inches into undisturbed formation using a 140-pound hammer falling 30-inches for each blow. Blow counts for every 6 inches driven were recorded in the field.

A split spoon sampler with stainless steel tubes collected a total of six 6-inch long, 2-inch diameter samples from six different boreholes. Two of these samples were obtained from the upper 50 ft and four samples were obtained from below 50 ft. Samples collected in the tubes were capped, properly labeled, and submitted to a geotechnical laboratory for analysis of vertical and horizontal permeability, grain size distribution, bulk density, and porosity.

All cuttings generated during drilling were spread evenly onsite. Upon completion of drilling, boreholes were backfilled from the total depth to the land surface using drill cuttings placed through the augers.

A TH&Co geoscientist provided full-time onsite inspection during all aspects of borehole drilling, testing and sample collection. Soil samples were logged in the field according to ASTM D 2488 (2000), Standard Practice for Description and Identification of Soils. Soil cores were



photo-logged and representative samples were stored and retained in sealable plastic bags for future inspection and analysis, as necessary.

3.2.2 Laboratory Analysis of Soil Samples

Six soil samples collected during drilling were submitted to PTS Laboratories in Santa Fe Springs, California for physical properties testing. Two samples were from the younger alluvium and four samples were from the older alluvium. All samples were analyzed for the following:

- Vertical hydraulic conductivity (API RP40/EPA 9100)
- Horizontal hydraulic conductivity (API RP40/EPA 9100)
- Grain size distribution (ASTM D4464 and ASTM D422)
- Bulk density (API RP40/ASTM D2937)
- Effective Porosity (Modified ASTM D425)

All samples were submitted to PTS Laboratories by a TH&Co geoscientist under chain-of-custody protocol. Results of the soil physical properties testing are summarized in Table 1. Soil laboratory reports are provided in Appendix C.



4 Investigation Results

4.1 Subsurface Sediment/Lithologic Characteristics

Subsurface geology at the Site is characterized by young alluvial deposits, older alluvial deposits, and crystalline bedrock (in order from shallowest to deepest; see Figures 4a through 4e). The lithologic logs of boreholes BH-3, BH-4, BH-5, and BH-7 show that sediments in the upper 30 to 50 feet generally consist of brown to gray sand with lesser amounts of gravel and silt (see Appendix D). These sediments are unconsolidated and correlate with the young alluvium observed at the land surface. Based on the sediment characteristics, the young alluvium is expected to be relatively permeable and conducive to the recharge and storage of water. These findings are consistent with the infiltration test results obtained by Geoscience (2014).

The young alluvial deposits are differentiated from the underlying older alluvium primarily by consistency, color, and grain size. The older alluvial deposits are characterized by dense, reddish brown silt and clay with lesser amounts of sand. Due to the dense, fine-grained nature of the older alluvium, it is assumed that this formation would not facilitate the storage and transmission of significant amounts of groundwater.

Crystalline bedrock was encountered beneath the older alluvium in BH-3, BH-4, and BH-5. In BH-3 (west side of the Site), the bedrock consisted of weathered granitic bedrock at approximately 75 ft bgs and hard consolidated granitic bedrock at 105 ft bgs. At BH-4 and BH-5, hard crystalline bedrock consisting of quartzite was encountered at depths of 146 ft bgs and 126 ft bgs, respectively.

4.2 Thickness of Younger Alluvium Available for Groundwater Storage

The thickness of the younger alluvium at the Site ranges from 0 ft at the surface contact with the older alluvium along the south side of the Site to over 50 ft thick in the northwestern portion of the Site (see Figure 5). Depths to the tops of the older alluvium and crystalline bedrock at each borehole are summarized as follows:



Borehole	Total Depth (ft bgs)	Depth to Top of Older Alluvium (ft bgs)	Depth to Crystalline Bedrock (ft bgs)
BH-1	126.5	36	125
BH-2	183	52	181.5
BH-3	108	54	Weathered at 75 Unweathered at 105
BH-4	146.5	40	146
BH-5	130	30	126
BH-6	45	0	Not encountered
BH-7	87	38	Not encountered

The thickness of younger alluvium available for groundwater recharge generally increases to the north and northwest beneath the Site.

4.3 Groundwater

Groundwater was not encountered during drilling to the extent that it collected in the open boreholes. Wet soil conditions were observed during the drilling of BH-3 at a depth of approximately 50 ft bgs, which corresponds approximately with the top of the older alluvium. As the older alluvium is less permeable than the upper alluvium, this water is likely localized perched groundwater that has collected from the infiltration of precipitation through the younger alluvium.

4.4 Analysis of Liquefaction Potential

Liquefaction is defined as the transformation of a granular material from a solid to a liquefied state as a consequence of increased pore-water pressure and reduced effective stress (Yould and Idriss, 2001). Potential for liquefaction in any area is based on the following criteria:

1. Sediment type
2. Potential for strong earthquakes, and
3. A groundwater table within 50 ft of the land surface

Sediment properties from the CPTs and boreholes were used to assess the first criterion. The second criterion is consistent with the Southern California region. The third criterion would be



possible at the Site during artificial recharge operations as a result of the groundwater mound that would develop in the younger alluvium.

Sediment properties from the CPTs were used to estimate liquefaction potential using the method by Juang et al., 2003. Liquefaction potential, using this method, is a function of depth-specific vertical effective stress, total overburden stress, measured cone tip resistance, and sleeve friction, all estimated based on data from the CPT. These variables are used to determine the “loading” to a soil induced by an earthquake which is defined as the cyclic stress ratio (CSR). The method also estimates the “resistance” of the soil to triggering of liquefaction, which is defined as the cyclic resistance ratio (CRR). The CRR is estimated using depth-specific vertical effective stress and total overburden stress from the CPT as well as an assumed peak ground acceleration and earthquake magnitude. The assumed peak ground acceleration for this analysis was 0.6 g (USGS, 2014) and the assumed earthquake magnitude was 7.5 (Juang et al., 2003). The ratio of CRR to CSR is defined as the factor of safety where liquefaction is “predicted” when the ratio is less than one. Applying this method and assumptions to the CPT results specific to the Site, the factor of safety for all sediments encountered was above one (see Figure 6). Accordingly, based on the results of this analysis, it does not appear that the younger alluvial soils beneath the Site are at risk for liquefaction during saturated conditions.

A second method was used to estimate liquefaction potential by using the shear wave velocities and the CSR as described by Kayabali, 1996. Shear wave velocities less than 200 meters per second (m/s) are typically more susceptible to liquefaction during an earthquake, particularly at a CSR above 0.1. The shear wave velocities measured from the CPT data at the Site ranged from 222 to 266 m/s and averaged 246 m/s with a CSR of 0.04. Results of this analysis also suggest that the younger alluvial soils beneath the Site are not at risk for liquefaction.

4.5 Estimated Recharge Capacity

The potential recharge capacity of the Site was evaluated using two different Site configuration options:

1. The first option assumed construction of a shallow recharge basin (or multiple basins) with a bottom elevation of approximately 852 ft above mean sea level (amsl; approximately 10 ft below existing grade). This option would allow for high infiltration rates but limited subsurface storage capacity due to the relatively thin younger alluvium beneath the basin.
2. The second option assumed deep excavation of the East Declez site to form an eastern extension of the existing Declez Basin. This option would create additional surface storage for the combined Declez Basin but recharge beneath the East Declez site



would be minimal as the bottom of the basin would be in the low permeability older alluvium.

4.5.1 Shallow Recharge Basin Option

TH&Co developed a conceptual shallow recharge basin layout in consideration of the findings of the drilling and sampling investigation. The conceptual basin area, as shown on Figure 7, is located over the area of permeable younger alluvium and incorporates a 10-ft wide perimeter road and 3:1 side slopes. The resulting active recharge area is approximately 11 acres. In consideration of the available thickness of younger alluvium, the conceptual basin invert elevation was as shallow as 10 ft below the existing land surface (see Figure 8).

Potential groundwater mounding associated with recharge of water in the conceptual Site basin was evaluated using a two-dimensional analytical groundwater flow model. The analysis incorporated the following assumptions:

- Water was applied to the basin at a rate of 1 ft/day.
- The hydraulic conductivity of the younger alluvium is 12 to 50 ft/day.
- The sediments in the subsurface are homogeneous.

The recharge rate of 1 ft/day is lower than obtained during testing by Geoscience (2014) but consistent with recharge rates for the existing Declez Basin adjacent to the Site. A range of hydraulic conductivity values was used for the analysis. The low end of the range was based on soil physical properties results of samples from the borehole drilling and testing program (see Table 1). The high end was based on hydraulic conductivity estimates for area aquifers as published in Wildermuth (2014).

Given these assumptions, the analysis shows that recharge within the conceptual Site basin at a surface infiltration rate of 1 ft/day will result in a groundwater mound that will rise to the bottom of the basin within 10 days (see Figures 9 and 10). Further recharge, at that point, would have to stop until the mound relaxed in accordance with the rate of subsurface outflow, which is dictated by the hydraulic conductivity (i.e. permeability) of the younger alluvium. Model analyses suggest that the time necessary to allow the mound to decline to near static conditions after the recharge event is approximately 30 to 80 days.

Based on this analysis, the conceptual shallow recharge basin could theoretically recharge between 260 and 1,100 ac-ft/yr if water was available on demand. As storm water is not available on demand, the actual average annual recharge would likely be closer to the lower end of this range.

It is noted that a review of the shallow recharge basin concept by Wildermuth Environmental (Wildermuth, 2016; Appendix E), indicated that it was not feasible to deliver water to the



shallow recharge basins from the Declez Channel due to the shallow elevation of the basin bottom. As such, this option is not considered viable. However, the analysis was conducted prior to the Wildermuth Environmental review and is presented herein for reference.

4.5.2 Expanded Declez Basin Option

A second analysis of recharge potential was based on expanding the existing Declez Basin Cell 1 to the east through a deep excavation of the East Declez site (see Figures 11 and 12). The conceptual basin area, as shown on Figure 13, is located over the area of permeable younger alluvium and incorporates a 10-ft wide perimeter road and 2:1 side slopes. The conceptual basin invert elevation (825 ft amsl) was assumed to be the same as the existing Declez Basin Cell 1 (see Figure 12). Maximum surface storage capacity of the East Declez portion of the expanded Declez Basin area would be limited by the elevation of the spillway at the southwest end of the Declez Basin, which is approximately 841 ft amsl. In consideration of this, the maximum surface storage capacity of the expanded East Declez area is approximately 130 acre-ft.

The recharge potential of the expanded Declez Basin option was estimated by Wildermuth Environmental using their surface water simulation model (see Appendix E). The net increase in average annual recharge was a function of the amount of storm water that can be delivered to the site, the increased surface storage potential of the expanded Declez Basin area, and the infiltration rate of the existing Declez Basin. The amount of storm water available for delivery to the expanded Declez Basin area was evaluated using two alternatives:

- 1a. Delivery of storm water using existing diversion structures (no new diversion improvements).
- 1b. Improvements for the increased diversion of water from San Sevaine Channel to the Jurupa Basin and then conveyance of this water to the expanded Declez Basin.

Based on the analysis presented in Wildermuth (2016), the range of potential net increase in recharge at the expanded Declez Basin is 144 acre-ft/yr to 414 acre-ft/yr for alternatives 1a and 1b, respectively.



5 Findings and Conclusions

The following summarizes the findings of the investigation of the East Declez Site:

- Subsurface sediments beneath the East Declez Site consist of upper younger alluvium that overlies older alluvial deposits that overlie metamorphic and granitic bedrock.
- The younger alluvium is 30 to 40 ft thick and consists predominantly of sand and gravel that is loose, permeable and conducive to the infiltration of surface water. The younger alluvium is not expected to be a liquefaction risk.
- The underlying older alluvium consists predominantly of dense clay with some sand and gravel. This formation has low permeability and would not facilitate significant infiltration of water.
- Infiltration of surface water at the Site will perch on the older alluvial deposits and mound within the younger alluvium.
- Given the limited thickness of permeable younger alluvium for subsurface storage of water, a recharge basin at the Site would have to be designed with a shallow bottom.
- Hydraulic analysis of potential storm water conveyance to the East Declez Site presented in Wildermuth (2016) showed that it is not feasible to deliver storm water from the East Declez Channel to a shallow recharge basin due to the high elevation of the basin bottom relative to the Declez Channel diversion point.
- An alternative use for the Site is to expand the existing Declez Basin to the east, which would create additional surface storage capacity. Preliminary estimates indicate a potential increase in surface storage capacity of approximately 130 acre-ft.
- Hydraulic analysis presented in Wildermuth (2016) estimates that the net increase in recharge to the groundwater basin from an expanded Declez Basin option could range from approximately 144 to 414 acre-ft/yr. The lower end of the range assumes no additional diversion or storm water supply improvements. The high end of the range assumes upstream storm water diversion improvements that increase the amount of water available for delivery to the expanded Declez Basin.



6 References

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- Juang, C., Yuan, H., Lee, D., and Lin, P., 2003. Simplified CPT-Based Method for Evaluating Liquefaction Resistance of Soils. J. of Geotechnical and Geoenvironmental Engineering: V. 129, Issue 1.
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- Wildermuth Environmental, 2014. 2013 Chino Basin Groundwater Model Update and Recalculation of Safe Yield Pursuant to the Peach Agreement.
- Wildermuth Environmental, 2016. Assessment of Additional Alternatives for Potential Storm Water Recharge Project East of Declez Basin. Letter Report Dated January 28, 2016.
- Yould, T.L. and Idriss, I.M., 2001. Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils. J. of Geotechnical and Geoenvironmental Engineering: V. 127, Issue 4.



Table



Soil Physical Properties Testing Summary

Borehole	Depth (ft bgs) ¹	Geologic Unit	Sample Orientation	Vertical Hydraulic Conductivity (ft/day) ²	Horizontal Hydraulic Conductivity (ft/day)	Total Porosity	Effective Porosity	Dry Bulk Density (g/cc) ³
BH-3	56.0 - 56.5	Older Alluvium	Vertical	0.01	N/A ⁴	N/A	N/A	N/A
BH-4	52.5 - 53.0	Older Alluvium	Vertical	0.01	N/A	N/A	N/A	N/A
BH-5	76.0 - 76.5	Older Alluvium	Vertical	0.01	N/A	N/A	N/A	N/A
BH-6	44.5 - 45.0	Older Alluvium	Vertical	0.01	N/A	N/A	N/A	N/A
BH-3	56.0 - 56.5	Older Alluvium	Horizontal	N/A	0.01	N/A	N/A	N/A
BH-4	52.5 - 53.0	Older Alluvium	Horizontal	N/A	0.01	N/A	N/A	N/A
BH-5	76.0 - 76.5	Older Alluvium	Horizontal	N/A	0.01	N/A	N/A	N/A
BH-6	44.5 - 45.0	Older Alluvium	Horizontal	N/A	0.02	N/A	N/A	N/A
BH-4B	21.0 - 21.5	Younger Alluvium	Vertical	0.50	N/A	34.1%	N/A	1.77
BH-5B	21.0 - 21.5	Younger Alluvium	Vertical	0.44	N/A	32.0%	N/A	1.83
BH-4B	21.0 - 21.5	Younger Alluvium	Horizontal	N/A	0.15	26.3%	N/A	1.99
BH-5B	21.0 - 21.5	Younger Alluvium	Horizontal	N/A	11.71	32.2%	N/A	1.83

Notes:

- ¹ ft/bgs = feet below ground surface.
- ² ft/day = feet per day.
- ³ g/cc = grams per cubic centimeter.
- ⁴ N/A = not analyzed.

Figures

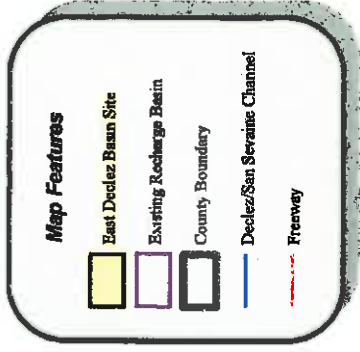


East Declez Basin Improvements Subsurface Investigations

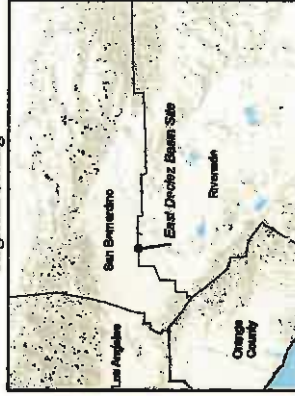
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Basemap Source: www.esri.com



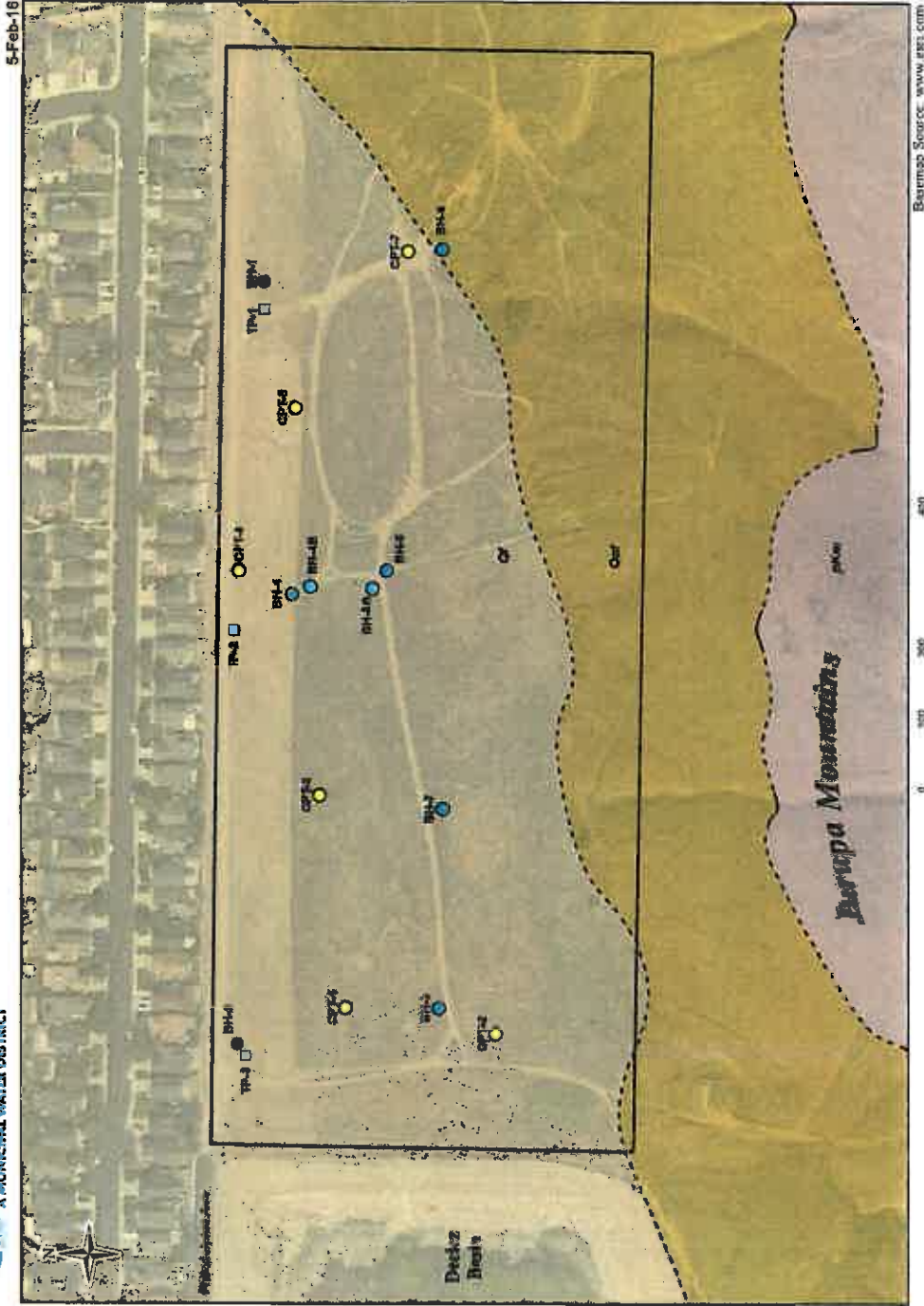
Regional Setting



Study Area

Figure 1

East Declez Basin Improvements Subsurface Investigation



Map Features

- Borehole Location
- Shallow Borehole Location
- CPT Location
- Previous Borehole (Geoscience, 2014)
- Infiltration Test Pit (Geoscience, 2014)
- East Declez Basin Site
- Geologic Contact (Debased Where Approximate)
- Young Alluvial Deposits
- Older Alluvial Deposits
- Crystalline Bedrock

East Declez Basin site boundary from Riverside County Geographic Information Services' Parcel Database <http://gis.rivcoit.org/GISData.aspx>

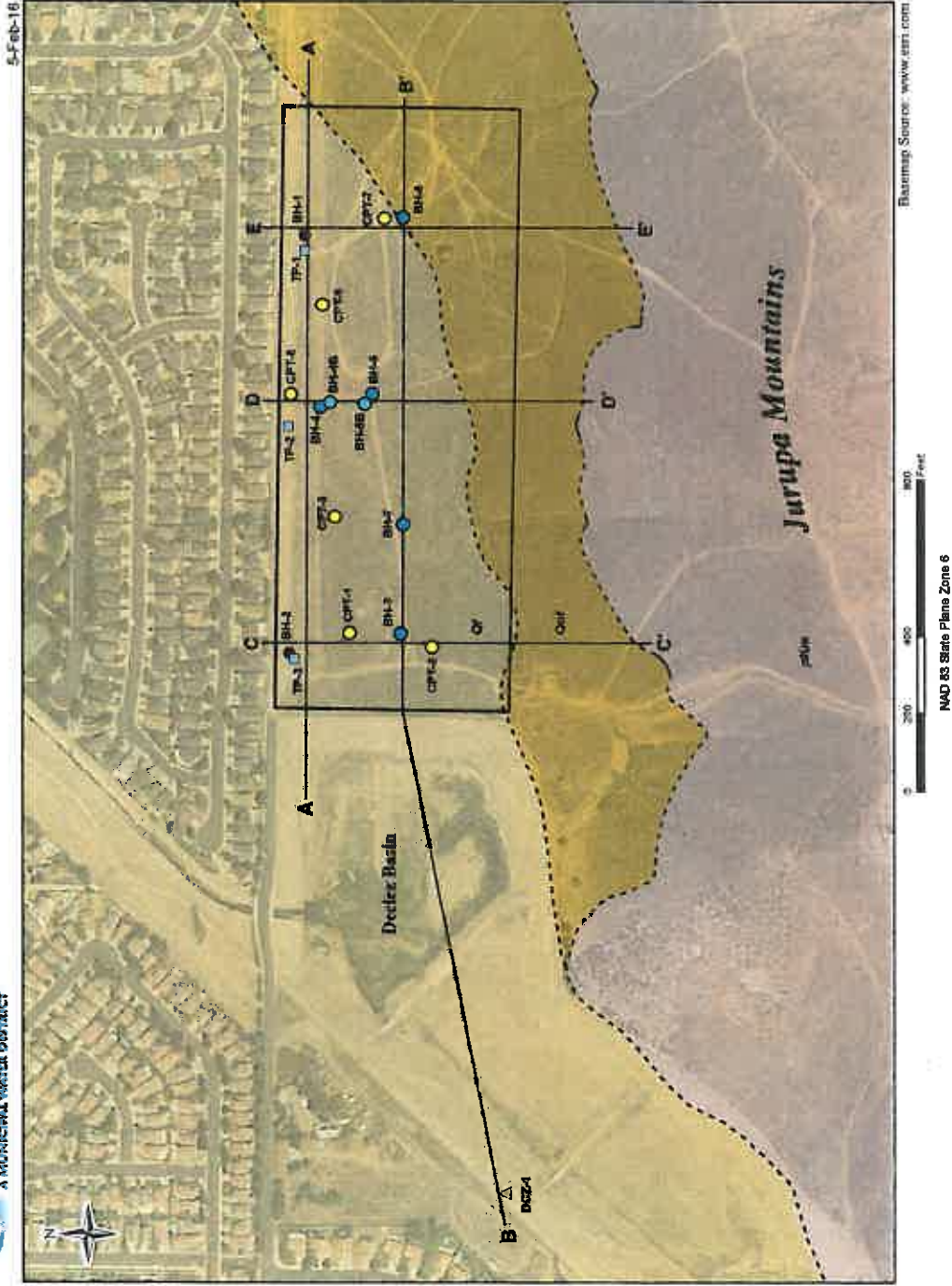
Geology from field mapping, September 2015 and modified from Morton and Miller, Geologic Map of the San Bernardino and Santa Ana 30' x 60' quadrangles, USGS Open File Report 2006

East Declez Basin Site

Figure 2



East Declez Basin Improvements Subsurface Investigation



Map Features

- Borehole Location
- Shallow Borehole Location
- CPT Location
- Previous Borehole (Geoscience, 2014)
- Infiltration Test Pit (Geoscience, 2014)
- ▲ Existing Monitoring Well
- Cross Section Location
- East Declez Basin Site
- Geologic Contact (Dashed Where Approximate)
- Young Alluvial Deposits
- Older Alluvial Deposits
- Crystalline Bedrock

East Declez Basin site boundary from Riverside County Geographic Information Services' Parcel Database <http://gis.rivcoait.org/GISData.aspx>

Geology map from field mapping, September 2015 and modified from Morton and Miller, Geologic Map of the San Bernardino and Santa Ana 30' x 60' quadrangles, USGS Open File Report 2006

Cross Section Locations

Figure 3

**East Declez Basin Improvements
Subsurface Investigation**

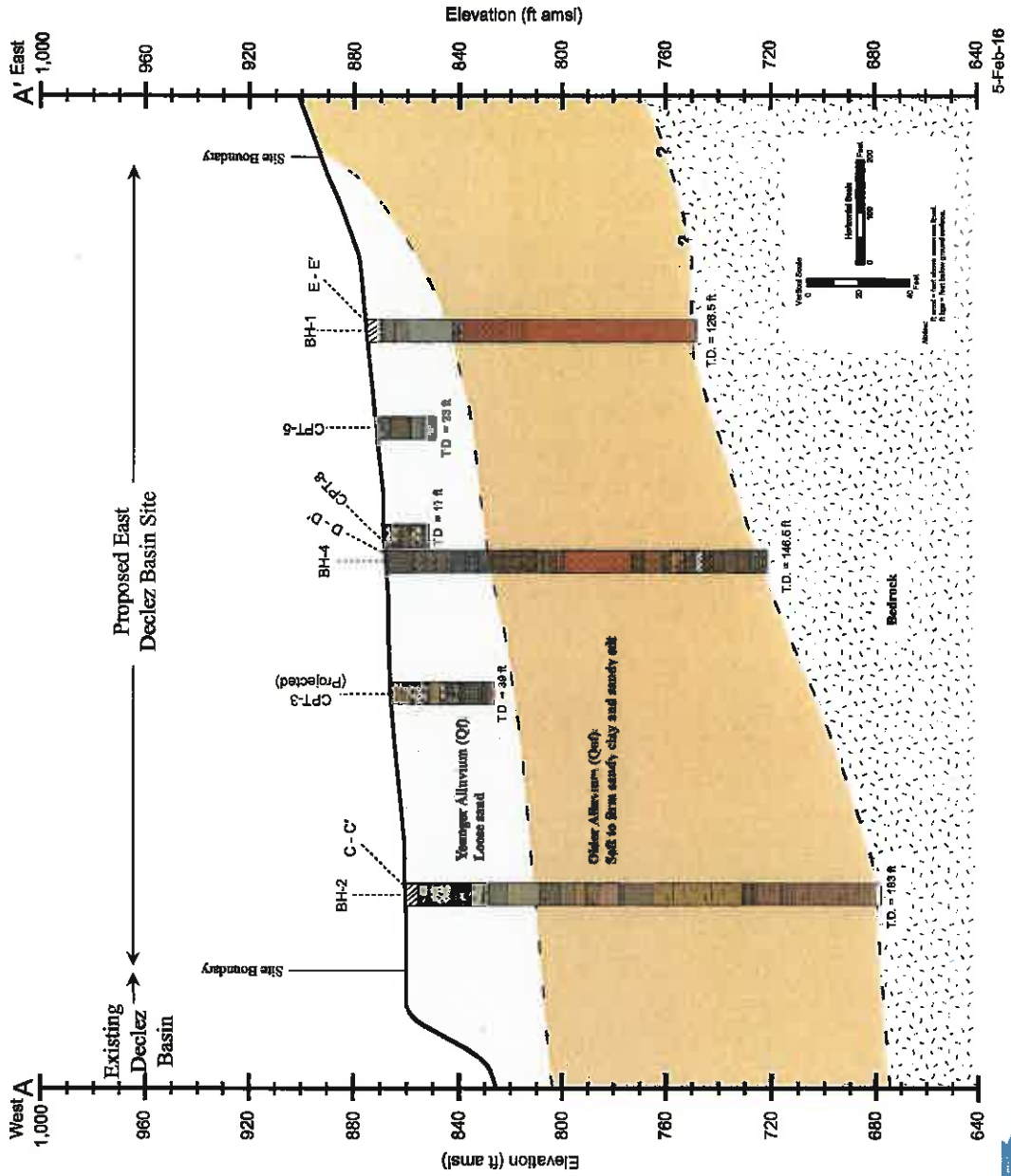


Figure 4a

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East Declez Basin Improvements Subsurface Investigation

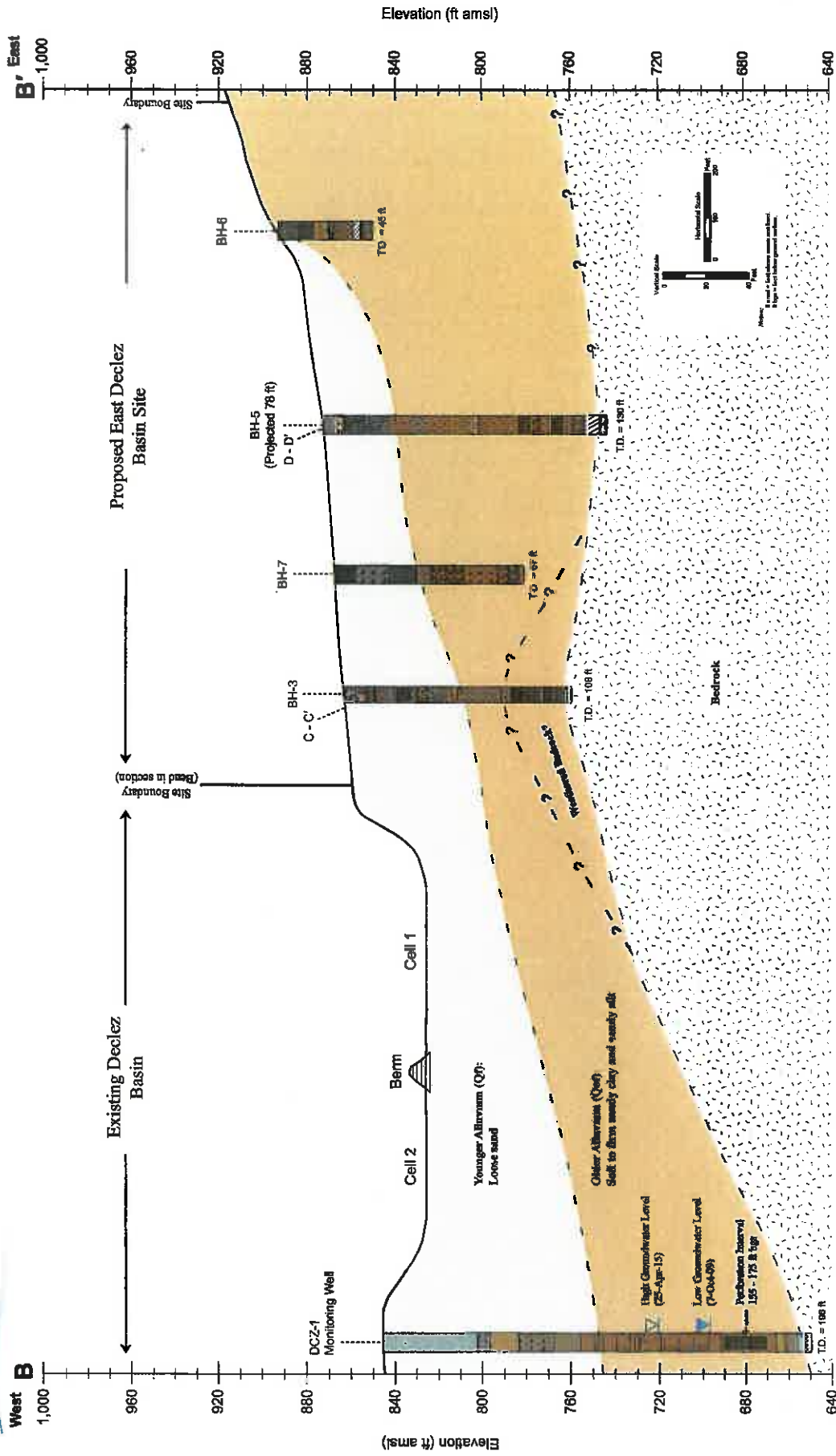
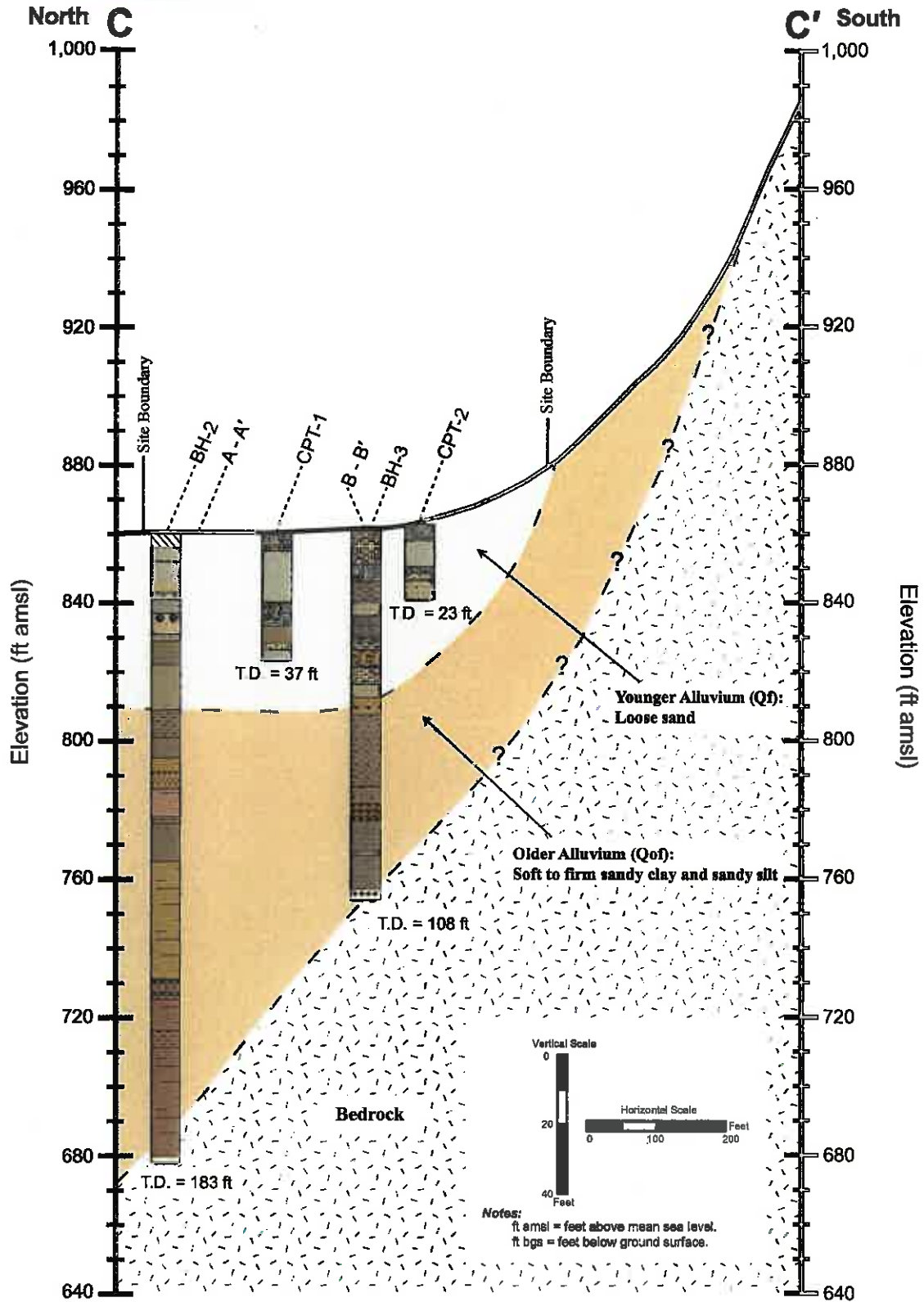


Figure 4b

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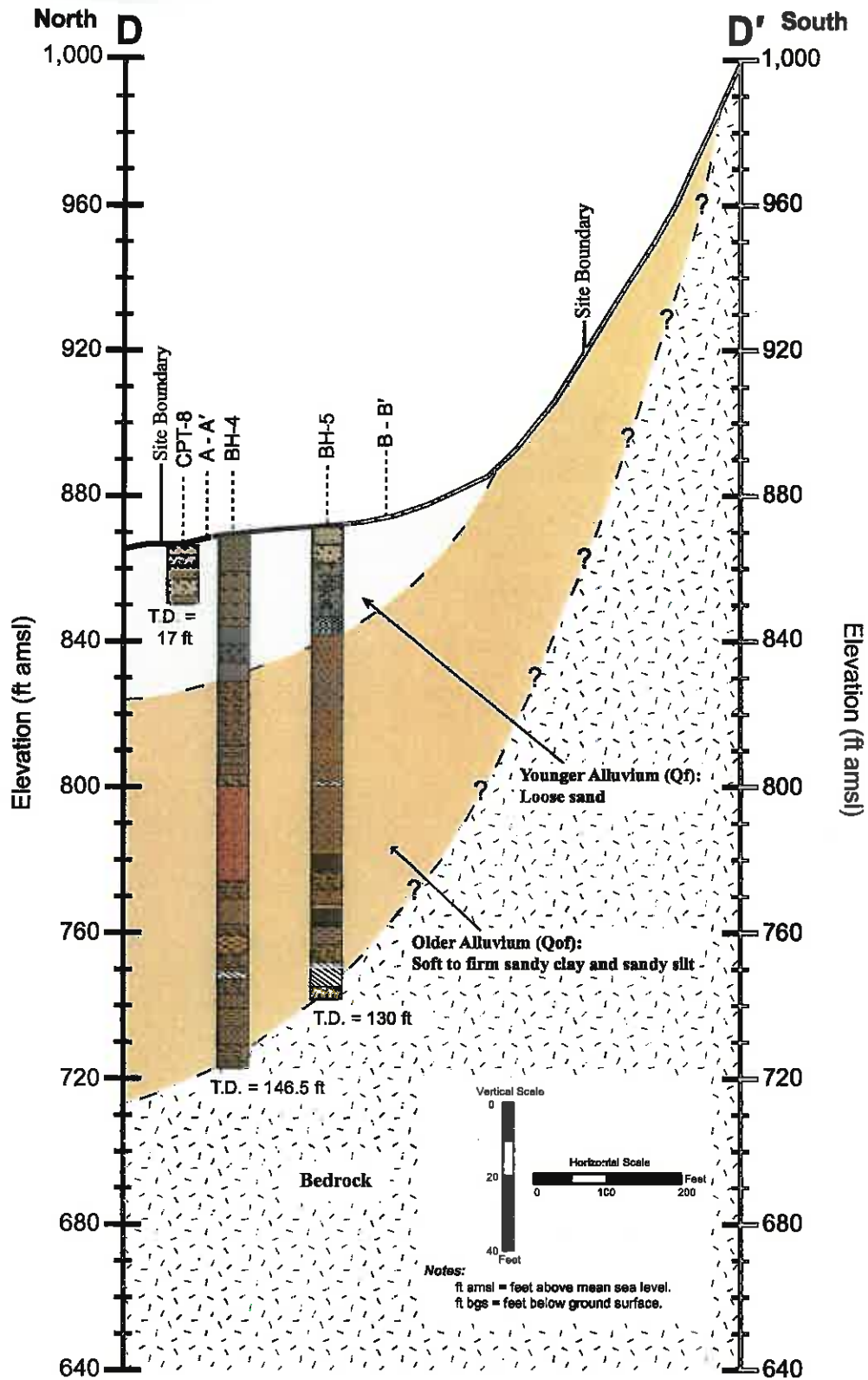




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Figure 4c



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Figure 4d

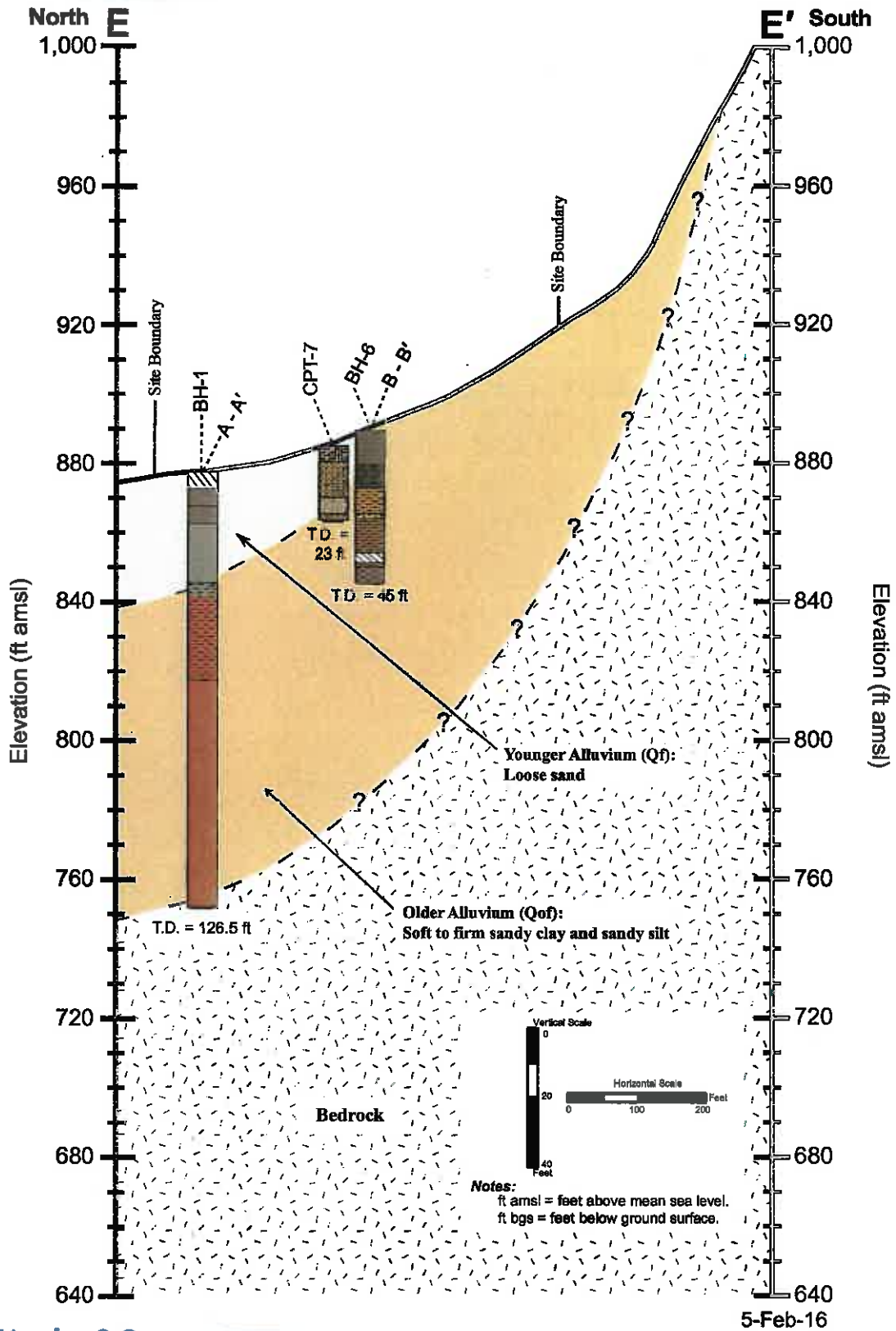
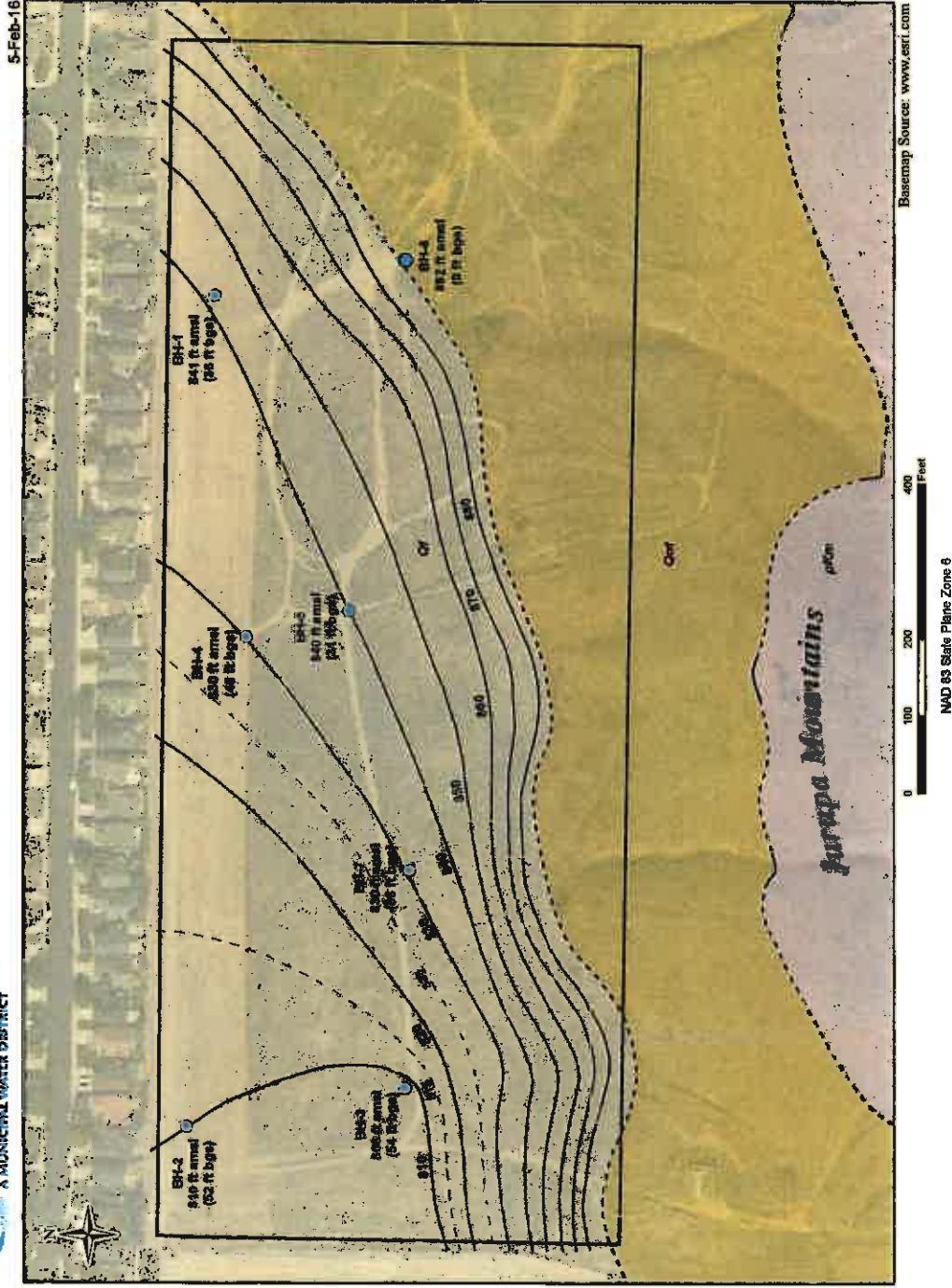
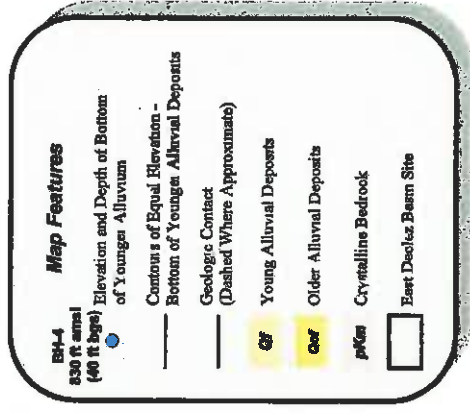


Figure 4e



East Declez Basin Improvements Subsurface Investigation



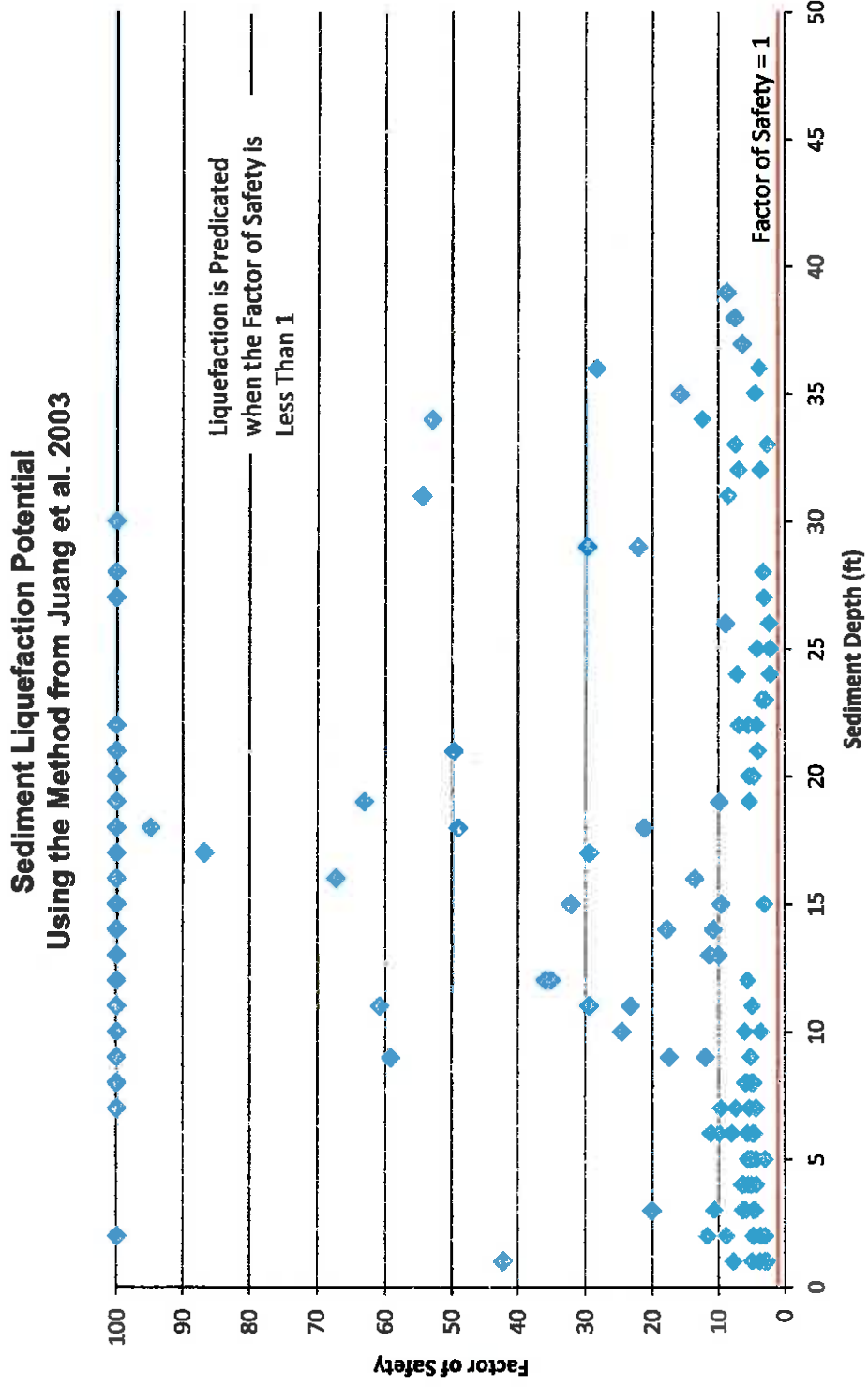
East Declez Basin site boundary from Riverside County Geographic Information Services' Parcel Database
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Geology from field mapping, September 2015 and modified from Morton and Miller, Geologic Map of the San Bernardino and Santa Ana 30' x 60' quadrangles, USGS Open File Report 2006

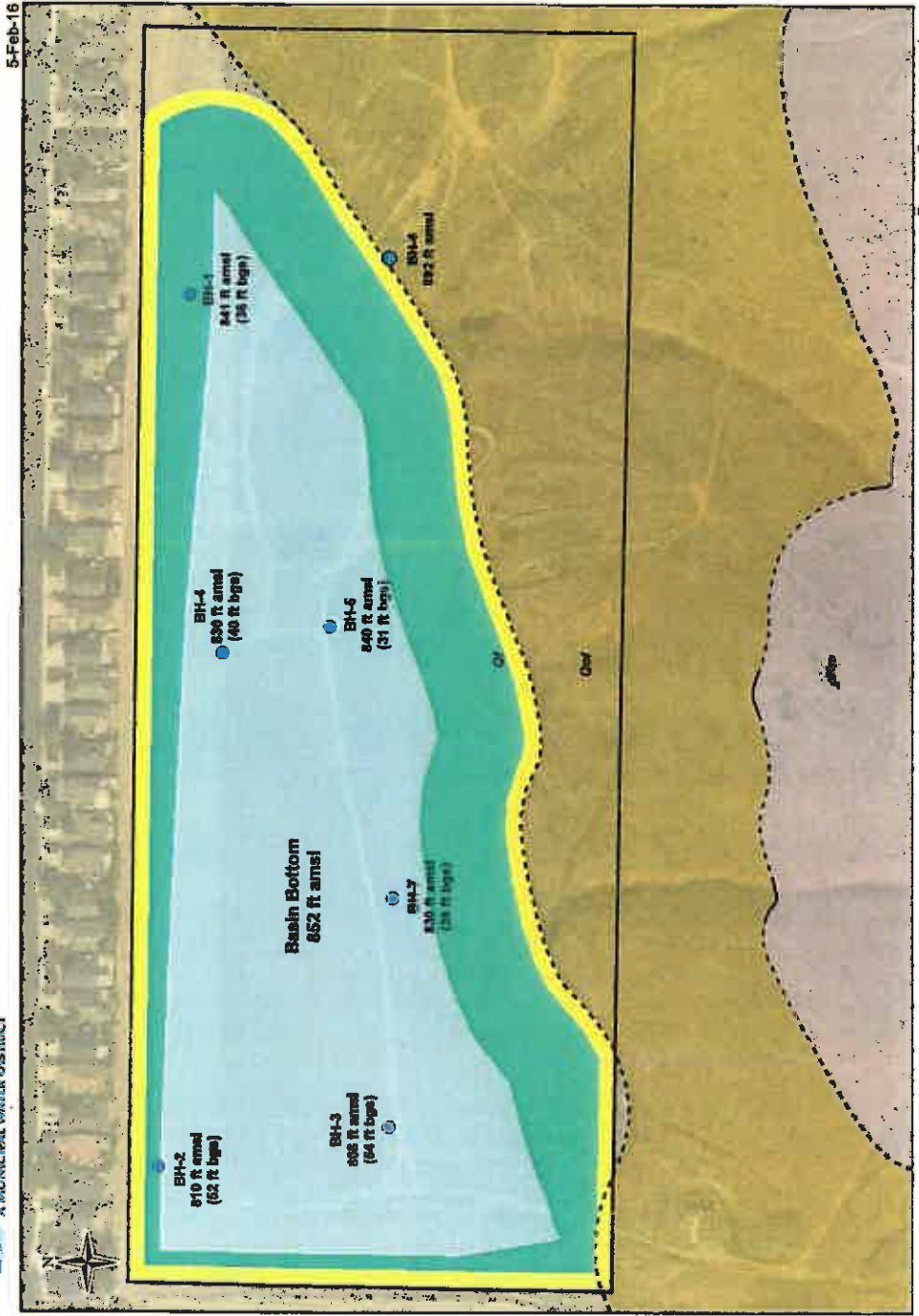
ft amsl = feet above mean sea level
ft bgs = feet below ground surface

Contours of Equal Elevation Bottom of Younger Alluvium

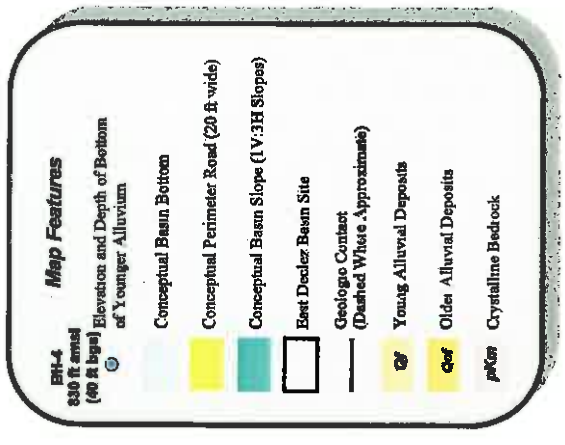
Figure 5



Note: Values with a factor of safety greater than 100 shown as 100.



**East Declez Basin Improvements
Subsurface Investigation**



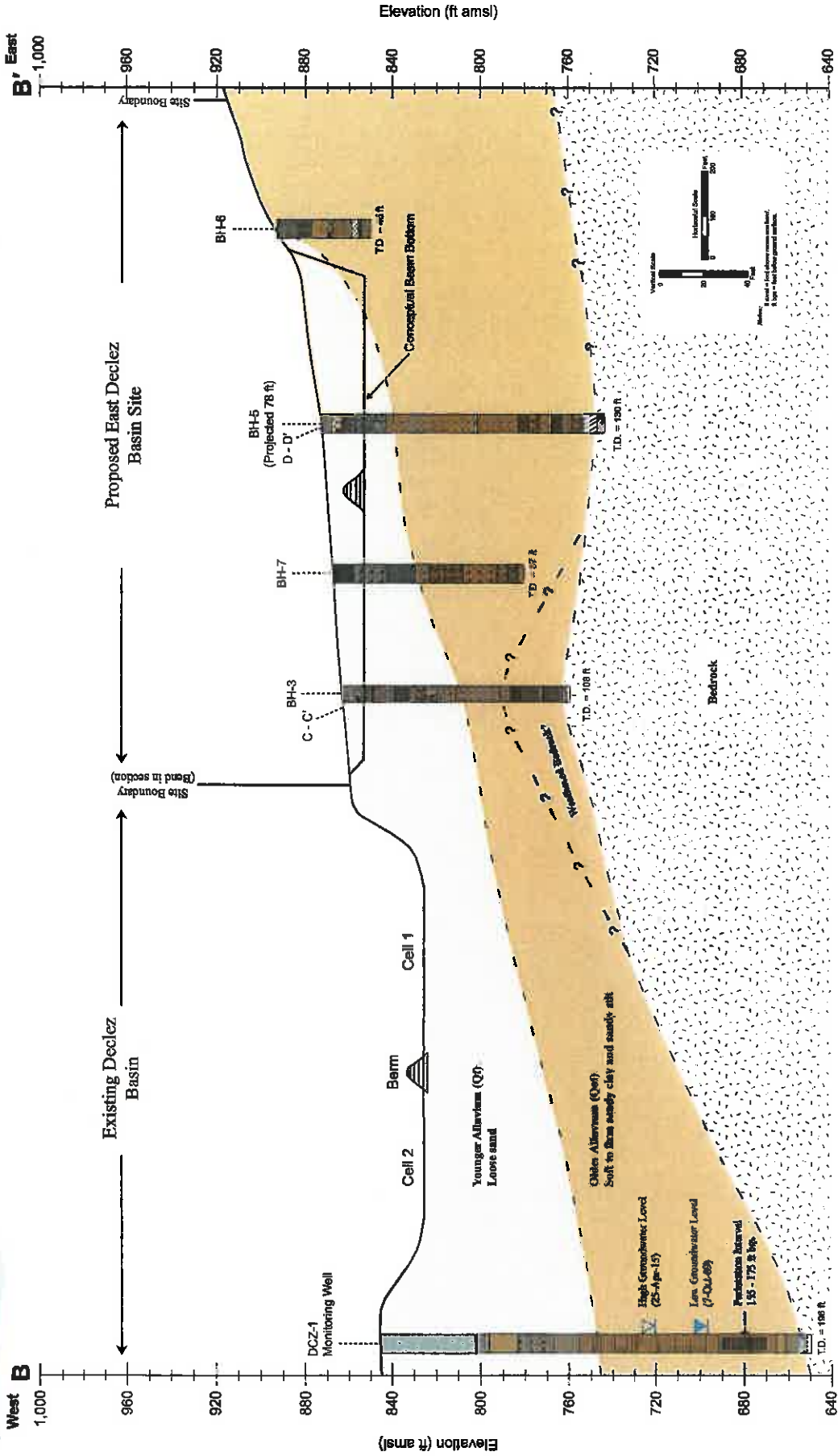
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ft amsl = feet above mean sea level
ft bgs = feet below ground surface

**Conceptual Basin Layout -
Shallow Recharge Basin Option**
Figure 7

East Declez Basin Improvements Subsurface Investigation



5-Feb-16

Figure 8



Thomas Harder & Co.
Groundwater Consulting

Figure 9

Model-Generated Recharge Scenario Hydrograph
 Hydraulic Conductivity = 50 ft/day

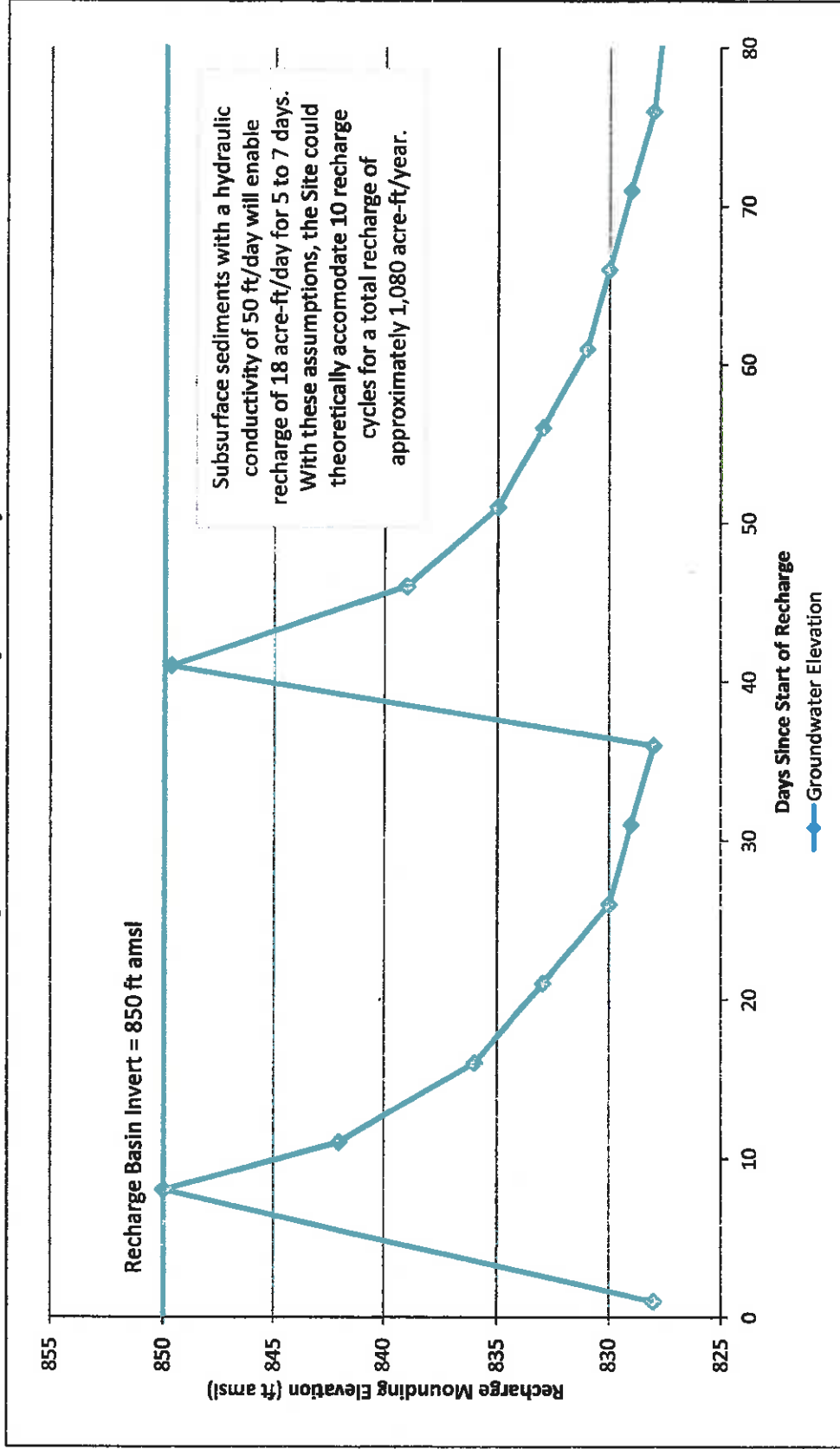
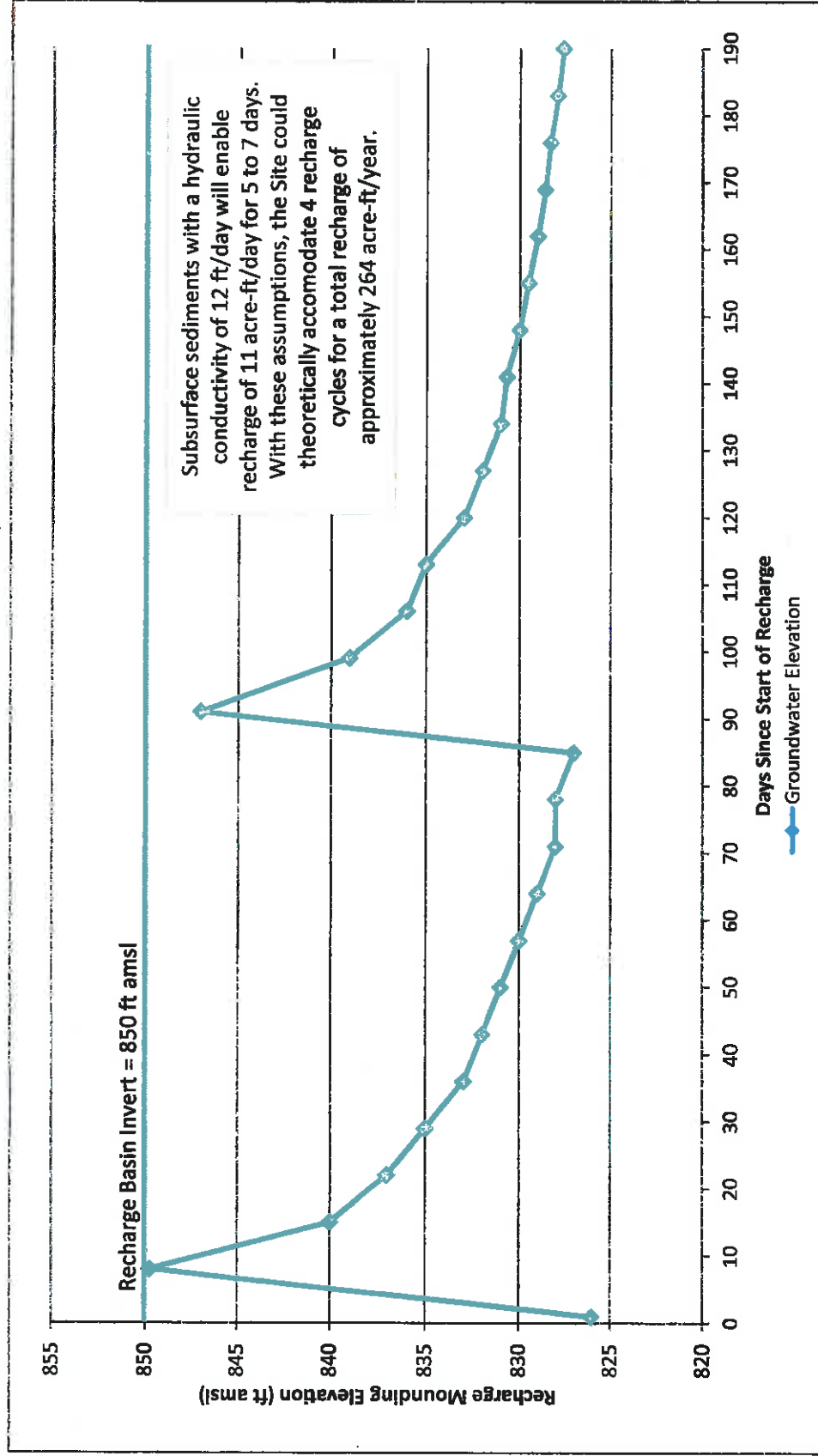
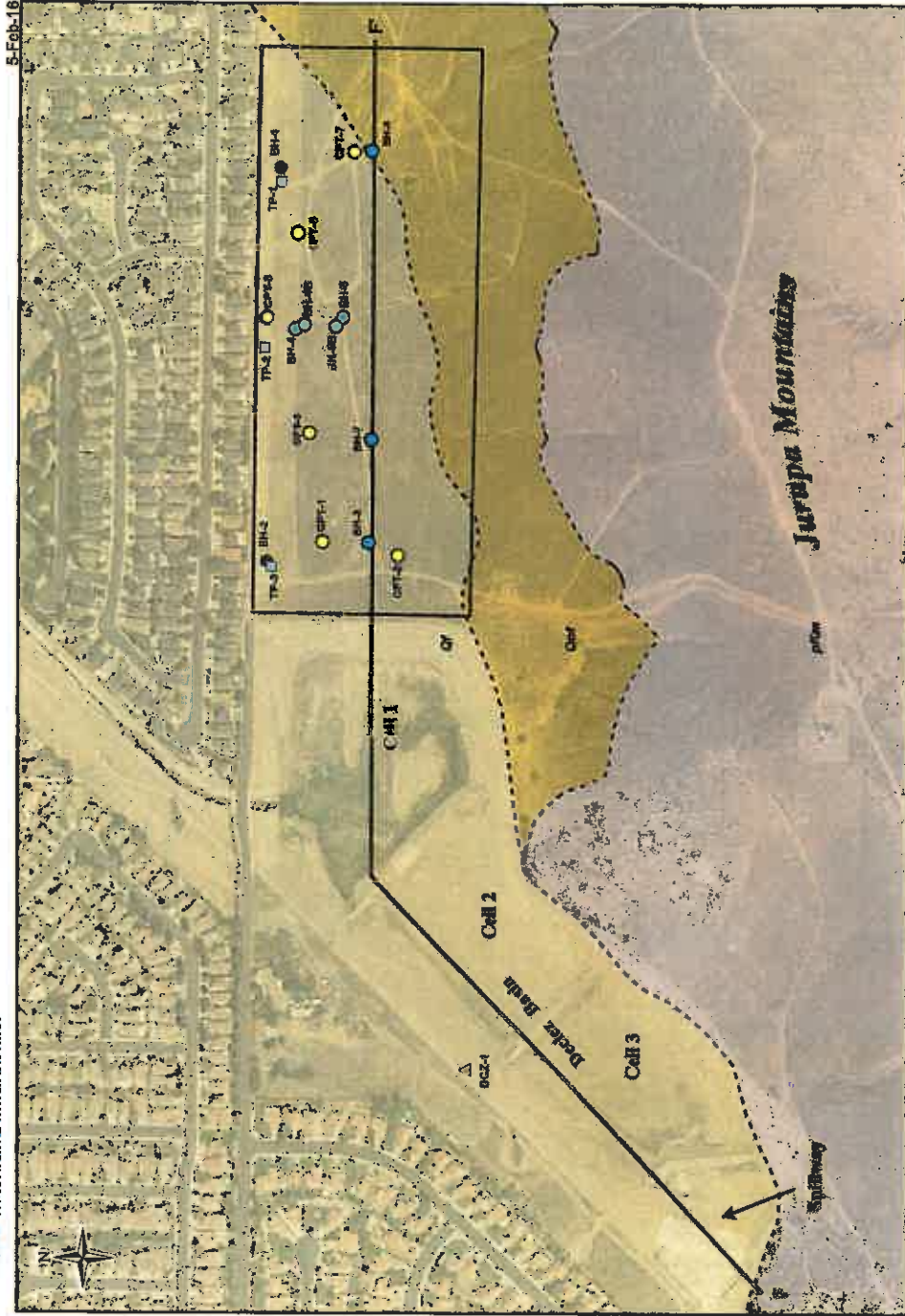


Figure 10

Model-Generated Recharge Scenario Hydrograph
 Hydraulic Conductivity = 12 ft/day



East Declez Basin Improvements Subsurface Investigation



Basemap Source: www.esri.com

NAD 83 State Plane Zone 6

0 250 500 1,000 Feet

5-Feb-16

Map Features

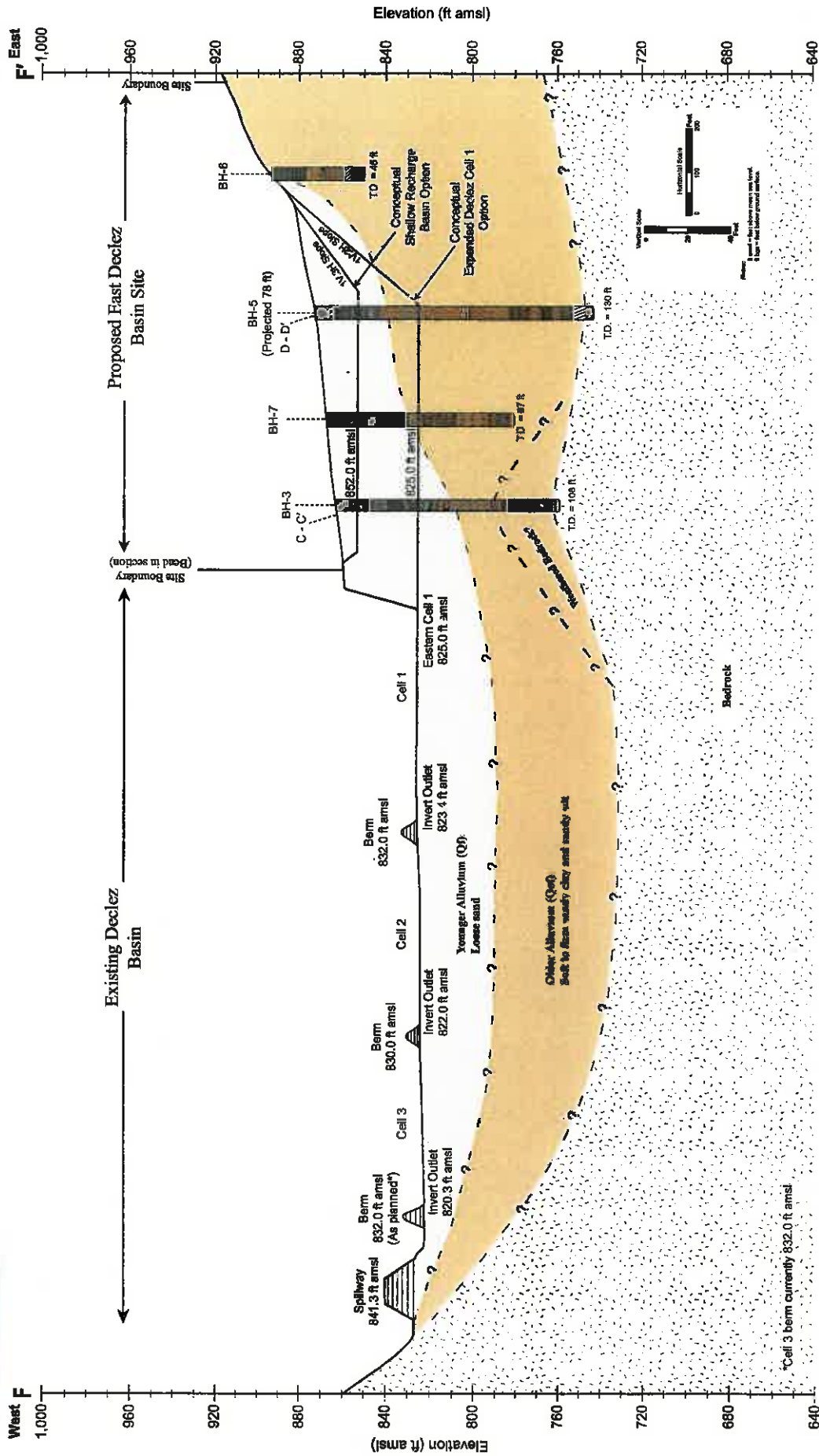
- Borehole Location
- Shallow Borehole Location
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Cross Section Location F - F'
Figure 11

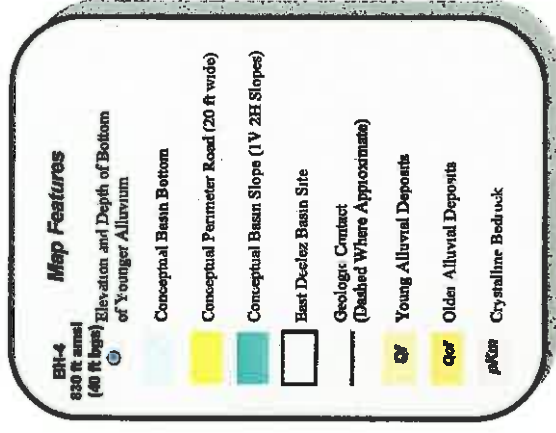
East Declez Basin Improvements Subsurface Investigation



5-Feb-16

Figure 12

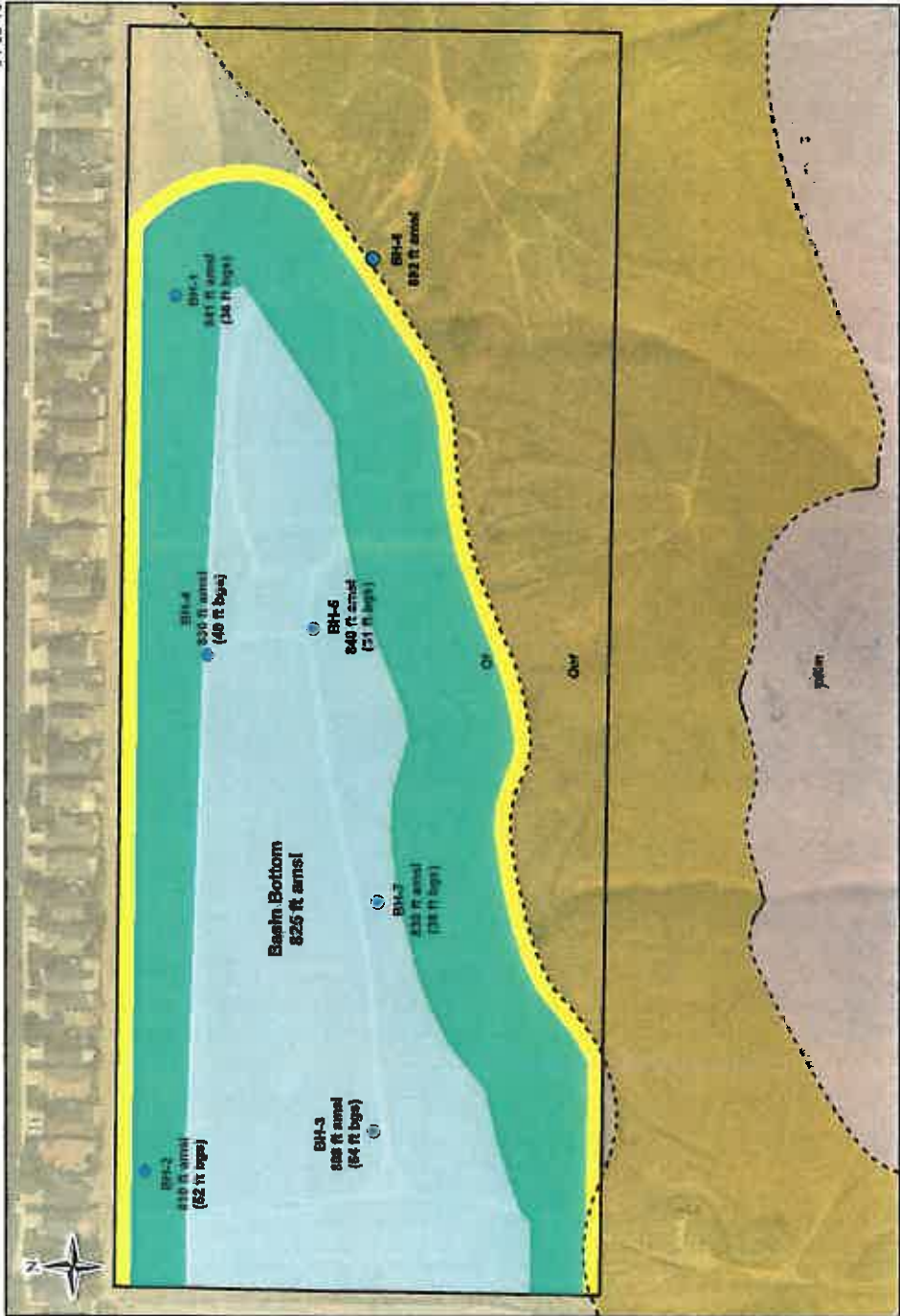
**East Declez Basin Improvements
Subsurface Investigation**



East Declez Basin site boundary from Riverside County Geographic Information Services' Parcel Database <http://gis.rivcoit.org/GISData.aspx>

Geology from field mapping, September 2015 and modified from Morton and Miller, Geologic Map of the San Bernardino and Santa Ana 30' x 60' quadrangles, USGS Open File Report 2006

ft amsl = feet above mean sea level
ft bgs = feet below ground surface



Basemap Source: www.esri.com

**Conceptual Basin Layout -
Expanded Declez Cell 1 Option**
Figure 13

Appendix A

Previous Investigation Borehole Lithologic Logs





Oak Tree Group
 Recharge Feasibility
 GEOSCIENCE Project No. 13055-14

LOG OF BORING BH-1

SHEET 1 OF 5

Location	34.033369 -117.493857	Date(s) Drilled	8/26/14 - 8/27/14	Drilling Contractor	ABC Liovin Drilling	Bearing (Azimuth)	NA
Ground Surface Elevation (ft)	882	Logged by	J. Sobolew	Drill Rig Type	CME - 85	Plunge (Degrees)	-90
Horizontal/Vertical Datum	NAD83/NAVD88	Reviewed by	J. Kingsbury	Borehole Diameter (in)	6	Total Depth (ft)	126.5

Depth (ft)	Notes	Core Run No.	Sample Information				Geologic Unit	MATERIAL DESCRIPTION
			Penetration (Graphs)	Type and No.	Blows per 6 in.	Penetration (in)		

0							No Sample
5		R1			60	12	SAND (SW): brown (7.5YR 5/4); 95% fine to medium grained sand, subangular to subrounded; 5% silt; dry sample; very loose.
10		R2			60	12	SILT (ML): brown (7.5YR 5/4); 95% silt; trace fine to coarse gravel up to 11mm, subangular; trace fine to medium grained sand, subangular; dry sample, very loose.
15		R3			60	15	SAND WITH GRAVEL (SP): grayish brown (10YR 5/2); 65% fine to coarse grained sand, angular to subangular; 35% fine to coarse gravel up to 26mm, angular to subangular; trace silt; poorly sorted; dry sample, loose.
20		R4			60	15	@25 ft bgs increase in fine to coarse gravel.
25		R5			60	24	
30							



**Oak Tree Group
Recharge Feasibility
GEOSCIENCE Project No. 13055-14**

LOG OF BORING BH-1

SHEET 2 OF 5

Location	34.033369 -117.493857	Date(s) Drilled	8/26/14 - 8/27/14	Drilling Contractor	ABC Liovin Drilling	Bearing (Azimuth)	NA
Ground Surface Elevation (ft)	882	Logged by	J. Sobolew	Drill Rig Type	CME - 85	Plunge (Degrees)	-90
Horizontal/Vertical Datum	NAD83/NAVD88	Reviewed by	J. Kingsbury	Borehole Diameter (in)	6	Total Depth (ft)	126.5

Depth (ft)	Notes	Core Run No.	Sample Information				Geologic Unit	MATERIAL DESCRIPTION
			Penetration (Graphite) Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)		
30		R6			60	24	SILTY SAND (SM): grayish brown (10YR 5/2); 85% fine to coarse grained sand, angular to subangular; 15% silt; trace fine gravel up to 5mm, angular to subangular, fine to coarse gravel at base; poorly sorted; dry sample.	
35		R7			60	24	SILTY SAND (SM): red (2.5YR 5/8); 80% fine to coarse grained sand, angular to subangular; 20% silt; trace fine gravel up to 5mm, angular to subangular; dense, dry sample.	
40		R8			60	26.04		
45		R9			60	45.96	@46 ft bgs color changes to dark red (2.5YR 3/6).	
50		R10			60	46.92	@50 ft bgs color changes to re (2.5YR 5/8); Increase in fine to coarse sand.	
55		R11			60	26.04	@55 ft bgs color changes to dark red (2.5YR 3/6).	
60							@57 ft bgs color changes to red (2.5YR 5/8).	



Oak Tree Group
Recharge Feasibility
 GEOSCIENCE Project No. 13055-14

LOG OF BORING BH-1

SHEET 3 OF 5

Location	34.033369 -117.493857	Date(s) Drilled	8/26/14 - 8/27/14	Drilling Contractor	ABC Liovin Drilling	Bearing (Azimuth)	NA
Ground Surface Elevation (ft)	882	Logged by	J. Sobolew	Drill Rig Type	CME - 85	Plunge (Degrees)	-90
Horizontal/Vertical Datum	NAD83/NAVD88	Reviewed by	J. Kingsbury	Borehole Diameter (in)	6	Total Depth (ft)	126.5

Depth (ft)	Notes	Core Run No.	Sample Information				Geologic Unit	MATERIAL DESCRIPTION
			Penetration (Graphite)	Type and No.	Blows per 6 in.	Penetration (in)		

60		R12			60	56.4	SAND WITH GRAVEL (SP): red (2.5YR 5/8); 85% fine to coarse grained sand, subangular to subrounded; 15% fine to coarse gravel up to 45mm, subangular to subrounded; trace silt; poorly sorted; contains weathered clasts
65		R13			60	48.48	
70		R14			60	24	SAND WITH GRAVEL (SP): red (2.5YR 5/8); 85% fine to coarse grained sand, subangular to subrounded; 10% fine to coarse gravel, subangular to subrounded; 5% silt; poorly sorted; dense, dry
75		R15			60	6	
80		R16			60	27.96	
85		R17			60	31.5	
90							




Oak Tree Group
 Recharge Feasibility
 GEOSCIENCE Project No. 13055-14

LOG OF BORING BH-1

SHEET 4 OF 5

Location	34.033369 -117.493857	Date(s) Drilled	8/26/14 - 8/27/14	Drilling Contractor	ABC Liovin Drilling	Bearing (Azimuth)	NA
Ground Surface Elevation (ft)	882	Logged by	J. Sobolew	Drill Rig Type	CME - 85	Plunge (Degrees)	-90
Horizontal/Vertical Datum	NAD83/NAVD88	Reviewed by	J. Kingsbury	Borehole Diameter (in)	6	Total Depth (ft)	126.5

Depth (ft)	Notes	Core Run No.	Sample Information				Geologic Unit	MATERIAL DESCRIPTION
			Penetration (Graphite) Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)		

90		R18			60	45.96	 <p>SAND WITH GRAVEL (SP): red (2.5YR 5/8); 85% fine to coarse grained sand, subangular to subrounded; 10% fine to coarse gravel, subangular to subrounded; 5% silt; poorly sorted; dense, dry</p>	
95		R19			60	18		@97 ft bgs large cobble, rig chatter.
100		R20			60	55.92		
105		R21			60	39		
110		R22			60	51.6		@110 ft bgs driller added water.
115		R23			60	32.04		@113 ft bgs fine to coarse grained sand stringer.
120								



**Oak Tree Group
Recharge Feasibility
GEOSCIENCE Project No. 13055-14**

LOG OF BORING BH-1

SHEET 5 OF 5

Location		34.033369 -117.493857		Date(s) Drilled	8/26/14 - 8/27/14		Drilling Contractor	ABC Liovin Drilling		Bearing (Azimuth)	NA	
Ground Surface Elevation (ft)		882		Logged by	J. Sobolew		Drill Rig Type	CME - 85		Plunge (Degrees)	-90	
Horizontal/Vertical Datum		NAD83/NAVD88		Reviewed by	J. Kingsbury		Borehole Diameter (in)	6		Total Depth (ft)	126.5	
Depth (ft)	Notes	Core Run No.	Sample Information				Geologic Unit	MATERIAL DESCRIPTION				
			Penetration (Graphical)	Type and No.	Blows per 6 in.	Penetration (in)						
120		R24			60	29.52		SAND WITH GRAVEL (SP): red (2.5YR 5/8); 85% fine to coarse grained sand, subangular to subrounded; 10% fine to coarse gravel, subangular to subrounded; 5% silt; poorly sorted; dense, dry				
125		R25			18			Decomposing Granite				

Total Depth 126.5 FT.




**Oak Tree Group
Recharge Feasibility
GEOSCIENCE Project No. 13055-14**

LOG OF BORING BH-2

SHEET 7 OF 7

Location	34.033373 -117.497266	Date(s) Drilled	8/25/14 - 8/26/14	Drilling Contractor	ABC Liovin Drilling	Bearing (Azimuth)	NA
Ground Surface Elevation (ft)	866	Logged by	J. Sobolew	Drill Rig Type	CME - 85	Plunge (Degrees)	-90
Horizontal/Vertical Datum	NAD83/NAVD88	Reviewed by	J. Kingsbury	Borehole Diameter (in)	6	Total Depth (ft)	183

Depth (ft)	Notes	Core Run No.	Sample Information				Geologic Unit	MATERIAL DESCRIPTION	WELL CONSTRUCTION
			Penetration (Graphs)	Type and No.	Blows per 6 in.	Penetration (in)			

180								
		R36			36	43.68		Decomposed Granite

Total Depth 183.0 FT.

Appendix B

Cone Penetrometer Testing Logs

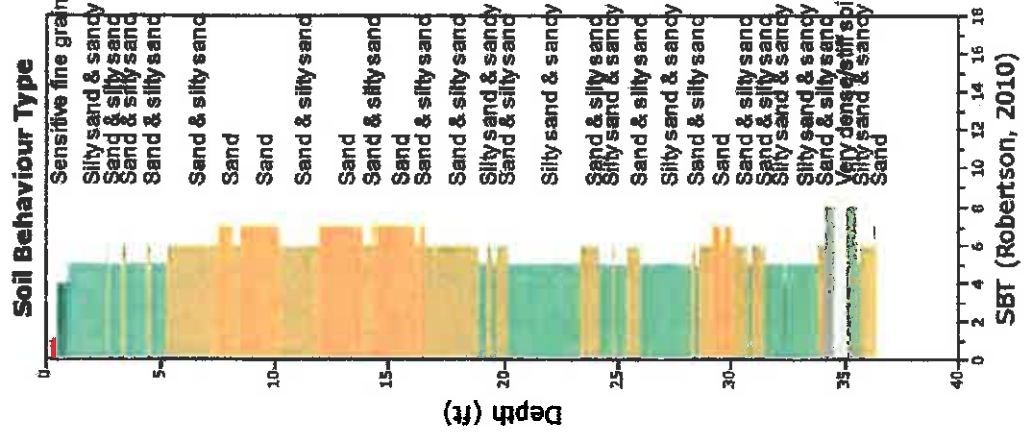
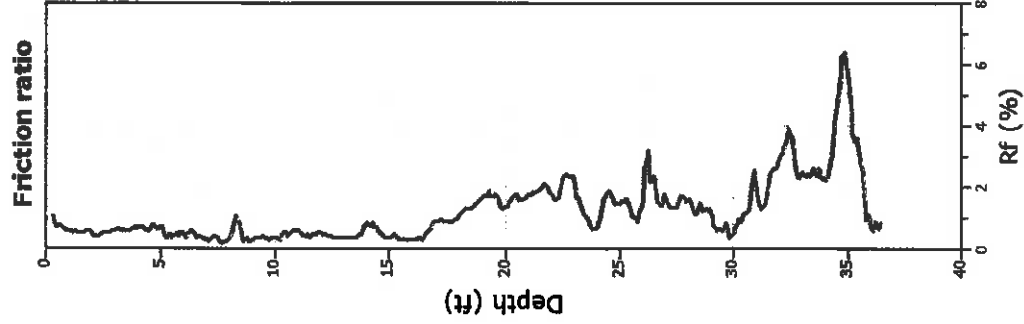
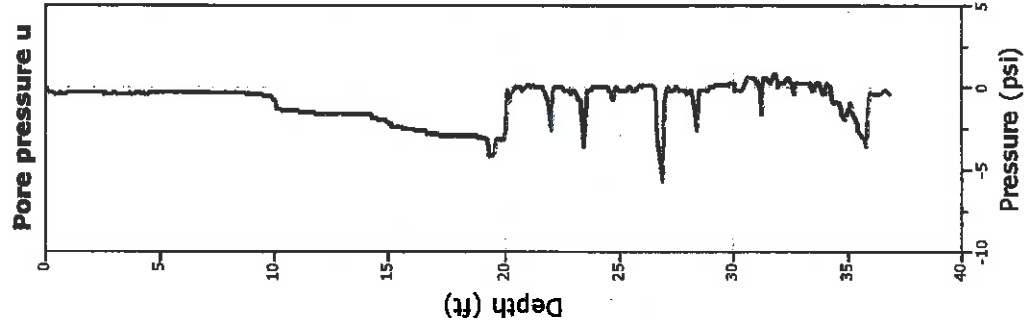
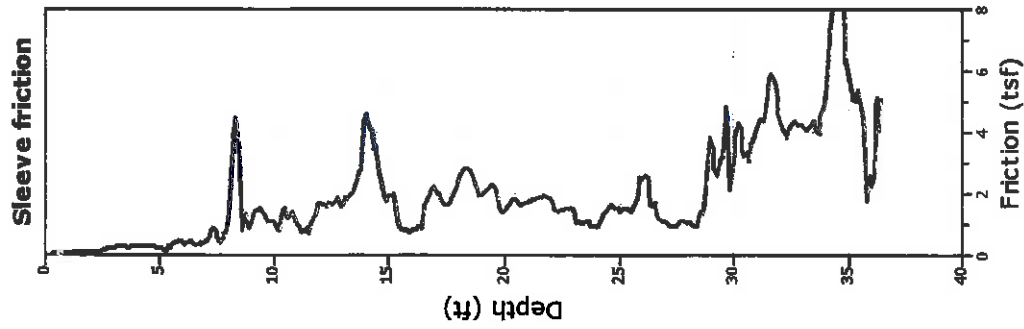
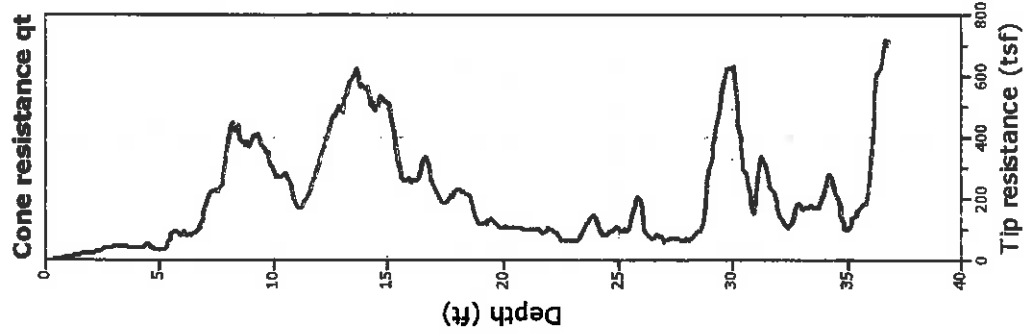




Kehoe Testing and Engineering
 714-901-7270
 rich@kehoetesting.com
 www.kehoetesting.com

Project: Thomas Harder & Company, Inc.
Location: 9998 Philadelphia Ave Mira Loma, CA

CPT: CPT-1
 Total depth: 36.81 ft, Date: 9/22/2015
 Cone Type: Vertek

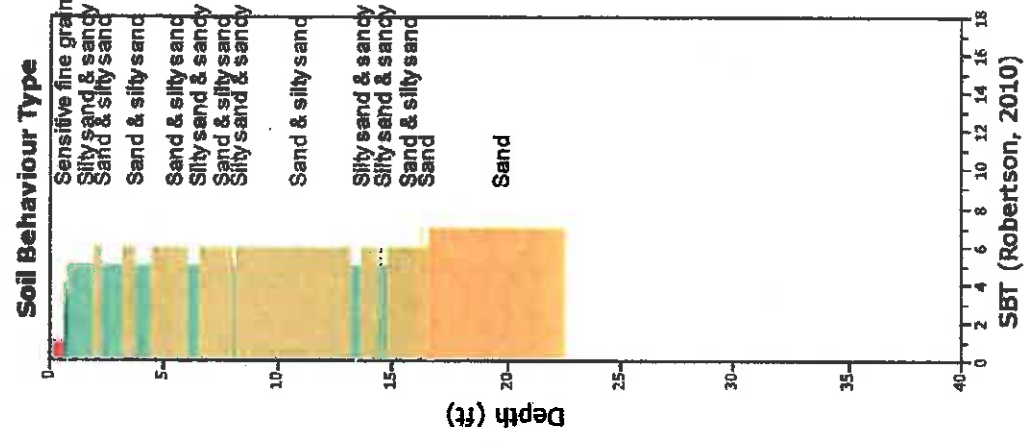
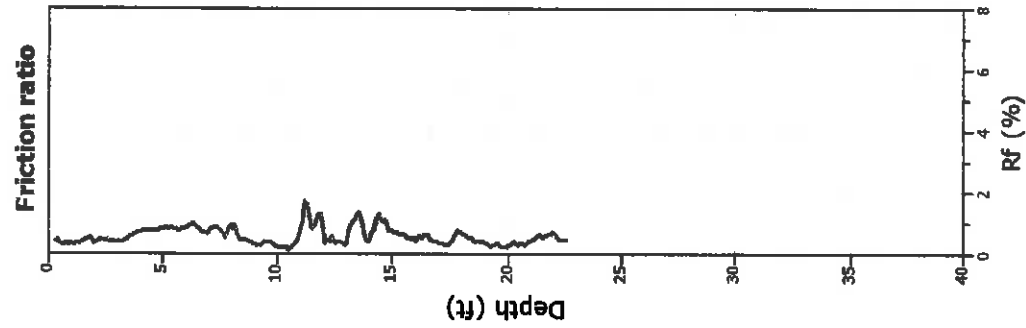
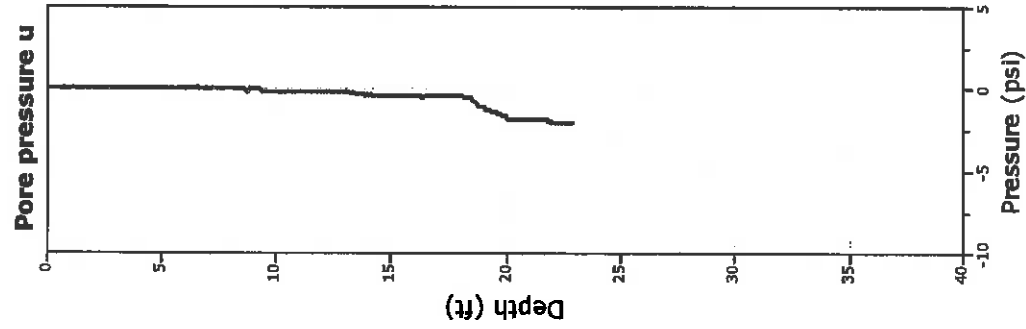
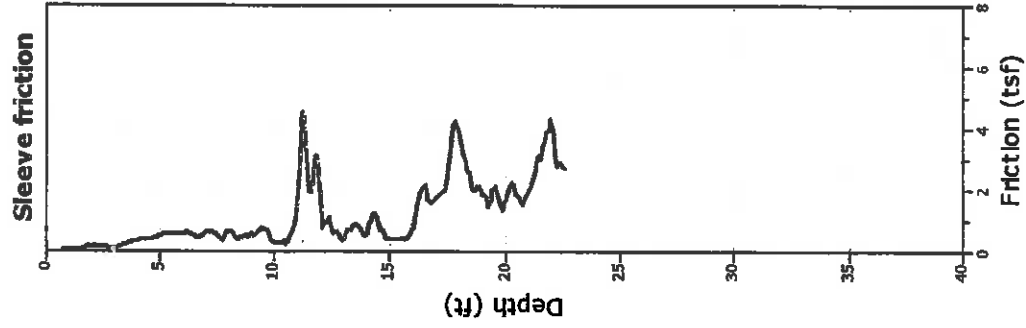
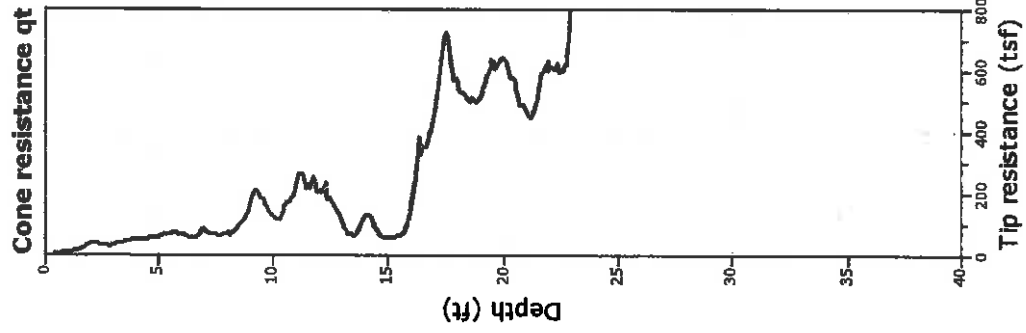




Kehoe Testing and Engineering
714-901-7270
rlch@kehoetesting.com
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Project: Thomas Harder & Company, Inc.
Location: 9998 Philadelphia Ave Mira Loma, CA

CPT: CPT-2
Total depth: 22.90 ft, Date: 9/22/2015
Cone Type: Vertek

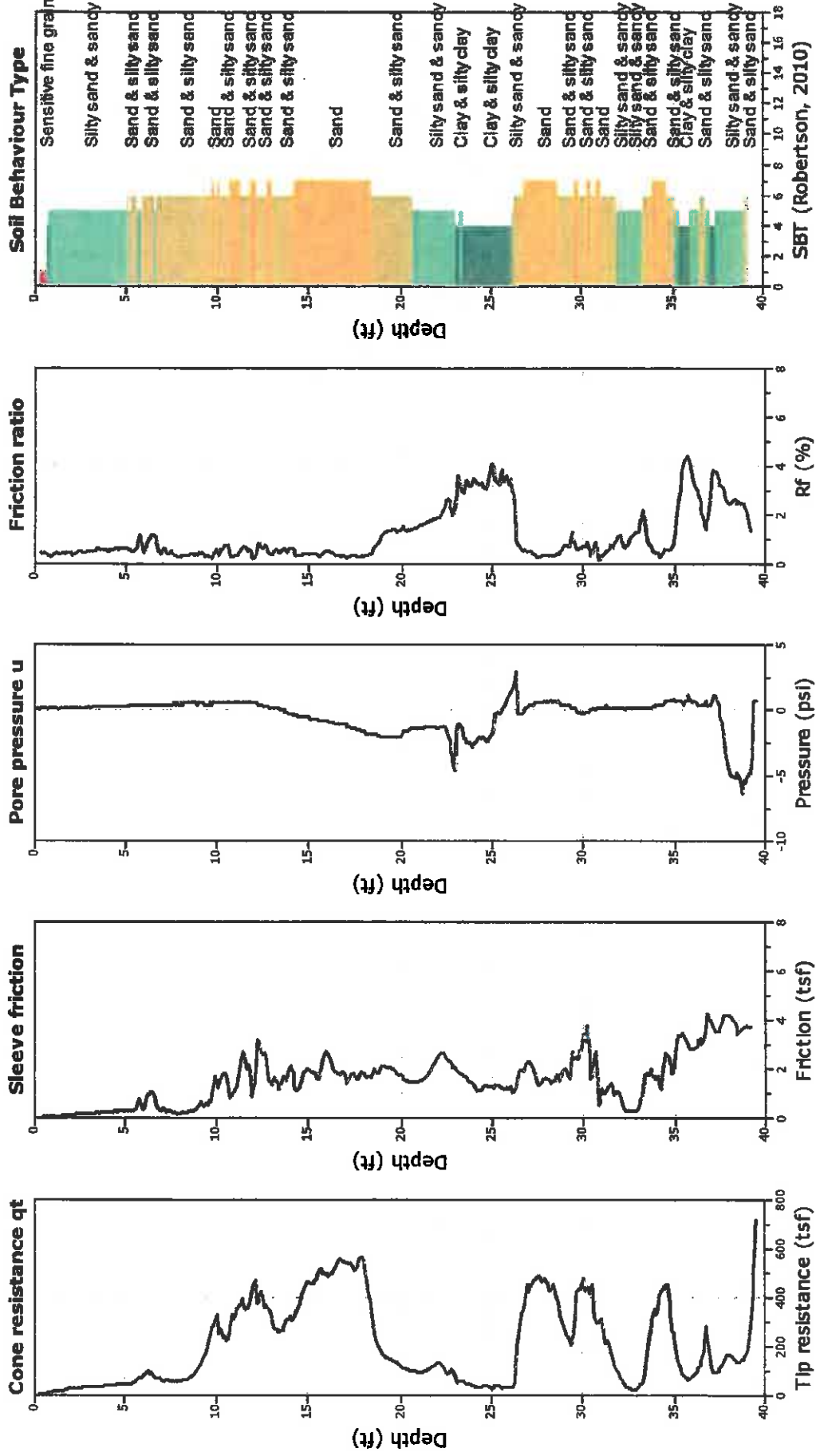




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Project: Thomas Harder & Company, Inc.
Location: 9998 Philadelphia Ave Mira Loma, CA

CPT: CPT-3
 Total depth: 39.56 ft, Date: 9/22/2015
 Cone Type: Vertek

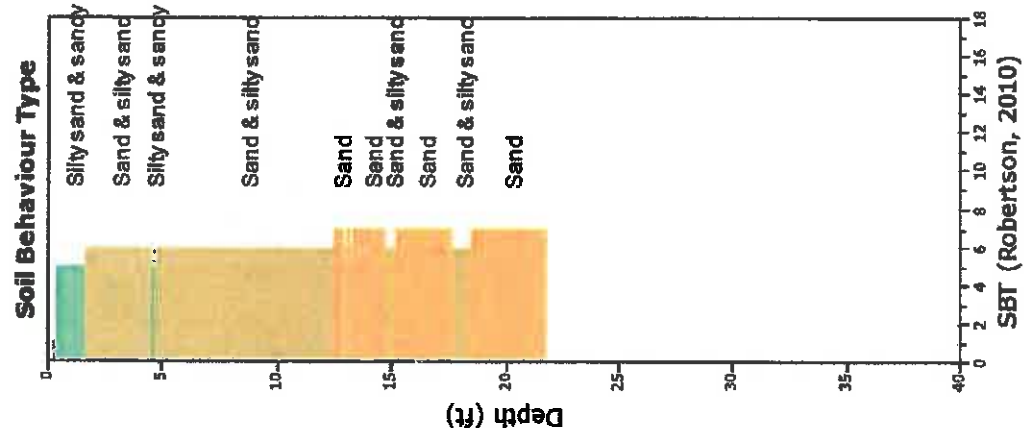
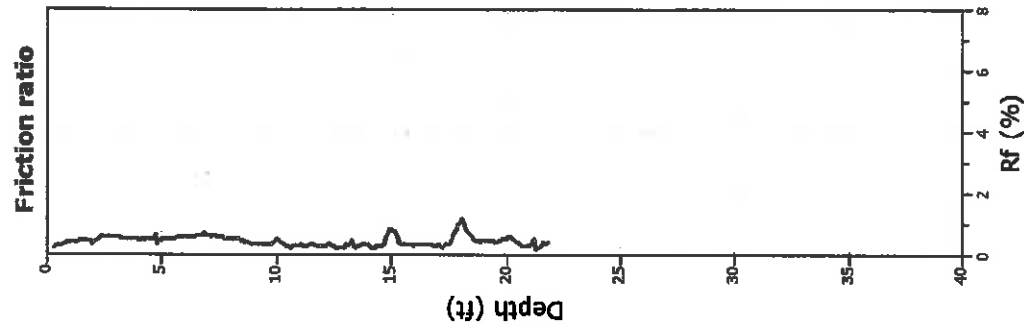
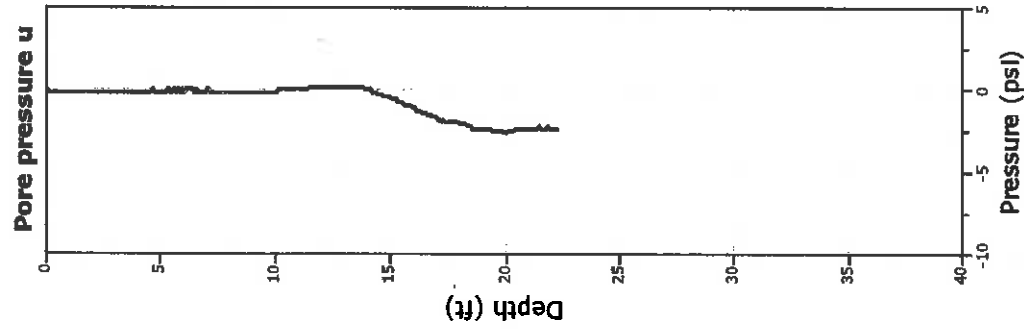
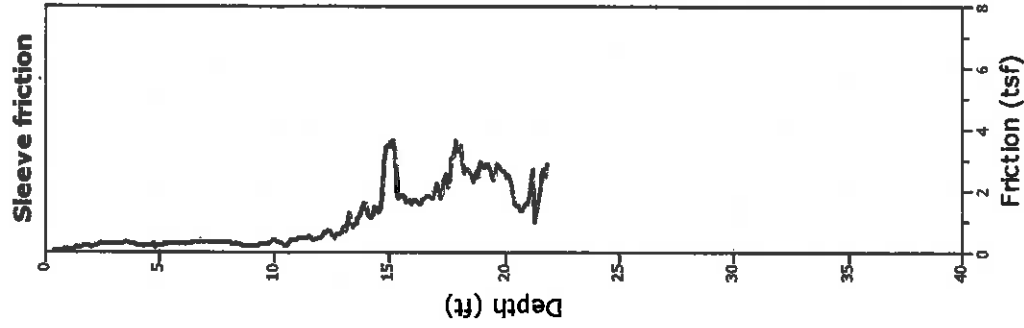
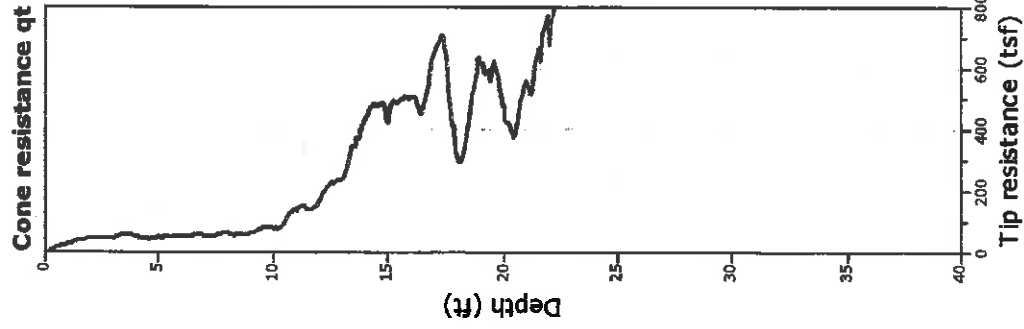




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Project: Thomas Harder & Company, Inc.
Location: 9998 Philadelphia Ave Mira Loma, CA

CPT: CPT-5
Total depth: 22.23 ft, Dates: 9/22/2015
Cone Type: Vertek

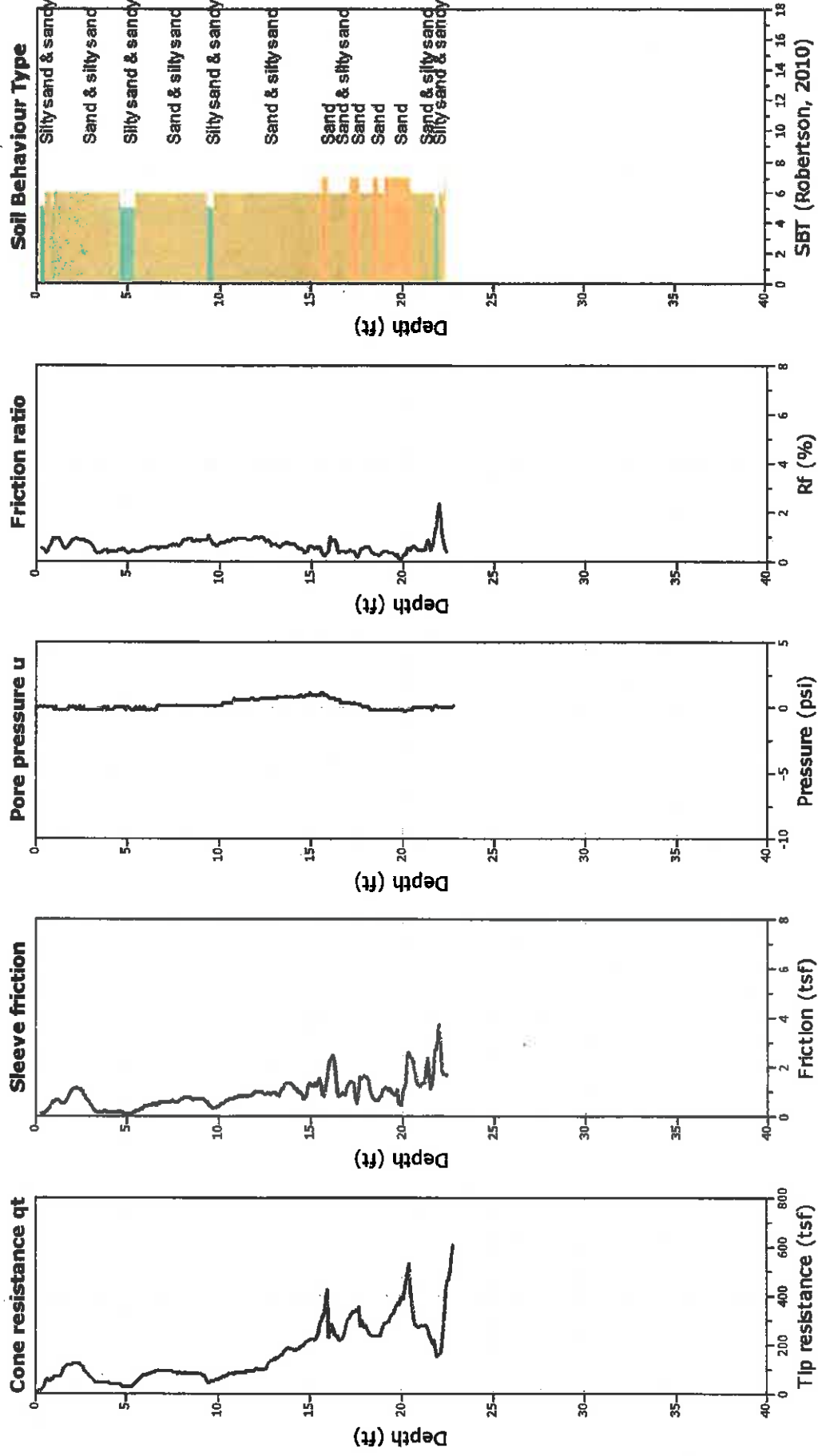




Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

Project: Thomas Harder & Company, Inc.
Location: 9998 Philadelphia Ave Mira Loma, CA

CPT: CPT-7
Total depth: 22.80 ft, Date: 9/22/2015
Cone Type: Vertek

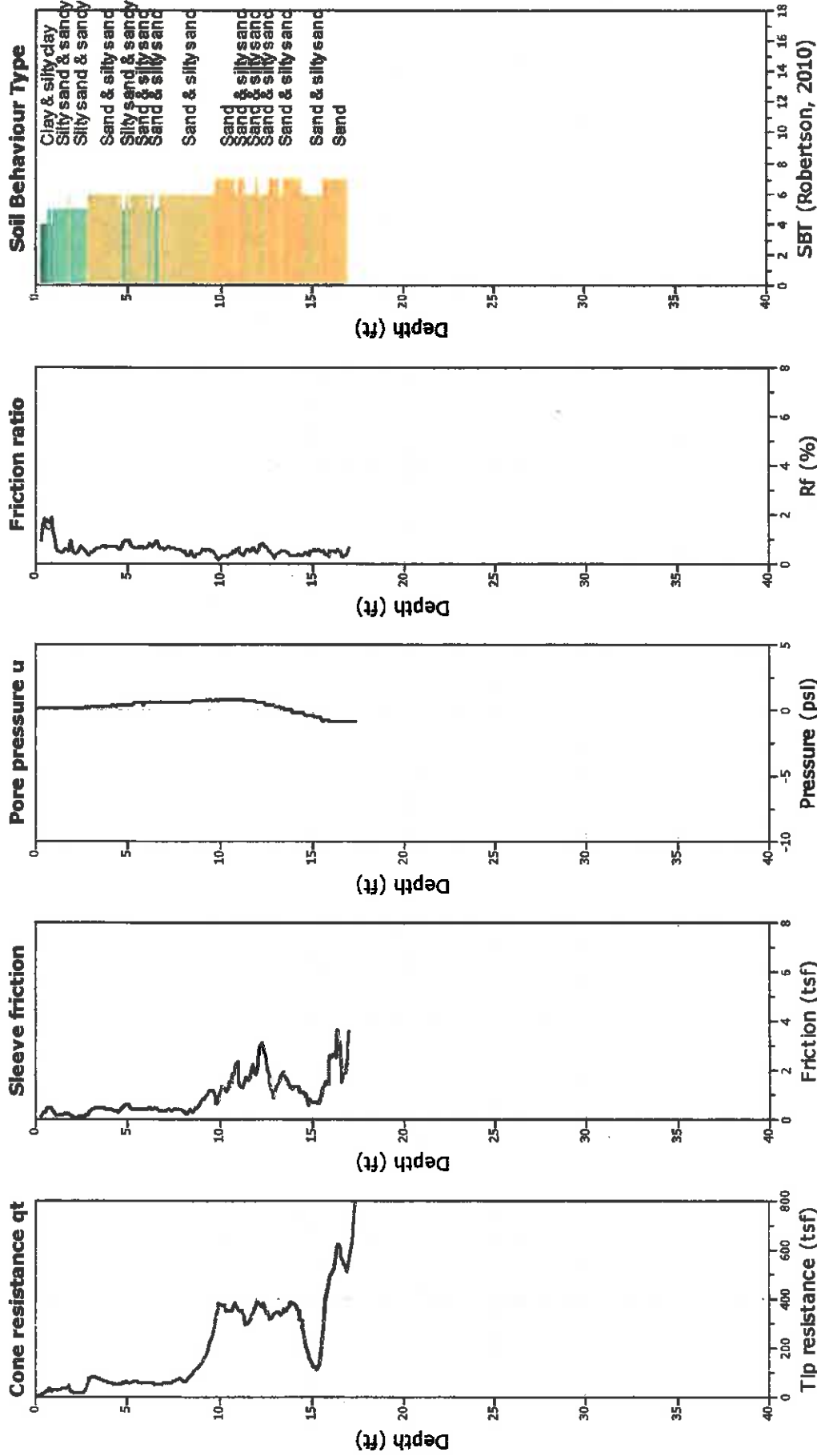


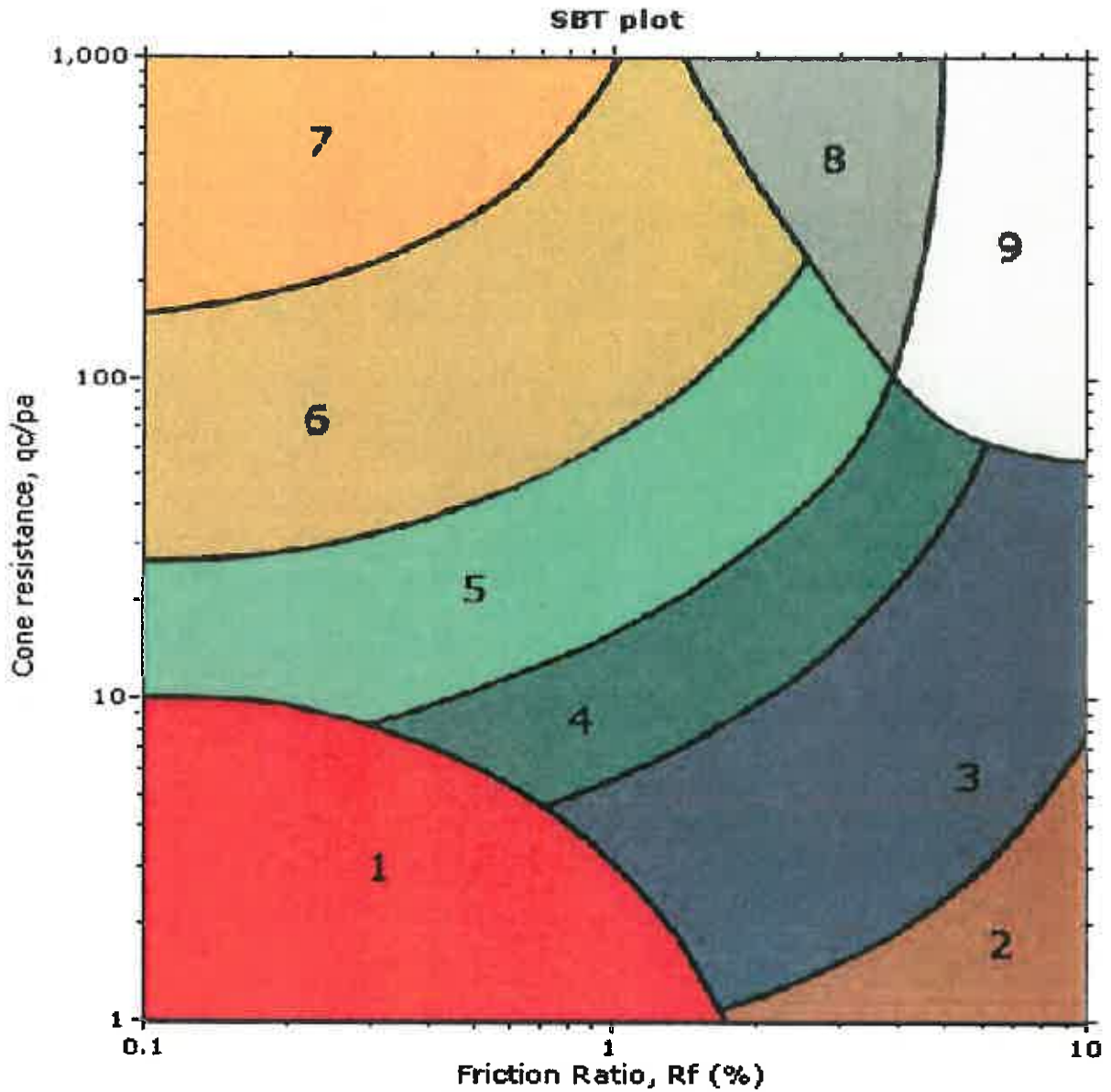


Kehoe Testing and Engineering
 714-901-7270
 rich@kehoetesting.com
 www.kehoetesting.com

Project: Thomas Harder & Company, Inc.
Location: 9998 Philadelphia Ave Mira Loma, CA

CPT: CPT-8
 Total depth: 17.37 ft, Date: 9/22/2015
 Cone Type: Vertek





SBT legend

- | | | |
|---------------------------|------------------------------|-----------------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silty clay | 7. Gravely sand to sand |
| 2. Organic material | 5. Silty sand to sandy silt | 8. Very stiff sand to clayey sand |
| 3. Clay to silty clay | 6. Clean sand to silty sand | 9. Very stiff fine grained |

Appendix C

Soil Physical Properties Testing Laboratory Reports





8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

November 2, 2015

Benjamin Lewis
Thomas Harder & Co.
1260 N. Hancock St., Suite 109
Anaheim, CA 92807

Re: PTS File No: 45627
Physical Properties Data
East Declez

Dear Mr. Lewis:

Please find enclosed report for Physical Properties analyses conducted upon samples received from your East Declez project. All analyses were performed by applicable ASTM, EPA, or API methodologies. The samples are currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories Inc. appreciates the opportunity to be of service. If you have any questions or require additional information, please contact Morgan Richards at (562) 347-2509.

Sincerely,
PTS Laboratories, Inc.

Michael Mark Brady, P.G.
Laboratory Director

Encl.

Project Name: East Decluz
Project Number: N/A

PTS File No: 45627
Client: Thomas Harder & Co.

TEST PROGRAM - 20151015

CORE ID	Depth ft.	Core Recovery ft.	Hydraulic Conductivity API RP40/EPA 9100		Hydraulic Conductivity API RP40/EPA 9100		Effective Porosity Mod. ASTM D425 Vert. 1.5"	Dry Bulk Density API RP40 Vert. 1.5"	Grain Size Analysis ASTM D422		Comments
			Vert. 1.5"	Horiz. 1.5"	Vert. 1.5"	Horiz. 1.5"			Grab		
Date Received: 20151015											
BH-3	56-56.5	0.50	X		X						
BH-4	52.5-53	0.50	X		X						
BH-4B	21-21.5	0.50	X		X		X	X		X	
BH-5B	21-21.5	0.50	X		X		X	X		X	
BH-5	76-76.5	0.50	X		X						
BH-6	44.5-45	0.50	X		X						
TOTALS:	6 Cores	3.00	6		6		2	2		2	6

Laboratory Test Program Notes

Contaminant identification: _____
 Standard TAT for basic analysis is 10 business days.
Effective Porosity: includes Total Porosity.
ASTM D422: Dry Sieve only. Hydrometer analysis must be requested prior to initiating tests. Additional costs would apply.

PTS File No: 45627
 Client: Thomas Harder & Co.
 Report Date: 11/02/15

PHYSICAL PROPERTIES DATA - DRAINAGE (EFFECTIVE) POROSITY

Project Name: East Declez
 Project No: N/A

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	METHODS:			
				API RP 40 / ASTM D2216	API RP40	Mod. ASTM D425	Mod. ASTM D425
				MOISTURE CONTENT, % weight	DENSITY BULK, g/cc	TOTAL POROSITY (2), %Vb	EFFECTIVE POROSITY, %Vb
BH-4B	21.3	V	20151026	--	1.77	20.9	15.7
BH-5B	21.3	V	20151026	--	1.83	20.0	15.6

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
 (2) Total Porosity = all interconnected pore channels.
 Vb = Bulk Volume, cc; ND = Not Detected

PTS File No: 45627
 Client: Thomas Harder & Co.
 Report Date: 11/02/15

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY

(Methodology: API RP 40; EPA 9100)

Project Name: East Declez
 Project No: N/A

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	25 PSI CONFINING STRESS		
				EFFECTIVE PERMEABILITY TO WATER (2,3), millidarcy	HYDRAULIC CONDUCTIVITY (3), cm/s	INTRINSIC PERMEABILITY TO WATER (3), cm ²
BH-3	56.3	V	20151027	2.63	2.66E-06	2.59E-11
BH-4	52.8	V	20151027	2.07	2.10E-06	2.05E-11
BH-4B	21.3	V	20151027	76.7	7.75E-05	7.57E-10
BH-5B	21.3	V	20151027	78.5	7.98E-05	7.75E-10
BH-5	76.3	V	20151027	3.91	4.02E-06	3.86E-11
BH-6	44.8	V	20151028	2.99	3.01E-06	2.95E-11

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
 (2) Effective (Native) = With as-received pore fluids in place.
 (3) Permeability to water and hydraulic conductivity measured at saturated conditions.
 Water = filtered Laboratory Fresh (tap) or Site water.

PTS File No: 45627
 Client: Thomas Harder & Co.
 Report Date: 11/02/15

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY

(Methodology: API RP 40; EPA 9100)

Project Name: East Declez
 Project No: N/A

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	25 PSI CONFINING STRESS		
				EFFECTIVE PERMEABILITY TO WATER (2,3), millidarcy	HYDRAULIC CONDUCTIVITY (3), cm/s	INTRINSIC PERMEABILITY TO WATER (3), cm ²
BH-3	56.45	H	20151028	3.01	3.07E-06	2.98E-11
BH-4	52.95	H	20151028	2.40	2.43E-06	2.37E-11
BH-4B	21.45	H	20151028	81.8	8.35E-05	8.07E-10
BH-5B	21.45	H	20151028	464	4.70E-04	4.58E-09
BH-5	76.45	H	20151028	4.27	4.29E-06	4.21E-11
BH-6	44.95	H	20151028	5.71	5.78E-06	5.64E-11

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
 (2) Effective (Native) = With as-received pore fluids in place.
 (3) Permeability to water and hydraulic conductivity measured at saturated conditions.
 Water = filtered Laboratory Fresh (tap) or Site water.

PARTICLE SIZE SUMMARY
(METHODOLOGY: ASTM D422M)

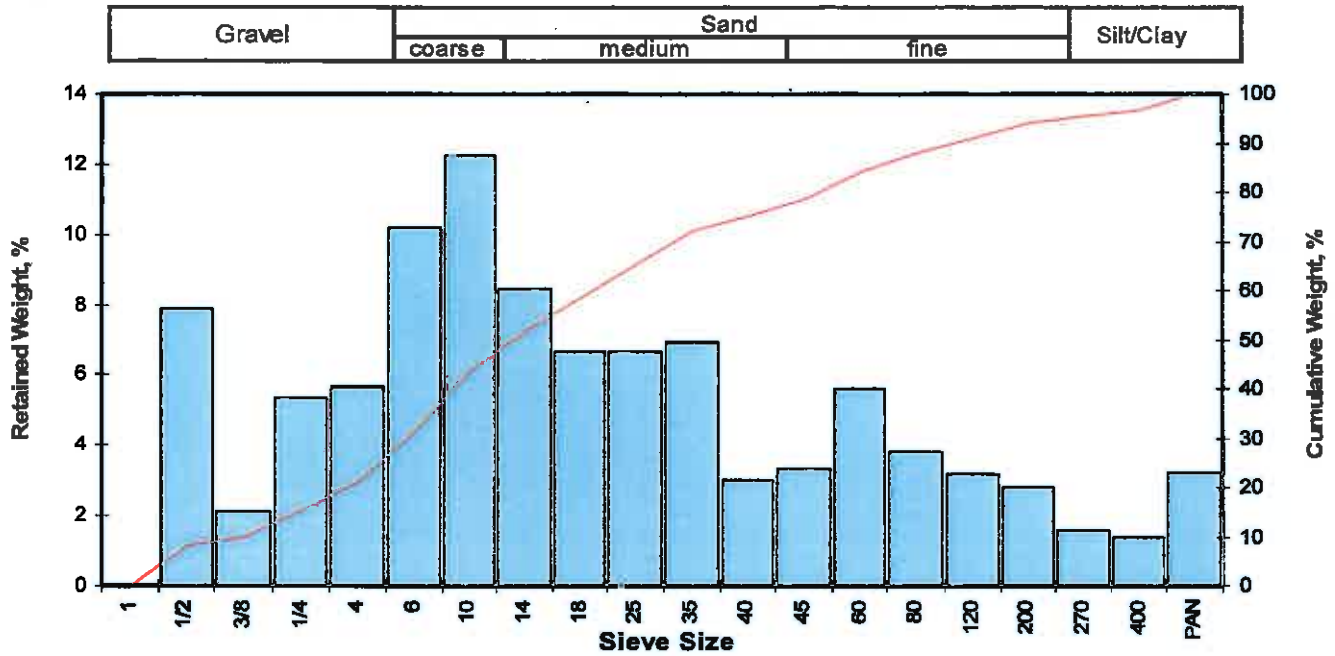
PROJECT NAME: East Declez
PROJECT NO: N/A

Sample ID	Depth, ft.	Mean Grain Size Description USCS/ASTM (1)	Median Grain Size, mm	Particle Size Distribution, wt. percent				
				Gravel	Sand Size		Silt/Clay	
				Coarse	Medium	Fine		
BH-4B	21.1	Coarse sand	1.526	20.97	22.42	31.73	18.75	6.14
BH-5B	21.1	Coarse sand	1.901	26.27	22.51	29.16	14.95	7.11

(1) Based on Mean from Trask

Client: Thomas Harder & Co.
 Project: East Declez
 Project No: N/A

PTS File No: 45627
 Sample ID: BH-4B
 Depth, ft: 21.1



Opening		Phi of Screen	U.S. Sieve No.	Sample Weight grams	Incremental Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	15.54	7.85	7.85
0.3740	9.500	-3.25	3/8	4.15	2.10	9.95
0.2500	6.351	-2.67	1/4	10.57	5.34	15.29
0.1873	4.757	-2.25	4	11.22	5.67	20.97
0.1324	3.364	-1.75	6	20.15	10.18	31.15
0.0787	2.000	-1.00	10	24.21	12.24	43.39
0.0557	1.414	-0.50	14	16.76	8.47	51.86
0.0394	1.000	0.00	18	13.15	6.65	58.50
0.0278	0.707	0.50	25	13.16	6.65	65.16
0.0197	0.500	1.00	35	13.74	6.84	72.10
0.0166	0.420	1.25	40	5.97	3.02	75.12
0.0139	0.354	1.50	45	6.63	3.35	78.47
0.0098	0.250	2.00	60	11.12	5.62	84.09
0.0070	0.177	2.50	80	7.53	3.81	87.89
0.0049	0.125	3.00	120	6.24	3.15	91.05
0.0029	0.074	3.75	200	5.57	2.82	93.86
0.0021	0.053	4.25	270	3.10	1.57	95.43
0.0015	0.037	4.75	400	2.69	1.36	96.79
			PAN	6.35	3.21	100.00
TOTALS				197.85	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	-4.01	0.6332	16.082
10	-3.24	0.3727	9.466
16	-2.62	0.2412	6.127
25	-2.05	0.1633	4.147
40	-1.21	0.0909	2.309
50	-0.61	0.0601	1.526
60	0.11	0.0364	0.925
75	1.24	0.0167	0.423
84	1.99	0.0099	0.251
90	2.83	0.0055	0.140
95	4.11	0.0023	0.058

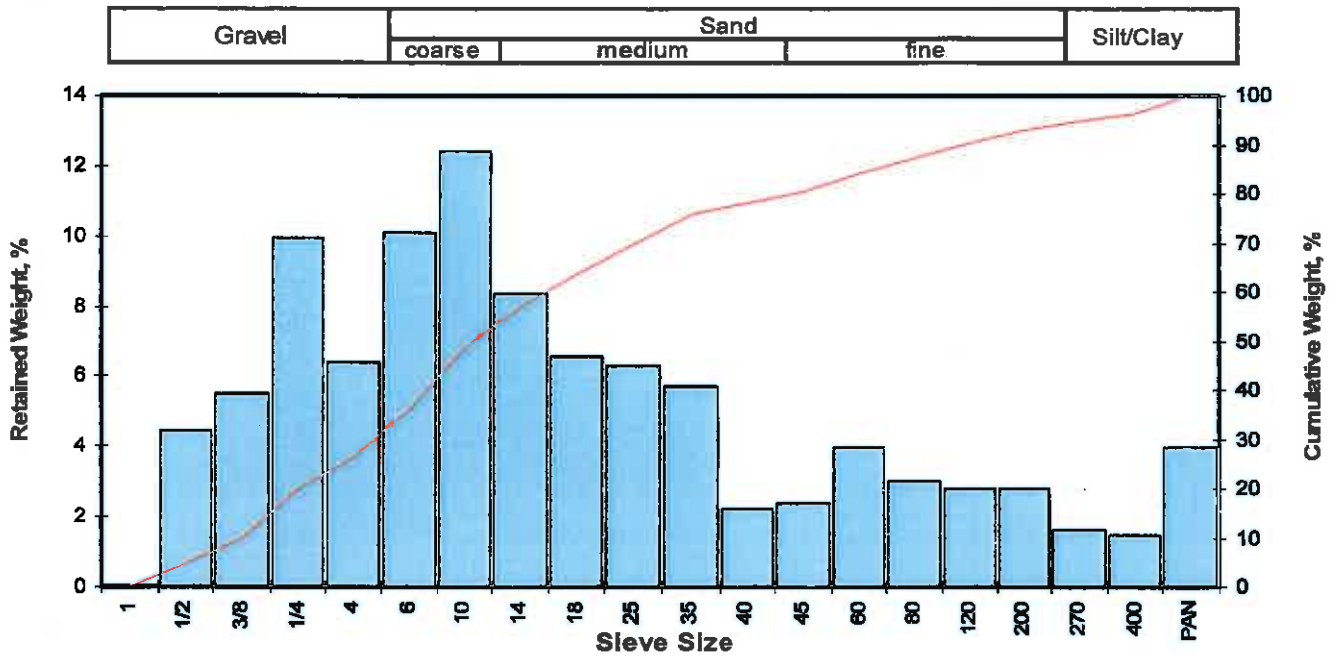
Measure	Trask	Inman	Folk-Ward
Median, phi	-0.61	-0.61	-0.61
Median, in.	0.0601	0.0601	0.0601
Median, mm	1.526	1.526	1.526
Mean, phi	-1.19	-0.31	-0.41
Mean, in.	0.0900	0.0489	0.0523
Mean, mm	2.285	1.241	1.330
Sorting	3.130	2.304	2.382
Skewness	0.868	0.129	0.146
Kurtosis	0.200	0.762	1.011

Grain Size Description (ASTM-USCS Scale) Coarse sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	20.97
Coarse Sand	10	22.42
Medium Sand	40	31.73
Fine Sand	200	18.75
Silt/Clay	<200	6.14
Total		100

Client: Thomas Harder & Co.
 Project: East Declz
 Project No: N/A

PTS File No: 45627
 Sample ID: BH-5B
 Depth, ft: 21.1



Opening		Phi of Screen	U.S. Sieve No.	Sample Weight grams	Incremental Weight, percent	Cumulative Weight, percent
Inches	Millimeters					
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	9.12	4.45	4.45
0.3740	9.500	-3.25	3/8	11.24	5.49	9.94
0.2500	6.351	-2.67	1/4	20.33	9.93	19.87
0.1873	4.757	-2.25	4	13.11	6.40	26.27
0.1324	3.364	-1.75	6	20.64	10.08	36.35
0.0787	2.000	-1.00	10	25.46	12.43	48.78
0.0557	1.414	-0.50	14	17.11	8.35	57.13
0.0394	1.000	0.00	18	13.47	6.58	63.71
0.0278	0.707	0.50	25	12.86	6.28	69.99
0.0197	0.500	1.00	35	11.73	5.73	75.71
0.0166	0.420	1.25	40	4.56	2.23	77.94
0.0139	0.354	1.50	45	4.84	2.36	80.30
0.0098	0.250	2.00	60	8.10	3.95	84.26
0.0070	0.177	2.50	80	6.19	3.02	87.28
0.0049	0.125	3.00	120	5.78	2.82	90.10
0.0029	0.074	3.75	200	5.71	2.79	92.89
0.0021	0.053	4.25	270	3.38	1.65	94.54
0.0015	0.037	4.75	400	3.07	1.50	96.04
			PAN	8.11	3.98	100.00
TOTALS				204.81	100.00	100.00

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size	
		Inches	Millimeters
5	-3.60	0.4789	12.164
10	-3.24	0.3731	9.478
16	-2.89	0.2925	7.430
25	-2.33	0.1983	5.037
40	-1.53	0.1137	2.887
50	-0.93	0.0748	1.901
60	-0.28	0.0479	1.216
75	0.94	0.0206	0.522
84	1.97	0.0101	0.256
90	2.98	0.0050	0.127
95	4.40	0.0019	0.047

Measure	Trask	Inman	Folk-Ward
Median, phi	-0.93	-0.93	-0.93
Median, in.	0.0748	0.0748	0.0748
Median, mm	1.901	1.901	1.901
Mean, phi	-1.47	-0.46	-0.62
Mean, in.	0.1094	0.0543	0.0604
Mean, mm	2.780	1.378	1.534
Sorting	3.106	2.430	2.428
Skewness	0.853	0.191	0.261
Kurtosis	0.241	0.647	1.004

Grain Size Description (ASTM-USCS Scale) Coarse sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	26.27
Coarse Sand	10	22.51
Medium Sand	40	29.16
Fine Sand	200	14.95
Silt/Clay	<200	7.11
Total		100

COMPANY THOMAS HARDER AND COMPANY ADDRESS 1260 N. HARCOCK ST., ANAHEIM, CA, 92807 CITY SUITE ZIP CODE ANAHEIM, CA 92807 PROJECT MANAGER BEN LEWIS email blewis@thomashardercompany.com PROJECT NAME East Decree PHONE NUMBER 714-779-3875 PROJECT NUMBER FAX NUMBER SITE LOCATION SAMPLER SIGNATURE		PO# TURNAROUND TIME 24 HOURS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> NORMAL <input checked="" type="checkbox"/> OTHER: SAMPLE INTEGRITY (CHECK): INTACT <input checked="" type="checkbox"/> TEMP (F) 56 PTS QUOTE NO. PTS FILE: 45627 COMMENTS	
ANALYSIS REQUEST NUMBER OF SAMPLES SOIL PROPERTIES PACKAGE HYDRAULIC CONDUCTIVITY PACKAGE PORE FLUID SATURATIONS PACKAGE TCE/INROG PROPERTIES PACKAGE CAPILLARITY PACKAGE FLUID PROPERTIES PACKAGE PHOTOLOG: CORE PHOTOGRAPHY VAPOR TRANSPORT PACKAGE POROSITY: TOTAL, AIR FILLED, WATER FILLED POROSITY: EFFECTIVE, ASTM D425M SPECIFIC GRAVITY, ASTM D854 BULK DENSITY (DRY), API RP40 or ASTM D2937 AIR PERMEABILITY, API RP40 HYDRAULIC CONDUCTIVITY, EPA8100/API RP40 or D5084 GRAIN SIZE DISTRIBUTION, ASTM D422 or 4484M TOC: WALKLEY-BLACK ATTERBERG LIMITS, ASTM D4318 VAPOR INTRUSION PACKAGE FREE PRODUCT MOBILITY PACKAGE			
1. RELINQUISHED BY [Signature] COMPANY THOMAS HARDER + CO. DATE 10/15/15 TIME 11:00 AM		3. RELINQUISHED BY [Signature] COMPANY PLS LABS DATE 10/15/15 TIME 11:00	
2. RECEIVED BY [Signature] COMPANY PLS LABS DATE 10/15/15 TIME 11:00		4. RECEIVED BY [Signature] COMPANY DATE TIME	
SAMPLE ID	DATE	TIME	DEPTH, FT
BH-3			
BH-4			
BH-4B			
BH-5A			
BH-5			
BH-6			



8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

November 23, 2015

Benjamin Lewis
Thomas Harder & Co.
1260 N. Hancock St., Suite 109
Anaheim, CA 92807

Re: PTS File No: 45627
Physical Properties Data – selected test reruns
East Declez

Dear Mr. Lewis:

Please find enclosed report for Physical Properties analyses conducted upon samples received from your East Declez project. This report covers the retesting made at your request on samples BH-4B and BH-5B; hydraulic conductivity was remeasured on the two samples and total porosity was measured using Helium porosimetry via Boyle's Law principle of gas expansion.

PTS Laboratories Inc. appreciates the opportunity to be of service. If you have any questions or require additional information, please contact Morgan Richards at (562) 347-2509.

Sincerely,
PTS Laboratories, Inc.

Michael Mark Brady, P.G.
Laboratory Director

Encl.

PTS File No: 45627
 Client: Thomas Harder & Co.
 Report Date: 11/23/15

PHYSICAL PROPERTIES DATA

Project Name: East Declez
 Project No: N/A

SAMPLE ID.	DEPTH, ft.	METHODS: SAMPLE ORIENTATION (1)	API RP 40 /	API RP 40		API RP 40		
			ASTM D2216	DENSITY		POROSITY, %Vb (2)		
			MOISTURE CONTENT, % weight	DRY BULK, g/cc	GRAIN, g/cc	TOTAL	AIR-FILLED	WATER-FILLED
BH-4B	21.30	V	2.6	1.77	2.68	34.1	29.4	4.7
BH-5B	21.30	V	2.9	1.83	2.69	32.0	26.8	5.2
BH-4B	21.45	H	2.1	1.99	2.69	26.3	22.1	4.1
BH-5B	21.45	H	1.8	1.83	2.70	32.2	28.9	3.3

Total Porosity by Helium Porosimetry (Boyle's Law).

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
 (2) Total Porosity = all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids.
 Vb = Bulk Volume, cc; -- = Analysis not requested.

PTS File No: 45627
 Client: Thomas Harder & Co.
 Report Date: 11/23/15

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY
 (Methodology: API RP 40; EPA 9100)

Project Name: East Declez
 Project No: N/A

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	25 PSI CONFINING STRESS		
				EFFECTIVE PERMEABILITY TO WATER (2,3), millidarcy	HYDRAULIC CONDUCTIVITY (3), cm/s	INTRINSIC PERMEABILITY TO WATER (3), cm ²
Remeasure Hydraulic Conductivity using same sample.						
BH-4B	21.3	V	20151118	177	1.76E-04	1.74E-09
Remeasure Hydraulic Conductivity using same sample.						
BH-5B	21.3	V	20151118	153	1.54E-04	1.51E-09

Note: vertical samples were dried during initial testing phase. Samples were resaturated with water and hydraulic conductivity measured.

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
 (2) Effective (Native) = With as-received pore fluids in place.
 (3) Permeability to water and hydraulic conductivity measured at saturated conditions.
 Water = filtered Laboratory Fresh (tap) or Site water.

PTS File No: 45627
 Client: Thomas Harder & Co.
 Report Date: 11/23/15

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY

(Methodology: API RP 40; EPA 9100)

Project Name: East Declez
 Project No: N/A

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	25 PSI CONFINING STRESS		
				EFFECTIVE PERMEABILITY TO WATER (2,3), millidarcy	HYDRAULIC CONDUCTIVITY (3), cm/s	INTRINSIC PERMEABILITY TO WATER (3), cm ²
Remeasure Hydraulic Conductivity using same sample.						
BH-4B	21.45	H	20151118	55.0	5.43E-05	5.42E-10
Remeasure Hydraulic Conductivity using same sample.						
BH-5B	21.45	H	20151118	4200	4.13E-03	4.15E-08

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
 (2) Effective (Native) = With as-received pore fluids in place.
 (3) Permeability to water and hydraulic conductivity measured at saturated conditions.
 Water = filtered Laboratory Fresh (tap) or Site water.

Appendix D

Borehole Lithologic Logs



Lithologic Log

Client:	IEUA	Drilling Contractor:	J & H Drilling Co., Inc.
Borehole/ Well No:	BH-3	Drilling Method:	Hollow Stem Auger
Project Number:	15-010-102	Borehole Diameter:	8 inches
Project:	East Declez	Location of boring/ Well (State Plane, NAD 83):	
Start Date:	1-Oct-15	X: 6183762 (approximate)	
Finish Date:	2-Oct-15	Y: 2321637 (approximate)	
Logged By:	JB and MH		

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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0	SM	100		7.5 YR 6/4 Light Brown	SILTY SAND: Dry. Fine-grained sand, trace medium-grained sand and coarse-grained sand, less than 5 percent gravel up to 20 mm; subrounded; 20-30 percent silt.
-5		20		7.5 YR 6/4 Light Brown	Trace gravel up to 55 mm.
-10	SW-SM	40	25, 50 (6-inch)	7.5 YR 6/2 Pinkish Gray	WELL-GRADED SAND WITH SILT AND GRAVEL: Dry. Fine-grained sand, 20-30 percent gravel up to 20 mm; rounded; 10-15 percent silt.
-15	SM	20		7.5 YR 5/3 Brown	SILTY SAND WITH GRAVEL: Dry. Fine-grained sand, with medium-grained sand, trace-coarse grained sand, 10-15 percent gravel up to 25 mm; subrounded to rounded; 15-20 percent silt.
-20			17, 23, 37		
-25	SP	40		7.5 YR 6/3 Light Brown	POORLY GRADED SAND: Moist. Medium-grained sand, with fine-grained sand, some coarse-grained sand, less than 5 percent gravel up to 10 mm, 5-10 percent silt; subrounded to rounded; 5-10 percent silt.



Borehole Lithologic Log

Borehole/ Well No.: BH-3

Client: IEUA

Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-25	SW-SM	10		7.5 YR 5/3 Brown	WELL-GRADED SAND WITH SILT: Moist. Medium-grained sand, with fine-grained sand, some coarse-grained sand, less than 5 percent gravel up to 50 mm; rounded; 10-15 percent silt.
-30			22, 27, 35		
	ML	90		10 YR 5/1	SILT: Moist, very soft consistency. Less than 5 percent fine-grained sand. Silt: low dry strength, rapid dilatency, medium toughness, medium plasticity.
	SM	50		10 YR 5/2 Grayish Brown	SILTY SAND WITH GRAVEL: Moist. Fine-grained sand, with medium-grained sand, trace-coarse grained sand, 15-20 percent gravel up to 55 mm; subrounded to rounded; 20-30 percent silt.
-35	ML	50		10 YR 5/4 Yellowish Brown	SILT: Moist, firm consistency. Trace fine-grained sand. Silt: no dry strength, rapid dilatency, medium toughness, medium plasticity.
-40	SM	80	42, 54 (6-inch)	7.5 YR 6/3 Light Brown	SILTY SAND WITH GRAVEL: Moist, weakly cemented. Medium-grained sand, with fine-grained sand, some coarse-grained sand, 10-15 percent gravel up to 20 mm; subrounded to rounded; 15-20 percent silt.
-45	SP	30		10 YR 6/4 Light Yellowish Brown	POORLY-GRADED SAND: Moist, Medium-grained sand, with coarse-grained sand, trace fine-grained sand, 5-10 percent gravel up to 10 mm; subrounded to rounded; 5-10 percent silt.
-50	SP-CL	100	18, 23, 35	10 YR 5/6 Yellowish Brown	CLAYEY SAND/SANDY CLAY: Wet, hard consistency. 50 percent very fine-grained sand, 50 percent clay. Clay: high dry strength, slow dilatency, low toughness, high plasticity.
-55	CL	40		7.5 YR 4/4 Brown	LEAN CLAY: Wet, hard consistency. 80-90 percent clay, 10-20 percent medium-grained sand, trace coarse-grained sand, some fine-grained sand. Clay: high dry strength, slow dilatency, medium toughness, medium plasticity.
		100			
		90	SAMPLE FOR LAB (56-56.5)	7.5 YR 4/4 Brown	LEAN CLAY WITH SAND: Wet, hard consistency. 75-85 percent clay, 15-25 percent medium-grained sand, trace coarse-grained-sand, some fine-grained sand, less than 5 percent gravel up to 30 mm; subangular to angular. Clay: high dry strength, slow



Borehole Lithologic Log

Borehole/ Well No.: BH-3

Client: IEUA

Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-60		80			dilatency, medium toughness, medium plasticity.
-65		70		7.5 YR 4/4 Brown	LEAN CLAY WITH SAND: Wet, hard consistency. 75-85 percent clay, 15-25 percent medium-grained sand, trace coarse-grained sand, some fine-grained sand, less than 5 percent gravel up to 48 mm; subangular to angular. Clay: high dry strength, slow dilatency, medium toughness, medium plasticity. Trace gravel up to 30 mm.
-70		10			
-75	SP-SC	20		7.5 YR 4/4 Brown	POORLY GRADED SAND WITH CLAY AND GRAVEL (Weathered Bedrock?): Wet, weakly cemented, granitic. Medium-grained sand, with coarse-grained sand, some fine-grained sand, 20 percent gravel up to 25 mm; subangular to angular; 10-15 percent clay.
-80		10		7.5 YR 5/8 Strong Brown	WELL-GRADED GRAVEL WITH SAND (Weathered Bedrock?): Wet, strongly cemented, granitic. 55-60 percent gravel up to 50 mm; subrounded to angular; 5-10 percent silt.
-85	SP	20		7.5 YR 4/4 Brown	POORLY GRADED SAND (Weathered Bedrock?): Moist, moderately cemented, granitic. Fine-grained sand, with medium-grained sand, coarse-grained sand, 10-15 percent gravel up to 15 mm; rounded to subrounded; less than 5 percent silt.
-90		10		7.5 YR 4/4 Brown	POORLY-GRADED SAND (Weathered Bedrock?): Moist, moderately cemented, granitic. Fine-grained sand, with medium-grained and coarse-grained sand, 10-15 percent gravel up to 35 mm; rounded to subangular; less than 5 percent silt.



Borehole Lithologic Log

Borehole/ Well No.: BH-3

Client: IEUA

Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-95		100		7.5 YR 6/2	POORLY-GRADED GRAVEL WITH SAND (Weathered Bedrock?): Moist, weakly cemented, granitic. 60-70 percent gravel up to 45 mm; subrounded to subangular; less than 5 percent silt.
		5		7.5 YR 4/4 Brown	POORLY-GRADED SAND WITH GRAVEL (Weathered Bedrock?): Moist, weakly cemented, granitic. Fine-grained sand, with medium-grained sand, trace coarse grained sand, 20-25 percent gravel up to 35 mm; rounded to subangular; less than 5 percent silt.
-100		10		7.5 YR 4/4 Brown	10-15 percent gravel up to 10 mm.
-105		20		10 YR 8/2 Very Pale Brown	POORLY GRADED GRAVEL (Bedrock?): Moist, strongly cemented, granitic. Gravel up to 70 mm, some medium-grained sand; angular; less than 5 percent silt.

Notes:

Grain size distribution and percentages are approximate based on visual inspection of samples.

Soil types classified based on Unified Soil Classification System.

Soil color based on Munsell Soil Color Charts.

"Trace" equals to 0-5 percent, "some" equals to 5-10 percent, and "with" equals to 10-15 percent.

Lithologic Log

Client: IEUA	Drilling Contractor: J & H Drilling Co., Inc.
Borehole/ Well No: BH-4	Drilling Method: Hollow Stem Auger
Project Number: 15-010-102	Borehole Diameter: 8 inches
Project: East Declez	Location of boring/ Well (State Plane, NAD 83): X: 6184347 (approximate) Y: 2321842 (approximate)
Start Date: 29-Sep-15	
Finish Date: 30-Sep-15	
Logged By: JV and BL	

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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0	SP. SM	100		10 YR 4/4 Dark Yellowish Brown	POORLY GRADED SAND WITH SILT: Dry. Fine-grained sand, some medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 10 mm; subangular to subrounded; 5-10 percent silt.
-5		0			
-10	SP. SM	50	35, 50 (6-inch)	10 YR 4/4 Dark Yellowish Brown	WELL-GRADED SAND: Dry. Medium-grained sand, with coarse-grained sand, some fine-grained sand, 5 percent gravel up to 20 mm; subrounded to subangular; less than 5 percent silt.
-15		0			
-20		20			
-25		5	41, 50 (6-inch)		

Borehole Lithologic Log

Borehole/ Well No.: BH-4
 Client: IEUA
 Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-25	SP	60		5 Y 4/2 Dark Reddish Gray	POORLY GRADED SAND: Moist. Fine-grained sand, trace medium-grained sand, less than 5 percent gravel up to 10 mm; subrounded to rounded; less than 5 percent silt.
-30	SP	25	50 (6-inch)	5 Y 4/1 Dark Gray	POORLY GRADED SAND WITH GRAVEL: Moist. Fine-grained sand, some medium-grained sand, trace coarse-grained sand, 20 percent gravel up to 35 mm; subangular to subrounded; less than 5 percent silt.
		25			
-35	SP	50		5 Y 4/4 Reddish Brown	POORLY GRADED SAND: Dry, weakly cemented. Fine-grained sand, with medium-grained sand, trace coarse-grained sand, 10 percent gravel up to 15 mm; subangular to subrounded; less than 5 percent silt. Lean clay from 35.0-35.5 feet.
-40	ML	40	41, 50 (5-inch)	7.5 YR 4/6 Strong Brown	CLAYEY SILT WITH SAND: Moist, hard consistency. 70-80 percent fines, 20-30 percent fine-grained sand, less than 5 percent gravel up to 15 mm. Silt: medium dry strength, slow dilatancy, high toughness, medium plasticity.
		80			
-50		100	19, 21, 44	7.5 YR 4/6 Strong Brown	Increase in fines from 50 to 52 feet.
		80	13, 18, 21		
-55		80	SAMPLE FOR LAB (52.5-53)	7.5 YR 4/6 Strong Brown	Increase in sand from 53 to 54 feet, trace gravel.
	SM			10 YR 4/6	SILTY SAND: Moist, weak cementation. Medium-grained sand, with fine-grained

Borehole Lithologic Log

Borehole/ Well No.:	BH-4
Client:	IEUA
Project No.:	15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-60	SP-SM CL	100			sand, some coarse-grained sand, less than 5 percent gravel up to 8 mm; subangular; 20-30 percent silt. Drilling rate slows at 59 feet.
		80	10 YR 4/6		
		80	10 YR 4/4		POORLY GRADED SAND WITH SILT: Moist, moderate cementation. Fine-grained sand, trace medium-grained sand; sub-rounded; less than 10 percent silt.
-65	SP-SM	80	7.5 YR 4/6 Strong Brown		LEAN CLAY: Moist, firm consistency. 95 percent clay, 5 percent fine-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, medium plasticity.
	ML	100	10 YR 5/8 Yellowish Brown		POORLY GRADED SAND WITH SILT: Moist, moderate cementation. Fine-grained sand, some medium-grained sand, trace coarse-grained sand; subangular to angular; less than 10 percent silt.
-70	CL	90	5 YR 4/6 Yellowish Red		SILT: Moist, hard consistency. 95 percent silt, 5 percent fine-grained sand. Silt: low dry strength, rapid dilatancy, medium toughness, high plasticity.
		100			LEAN CLAY: Moist, hard consistency. Greater than 95 percent clay, less than 5 percent fine-grained sand, trace medium-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, high plasticity.
-75		100			
-80		100			
-85		100	5 YR 4/6 Yellowish Red		Increase in gravel from 85 to 89 feet.
-90		100			

Borehole Lithologic Log

Borehole/ Well No.:	BH-4
Client:	IEUA
Project No.:	15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-95	ML	100			7.5 YR 4/6 Strong Brown SILT WITH SAND: Moist, soft consistency. 90 percent silt, 10 percent fine-grained sand, trace medium-grained sand, trace coarse-grained sand, trace gravel to 20 mm. Silt: low dry strength, rapid dilatancy, low toughness, low plasticity.
-100	CL	30			7.5 YR 5/6 Strong Brown LEAN CLAY: Moist, soft to firm consistency. 90-95 percent clay, 5-10 percent medium-grained sand, coarse-grained sand, fine-grained sand, less than 5 percent gravel up to 10 mm. Clay: high dry strength, slow to none dilatancy, medium toughness, medium plasticity.
-105		30			
-110	ML	100			7.5 YR 4/6 Strong Brown SANDY SILT: Moist, very soft consistency. 50-60 percent silt, 40-50 percent fine-grained sand, with medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 30 mm. Silt: low dry strength, slow dilatancy, low toughness, low plasticity.
-110	SM	40			7.5 YR 6/8 Reddish Yellow SILTY SAND: Moist, moderate cementation. Fine-grained sand, some medium-grained sand, trace coarse-grained sand, less than 5 percent gravel to 35 mm; subrounded to subangular; 20-30 percent silt.
-115	ML	30			7.5 YR 5/6 Strong Brown SANDY SILT: Moist, firm consistency. 60-70 percent silt, 30-40 percent fine-grained sand, some medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 25 mm. Silt: low dry strength, slow to no dilatancy, medium toughness, medium plasticity.
-120	SM SIL	100			7.5 YR 5/6 SANDY SILT/SILTY SAND: Moist, firm consistency. 40 percent fine-grained sand, 40 percent silt, 20 percent gravel up to 40 mm. Silt: low dry strength, slow dilatancy, low toughness, low to medium plasticity.
-120	NR	0			7.5 YR 5/6 Strong Brown No recovery
-125	ML	100			7.5 YR 5/6 Strong Brown SILT: Moist, soft consistency. 60-70 percent silt, 30-40 percent fine-grained sand, trace medium-grained sand, less than 5 percent gravel up to 25 mm. Silt: low dry strength, slow dilatancy, low toughness, low plasticity. Lean clay from 122.0 to 122.5 feet, high toughness, high plasticity.
-125		40			7.5 YR 4/6

Borehole Lithologic Log

Borehole/ Well No.: BH-4
 Client: IEUA
 Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-130	SM	30		Strong Brown	SILTY SAND: Moist, soft consistency. Fine-grained sand, some medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 12 mm; subrounded to angular; 10-15 percent silt.
-135	SP-SM	30		7.5 YR 5/6 Strong Brown	POORLY GRADED SAND WITH SILT: Moist, strongly cemented. Fine-grained sand, with medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 50 mm; subrounded to angular; 10-15 percent silt.
-140	ML	30		7.5 YR 5/6 Strong Brown	POORLY GRADED SAND WITH SILT: Moist, soft and weakly cemented. Fine-grained sand, with medium-grained sand, trace coarse-grained sand, 5-10 percent gravel up to 40 mm; subrounded to angular; 5-10 percent silt.
-145	CL	100		7.5 YR 4/6	SANDY SILT WITH GRAVEL: Moist, soft consistency. 50-60 percent silt, 25-30 percent fine-grained sand, with medium-grained sand, trace coarse-grained sand, 15-20 percent gravel up to 55 mm. Silt: Low dry strength, rapid dilatancy, medium toughness, low plasticity.
	SM	100		7.5 YR 4/4 Brown	LEAN CLAY WITH SAND: Moist, soft consistency. 50-60 percent clay, 25-30 percent sand, 5-10 percent gravel up to 12 mm; subrounded to angular. Clay: high dry strength, slow dilatancy, medium toughness, high plasticity.
					SILTY SAND WITH GRAVEL (Bedrock?): Moist, weakly cemented. Coarse-grained sand, with medium-grained sand, trace-fine grained sand, 30-40 percent gravel up to 50 mm; angular to subrounded; 40-50 percent silt. Very slow drilling.

Notes:

- Grain size distribution and percentages are approximate based on visual inspection of samples.
- Soil types classified based on Unified Soil Classification System.
- Soil color based on Munsell Soil Color Charts.
- "Trace" equals to 0-5 percent, "some" equals to 5-10 percent, and "with" equals to 10-15 percent.

Lithologic Log

Client:	IEUA	Drilling Contractor:	J & H Drilling Co., Inc.
Borehole/ Well No:	BH-5	Drilling Method:	Hollow Stem Auger
Project Number:	15-010-102	Borehole Diameter:	8 inches
Project:	East Declez	Location of boring/ Well (State Plane, NAD 83):	
Start Date:	2-Oct-15	X: 6184380 (approximate)	
Finish Date:	5-Oct-15	Y: 2321712 (approximate)	
Logged By:	JB		

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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0	SP	100		7.5 YR 6/4 Light Brown	POORLY GRADED SAND: Dry. Fine-grained sand, with medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 10 mm; subrounded to subangular; 5-10 percent silt.
-5	SP-SM	10		7.5 YR 6/4 Light Brown	POORLY GRADED SAND WITH SILT: Dry. Fine-grained sand, with medium-grained sand, 5-10 percent gravel up to 30 mm; subrounded to rounded; 10-15 percent silt.
-10	SW-SM	90	26, 50 (6-inch)	7.5 YR 6/3 Light Brown	WELL-GRADED SAND WITH SILT: Dry. Medium-grained sand, with fine-grained sand, some coarse-grained sand, 5-10 percent gravel up to 50 mm; subrounded to rounded; 10-15 percent silt.
		90			
-15		10			
-20		30	40, 50 (6-inch)	7.5 YR 7/1 Light Gray	WELL-GRADED SAND WITH SILT: Dry. Medium-grained sand, with fine and coarse-grained sand, 15-20 percent gravel up to 40 mm; subrounded to rounded; 10-15 percent silt.
-25					

Borehole Lithologic Log

Borehole/ Well No.: BH-5
 Client: IEUA
 Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-25	SP-SM	30		7.5 YR 6/1 Gray	POORLY GRADED SAND WITH SILT: Dry. Fine-grained sand; subrounded to rounded; 10-15 percent silt.
-30	CL	90	20, 22, 40	7.5 YR 4/6 Strong Brown	LEAN CLAY WITH SAND: Dry, hard consistency. 80 percent clay, 15-20 percent fine-grained sand, with medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 20 mm; subrounded to rounded. Clay: high dry strength, slow dilatancy, medium toughness, low plasticity.
		90			
-35		90			
-40		90	29, 50 (6-inch)	7.5 YR 4/4 Brown	LEAN CLAY: Dry, hard consistency. 90-95 percent clay, 5-10 percent medium-grained sand, with fine-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, low plasticity.
-45		90			
-50		90	20, 29 (6-inch)	7.5 YR 5/6 Strong Brown	LEAN CLAY: Dry, firm consistency. 90-95 percent clay, 5-10 percent medium-grained sand, with fine-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, low plasticity.
-55		100		7.5 YR 5/6	LEAN CLAY: Moist, hard consistency. 90-95 percent clay, 5-10 percent medium-grained sand, with fine-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, low plasticity.
		40		7.5 YR 4/6 Strong Brown	LEAN CLAY: Moist, hard consistency. 90-95 percent clay, 5-10 percent medium-grained sand, with fine-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, low plasticity.



Borehole Lithologic Log

Borehole/ Well No.: BH-5
 Client: IEUA
 Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-60	CL	60		5 YR 4/6 Yellowish Brown	Trace gravel up to 10 mm.
-65		10		7.5 YR 5/6 Strong Brown	SANDY LEAN CLAY: Moist, very soft consistency. 70-80 percent clay, 10-15 percent medium-grained sand, with coarse-grained sand, some fine-grained sand, 10-15 percent gravel up to 50 mm; subrounded to rounded. Clay: medium dry strength, slow dilatancy, medium toughness, medium plasticity.
-70		100	25, 50 (4-inch)		Lined sample collected.
-75		40		7.5 YR 4/6 Strong Brown	LEAN CLAY: Moist, hard consistency. 90-95 percent clay, 5-10 percent medium-grained sand, trace coarse-grained sand. Clay: high dry strength, slow dilatancy, medium toughness, medium plasticity.
		100		7.5 YR 5/6 Strong Brown	SANDY LEAN CLAY WITH GRAVEL: Moist, very soft consistency. 50-60 percent clay, 30-35 percent medium-grained sand, with coarse-grained sand, with fine-grained sand, 20-25 percent gravel up to 40 mm; subangular to angular. Clay: medium dry strength, slow dilatancy, medium toughness, low plasticity.
		100		7.5 YR 4/6 Strong Brown	LEAN CLAY: Moist, very soft consistency. 90 percent clay, 5-10 percent fine-grained sand, less than 5 percent gravel up to 5 mm; subangular to angular. Clay: high dry strength, slow dilatancy, medium toughness, medium plasticity.
-80		10	35, 50 (5-inch) SAMPLE FOR LAB (76-76.5)		
-85		10			
-90		100		5 YR 4/6	SANDY LEAN CLAY WITH GRAVEL: Wet, hard consistency. 50-60 percent clay, 30-35 percent medium-grained sand, with coarse-grained sand, with fine-grained sand, 20-25 percent gravel up to 70 mm, subangular to angular. Clay: High dry strength, slow dilatancy, medium toughness, medium plasticity.
		50		5 YR 3/4 Dark Reddish Brown	


Borehole Lithologic Log

Borehole/ Well No.:	BH-5
Client:	IEUA
Project No.:	15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
-95	ML	50		5 YR 4/6 Yellowish Brown	<p>SANDY LEAN CLAY: Wet, very soft consistency. 50-60 percent clay, 30-45 percent medium-grained sand, with fine-grained sand, with coarse-grained sand, 5-10 percent gravel up to 60 mm; subangular to angular. Clay: high dry strength, slow dilatancy, medium toughness, medium plasticity.</p> <p>SILT WITH SAND: Moist, very soft consistency. 80 percent silt, 15-20 percent medium-grained sand, with fine-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 50 mm; subangular to angular. Silt: medium dry strength, rapid dilatancy, low toughness, low plasticity.</p>
-100	CL	10		7.5 YR 5/6 Strong Brown	<p>LEAN CLAY WITH SAND: Moist, very soft consistency. 75-80 percent clay, 20-25 percent fine-to medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 30 mm; subangular to angular. Clay: high dry strength, slow dilatancy, medium toughness, high plasticity.</p>
-105	SM	100		7.5 YR 6/6	<p>SILTY SAND WITH GRAVEL: Moist, weakly cemented. Fine-grained sand, with medium-grained sand, with coarse-grained sand, 15-20 percent gravel up to 40 mm; subangular to angular; 35-50 percent silt.</p>
		10		5 YR 3/3 Dark Reddish Brown	<p>SILTY SAND: Moist, moderately cemented. Medium-grained sand, with fine-grained sand, some coarse-grained sand, less than 5 percent gravel up to 60 mm; subangular to angular; 20-30 percent silt.</p>
-110	SM	100		5 YR 3/4	<p>SANDY SILT: Moist, very soft. 60-70 percent silt, 30-40 percent fine-grained sand, less than 5 percent gravel up to 20 mm; subangular to angular. Silt: low dry strength, rapid dilatancy, low toughness, low plasticity.</p>
		10		5 YR 4/4 Reddish Brown	<p>SILTY SAND WITH GRAVEL: Moist, no cementation. Fine-grained sand, some coarse-grained sand, 10-20 percent gravel up to 70 mm, 30-40 percent silt; subangular to angular; 30-40 percent silt.</p>
-115	ML	60		5 YR 4/6 Yellowish Brown	<p>SANDY SILT: Moist, very soft. 70-80 percent silt, 20-30 percent fine-grained sand, with medium-grained sand, trace-coarse-grained sand, less than 5 percent gravel up to 45 mm; angular. Silt: low dry strength, rapid dilatancy, low toughness, low plasticity.</p>
-120		0			No Recovery
-125					

Borehole Lithologic Log

Borehole/ Well No.:	BH-5
Client:	IEUA
Project No.:	15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
-130				10 YR 6/4 Light Yellowish Brown	CLAYEY SAND: Moist, moderately cemented, granitic. Fine-grained sand, with medium-grained sand, trace coarse-grained sand, less than 5 percent gravel up to 50 mm; angular; 30-40 percent silt. Mica plates up to 3 mm.

Notes:

Grain size distribution and percentages are approximate based on visual inspection of samples.

Soil types classified based on Unified Soil Classification System.

Soil color based on Munsell Soil Color Charts.

"Trace" equals to 0-5 percent, "some" equals to 5-10 percent, and "with" equals to 10-15 percent.

Lithologic Log

Client: IEUA	Drilling Contractor: J & H Drilling Co., Inc.
Borehole/ Well No: BH-6	Drilling Method: Hollow Stem Auger
Project Number: 15-010-102	Borehole Diameter: 8 inches
Project: East Declez	Location of boring/ Well (State Plane, NAD 83): X: 6184834 (approximate) Y: 2321636 (approximate)
Start Date: 28-Sep-15	
Finish Date: 28-Sep-15	
Logged By: JV & BL	

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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0	SP	100		2.5 Y 4/4 Olive Brown	SAND: Dry. Fine-grained sand, trace medium-grained sand, trace coarse-grained sand; subrounded to rounded; less than 10 percent silt.
-5		10			
-10	SM	70	48, 60 (6-Inch)	10 YR 3/3 Dark Brown	SILT: Dry to moist, hard consistency. Less than 10 percent fine-grained sand.
-15		30			
-20		80			
-25		10	50 (3-Inch)	10 YR 5/4 Yellowish Brown	SILTY SAND: Dry, moderate to strongly cemented. Fine-grained sand, trace medium-grained sand, trace gravel up to 25 mm; subrounded to rounded; 10-20 percent silt.
		30			

Borehole Lithologic Log

Borehole/ Well No.: BH-6
 Client: IEUA
 Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
-25	CL	100		10 YR 6/4	LEAN CLAY WITH SAND: Moist, very hard consistency. Less than 20 percent fine-grained sand, trace medium-grained sand.
	SM	50		7.5 YR 5/6 Strong Brown	SILTY SAND: Dry, weakly cemented. Fine-grained sand, some medium-grained sand, trace gravel to 50 mm; sub-rounded to rounded; 10-20 percent silt. Increase gravel at 28 feet and from 30 to 31 feet.
-30			37, 50 (4-inch)		
-35		0			No recovery
-40	GM SM	100 90		7.5 YR 4/6 7.5 YR 4/4 Brown	SILTY GRAVEL WITH SAND: Dry, weakly cemented. 60 percent gravel up to 50 mm, 20-30 percent fine-grained sand; subangular to angular; 10-20 percent silt. SILTY SAND: Dry, moderately cemented. Fine-grained sand, some medium-grained sand; subangular to subrounded; 10-20 percent silt.
-45					

Notes:

Grain size distribution and percentages are approximate based on visual inspection of samples.
 Soil types classified based on Unified Soil Classification System.
 Soil color based on Munsell Soil Color Charts.
 "Trace" equals to 0-5 percent, "some" equals to 5-10 percent, and "with" equals to 10-15 percent.

Lithologic Log

Client:	IEUA	Drilling Contractor:	J & H Drilling Co., Inc.
Borehole/ Well No:	BH-7	Drilling Method:	Hollow Stem Auger
Project Number:	15-010-102	Borehole Diameter:	8 inches
Project:	East Declez	Location of boring/ Well (State Plane, NAD 83):	
Start Date:	9-Oct-15	X: 6184044 (approximate)	
Finish Date:	9-Oct-15	Y: 2321631 (approximate)	
Logged By:	BL		

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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0		100		10 YR 2/2 Very Dark Brown	POORLY-GRADED SAND: Dry. Fine-grained sand, some medium-grained sand, less than 5 percent gravel up to 20 mm; subangular to subrounded; 5-10 percent silt.
-5		0			
-10	SW-GW	70	12, 18, 27	7.5 YR 4/1 Dark Gray	POORLY-GRADED SAND WITH GRAVEL: Dry. Medium-grained sand, with coarse-grained sand, some fine-grained sand, 40-50 percent gravel up to 20 mm; angular to subangular; less than 5 percent silt.
-15		0			
-15		20		7.5 YR 4/1 Dark Gray	Fine sand at 16 feet and 19 feet.
-20		30	38, 50.5	7.5 YR 4/1 Dark Gray	Gravel to 50 mm at 24 feet.
-20		5	(5-inch)		
-25					

Borehole Lithologic Log

Borehole/ Well No.: BH-7
 Client: IEUA
 Project No.: 15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-25	SP	10		5Y 4/1 Dark Gray	POORLY-GRADED SAND: Moist. Fine-grained sand, trace medium-grained sand, trace gravel to 35 mm; subrounded to subangular; less than 5 percent silt.
-30		80	12, 13, 14	5Y 4/1 Dark Gray	Gravel to 45 mm at 34 feet. Rig chatter at 38 feet.
-35		30			
-40	CL	40			
-45		90	15, 25, 50	7.5 YR 4/4 Brown	LEAN CLAY: Dry to moist, firm consistency. 90 percent clay, 10 percent fine-grained sand, trace medium-grained sand, less than 5 percent gravel up to 25 mm; subrounded to rounded. Clay: very high dry strength, slow dilatancy, medium toughness, medium plasticity. Gravel up to 50 mm at 42 feet.
-50	ML	100			
-55		50		7.5 YR 5/6 Strong Brown	SILT: Dry to moist, hard consistency. 90 percent silt, 10 percent fine-grained sand, trace medium-grained sand, less than 5 percent gravel up to 30 mm. Silt: High dry strength, slow dilatancy, low toughness, low plasticity. Increase in gravel 49-50 feet.
-60		5	22, 29, 34	7.5 YR 5/6 Strong Brown	Driller reports "tight" drilling at 53 feet. Gravel up to 40 mm at 54 feet.
-65		70			
-70		70			

Borehole Lithologic Log

Borehole/ Well No.:	BH-7
Client:	IEUA
Project No.:	15-010-102

Depth	Graphic Log	Sample Recovery (Percent)	Blow Counts	Color	Sample Description
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-60		30		7.5 YR 4/6 Strong Brown	GRAVELY SILT: 70-80 percent silt, 10 percent fine-grained sand, 20-30 percent gravel up to 50 mm; subangular to subrounded. Silt: low dry strength, rapid dilatancy, low toughness, low plasticity. Slow drilling 60 to 64 feet. Very slow drilling at 64 feet.
-65		30		7.5 YR 4/6 Strong Brown	
-70		30		7.5 YR 4/6 Strong Brown	Gravel at 74 feet. Very slow drilling from 70 to 87 feet.
-75		30		7.5 YR 5/6 Strong Brown	WELL GRADED SAND WITH GRAVEL: Moist, weakly cemented. Fine-grained and medium-grained sand, with coarse-grained sand, 20-30 percent gravel up to 35 mm; angular to subangular; 10 percent silt. Increase of gravel at 79 feet.
-80		30		7.5 YR 4/4 Brown	SILT WITH SAND: Moist, soft consistency. 80-90 percent silt, 10-20 percent fine-grained sand with medium-grained sand, trace gravel up to 25 mm; angular to subangular. Silt: low dry strength, slow dilatancy, low toughness, low plasticity.
-85		100		7.5 YR 4/6 Strong Brown	SANDY LEAN CLAY: Moist, soft consistency. 60-70 percent clay, 30-40 percent fine-grained sand, medium-grained sand, coarse-grained sand, trace gravel up to 40 mm; subangular to angular. Clay: Very high dry strength, no dilatancy, medium toughness, medium plasticity.

Notes:

- Grain size distribution and percentages are approximate based on visual inspection of samples.
- Soil types classified based on Unified Soil Classification System.
- Soil color based on Munsell Soil Color Charts.
- "Trace" equals to 0-5 percent, "some" equals to 5-10 percent, and "with" equals to 10-15 percent.

Appendix E

Wildermuth Environmental - Assessment of Additional Alternatives for Potential Storm Water Recharge Project East of Declez Basin





January 28, 2016

Chino Basin Watermaster
Attn: Peter Kavounas, General Manager
9641 San Bernardino Road
Rancho Cucamonga, CA 91730

Subject: Assessment of Additional Alternatives for Potential Storm Water Recharge Project East of Declez Basin

Dear Mr. Kavounas:

On December 16, 2015, Watermaster met with staff from WEI, IEUA, and Thomas Harder & Company (THC) to discuss additional alternative project designs for the potential East Declez Basin (EDB) recharge project. As a result of this meeting, Watermaster directed WEI to quantify storm water yields and cost opinions for four new project alternatives consistent with the methods used in the 2013 Amendment to the 2010 Recharge Master Plan Update (2013 RMPU). Descriptions of the alternatives, potential new recharge, and reconnaissance-level cost opinions are provided below.

Description of Alternatives

Two new basin design concepts were developed: 1) a basin with a roughly 11-acre footprint that is graded as an expansion of cell 1 of the existing Declez Basin at the same bottom elevation as the existing cell 1, and 2) a basin with roughly the same footprint as basin 1, but only eight feet deep as a separate basin adjacent to Declez. The infiltration rate for the new portion of the expanded Declez Basin cell 1 was assumed to be zero.

Two stormwater management concepts were developed for each new basin concept, yielding four alternatives for evaluation. They are referred to herein as Alternatives 1a, 1b, 2a, and 2b and are described below. Figure 1 depicts the layouts of alternatives 1a and 1b, and Figure 2 depicts the layouts of alternatives 2a and 2b.

- **Alternative 1a** – This alternative includes the expanded Declez Basin cell 1 without any new diversion works.
- **Alternative 1b** – This alternative is identical to alternative 1a, except that a rubber dam would be constructed in San Sevaine Channel to increase the amount of stormwater that can be diverted into Jurupa Basin. The pump station in Jurupa Basin would be expanded from 40 to 70 cfs to convey up to 30 cfs to the Declez Channel via a connection to an existing 72-inch storm drain that discharges to the Declez Channel near the southerly crossing with Cherry Avenue.
- **Alternative 2a** – This alternative uses the shallow and separate basin design. It involves the construction of a rubber dam diversion in the Declez Channel about 400' upstream of the

southerly crossing with Cherry Avenue to divert up to 30 cfs of storm water to the EDB. Storm water will be conveyed in a 42-inch pipe constructed in the channel access road parallel to the existing channel alignment and then due east along the north side of Declez Basin and then discharge to the EDB. This project would reduce the inflow and recharge into the Declez Basin.

- Alternative 2b – This alternative is identical to alternative 2a, except it includes the rubber dam in San Sevaine Channel and increased pump size in Jurupa describes in alternative 1b.

WEI performed a hydrologic analysis to estimate the net new stormwater yield of the four project alternatives with the same methodology used in the 2013 RMPU. Then, a hydraulic analysis was performed to design the necessary diversion and water conveyance structures for each alternative, and it was determined that there was no feasible hydraulic design to divert water from Declez Channel into the shallow EDB design. Therefore, alternatives 2a and 2b were determined infeasible.

New Recharge and Cost Opinion

The following table shows the results of our modeling and cost opinions.

Alternative	Net New Recharge (acre-ft/yr)	Annual Unit Cost (\$/acre-ft)	Annual Unit Cost with 90% Excavation Cost Reduction (\$/acre-ft)
1a	144	\$11,152	\$5,099
1b	414	\$4,527	\$2,420

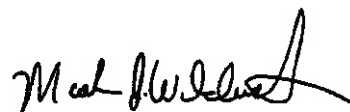
Reconnaissance-level (Level-Five) cost opinions were developed for alternatives 1a and 1b and are included in Tables 1 and 2, respectively. In these cost opinions it was assumed that the land acquisition cost would cover the entire 85 acres considered for purchase by JCSD. These cost opinions assume that the cost to improve the Jurupa Basin inlet (other than the rubber dam in alternative 1b) is included as part of the 2013 RMPU 23a project. The net new recharge is calculated based on the recharge additional to what is already realized in the 2013 RMPU projects at RP3 and Declez Basins.

We appreciate the opportunity to serve the Chino Basin Watermaster on this important and timely project.

Wildermuth Environmental, Inc.



Garrett Rapp, EIT
Staff Engineer



Mark J. Wildermuth, PE
President and Principal Engineer

Encl.: Tables 1 and 2, and Figures 1 and 2.

Table 1
Cost Opinion for the East Declez Basin - Alternative 1a

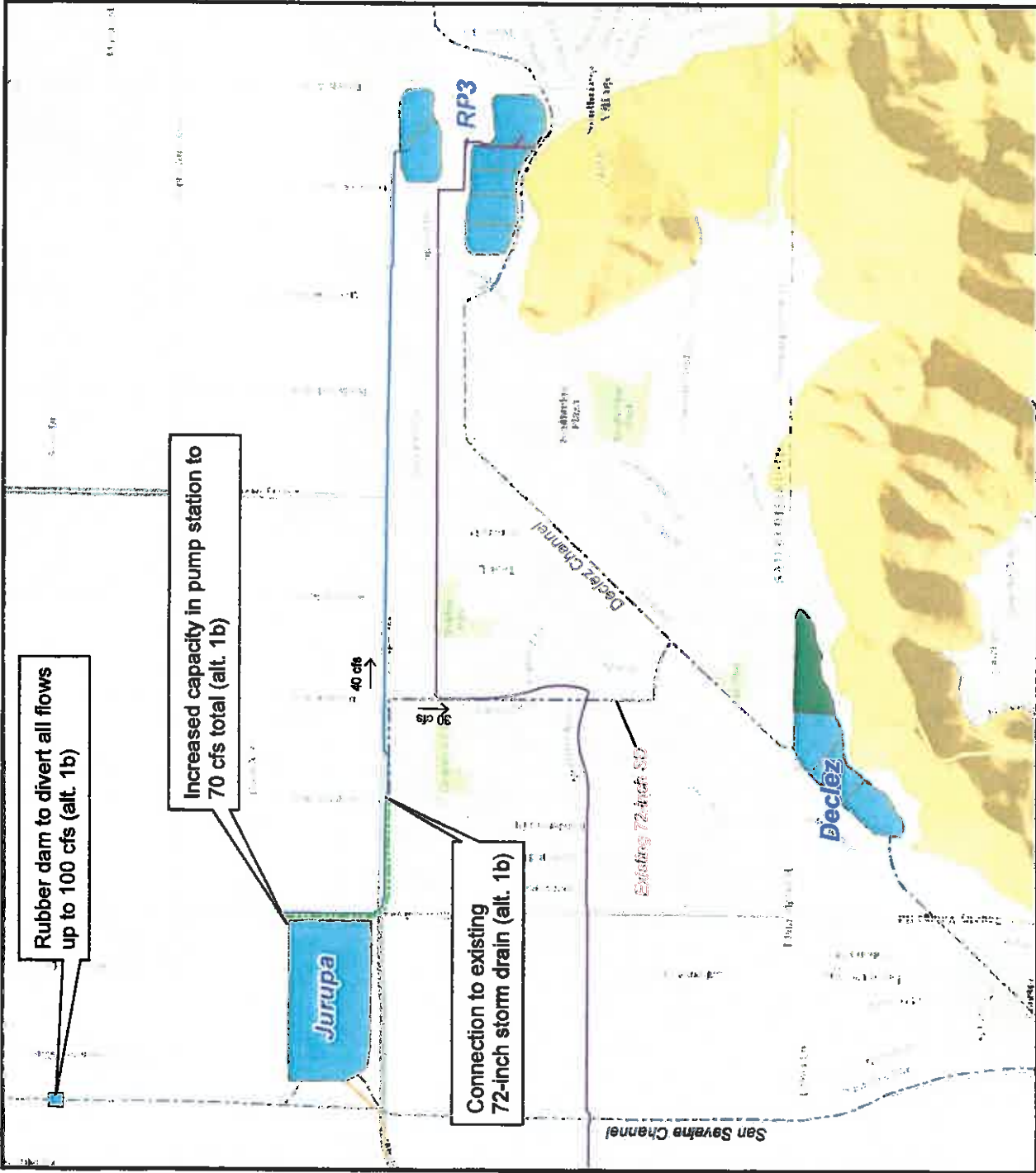
Description	Quantity	Unit	Unit Cost	Total Cost	Total Cost ¹
Direct Construction Costs					
1 <u>Mobilization @ 5% Other Direct Construction Cost</u>	1	Job	Lump Sum	\$745,000	\$745,000
2 <u>Spreading Basin Excavation</u>					
Excavate & Haul Offsite	820,000	Cu. Yds.	\$18.17	\$14,899,400	\$1,489,940
3 <u>Land Acquisition Cost</u>					
Land Costs	85	\$/acre	\$35,300	\$3,000,500	\$3,000,500
Subtotal Direct Construction				\$18,640,000	\$5,240,000
Contingency > \$2 million@ 10%				<u>\$1,864,000</u>	<u>\$1,864,000</u>
Construction Management > \$2 million@ 10%				<u>\$1,864,000</u>	<u>\$1,864,000</u>
Total Construction				\$22,368,000	\$8,968,000
Engineering and Administration Costs					
Engineering and Admin > \$2 million@ 10%				<u>\$2,237,000</u>	<u>\$2,237,000</u>
Total Engineering and Administration				\$2,237,000	\$2,237,000
Total Estimated Cost				\$24,605,000	\$11,205,000
Total Estimated Cost - Rounded				\$24,610,000	\$11,210,000
Annual Cost - 30 Years @ 5% Interest				\$1,600,600	\$728,900
CBWMs Share of Annual Project Cost				\$1,600,600	\$728,900
<u>Annual Operations and Maintenance</u>	144	AF	\$37	\$5,328	\$5,328
Total Operational Costs				\$5,328	\$5,328
Total Annual Cost				\$1,605,928	\$734,228
Total Annual Unit Cost				\$11,152	\$5,099

¹The capital cost shown assumes that the project's excavation costs would be reduced by 90%. The material excavated could be used for another construction site or leased to a mining operator.

Table 2
Cost Opinion for the East Declez Basin - Alternative 1b

Description	Quantity	Unit	Unit Cost	Total Cost	Total Cost ¹
Direct Construction Costs					
1 <u>Mobilization @ 5% Other Direct Construction Cost</u>	1	Job	Lump Sum	\$885,000	\$885,000
2 <u>Spreading Basin Excavation</u>					
Excavate & Haul Offsite	820,000	Cu. Yds.	\$18.17	\$14,899,400	\$1,489,940
3 <u>Land Acquisition Cost</u>					
Land Costs	85	\$/acre	\$35,300	\$3,000,500	\$3,000,500
4 <u>Rubber Dam for San Sevaine Channel Diversion to Jurupa</u>					
Rubber Dam Capturing up to 100 cfs	1	Job	\$100,000	\$100,000	\$100,000
5 <u>Pump expansion to 70 cfs</u>					
30 cfs pump capacity increase	300	\$/HP	\$5,000	\$1,500,000	\$1,500,000
6 <u>Conveyance to Declez Channel</u>					
36" Diameter CMLC to existing storm drain	2,800	Lin. Ft.	\$429	\$1,201,200	\$1,201,200
Subtotal Direct Construction				\$21,590,000	\$8,180,000
Contingency > \$2 million@ 10%				<u>\$2,159,000</u>	<u>\$2,159,000</u>
Construction Management > \$2 million@ 10%				<u>\$2,159,000</u>	<u>\$2,159,000</u>
Total Construction				\$25,908,000	\$12,498,000
Engineering and Administration Costs					
Engineering and Admin > \$2 million@ 10%				<u>\$2,591,000</u>	<u>\$2,591,000</u>
Total Engineering and Administration				\$2,591,000	\$2,591,000
Total Estimated Cost				\$28,499,000	\$15,089,000
Total Estimated Cost - Rounded				\$28,500,000	\$15,090,000
Annual Cost - 30 Years @ 5% Interest				\$1,853,900	\$981,600
CBWMs Share of Annual Project Cost				\$1,853,900	\$981,600
<u>Annual Operations and Maintenance</u>	414	AF	\$37	\$15,318	\$15,318
<u>Annual Energy Cost</u>	32,000	KW-hr	\$0.15	\$4,800	\$4,800
Total Operational Costs				\$20,118	\$20,118
Total Annual Cost				\$1,874,018	\$1,001,718
Total Annual Unit Cost				\$4,527	\$2,420

¹The capital cost shown assumes that the project's excavation costs would be reduced by 90%. The material excavated could be used for another construction site or leased to a mining operator.

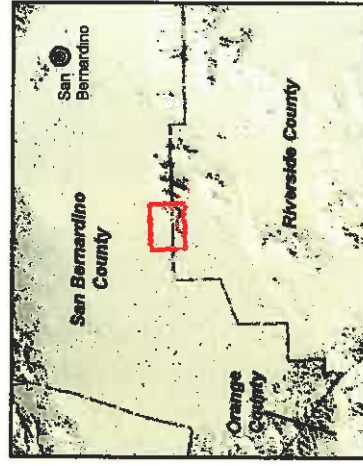


Piping Infrastructure

-  Jurupa Force Main
-  Wineville Recycled Water Pipeline
-  Proposed Pipeline from Wineville Basin (PID 23a)
-  36" Pipeline from Jurupa Basin to Existing Storm Drain (alt. 1b)

Basins

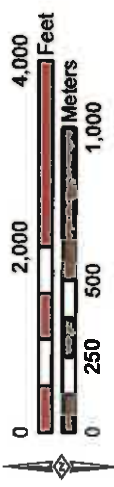
-  Existing
-  Proposed Declez Basin Cell 1 Extension



Produced by:

 WEI WESTERN ENVIRONMENTAL INC.

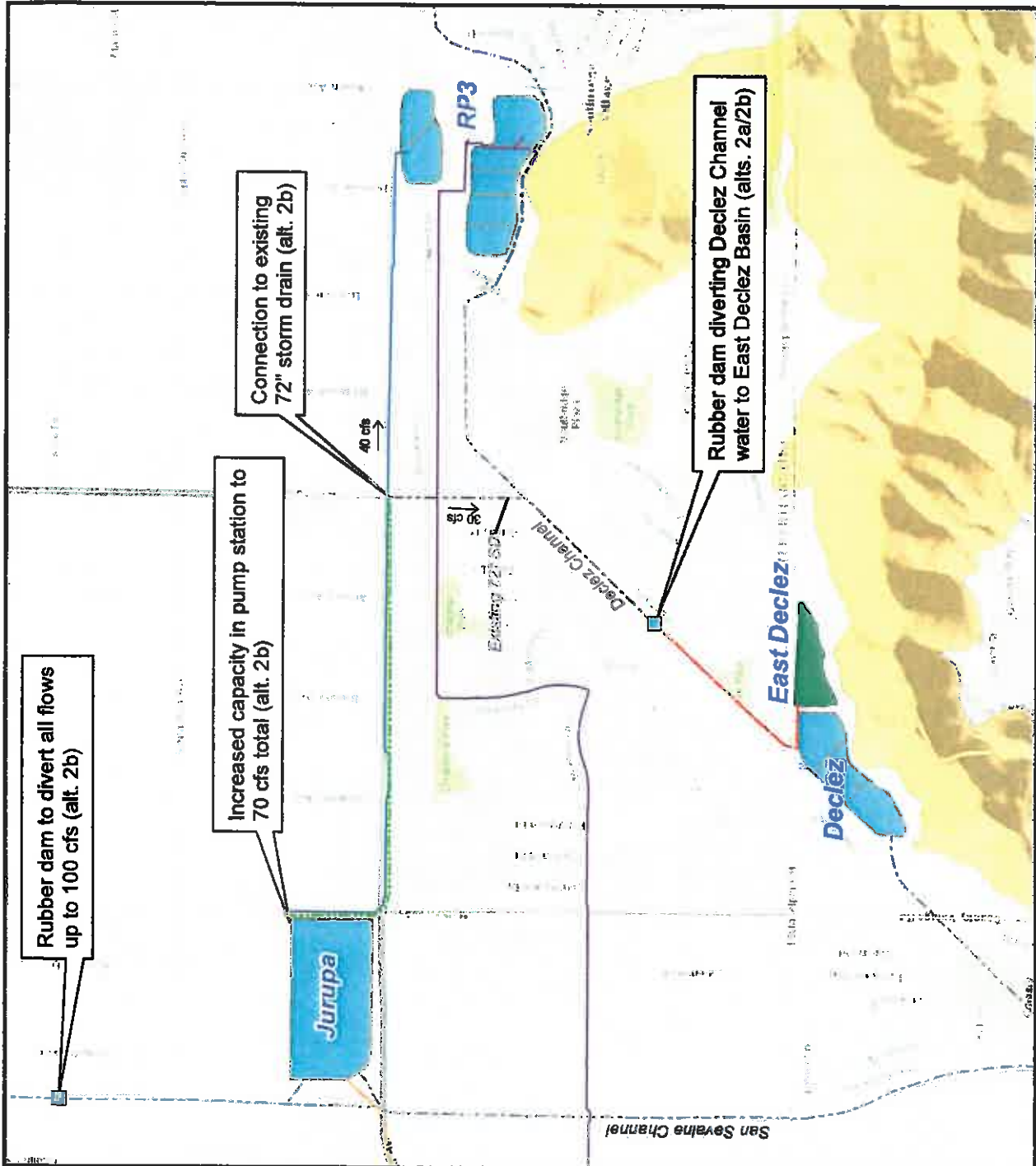
Author: GAR
 Date: 1/28/2016
 Name: EDeclez_2016_at_1



Implementation of 2013 Amendment to the 2010 RMPU






**East Declez Basin
 New Project Alternatives 1a/1b**

Figure 1



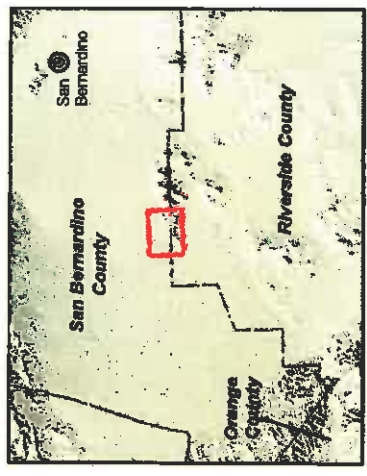
Planned Rubber Dams for the East Declez Basin Project

Piping Infrastructure

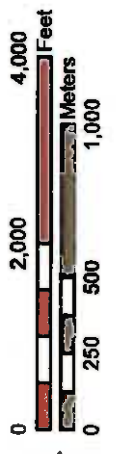
-  Jurupa Force Main
-  Wineville Recycled Water Pipeline
-  Proposed Pipeline from Wineville Basin (PID 23a)
-  42" Diversion Pipeline to the East Declez Basin
-  36" Pipeline from Jurupa Basin to Existing Storm Drain (alt. 2b)

Basins

-  Existing
-  Proposed East Declez Basin



Produced by:
 Author: GAR
 Date: 1/28/2016
 Name: EDeclez_2016_alt_2



**East Declez Basin
 New Project Alternatives 2a/2b**

Figure 2

Implementation of 2013 Amendment to the 2010 RMPU

Thomas Harder & Co.
Groundwater Consulting



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

1260 N. Hancock St., Suite 109
Anaheim, CA 92807
(714) 779-3875
tharder@thomashardercompany.com


**ACTION
ITEM**


2B


Date: April 20, 2016

To: The Honorable Board of Directors

Through: Finance, Legal, and Administration Committee (04/13/16)

From:  P. Joseph Grindstaff
General Manager

Submitted by:  Christina Valencia
Chief Financial Officer/Assistant General Manager

 Warren T. Green
Manager of Contracts and Facilities Services

Subject: Enterprise Content Management System Contract Award

RECOMMENDATION

It is recommended that the Board of Directors:

1. Approve Contract Number 4600002085, to American MicroImaging, Inc. (AMI) for the Enterprise Content Management System, Project No. IS15003, associated licensing agreement and the option for conversion of back file documents, for a not-to-exceed amount of \$670,920; and
2. Authorize the General Manager to execute the contract.

BACKGROUND

LibertyNet (Liberty), the Agency's legacy document management system, was purchased in 1999 for the scanning, storing and retrieval of records needed to be retained for a specified period. Liberty has limited functionality that cannot be expanded to meet increasing information governance policies, procedures and best practices for managing documents and records. Manually intensive processing is required to augment Liberty's limited functionality. With the vendor no longer providing maintenance support for the system; Liberty has reached the end of its useful life.

A Request for Proposal (RFP) was issued to identify the technical and business requirements and develop a strategy to select and implement a new system to replace Liberty. On February 2, 2015, IEUA contracted with ThirdWave Corporation to complete the ECMS Strategy and Implementation Roadmap for a fixed price of \$80,144.

ThirdWave Corporation recommended implementation of an Enterprise Content Management System (ECMS) with the functionality and versatility to address imaging, collection, business process management, and records management requirements, including content lifecycle governance. The ECMS solution would also provide a user interface that supports both the varied computer skills of the Agency's employees and employee responsibilities.

As recommended in the ECMS Strategy and Implementation Plan, the Agency will utilize multiple phases to transition end users to the ECMS system. Phase I will focus on the full implementation of the ECMS software and hardware; including disaster recovery that conforms to Agency standards. Future Phases 2 through 6 will transition additional business processes into the ECMS. These future phases will be implemented internally by IEUA staff and are anticipated to take approximately 4 to 6 months each to complete. The ECMS implementation will be based upon industry best practices, as well as compliance with existing federal and state regulatory requirements.

On October 20, 2015, an RFP was issued for an ECMS solution to replace the Liberty system. The ECMS solution will serve as a single repository system for significant documents, records, files and emails; providing staff the ability to quickly and easily locate and manage retention documents. In addition, the system will integrate with existing enterprise systems such as SAP, ESRI ArcGIS and SharePoint.

The RFP was issued to prospective vendors through the Bid Net electronic solicitation system. Eight vendors submitted proposals to the RFP;

COMPANY	PROPOSAL AMOUNT
FileHold	\$91,728
AMI Laserfiche	\$543,481
HSMG – FileBound	\$956,139
Konica Minolta – OnBase	\$1,022,960
Phoenix – OnBase	\$1,041,430
SAP/Stellar – Open Text	\$1,362,032
DocuLynx – DocuSuite	\$1,614,673
Keymark – OnBase	\$1,843,159

A committee reviewed and evaluated each of the proposals and elevated four vendors to continue on in the review process; AMI (Laserfiche), Konica Minolta (OnBase), Keymark (OnBase), and Phoenix (OnBase). These top four vendors were invited to give demonstrations of their software product in January 2016. Two of the four, AMI (Laserfiche) and Konica Minolta (OnBase), were requested to provide additional demonstrations and hands on testing of the software. Review committee members also conducted site visits to City of Inglewood for Laserfiche and SAWPA for OnBase.

The Agency requested a last, best and final offer from both vendors. The committee majority vote concurred that AMI (Laserfiche) had the most responsive proposal which provides the best value

to the Agency, as reflected through their understanding of the scope of work, project team’s qualifications and experiences, and ability to meet the project schedule.

The contract will be a not-to-exceed amount of \$670,920. Included is an optional work task for the back file conversion, for a not-to-exceed amount of \$303,000. The back file conversion budget is included in the Records Management O&M budget. No work related to the back file conversion shall be performed unless authorized in writing by the Agency via a Notice to Proceed for such work.

ECMS Cost Summary	Project Costs
Software/Implementation*	\$367,920
Hardware	\$125,000
Internal labor	\$315,505
Contingency	\$135,000
Project Total	\$943,425
Back file conversion (optional)*	\$303,000
Total Project with Option	\$1,246,425

**Not to exceed contract amount of \$670,920*

The overall IEUA ECMS implementation project schedule is as follows:

Project Tasks	Date
Hardware Installation	May 2016
Design & Configuration	May 2016 – September 2016
Training	October 2016
Implementation	November 2016

Replacing Liberty will support Agency-wide and regulatory public requirements, eliminate redundant archiving systems, and maintain the Agency’s Business Practices Goal and Objective to promote standards of efficiency and effectiveness in all Agency business practices and processes.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

Funds in the amount of \$530,000 have been allocated in the FY 2015/16 Administrative Services (GG) Fund budget for the Document/Records Management System project (IS15003). The total project budget will be revised to \$1,246,425 to reflect the full cost of the project.

Enterprise Content Management System (ECMS) Document / Records Management System

April 2016

Board Meeting



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Project Goals

- * LibertyNet (legacy system) reached useful life
- * Provide web-based access, ease of use for end users
- * Manage electronic records throughout their lifecycle
- * Implement best management practices through increased automation (e.g. Litigation Hold capabilities)
- * Integrate seamlessly with enterprise systems (SAP, GIS, and SharePoint applications)
- * Reduce hardware base

Project Background

Needs Assessment
and Business
Strategy
Completed
February 2015

RFP for ECM
system issued on
October 2015

Eight bids
received, four
vendor elevated
to demonstration
phase

- Demonstrations
- Reference
Checks
- Hands on testing
- Site Visits

Committee
selected:
American
Microimaging Inc.
(Laserfiche)

Cost Summary

ECMS Cost Summary	Project Costs
Software/Implementation*	\$367,920
Hardware	\$125,000
Internal Labor	\$315,505
Contingency (20% of Contract Amount)	\$135,000
Project Total	\$943,425
Back file Conversion Option*	\$303,000
Total Project with Option	\$1,246,425

*Not-to-exceed contract amount of \$670,920

Schedule

Task	End Date
Project Kickoff	May 2016
Hardware Installation	May 2016
Design and Configuration	September 2016
Training	October 2016
Implementation	November 2016

Recommendation

- * Approve Contract Number 4600002085, Enterprise Content Management System (ECMS), Document/ Records Management System and Associated Licensing Agreement to American MicroImaging, Inc. (AMI) for the Document Records Management Project No. IS15003, for a not-to-exceed amount of \$670,920;

Consistent with the Agency's Business Goal and Objective to promote standards of efficiency and effectiveness in all Agency business processes



**CONTRACT NUMBER: 4600002085
FOR
ENTERPRISE CONTENT MANAGEMENT SYSTEM (ECMS),
DOCUMENT/RECORDS MANAGEMENT SYSTEM
AND
ASSOCIATED LICENSING AGREEMENTS**

THIS CONTRACT (the "Contract"), is made and entered into this 20th day of April, 2016, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to as "Agency" or "IEUA"), and American Microlmaging, Inc., (AMI-The Paperless Company) of Los Angeles, California (hereinafter referred to as "Consultant") for implementation of an enterprise content management and document/records management system and all required licenses for use. Agency and Consultant are sometimes hereinafter referred to singularly as the "Party" or collectively as the "Parties."

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. **PROJECT MANAGER ASSIGNMENT:** All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: Linda Johnson
Inland Empire Utilities Agency
Address: 6075 Kimball Avenue
Chino, California 91708
Telephone: (909) 993-1759
Facsimile: (909) 993-1987
Email: ljohnson@ieua.org

2. **CONSULTANT ASSIGNMENT:** Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Consultant: Jeffery Long
AMI – The Paperless Company
Address: 1125 West 6th Street, Suite 200
Los Angeles, California 90017
Telephone: (213) 250-3000, Extension 155
Facsimile: (213) 596-0152
Email: jeffrey@amipaperless.com

3. **ORDER OF PRECEDENCE:** The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions, or addenda attached, then the governing order of precedence shall be as follows:
- A. Amendments to Contract Number 4600002085.
 - B. Contract Number 4600002085 General Terms and Conditions.
 - C. Consultant's Final Proposal dated March 4, 2016
 - D. Agency's Request for Proposal dated October 20, 2015.

4. **SCOPE OF WORK AND SERVICES:** Consultant services and responsibilities shall be in accordance with Consultant's Final Proposals dated March 10, 2016, **Exhibit A**, and the Agency's Request for Proposal dated October 20, 2015, **Exhibit B**, which are both included herein and made a part hereof. These services, products, equipment, and other works as identified in Exhibits A and B (collectively the "Deliverables") shall be delivered in accordance with the mutually agreed-to delivery schedule **Exhibit C**.

Included within **Exhibit A**, is optional work for the Back-File Conversion, which shall be authorized in writing by the Agency's Project Manager via a Notice to Proceed. No work related to the Back-File Conversion SOW shall be authorized prior to the Notice to Proceed for such work.

NOTE: Consultant shall advise Agency within two (2) weeks of any changes to the written Scope of Work/Schedule based upon discussions from any meetings. Any changes must be made in writing by an Amendment to the Contract. Work initiated without written approval, shall be at Consultant's own risk, and shall not be reimbursed by the Agency.

5. **TERM:** The term of this Contract shall extend from the date of the Notice to Proceed, and terminate June 30, 2019, unless the parties exercise the options which shall include two (2) one-year option periods. Options shall be agreed to by both parties and amended to this contract in writing.
6. **COMPENSATION:** Agency shall pay Consultant's properly executed invoice approved by the Project Manager within thirty (30) days following receipt of the invoice. Payment will be withheld for any service which does not meet or exceed Agency requirements or have proven unacceptable until such service is revised, the invoice resubmitted, and accepted by the Project Manager. Invoices shall include Contract Number **4600002085**.

To expedite payment, Consultant's invoices shall be submitted electronically with all required back-up to apgroup@jeua.org, copying the Agency's Project Manager.

Agency may at any time make changes to the Work including additions, reductions, and changes to any or all of the Work, as directed in writing by the Agency. Such changes shall be made by mutual agreement via a written Amendment to the Contract. The NOT-

TO-EXCEED Amount and Work Schedule shall be equitably adjusted, if required, to account for such changes and shall be set forth in the Amendment.

In compensation for the work represented by this Contract, Agency shall pay Consultant in accordance with Consultant's attached fee schedule **Exhibit D**, which is attached hereto and made a part hereof, up to a combined maximum total of **\$670,919.50** for all services and licenses provided. Payment shall be made only after review and acceptance of the work by the Agency's Project Manager. In no event, shall Consultant invoice for more than seventy percent of the total contract price prior to final testing and acceptance of the Deliverable by the Agency's Project Manager.

7. **CONTROL OF THE WORK:** Consultant shall perform the Work in compliance with the work schedule. If performance of the Work falls behind schedule, the Consultant shall accelerate the performance of the Work to comply with the work schedule as directed by the Project Manager. If the nature of the Work is such that Consultant is unable to accelerate the Work, Consultant shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised work schedule.
8. **FITNESS FOR DUTY:**
 - A. **Fitness:** Consultant and its Subcontractor personnel on the Jobsite:
 1. shall report for work in a manner fit to do their job;
 2. shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
 3. shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
 - B. **Compliance:** Consultant shall advise all personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its Subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.
9. **INSURANCE & BONDING:** During the term of this Contract, the Consultant shall maintain at Consultant's sole expense, the following insurance and performance bond.
 - A. **Minimum Scope of Insurance:**
 1. **General Liability:** \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. Coverage shall be at least as broad as Insurance Services Office form number GL 0001-87

covering Comprehensive General Liability. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this Project/location, or the general aggregate limit shall be twice the required occurrence limit.

2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage. Coverage shall be at least as broad as Insurance Services Office form number CA 00 01 87, covering Automobile Liability, including "any auto."
 3. Workers' Compensation and Employers Liability: Workers' compensation limits as required by the Labor Code of the State of California and employers Liability limits of \$1,000,000 per accident.
 4. Professional Liability insurance in the amount of \$1,000,000 per claim.
- B. Deductibles and Self-Insured Retention: Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.
- C. Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:
1. General Liability and Automobile Liability Coverage
 - a. The Agency, its officers, officials, employees, volunteers, property owners and any engineers under contract to the Agency are to be covered as additional insureds, endorsements GL 20 11 07 66, CG2010 1185 and/or CA 20 01 (Ed. 0178), as respects: liability arising out of negligent activities performed by or on behalf of the Consultant, products and completed operations of the Consultant, premises owned, occupied or used by the Consultant, or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Agency, its officers, officials, employees or volunteers.
 - b. The Consultant's insurance coverage shall be primary insurance as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
 - c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees or volunteers.

- d. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- e. The Consultant may satisfy the limit requirements in a single policy or multiple policies. Any Such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. **Workers' Compensation and Employers Liability Coverage**

The insurer shall agree to waive all rights of subrogation against the Agency, its officers, officials, employees and volunteers for losses arising from work performed by the Consultant for the Agency.

3. **All Coverages**

Prior to cancellation of any policy required herein, the policies shall be endorsed to state, 30 days advanced cancellation notice will be mailed to the Agency, except if policies cancelled for non-payment of premium, then 10 days advance notice will be mailed.

- D. **Acceptability of Insurers:** With the exception of Professional Liability Insurance, all insurance is to be placed with insurers with a Best's rating of no less than A:VII, and who are admitted insurers in the State of California. Professional Liability Insurance is to be placed with insurers with a Best's rating of no less than B:VII, and who are admitted insurers in the State of California.
- E. **Verification of Coverage:** Consultant shall furnish the Agency with certificates of insurance and with original endorsements effecting coverage required by the Agency for themselves and all subcontractors prior to commencing work or allowing any subcontractor to commence work under any subcontract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be approved by the Agency before work commences. The Agency reserves the right to require complete, certified copies of all required insurance policies, at any time.
- F. **Submittal of Certificates:** Consultant shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency
Attn: Angela Witte, Risk Representative
P.O. Box 9020
Chino Hills, California 91709

- G. Performance Bond: Before execution of the contract by the Agency, the Consultant shall file with the Agency, on the forms furnished herewith, a performance bond in an amount equal to **\$95,400.00** for services performed as established in the contract to guarantee faithful performance of all the work, within the time prescribed, in a manner satisfactory to the Agency and that all materials and workmanship will be free from original or developed defects.
- H. Unsatisfactory Surety: Should any Surety, at any time, be deemed unsatisfactory by the Agency, notice will be given the Consultant to that effect. No further payments shall be deemed due, or will be made under the contract until a new Surety is accepted by the Agency.
- I. Effects of Changes or Extension of Time on the Surety: Changes to the work or schedule shall in no way release the Consultant or the Surety from their obligation under the bond.
- J. Insufficiency of the Bonds: Should any bonds required under this section become insufficient, the Consultant shall renew the bonds within ten (10) calendar days after receiving notice from the Agency of the bonds insufficiency.
- K. Procurement of Bonds: All bonds required under this section, shall be procured from a California licensed and admitted surety company, listed by the Fiscal Service of the United States Department of the Treasury under the Notice for "Companies Holding Certificates of Authority as Acceptable Sureties on federal Bonds and as Acceptable Reinsuring Companies," current on the date of the Notice of Award. The Consultant shall be responsible for the cost of all bond premiums, costs, and incidentals necessary to secure the required bonds.
- L. How Bonds Are To Be Payable: All bonds shall be payable to the Inland Empire Utilities Agency and shall remain in effect for sixty (60) days after acceptance of all the deliverables and the works completion.

10. LEGAL RELATIONS AND RESPONSIBILITIES

- A. Professional Responsibility: The Consultant shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. Status of Consultant: The Consultant is retained as an independent Consultant only, for the sole purpose of rendering the services described herein, and is not an employee of the Agency.
- C. Observing Laws and Ordinances: Consistent with the standard of skill and care set forth in 10.A, Professional Responsibility, the Consultant shall keep itself fully informed of all relevant existing state and federal laws and all relevant county and city ordinances and regulations which pertain to structural engineering services or

tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Consultant shall at all times observe and comply with all such existing laws, ordinances, regulations, orders and decrees, and shall to the extent of Consultant's negligence, protect and indemnify, as required herein, the Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the Consultant or its employees.

- D. **Subcontract Services:** Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager.
- E. **Grant Funded Projects:** For grant-funded projects, the Consultant shall be responsible to comply with all grant requirements related to the Project. These may include, but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Competitive Solicitation, Record Retention and Public Access to Records, and Compliance Review. This is not a grant funded project.
- F. **Conflict of Interest:** No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- G. **Equal Opportunity and Unlawful Discrimination:** During the performance of this Contract, the Consultant shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin. The Agency is committed to creating and maintaining an environment free from harassment and discrimination. To accomplish these goals the Agency has established procedures regarding the implementation and enforcement of the Agency's Harassment Prohibition and Equal Employment Opportunity commitments. Please refer to Agency Policies A-29 (Equal Employment Opportunity) and A-30 Harassment Prohibition for detailed information or contact the Agency's Human Resources Administrator. A copy of either of these Policies can be obtained by contacting the Project Manager for your respective Contract. Please advise any of your staff that believes they might have been harassed or discriminated against while on Agency property, to report said possible incident to either the Project Manager, or the Agency's Human Resources Administrator. Please be assured that any possible infraction will be thoroughly investigated by the Agency.
- H. **Non-Conforming Work and Warranty:** Consistent with the standard of skill and care set forth in Section 10.A, Professional Responsibility, Consultant represents and warrants that the Work and Deliverables will conform to the Agency's

functional requirements and specifications, set forth in the Agency's Request for Proposal and Consultant's Proposal. For a period of one (1) year after acceptance of the Deliverables, if the Project Manager rejects all or any part of the Work or Deliverables as unacceptable, Consultant shall fix or repair said work within thirty (30) business days to bring the Work in conformance to the functional requirements of the Deliverables. Should Consultant believe that the repair cannot be remedied (cured) under the warranty herein, Consultant shall notify the Project Manager, in writing, detailing the dispute and reason for Consultant's position. Any dispute that cannot be resolved between the Project Manager and the Consultant, shall be resolved in accordance with the Dispute Section of this Contract.

i. Disputes:

- 1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. The Consultant shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract, which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et. seq, or their successor.**
- 2. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Consultant shall comply, pursuant to the Agency Project Manager instructions. If the Consultant is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Consultant to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Consultant's written protests to the General Manager, together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The General Manager shall make his or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Consultant is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.**
- 3. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:**

- a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Consultant to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person will be designated as Arbitrator.
 - b. In the event that none of the names submitted by Consultant are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Consultant a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
 - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et. seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
4. **Joinder in Mediation/Arbitration:** The Agency may join the Consultant in mediation or arbitration commenced by a contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Consultant.
11. **INDEMNIFICATION:** Consultant shall indemnify the Agency, its directors, employees and assigns, and shall defend and hold them harmless from all liabilities, demands, actions, claims, losses and expenses, including reasonable attorneys' fees, which arise out of or are related to the negligence, recklessness or willful misconduct of the Consultant, its directors, employees, agents and assigns, in the performance of work under this contract.
12. **OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY:** The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Consultant and/or the Consultant's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Consultant shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Consultant agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.

Said materials and documents shall not be changed or used for purposes other than those set forth in the Contract without the prior written approval of Consultant. If Agency reuses the materials and documents without Consultant's prior written consent, changes or uses the materials and documents other than as intended hereunder, Agency shall do so at its sole risk and discretion, and Consultant shall not be liable for any claims and/or damages resulting from use or connected with the release of or any third party's use of the reused materials or documents.

13. TITLE AND RISK OF LOSS:

- A. Documentation: Title to the Documentation shall pass, subject to payment therefore, to Agency when prepared; however, a copy may be retained by Consultant for its records and internal use. Consultant shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the project.
- B. Material: Title to all Material, field or research equipment, subject to payment therefore, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Consultant shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
- C. Disposition: Consultant shall dispose of items to which Agency has title as directed in writing by the Agreement Administrator and/or Agency.

14. PROPRIETARY RIGHTS:

- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Consultant in the performance of the Work, shall be governed by the following provisions:
 - 1. Proprietary Rights conceived, developed, or reduced to practice by Consultant in the performance of the Work shall be the property of Agency, and Consultant shall cooperate with all appropriate requests to assign and transfer same to Agency.
 - 2. If Proprietary Rights conceived, developed, or reduced to practice by Consultant prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the

Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.

3. If the Work or Documentation includes the Proprietary Rights of others, Consultant shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.
4. Notwithstanding anything to the contrary herein, Consultant's Work and Documentation shall not be changed or used for purposes other than those set forth in the Contract, without the prior written approval of the Consultant. If the Agency reuses the Work or Documentation without Consultant's prior written consent, changes or uses the Work or Documentation other than as intended hereunder, Agency shall do so at its sole risk and discretion, and Consultant shall not be liable for any claims and or damages resulting from use or connected with the release of or any third party's use of the reused materials or documents.

B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Consultant of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Consultant in complying with this Contract.

15. INFRINGEMENT: Except for third-party software and hardware, Consultant represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trade mark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Consultant shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses to the extent of Consultant's negligence for any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Consultant shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

16. **NOTICES:** Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren T. Green
Manager of Contracts and Facilities Services
Inland Empire Utilities Agency
6075 Kimball Avenue, Building A
Chino, California 91708

Consultant: George Bandarian II
President & CEO
American Microlmaging, Inc. (AMI)
1125 West 6th Street, Suite 200
Los Angeles, California 90017

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

17. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Consultant, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Consultant under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of the Agency shall be null, void and of no legal effect whatsoever.

18. **PUBLIC RECORDS POLICY:** Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Consultant of any requests for disclosure of any documents pertaining to Consultant.

In the event of litigation concerning disclosure of information Consultant considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Consultant has marked "Confidential," "Proprietary," or "Trade Secret," Consultant shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

19. **RIGHT TO AUDIT:** The Agency reserves the right to review and/or audit all Consultants' records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any

time thereafter up to twelve (12) months after final payment has been made to Consultant. The Consultant shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.


20. **PUBLIC AGENCY CLAUSE:** Consultant agrees that other public agencies shall have the option to piggy-back upon the terms of this Contract for their own use for the services defined herein. The authority granted herein shall incur no financial responsibility or liability to IEUA in connection with another public agency's use to piggy-back upon the terms of this Contract. Consultant agrees that any public agency piggy-backing upon the terms of this Contract shall be solely responsible for its own arrangements with and payments to the Consultant and that the IEUA shall have no responsibility or liability whatsoever regarding the piggy-backing arrangements.
21. **INTEGRATION:** The Contract Documents represent the entire Contract of the Agency and the Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by the Agency and the Consultant.
21. **GOVERNING LAW:** This Contract is to be governed by and constructed in accordance with the laws of the State of California in the Superior Court in the County of San Bernardino.
22. **TERMINATION FOR CONVENIENCE:** The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Consultant. In the event of such termination, the Agency shall pay Consultant for all authorized and Consultant-invoiced services including services provided but not yet invoiced, up to the date of such termination.
23. **CHANGES:** The Agency may, at any time, make changes to this Contract's Scope of Work; including additions, reductions and other alterations to any or all of the work. However, such changes shall only be made via written amendment to this Contract. The Contract Price and Work Schedule shall be equitably adjusted, if required, to account for such changes and shall be set forth within the Contract Amendment.
24. **FORCE MAJEURE:** Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, etcetera.
25. **NOTICE TO PROCEED:** No services shall be performed or furnished under this Contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Consultant.


**INFORMATION
ITEM**

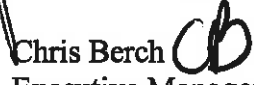
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Date: April 20, 2016

To: The Honorable Board of Directors

Through:  Public, Legislative Affairs, and Water Resources Committee (04/13/16)

From: P)  Joseph Grindstaff
General Manager

Submitted by:  Chris Berch
Executive Manager of Engineering/Assistant General Manager

 Sylvie Lee
Manager of Planning and Environmental Resources

Subject: 2015 Integrated Water Resources Plan

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

With the adoption of the Chino Basin Optimum Basin Management Plan in 2000, the region embarked on a new era of water management. Over the past fifteen years, more than \$500 million was invested by our agencies to drought-proof the region by expanding groundwater, stormwater, recycled water and conservation programs and facilities. These investments also leveraged the region's ability to secure hundreds of millions of dollars in state and federal grants and loans.

As a result, when the record-breaking drought of 2012 began, the region was prepared. Throughout this unprecedented time, sufficient water supply was available to meet the water needs of the region without constraining new development or economic growth. These local water resources provided the flexibility and resiliency needed to adapt, and became the foundation for identifying future water resources for the region.

Climate change is now creating uncertain conditions and new water management challenges for the region's future. IEUA in partnership with member agencies initiated its first Integrated Water Resources Plan (IRP) to anticipate these challenges and to ensure that continued investments in water resources and water use efficiency meet the future water needs of the region. The key findings of the IRP include:

- The region's past investments in local water supplies and the diversification of the available water resources have positioned the region well to deal with the future impacts of climate change. If no further actions were taken beyond the currently planned investments in regional supplies and water use efficiency, the region would be able to meet 80-90% of its projected water needs by 2040.
- Established a regional water demand forecast that identified 45,400 acre-feet per year (AFY) of additional water supply will be needed by 2040 to accommodate regional growth and other environmental and/or contractual stream flow obligation.
- Identified over 70 potential regional and local water supply projects and opportunities
- Portfolios that combined water supply and water efficiency actions yielded the most adaptive strategies for the region
- Climate scenarios reveal that the addition of very modest levels of water use efficiency (such as 10% reduction in water use) improved the performance of all portfolios and yielded significant benefits the region.
- Recycled water is the region's most climate resilient water supply because the amount of available water to the region is not impacted by dry years.
- Highlight the importance of securing supplemental water – surface, imported, and external recycled water supplies – when it is available to build a stronger supply buffer for dry years or when State Water Project availability is limited
- Groundwater reserves help address future climate uncertainties or catastrophic events, such as a major facility or pipeline break or a loss in supplies. A broader regional benefit is the role that these reserves can play when managed as a regional water bank to enhance water supply reliability within the Santa Ana Watershed and across Southern California.

The IRP will also ensure that our agencies are prepared for the next round of funding opportunities. The Agency is anticipating approximately \$675 million to be available to the region over the next 25 years. In order to meet the schedule for upcoming grant funding opportunities and establish planning priorities, the IRP process was divided into two phases:

Phase 1 – Analysis and Recommendations: Phase 1 focused on an extensive analysis of future projected water needs and water supply strategies under conditions of climate change and growth. Results from Phase 1 include summaries of the recommended regional water resource strategies; corresponding ranges of costs for the various supply categories; and a regionally developed, all-inclusive list of potential supply projects (local and regional). This information will be used to complete a Programmatic Environmental Impact Report (PEIR), which is needed to ensure that projects are grant eligible. The 2015 IRP report is the culmination of Phase 1.

Phase 2 - Implementation and Capital Improvement Program (CIP): Phase 2 will address additional detailed project level analysis including project scopes, costs, prioritization, and implementation scheduling. Phase 2 will also include the disaggregation of the regional demand and supplies to the local retail level. Continued discussions will be facilitated through a Regional Water Forum. Phase 2 is anticipated to begin in summer 2016.

Projects that align with the IRP findings will be evaluated through a Programmatic Environmental Impact Report (PEIR) in mid-2016. In addition, as funding opportunities become available, specific project cost and environmental assessments will be conducted as needed, particularly in relation to the regional benefit of the proposed actions. Phase 2 of the IRP will include detailed project level analysis including project scopes, costs, prioritization, and implementation process. IEUA staff greatly appreciated the engagement and assistance of member agency staff through the development of the 2015 IRP.

The item will be brought forward in May 2016 to obtain consensus on the core recommendations and commence the PEIR. At the conclusion of the PEIR, the IRP will then be brought back in fall 2016 for adoption by the Board of Directors.

The development of the 2015 IRP is consistent with the *Agency's Business Goal* of increasing *Water Reliability* by meeting the region's need to develop reliable, drought-proof and diverse local water resources in order to reduce dependence on imported water supplies.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

There is no direct impact on the budget as a result of the adoption of the IRP.

Attachment: Integrated Water Resources Plan available at:

<https://ieua.hostedftp.com/JAQQ0uObxqTZ2KDZY0oLIZa6E>

2015 Integrated Water Resources Plan



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Elizabeth Hurst

IEUA Board of Directors Meeting
April 2016

Goals Established for the 2015 IRP

Resilience • Water Efficiency • Sustainability • Cost Effectiveness

- **Resilience:**
 - Regional water management flexibility to adapt to climate change and economic growth, and any changes that limit, reduce or make water supplies unavailable.
- **Water Efficiency:**
 - Meet or exceed rules and regulations for reasonable water use.
- **Sustainability:**
 - Provide environmental benefits, including energy efficiency, reduced green house gas emissions, and water quality improvements to meet the needs of the present without compromising the ability of future generations meeting their own needs.
- **Cost-Effectiveness:**
 - Supply regional water in a cost effective manner and maximize outside funding.

Integrated Water Resources Plan

- **Phase 1 – Identification and Vision of IRP:**
 - 2040 demand forecast
 - Climate change modeling of water supplies
 - Resiliency testing of resource strategies
 - Regional resources strategies development
- **Phase 2 – Implementation/Capital Investment Program:**
 - Disaggregation of regional demand and supplies
 - Capital project scope, costs, and prioritization
 - Implementation schedule development

Phase 1 Key Findings

- Past investments help minimize climate change impacts
- 45,400 AFY of additional water supply needed by 2040
- Identified +70 potential regional and local water projects
- Strategies including WUE yielded most resilient strategies for the region
- Recycled Water is the region's most climate resilient supply
- Importance of maintaining and increasing groundwater storage for future use

Structure of IRP Report

FIVE SECTIONS

- Section 1 – Overview and Purpose
- Section 2 – Water Demands
- Section 3 – Water Resources Inventory
- Section 4 – Supply Portfolio Themes
- Section 5 – Conclusions & Next Steps



Core Recommendations from Phase 1

Resilience • Water Efficiency • Sustainability • Cost Effectiveness

- Continue to invest in recycled water projects
- Acquire supplemental water to enhance groundwater quality
- Reduce demand by 10% to enhance water supply resiliency
- Strategically purchase supplemental water for recharge
- Pursue external supplies to augment recharge, RW and build storage.
- Maximize stormwater recharge projects.

Next Steps for 2016

- Adopt IRP Phase 1 Report
- Complete Programmatic EIR – summer 2016
- Establish General Manager Water Forum
 - Identify funding opportunities & project priorities
 - Chino and Chino Hills – budget Based Rate Structure Track
 - JCSD External RW Supplies
 - Pomona/MVWD RW Intertie
 - SARRCCUP
- Commence Phase 2

**INFORMATION
ITEM**

3D

Engineering and Construction Management Project Updates April 2016

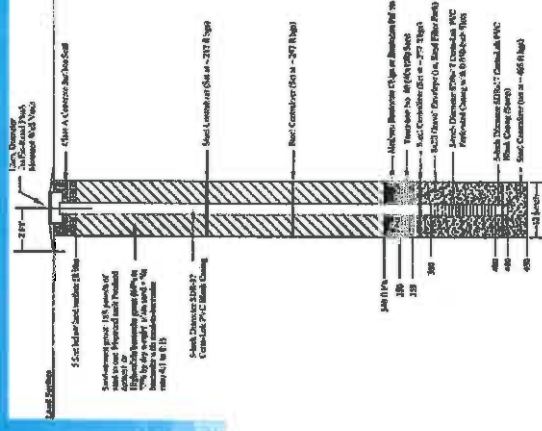


Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

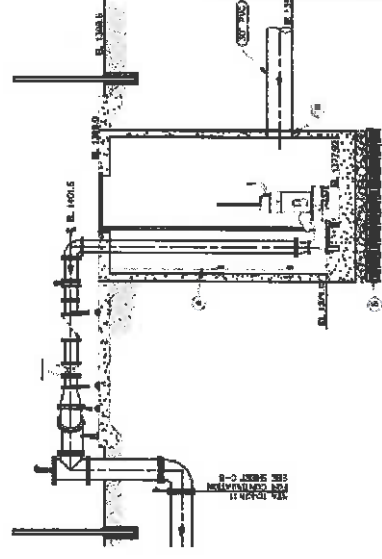
John Scherck
Acting Deputy Manager of Engineering

EN13001 - San Sevaine Improvements

- Engineering Consultant: Dudek
- Total Project Budget: \$6.4 M
- Scope of Work: Storm/Recycled Water conveyance system and monitoring wells
- Anticipated Complete: May 2016 (Design)
- Percent Complete: 80%
- Current Activities:
 - Drafting 85% design submittals
- Focus Points:
 - Flood Control District design review



Monitoring Well Design Profile



Basin 5 Pump Station Design

EN15008 - Water Quality Laboratory

- Engineering Consultant: The Austin Company
- Current Contract: \$1.37 M
- Total Project Budget: \$21 M
- Scope of Work: Design, construction, and commissioning of Lab Building and Central Chiller Plant expansion
- Current Activities:
 - Bid advertised – March 1, 2016
 - Jobwalk completed – March 15, 2015
 - Bid addenda: Ongoing thru bid period
- Focus Points:
 - Bid opening - April 5, 2016
 - Complete Plan-Check (third-party)
 - Secure permit from Chino Valley Fire District
 - Maintain contact with prequalified contractor to ensure bid participation
 - Updated budget based on bid results.



Lab Rendering

EN13046 - RP-1 Flare System Improvements

- Contractor: W. A. Rasic
- Current Contract: \$477 K
- Total Project Budget: \$3.6 M
- Scope of Work: Install pressure reducing valve, control system upgrades, SCADA interface
- Contract Completion: February 2016
- Percent Complete: 100%
- Focus Points:
 - Project closeout administrative activities



RP-1 Flare



New PRV and Bypass Piping

EN16071 - San Bernardino Avenue Gravity Sewer

- Engineering Consultant: TKE Engineering, Inc.
- Total Project Budget: \$1.5 M
- Scope of Work: Design and construct 1200 lf of sewer pipeline in San Bernardino Ave between Prologis WWTP and San Bernardino Lift Station
- Anticipated Completion: April 2016 (Design)
- Percentage Complete: 90%
- Current Activities:
 - Design plan review
 - Temporary bypass is in operation
- Focus Points:
 - Complete design and review
 - Bid advertisement



Godwin Pumps




HDPE Pipe, Fittings

**INFORMATION
ITEM**


3E


Date: April 20, 2016

To: The Honorable Board of Directors

Through:  Finance, Legal, and Administration Committee (04/13/16)

From: P. Joseph Grindstaff
General Manager

Submitted by:  Christina Valencia
Chief Financial Officer/ Assistant General Manager

 Javier Chagoyen-Lazaro
Manager of Finance and Accounting

Subject: Treasurer's Report of Financial Affairs

RECOMMENDATION

The Treasurer's Report of Financial Affairs for the month ended February 29, 2016, is an informational item for the Board of Director's review.

BACKGROUND

The Treasurer's Report of Financial Affairs for the month ended February 29, 2016, is submitted in a format consistent with State requirements. The monthly report denotes investment transactions that have been executed in accordance with the criteria stated in the Agency's Investment Policy (Resolution No. 2015-6-3).

Total cash, investments, and restricted deposits of \$165,613,510 reflect an increase of \$1,662,997 compared to the total reported for January 2016. The increase was primarily due to property tax receipts.

The average days of cash on hand for the month ended February 29, 2016, increased from 227 days to 234 days. Average days of cash on hand is calculated using the monthly ending balance of unrestricted cash and cash equivalents divided by disbursements associated with operating expenses, debt service, and capital expenditures as recorded in the Agency's cash flow. New connection fees collected and held by member agencies is excluded from the days of cash on hand calculation.

The Agency's investment portfolio average rate of return in February 2016 was 0.775%, an increase of 0.027% compared to the average yield of 0.748% reported in January 2016. The increase can be attributed to an increase in the yields of the Local Agency Investment Fund (LAIF) and CalTrust Short-Term Portfolio of 0.021% and 0.050%, respectively.

In March the 2008B bond weekly variable interest rate began increasing from the 0.01% February average to the current 0.07% average. According to Public Financial Management, the rise in short term borrowing rates can be attributed to tax season. As money market funds start to lose investment money, short term borrowing rates increase. Rates should start to normalize again by June. The current fiscal year average interest is 0.013% which is well within the FY 2015/16 budgeted rate of 1.00%.

The Financial Affairs report is consistent with the Agency's Business Goal of Fiscal Responsibility in providing financial reporting that accounts for cash and investment activities to fund operating requirements and to optimize investment earnings.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

The interest earned on the Agency's investment portfolio increases the Agency's reserves.

Attachment: February 2016 Treasurer's Report of Financial Affairs

TREASURER'S REPORT OF FINANCIAL AFFAIRS

For the Month Ended February 29, 2016



All investment transactions have been executed in accordance with the criteria stated in the Agency's Investment Policy (Resolution No. 2015-6-3) adopted by the Inland Empire Utilities Agency's Board of Directors during its regular meeting held on June 17, 2015.

The funds anticipated to be available during the next six-month period are expected to be sufficient to meet all foreseen expenditures during the period.

* A Municipal Water District

INLAND EMPIRE UTILITIES AGENCY
Cash and Investment Summary

Month Ended
February 29, 2016

	February	January
Cash, Bank Deposits, and Bank Investment Accounts	\$1,590,849	\$1,007,067
Investments		
Citizens Business Bank (CBB) Repurchase (Sweep)	\$19,379,520	\$21,681,737
Local Agency Investment Fund (LAIF)	34,897,078	34,897,078
CalTrust	7,553,845	7,551,077
California Asset Management Program (CAMP)	1,000,080	0
Certificates of Deposit	3,874,000	3,874,000
Medium Term Notes	6,102,974	7,104,634
U.S. Treasury Notes	999,857	999,843
U.S. Government Sponsored Entities	27,973,480	24,972,930
Total Investments	\$101,780,834	\$101,081,299
Total Cash and Investments Available to the Agency	\$103,371,683	\$102,088,366
Restricted Deposits		
Debt Service Accounts	\$2,544,729	\$3,178,494
CCRA Deposits Held by Member Agencies	52,869,354	51,906,260
OPEB (CERBT) Account	6,804,928	6,758,422
Escrow Deposits	22,816	18,971
Total Restricted Deposits	\$62,241,827	\$61,862,147
Total Cash, Investments, and Restricted Deposits	\$165,613,510	\$163,950,513

INLAND EMPIRE UTILITIES AGENCY
Cash and Investment Summary

Month Ended
February 29, 2016

Cash, Bank Deposits, and Bank Investment Accounts

CBB Demand Account (Offset by CBB Sweep Balance)	\$1,349,599
CBB Workers' Compensation Account	58,016
Bank of America (BoFA) Payroll Account	47,279
BoFA Payroll Taxes Account	45,584
Subtotal Demand Deposits	\$1,500,478
Other Cash and Bank Accounts	
Petty Cash	\$2,250
Subtotal Other Cash	\$2,250
Bank of the West Money Market Account	\$51,808
US Bank Pre-Investment Money Market Account	\$36,313
Total Cash and Bank Accounts	\$1,590,849

Investments

CBB Repurchase (Sweep) Investments	
Federal Home Loan	\$19,379,520
Subtotal CBB Repurchase (Sweep)	\$19,379,520
Local Agency Investment Fund (LAIF)	
LAIF Non-Restricted Fund	\$28,974,253
LAIF Insurance Sinking Fund	5,922,825
Subtotal Local Agency Investment Fund	\$34,897,078
CalTrust	
Short Term	\$7,553,845
Subtotal CalTrust	\$7,553,845
California Asset Management Program (CAMP)	
Pool	\$1,000,080
Subtotal CAMP	\$1,000,080

INLAND EMPIRE UTILITIES AGENCY
Cash and Investment Summary

Month Ended
 February 29, 2016

<u>Investments Continued</u>	
Certificates of Deposit	\$3,874,000
Brokered Certificates of Deposit	\$3,874,000
Subtotal Certificates of Deposit	
Medium Term Notes	
John Deere Capital Corp	\$1,001,343
JP Morgan Chase & Co.	999,223
Johnson & Johnson	2,026,585
Microsoft	2,075,823
Subtotal Medium Term Notes	\$6,102,974
U.S. Treasury Notes	
Treasury Note	\$999,857
Subtotal U.S. Treasury Notes	\$999,857
U.S. Government Sponsored Entities	
Fannie Mae Bank	\$7,999,514
Freddie Mac Bank	3,000,983
Federal Farm Credit Bank	6,000,000
Federal Home Loan Bank	10,972,983
Subtotal U.S. Government Sponsored Entities	\$27,973,480
Total Investments	\$101,780,834
<u>Restricted Deposits</u>	
Debt Service Reserves	
08B Debt Service Accounts	\$2,544,719
10A Debt Service Accounts	10
Subtotal Debt Service Reserves	\$2,544,729

INLAND EMPIRE UTILITIES AGENCY
Cash and Investment Summary

Month Ended
February 29, 2016

CCRA Deposits Held by Member Agencies

City of Chino	\$12,684,931
Cucamonga Valley Water District	12,512,188
City of Fontana	8,525,593
City of Montclair	2,502,938
City of Ontario	9,222,989
City of Chino Hills	3,884,916
City of Upland	3,535,799
Subtotal CCRA Deposits Held by Member Agencies	<u>\$52,869,354</u>

CalPERS

OPEB (CERBT) Account	\$6,804,928
Subtotal CalPERS Accounts	<u>\$6,804,928</u>

Total Restricted Deposits

	<u>\$62,241,827</u>
	<u><u>\$165,613,510</u></u>

Total Cash, Investments, and Restricted Deposits as of February 29, 2016

Total Cash, Investments, and Restricted Deposits as of 2/29/16	\$165,613,510
Less: Total Cash, Investments, and Restricted Deposits as of 1/31/16	163,950,513
<i>Total Monthly Increase (Decrease)</i>	<u><u>\$1,662,997</u></u>

INLAND EMPIRE UTILITIES AGENCY

Cash and Investment Summary

Month Ended
February 29, 2016

	Credit Rating @ Purchase		CHANGES IN Credit Rating		Par Amount	Cost Basis Amount	Term (Days)	February Amortization	February Value	% Coupon	% Yield to Maturity	Maturity Date	Market Value
	S&P	Moody's	S&P	Moody's									
Cash, Bank Deposits, and Bank Investment Accounts													
Citizens Business Bank (CBB)													
Demand Account*					\$1,349,599	\$1,349,599	N/A	N/A	\$1,349,599	N/A	N/A	N/A	\$1,349,599
Workers' Compensation Account					58,016	\$58,016	N/A	N/A	\$58,016	N/A	N/A	N/A	\$58,016
Subtotal CBB Accounts					\$1,407,615	\$1,407,615			\$1,407,615				\$1,407,615
Bank of America (BoFA)													
Payroll Checking					\$47,279	\$47,279	N/A	N/A	\$47,279	N/A	N/A	N/A	\$47,279
Payroll Tax Checking					45,584	45,584	N/A	N/A	45,584	N/A	N/A	N/A	45,584
Subtotal B of A Accounts					\$92,863	\$92,863			\$92,863				\$92,863
Bank of the West													
Money Market Plus - Business Account					\$51,808	\$51,808	N/A	N/A	\$51,808	0.18%	0.18%	N/A	\$51,808
Subtotal Bank of the West Account					\$51,808	\$51,808			\$51,808				\$51,808
US Bank (USB)													
Federated Automated MMA					\$36,313	\$36,313	N/A	N/A	\$36,313	0.01%	0.01%	N/A	\$36,313
Subtotal USB Account					\$36,313	\$36,313			\$36,313				\$36,313
Petty Cash					\$2,250	\$2,250	N/A	N/A	\$2,250	N/A	N/A	N/A	\$2,250
Total Cash, Bank Deposits and Bank Investment Accounts					\$1,590,849	\$1,590,849			\$1,590,849				\$1,590,849
<i>*Negative demand checking balance is offset by the Daily Repurchase (Sweep) Account balance</i>													
Investments													
CBB Daily Repurchase (Sweep) Accounts													
Federal Home Loan					\$19,379,520	\$19,379,520	N/A	N/A	\$19,379,520	0.30%	0.30%	N/A	\$19,379,520
Subtotal CBB Repurchase Accounts					\$19,379,520	\$19,379,520			\$19,379,520				\$19,379,520
LAIF Accounts													
Non-Restricted Funds					\$28,974,253	\$28,974,253	N/A	N/A	\$28,974,253	0.467%	0.467%	N/A	\$28,974,253
LAIF Sinking Fund					5,922,825	5,922,825	N/A	N/A	5,922,825	0.467%	0.467%	N/A	5,922,825
Subtotal LAIF Accounts					\$34,897,078	\$34,897,078			\$34,897,078				\$34,897,078
CAL TRUST Accounts													
Short-Term					\$7,553,845	\$7,553,845	N/A	N/A	\$7,553,845	0.65%	0.65%	N/A	\$7,553,845
Subtotal CalTrust Accounts					\$7,553,845	\$7,553,845			\$7,553,845				\$7,553,845
CAMP Accounts													
Short-Term					\$1,000,080	\$1,000,080	N/A	N/A	\$1,000,080	0.45%	0.45%	N/A	\$1,000,080
Subtotal CAMP Accounts					\$1,000,080	\$1,000,080			\$1,000,080				\$1,000,080

INLAND EMPIRE UTILITIES AGENCY

Cash and Investment Summary

Month Ended
February 29, 2016

	Credit Rating @ Purchase		CHANGES IN Credit Rating		Par Amount	Cost Basis Amount	Term (Days)	February Amortization	February Value	% Coupon	% Yield to Maturity	Maturity Date	Market Value
	S&P	Moody's	S&P	Moody's									
Investments (continued)													
Brokered Certificates of Deposit (CDs)													
Ally Bank	N/A				\$245,000	\$245,000	551		\$245,000	0.80%	0.80%	01/17/17	\$244,953
Capital One National Association	N/A				240,000	240,000	552		240,000	0.80%	0.80%	01/17/17	239,954
Compass Bank	N/A				245,000	245,000	552		245,000	0.85%	0.85%	01/17/17	244,953
Comenity Capital Bank	N/A				240,000	240,000	731		240,000	1.15%	1.15%	07/13/17	240,050
Discover Bank	N/A				240,000	240,000	552		240,000	1.15%	1.15%	07/17/17	240,000
Medallion Bank	N/A				240,000	240,000	733		240,000	1.20%	1.20%	07/17/17	240,000
Sallie Mae Bank	N/A				248,000	248,000	743		248,000	1.15%	1.15%	11/06/17	248,345
Key Bank National Association	N/A				248,000	248,000	732		248,000	1.10%	1.10%	11/13/17	248,367
Capital One Bank	N/A				240,000	240,000	916		240,000	1.35%	1.35%	01/16/18	240,821
Goldman Sachs Bank USA	N/A				240,000	240,000	916		240,000	1.40%	1.40%	01/16/18	241,042
BMW Bank of North America	N/A				240,000	240,000	915		240,000	1.40%	1.40%	01/17/18	241,042
American Express Bank	N/A				240,000	240,000	1097		240,000	1.70%	1.70%	07/16/18	240,984
American Express Centurion	N/A				240,000	240,000	1097		240,000	1.70%	1.70%	07/16/18	240,984
HSBC Bank USA, NA Step	N/A				244,000	244,000	1827		244,000	1.25%	1.25%	07/29/20	244,559
JPM Chase NA Step	N/A				244,000	244,000	1827		244,000	1.25%	1.25%	07/31/20	244,671
Synchrony Bank	N/A				240,000	240,000	1827		240,000	2.25%	2.25%	10/02/20	243,370
Subtotal Brokered CDs					\$3,874,000	\$3,874,000		\$0	\$3,874,000		1.426%		\$3,884,095

US Treasury Note	N/A	AAA			\$1,000,000	\$999,463	1092	14	\$999,857	0.63%	0.64%	12/15/16	\$999,610
US Treasury Note					\$1,000,000	\$999,463		14	\$999,857		0.64%		\$999,610
Subtotal US Treasuries													

U.S. Government Sponsored Entities													
Federal Home Loan Bank	N/A	AAA			\$2,000,000	\$2,000,000	355		\$2,000,000	0.38%	0.38%	06/20/16	\$1,999,660
Freddie Mac Bond	AA+	AAA			2,000,000	2,001,500	722	(60)	2,000,983	0.85%	0.81%	06/16/17	2,000,260
Federal Home Loan Bank	AA+	AAA			2,000,000	2,000,000	1,100		2,000,000	1.20%	1.20%	06/29/18	2,000,100
Fannie Mae Bond	AA+	AAA			2,000,000	2,000,000	1,097		2,000,000	1.20%	1.20%	11/28/18	2,003,460
Fannie Mae Bond	AA+	AAA			2,000,000	2,000,000	1,459		2,000,000	1.61%	1.63%	12/28/18	2,013,820
Federal Farm Credit Bank	AA+	AAA			3,000,000	3,000,000	1,079		3,000,000	1.15%	1.15%	02/22/19	2,998,050
Federal Home Loan Bank	AA+	AAA			3,000,000	3,000,000	1,186		3,000,000	1.50%	1.50%	04/26/19	3,009,240
Fannie Mae Bond	AA+	AAA			4,000,000	3,999,400	1,456	12	3,999,514	1.50%	1.50%	05/24/19	4,007,360
Federal Farm Credit Bank	AA+	AAA			2,000,000	2,000,000	1,460		2,000,000	1.52%	1.52%	06/24/19	2,029,080
Freddie Mac Bond	AA+	AAA			1,000,000	1,000,000	1,461		1,000,000	3.00%	3.00%	07/29/19	1,001,310
Freddie Mac Bond	AA+	AAA			3,000,000	2,972,928	1,359	578	2,973,884	1.25%	1.50%	10/02/19	3,006,480
Federal Home Loan Bank	AA+	AAA			1,000,000	999,000	1,461	20	999,099	1.40%	1.43%	10/08/19	1,000,010
Federal Farm Credit Bank	AA+	AAA			1,000,000	1,000,000	1,461		1,000,000	1.42%	1.42%	10/21/19	1,000,820
Subtotal U.S. Gov't Sponsored Entities					\$28,000,000	\$27,972,828		\$549	\$27,973,480		1.349%		\$28,069,650

(As of August 2011, all US GSE's have been downgraded to AA+ Rating by S&P)

INLAND EMPIRE UTILITIES AGENCY

Cash and Investment Summary

Month Ended
February 29, 2016

	Credit Rating @ Purchase		CHANGES IN Credit Rating		Par Amount	Cost Basis Amount	Term (Days)	February Amortization	February Value	% Coupon	% Yield to Maturity	Maturity Date	Market Value
	S&P	Moody's	S&P	Moody's									
Medium Term Notes													
John Deere Capital Corp	A	A2			\$1,000,000	\$1,004,000	1,754	(66)	\$1,001,343	1.20%	1.11%	10/10/17	\$997,940
JP Morgan Chase & Co	A-	A3			1,000,000	999,000	1,037	28	999,223	1.63%	1.66%	05/15/18	994,690
Johnson & Johnson	AAA	AAA			2,000,000	2,027,480	1,044	(763)	2,026,585	1.65%	1.16%	12/05/18	2,028,640
Microsoft	AAA	AAA			2,050,000	2,076,691	1,045	(741)	2,075,823	1.63%	1.16%	12/06/18	2,082,001
Subtotal Medium Term Notes					\$6,050,000	\$6,107,171		(\$1,542)	\$6,102,974		1.24%		\$6,103,271
Total Investments					\$101,754,523	\$101,783,985			\$101,780,834				\$101,887,148
<i>(Source of Investment Market Value: US Bank)</i>													
Restricted Deposits													
Debt Service and Arbitrage Accounts													
08B Debt Service Accounts					\$2,544,719	\$2,544,719	N/A	N/A	\$2,544,719		0.00%		\$2,544,719
10A Debt Service Accounts					10	10	N/A	N/A	10		0.00%		10
Total Debt Service Accounts					\$2,544,729	\$2,544,729			\$2,544,729				\$2,544,729
CCRA Deposits Held by Member Agencies													
City of Chino					\$12,684,931	\$12,684,931	N/A	N/A	\$12,684,931		N/A	N/A	\$12,684,931
Cucamonga Valley Water District					12,512,188	12,512,188	N/A	N/A	12,512,188		N/A	N/A	12,512,188
City of Fontana					8,525,593	8,525,593	N/A	N/A	8,525,593		N/A	N/A	8,525,593
City of Montclair					2,502,938	2,502,938	N/A	N/A	2,502,938		N/A	N/A	2,502,938
City of Ontario					9,222,989	9,222,989	N/A	N/A	9,222,989		N/A	N/A	9,222,989
City of Chino Hills					3,884,916	3,884,916	N/A	N/A	3,884,916		N/A	N/A	3,884,916
City of Upland					3,535,799	3,535,799	N/A	N/A	3,535,799		N/A	N/A	3,535,799
Subtotal CCRA Deposits Held by Member Agencies					\$52,869,354	\$52,869,354			\$52,869,354				\$52,869,354
<i>(Reported total as of January 31, 2016)</i>													
CalPERS Deposits													
OPEB (CERBT) Account					\$7,000,000	\$7,000,000	N/A	N/A	\$6,804,928		N/A	N/A	\$6,804,928
Subtotal CalPERS Deposits					\$7,000,000	\$7,000,000			\$6,804,928				\$6,804,928
Escrow Deposits													
Genesis Construction Escrow					\$22,816	\$22,816	N/A	N/A	\$22,816		N/A	N/A	\$22,816
Subtotal Escrow Deposits					\$22,816	\$22,816			\$22,816				\$22,816
Total Restricted Deposits					\$62,436,899	\$62,436,899			\$62,441,827				\$62,441,827
Total Cash, Investments, and Restricted Deposits as of February 29, 2016					\$165,782,271	\$165,811,733			\$165,613,510				\$165,719,824

INLAND EMPIRE UTILITIES AGENCY
Cash and Investment Summary

Month Ended
 February 29, 2016

February Purchases

No.	Date	Transaction	Investment Security	Par Amount Purchased	Investment Yield
1	2/22/2016	Purchased	Federal Farm Credit Bank	\$ 3,000,000	1.15%
Total Purchases				\$ 3,000,000	

February Investment Maturities, Calls & Sales

No.	Date	Transaction	Investment Security	Par Amount Matured/Sold	Investment Yield to Maturity
1	2/26/2016	Matured	JP Morgan Chase Co Medium Term Note	\$ 1,000,000	1.074%
Total Maturities, Calls & Sales				\$ 1,000,000	

INLAND EMPIRE UTILITIES AGENCY

Cash and Investment Summary

Month Ended
February 29, 2016

<u>Directed Investment Category</u>	<u>Amount Invested</u>	<u>Yield</u>
CBB Repurchase (Sweep)	\$19,379,520	0.300%
LAIIF	34,897,078	0.467%
CalTrust	7,553,845	0.650%
CAMP	1,000,080	0.450%
Medium Term Notes	6,102,974	1.235%
US Treasury Notes	999,857	0.640%
U.S. Government Sponsored Entities	27,973,480	1.349%
	\$97,906,834	0.750%
Bank Deposit and Investment Accounts		
Various Banks - Brokered Certificates of Deposit	\$3,874,000	1.426%
Bank of the West Money Market Account	51,808	0.180%
	\$3,925,808	1.410%
	\$101,832,642	0.775%
Total Investment Portfolio		
Investment Portfolio Rate of Return		0.775%
Restricted/Transitory/Other Demand Accounts		
CCRA Deposits Held by Member Agencies	\$52,869,354	N/A
CalPERS OPEB (CERET) Account	6,804,928	N/A
US Bank - 2008B Debt Service Accounts	2,544,719	0.000%
Citizens Business Bank - Demand Account	1,349,599	N/A
US Bank - 2010A Debt Service Accounts	10	0.000%
US Bank - Pre-Investment Money Market Account	36,313	0.010%
Citizens Business Bank - Workers' Compensation Account	58,016	N/A
Other Accounts*	95,113	N/A
	\$63,758,052	0.000%
Total Other Accounts		
Average Yield of Other Accounts		0.000%
Total Agency Directed Deposits	\$165,590,694	

* Note: Bank of America Payroll Deposits used as compensating balances for bank services.

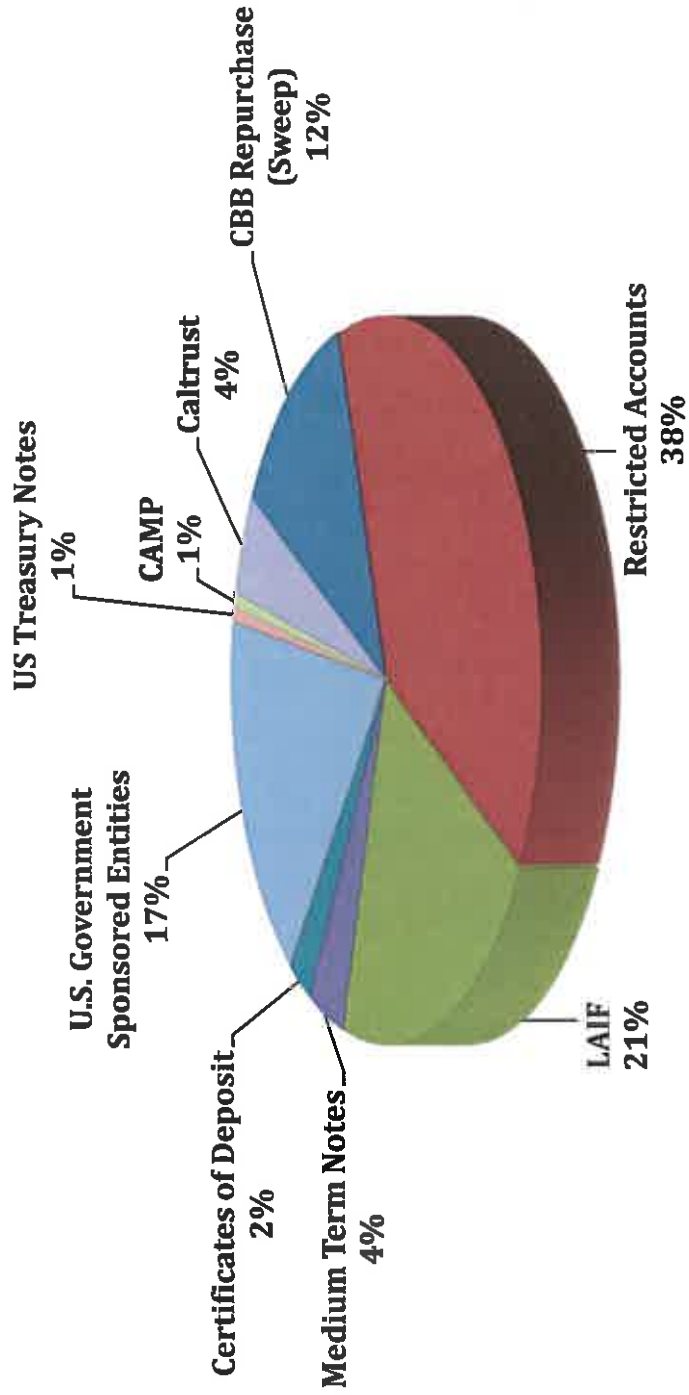
Inland Empire Utilities Agency

Treasurer's Report of Financial Affairs

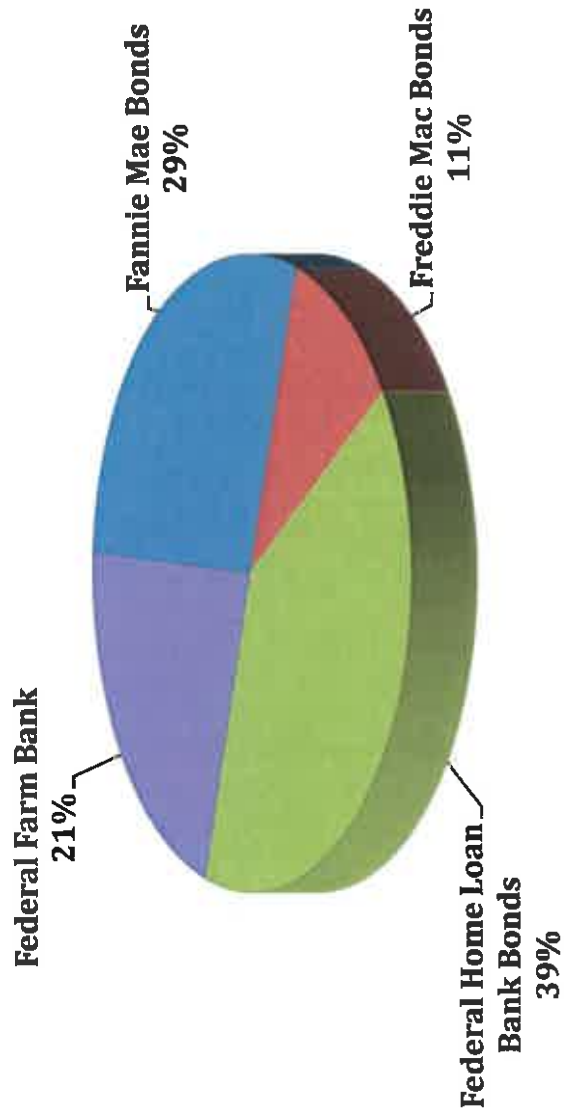
For the Month Ended February 29, 2016

Agency Investment Portfolio (net of escrow deposits)

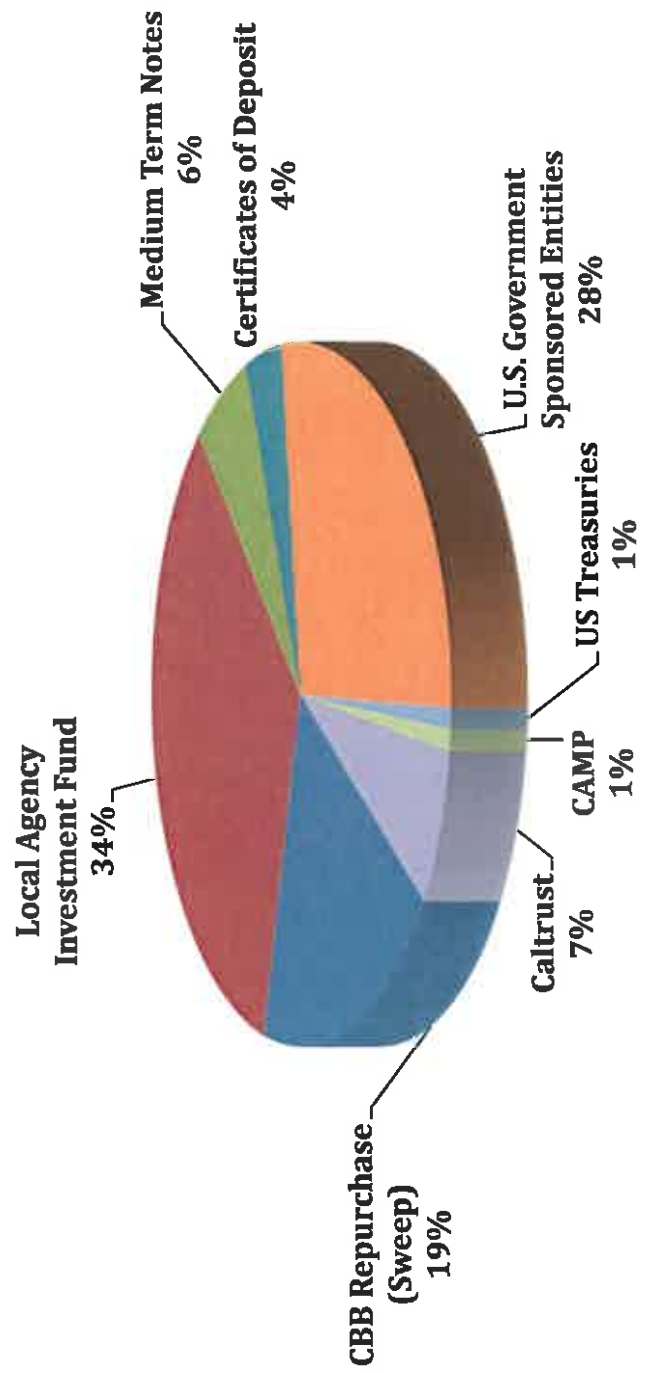
\$165,590,694



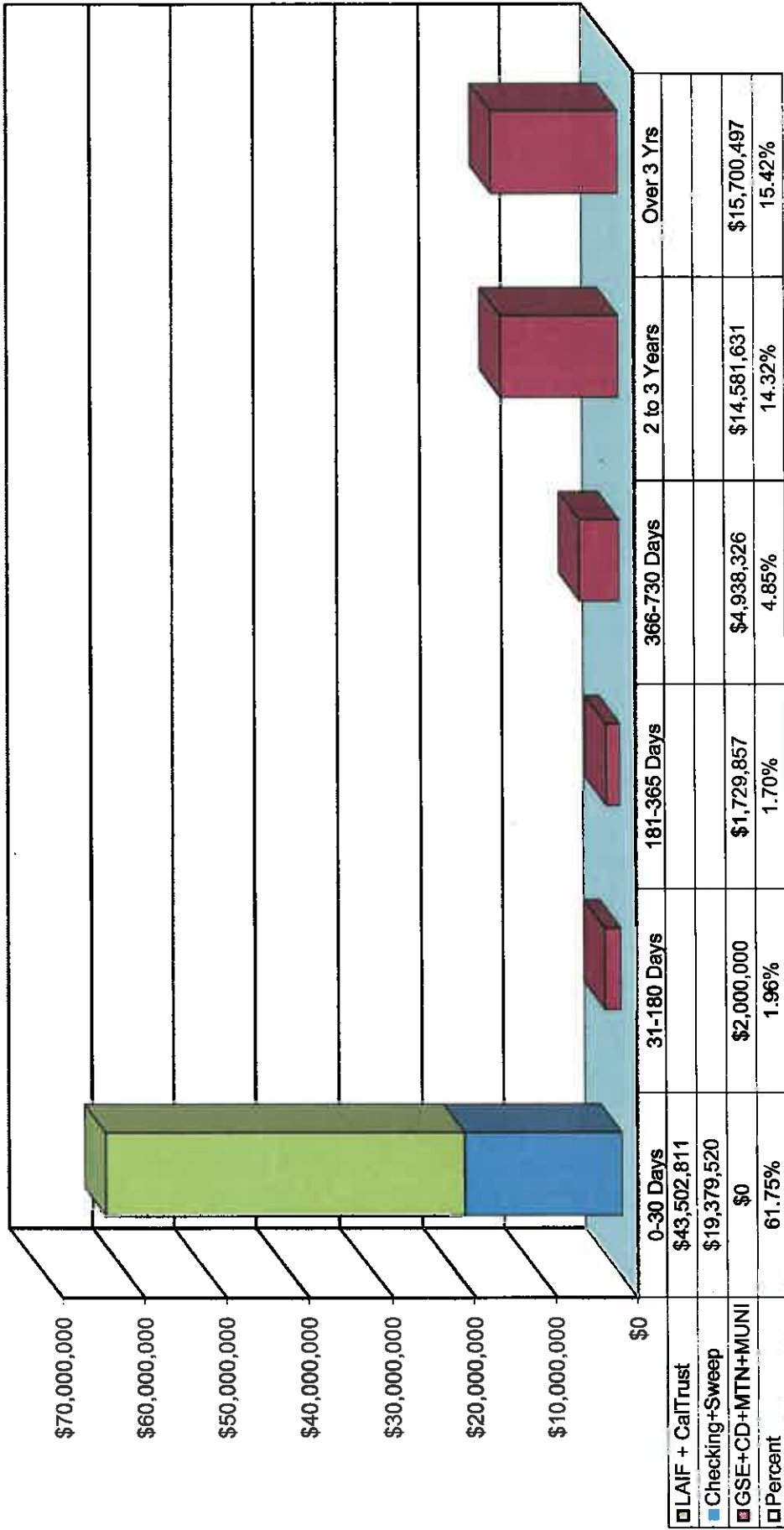
Inland Empire Utilities Agency
Treasurer's Report of Financial Affairs
For the Month Ended February 29, 2016
U.S. Government Sponsored Entities Portfolio
\$27,973,480



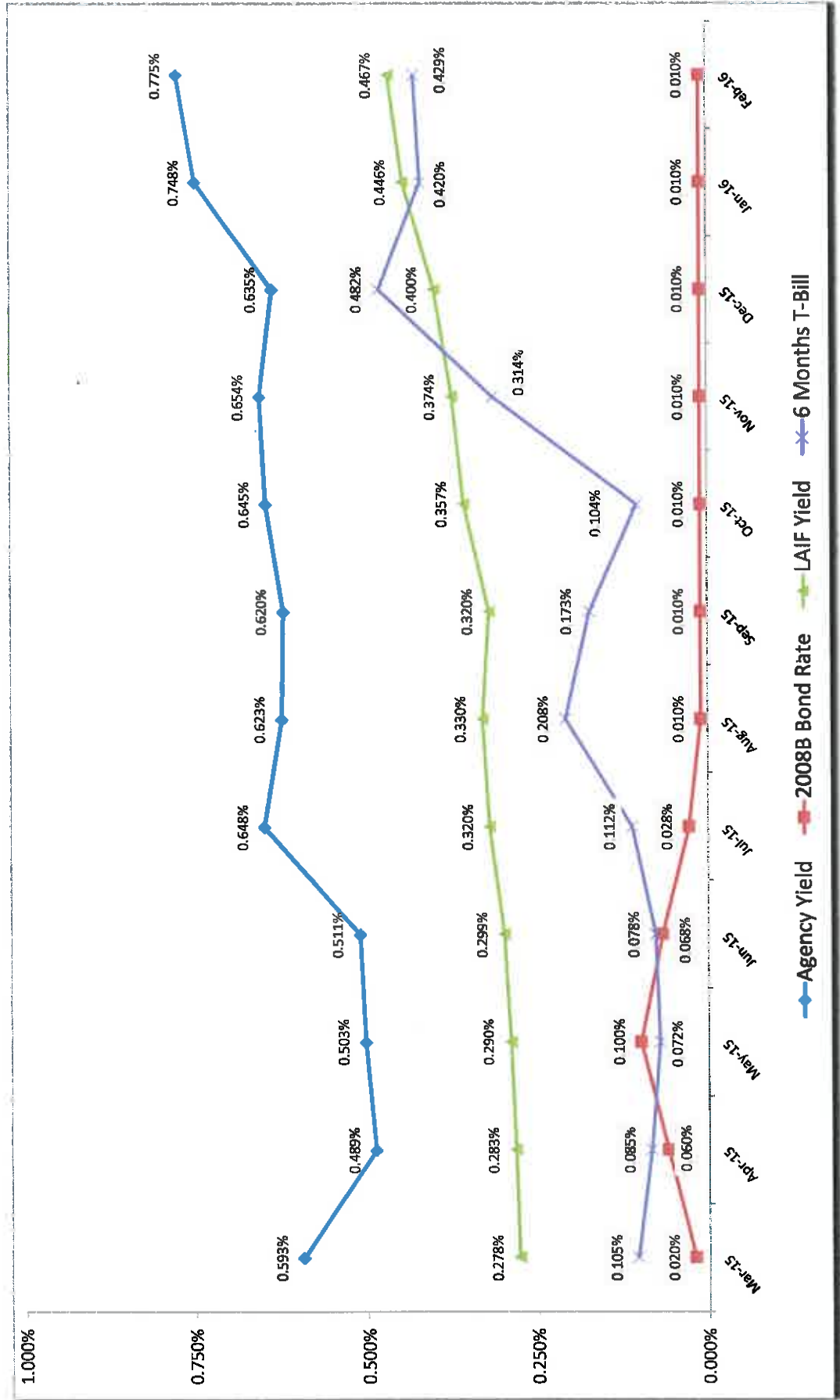
Inland Empire Utilities Agency
Treasurer's Report of Financial Affairs
For the Month Ended February 29, 2016
Unrestricted Agency Investment Portfolio
\$101,832,642



Inland Empire Utilities Agency
Treasurer's Report of Financial Affairs
 For the Month Ended February 29, 2016
Agency Investment Portfolio Maturity Distribution
\$101,832,642



**Inland Empire Utilities Agency
 Treasurer's Report of Financial Affairs
 Agency Investment Portfolio Yield Comparison**





Treasurer's Report of Financial Affairs for February 29, 2016

**April 2016
Board Meeting**

Report of Financial Affairs

Liquidity

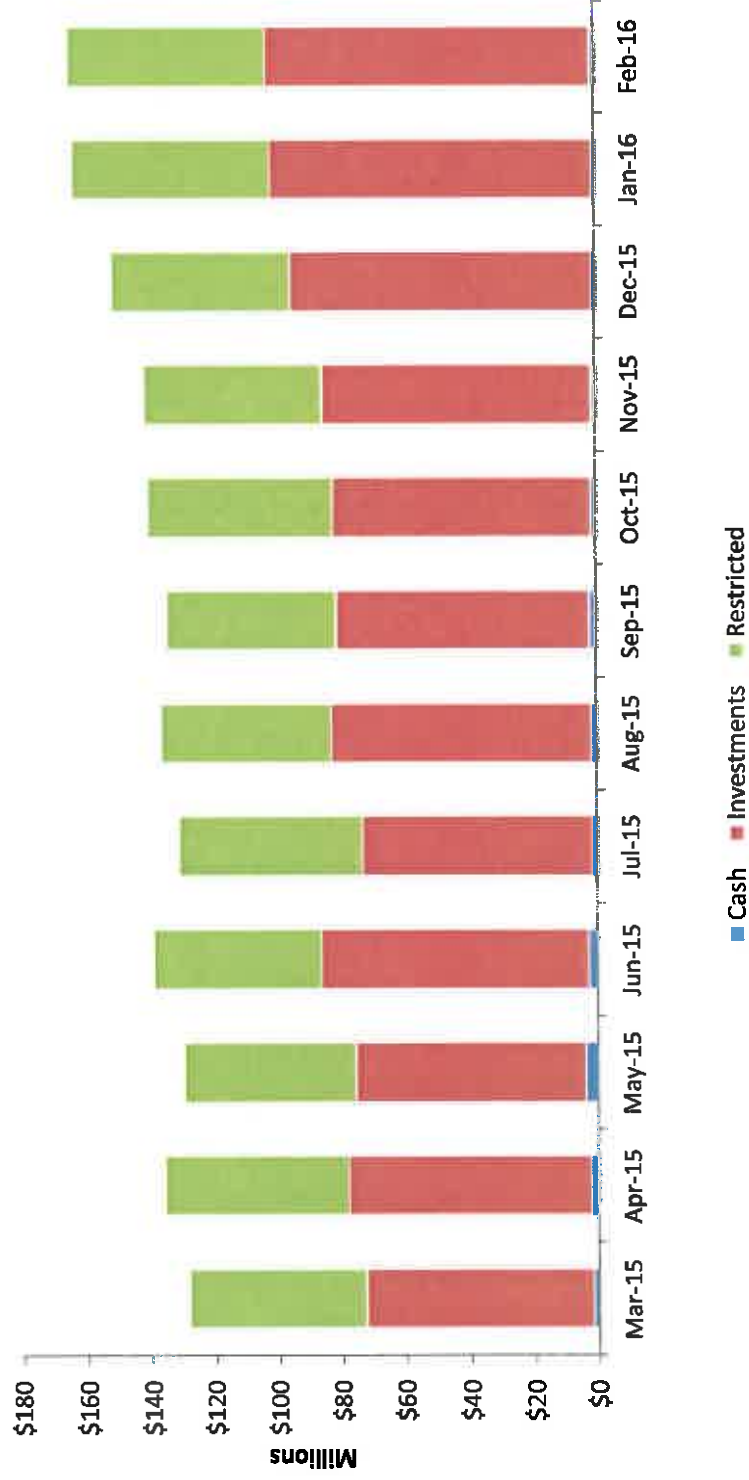
Description	February 2016 (\$ million)	January 2016 (\$ million)	Increase (Decrease) (\$ million)
Total Cash, Investments, and Restricted Deposits	\$165.6	\$163.9	\$1.7
Total Investment Portfolio	\$101.8	\$101.1	\$0.7
Investment Portfolio Yield	0.775%	0.748%	0.027%
Weighted Average Duration (years)	1.04	0.99	0.05
Average Cash on Hand (days)	234	227	7

Portfolio

Term	Description	Allowable Threshold (\$ million)	Investment Value (\$ million)	Yield	Current Portfolio %
Short Term, Under 1 Year:	LAIF	\$65	\$34.9	0.47%	34%
	CalTrust	\$20	\$7.6	0.65%	7%
	Citizens Business – Sweep	40%	\$19.4	0.30%	19%
	CAMP	\$20	\$1.0	0.45%	1%
	Brokered CDs	30%	\$0.7	0.82%	1%
	US Treasury Note	n/a	\$1.0	0.64%	1%
	US Government Securities	n/a	\$2.0	0.38%	2%
1 to 3 Years:	Brokered CDs	30%	\$2.4	1.33%	2%
	US Government Securities	n/a	\$11.0	1.20%	11%
	Medium Term Notes	10%	\$6.1	1.27%	6%
Over 3 Years:	Brokered CDs	30%	\$0.7	2.36%	1%
	US Government Securities	n/a	\$15.0	1.70%	15%

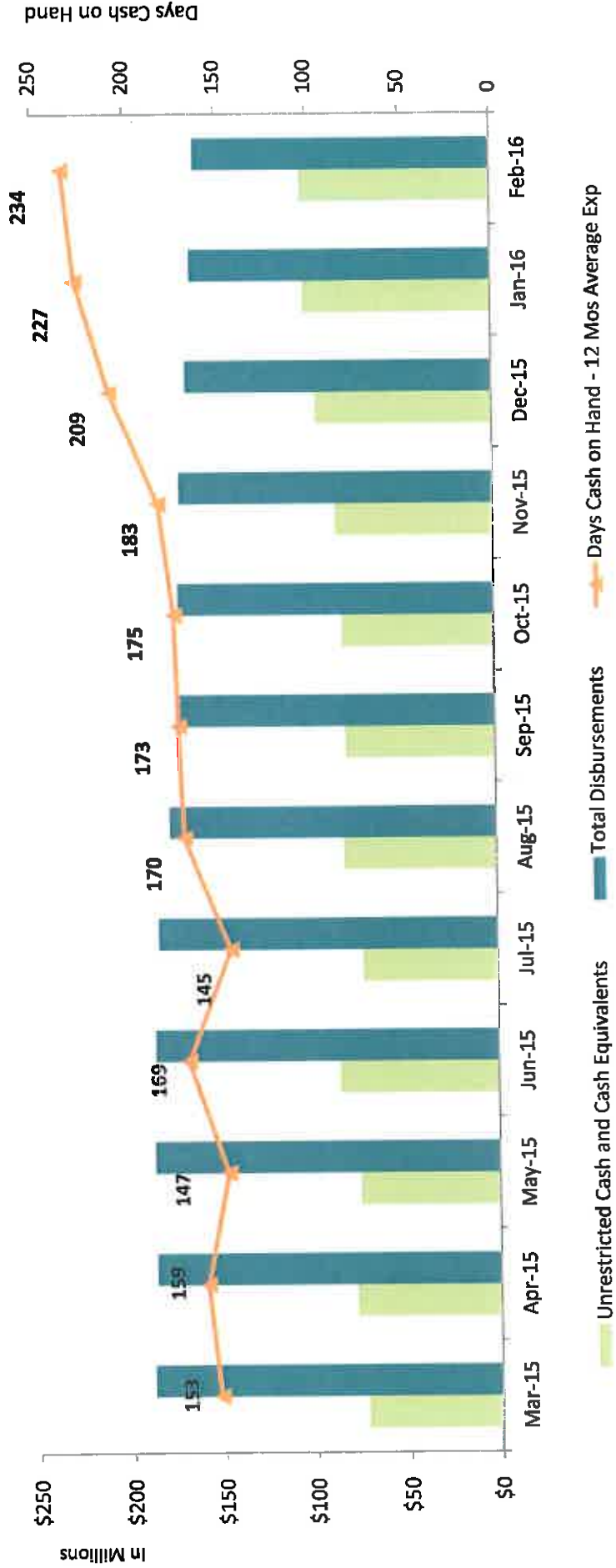
Cash, Investments and Restricted Deposits

Cash, Investments and Restricted Deposits

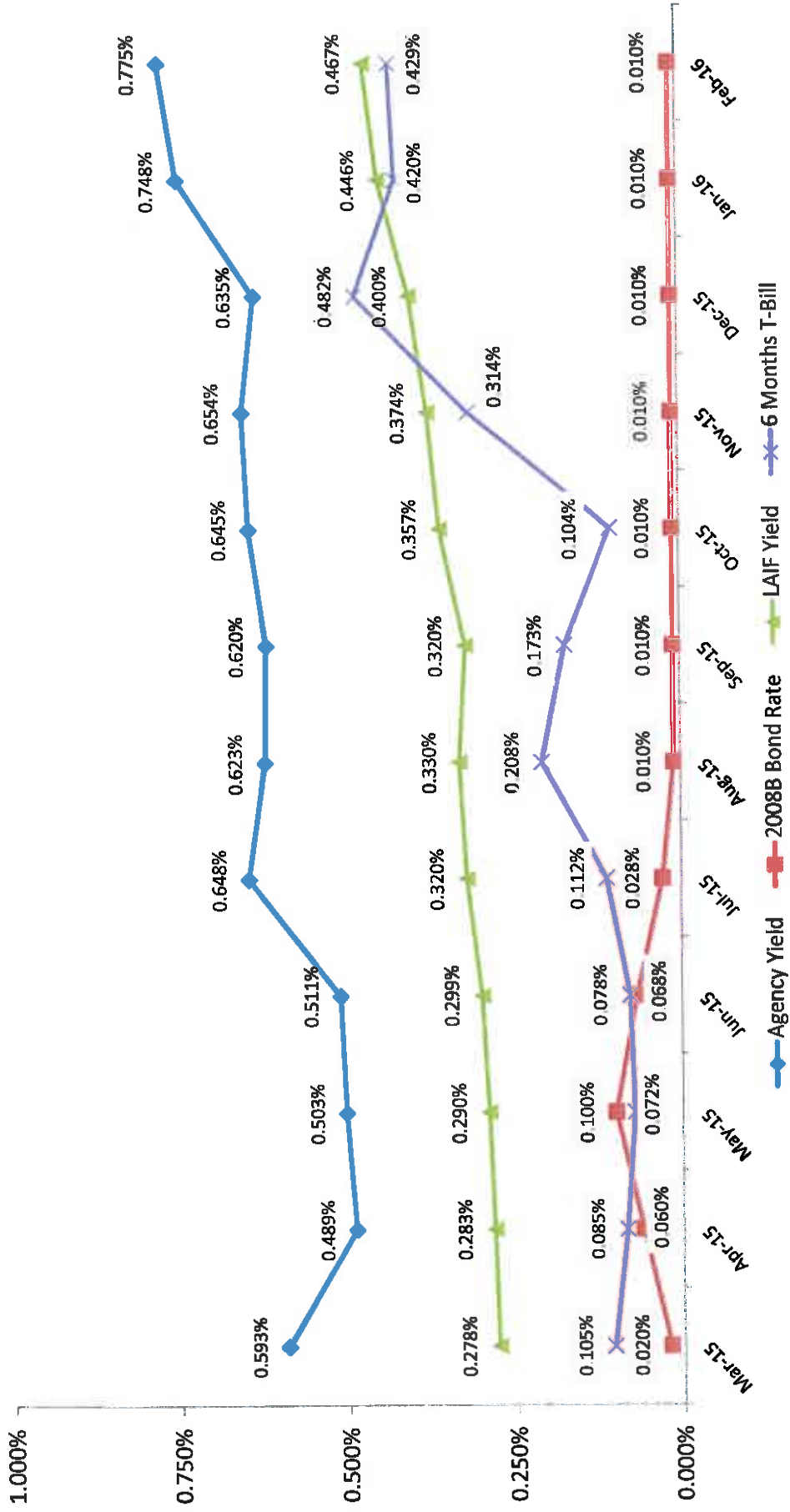


Day Cash On Hand 12 Months Rolling Average

Days Cash on Hand - 12 Mos Rolling



Month End Portfolio Yield Comparison





Questions?

*The Treasurer's Report of Financial Affairs is consistent with the Agency's business goal of
fiscal responsibility*

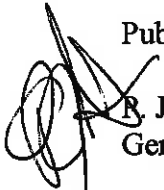
INFORMATION
ITEM


3F

Date: April 20, 2016

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee (4/13/16)

From:  R. Joseph Grindstaff
General Manager

Submitted by: Kathy Besser 
Manager of External Affairs

Subject: Public Outreach and Communication

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

April

- April 20, IEUA Earth Day Event (Student Day), Chino Creek Park, 9:00 a.m. – 2:00 p.m.
- April 21, IEUA Earth Day Event (Community Day), Chino Creek Park, 4:00 p.m. – 7:00 p.m.
- April 22, Eagle Canyon Elementary GIES Dedication, 13435 Eagle Canyon Drive, Chino Hills, 1:00 p.m. – 2:00 p.m.
- April 28, 2016 Citrus Elementary GIES Dedication, 16041 Randall Avenue, Fontana, CA 92335, 4:30 p.m. – 5:30 p.m.

May

- May 1-7, International Compost Awareness Week
- May 4, Compost Giveaway, IEUA HQA Parking Lot, 9:00 a.m. – 2:00 p.m.
- May 5, Truman Middle School GIES Dedication, 16224 Mallory Drive, Fontana, 2:00 p.m. – 3:00 p.m.
- May 13-15, MWD Solar Cup Competition, Lake Skinner
- May 24, Cal Aero Preserve Academy GIES Dedication, 15850 Main St, Chino, CA 91708, 8:40 a.m. – 9:40 a.m.
- May 24, Cortez Elementary School GIES Dedication, 12750 Carissa Ave., Chino, 5:45 p.m.

Outreach/Education - Civic Publications Newspaper Campaign

- IEUA staff has been working in collaboration with Civic Publications to develop and distribute *Kick the Habit* display ads. The display ads are linked to the *Kick the Habit* micro-site, which displays IEUA's campaign message, tips and member agency links.
- IEUA sent an email blast to 157,000 households in the IEUA service area on March 25, 2016. The email blast led viewers to the *Kick the Habit* micro-site.

Media and Outreach

- The 2015 Annual Report can be found on the Agency's website. Additional copies have been distributed to stakeholders.
- IEUA staff began utilizing social media to market Earth Day and other events/topics via promo videos.
- IEUA staff placed a *Kick the Habit* ad in the Chino Champion Progress Edition to run on April 16.
- IEUA staff placed a ¼ page *Kick the Habit* ad in the Fontana Herald News for the month of April.
- Earth Day ads will be running on the La Opinion digital banner and will be placed on rack cards for the first two weeks in April.
- *Kick the Habit* bus advertisements in English and Spanish began on October 5, 2015 for an initial six month run and will continue to run for another six months.
- In March, 27 items were posted to Facebook and 28 tweets were sent under the @IEUAWater Twitter handle.
- Staff began implementing Friday Foliage as a weekly spot on IEUA's social media channels that highlight water efficient California native and drought tolerant plants. It also features pictures of the plants and information regarding the plant (i.e. good for slopes, attractive to butterflies, provides the location of where to locate them in the Chino Creek Park, etc.)

Education and Outreach Updates

- The Water Discovery Program is booked through the 2015/2016 school year. Water Discovery Program: 1,110 Girl Scout troop members, elementary, middle and high school students have taken part in the park field trip from July 1, 2015 through March 31, 2016. Fourteen additional Water Discovery Field Trips for school year 2015/16 have been scheduled. The Busing Mini-Grant program was extended through December 2020.
- The deadline for the 2016 "Water is Life" poster contest was March 3, 2016. Staff received over 400 art posters. Judging was held March 24, 2016.
- Student Day for Earth Day is booked. Staff is expecting over 1,300 students from eleven schools within our service area to attend. The Community Day will contain earth-friendly vendors, KOLA radio, a shredding company, environmental shows, giveaways, and education.
- The deadline for the 2016/17 GIES grant application is April 7, 2016.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

The above-mentioned activities are budgeted in the FY 2015/16 Administrative Service Fund, External Affairs Services budget.

**INFORMATION
ITEM**

3G

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Innovative Federal Strategies LLC

Comprehensive Government Relations

MEMORANDUM

To: Joe Grindstaff and Kathy Besser, IEUA

From: Letitia White, Jean Denton, and Drew Tatum

Date: March 31, 2016

Re: March Monthly Legislative Update

Without Budget Framework, Appropriators Begin Year in Earnest Before Recess

House Republican leaders hoped to have a budget framework in place before the Easter recess, but scrapped plans for floor consideration during the final week of the month. While the House Budget Committee approved the fiscal year 2017 budget resolution on March 16 on a vote of 20-16, members of the conservative House Freedom Caucus have come out in opposition to the plan, making its success in a floor vote uncertain. Two Republicans, Dave Brat (R-VA) and Marlin Stutzman (R-IN), and all 14 Democrats voted no. The conservative defections caused House Majority Leader Kevin McCarthy (R-CA) to postpone consideration of the budget resolution until after the Easter recess to give Republican leaders an opportunity to chart a path forward.

During the recess, 15 organizations headlined by the Competitive Enterprise Institute praised a policy statement in the budget that, among other things, urges Congress to create a regulatory budget that would set annual costs of regulations and allocate those costs among federal regulatory agencies. "Congress should act now to require better reporting, more accountability and cost reductions," says the letter, which also was signed by Americans for Tax Reform, FreedomWorks and the National Taxpayers Union. The letter calls on Congress to adopt a budget resolution "that includes the regulatory budget put forward by House Budget Committee Chairman Tom Price," the Georgia Republican who wrote the tax and spending framework. The letter calls Price's budget resolution "remarkable" for including the statement on regulations. The endorsement could be a shot in the arm for the budget resolution.

Despite the setback on consideration of the budget resolution, the House Appropriations Subcommittee on Military Construction and Veterans Affairs moved forward with the markup of its FY17 spending bill, advancing it for consideration by the full committee. Additional FY17 spending bills are expected to be considered during the months of April and May at the subcommittee level.

At least one subcommittee chairman is expressing concern that despite movement of the appropriations bills at the subcommittee level, a continuing resolution may be necessary in the fall to avoid a government shutdown. "I think that's more likely than not," Representative Tom Cole (R-OK) chairman of the House Appropriations Labor-HHS-Education Subcommittee, said

Innovative Federal Strategies LLC

in an interview before the recess. That stark admission marks a major turnaround in thinking since January, when House Speaker Paul Ryan (R-WI) and Senate Majority Leader Mitch McConnell (R-KY) vowed to rescue Congress from its state of dysfunction and pass regular spending bills on time for the first time since 1994.

House and Senate Agree to a Short Term FAA Extension

The Federal Aviation Administration short-term extension is off to the White House after the Senate-amended version of the bill was approved on the House floor by voice vote Monday, March 21. The House originally passed a short term reauthorization that provided the necessary authority for the administration through mid-July, but extended the authority to collect certain revenue until early next year. In an effort to keep pressure on lawmakers to advance a long-term authorization, the Senate stripped the provisions allowing the FAA to continue collecting revenue beyond the expiration of its regulatory authority, meaning both provisions now expire on July 15, 2016.

"I would hope that this is the last extension," ranking Transportation and Infrastructure Committee Democrat Peter DeFazio (D-OR) declared on the House floor, adding that July 15 is now the "drop-dead date." After that point, he said, "Congress will be out for the longest summer break since probably the '50s" and it would be impossible to take meaningful action for another year. Representative Bill Shuster (R-PA), Chairman of the Transportation and Infrastructure Committee did not see quite the same urgency. He insisted nailing down a long-term bill would be high on the agenda after the House returns from its two-week break. "We'll be working very hard" through the summer, Shuster said, but once they reach July, "we'll see what happens after that." Shuster would not rule out the possibility that the debate would continue past July.

Before the Easter recess, the Senate Commerce Committee advanced a reauthorization that would expire on September 30, 2017. The plan received overwhelming bipartisan support, and there is optimism that the legislation will be brought to the floor in early April to avoid the need for another temporary extension this summer. The House has not indicated how quickly it might take up the Senate legislation, if it considers it at all. Representative Shuster still hopes his air traffic control overhaul language will be considered.

Republicans Promise to Block Merrick Garland's Appointment to the Supreme Court

President Obama fulfilled his promise to nominate someone to fill the vacancy created by the death of Justice Antonin Scalia on the United States Supreme Court. On March 16, the president announced that he had chosen the chief judge of the United States Court of Appeals for the District of Columbia Circuit, Merrick Garland. The president opted to pick a more centrist jurist in an effort to place additional public pressure on the Republican-controlled Senate to hold confirmation hearings and a vote on the nominee.

The nomination sets in motion what will likely be a standoff between the White House and the Senate that is likely to remain unresolved through the election. President Obama said, "Presidents do not stop working in their final year or their term; neither should a senator." Republicans quickly rejected the president's nominee, with Senator McConnell going to the floor announcing that Republicans would continue to employ the same strategy, regardless of who the

Innovative Federal Strategies LLC

nominee was. He said that Senate Republicans maintain the position that the American people should have a voice in selecting a new nominee through the election of a president.

For his part, Senator McConnell has opted to utilize pro-forma sessions in the Senate during periods where the Senate had scheduled to be out of session. Pro-forma sessions will keep the president from nominating Garland to sit on the bench through a recess appointment. President Obama has said he has no intention to make a recess appointment, as the appointment would still require confirmation of the Senate, otherwise his term would only last through the end of the next session of Congress.

The confirmation of a new justice could have an impact on several of the administration's regulations. A challenge to the regulatory definition of the "waters of the United States" is expected to be heard by a Federal Circuit Court this summer in Ohio. Any appeals could end up being heard by the Supreme Court. Additional challenges to carbon emission regulations could also end up at the Supreme Court.

House Forms Municipal Bonds Caucus

In response to tax plans introduced during the last few years that have targeted the tax exempt status of municipal bonds, Members of Congress, led by Representatives Randy Hultgren (R-IL) and Dutch Ruppersberger (D-MD), are forming a Municipal Finance Caucus. Citing that municipal bonds have been tax-exempt since the federal income tax was first introduced, the members of the caucus will seek to protect them if tax reform legislation is introduced. Municipal bonds have built four million miles of roads, 500,000 bridges, 16,000 airports, 900,000 miles of pipe in water systems and thousands of libraries, health clinics and public transportation systems. A coalition of local governments, airport authorities, utility companies, and development associations have formed a coalition that will work closely with the caucus to educate other Members of Congress on the importance of municipal finance issues.

Outlook for April

The House is in the middle of a two-and-a-half-week recess for Easter. House lawmakers will return the week of April 11. Senators will return from their own two-week recess on April 4. The Senate may return to consideration of a longer-term FAA reauthorization.

The House Appropriations Subcommittees are expected to continue markup of the 12 annual appropriations bills during the month of April. Republican leaders have continued to insist that they hope to move all appropriations bills this summer in advance of the beginning of the new fiscal year that begins October 1, 2017.

**INFORMATION
ITEM**

3H



April 1, 2016

To: Inland Empire Utilities Agency

From: Michael Boccadoro
President

RE: March Legislative Report

Overview:

March was a busy month in the Legislature. After March 19, all bills could be amended and acted upon, so lots of bills have been amended and set for hearing. Members have been working to fine-tune their legislation ahead of the April 22 deadline for bills to make it out of policy committees before heading to fiscal review.

Activity surrounding the California WaterFix has increased recently, which has resulted in the State Water Resources Control board putting a hold on all scheduled hearings and deadlines. Comments made by Felicia Marcus and Tam Doduc indicating potentially had drawn conclusions on the amount of water that should be delivered through the project resulted in several agencies filing or supporting petitions to disqualify both Marcus, the SRWCB chair, and Doduc, the presiding officer, from WaterFix hearings.

The March manual snowpack survey showed slight decline since the March 1 survey. The statewide snowpack's water content is 24.4 inches, 87 percent of average.

Bureau of Reclamation (BOR) recently released a report, "Reclamation Climate Change and Water 2016", looking at the likelihood of effects of climate change and specifically at eight rivers in the western United States including the Sacramento and San Joaquin Rivers. They suggested a variety of tactics including conservation, recycling, desalination, and building or expanding new dams to deal with climate change. While there was some good data on the rivers included in the report, the broad suggestions are nothing.

On March 1, Southern California Gas Company (SoCalGas) and San Diego Gas & Electric (SDG&E) filed a motion at the California Public Utilities Commission that, if approved, would temporarily move natural gas customers from a monthly 10 percent balancing, to a 5 percent daily balancing. SoCalGas stated reason for the significant change is the inability to store gas at Aliso Canyon, and therefore will not have the flexibility to respond to extreme heat events this summer.

As reported in past months, the new version of the net-energy metering (NEM) program has been approved at the California Public Utilities Commission. The new program does not make any significant changes to how future NEM projects at IEUA would be treated. However, the state's Investor Owned Utilities have filed a motion for a re-hearing of the new NEM program. While most believe they will not be successful, West Coast Advisors will continue to monitor the issue and report back on any changes.

The initiative filed by Senator Bob Huff (R-Chino) and State Board of Equalization Member George Runner (R-Lancaster) that would transfer funds from the high-speed rail to water storage projects has announced that they will suspend their signature gathering operations. With so many measures trying to qualify at the same time, the cost of gathering signatures is too high for the campaign.

Unfavorable voter response has also caused the Association of California Water Agencies, and their coalition partners, to suspend efforts to qualify a Constitutional Amendment for the November ballot that would create an alternate process for agencies to adopt conservation-based rates, lifeline rates, and rate-basing stormwater capture. An unfavorable ballot summary from the Attorney General was the driving factor for the lack of voter support.

Results from a statewide voter survey conducted by the Public Policy Institute of California (PPIC) have found that water is no longer the most important issue to Californians. Recent rains are likely the reason voters are slightly less concerned about water supply than they were in September. The economy is once again the top issue for Californians.

Inland Empire Utilities Agency Status Report – March 2016

WaterFix Update

California WaterFix discussion and debate has picked up in the last month following initial procedural hearings in February. The following are a few of the most recent developments that have led to additional delays for the project.

- The San Luis & Delta-Mendota Water Authority (SLDMWA) filed a petition on March 21st to disqualify State Water Resources Control Board (SWRCB) chairwoman Felicia Marcus and board member Tam Doduc from WaterFix hearings. Doduc is the presiding officer of the hearings. SLDMWA is taking issue with the written comments which may suggest both have already made up their minds about the amount of water necessary for environmental flows.

During a procedural hearing last month to set rules and scheduling details, Marcus and Doduc indicated in their ruling that water flows through the Delta would “be more stringent” than what is currently allowed. The comments raised concerns for Delta exporters who are on the hook to pay the \$15.5 billion price tag of the project.

The U.S. Bureau of Reclamation and the Department of Water Resources also asked Marcus and Doduc to rewrite the ruling and remove comments directed at premature determinations of Delta flows. The State Water Contractors expressed similar feelings in a letter stating that the ruling “appears to be biased and constitutes an abuse of discretion and should be rescinded”. Marcus and Doduc responded in a subsequent ruling

explaining that previous comments, “should not be considered a final determination... We have not prejudged this issue.”

- Earlier this month, The Howard Jarvis Taxpayers Association raised issue with methods water agencies, including the Santa Clara Valley Water District, may use to fund their portion of the \$15.5 billion California WaterFix price tag. Santa Clara Valley Water District’s share is estimated to be as much as \$1.2 billion. District staff maintains that that it can raise property taxes on homeowners without the 2/3 public vote required by Proposition 13, because the project is an addition to the State Water Project authorized by voters in 1960. HJTPA argues that WaterFix is a separate project and should be subject to a vote before raising local property taxes. At least five of the seven district board members have gone on record saying they would support an advisory measure on next year’s ballot to gauge voter support of a property tax increase in favor of WaterFix.
- On March 28th, the Department of Water Resources and the U.S. Bureau of Reclamation filed a continuance, requesting a 60-day extension to the SWRCB’s May WaterFix hearing. The agencies claim they need more time to address the protests from numerous environmental groups and Delta and Northern California water agencies. SWRCB staff has said that the request is under review.
- The Department of Water Resources (DWR) announced that the agency has reached an agreement with the Contra Costa Water District (CCWD) regarding water quality impacts associated with WaterFix. Modeling shows that the operation of new intakes on the Sacramento River, as proposed by WaterFix, could at times change water quality in the south Delta near four intakes that CCWD uses to help supply its 500,000 customers. All of CCWD’s intakes are subject to variations in water quality caused by salinity intrusion, Delta hydrodynamics, and discharges into the Delta and its tributary streams.

Under the agreement, DWR would deliver a portion of the district’s water supply from a new source on the Sacramento River if and when the WaterFix becomes operational. In return, CCWD agrees to withdraw a pending protest over WaterFix and not sue DWR over the project. The agreement describes several options for providing CCWD water via the Sacramento River:

- Use the Sacramento River intake operated by the East Bay Municipal Utility District near Freeport, after CCWD reaches agreement with EBMUD;
- Build a connection between the proposed California WaterFix tunnels and a CCWD pipeline where the conveyance systems cross in the south Delta; or
- Build a short pipeline from Clifton Court Forebay in the south Delta under Victoria Island to connect with a CCWD pipeline.

March Snowpack Survey

On March 30, 2016, the Department of Water Resources (DWR) completed the winter’s third media-oriented manual snow survey. The survey is conducted at the Phillips Station in the Sierras, just east of Sacramento. The surveying team found snowpack water content at 26 inches, a 1-inch decline since the March 1 survey. The measurement indicates snowpack levels at

75% of historic average. The statewide snowpack's water content is 24.4 inches or 87 percent of average. Snowpack levels in the southern region were at just 73 percent of normal. While the April 1 snowpack levels show a marked improvement over 2015 (5 percent of historical average) they are not in the drought busting category.

Reclamation Climate Change and Water 2016

Bureau of Reclamation (BOR) recently released a report, "Reclamation Climate Change and Water 2016", looking at the likelihood of effects of climate change and specifically at eight rivers in the western United States including the Sacramento and San Joaquin Rivers. The report focused on the likelihood of climate change upsetting food production, the environment, and hydroelectric generation at dams. The report was based on BOR's research and peer-reviewed studies, acknowledging that potential impacts will vary based on terrain and uncertainties in weather.

According to BOR, higher temperatures associated with climate change could result in increased snowmelt and evaporation from reservoirs, with a significant impact on the water supply for farms, particularly in the Central Valley. Similarly, less water in reservoirs will put a strain on the ability to generate hydroelectric power. BOR suggested a variety of tactics including conservation, recycling, desalination, and building or expanding new dams. Other suggestions include updating hydropower plants to operate when reservoirs have less water, repairing leaky irrigation canals and replenishing underground aquifers.

Among the other potential effects of climate change, the reported found:

- Streamflow could drop by 8 percent in several river basins, including the San Joaquin in California; the Colorado, which runs from the Colorado Rockies to Southern California; and the Rio Grande, which flows from Colorado through New Mexico and along the Texas-Mexico border.
- On the Columbia River, a projected increase in winter flooding and decrease in summer flows would affect Coho and Chinook salmon and steelhead.
- A warmer climate could mean less water seeping into aquifers just as farms and cities will need to pump more groundwater make up for shortfalls in rivers.

Natural Gas Daily Balancing

On March 1, Southern California Gas Company (SoCalGas) and San Diego Gas & Electric (SDG&E) filed a motion at the California Public Utilities Commission that, if approved, would temporarily move natural gas customers from a monthly 10 percent balancing, to a 5 percent daily balancing. SoCalGas is blaming the loss of Aliso Canyon storage for the reduced flexibility to respond to extreme heat events this summer.

A significant number of parties filed protests to this motion on several grounds. First, the procedural route SoCalGas took by filing a motion provides little opportunity for stakeholder

input and transparency. Using a motion eliminates the crucial fact finding and testimony aspects a formal application requires.

Additionally, parties argued that because of the nature of some natural gas use, a 5 percent daily balancing would impose significant operational and financial burdens on end use customers.

Due to the strong opposition to the motion, SoCalGas held a brief conference call to discuss next steps with parties. Parties continue to demand SoCalGas withdraw their motion and open a more transparent proceeding. SoCalGas has refused requests due to timing concerns heading into summer months. They did state that they will communicate with the judge that there is a stakeholder process underway and the first meeting is scheduled for next week. The CPUC is not expected to act on the motion while that process is ongoing.

West Coast Advisors will participate in the workshop and continue to monitor the situation.

Net Energy Metering

The existing NEM program is scheduled to sunset in June 2017 or when each of the utilities reaches the “NEM Cap,” which is 5 percent of their aggregate peak load. All projects that are interconnected before the program closes will stay on the current NEM tariff for 20 years after their interconnection date. Southern California Edison has 750.6 MWs remaining before they hit the 5 percent cap.

NEM 2.0

The CPUC has adopted the next version of NEM. As discussed in previous reports, with the current version of the NEM program set to expire soon, a lengthy and very detailed process to craft the next NEM program, NEM 2.0, was convened at the CPUC. Stakeholders, including WCA and IEUA, actively participated in the process.

While there were some changes to the program, overall, NEM 2.0 will ensure a viable net-energy metering program will be available for water agencies going forward.

Since the final decision was voted on, all three Investor Owned Utilities (IOUs) have filed applications with the CPUC to rehear the decision. They argue that the decision fails to implement state law and will burden their customers with exorbitant and unacceptable costs that should be paid for by solar customers. They go on to state that the commissions reasoning is contrary to law and that AB 327 (the law authorizing the continuation of NEM) was interpreted incorrectly.

Ballot Measure Update

Huff-Runner Initiative

Senator Bob Huff (R-Chino) and State Board of Equalization Member George Runner (R-Lancaster) were working to qualify an initiative that would divert unspent high-speed rail funds to water storage projects. While the campaign recently announced that they had collected 25 percent of the required signatures to qualify, they have also announced that the campaign will be suspended. With so many initiatives trying to qualify, the price of signature gathering has increased to as much as \$5 per signature, a price too high for the campaign. They may try again in 2018.

ACWA's Proposition 218 Fix

The Association of California Water Agencies (ACWA), along with the California League of Cities and the California State Association of Counties (CSAC) have proposed a Constitutional Amendment to create a new process for setting conservation rates, lifeline rates and rates for stormwater capture. As reported last month, the Attorney General wrote a ballot summary that is less than favorable to the measure. Essentially, the summary stated that passing the initiative would eliminate voter approval from the rate-setting process.

After testing the ballot title and summary, ACWA and the coalition have decided to not move forward with an initiative this year. They have indicated that they might try for a "Plan B" but they do not know what that other plan might be at this juncture.

PPIC Survey

The Public Policy Institute of California recently released results of a statewide survey that looked at many issues including water. It indicated that as California's record-setting drought has eased, residents are less likely to view water issues as a big problem. Fifty seven percent (57%) of adults say the supply of water in their part of the state is a big problem, compared to 70 percent in September 2015, just six months ago. While economy/jobs has reemerged as the number one concern facing Californians at 25 percent, water/drought issues comes in a close second at 20 percent.

Voters also support the Governor's California WaterFix. More than half of adults (54 percent) say building the tunnels is very important to the future of California. Residents in Los Angeles (61 percent) and the Inland Empire (61 percent) lead the way, followed by the Central Valley at 51 percent.

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Agricultural Resources

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April 1, 2016

Legislative Report

TO: Joe Grindstaff
General Manager, Inland Empire Utility Agency

FR: David M. Weiman
Agricultural Resources
LEGISLATIVE REPRESENTATIVE, IEUA

SU: Legislative Report, March 2016

Expectations were sky high that the El Nino, as being predicted, would be a drought-buster. It didn't happen. California had a strong winter, with significant precipitation, especially in Northern California, but not in Southern California. According to recent summary report from Accuweather.Com:

Much-needed mountain snow and rain returned to California this winter, but fell short of expectations amid a super El Niño.

The official snow season for California's Sierra Nevada came to an end at the start of April on a below-normal note and one that AccuWeather Senior Meteorologist Ken Clark called "disappointing."

The amount of water stored in the snow for the entire mountain chain averaged 14 percent below normal on April 1, according to the California Cooperative Snow Surveys.

The northern Sierra fared better than the southern Sierra with the

amount of water in the snow averaging only 5 percent below normal, compared to the 27 percent below normal in the south.

"The numbers are not anywhere near what many had wanted going into the winter," Clark said. "The much-heralded El Niño brought more snow than the previous four years, but that was not hard to accomplish."

Snapshots

- For California, December was not a wet month. January was a wet month. February was not. March was. The El Niño “yo-yo’d” throughout the Winter months and until the end of March (and conclusion to the winter season).
- BuRec initial water allocations were announced on April 1 with “*North of Delta, Sacramento River Settlement Contractors, San Joaquin Exchange and Settlement contractors to receive 100%; Friant to receive 30% of Class 1 water; South of Delta 5%*”. The Agency said that “*this allocation is based on a cautious estimate of the amount of water that will be available for delivery to CVP water users and reflects current reservoir storages, precipitation and snowpack in the Central Valley and Sierra Nevada.*”
- BuRec, in their announcement, provided a 2015-2016 comparison stating, “*the California Department of Water Resources (DWR) reports that as of March 30, 2016, the statewide average snow water equivalent in the Sierra Nevada is 24.4 inches, as compared to two inches on this date last year, and rainfall is currently at 125 percent of the historical average. However, in 2015 California experienced its fourth year of drought, and although conditions have greatly improved, Gov. Jerry Brown’s Emergency Drought Proclamation, issued January 17, 2014, remains in effect.*”
- San Joaquin Valley irrigators (Westlands and others) are extremely upset and are demanding more water be released for them (which creates a series of complicated issues for existing and more senior water right holders, environmental needs and pumping capacity limitations).
- The Drought Monitor, throughout the entire Winter, continued to show ALL of California in drought and about half the State (including the San Joaquin Valley and parts of Southern California still in the highest category of drought “extreme” and “exceptional.”
- According to BuRec, “*in 2015, Reclamation undertook extraordinary actions to provide public health and safety supplies to our M&I contractors, meet our obligations to the San Joaquin River Exchange Contractors and South-of-Delta refuges, and facilitate water transfer and water sharing agreements throughout the Central Valley. The CVP began the water year last October with only 47 percent of average storage overall and just 27 percent of average storage in the Federal share of San Luis Reservoir. This compares to*

85 percent of average overall for the CVP and 53 percent of average storage in the Federal share of San Luis Reservoir today. Dry conditions in the fall of 2015 also hampered the filling of San Luis Reservoir. Further, throughout the fall and most of the winter, Reclamation held releases to minimal levels to conserve storage in upstream.”

- As reported last month, Senator Feinstein formally introduced her long-awaited Drought Bill (S. 2553, The California Long-Term Provisions for Water Supply and Short-Term Provisions for Emergency Drought Relief Act), but Senator Boxer did not co-sponsor it. Congressman John Garamendi introduced a House version of the same bill.
- The Senate Energy Committee took no action on the bill. No hearings were held. No markup was scheduled (or is pending). A westwide water bill has not been introduced (but could, with relative ease, be drafted). The Chair, Senator Lisa Murkowski, has repeatedly stated that (a) she would not get into the middle of the California debate; and (b) challenged Californians to provide her with an agreed-upon legislative package.

2016 Agenda – Passing Annual Funding Top Priority

- Last month, I reported that *“House Speaker Paul Ryan (R-WI) and Senate Majority Leader Mitch McConnell (R-KY) jointly decided that considering, marking up, passing, and then conferencing all 12 funding (appropriations) bills was their top priority (which hasn’t been done in years)”* and that *“the House-Senate leadership wanted to avoid the need and use of a Continuing Resolution (CR) or Omnibus bill as has almost routinely occurred in recent years.”*
- Little progress has occurred. The House Freedom Caucus has effectively blocked the budget/funding process by telling Speaker Ryan that they will not support the proposed budget (which sets an overall spending ceiling which is then “allocated” to the twelve appropriations subcommittees). Those allocations are the critical first step in the annual funding (budget/appropriations) process. Like last year, the process is slowed again this year.
- The funding subcommittees will have to begin marking up their bills in April, but the hope of conferencing with the Senate and actually passing annual funding bills is all but history. That means Congress likely faces another Continuing Resolution (CR) or other massive funding bill. Appropriators are not happy. House and Senate leadership has been forced to back down and internal gridlock continues. More gridlock.

Supreme Court Hears Challenge to Waters of the United States (WOTUS)

- The highly controversial “Waters of the United States” issue reached the High Court this month.
- Based on the oral arguments and questions from Justices (now eight with the death of Justice Scalia), Court watchers are predicting that the Court will rule against EPA (it’s always dicey “guessing” how the Court will rule) and it’s also possible that a decision

may be postponed until after a new Justice is confirmed.

Administration Submits Budget

- In February, the Administration submitted its proposed budget to the Congress for all departments and all agencies.
- Both the House and Senate Appropriation's subcommittee began holding hearings on an agency-by-agency basis. Hearings were held in both the House and Senate on the Energy and Water Development Appropriations bills. Hearings were also held on the Interior Department's budget (note: all Interior Department programs are funded in the Interior Appropriations bill except funding for BuRec and its programs). Both programs impact water policy.

Tax Reform Agenda

- As reported last month, while House Republican leadership (in the House and in the Ways and Means Committee) continue to say the tax reform is a central issue, no bill has been introduced and no hearings have been held.
- Tax reform has become a "prepare in 2016, act in 2017" issue.
- The Municipal Bonds for America coalition continues to submit letters detailing support for the deductibility of muni bonds and further builds support to protect the funding instrument. IEUA signed the most recent communication to the House.
- There is a largely unrecognized policy contradiction unfolding. That is, WRDA created a new bonding authority and others (even the WH) are turning to the bond market for expanded funding of water and infrastructure funding. At the same time, legislative changes to deductibility of bonding authority is under consideration for tax reform policy that could potentially negate or reduce the new WRDA policy. I anticipate this being raised in the near term.

Water/Weather/Drought

Feinstein Bill Introduced – Fate Unclear

- In monthly reports, I almost always avoid "speculative" reporting. This month I make an exception.
- Informal discussions with Members, congressional staff, agency officials and fellow reps reveal that no one believes a drought bill can emerge – be finalized – this year (certainly not before the election). If a Lame Duck is held all bets are off and whatever happens will be influenced by the outcome of the election.
- The past month has seen a surge of negative or highly critical press (Westlands being fined by the SEC for altering financial statements and putting bond investors at risk combined with the revelation that, in the Board meeting minutes/transcripts, their

manager joked about using “Enron” accounting). Local, statewide and national press stories followed. These developments do not support a drought bill even being considered.

Drought Relief Funding – IEUA Grant Application Pending

- BuRec is expected to announce grant funding awards – sometime late in April or in May resulting from the \$100 million for drought relief appropriated last December at Senator Feinstein’s request and leadership.
- IEUA submitted applications and your congressional delegation supported the request.

Unanticipated Drought-Related Federal Tax Issue

- As previously reported, the “unintended tax penalty” resulting from the Governor’s Drought Orders (from MWD’s turf rebates) remains unresolved. A request for a clarification from Treasury/IRS is still pending.

Drought Status – CA and Rest of the West (unchanged)

- **Drought Conditions – California.** Even with El Nino storms, the Drought Monitor indicates that all 58 counties remained in various levels of drought.
- **El Nino.** Drought Monitor also reports that westwide, that drought conditions are lessening in most western states (Nevada is an exception)
- **Lake Mead.** BuRec is projecting that Lake Mead remains at risk (even with storms in the Rocky Mountains) and 2017 remains highly problematic.

2016 – An Election Year

- It’s an election year. As of April 1:
 - * R nominee unclear and highly contested
 - * D nominee unclear and highly contested
 - * Party conventions, beginning in mid-July, could be deadlocked
 - * 14 of the 17 R candidates have dropped out.
 - * Trump, Cruz and Kasich are vying for the nomination
 - * If the “stop-Trump” effort is successful (regardless of delegate count), Trump is threatening to run as an independent (of some kind)
 - * Speculation, openly discussed daily, is the House and Senate are both “in play” and either or both could switch control back to the Ds
- If there was a theme for the 2016 cycle, it’s “uncertainty.” Nothing is certain. Little is predictable.
- Add to the above that the President nominated Judge Garland to the High Court and the Senate is tied up in knots – refusing to even consider the nomination.

**INFORMATION
ITEM**

3J



CALIFORNIA STRATEGIES, LLC

Date: March 31, 2016
To: Inland Empire Utilities Agency
From: John Withers, Jim Brulte
Re: March Activity Report

Listed below is the California Strategies, LLC monthly activity report. Please feel free to call us if you have any questions or would like to receive any more information on any of the items mentioned below.

- Met with IEUA Executive staff to review priority issues and to discuss activities for March that Executive Staff wanted accomplished.
- Discussed ways to highlight the customer return on investment for the building of recharge basins in our service territory.
- Discussed LAFCO and made recommendations to staff about upcoming issues. Support and advise on IEUA/SBVMWD transfer transaction on an as needed basis. Review and comment on Webb Engineering Plan of Services Scope of Work.
- Provided a progress update on the recent request for documents from the CVWRD.
- Continue to monitor statewide water issues including the BDCP, water bond, and drought relief act activate. Made recommendation regarding the request for money from various state special funds.
- Monitor Santa Ana Regional Board agenda and issues of interest to IEUA.

**INFORMATION
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3K

Federal Legislation of Significance

Bill Number	Sponsor	Title and/or Summary	Summary/Status
H.R. _____ / S. _____	Rep. Mike Simpson / Sen. Lamar Alexander	FY 17 Energy and Water Development and Related Agencies	<p>The President's budget request to Congress was released on February 9, 2016.</p> <p>The president requested the following funding levels for water recycling and conservation programs:</p> <p>Title XVI: \$21.5 million, \$1.5 million above the FY16 request, but \$1.8 million below the FY16 enacted level</p> <p>WaterSMART: \$23.4 million, \$35,000 above the FY16 request, and \$3.4 million above the FY16 enacted level</p>
S.2533	Sen. Dianne Feinstein	California Long-Term Provisions for Water Supply and Short-Term Provisions for Emergency Drought Relief Act	<p>The House Appropriations Committee officially began working on fiscal year 2017 legislation in March, marking up the Military Construction and Veterans Affairs bill before the April Recess.</p> <p>At this time, the Energy and Water Appropriations Subcommittee has not official noticed a hearing, but we anticipate a markup in April. At that time, we will know how Congress will respond to the budget request for Title XVI and WaterSMART grants. IFS has undertaken two efforts on your behalf and submitted appropriations requests for both Title XVI and WaterSMART that together equal an additional \$22.6 million in requested additional funds for FY17. Additionally, we anticipate that Senator Feinstein will attempt to include additional funding for western drought relief in the Senate's FY17 legislation. <u>That funding typically has not been included in the House's</u></p>
			<p>With her original legislation not gaining traction at the committee level, Senator Feinstein reintroduced drought legislation in February after receiving additional feedback from stakeholders in California. The bill also comes after House Republicans attempted to insert their own drought provisions into the Consolidated Appropriations Act, 2016.</p> <p>Feinstein said that she has continued to work with local, state, and federal partners to create her new legislation, though California Republicans in the House have said they were not involved in the latest discussions. California House Republicans have reiterated that they have already passed a drought bill this year, and they believe it is the only legislation that can be passed until the Senate moves legislation that can be conferenced between the two chambers.</p>

H.R.2898	Rep. David Valadao	Western Water and American Food Security Act of 2015	<p>The Senator has been placing additional pressure on federal agencies to allow for more pumping during periods where additional water is available due to rain events. It is unclear if this pressure would turn into language to be included in her drought bill later in the year either by an amendment or compromise with the California Republican delegation.</p> <p>Passed the House.</p> <p>First Legislative Committee Hearing was held in early October 2015 in the Senate. As mentioned above, Senator Feinstein has reintroduced drought legislation in the Senate in an effort to conference a bill with the House before the end of the 114th Congress.</p>
S.2012	Sen. Lisa Murkowski	Energy Policy Modernization Act of 2015	<p>The Senate is considering its first broad energy reform policy bill in eight years. The bill includes a number of policy priorities from both Republicans and Democrats and came as a result of months of negotiations, meetings outreach and other activities aimed at a truly bipartisan bill. The bill instead on fossil fuels and infrastructure: natural gas pipeline permitting, authorizing the main federal conservation fund, job training, updating the grid, as well as a push on energy efficiency.</p> <p>The legislation was pulled from the floor in February after amendments related to the water crisis in Flint, Michigan caused procedural delays. While they were initially hopeful to bring the legislation back to the floor in March, no agreement has been reached on the water crisis in Flint, Michigan. The bill is a major priority for Chairwoman Murkowski, and it is unlikely other legislation from her committee (including the drought bill) will receive floor time before this legislation passes the Senate.</p>
H.R.4470	Rep. Dan Kildee (D-MI) / Rep. Fred Upton (R-MI)	Safe Drinking Water Act Improved Compliance Awareness Act	<p>The House has approved legislation to clarify the Environmental Protection Agency's authority to notify the public about danger from lead in their drinking water. The bill is the first approved by Congress to respond to the water crisis in Flint, Michigan. The legislation requires the Environmental Protection Agency to notify the public when concentrations of lead in drinking water rise above mandated levels and to create a plan to improve communication between the agency, utilities, states, and consumers. While the bill's authors admit that the new legislation will not prevent future water contamination, they contend that it will prevent the situation from dragging out as has happened in Flint.</p>

<p>H.R. 3143 / S. 886</p>	<p>Rep. Jerry McNerney (D-CA) / Sen. Tom Udall (D-MN)</p>	<p>Smart Energy and Water Efficiency Act of 2015</p>	<p>The legislation has not been taken up in the Senate, but it is expected to receive bipartisan support when Senators vote.</p>
<p>Directs the Department of Energy (DOE) to establish and carry out a smart energy and water efficiency management pilot program to award grants to three to five eligible entities (authorities that provide water, wastewater, or water reuse services) to demonstrate advanced and innovative technology-based solutions that will: (1) increase and improve the energy efficiency of water, wastewater, and water reuse systems to help communities make significant progress in conserving water, saving energy, and reducing costs; (2) support the implementation of innovative processes and the installation of advanced automated systems that provide real-time data on energy and water; and (3) improve energy and water conservation, water quality, and predictive maintenance of energy and water systems, through the use of Internet-connected technologies, including sensors, intelligent gateways, and security embedded in hardware.</p>			<p>The legislation has not advanced in the House, but a hearing has been held at the committee level in the Senate.</p>

**INFORMATION
ITEM**

3L

State Legislation to Watch

Bill Number	Sponsor	Title and/or Summary	Summary/Status	IEUA Position
AB 1704	Dodd	Water Rights	Current law requires applicants for appropriation of water for small domestic, small irrigation, or livestock stockpond use to register with the State Water Resources Control Board, as specified. Current law requires the registration to include a certification that the registrant has contacted a representative of the Department of Fish and Wildlife and has agreed to comply with conditions set forth by the Department of Fish and Wildlife. This bill would, instead, require the registrant to provide a copy of the registrant's registration form to the Department of Fish and Wildlife and agree to general conditions, as specified.	
AB 1713	Eggman	Sacramento-San Joaquin Delta: peripheral canal	Current law requires various state agencies to administer programs relating to water supply, water quality, and flood management in the Sacramento-San Joaquin Delta. The bill would prohibit the construction of a peripheral canal, as defined, unless expressly authorized by an initiative voted on by the voters of California on or after January 1, 2017, and would require the Legislative Analyst's Office to complete a prescribed economic feasibility analysis prior to a vote authorizing the construction of a peripheral canal.	SUPPORT
AB 1738	McCarty	Building Standards: Dark Graywater	Would define "dark graywater" as a specified wastewater that comes from kitchen sinks and dishwashers. This bill would require the Department of Housing and Community Development, at the next triennial building standards rulemaking cycle, to adopt and submit for approval building standards for the construction, installation, and alteration of dark graywater systems for indoor and outdoor uses. This bill contains other existing laws.	
AB 1749	Mathis	California Environmental Quality Act: exemption: recycled water pipelines	CEQA exempts from its requirements projects consisting of the construction or expansion of recycled water pipeline and directly related infrastructure within existing rights of way, and directly related groundwater replenishment, if the project does not affect wetlands or sensitive habitat, and where the construction impacts are fully mitigated, and undertaken for the purpose of mitigating drought conditions for which a state of emergency was proclaimed by the Governor on a certain date. CEQA provides that this exemption remains operative until the state of emergency has	

		<p>expired or until January 1, 2017, whichever occurs first. This bill would extend that date to January 1, 2022.</p>	
<p>AB 1755</p>	<p>Dodd</p>	<p>The Open and Transparent Water Data Act</p>	<p>Would enact the Open and Transparent Water Data Act. The act would require the Department of Water Resources to establish a public benefit corporation that would create and manage (1) a statewide water information system to improve the ability of the state to meet the growing demand for water supply reliability and healthy ecosystems, that, among things, would integrate existing water data information from multiple databases and (2) an online water transfer information clearinghouse for water transfer information that would include a database of historic water transfers and transfers pending responsible agency approval and a public forum to exchange information on water market issues.</p>
<p>AB 1842</p>	<p>Levine</p>	<p>Water Pollution: Fines</p>	<p>Current law imposes a maximum civil penalty of \$25,000 on a person who discharges various pollutants or other designated materials into the waters of the state. This bill would impose an additional civil penalty of not more than \$10 for each gallon or pound of polluting material discharged. The bill would require that the civil penalty be reduced for every gallon or pound of the illegally discharged material that is recovered and properly disposed of by the responsible party.</p>
<p>AB 1925</p>	<p>Chang</p>	<p>Desalination: Statewide Goal</p>	<p>The Cobby-Porter Saline Water Conversion Law, states the policy of this state that desalination projects developed by or for public water entities be given the same opportunities for state assistance and funding as other water supply and reliability projects, and that desalination be consistent with all applicable environmental protection policies in the state. This bill would establish a goal to desalinate 300,000 acre-feet of drinking water per year by the year 2025 and 500,000 acre-feet of drinking water per year by the year 2030.</p>
<p>AB 2206</p>	<p>Williams</p>	<p>Biomethane: interconnection and injection into common carrier pipelines: research</p>	<p>Would request the California Council on Science and Technology to undertake and complete a study analyzing the regional and gas corporation specific issues relating to minimum heating value and maximum siloxane specifications adopted by the Public Utilities Commission for biomethane before it can be injected into common carrier gas pipelines. If the California Council on Science and Technology</p>

			<p>agrees to undertake and complete the study, the bill would require each gas corporation operating common carrier pipelines in California to proportionately contribute to the expenses to undertake the study with the cost recoverable in rates.</p>	
AB 2304	Levine	California Market Water Exchange	<p>Would establish the California Water Market Exchange, governed by a 5-member board, in the Natural Resources Agency. This bill would require the market exchange, on or before December 31, 2017, to create a centralized water market platform on its Internet Web site that provides ready access to information about water available for transfer or exchange.</p>	
AB 2313	Williams	Renewable Natural Gas	<p>The California Global Warming Solutions Act of 2006 establishes the State Air Resources Board as the state agency responsible for monitoring and regulating sources emitting greenhouse gases. This bill would require the state board to study and evaluate a strategy or strategies to increase the instate production and use of renewable natural gas, as defined, to further specified goals.</p>	
AB 2488	Dababneh	Protected species: unarmored threespine stickleback: taking or possession.	<p>Would permit the Department of Fish and Wildlife to authorize, under the California Endangered Species Act, the take of the unarmored threespine stickleback (<i>Gasterosteus aculeatus williamsoni</i>) attributable to the periodic dewatering, inspection, maintenance, or repair of the Metropolitan Water District of Southern California's Foothill Feeder water supply facility from Castaic Dam to the Joseph Jensen Treatment Plant in the County of Los Angeles, as specified, if certain conditions are satisfied.</p>	
AB 2583	Frazier	Sacramento-San Joaquin Delta Reform Act of 2009	<p>Would add a definition of the California Water Fix to the Sacramento-San Joaquin Delta Reform Act of 2009. This bill would eliminate certain provisions applicable to the BDCP and would revise other provisions to instead refer to a new Delta water conveyance project for the purpose of exporting water. This bill would require new Delta water conveyance infrastructure to be considered as interdependent parts of a system and to be operated in a way that maximizes benefits for each of the coequal goals. This bill contains other related provisions and other existing laws.</p>	
AB 2702	Atkins	Climate Change	<p>Would state the intent of the Legislature to enact legislation that would continue the work with local governments, state agencies, and others to meet the goals set forth in Governor Brown's Under 2 MOU, which brings together subnational governments willing</p>	

			<p>to commit to either reducing the emissions of greenhouse gases 80% to 95% below 1990 levels by 2050 or achieving a per capita annual emissions target of less than 2 metric tons of carbon dioxide equivalent by 2050.</p>	
ACA-8	Bloom	<p>Local government financing: water facilities and infrastructure: voter approval</p>	<p>Would create an additional exception to the 1% limit for a rate imposed by a city, county, city and county, or special district to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of wastewater treatment facilities and related infrastructure, potable water producing facilities and related infrastructure, nonpotable water producing facilities and related infrastructure, and stormwater treatment facilities and related infrastructure, that is approved by 55% of the voters of the city, county, city and county, or special district, as applicable, if the proposition meets specified requirements, and would authorize a city, county, city and county, or special district to levy a 55% vote ad valorem tax. This bill contains other related provisions and other existing laws.</p>	
SB 163	Hertzberg	<p>Wastewater treatment: recycled water</p>	<p>Would declare that the discharge of treated wastewater from ocean outfalls, except in compliance with the bill's provisions, is a waste and unreasonable use of water in light of the cost-effective opportunities to recycle this water for further beneficial use. This bill, on or before January 1, 2026, would require a wastewater treatment facility discharging through an ocean outfall to achieve at least 50% reuse of the facility's actual annual flow, as defined, for beneficial purposes.</p>	
SB 1043	Allen	<p>Renewable gas: biogas and biomethane</p>	<p>Would require the State Air Resources Board to consider and adopt policies to significantly increase the sustainable production and use of renewable gas, as defined, and, in so doing, would require the state board, among other things, to ensure the production and use of renewable gas provides direct environmental benefits and identify barriers to the rapid development and use of renewable gas and potential sources of funding.</p>	
SB 1318	Wolk	<p>Local government: drinking water infrastructure or services:</p>	<p>Would prohibit a local agency formation commission from authorizing a city or a district to extend drinking water infrastructure or services or wastewater infrastructure or services until it has extended those services to all disadvantaged</p>	

		wastewater infrastructure or services	communities within or adjacent to its sphere of influence, as specified, or has entered into an agreement to extend those services to those disadvantaged communities, unless specified conditions are met. This bill contains other related provisions and other existing laws.	
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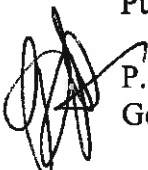
**INFORMATION
ITEM**


3M


Date: April 20, 2016

To: The Honorable Board of Directors

Through: Public, Legislative Affairs, and Water Resources Committee (04/13/16)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Sylvie Lee 
Manager of Planning and Environmental Resources

Subject: Regional Water Use Efficiency Business Plan (2015-2020)

RECOMMENDATION

This is an informational item for the Board of Directors to receive and file.

BACKGROUND

As the regional wholesale supplier of water for the area, IEUA has assumed the role of coordinating the region's activities and programs to reduce demand. IEUA has worked closely with its member agencies to facilitate the application of thousands of water saving technologies throughout the region. IEUA member agencies, whose direct contact with retail customers is crucial to the implementation of water use efficiency measures, have co-funded these efforts with IEUA and taken a proactive approach in educating and working with their customers to conserve water.

In September 2009, the Agency completed an interim Regional Water Use Efficiency Business Plan (Plan) developed in-house by staff and the members to provide a limited assessment of existing conditions and establish an agreed upon work plan to implement short-term initiatives. The first long-term Plan (2010-2015) was completed in September 2010, and was fundamental in providing more expertise and in-depth technical analysis delivering the needed guidance for developing new cost-effective water use efficiency (WUE) programs to target limited financial and program resources for those activities yielding the highest water savings return.

The 2010 Plan provided a blueprint that assisted IEUA and its members in comprehensively planning for and implementing WUE activities and programs over the last five years. The 2010 Plan served as a working document and, as such, must be modified and updated as changes occur

and program years roll out. Changes and/or reviews of the Plan occur every five years to align with the Urban Water Management Planning Act reporting cycle.

The 2015 Plan was completed in January 2016 and presented to members in February 2016 for review and comment. The 2015 Plan provides more in-depth research and technical analysis on past, present and potential future programming. It includes detailed sector analyses based on economics, end-use data, saturation based on implemented WUE programs, identification of active and passive water savings within the region, cost-benefit analyses for existing and potential WUE programs, and potential water savings opportunities.

The Plan is intended to assist member agencies with voluntary and regulatory compliance strategies over the next five years and provides a pathway by which IEUA and its members ensure state grants and loans eligibility. The Plan also includes a topic on a Sustainable Communities Strategy which addresses watershed-wide project planning that considers regional collaboration and multi-beneficial objectives such as a water-energy nexus, stormwater capture and retention, and low impact development, that will allow IEUA to consistently maintain eligibility for accessing the highest level of grant and/or loan opportunities. The following table provides a summary of the Plan Highlights:

Plan Overview	
Regional IEUA Cost per Acre-foot	\$52 per acre-foot
Five-Year Water Savings (<i>active programs</i>)	33,554 acre-feet
Lifetime Water Savings (<i>active programs</i>)	147,836 acre-feet
Avoided Costs (NVP)	\$152.7 Million
Five-Year Total Budget*	\$7.5 Million

**Budget includes IEUA regional program costs exclusive of outside funding.*

**Budget includes \$300,000 per year for education and outreach programs.*

Lastly, the Plan provides a detailed pathway that directly links to the core recommendations outlined in the Agency's Phase I - Integrated Resources Plan (IRP). The IRP establishes a goal of reducing current urban water use by at least 10% by 2040 through the implementation of water use efficiency actions. Phase II of the IRP Process will expand the regional focus of supply to the specifics of implementation and projects recommended in the Plan and will be evaluated and incorporated into the IRP Phase II Project List.

The Plan is consistent with the Agency's Business Goal of increasing *Water Reliability* by promoting water use efficiency and education to enhance water supplies within the region; and meeting the region's need to develop reliable and diverse local water resources in order to reduce dependence on imported water supplies.

PRIOR BOARD ACTION

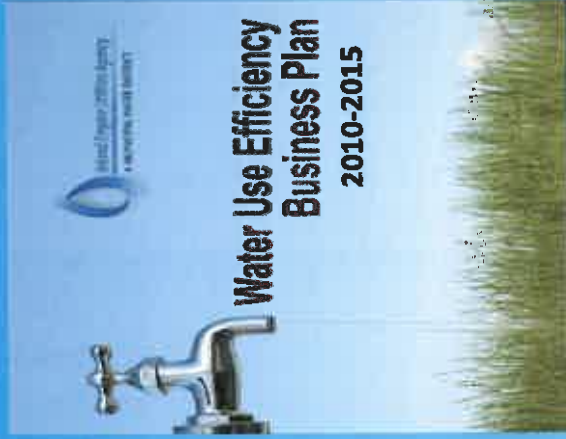
On November 19, 2014, the IEUA Board of Directors awarded a services contract to A&N Technical Services, Inc. for the Regional Water Use Efficiency Business Plan update revised scope of work (2010-2015).

IMPACT ON BUDGET

Programs that are identified in the WUE Business Plan for regional implementation are included or will be included as part of the water conservation budget in the Water Fund for FY 2016/17 and subsequent years. Several programs are also eligible for partial reimbursement to IEUA under MWD's Conservation Credits Program and the Department of Water Resources.

Attachment: Regional Water Use Efficiency Business Plan (2015-2020) available at
<https://ieua.hostedftp.com/JGh8VPTKL5BUMPgEboPB3DRHC>

Regional Water Use Efficiency Business Plan Update



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Lisa Morgan-Perales

IEUA Board of Directors Meeting
April 2016

IEUA Regional Water Use Efficiency Business Plan - Historical Timeline

- September 2009 – Interim Water Use Efficiency Business Plan
 - 1 – Year (Establish Goals & Objectives–implement short-term initiatives)
- September 2010 – Long-Term Water Use Efficiency Business Plan
 - 5-Year Plan – 2010 - 2015 – Blueprint for implementing WUE Programs
- April 2016 – Regional Water Use Efficiency Business Plan
 - 5-Year Plan – 2015-2020 – synergized with IRP Process



IEUA

**Member
Agencies**

Conservation Past, Present, Future



Water Use Efficiency remains
the **LEAST EXPENSIVE** means
of finding “new” water

It is estimated that 2 million acre feet of water
could be saved at costs below what it would be
to tap new sources.

(Waste Not, Want Not: pg. 18)



2015 Regional Business Plan New Strategy

- Target inefficient water users, not just any customer
- Utilize new technologies: data analytics, budget-based water rate structures and technology-based information systems
- Re-think traditional programming and implement new approaches
- Include programming scalability to meet changing water supply conditions
- Water Resource Strategy: Treat water use efficiency and conservation as a component of the regional water supply portfolio



2010 Regional WUE Business Plan Program Performance

IEUA Performance

Total Water Savings: FY 10 - 14

1,174
Acre-feet

Original Plan

2,339
Acre-feet

Actual

200% of Goal

585
Acre-feet

Avg./Year

IEUA Performance

Total Expenditures: FY 10 - 14

\$1.47
Million

Original Plan

\$790
Hundred
Thousand

Actual

50% Saved

\$683
Hundred
Thousand

Savings

*Savings are attributed to obtaining external funding (MWD, DWR, USBR).



5-Year Plan Overview

Plan Overview

Regional IEUA Cost per Acre-foot	\$52 per acre-foot
Five-Year Water Savings (active programs)	33,554 acre-feet
Lifetime Water Savings (active programs)	147,836 acre-feet
Avoided Costs (NVP)	\$152.7 Million
Five-Year Total Budget*	\$7.5 Million

*Budget includes IEUA regional program costs exclusive of outside funding.

*Budget includes \$300,000 per year for education and outreach programs.

Next Steps

- Adopt the 2015 Regional Water Use Efficiency Business Plan (May 18, 2016)

**INFORMATION
ITEM**

3N

3rd Quarter Planning & Environmental Compliance Update



Sylvie Lee



IEUA Board of Directors Meeting
April 2016

Regulatory Compliance Update

- **RWQCB**
 - All Facilities – 100% compliance

- **AQMD**
 - RP-5 SHF Flare – Excess emissions
 - RP-2 Engine – Excess emissions
 - RP-2 – Notice to Comply

- **SWRCB-DDW**
 - CDA1 – 100% compliance
 - GWR - Total Nitrogen at RP3 Basin



RP-5 Solids Handling Facility

- **Lease agreement (3/17/10 – 9/30/21)**
 - Monthly payment \$50,000/month
 - Electricity sale 95% of SCE Rate
- **Facility Operation**
 - Food waste delivery: 140 tons/day (60% processed solid waste, 40% industry)
 - Biogas production: up to 600,000 cft/day
 - Electricity generation output: 800 kW (single engine operation)
- **Compliance (2016)**
 - Flare excess emissions – AQMD granted variance (3/9/16 through 5/15/16)
 - Digester gas venting incidents – 1/20, 1/21, 1/30, 2/10, 2/17, 2/25

Pretreatment & Source Control

- **Regional System**
 - Dental Amalgam Rule
 - Local Limits Dioxin Evaluation

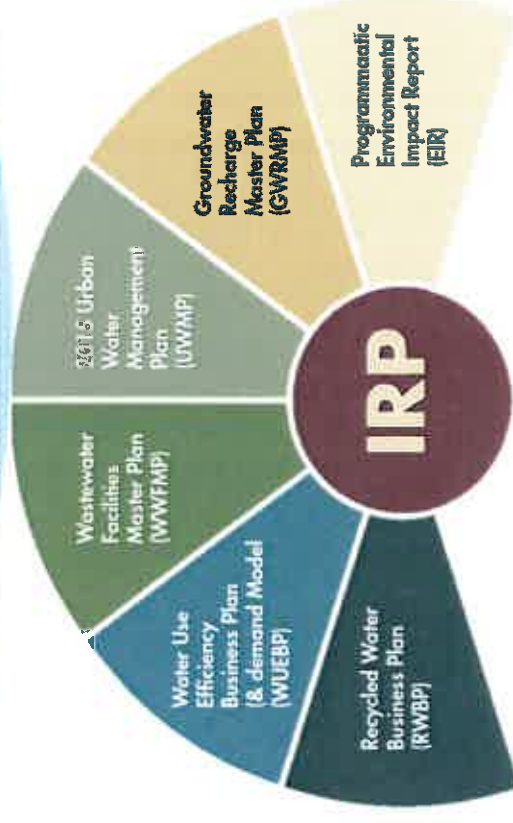
- **North NRWS**
 - Solids Discrepancy Formula Evaluation
 - Industry Rate Workshop

- **South Brine Line**
 - SAWPA Ordinance No. 8
 - OCSD Local Limits Revision
 - TSS Solids Imbalance



Planning

- **Integrated Resources Plan**
 - IRP Phase 1 circulated March 2016
 - Adopt IRP Phase 1: May 2016
 - Complete Programmatic EIR: summer 2016
 - Commence Phase 2: summer 2016
- **Water Use Efficient Business Plan**
 - Draft Plan circulated February 2016
 - Proposed IEUA Board adoption: 2016 April
- **Santa Ana River Habitat Conservation Plan (Jan 2017)**
 - Included existing GWR basins and diversion structures
 - Hydraulic modeling to begin in April 2016



Water Resources Activities

- **Water Supply Allocation Plan (WSAP)**
 - 30% (17,867 of 61,269 AF) of Allocation as of February 2016

- **2015 Urban Water Management Plan (UWMP) Update**
 - Land Use Based Model was completed
 - Draft UWMP Draft released for internal review

- **SAWPA Proposition 84 DWR Grant –Turf Removal**
 - IEUA invoiced SAWPA for full grant of \$807,564
 - IEUA will pursue any available unspent funds

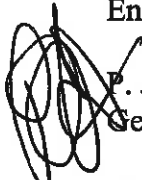
**INFORMATION
ITEM**


30


Date: April 20, 2016

To: The Honorable Board of Directors

Through: Engineering, Operations, and Biosolids Management Committee (04/13/16)

From:  P. Joseph Grindstaff
General Manager

Submitted by: Chris Berch 
Executive Manager of Engineering/Assistant General Manager

Shaun J. Stone 
Manager of Engineering

Subject: RP-1/RP-5 Expansion Preliminary Design Report (PDR) Update

RECOMMENDATION

This is an informational item for the Board of Directors.

BACKGROUND

Beginning in June 2013, the Inland Empire Utilities Agency (Agency) started a planning initiative to update the Agency's Wastewater Facilities Master Plan (WFMP). As part of the WFMP, the Agency planned existing facility improvements to accommodate for population growth and optimization of the wastewater collection and wastewater treatment systems, as well as the recycled water system. The WFMP incorporated the wastewater flow projections developed by the Integrated Water Resources Plan (IRP) and operational knowledge of the existing treatment systems to develop a comprehensive facilities and operations plan. According to the WFMP, influent wastewater flows are projected to increase as a result of population growth in the service area. By the year 2060, influent flows at RP-1 are projected to increase as much as 20 percent and more than double at RP-5. Table 1 provides the current facility treatment capacities, forecasted 2035 and 2060 influent flows, and the year the existing facility treatment capacity is anticipated to be exceeded:

Table 1: Current and Forecasted Facility Treatment Capacities

Facility	Existing Capacity	2035 Flow	2060 Flow	Capacity Exceeded
RP-1	32 MGD*	33.1 MGD	36.3 MGD	2030
RP-5	15.0 MGD	20.2 MGD	27.2 MGD	2025

* Estimated capacity as identified in WFMP

In addition, the United States Army Corps of Engineers (USACE) has begun a project to raise the Prado Dam Spillway, which will result in an increased high water service level behind the dam placing the RP-2 Solids Treatment Facility in a flood plain. Therefore, RP-2 must be decommissioned and a new Solids Treatment Facility must be constructed at RP-5 with sufficient capacity to treat existing and future service area flows.

The RP1/RP-5 Expansion PDR project will develop a consolidated PDR for the RP-1 Liquids & Solids Treatment System Expansion, RP-5 Liquids Treatment System Expansion, and RP-5 Solids Treatment Facility to size of the required treatment capacity expansions at each of the facilities, determine the schedule for design and construction, and estimate the project costs (design, construction, internal labor, & contingency). The Agency issued a Request for Proposal (RFP) for Engineering Preliminary Design Services on November 3, 2015. On January 20, 2016, the Board of Directors awarded the Contract for Engineering Preliminary Design Services to Parsons Water & Infrastructure Inc. for the not-to-exceed amount of \$2,431,598 with a project schedule of one year.

On January 21, 2016, the Agency issued the notice-to-proceed and the Parsons/Agency project team initiated work on the predesign. The project plan for the PDR includes four major technical staff workshops scheduled for: April, July, September, and December of 2016 the three latter workshops being tentative dates based upon the progress of the project. Therefore, the Agency project team proposes to schedule four Board Workshops aligning with the staff workshops and an additional workshop focused on organics waste management to discuss the major decisions and recommendations forming the basis of the PDR with the Board of Directors. Table 2 provides the proposed schedule for the Board Workshops and the topics to be discussed:

Table 2: Proposed Board Workshop Schedule

Workshop	Date	Topics
1	May 2016	RP-1, CCWRF, RP-4, & RP-5 Facility Capacities and Expansion Sizing Requirements
2	July 2016	Organics Waste Management
3	August 2016	Major Treatment System Alternatives and Equipment Pre-selection
4	October 2016	Side Stream Processes and Decommissioning Plan for RP-2
5	January 2017	RP-1 & RP-5 Expansion PDR Final Recommendations

The RP-1/RP-5 Expansion PDR project is consistent with the IEUA business goal of *Wastewater Management Capacity*, namely that IEUA will maintain capacity within systems and facilities to meet essential service demands and to protect public health and environment.

PRIOR BOARD ACTION

On January 20, 2016, the Board of Directors approved the consulting engineering services contract award for the RP-1/RP-5 Expansion PDR to Parsons Water & Infrastructure Inc. for the not-to-exceed amount of \$2,431,598.

IMPACT ON BUDGET

None.

PJG:CB:SS:jm

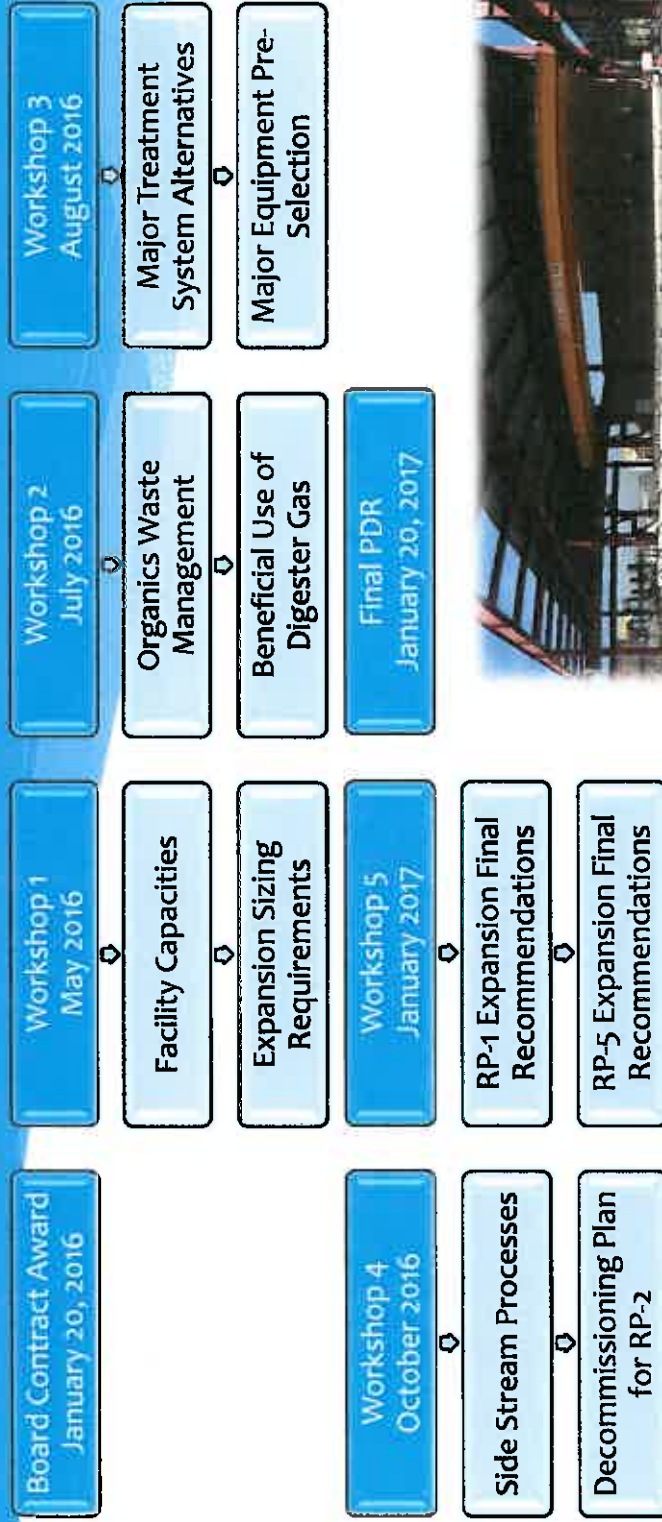
RP-1/RP-5 Expansion PDR Update

Project Nos. EN16025 & EN16028

April 2016



Proposed Board Workshop Schedule



Riverside Water Quality Control Plant
MBR System – Online March 2016

The RP-1/RP-5 Expansion PDR project is consistent with the IEUA business goal of Wastewater Management Capacity, namely that IEUA will maintain capacity within systems and facilities to meet essential service demands and to protect public health and environment.

**INFORMATION
ITEM**

3P

FY16/17 Ten Year Capital Improvement Plan Update



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

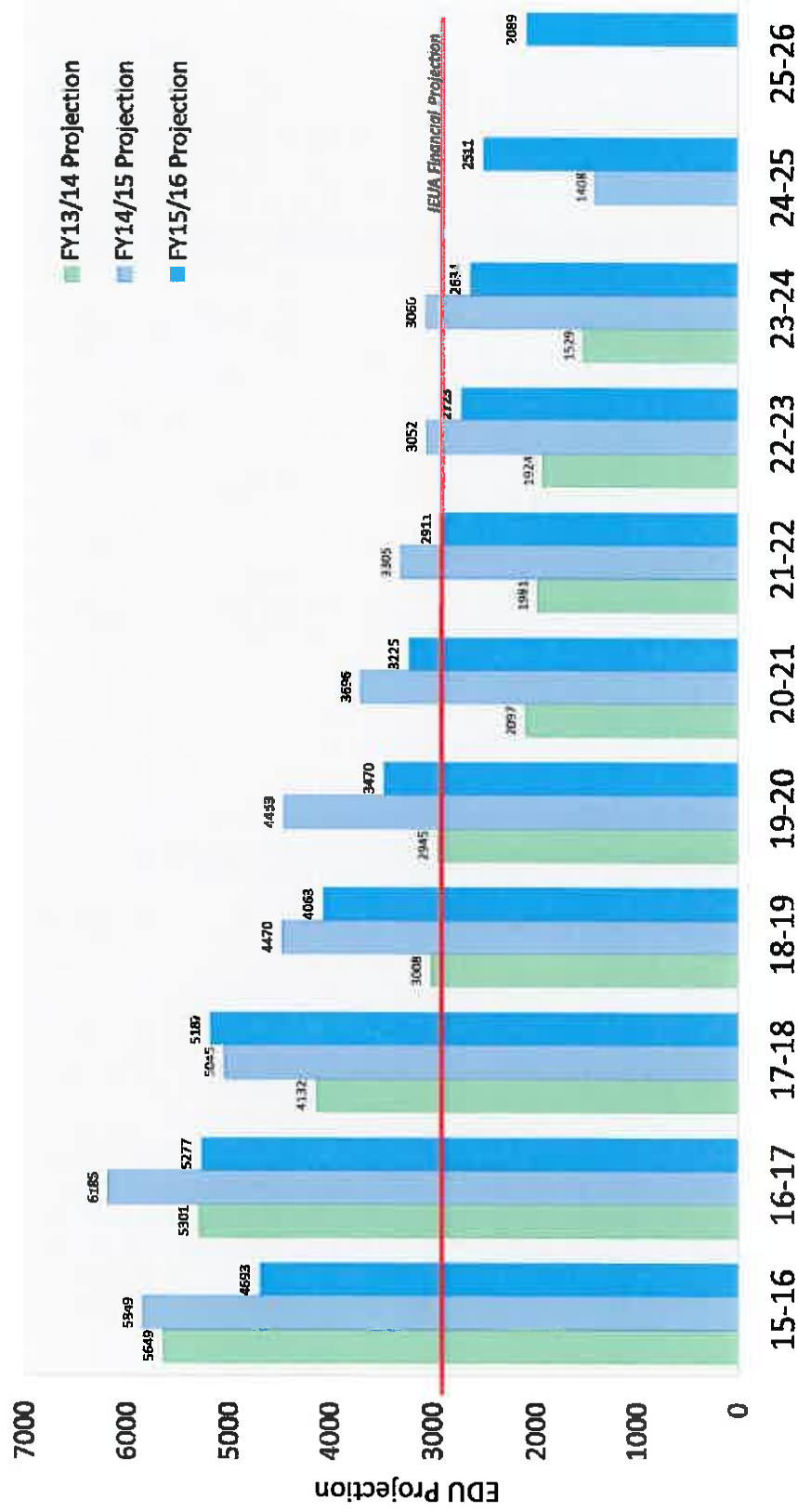
Elizabeth Hurst

IEUA Board of Directors Meeting
April 2016

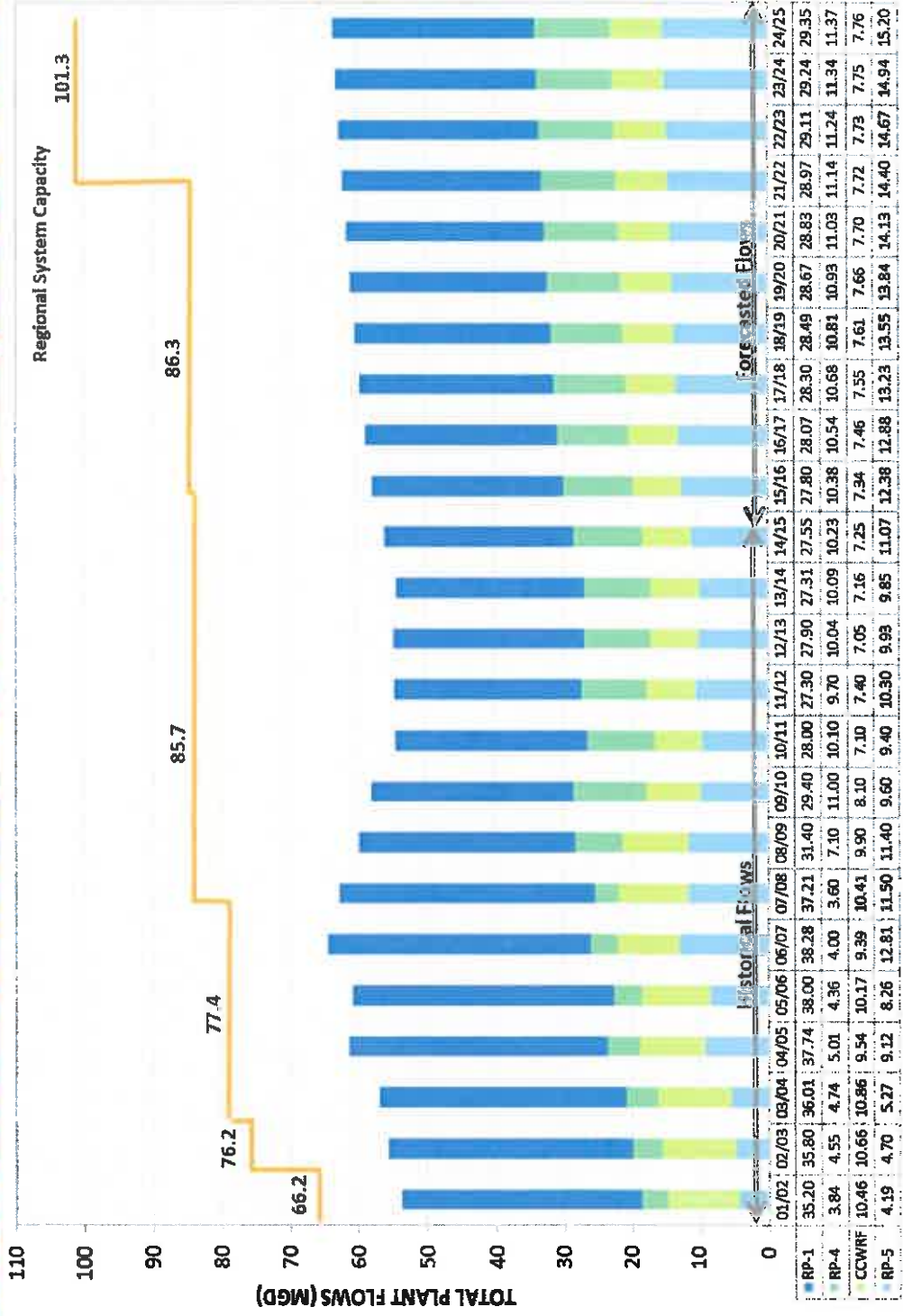
Key Drivers of the FY16/17 TYCIP

- Member Agency growth projections
- 2015 Wastewater Facilities Master Plan Updated flow factors and concentrations
- Asset Management Plan
- 2015 Recycled Water Program Strategy Update
- 2015 Energy Management Plan
- 2016 Integrated Resources Plan
- 2016 Water Use Efficiency Business Plan

10-Year EDU Growth Forecast



FY16/17-FY25/26 Member Agency Wastewater Flow Projections¹



TYCIP Budget Estimate by Fund

Description	FY 16/17	FY18/19	FY19-26	TYCIP Total
GG Administrative Services Fund	4,469,012	1,680,200	6,538,600	12,687,812
NC Non-Reclaimable Wastewater Fund	1,250,000	610,000	9,080,000	10,940,000
RC Regional Capital Improvement Fund	21,134,400	24,044,000	319,850,000	365,028,400
RO Regional Operations and Maintenance	26,854,520	33,545,000	92,122,000	152,521,520
RW Recharge Water Fund	4,979,800	12,730,500	35,749,500	53,459,800
WC Recycled Water Fund	24,782,800	24,143,195	29,365,000	78,290,995
WW Water Resources Fund	6,879,250	6,479,250	36,104,000	49,462,500
TOTAL	90,349,782	103,232,145	528,809,100	722,391,027

TYCIP Comparison to FY 15/16 Budget by Fund

Description	FY15/16 Budget	Current TYCIP list
GG Administrative Services Fund	\$ 9.5 M	\$ 12.6 M
NC Non-Reclaimable Wastewater Fund	\$ 17.2 M	\$ 10.9 M
RC Regional Capital Improvement Fund	\$ 348.9 M	\$ 365.0 M
RO Regional Operations and Maintenance	\$ 131.0 M	\$ 152.5 M
RW Recharge Water Fund	\$ 49.3 M	\$ 53.4 M
WC Recycled Water Fund	\$ 75.2 M	\$ 78.2 M
WW Water Resources Fund	\$ 60.9 M	\$ 49.4 M
TOTAL	\$ 692.0 M	722.3

Next Steps

- **March 31: Circulate TYCIP for Comments**
- **April 28: Technical Committee**
- **May 5: Policy Committee**
 - FY 16/17 TYCIP Recommendation for Approval
- **May 18: IEUA Board**
 - FY 16/17 TYCIP Recommendation for Approval

**INFORMATION
ITEM**

3Q

Date: April 20, 2016

To: The Honorable Board of Directors

Through: Public, Legislative Affairs and Water Resources Committee (04/13/16)

From: P. Joseph Grindstaff
General Manager

Submitted by: Kathy Besser
Manager of External Affairs

Subject: Support for Federal and State Legislation

RECOMMENDATION

It is an informational item for the Board of Directors to receive and file.

BACKGROUND

The following items were presented in the Public, Legislative Affairs, and Water Resources Committee on April 13, 2016. IEUA staff recommend support positions on the following three bills that support or promote the Agency's interests.

1. HR 4615 (Rohrabacher/Huffman) – Water Conservation Rebate Tax Parity Act SUPPORT

This legislation would amend the Internal Revenue Code to exclude money received from water conservation efficiency measures from being taxed by the Internal Revenue Service.

Staff recommends a position of support.

2. AB 1755 (Dodd) – The Open and Transparent Water Data Act SUPPORT

This measure would create a statewide water information system that would integrate and report on existing water data, water transfers and develop protocols to improve transparency. There was some concern originally regarding water utilities that may lack resources to collect and gather data, but have been assured that the intent is to integrate existing data and make it more accessible.

Staff recommends a position of support if the water marketing broker position is amended out of the bill. If not, staff recommends a position of Support if Amended.

3. AB 2488 (Dababneh) – Protected species: unarmored threespine stickleback: taking or possession SUPPORT

This is an MWD bill regarding their ability to repair any damage to the Foothill Feeder. Several of the drainage areas along the pipeline may contain populations of the unarmored threespine stickleback (UTS), a small fish listed on federal and state ESA – and designated as a CA fully protected species. In the past, MWD has worked with Fish and Wildlife to mitigate dewatering activities, but a recent CA Supreme Court decision held that live relocation of a fully protected species is a “take” and as a result MWD cannot do any routing maintenance along the line. AB 2488 would allow Fish and Wildlife to permit an incidental take for periodic dewatering.

Staff recommends a position of support.

IEUA staff recommends oppose positions on the following three bills that do not support or promote the Agency’s interests.

1. SB 885 (Wolk) – Construction Contracts: indemnity OPPOSE

The measure would greatly limit special districts’ ability to contract and place an undue burden on all local agencies who contract with design professionals for public works projects. Specifically it would eliminate the right of a public agency to contract with architects and engineers for up-front legal defense against claims related to these design professionals’ work. Instead, the agencies could only ask for reimbursement if the claim is fully litigated and a decision is rendered by the court. All of IEUA’s contracts are currently written to ensure the Agency is protected against claims through the contractor’s/vendors insurance, in addition to language regarding “agreeing to defend the Agency...”

Staff recommends that IEUA be a signatory to a letter from the California Special Districts Association opposing the bill.

2. SB 163 (Hertzberg) – Wastewater Treatment: Recycled Water OPPOSE UNLESS AMENDED

The legislation would declare that dumping treated wastewater into the ocean is an unreasonable use of water in the state of California. The bill sets timelines for sanitation facilities to meet standards for 50 percent beneficial reuse by 2026 and 100 percent reuse of treated water by 2036. The reuse standards would allow for backup discharges from treatment facilities for purposes such as irrigating crops, groundwater recharge, sea water barriers and watering public lands.

While IEUA and other wastewater agencies endorse using all of the recycled water so that it is not discharge to the ocean, SB 163 does not recognize that there are significant, pragmatic challenges to getting this aspirational goal implemented.

Staff recommends a position of oppose unless amended.

3. AB 2583 (Frazier) – Sacramento-San Joaquin Delta Reform Act of 2009 OPPOSE

The bill proposes a variety of new measures that would impede water progress in CA. There is inconsistency among the mandates, affecting some districts but not all. Among the measures, AB 2583 would mandate onerous standards for some projects, while other projects wouldn't. It would also impose new requirements for some regions that rely on the Delta watershed, but again, not all. No water modernization project in CA can happen without meeting every state and federal environmental law and complying with the CA water rights system via the SWRCB, making this measure unnecessary.

Staff recommends that IEUA sign on to a letter being circulated by the Metropolitan Water District of Southern California in opposition to the bill.

PRIOR BOARD ACTION

None.

IMPACT ON BUDGET

None.

**AGENCY
REPRESENTATIVES'
REPORTS**

4A



S A W P A

SANTA ANA WATERSHED PROJECT AUTHORITY

11615 Sterling Avenue, Riverside, California 92503 • (951) 354-4220

REGULAR COMMISSION MEETING TUESDAY, APRIL 19, 2016 – 9:30 A.M.

AGENDA

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE (Thomas P. Evans, Chair)

2. ROLL CALL

3. PUBLIC COMMENTS

Members of the public may address the Commission on items within the jurisdiction of the Commission; however, no action may be taken on an item not appearing on the agenda unless the action is otherwise authorized by Government Code §54954.2(b).

4. CONSENT CALENDAR

All matters listed on the Consent Calendar are considered routine and non-controversial and will be acted upon by the Commission by one motion as listed below.

A. APPROVAL OF MEETING MINUTES: APRIL 5, 2016

Recommendation: Approve as posted.

B. TREASURER'S REPORT – MARCH 2016

Recommendation: Approve as posted.

5. NEW BUSINESS

A. ARUNDO DONAX MAINTENANCE AND REMOVAL PROJECT FINAL REPORT (CM#2016.24)

Presenters: Ian Achimore

Recommendation: Receive and file this final report on the Arundo Donax Maintenance and Removal Project.

B. PROPOSITION 1 INTEGRATED REGIONAL WATER MANAGEMENT – 2016 GRANT PROGRAM (CM#2016.25)

Presenters: Ian Achimore

Recommendation: Receive and file this briefing about two Proposition 1 Integrated Regional Water Management Grant Programs: (1) 2016 Planning Program; and, (2) 2016 Disadvantaged Community Involvement Program.

C. REQUEST FOR PROPOSALS (RFP) FOR SARCCUP PROJECT MANAGEMENT SERVICES (CM#2016.29)

Presenters: Mark Norton

Recommendation: Authorize the issuance of a Request for Proposals (RFP) for project management services to support the Santa Ana River Conservation and Conjunctive Use Program (SARCCUP).

D. INLAND EMPIRE BRINE LINE RATE RESOLUTION (CM#2016.30)

Presenters: Rich Haller

Recommendation: Adopt Resolution No. 2016-01, establishing the new Inland Empire Brine Line rates to be effective July 1, 2016 (Fiscal Year 2017).

6. INFORMATIONAL REPORTS

Recommendation: Receive and file the following oral/written reports/updates.

A. CASH TRANSACTIONS REPORT – FEBRUARY 2016

Presenter: Karen Williams

B. INTER-FUND BORROWING – FEBRUARY 2016 (CM#2016.27)

Presenter: Karen Williams

C. PERFORMANCE INDICATORS/FINANCIAL REPORTING – FEBRUARY 2016 (CM#2016.28)

Presenter: Karen Williams

D. SAWPA ROUNDTABLE STATUS REPORT FOR THE FIRST QUARTER ENDING MARCH 31, 2016

Presenter: Mark Norton

E. OWOW STATUS REPORT FOR THE FIRST QUARTER ENDING MARCH 31, 2016

Presenter: Mark Norton

F. GENERAL MANAGER'S REPORT

G. STATE LEGISLATIVE REPORT

Presenter: Celeste Cantú

H. SAWPA GENERAL MANAGERS MEETING NOTES

- April 12, 2016

I. CHAIR'S COMMENTS/REPORT

J. COMMISSIONERS' COMMENTS

K. COMMISSIONERS' REQUEST FOR FUTURE AGENDA ITEMS

7. SAWPA COMMISSION MEETING SCHEDULE – MAY 2016

Presenter: Celeste Cantú

Recommendation: Consider cancelling May 3, 2016 Commission Workshop due to the ACWA Spring Conference to be held May 3 through May 6, 2016, in Monterey, California.

8. CLOSED SESSION

A. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION – SIGNIFICANT EXPOSURE TO LITIGATION PURSUANT TO GOVERNMENT CODE SECTION 54956.9(d)(2)

Company Name: Charles King Company; Spiniello

9. ADJOURNMENT

PLEASE NOTE:

Americans with Disabilities Act: Meeting rooms are wheelchair accessible. If you require any special disability related accommodations to participate in this meeting, please contact (951) 354-4220 or kberry@sawpa.org. 48-hour notification prior to the meeting will enable staff to make reasonable arrangements to ensure accessibility for this meeting. Requests should specify the nature of the disability and the type of accommodation requested.

Materials related to an item on this agenda submitted to the Commission after distribution of the agenda packet are available for public inspection during normal business hours at the SAWPA office, 11615 Sterling Avenue, Riverside, and available at www.sawpa.org, subject to staff's ability to post documents prior to the meeting.

Declaration of Posting

I, Kelly Berry, Clerk of the Board of the Santa Ana Watershed Project Authority declare that on Wednesday, April 13, 2016, a copy of this agenda has been uploaded to the SAWPA website at www.sawpa.org and posted in SAWPA's office at 11615 Sterling Avenue, Riverside, California.

/s/

 Kelly Berry, CMC

2016 - SAWPA Commission Meetings/Events

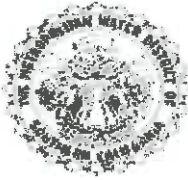
First and Third Tuesday of the Month

(NOTE: Unless otherwise noted, all Commission Workshops/Meetings begin at 9:30 a.m., and are held at SAWPA.)

January 1/5/16 Commission Workshop 1/19/16 Regular Commission Meeting	February 2/2/16 Commission Workshop—OCSD Facilities Tour 2/16/16 Regular Commission Meeting
March 3/1/16 Commission Workshop 3/15/16 Regular Commission Meeting	April 4/5/16 Commission Workshop 4/19/16 Regular Commission Meeting 4/28/16 Special Commission Workshop [10:00 a.m.]
May 5/3/16 Commission Workshop 5/3 – 5/6/16 ACWA Spring Conference, Monterey 5/10/16 Special Commission Workshop [9:00 a.m.] 5/17/16 Regular Commission Meeting	June 6/7/16 Commission Workshop 6/21/16 Regular Commission Meeting
July 7/5/16 Commission Workshop 7/19/16 Regular Commission Meeting	August 8/2/16 Commission Workshop 8/16/16 Regular Commission Meeting
September 9/6/16 Commission Workshop 9/20/16 Regular Commission Meeting	October 10/4/16 Commission Workshop 10/18/16 Regular Commission Meeting
November 11/1/16 Commission Workshop 11/29 – 12/2/16 ACWA Fall Conference, Anaheim 11/15/16 Regular Commission Meeting	December 12/6/16 Commission Workshop 12/20/16 Regular Commission Meeting

**AGENCY
REPRESENTATIVES'
REPORTS**

4B



REVISED AGENDA

Regular Board Meeting

April 12, 2016

12:00 p.m. – Board Room

Tuesday, April 12, 2016 Meeting Schedule		
7:00-8:00 a.m.	Rm. 1-101	Dir's. Computer Training
9:00 a.m.	Rm. 2-145	L&C
10:30 a.m.	Rm. 2-456	RP&AM
12:00 p.m.	Board Room	Board Meeting
1:00 p.m.	Rm. 2-456	IRP

Telephone Participation:

500 New Jersey Avenue
Suite 500
Washington, D.C. 20001
202-393-4251

MWD Headquarters Building

• 700 N. Alameda Street

• Los Angeles, CA 90012

1. Call to Order

- (a) Invocation: Remus Arbouet, Jr., Senior Engineering Technician, Water System Operations Group
- (b) Pledge of Allegiance: Director Marsha Ramos

2. Roll Call

3. Determination of a Quorum

- 4. Opportunity for members of the public to address the Board on matters within the Board's jurisdiction. (As required by Gov. Code § 54954.3(a))

5. OTHER MATTERS

- A. Approval of the Minutes of the Meeting for March 8, 2016. (A copy has been mailed to each Director)
Any additions, corrections, or omissions

- B. Report on Directors' events attended at Metropolitan expense for month of March
- C. Induction of new Director Mark Gold, from City of Los Angeles
 - (a) Receive credentials
 - (b) Report on credentials by General Counsel
 - (c) File credentials
 - (d) Administer Oath of Office
 - (e) File Oath
- D. Approve committee assignments
- E. Chairman's Monthly Activity Report
- Added** F. Approve 30-day leave of absence for Director Richard Atwater, commencing April 28, 2016

6. DEPARTMENT HEADS' REPORTS

- A. General Manager's summary of Metropolitan's activities for the month of March
- B. General Counsel's summary of Legal Department activities for the month of March
- C. General Auditor's summary of activities for the month of March
- D. Ethics Officer's summary of activities for the month of March

7. CONSENT CALENDAR ITEMS — ACTION

- 7-1** Appropriate \$1.28 million; certify the Final Program Environmental Impact Report for the Right-of-Way and Infrastructure Protection Program for the Orange County region; approve the program for the Orange County region for the purposes of the California Environmental Quality Act; and authorize: (1) environmental permitting and mitigation activities; and (2) increase of \$150,000 to an agreement with Dudek, for a new not-to-exceed total of \$3,525,000 (Approp. 15474). (E&O)

Recommendation:

Option #1:

Certify the Final Program Environmental Impact Report for the Right-of-Way and Infrastructure Protection Program for the Orange County region; adopt the Findings of Fact and the Mitigation Monitoring and Reporting Program; approve the program for the Orange County region for the purposes of CEQA, and

- a. Appropriate \$1.28 million;**
- b. Authorize environmental permitting and mitigation activities for the Orange County region; and**
- c. Authorize increase of \$150,000 to an agreement with Dudek, for a new not-to-exceed total of \$3,525,000.**

- 7-2** Appropriate \$330,000; and authorize design to replace valves at Service Connections CB-12 and CB-16 on the Rialto Pipeline (Approp. 15480). (E&O)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$330,000; and**
- b. Authorize design to replace valves at Service Connections CB-12 and CB-16 on the Rialto Pipeline.**

- 7-3** Authorize increase in change order authority for the seismic retrofit of the Upper Feeder's Santa Ana River Bridge (Approp. 15441). (E&O)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action has been previously addressed in the approved 2013 Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, and that no further environmental analysis or documentation is required, and that the fiscal aspect of a change order authority is not subject to CEQA, and

Authorize increase of \$160,000 in change order authority for the seismic retrofit of the Upper Feeder's Santa Ana Bridge, up to an aggregate amount not to exceed \$410,000.

- 7-4** Authorize granting a permanent easement to county of Riverside on Metropolitan-owned property located in county of Riverside. (RP&AM)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is categorically exempt, and

Authorize the General Manager to grant a permanent easement to the county of Riverside.

- 7-5** Authorize granting a permanent easement to Southern California Edison on Metropolitan-owned property located in county of Orange. (RP&AM)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is categorically exempt, and

Authorize the General Manager to grant a permanent easement to SCE.

(END OF CONSENT CALENDAR)

8. OTHER BOARD ITEMS — ACTION

- 8-1** Approve biennial budget for fiscal years 2016/17 and 2017/18, proposed ten-year forecast, proposed revenue requirements for fiscal years 2016/17 and 2017/18, and recommended water rates and charges to be effective on January 1, 2017 and January 1, 2018; adopt resolutions fixing and adopting water rates and charges for 2017 and 2018; and adopt the resolution finding that continuing an ad valorem tax rate at the rate levied for fiscal year 2015/16 is essential to Metropolitan's fiscal integrity. (F&I)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA and is not subject to CEQA, and

- a. Approve the FY 2016/17 and FY 2017/18 biennial budget;**
- b. Appropriate \$2,431.4 million for Metropolitan O&M and operating equipment, power costs on the Colorado River Aqueduct, SWP operations, maintenance, power and replacement costs and SWP capital charges; demand management programs including the local resources and conservation credits program; and costs associated with supply programs;**
- c. Appropriate as a continuing appropriation, \$672.6 million for FY 2016/17 and FY 2017/18 debt service on Metropolitan general obligation and revenue bonds;**
- d. Authorize the use of \$240 million in operating revenues to fund the Capital Investment Plan;**
- e. Determine that the revenue requirements to be paid from rates and charges are \$1,575.0 million in FY 2016/17 and \$1,574.3 million in FY 2017/18;**
- f. Approve water rates effective January 1, 2017, and January 1, 2018, as shown in Table 3, Option #1a above;**
- g. Adopt the Resolution Fixing and Adopting Water Rates To Be Effective January 1, 2017 and 2018, in the form of Attachment 4, using the rates shown in Section 1, Option #1a in the Resolution;**
- h. Adopt the Resolution Fixing and Adopting A Readiness-To-Serve Charge Effective January 1, 2017, in the form of Attachment 5, using the charge shown in Section 6 of the Resolution;**
- i. Adopt the Resolution Fixing and Adopting A Capacity Charge Effective January 1, 2017, in the form of Attachment 6, using the charge shown in Section 6 of the Resolution;**
- j. Adopt the Resolution Fixing and Adopting A Treated Water Charge Effective January 1, 2017, in the form of Attachment 7, using the charge shown under Option #1a In Section 6 of the Resolution;**
- k. Approve the Ten-Year Financial Forecast, as shown in the Proposed Biennial Budget FY 2016/17 and FY 2017/18 in Attachment 1;**
- l. Adopt the Resolution Finding that Continuing an Ad Valorem Property Tax Rate at the Rate Levied for FY 2015/16 is Essential to the Fiscal Integrity of the District and Suspending the Ad Valorem Tax Rate Restriction for FY 2016/17 and FY 2017/18, in the form of Attachment 8;**
- m. Authorize establishment and use of the Exchange Agreement Set-Aside Fund as set forth in this letter; and**
- n. Authorize use of unspent conservation funding, including extension of the Onsite Recycled Water Retrofit Program through the biennial budget period, as set forth in this letter.**

- 8-2** Appropriate \$1.37 million; and ratify the General Manager's award of \$634,425 contract to Fibrwrap Construction Services, Inc. (Approp. 15497). (E&O) **(Requires four-fifths vote of the Board)**

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action was previously determined to be statutorily exempt and that no further environmental analysis or documentation is required, and

- a. Appropriate \$1.37 million; and**
- b. Ratify the General Manager's award of a \$634,425 contract to Fibrwrap Construction Services, Inc. for emergency repairs on the Second Lower Feeder.**

- 8-3** Report on State Water Resources Control Board activities and authorize an increase in amount payable under contract with Duane Morris LLP by \$100,000 to a maximum amount of \$200,000 in connection with the Department of Water Resources and United States Bureau of Reclamation filing of a petition with the State Water Resources Control Board for an additional point of diversion on the Sacramento River as part of the California WaterFix/Bay Delta Conservation Plan. (L&C)
[Conference with legal counsel—existing litigation; to be heard in closed session pursuant to Gov. Code Section 54956.9(d)(1)]

- 8-4** Authorize sponsorship of SB 1173 (Hertzberg, D-Van Nuys) – Water conserving plumbing fixtures. (C&L)

Added

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA, and

Authorize the General Manager to sponsor SB 1173.

- 8-5** Express support, if amended, for AB 1755 (Dodd, D-Woodland) – The Open and Transparent Water Data Act; and express opposition, unless amended, to AB 2304 (Levine, D-Petaluma) – California Water Market Exchange. (C&L)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA, and

Authorize the General Manager to express support for AB 1755, if amended, and opposition to AB 2304, unless amended.

- 8-6** Express opposition to AB 2550 (Patterson, R-Fresno) – State Water Resources Control Board: instream flow curtailments: compensation. (C&L)

Added

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA, and

Authorize the General Manager to express opposition to AB 2550.

- 8-7** Express support for ACA 8 (Bloom, D-Santa Monica) – Local government financing: water facilities and infrastructure: voter approval. (C&L)

Added

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA, and

Authorize the General Manager to express support for ACA 8.

- 8-8** Authorize the General Manager to enter into the Extension of Service Area Agreement with the Eastern Municipal Water District and Pechanga Band of Luiseño Mission Indians; and adopt final resolution extending the service area for the 106th Fringe Area to Eastern Municipal Water District and Metropolitan. (F&I)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action was previously determined to be statutorily exempt and that no further environmental analysis or documentation is required, and

- a. Authorize the General Manager to enter into the Extension of Service Area Agreement with Eastern Municipal Water District and Pechanga Band of Luiseño Mission Indians; and**
- b. Adopt the resolution granting approval for the 106th Fringe Area annexation concurrently to Eastern and Metropolitan and establish Metropolitan's terms and conditions for the extension of service area agreement, conditioned upon approval by Riverside County's Local Agency Formation Commission, and upon receipt of fees of \$2,896,442.**

- 8-9** Authorize process for management of Metropolitan's lands in the Palo Verde Irrigation District. (WP&S)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project, and

Authorize staff to pursue new leases on all Metropolitan-owned lands in the Palo Verde valley through a generalized request for proposals process, with lease terms to meet Metropolitan's objectives for consumptive water use and positive revenues, and bring such leases back to the Board for final approval.

- Added** **8-10** Express opposition, unless amended, to AB 2470 (Gonzalez, D-San Diego) – Municipal Water Districts: Water Service for Indian Tribes. (C&L)

Recommendation:

Option #1:

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA, and

Express opposition unless amended to AB 2470.

9. BOARD INFORMATION ITEMS

None

10. FOLLOW-UP ITEMS

11. FUTURE AGENDA ITEMS

12. ADJOURNMENT

NOTE: At the discretion of the Board, all items appearing on this agenda and all committee agendas, whether or not expressly listed for action, may be deliberated and may be subject to action by the Board.

Each agenda item with a committee designation will be considered and a recommendation may be made by one or more committees prior to consideration and final action by the full Board of Directors. The committee designation appears in parentheses at the end of the description of the agenda item e.g., (E&O, F&I). Committee agendas may be obtained from the Board Executive Secretary.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site <http://www.mwdh2o.com>.

Requests for a disability related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

**AGENCY
REPRESENTATIVES'
REPORTS**

4C



Regional Sewerage Program Policy Committee Meeting

AGENDA
Thursday, April 7, 2016
4:30 p.m.

Location

Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91710

Call to Order and Roll Call

Pledge of Allegiance

Public Comment

- 1. Technical Committee Report – Ryan Shaw (Oral)**
- 2. Action Item**
 - A. Approval of the March 3, 2016 Meeting Minutes**
- 3. Informational Items**
 - A. Regional Contract Renewal**
 - B. Fiscal Year 2016/17 Budget Update**
 - C. Ten-Year Capital Improvement Plan Update**
- 4. Receive and File**
 - A. Fiscal Year 2015/16 2nd Qtr. Budget Variance**
 - B. Building Activity Update**
 - C. Recycled Water Distribution – Operations Summary**
 - D. Recycled Water Semi-Annual Update**
- 5. Other Business**
 - A. IEUA General Manager's Update**
 - B. Committee Member Requested Agenda Items for Next Meeting**
 - C. Committee Member Comments**
 - D. Next Meeting – May 5, 2016**
- 6. Adjournment**

DECLARATION OF POSTING

I, Laura Mantilla, Executive Assistant of the Inland Empire Utilities Agency, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. in the foyer at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA on Monday, April 4, 2016.



Laura Mantilla

**AGENCY
REPRESENTATIVES'
REPORTS**

4D

**CHINO BASIN WATERMASTER
WATERMASTER BOARD MEETING**

11:00 a.m. – March 24, 2016

WITH

Mr. Steve Elie – Chair

Mr. James Curatalo – Vice-Chair

At The Offices Of

Chino Basin Watermaster

9641 San Bernardino Road

Rancho Cucamonga, CA 91730

AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE

PUBLIC COMMENTS

AGENDA - ADDITIONS/REORDER

I. CONSENT CALENDAR

Note: All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by one motion in the form listed below. There will be no separate discussion on these items prior to voting unless any members, staff, or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

A. MINUTES

1. Minutes of the Watermaster Board Meeting held February 25, 2016

B. FINANCIAL REPORTS

1. Cash Disbursements for the month of January 2016
2. Watermaster VISA Check Detail for the month of January 2016
3. Combining Schedule for the Period July 1, 2015 through January 31, 2016
4. Treasurer's Report of Financial Affairs for the Period January 1, 2016 through January 31, 2016
5. Budget vs. Actual Report for the Period July 1, 2015 through January 31, 2016

C. OBMP SEMI-ANNUAL STATUS REPORTS 2013-2 AND 2014-1

Adopt the Semi-Annual OBMP Status Reports 2013-2 and 2014-1, along with filing a copy with the Court, subject to any necessary non-substantive changes.

D. SAN ANTONIO WATER COMPANY – APPLICATION FOR RECHARGE

Notice of Application for Recharge – On January 22, 2016, San Antonio Water Company submitted an Application for Recharge for up to 200,000 acre-feet to be recharged into Montclair 2, 3, and 4, and Brooks recharge basins.

E. EXHIBIT "G" PHYSICAL SOLUTION TRANSFERS

1) Find that Auto Club Speedway (California Speedway Corporation), California Steel Industries, and NRG California South LP are in compliance with the Restated Judgment, Exhibit "G" ¶9(g), authorizing 2015-2016 Exhibit "G" Physical Solution Transfers, 2) Approve levy of assessments and subsequent payments for same.

F. PERSONNEL POLICY – ADOPTION OF THE REVISED VACATION POLICY TO INCLUDE A VACATION BUY-BACK PROVISION, POLICY 3.5.2

Approve the Adoption of the Vacation Buy-Back Policy 3.5.2 as Part of the Current Chino Basin Watermaster Employee Manual.

II. BUSINESS ITEMS

A. SUPPORT FOR CHINO BASIN BOUNDARY MODIFICATION REQUEST SUBMITTED PURSUANT TO THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA)

Adopt Resolution 2016-03, expressing support for the request to modify the Chino Basin Boundaries in Bulletin 118, made by Western Municipal Water District, Inland Empire Utilities Agency, and Three Valleys Municipal Water District.

B. APPROVAL OF THE CHINO BASIN WATERMASTER SUBMITTAL OF ANNUAL REPORTING REQUIREMENTS FOR ADJUDICATED BASINS PURSUANT TO THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA)

Approve the submittal, with direction to staff to file the information/reports with the DWR.

III. REPORTS/UPDATES

A. LEGAL COUNSEL REPORT

1. February 26, 2016 Hearing
2. April 8, 2016 Hearing
3. 36th Annual Report (Fiscal Year 2012/13)

B. CFO REPORT

1. Fiscal Year 2016/17 Budget Schedule

C. ENGINEERING REPORT

1. MZ3 Water Levels (Follow-Up on Director Galleano's Request)

D. GM REPORT

1. Appropriate Pool Voting on Advisory Committee
2. SGMA Update
3. Business Plan Update
4. East Declez Project Status
5. Other

IV. INFORMATION

1. Cash Disbursements for February 2016

V. BOARD MEMBER COMMENTS

VI. OTHER BUSINESS

VII. CONFIDENTIAL SESSION - POSSIBLE ACTION

Pursuant to Article 2.6 of the Watermaster Rules & Regulations, a Confidential Session may be held during the Watermaster committee meeting for the purpose of discussion and possible action.

VIII. FUTURE MEETINGS AT WATERMASTER

3/21/16	Mon	9:00 a.m.	Ground-Level Monitoring Committee
3/24/16	Thu	11:00 a.m.	Watermaster Board
4/14/16	Thu	9:00 a.m.	Appropriative Pool
4/14/16	Thu	11:00 a.m.	Non-Agricultural Pool
4/14/16	Thu	1:30 p.m.	Agricultural Pool
4/18/16	Mon	1:30 p.m.	Fiscal Year 2016/17 Budget Distribution
4/21/16	Thu	8:00 a.m.	Appropriative Pool Strategic Planning (Confidential Session Only)
4/21/16	Thu	9:00 a.m.	Advisory Committee
4/21/16	Thu	9:30 a.m.	Recharge Investigations and Projects Committee (RIPCom)
4/26/16	Tue	8:30 a.m.	Watermaster Board Workshop (Held at CBWCD)
4/27/16	Wed	9:00 a.m.	Fiscal Year 2016/17 Budget Workshop #1
4/28/16	Thu	11:00 a.m.	Watermaster Board
5/02/16	Mon	10:00 a.m.	Fiscal Year 2016/17 Budget Workshop #2 (If Needed)

ADJOURNMENT

**GENERAL
MANAGER'S
REPORT**



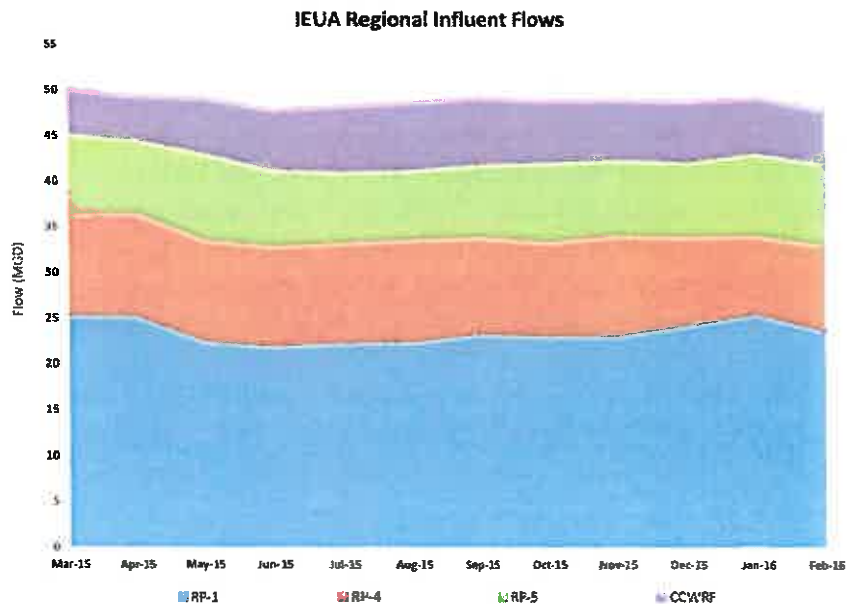
Date: April 20, 2016
 To: The Honorable Board of Directors
 From: P. Joseph Grindstaff, General Manager
 Subject: General Manager's Report Regarding Agency Activities

PLANNING & ENVIRONMENTAL RESOURCES

Drought Summary - Member Agencies versus State Board requirement.

Water Tracker			
Agency	Target Savings	Cumulative Savings (Jun 2015-Feb 2016)	Monthly Savings (Feb 2016)
Chino	24%	18%	-8%
Chino Hills	28%	27%	8%
CVWD	32%	25%	2%
FWC	28%	26%	0%
MVWD	24%	25%	2%
Ontario	24%	20%	5%
Upland	36%	37%	13%

Regional Plant influent flows during the month of February was consistent with the flow received during the previous months. Agency-wide average daily influent flow for the month of February 2016 was approximately 47.9 million gallons per day.



General Manager's Report Regarding Agency Activities

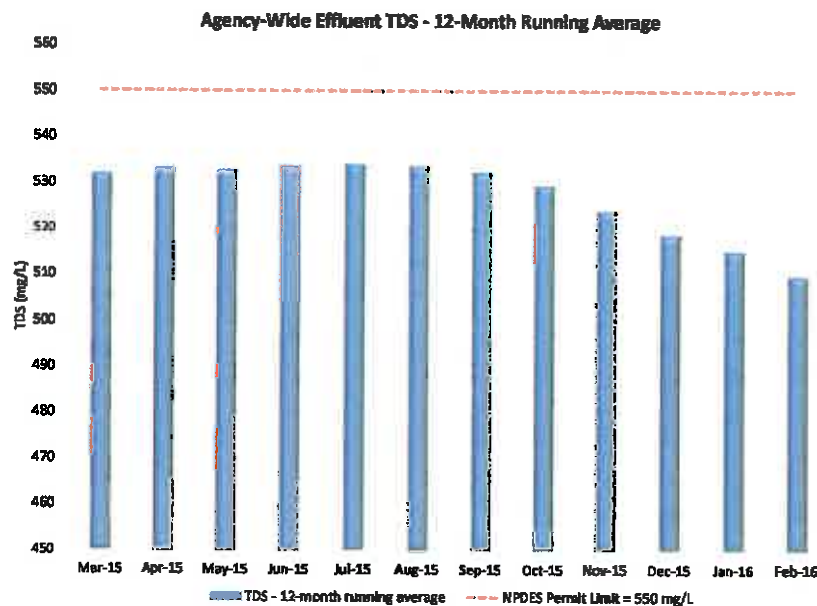
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The National Pollutant Discharge Elimination System (NPDES) permit limit for agency-wide 12-month running average of Total Inorganic Nitrogen (TIN) is 8 mg/L. In February 2016, the agency-wide 12-month running average TIN was 5.6 mg/L.

The NPDES permit limit for agency-wide 12-month running average of Total Dissolved Solids (TDS) is 550 mg/L. The 12-month running average for TDS from the Agency's treatment plants was on an incline in early 2015 and reached 534 mg/L at its peak. Since then the TDS has been on a decline and during the month of February 2016, the agency-wide 12-month running average had decreased to 510 mg/L.

In February 2016, IEUA staff met with Regional Board staff to discuss the feasibility of an extended averaging period for TDS. The Regional Board staff determined that in order to proceed, IEUA would need to amend the Basin Plan to reflect the change from 12-month to the requested 10-year period. They recommended that IEUA re-evaluate the maximum benefit program since it has been over ten years since it has been in place. This evaluation is currently in progress.



The recently adopted NPDES permit incorporated effluent limits for dioxins (including dioxin-like compounds known as PCDD/PCDF congeners). In November and December 2015, IEUA self-reported exceedances of the average monthly (0.014 pg/L) and maximum daily (0.028 pg/L) limits. After some research, IEUA presented the Regional Board with a toxicity equivalency quotient (TEQ) calculation that took into account lab results that fell below minimum levels/reporting limits of the lab method to be calculated as zeroes and bioaccumulation in fish flesh. The Regional Board is currently looking into our proposal and preliminary findings are favorable. If calculating dioxin-TEQ by excluding values below the MLs and/or reporting limits (RLs), but not incorporating the bioaccumulation factor, only the December 2015 sample would be in exceedance of the effluent limitations. No other dioxin exceedances have been reported since December 2015.

General Manager's Report Regarding Agency Activities

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On March 9, 2016, the AQMD Board granted the short variance for the flare at RP-5 SHF. The variance, effective March 9, 2016 to May 15, 2016, allows the flare to be repaired, tuned, and retested to demonstrate compliance without penalty during the variance period. The source test has been scheduled for March 31, 2016.

On March 15, 2016, IEUA received the preliminary report for the RP-2 internal combustion engine source test which was performed on February 17, 2016. Since the test failed to demonstrate compliance with the permit limit, the engine was shut down. IEUA Compliance is working with AQMD to determine how the engine can be brought back online while complying with all rules and emission limits.

On March 17, 2016 AQMD issued RP-2 a Notice to Comply (NTC), as result of the inspection conducted on March 16, 2016, requesting IEUA to submit an application for a permit to operate for the low pressure digester storage tank, and for the emergency generator. RP-2 has achieved compliance on March 24, 2016.

OPERATIONS UPDATE

February 2016, Regional Plant sodium hypochlorite consumption averaged 124.5 gallons per million gallons of treated flows.

IERCF UPDATE

Operational Comments – Facility throughput for March averaged approximately 99% of permitted capacity at an average of 412 tons per day of biosolids and 158 tons per day of amendments (based on a 31-day month). The facility is operating well with no violations or lost time incidents.

Facility Throughput

POTW	Wet Tons Month	Wet Tons Year to Date
LACSD	7,303.96	21,407.61
IEUA	5,462.19	16,244.91
OCSD	0	0
TOTAL	12,766.15	37,652.52

Compost Sales –IERCA sales in March were flat reflecting a typical end of winter AG use. April is expected to pick up during the beginning of the spring planting season. Compost inventory in the storage facility is 22,075 cubic yards.

General Manager's Report Regarding Agency Activities

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Monthly Sales Summary March 2016

Month	Product	Cubic Yards	Avg. \$/CYD	Total \$
March	Premium	12,670.08	\$2.56	\$32,453.77
	Base	4,114.37	\$0.25	\$1,039.81
Total		16,784.45	\$2.00	\$33,493.58

YTD Sales Summary through March 2016

Month	Total Cyds 2015/2016	Total Cyds 2014/2015	Total \$ 2015/2016	Total \$ 2014/2015
July	21,389.25	23,882.49	\$34,657.16	\$39,474.57
August	16,919.04	25,689.52	\$30,461.07	\$27,575.69
September	16,750.02	33,184.26	\$24,655.71	\$37,732.49
October	27,394.30	31,487.37	\$33,401.74	\$31,552.56
November	29,056.62	22,348.31	\$25,280.90	\$32,957.02
December	17,586.64	18,272.61	\$28,476.77	\$23,528.45
January	14,298.49	14,388.67	\$22,085.28	\$38,227.06
February	12,418.86	15,105.97	\$28,926.15	\$37,979.47
March	16,784.45	22,059.88	\$33,493.58	\$56,897.95
Total	172,597.67	206,419.08	\$261,438.36	\$325,925.26
Average	19,177.52	22,935.45	\$29,048.71	\$36,213.92

GROUNDWATER RECHARGE

Groundwater Recharge – February 2016

During February 2016, recycled water recharge totaled 1,352 acre-feet. There was no imported water delivered. The capture of dry weather creek flows totaled 28 acre-feet. There was one rain event during this period that generated a total of approximately 450 acre-feet of captured storm water. A detailed summary of the Chino Basin Groundwater Recharge Operations can be found at <http://www.ieua.org/category/reports/groundwater-recharge-reports>.

Groundwater Recharge – March 2016 (Preliminary)

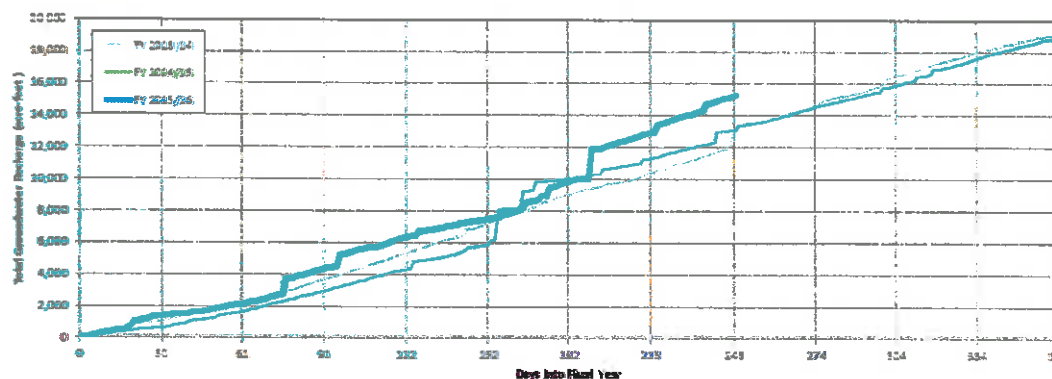
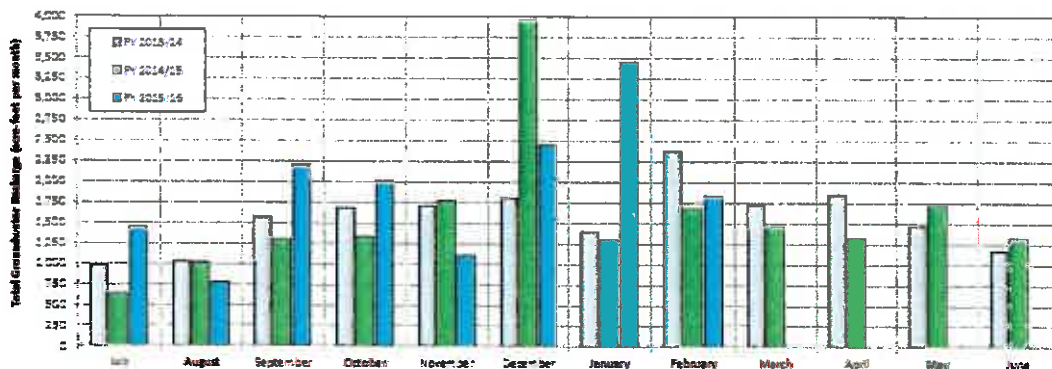
During March 2016, recycled water recharge totaled 858 acre-feet. There was no imported water delivered. The capture of dry weather creek flows totaled 120 acre-feet. There were three rain events during this period that generated a total of approximately 1,449 acre-feet of captured storm water. A detailed summary of the Chino Basin Groundwater Recharge Operations can be found at <http://www.ieua.org/category/reports/groundwater-recharge-reports>.

General Manager's Report Regarding Agency Activities

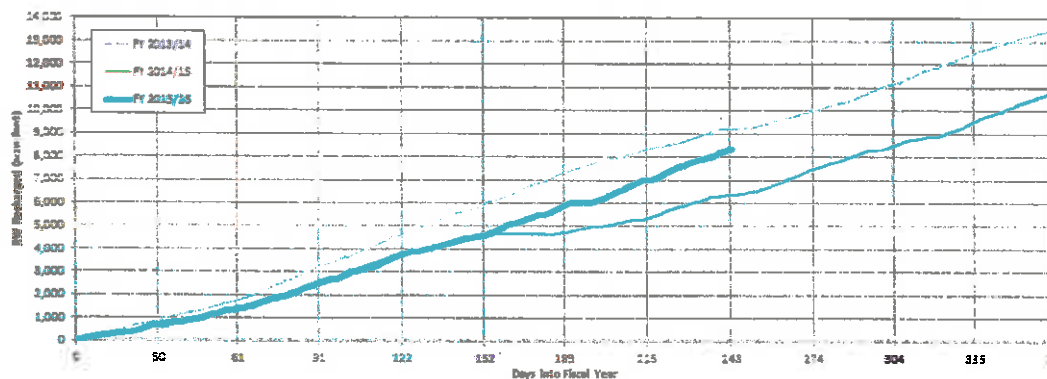
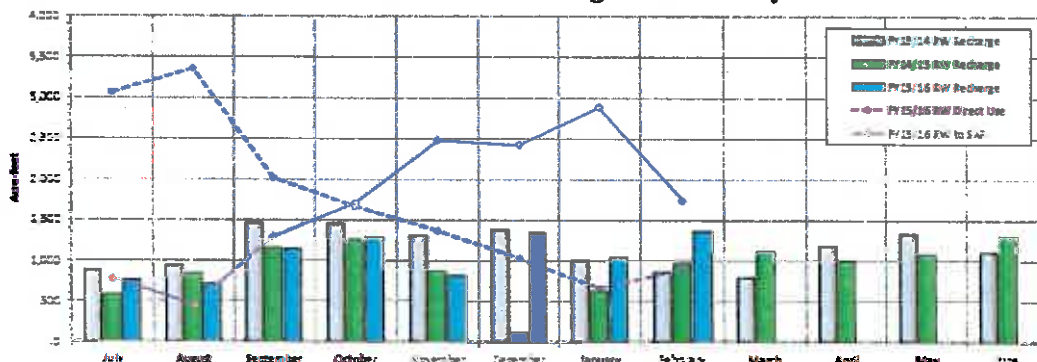
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Total Groundwater Recharge – February 2016



Recycled Water Delivered to Groundwater Recharge – February 2016

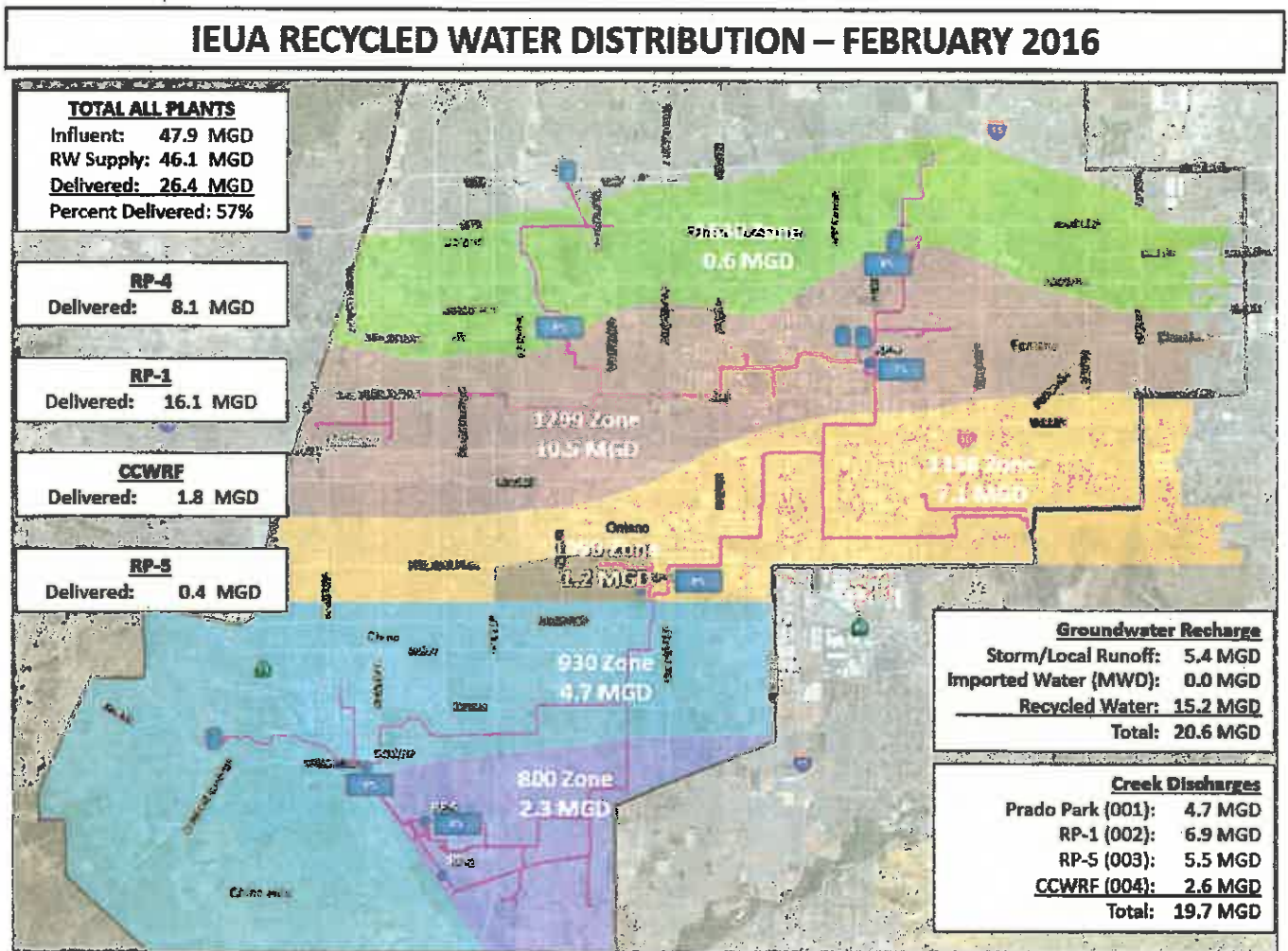


RW Distribution – February 2016

During February 2016, 57% (26.4 MGD) of IEUA recycled water supply (46.1 MGD) was delivered into the distribution system for both direct use customers (11.2 MGD) and groundwater recharge (15.2 MGD). Plant discharge to creeks feeding the Santa Ana River averaged 19.7 MGD.

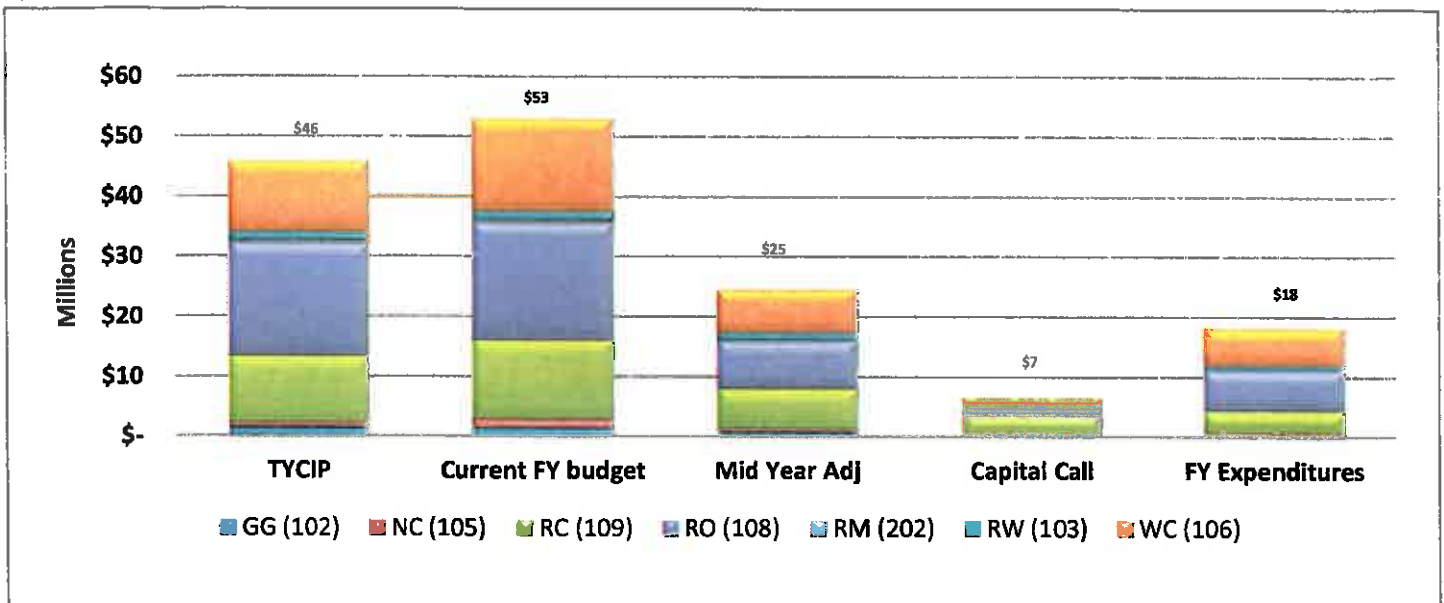
RW Distribution – March 2016 (Preliminary)

During March 2016, 44% (21.4 MGD) of IEUA recycled water supply (48.3 MGD) was delivered into the distribution system for both direct use customers (12.4 MGD) and groundwater recharge (9.0 MGD). Plant discharge to creeks feeding the Santa Ana River averaged 26.9 MGD.



ENGINEERING & CONSTRUCTION MANAGEMENT PROJECT STATUS SUMMARY

Engineering and Construction Management's FY15/16 budget is \$52,965,125. As of March 31st, staff has projected to spend \$24,524,587 during FY15/16 of which \$18,079,482 has been spent. The following chart summarizes the Engineering and Construction Management FY Budget status update.



Currently, 11 projects have over \$500,000 of FY budget that will not be expended this FY. These 11 projects represent \$18,273,917 of the variance between the current FY budget and the FY projections. The reasons for their FY variances are as follows:

Project #	Description	FY 15/16 Forecast	FY 15/16 Budget	Variance (FY Budget - FY Forecast)	Reason for Variance
EN15044	SBCFCD NRW Easement	267	514,930	514,662	San Bernardino County has not completed the appraisal report reviews.
EN08025	Wineville Ext RW Pipeline Seg A	1,124,173	2,135,354	1,011,181	The project finished under budget.
EN13001	San Sevaine Basin Improvements	443,007	3,500,000	3,056,993	A majority of the expenses are construction related which is scheduled to begin later in the fiscal year. The capital call was reduced to reflect major construction expenses occurring in the following fiscal year.
EN13045	Wineville RW Extension Segment B	1,649,724	2,506,256	856,531	The project is nearly complete and will finish under budget.
EN13048	RP-1 Power System Upgrades	264,375	1,000,000	735,625	An extensive analysis of the RP-1 existing load was required prior to launching the design. The majority of the budget (design and construction) will be consumed in FY16/17.
EN15043	SBCFCD Recycled Water Easement	316	567,298	566,982	San Bernardino County has not completed the appraisal report reviews.
EN13016	SCADA Enterprise System	3,359,327	4,297,500	938,173	Job is progressing with less than anticipated internal costs.
EN16021	Chino Basin Groundwater Supply Wells and Raw Water Pipelines	812,986	9,000,000	8,187,014	The project work has been delayed due to the ongoing settlement negotiations with the Regional Board. CDA has initiated project management with Michael Baker International, but design and construction will not begin until Regional Board settlement is complete, per IEUA's agreement with CDA. The Regional Board was expected to present the proposed settlement to their Board of Directors in January 2016. However, this has not happened therefore the delay has been extended.
EN11031	RP-5 Flow Equalization and Effluent Monitoring	165,265	1,255,264	1,089,998	The project scope was modified to meet Agency operating requirements causing a schedule delay. Contract modifications are complete and the project has restarted.
EN14018	RP-4 Disinfection Facility Improvements	231,162	759,516	528,354	Additional scope to rehab the south side of the existing building to allow utilize of a new office area, add new toilets, and break rooms impacted the completion of the design schedule.
EN16025	RP-1 Expansion PDR	211,597	1,000,000	788,403	Original Budget assumed 50/50 Cost Split between RP-1 & RP-5. Actual cost split is 20/80. Remaining \$850,000 will be transferred to EN16028.
		8,262,201	26,536,118	18,273,917	

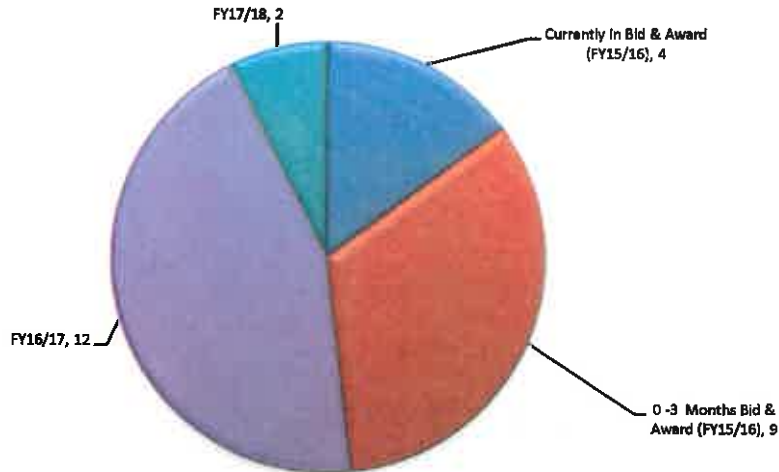
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Active Projects in Design

27 Active Project in Design



4 Project Currently in Bid & Award

- EN14047.00 GWR and RW SCADA Control Upgrades
- EN16013.03 Agency wide Pumps Efficiencies Improvements
- EN15008.00 Water Quality Laboratory
- EN16068.00 Main Office Permit Office

9 Projects 0-3 Months Bid & Award

- EN16047.00 HQ Parking Lot FY15/16
- EN16071.00 San Bernardino Avenue Gravity Sewer
- EN16051.00 RP-1 Utility Water Flow Meter
- EN16132.00 Magnolia Channel Spillway
- EN16055.00 Headquarters Back Up Generator
- EN16049.00 Conference Rooms Audio Visual Upgrades
- EN14018.00 RP-4 Disinfection Facility Improvements
- EN16024.00 RP-1 Mixed Liquor Return Pumps
- EN13001.00 San Sevaine Basin Improvements

12 Projects FY16/17 Bid & Award

- EN16021.00 Chino Basin Groundwater Supply Wells and Raw Water Pipelines
- EN11031.00 RP-5 Flow Equalization and Effluent Monitoring
- EN13016.02 SCADA Enterprise System - Phase 2 (Regional Water Recycling Plant No. 1)
- RW15004.00 Lower Day Basin RMPU Improvements
- EN14019.00 RP-1 Headworks Primary and Secondary Upgrades
- EN16034.00 RW Pressure Sustaining Valve Installation FY 15/16
- EN15013.00 RP-1 TWAS and Primary Effluent Piping Replacement 2014
- EN17006.00 CCWRF Headworks & Odor Control Replacements
- EN11039.00 TP-1 Disinfection Pump Improvements
- EN14043.00 RP-5 RW Pipeline Bottleneck
- EN13048.00 RP-1 Power System Upgrades
- WR15021.00 Napa Lateral

2 Projects FY17/18 Bid & Award

- EN14042.00 RP-1 1158 RWPS Upgrades
- EN15012.00 RP-1 East Primary Effluent Pipe Rehab

Active Projects in Construction

Project ID	Project Title	Description	Total Projects Budget (\$)	Total Cost to Date (\$)	FY Budget (\$ 2016)	FY Cost thru 3/31 (\$)	COA Processed thru Feb (\$)	Total Projects CO's (%)	% Project Complete	Original Comp Date	Estimated Comp Date
1	EN08023.06 RP1 Primary Clarifier 2015 Rehab Proj	Continuation of the required rehab work within the Primary Clarifiers	0	956,111	633,261	914,436	254,568	40.40%	98.04%	12/31/2016	5/27/2016
2	EN12014.00 East Avenue 1630 E RWP Relocation	Relocation of 200 LF of 36 inch RW PL on East Avenue in Rambo	890,108	485,532	633,261	313,587	0	0.00%	88.55%	8/30/2015	10/17/2016
3	EN13016.00 SCADA Enterprise System	Design/construct SCADA system that enables remote control of facilities	10,407,046	4,412,769	4,297,500	2,915,742	44,231	1.77%	77.25%	2/15/2016	9/5/2016
4	EN15018.00 Montclair Diversion Structure Improvements	Rehabilitate the gates and install SCADA for remote operations	3,030,095	482,131	1,203,874	167,899	0	0.00%	87.02%	7/1/2016	7/15/2016
5	EN13045.00 Wineville RW Extension Segment B	Install 2.8 miles of 30" RWP & to the associated appurtenances	11,880,300	10,721,351	2,506,256	1,629,724	205,503	2.31%	98.09%	10/15/2015	12/15/2015
6	EN13056.01 RP-4 MCC - Power Center Five Roof Access	Design, fabricate, install stairs for rooftop & install of gentry platform	0	40,981	-	40,629	0	0.00%	77.26%	7/18/2016	7/20/2016
7	EN14038.00 CB20 Noise Mitigation Measures	Design and build the sound mitigating enclosure	160,000	143,588	-	93,172	0	0.00%	100.00%	8/31/2015	3/11/2016
8	EN15030.02 San Bernardino LS Fiber Optic Vault Upgrades	Install traffic rated manhole covers & modify existing pull boxes to be traffic rated.	0	83,413	-	83,413	0	0.00%	36.89%	6/28/2016	6/6/2016
9	EN15032.00 Agency-Wide HVAC Improvements-Pkg No. 3	Eval of elect & control bldgs HVAC systems & provide solutions at RP-1	1,180,000	513,637	989,250	419,361	3,456	0.80%	85.51%	6/6/2016	5/10/2016
10	EN15055.00 1630 E & W. RW PS - Surge Tank Installation	Field survey to ensure surge tank construction will be w/in IEUA's easement	1,590,000	231,379	527,428	171,846	0	0.00%	56.06%	9/23/2016	10/14/2016
11	EN16013.00 RP-4 Lighting Improvements - Phase 1	Replace fluorescent light fixtures with LED fixtures & motion sensors.	300,000	3,190	300,000	3,190	0	0.00%	0.00%	6/17/2016	6/20/2016
12	EN16067.00 RP-1 DAFs Plug Valve Replacement	Demo & replacement of existing eccentric plug valves in DAF Valve Vaults	120,000	70,200	120,000	70,200	0	0.00%	88.74%	2/9/2016	4/29/2016
			29,557,549	18,124,283	10,577,568	6,823,200	507,758				

• Total construction contract payments for work completed in March: \$267,978

Completed Construction Projects - Notice of Completion Filed

Project ID	Project Title	Description	Total Projects Budget (\$)	Total Cost to Date (\$)	FY Budget (\$ 2016)	FY Cost thru 3/31 (\$)	COA Processed thru Feb (\$)	Total Projects CO's (%)	% Project Complete	Original Comp Date	Estimated Comp Date
1	EN12019.00 GWR and RW Comm. Sys. Upgrades	Upgraded the SCADA system to provide control & monitoring	1,594,400	1,208,781	970,569	888,455	0	0.00%	100.87%	7/2/2015	1/12/2016
2	EN12020.00 Chino Creek Invert Repair	Evaluate the condition of the creek invert over the siphon trench & make repairs	477,503	156,106	477,503	156,106	28,791	18.42%	86.13%	11/24/2015	12/15/2015
3	EN13046.00 RP1 Flare System Improvements	Design, procure, construction & startup of the two new flare systems at RP1	3,600,000	649,478	487,622	507,488	0	0.00%	97.18%	9/30/2015	9/11/2016
4	EN15045.00 Collection System Manhole Upgrades FY 15/16	Repair/replace 44 sewer collection system manhole frames and covers	620,000	581,393	512,340	475,867	6,489	1.09%	88.22%	4/5/2016	3/17/2016
5	EN15046.00 NRW Manhole Upgrades FY 15/16	Repair 23 NRW collection system manholes.	436,086	349,142	350,000	270,567	0	0.00%	89.67%	4/5/2016	3/21/2016
6	EN15056.00 RP-1 Digester Gas System Evaluation & Improvements	Evaluate the digester gas piping, provide improve controls and pavement	655,000	442,864	585,608	373,007	0	0.00%	54.74%	12/31/2015	3/21/2016
			7,382,989	3,387,704	3,381,636	2,671,591	35,220				

Emergency Projects Awarded in March 2016

Project #	Completion	Task Order Description	TO #	Amount	Date
1 EN16019.12	Ferreira Construction	RP-1 DAFT Pipeline Repair	TO-007	7,306	3/7/2016
2 EN16018.01	W.A. Rasic Construction	Manhole Repair in Ontario	TO-030	5,000	3/15/2016
3 EN16019.13	W.A. Rasic Construction	RP-2 DG Piping Modifications	TO-031	11,500	3/17/2016
				23,806	

Office Engineering Project

Project #	Project Title	Status	Complete	Actual Cost
1 CW16003.02	Chino Reg Conn C-30	Preserve LS has not been advertised for const. due to USACE's lengthy review	7.62%	225
2 CW16015.01	City of Ontario Francis St SD Project	A precon meeting was held on 2/9.	7.12%	193
3 CW16102.01	CWWD RW Conn CWRW-43	A construction permit was issued on 2/2. Waiting to receive notification for inspection	64.18%	1,200
4 CW16102.02	Ontario RW Conns ORW-67 & ORW-68	Reviewed submittals for the hot tap.	44.85%	1,741
5 CW16102.03	CWWD RW Conn CWRW-42	The mylar was signed and a request for the contractor's certificate of insurance was submitted.	8.58%	179
6 CW16102.04	CWWD RW Conn CWRW-44	The IEUA permit was issued. Waiting for preconstruction/inspection notification.	37.68%	578
7 CW16102.05	CWWD RW Conn CWRW-45	The connection location was reviewed with as-built drawings and design comments were provided.	77.68%	316
8 CW16102.07	CWWD RW Conn CWRW-47	The engineering plans were reviewed, comments were provided to the consultant. A new hot tap will be constructed.	54.46%	164
9 CW16102.08	Chino RW Conn CRW-80	The engineering plans were reviewed, comments were provided to the consultant.	77.68%	342
10 CW16102.09	Chino RW Conn CRW-81	The engineering plans were reviewed, comments were provided to the consultant.	64.73%	164
11 CW16102.10	Chino RW Conn CRW-82-83-84	The engineering plans were reviewed, comments were provided to the consultant.	64.73%	226
12 CW16102.11	24in RWPL in 800 PZ in Chino Hills	The engineering plans were reviewed and comments were provided to the consultant.	59.38%	115
13 CW16102.12	CWWD RW Conn CWRW-48	The connection location was reviewed with as-built drawings and design comments were provided.	75.65%	144
14 CW16102.13	City of Ontario Sixth St SD Project	The IEUA permit was issued. It is anticipated that the work will begin in April 2016	12.75%	58
15 CW16102.14	CWWD RW Conn CWRW-49-50-51	The connection location was reviewed with as-built drawings and design comments were provided.	29.51%	0
16 CW16102.15	Chino RW Conn CRW-85	The recycled water connection request is under review.	3.92%	0
17 CW16102.16	Chino RW Conn CWRW-86	The recycled water connection request is under review.	3.92%	0
				5,643

FINANCE UPDATE

On February 5, 2016, the Agency received notification from the County of San Bernardino Economic Development Agency of the County Successor Agency's proposal to dispose of three sites located in the Fontana area. Two sites are proposed to be sold for "future development" and one site is to be transferred to the County for "governmental use". The table below summarizes the property size and the Agency's proportional share of the estimated sales proceeds based on the most recent valuation.

S. B. County Successor Agency Proposed Property Disposal

Fontana Area Sites	Acres	Valuation	Proposed Disposal	IEUA Estimated Share (.00042%)
Future Fire Station	2.36	NA	Governmental Use	N/A
Rosemary and Iris	9.14	\$1.7M	Future Development	\$710
Cherry and Randall	14.3	\$3.4M to \$5.1M		\$1,428 to \$2,142

The use and sale of the three sites is in line with the approved Long Range Property Management Plan (LRPMP) for the County Successor Agency. The County LRPMP, approved by the Department of Finance (DOF) on September 10, 2015, governs the disposition and use of former redevelopment agency (RDA) properties that were transferred to the successor agencies with the dissolution of the RDAs in 2012.

Pursuant to Health and Safety Code Section 34180(f), compensation agreements need to be executed among the County and the taxing entities for vacant property that will either be retained for "governmental use" or sold for "future development". In addition to the Agency, other taxing entities include: the Fontana Fire Protection District, the Chaffey Community College District, the Cucamonga Elementary School District, the Chaffey Joint Union High School District, Inland Empire Resource Conservation District, various San Bernardino County agencies (the County, Flood Control District, Library, and Superintendent of Schools), and the Education Revenue Augmentation Fund as determined by the Auditor-Controller. Proceeds from the two properties to be sold for future development, as well as any property taxes generated from future development, will be shared by the affected taxing entities based on their proportional share of property tax.

The Agency's special counsel, Rutan and Tucker, LLP, is assisting staff with the review of the compensation agreements. On March 28, the County advised the taxing entities that they are reaching out to the DOF for clarification on some of the questions raised by the taxing entities. Revised compensation agreements are expected to be issued by County in the near future. Staff will keep the Board apprised of the process as it moves forward.

GRANTS ADMINISTRATION UPDATE

Grants Administration Significant Events - Board Activities

Since the last General Manager's report, Grants Department has presented a Board workshop item regarding the Grants Strategic Plan for grants management and future grant planning activities. In addition, the following Board item have been processed:

- Adoption of resolutions authorizing the Agency to enter into financial assistance agreements with the U.S. Department of Interior – Bureau of Reclamation (USBR) for three grant applications submitted in April 2016 under the following grant programs: a) Drought Contingency Planning Grant; b) Drought Resiliency Implementation Grant, and c) Agricultural Water Conservation Efficiency Grant.

Grant/Loan Opportunities and Applications

The Agency's Grants Department is continuing to pursue additional federal and state grant opportunities as they become available to supplement the Agency CIP budgets.

State Water Resources Control Board (SWRCB)

1. Proposition 1 Storm Water Grant pre-application for the regional Recharge Master Plan Update (RMPU) Project.
2. Proposition 1 Groundwater Grant application for the regional RMPU Project.
3. Clean Water State Revolving Fund (CWSRF) Loan application for regional RMPU project planning and design (\$5,000,000).

United States Bureau of Reclamation (USBR)

1. WaterSMART: Drought Contingency Planning Grants application (\$200,000) for IEUA's Integrated Water Resources Planning Phase II Project (IRP Phase II).
2. WaterSMART: Drought Resiliency Project Grants application (\$300,000) for the regional RMPU Project No. 23a Wineville, Jurupa and RP-3 Basin Improvement project to build long-term resilience to drought.
3. Agricultural Water Conservation and Efficiency Grants application (up to \$1,000,000) for IEUA's Recycled Water Pressure Sustaining Valve Project for agricultural users, and the North CIM Lateral project for farmers and agricultural drip irrigation systems, sensors and weather stations.

WaterReuse Foundation

A full grant application (\$100,000) for the Tailored Collaboration Research Program. The project will evaluate groundwater recharge injection of tertiary treated recycled water in unsaturated zones, as compared to surface recharge.

IN WITNESS WHEREOF, the parties hereto have caused the Contract to be entered as of the day and year written above.

INLAND EMPIRE UTILITIES AGENCY,
A MUNICIPAL WATER DISTRICT:

AMERICAN MICROIMAGING, INC. (AMI):

P. Joseph Grindstaff (Date)
General Manager



George Bandarian II (Date)
President & CEO

March 28, 2016

