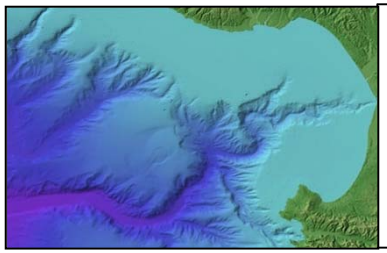
DeepWater



Unique Solutions from Oceanographic Resources

Project Overview

August 2015

Agenda

I. Project Overview and Features

II. Desalination Process

III. Potential Off-takers

IV. Intake/Outfall Strategy

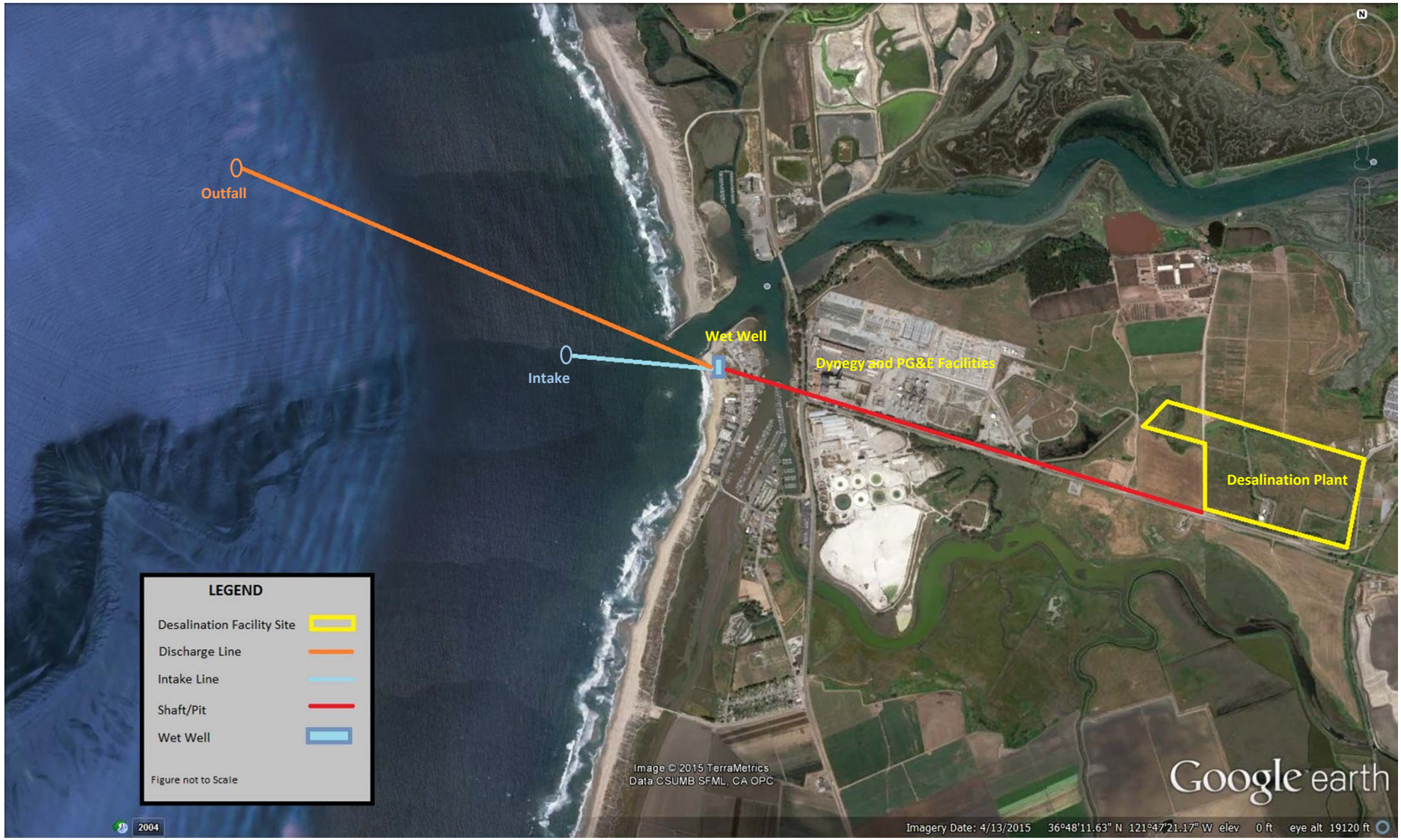
V. Project Schedule

VI. Public/Private Partnership Models & Financing

VII. Risks/Contingencies

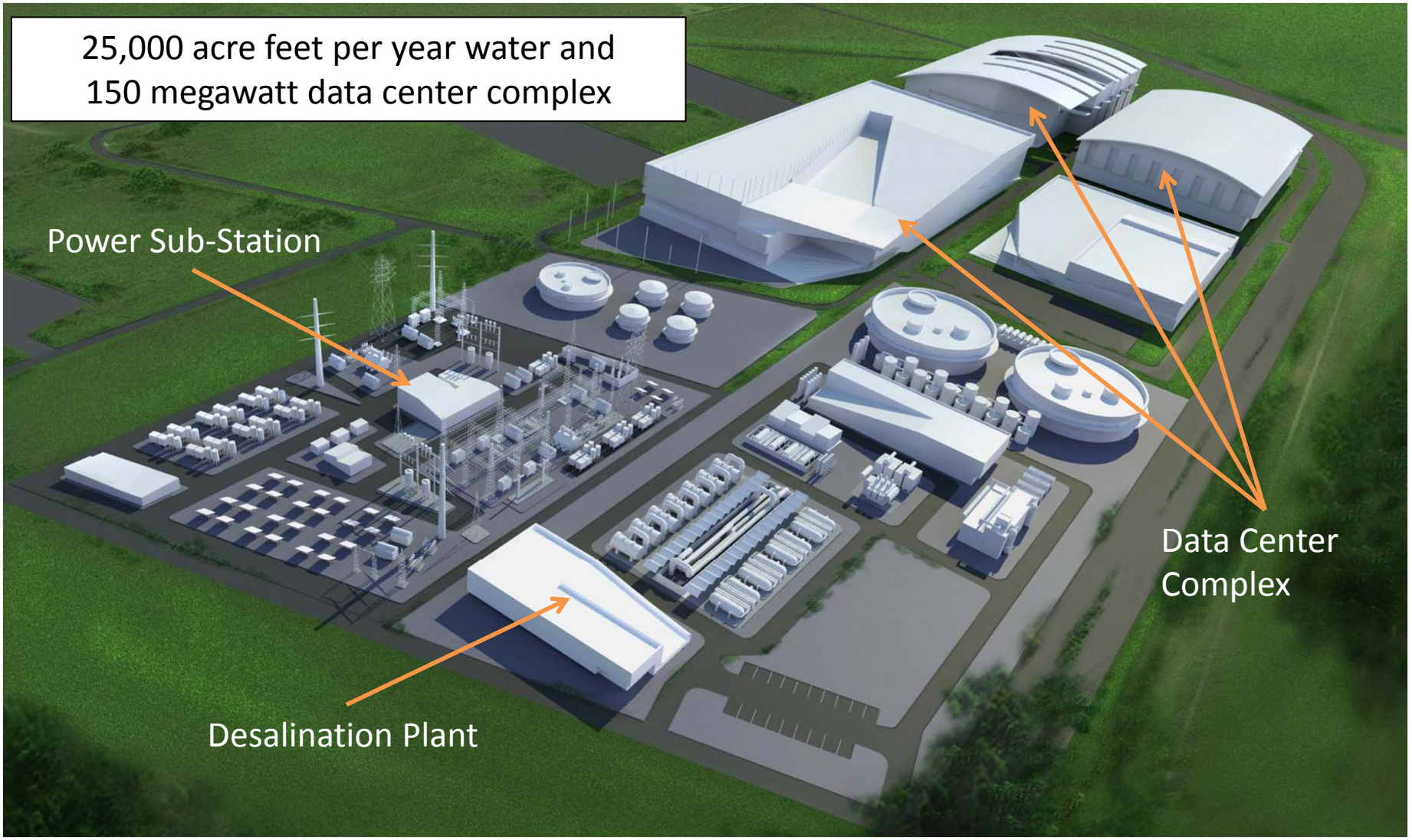
VIII. Q&A

Moss Landing Overview

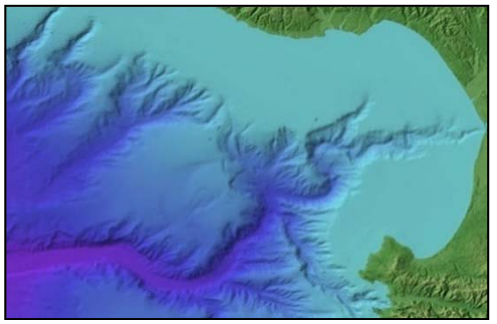


Pipeline Routing

DeepWater's First Project: Monterey Bay Regional Water Project



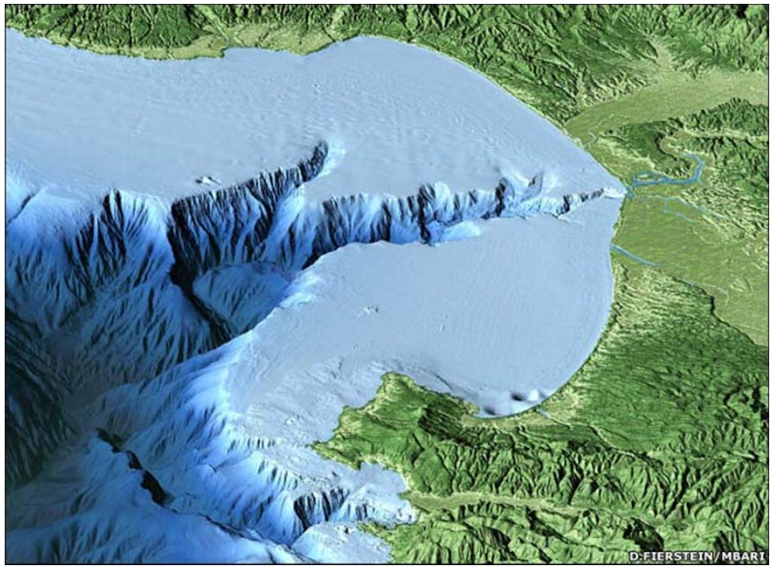
DeepWater's Unique Strategic Advantages



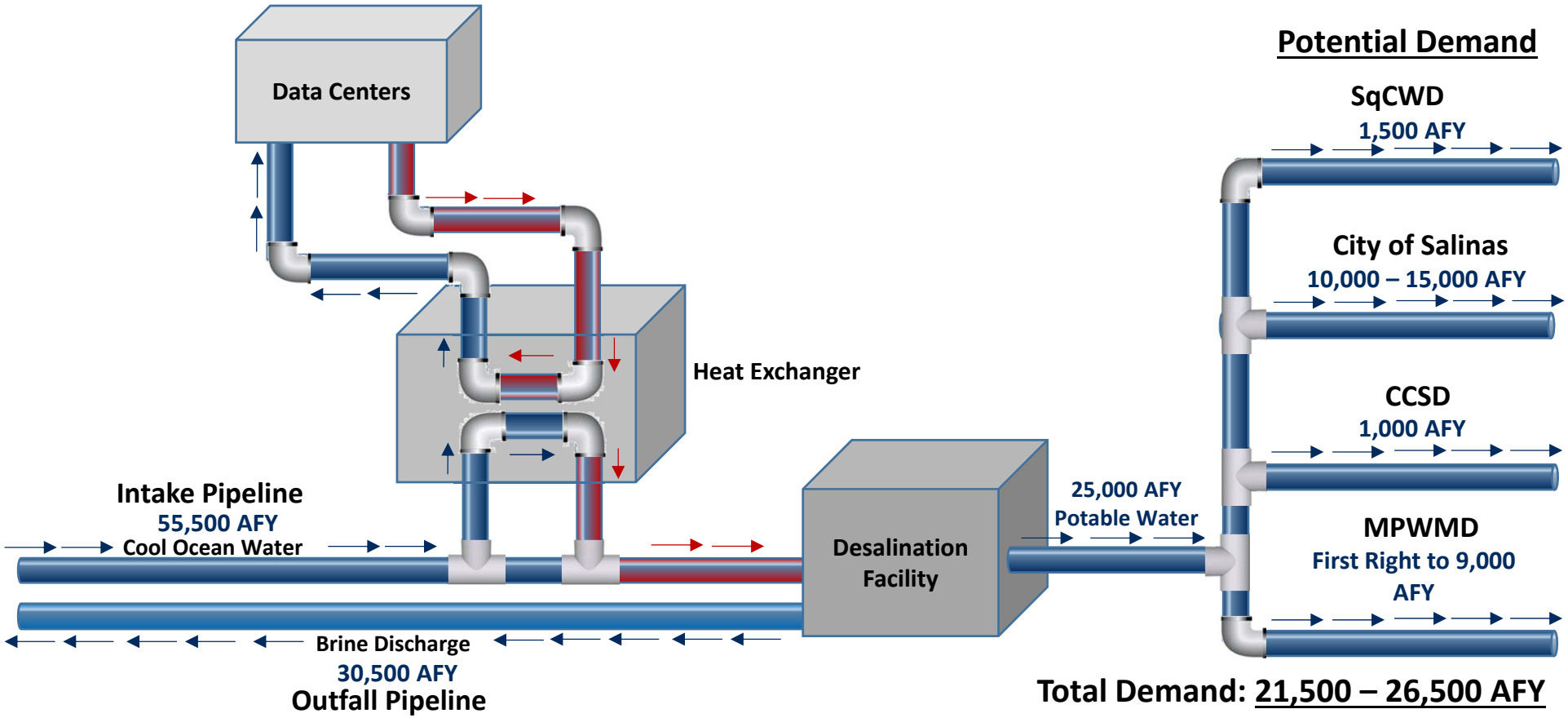
- Access to nearshore Monterey Bay submarine canyon
  - Very pure ocean water column – excellent profile for desal
  - Requires only 800 yards horizontal drilling under bay and seabed
    - minimal disturbance to seabed
- Co-location of data center and drinking water production facility
  - Patented co-location concept and deep water intake and outfall
  - 45% reduction in required energy associated with deep water cooled data center vs. conventional cooling – power usage effectiveness ratio of less than 1.10 vs. 1.55+ for state of art air-cooled facilities
  - Reduced water costs due to:
    - Purity (low turbidity) of deep water column – lower pre treatment requirements
    - "Free" warming of intake water using waste heat from data center – increase efficiency of seawater reverse osmosis (SWRO) process
    - Shared cost of intake and outfall infrastructure
- Significant operational synergies and cost savings from coordinated development and permitting of both projects and their shared infrastructure
- Energy cost savings from power contracts will provide ongoing electrical energy costs at approximately 50% of best commercial rates via the Grid

Unique Strategic Advantages (cont'd)

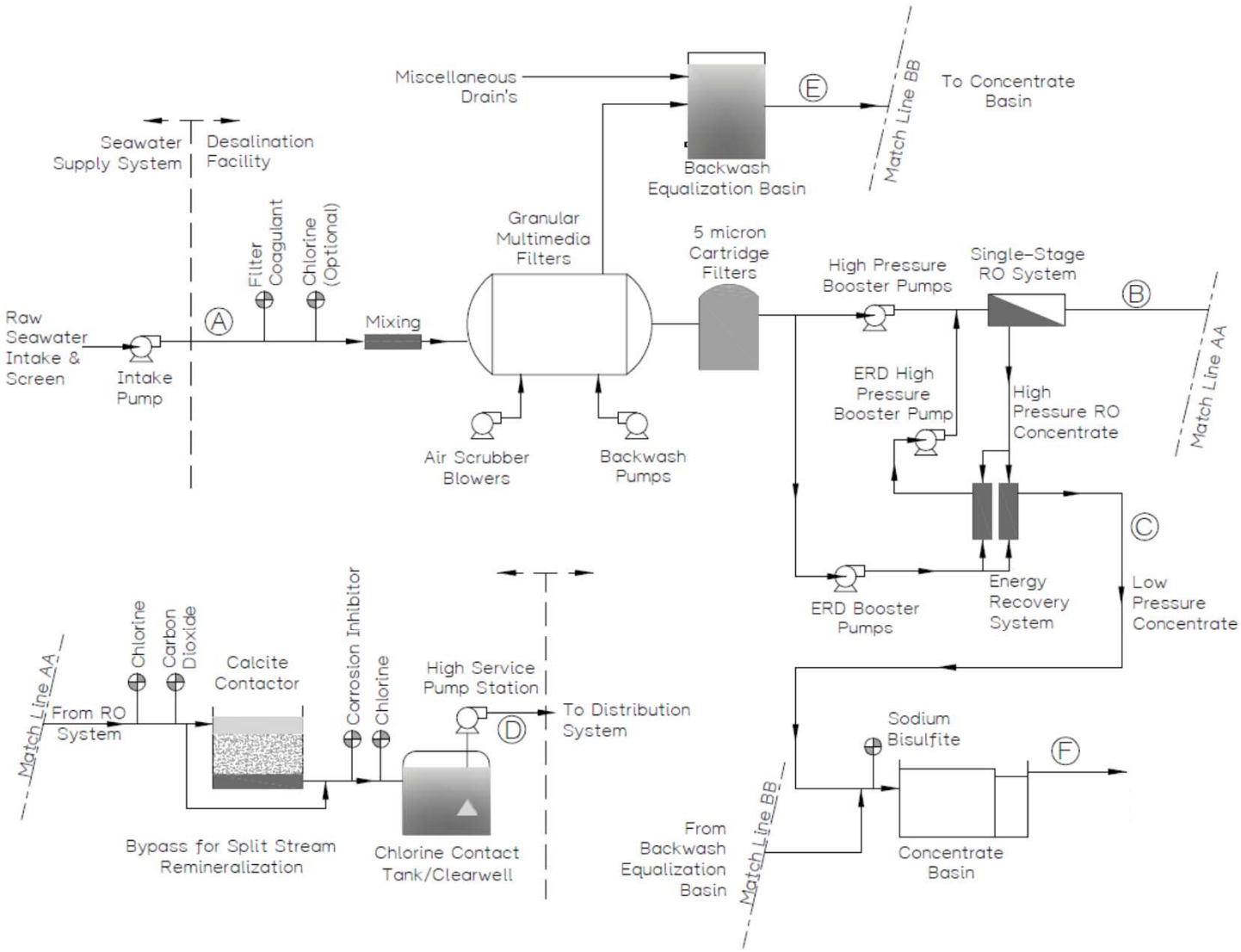
- Integrated Regional Approach
  - Access to IT infrastructure and water are of critical importance to the 3 county region
  - Scale efficiencies via larger facility vs. multiple redundant projects
- Carbon neutral (potentially negative) greenhouse gas impacts
  - Opportunity for self generation of carbon negative back-up power on site through carbon sequestration technology
- Model for environmental and community stewardship



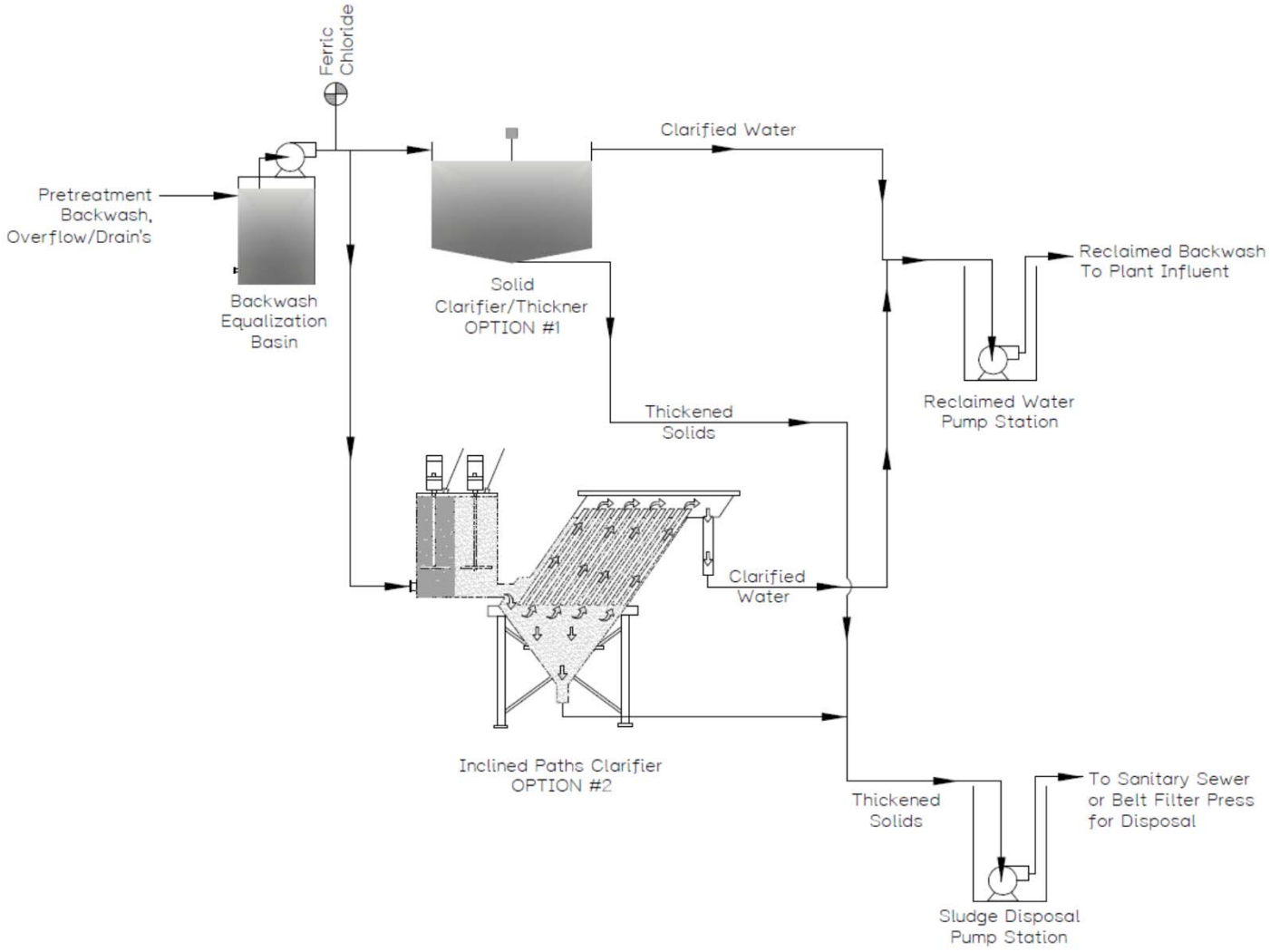
DeepWater – Conceptual Structure



Desalination Flow Diagram



Desalination Flow Diagram (cont.)



Current / Potential Water Off Takers

Off Taker	Form of Agreement	Quantity
City of Salinas	Salinas Memo of Understanding Q2 2013 (via Cal Water Services and ACCO)	10,000-15,000 acre feet
MPWMD www.mpwmd.dst.ca.us	Monterey Peninsula Reimbursement Agreement Q2 2014 (alternate to CalAm Project)	First Right to 9,000 acre feet
Soquel Creek Water District www.soquelcreekwater.org	Kennedy/Jenks Engineering Study Q3 2014 MOI Executed Q2 2015	1,500 acre feet
Castroville Community Services District www.castrovillecsd.org	MOI Signed Q3 2014	1,000 acre feet

Intake and Outfall Regulations

- In May 2015, after five (5) years of development and discourse, the California Water Resources Control Board adopted final “Desalination Amendments” as part of its triennial review of the California “Ocean Plan”:
  - The amendments establish California policy governing intake and discharge systems to be used for desalination plants on the California coast
- The policy designates subsurface intakes as the “best available technology” for supply of source water for desalination, and requires that subsurface intakes must first be demonstrated to be "infeasible" before open ocean intakes can be considered:
  - Feasibility or infeasibility to be determined based on multiple considerations including: hydrogeology, site conditions, impacts to marine life, and life cycle costs
  - Final determination of feasibility or infeasibility to be determined by the Regional Water Quality Control boards in consultation with the State Water Resources Control Board
  - The State Water Board, State Lands Commission and Coastal Commission are collaborating to establish a coordinated review process for the project
- DeepWater believes that the Amendment adoption itself has no new or incremental impacts on the MBRWP
  - We have closely tracked the amendment’s development – no surprise as to policy content
  - In anticipation of rulemaking, in 2013 DeepWater initiated and completed independent studies to evaluate feasibility of subsurface intakes at the Moss Landing site
  - The October 2014 hydrogeological study by Ecosystems Management, Inc. concluded in part:

"Based on the available information and literature we have reviewed, the hydrogeological conditions appear unfavorable for the large scale (51.6 mgd) subsurface seawater intake system required to supply the proposed 22.3 mgd of desalinated water production at the proposed site."

Intake and Outfall Regulations (Cont.)

- Required joint EIR/EIS study will address "favorable" environmental impact profile of MBRWP's deep water approach relative to alternative intake technologies – including "subsurface"
  - Joint Environmental Impact Report/Environmental Impact Statement will be prepared on the MBRWP by the California State Lands Commission under the California Environmental Quality Act (CEQA), and the Monterey Bay National Marine Sanctuary under the National Environmental Policy Act (NEPA)
  - The joint EIR/EIS will analyze the environmental impacts of the MBRWP's proposed open ocean intake at the edge of the Monterey Bay Submarine Canyon
  - The environmental analysis will include, but not be limited to, the impact of the deep water intake on marine life
  - The joint EIR/EIS will also analyze the environmental impacts of alternative intake technologies, including subsurface intakes
- The "Desalination Amendments" to the California Ocean Plan identifies comingling brine with wastewater as the preferred technology for discharge. If wastewater is not available, multiport diffusers are recognized as the best available technology
- While discharges were originally held to the 5% rule (no more than 5% above ambient salinity at 100 m from nozzle), the policy now prohibits ocean discharges of brine in excess of a daily max of 2.0 ppt above natural background salinity at the same distance.
- Discharge must meet California Thermal Plan requirements for Coastal Waters limiting temperature increases to no more than 20° F

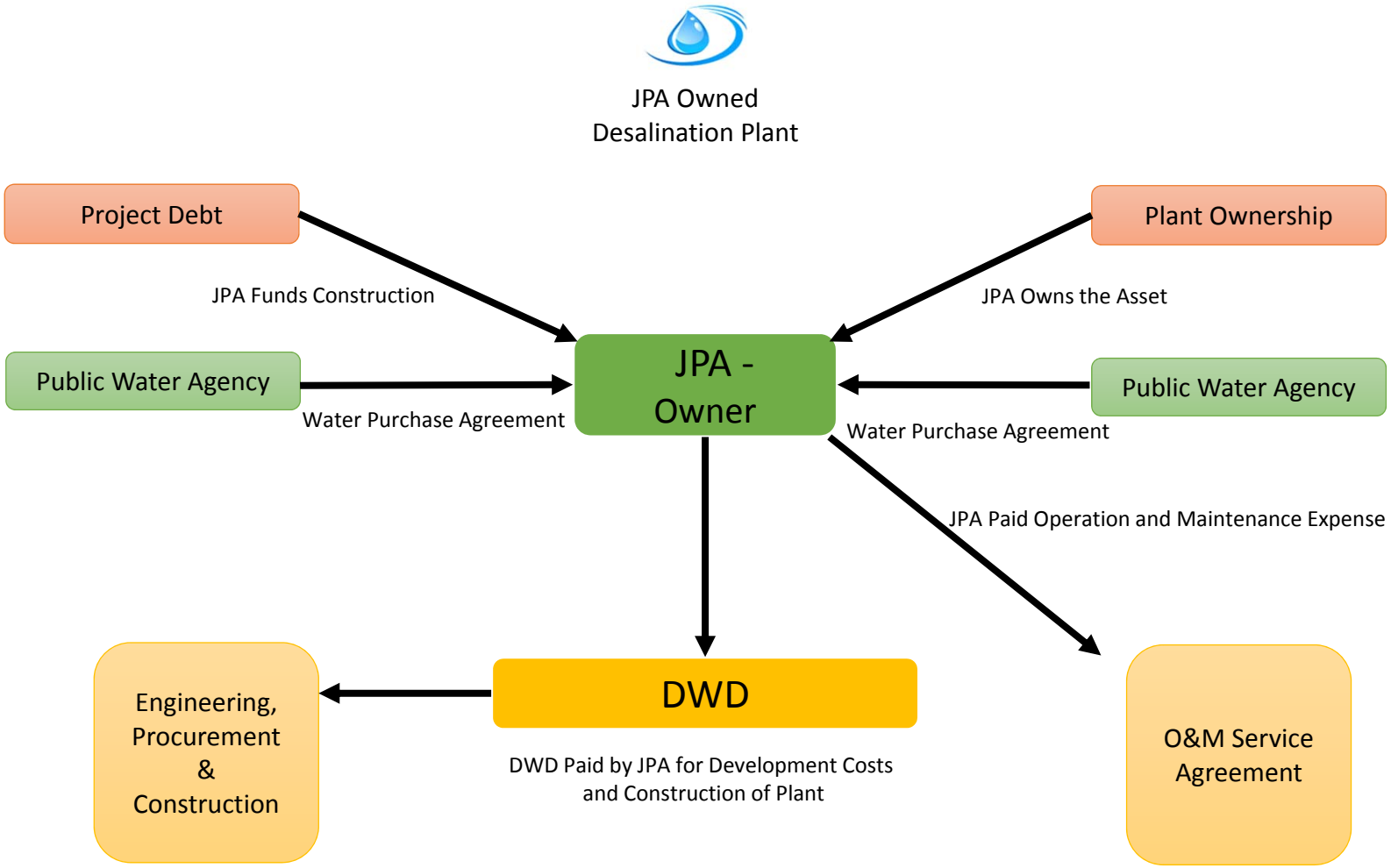
DeepWater Intake/Discharge Approval Strategy

1. Work closely with staffs of the State Water Board, State Lands Commission and the California Coastal Commission to harmonize standards for demonstrating “feasibility” of subsurface intake at Moss Landing site
2. Differentiate DeepWater’s project based on uniqueness of the geology and hydrogeology of Monterey Bay location – a solution that advances the objectives of the Ocean Plan
3. CEQA/NEPA strategy provides path forward if subsurface intake is deemed infeasible
4. Utilize multiport diffusers for brine discharge.
5. Present completed science showing that we exceed the maximum salinity requirements (Scott Jenkins report)
6. Support decision making process with high quality science (reports completed to date)
   - Ecosystems Management Ltd. - hydrogeology study
   - Tenera Environmental - oceanographic studies, intake impact assessment
   - Tenera Environmental – wedge wire screen intake study
   - Scott A. Jenkins Consulting – brine dilution analysis
7. Communicate early and often…

Project Timeline

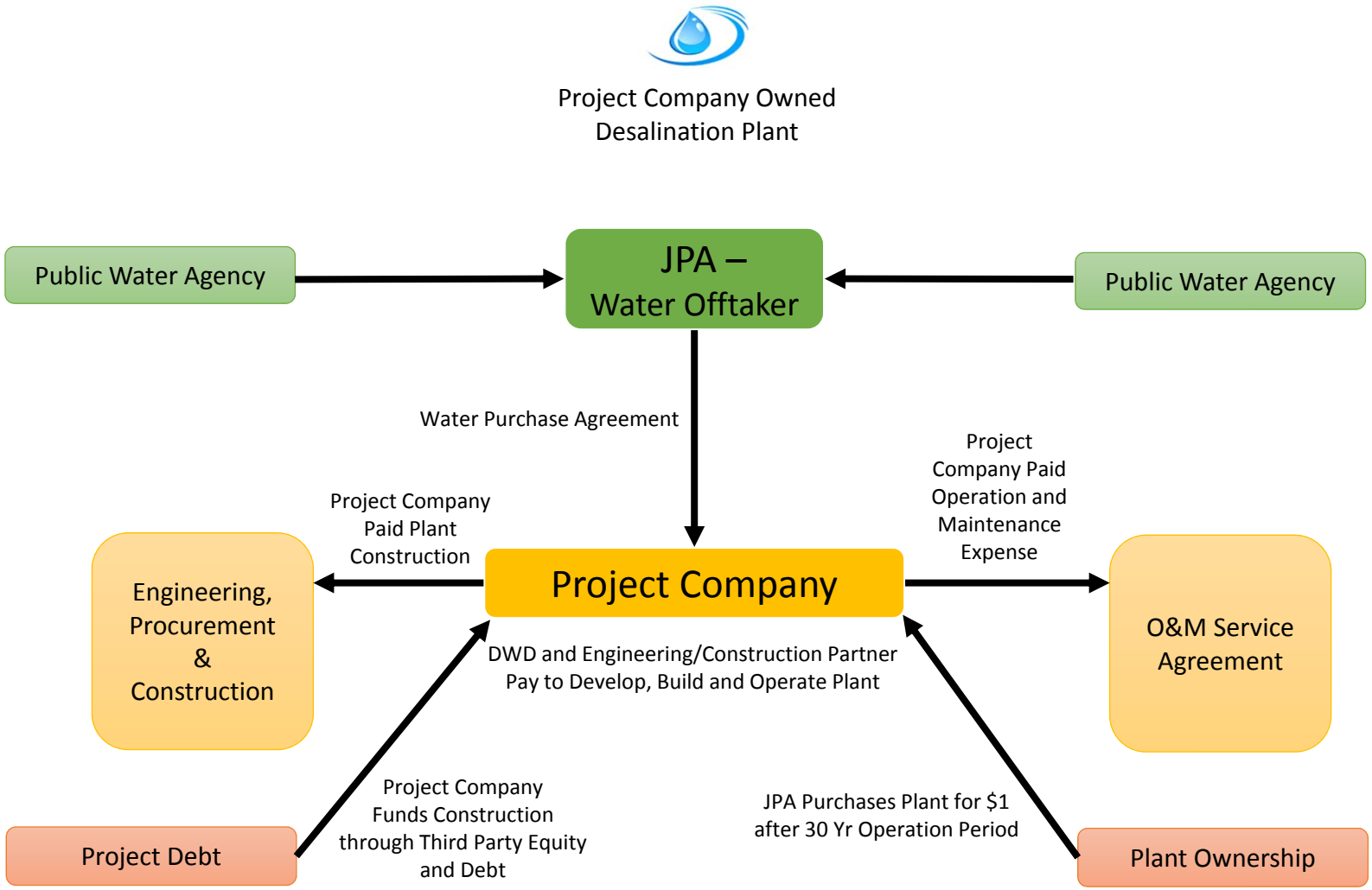
Milestone	2015				2016				2017				2018			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	Q1	Q2	Q3	Q4
State Lands																
Notice of Preparation		→	→													
ERS/EIS Draft				→	→											
Public Comments/Review/Final						→	◆									
JPA Formation																
JPA Negotiations			→	→	→											
Water Purchase Agreements				→	→	◆										
Coastal Commission																
Coastal Development Permit						→	→	◆								
Construction																
Design				→	→	→	→									
Construction								→	→	→	→	→	◆			

Public Private Partnership – Publicly Owned Plant Model



*Transmission capital and Operating Costs are paid by Individual Off-takers or JPA

Public Private Partnership – Build, Operate, Transfer Model



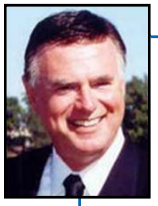
*Transmission capital and Operating Costs are paid by Individual Off-takers or JPA

DWD – Risk Management

Risks	Contingencies
Environmental Impact Report (EIR) preparation time is excessive	Numerous scientific and environmental studies have already been prepared and submitted to Cal State Lands Commission (CSLC) and Monterey Bay National Marine Sanctuary (MBNMS) for review during preparation of the EIR/EIS
Project Delay due to preparation of Federal Environmental Impact Statement (EIS)	EIS is being prepared simultaneously with EIR
Lawsuit challenge to EIR/EIS	Decision to use CSLC and MBNMS as joint lead agencies to assure adequate and complete review of environmental impacts plus active engagement of community and NGO stakeholders
Delays in obtaining permits for the project	MOU between permitting agencies to form a joint review panel for the EIR/EIS to avoid duplication and serve as an efficient review process
Open Ocean Intake is difficult to permit	Perform thorough review of sub-surface options. Completed studies show that Deepwater intakes have a greatly reduced impact over shallow water intakes in absence of subsurface possibilities
Brine Discharge is not mixed with treated outfall	A brine dilution study analyzing dilution and dispersion of brine and thermal effluent showing discharge meets present and future discharge standards.

Management Team

Brent R. Contantz, Ph. D.
Manager and Chief Executive Officer
- Serial Silicon Valley entrepreneur
- Founded and led six corporations, most recently Calera Corporation 2007 - 2010
- Inventor on over 100 issued US patents and 100 pending US patents



Dennis R. Ing
Chief Financial Officer
- 30+ years experience in high technology companies in senior management positions
- Former CFO of two public companies Trimble Navigation and HCL Technologies, which he took public in 1999

Grant Gordon
Chief Operating Officer
- Senior level executive experienced in operations, business process optimization, supply chain, and large scale post-merger business integration
- Previously held positions at Sun, Cisco, Apple, SanDisk, and KPMG

David Armanasco
Public Relations/Government Affairs
- 30+ years experience in public relations
- Served as commissioner of the California Coastal Commission from 1996 - 1999
- Held numerous leadership roles for community organizations around Monterey

Jonathan Dietrich, P.E.
Technical Services
- 25+ years experience in process design of water treatment facilities
- Has been engaged in the design, construction, and start-up or commissioning phases for more than 60 desalination projects globally

George Reilly
Chief Development Officer
- 30+ years experience in commercial real estate with a focus on Northern California
- Closed over 20mm sq ft of leases, sales and build-to-suits, including over 5.5mm sq ft with data center clients

Management Team (Cont.)

Ambassador John A. Bohn
Chief Strategist
- Recently completed a 6 year term as Commissioner of the California Public Utilities Commission (CPUC)
- Former U.S. Ambassador and Executive Director of the Asian Development Bank

Ray Harris
Chief Power Officer
- 30+ years experience in energy and utilities industries
- Most recently served three years as President of MasTec, a large construction company traded on the NYSE

K. Scott Jackson
Program Manager
- 25+ years experience in the desalination and advanced technology water and wastewater treatment industries
- Project manager for the first two large capacity seawater reverse osmosis systems built in CA

Kim Adamson
General Manager
- 20+ years experience in engineering and public water treatment
- Served as General Manager of Soquel Creek Water Management District

James G. Heisinger, Jr.
General Counsel
- 35+ years practicing land use, environmental, and municipal law
- Served as contract city attorney for Sand City, CA which recently completed first municipality owned desalination facility on the California coast

Jane Ricci
Business Manager
- 15+ years experience in start up companies in the Silicon Valley
- Management of general business operations in biotech, clean-tech, and social media industries

TODAY'S ACTION

Consider Approving Amendment No. 1 to a Professional Services Agreement with Lux Environmental LLC in the Amount of $26,942 Bringing the Total Not to Exceed Amount to $31,810 for Permitting Services Related to Phase II of the Salinas River Stream Maintenance Program; and, Authorizing the General Manager to Execute the Amendment.

Committee Action

- None

Prior BOD / BOS Actions

- On June 30, 2014, the BOD received the Salinas River Stream Maintenance Program Revised Final Environmental Impact Report and recommended that the MCWRA BOS consider certifying the EIR and approve the program.

- The MCWRA BOS held a Public Hearing on July 29, 2014 to certify the EIR, adopt CEQA Findings and Statement of Overriding Considerations, approve the program, and adopt the Mitigation Monitoring and Reporting Plan.

- On June 22, 2015 the BOD approved a Memorandum of Understanding (MOU) between the Monterey County Water Resources Agency, The Nature Conservancy, the Resource Conservation District of Monterey County and the Grower-Shipper Association, Monterey County for advancing the implementation of the Salinas River Stream Maintenance Program, Phases I & II.

Financial Impact

- Fund 116 –Zone 2C Operations and Maintenance: maximum amount is $31,810
- California Coastal Conservancy's Climate Ready Grant #15-022: up to $30,088 will be reimbursed

Discussion

- Permitting work associated with Phase 2 of the SMP in order to acquire permits:
  - USACE 404
  - RWQCB 401 Certification
  - CDFW Streambed Alteration Agreement
- Original PSA, dated July 2, 2015, total $4,868
  - Task 1: attend project meetings (T&D)
  - Task 2: prepare regulatory compliance strategy (addressing 404, 401, Porter-Cologne, 402, 106, ESA, CESA, 1602)

Discussion (cont.)

- Amendment No. 1, total $26,942
  - Task 3: develop project description
  - Task 4: prepare 404 application
  - Task 5: prepare 401 Cert. application
  - Task 6: participate in Project Team and Permitting Committee meetings
  - Task 7: prepare Lake and Streambed Alteration Agreement application
- Total contract value increased to $31,810

TODAY'S ACTION

Approve Amendment No. 1 to a Professional Services Agreement with Lux Environmental LLC in the Amount of $26,942 Bringing the Total Not to Exceed Amount to $31,810 for Permitting Services Related to Phase II of the Salinas River Stream Maintenance Program; and, Authorize the General Manager to Execute the Amendment.


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving a Professional Services Agreement with Salinas Pump Company in the Amount of $156,000 to Provide Well and Pump Maintenance and Repair Services, and Well Logging Services for the Castroville Seawater Intrusion Project (CSIP) through June 30, 2018; and Authorizing the General Manager to Execute the Agreement.

Committee Action

- On August 14,2015, the Finance Committee recommended that the Monterey County Water Resources Agency Board of Directors approve a Professional Services Agreement with Salinas Pump Company in the amount of $156,000 to provide well and pump maintenance, repair services and well logging services for the Castroville Seawater Intrusion Project (CSIP) through June 30, 2018.

Prior BOD Action

- On July 23, 2012, the Board of Directors approved a three-year term contract with Salinas Pump Company to provide well and pump maintenance and repair services, and well logging services for CSIP on an as-needed basis.

- The Board of Directors approved five contract amendments. Amendment No. 5 ends on August 31, 2015.

Financial Impact

- Total Cost: $156,000.

- Payable from: Fund 131 - CSIP Operations and Maintenance.

Discussion

- The Agency sent out a Request for Proposals (RFP) to six local well and pump contractors and to two well logging companies. Only Salinas Pump Company, submitted a proposal in response to the RFP.

- Salinas Pump Company's proposal was reviewed and found to be responsive to the RFP.

- Salinas Pump Company is recommended for their experience with well and pump work, and their excellent customer service.

Discussion (cont.)

- Salinas Pump Company's Well and Pump Maintenance and Repair Services/hourly rate schedule:

LABOR CHARGES	PER HOUR
In Our Shop	$88.00
Machine Shop	$88.00
Onsite at well or other location	$95.00/man
Foreman or Crew Leader	$98.00
Welding in our shop	$90.00
Welding onsite	$98.00/man
Travel time - crew	$75.00/man
Travel time - welder	$75.00/man
OVERTIME LABOR	**PER HOUR**
Onsite per crewman	$147.00
Foreman onsite	$147.00
Welding onsite	$147.00
Welding onsite	$147.00
EQUIPMENT CHARGES	**PER HOUR**
Pump Rig	$95.00
Flatbed or Truck	$40.00
Crane - 1	$600.00
Backhoe	$300.00
Dump Truck (12 yd. minimum)	$250.00
Emergency Response Time to Company Yard	4 hours maximum

Discussion (cont.)

- Water Well Logging Services will be provided at the following rates by Newman Well Surveys as a subcontractor to Salinas Pump Company:

LOGGING SERVICES		
Service Charge per visit.....		$815.00
	LOGGING CHARGE	
Procedure plus Service Charge	PER FT. COST < 1,000 FT	MINIMUM COST
Temperature Log	$0.39	$390.00
Fluid Resistivity Log	$0.39	$390.00
Temperature and Fluid Conductivity/Resistivity Log	$0.72	$715.00
Depth Specific Sampling, per sample, full decontamination	$0.23	$228.00
Electric Log	$0.59	$585.00
E-Log with Gamma Ray	$1.04	$1,040.00
Guard Log	$0.59	$585.00
Gamma Ray Log(Scintillation Detector)	$0.46	$455.00
Caliper Log	$0.46	$455.00
Well Video Survey - No Service Charge		$1,100.00

Discussion (cont.)

Proposed Well Repairs and Cost Estimates

Well No.	Estimated Cost	Proposed Work
1C01	$40,000	Improve well yield.
02A02	$50,000	Well rehabilitation.
02C03	$8,000	Install sounding tube for measuring water levels.
03R02	$50,000	Well rehabilitation.
22L01	$8,000	Install sounding tube for measuring water levels.
Total Estimated Cost:	**$156,000**	

Discussion (cont.)

Well Repair Services

Discussion (cont.)

Pump Installation Services

Discussion (cont.)

Well Pumping Test Services

Discussion (cont.)

Well Logging Services

(Newman Surveys, subcontractor to Salinas Pump Company)

Summary

- This Agreement with Salinas Pump Company in the amount of $156,000 is to provide maintenance, repair and well logging services for CSIP.

- This Agreement is for a three-year term starting September 1, 2015 and ending on June 30, 2018.

TODAY'S ACTION

Approve a Professional Services Agreement with Salinas Pump Company in the Amount of $156,000 to Provide Well and Pump Maintenance and Repair Services, and Well Logging Services for the Castroville Seawater Intrusion Project (CSIP) through June 30, 2018; and Authorize the General Manager to Execute the Agreement.


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving and Recommending that the Monterey County Water Resources Agency Board of Supervisors Recognize the Net Previously Received Amount of $644,290.05 from the California American Water Company (CAW) Line of Credit (Draws 1 and 2) All in Accordance with the December 4, 2012 Settlement Agreement and Mutual Release Among the Monterey County Water Resources Agency, CAW, and the County of Monterey, Subject to Final Recommendations by the Auditor-Controller; and, Authorizing the Auditor-Controller to Amend FY 2015-15 Adopted Budget Reallocating Revenue of $644,290.05 in Fund 425 to Assessment-Based Funds: 112, 113, 116, 119, 121, 122, 127, 131 and 134 as Reimbursement of Regional Desalination Project Costs Incurred from those Funds in Calendar Years 2009, 2010 and 2011, Excluding Conflict of Interest Costs and Expenses (4/5th Vote Required).

Committee Action

- On August 14th the Finance Committee approved and recommended this report

Prior BOD / BOS Action

- This transaction was submitted in June of 2013, but it required CPUC approval, which occurred in 2015

Financial Impact

COSTS ALLOCATED FROM FUND 111 TO FUNDS
Funds with assessments to be repaid first
Calandar 2009-2011 Costs

DESCRIPTION	FUND	Allocate Draw Funds
Draw #1		286,000.00
Draw #2		458,290.05
Received from Cal-Am		744,290.05
Transferred from Fund 111 t0 Fund 425 against Draw #1		(100,000.00)
Net revenue to be transferred		**644,290.05**
Zone 1 - Pajaro	112	45,158.72
County Wide Services	113	6,665.31
Zone 2C - Operatons	116	292,747.41
Zone 2C - Legal & Assessment Admin	116	19,751.49
Zone 6 - CSIP Transfer	119	26,278.81
Zone 8 - Soledad/Bryant Canyon Project	121	11,018.62
Zone 9 - Reclamation Ditch	122	154,563.40
Zone 17 - Moro Cojo Slough	127	4,550.96
CSIP Operating Fund	131	63,450.09
Zone 2c - Diversion Facility Construction	134	20,105.24
Total revenue credited to assessment related funds		**644,290.05**

TODAY'S ACTION

Approve and Recommend that the Monterey County Water Resources Agency Board of Supervisors Recognize the Net Previously Received Amount of $644,290.05 from the California American Water Company (CAW) Line of Credit (Draws 1 and 2) All in Accordance with the December 4, 2012 Settlement Agreement and Mutual Release Among the Monterey County Water Resources Agency, CAW, and the County of Monterey, Subject to Final Recommendations by the Auditor-Controller; and, Authorizing the Auditor-Controller to Amend FY 2015-15 Adopted Budget Reallocating Revenue of $644,290.05 in Fund 425 to Assessment-Based Funds: 112, 113, 116, 119, 121, 122, 127, 131 and 134 as Reimbursement of Regional Desalination Project Costs Incurred from those Funds in Calendar Years 2009, 2010 and 2011, Excluding Conflict of Interest Costs and Expenses (4/5th Vote Required).


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving and Recommending that the Monterey County Water Resources Agency Board of Supervisors Approve Budget Amendment No. 3 Authorizing the Auditor-Controller to Amend the Monterey County Water Resources Agency's FY 2015-16 Budget for Various Funds Due to Agency Agreement Timing Differences of Expenditures Between FY 2014-15 and FY 2015-16 in the Following Agency Funds: 111, 113, 115, 116, 117, 121, 122, 124, 129, 130, 131, and 134 (4/5th Vote Required).

Committee Action

- None

Committee Action

- No Committee action was taken on this report

Prior BOD / BOS Action

- No prior Board action was taken with regards to this report

Discussion (cont.)

MONTEREY COUNTY WATER RESOURCES AGENCY
FY 2015 - 2016 Budget
Budget Revision # 3

Program Name	Zone	Fund	Prog	Budget Expenditure Increase	Reason For Budget Revision
Administration		111	9000	$92,000	Consultants delayed - Downey Brand
Countywide	CW	113	9035	3,720	Consultants delayed - One Rain
San Antonio Dam Non-O&M	2Z	115	9597	20,000	Consultants delayed - FishBio
Zone 2C Operations					
Salinas River Mouth	2C	116	9940	$2,025	Consultants delayed - Hagar
Nacimiento Dam Operation & Maintenance	2C	116	9935	$56,117	Consultants delayed - Salinas River Channel Maintenance Program
Nacimiento Dam Operation & Maintenance	2C	116	9910	$11,186	Consultants delayed - Ron Adhya
Total 2C Operations				$69,328	
Lower Salinas River Channel	3	117	9620	$20,337	Consultants delayed - Salinas River Channel Maintenance Program
Soledad Storm Drain	8	121	9700	$100,088	Consultants delayed - Salinas River Channel Maintenance Program
Reclamation Ditch	9	122	9720	$59,764	Consultants delayed - General Engineering Services and Balance Hydrologics
San Lorenzo Creek	12	124	9760	$40,000	Consultants delayed - Salinas River Channel Maintenance Program
Gonzales Slough Maintenance	GS	129	9870	$915	Consultants delayed - Salinas River Channel Maintenance Program
Nacimient Hydroplant	HY	130	9890	$77,532	Consultants delayed - PowerPros and Interconnection Study
CSIP	2Y	131	9643	$242,164	Consultants delayed - Salinas Pump and Supplemental Well repair consultant
Salinas River Diversion Facility O&M	SRDF	134	9988	$20,000	Consultants delayed - Amendment 3 to Willoughby.
Total Budget Revision				$745,848	

Discussion (cont.)

Monterey County Water Resources Agency
Summary of 2015-16 Budget Revisions #3

Fund	Approved FY 15-16 Expense Budget	Budget Amendment #3	Revised FY 15-16 Expense Budget	Actual prelim 6/30/2015 Unassigned Fund Balance	Est for Bgt 6/30/2015 Unassigned Fund Balance	6/30/2015 Variance Increase/ (Decrease)	Est FY 15/16 6/30/2016 Unassigned Fund Balance	FY 15/16 6/30/2016 Unassigned Fund Balance
111	70,028	92,000	**162,028**	147,011	38,679	108,332	38,679	55,011
113	838,103	3,720	**841,823**	427,764	82,553	345,211	41,603	155,980
115	629,157	20,000	**649,157**	302,214	163,204	139,010	35,199	47,010
116 -2C operations	3,235,818	69,328	**3,305,146**	780,026	274,943	505,083	30,321	410,858
117	34,087	20,337	**54,424**	72,665	31,195	41,470	31,586	52,719
121	71,277	100,088	**171,365**	144,469	1,587	142,882	353	43,147
122	1,378,911	59,764	**1,438,675**	902,624	394,179	508,445	401,076	819,628
124	34,079	40,000	**74,079**	72,860	13,496	59,364	15,572	34,936
129	4,308	915	**5,223**	2,600	1,376	1,224	1,288	1,597
130	342,730	77,532	**420,262**	531,923	232,369	299,554	32,026	197,661
131	2,799,068	242,164	**3,041,232**	2,248,815	1,325,923	922,892	829,267	1,509,995
134	824,918	20,000	**844,918**	1,969,312	1,352,865	616,447	2,183,346	2,667,299

Discussion (cont.)

- The Agency is working toward a Structurally balanced budget
- Revenues of $1.8 received in FY 2014-15 were one-time
- Expenditures of $3.7 million were cut from the Budget in December 2014 to align with Revenues
- The Agency is currently repaying the RSR reserve
- The Agency will need approximately $1.5 million to support reduced hydro-electric revenue and unfunded fish monitoring activities

Summary

- The Agency did a good job of curtailing expenditures in FY 2014-15
- The Agency is bracing itself and preparing for another drought year and will need to continue to find alternative revenue streams to fund un-budgeted activities such as:
    - SIGMA
    - 11043
    - Fish Monitoring
    - Interlake Tunnel
    - Long-Term SRSMP

TODAY'S ACTION

Approve and Recommend that the Monterey County Water Resources Agency Board of Supervisors Approve Budget Amendment No. 3 Authorizing the Auditor-Controller to Amend the Monterey County Water Resources Agency's FY 2015-16 Budget for Various Funds Due to Agency Agreement Timing Differences of Expenditures Between FY 2014-15 and FY 2015-16 in the Following Agency Funds: 111, 113, 115, 116, 117, 121, 122, 124, 129, 130, 131, and 134 (4/5th Vote Required).


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Adoption of the *Monterey County Floodplain Management Plan 2014 Update*; and Recommending Adoption by the Monterey County Board of Supervisors.

Prior BOD / BOS Action

- In 2009, the BOD and the BOS adopted the Monterey County Floodplain Management Plan (FMP) 2008 Update

- In August 2014, BOD approved a version of the 2014 FMP Update
  - Additional updates have been performed to align with the Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) adopted 9/2014

Committee Action

- Planning Committee recommended adoption of the FMP by the BOD at their August 19, 2015 meeting

Financial Impact

- The Agency has funded this effort through a grant
- In September 2011, Monterey County was awarded $90,000 by FEMA to update the 2008 FMP
- Grant expires in September 2015

Discussion

- The *FMP 2014 Update* is a requirement for continued participation in the National Flood Insurance Program (NFIP) Community Rating System (CRS)

- The CRS is a voluntary program encouraging communities to adopt higher regulatory standards.

Discussion (cont.)

- Previously, County had a CRS Class 5 rating = 25% discount to NFIP policy holders
  - $554,237 in total savings
  - 1,139 policies in Monterey County
  - $487 average savings per policy

- Great deal of changes in CRS manual – caused County to get a lower rating this time around

Discussion (cont.)

- CRS Class 7 rating = 15% discount to NFIP policy holders
  - 1,627 policies in Monterey County
  - Annual combined premiums = $1,994,750
  - Total savings (from 15% discount) = $345,077
  - Average savings per policy = $212

Discussion (cont.)

- The Monterey County FMP was developed to:
  - Identify the flooding sources affecting 109 Repetitive Loss (RL) Properties
  - $7.1 million in flood insurance claims from RL properties
  - Establish an implementation plan to reduce flooding RL Areas

Discussion (cont.)

- The Monterey County FMP enhances the County's floodplain management program by providing:
  - descriptions of countywide floodplain management goals and policies
  - steps for public coordination
  - descriptions of those areas affected by historic flooding
  - an overview of current flood control projects

The MCWRA is responsible for prohibiting encroachments, including fill, new construction, and substantial improvements, within the FEMA-defined regulatory floodway. The County's floodplain management program meets the minimum requirements for participation in the NFIP, and includes additional regulations which help the County maintain its Class 7 rating in FEMA's NFIP/CRS Program.

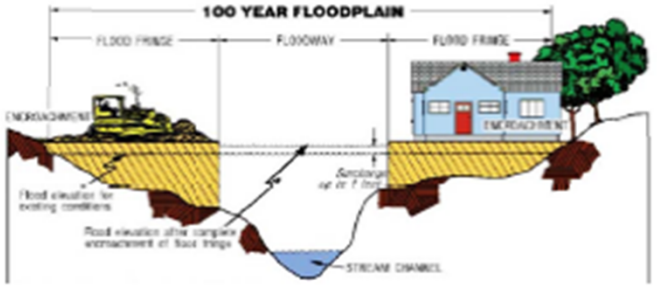


Figure 11: Regulatory Floodway

7.3 Operation and Maintenance Program

The MCWRA operates and maintains drainage facilities in fourteen drainage maintenance zones and districts located throughout Monterey County. The drainage improvements consist of approximately fifty-seven miles of improved drainage ways; seven pump stations; nine miles of river levees; two large earthen dams; and numerous culverts, tide gates, and concrete structures. Routine maintenance consists of ongoing removal of debris in drainage channels and pump stations; access roadway maintenance; guardrail and fence maintenance; spraying for vegetation control, baiting for rodent control; sediment removal in drainage ways; timely repair of eroded banks, mechanical equipment, and damaged facilities; and an ongoing preventive maintenance.

The maintenance program is administered by the MCWRA Chief Engineer of Operations and Maintenance, and consists of a full-time 11 member crew dedicated to the operation and maintenance of these facilities. Inspection of the MCWRA facilities is performed on a regular schedule and on a daily basis during storms. The MCWRA has heavy equipment to perform debris and sediment removal, erosion repair work, and levee maintenance.

7.4 Dam Safety

In 2014, the MCWRA updated the Emergency Action Plan (EAP) for both the San Antonio and Nacimiento Dams. This plan complements the Monterey County Operational Area Emergency Operations Plan (EOP) and the information is reviewed annually. Included in this review is an evaluation of any changes in the notification flowcharts, watershed, downstream floodplain, or cultural features, which might affect the hazards or risks involved. A pre-planned test (both table-top and functional exercises) is conducted to evaluate the effectiveness of the EAP at least every five years. Either the MCWRA reservoir operator or another will trigger the test in order to test key elements of the chain of notification.

Discussion (cont.)

- Any community with 10 or more RL Properties must focus the FMP on RL Areas

- Monterey County 13 RL Areas include:
  - Big Sur River
  - Calera Creek
  - Carmel Highlands
  - Carmel River
    - Within CSA-50
    - Outside of CSA-50
  - Carneros Creek
  - Castroville Wash
  - El Toro Creek
  - Paloma/Piney Creek
  - Pebble Beach
  - Ralph Lane Channel
  - San Miguel Canyon Creek
  - Santa Rita Creek

Discussion (cont.)

- The FMP 2014 Update includes:
  - Updated background information
  - Updated tables & figures
  - New maps for each RL Area
  - Tie in with the County MJHMP

FLOODPLAIN MANAGEMENT PLAN

Monterey County, CA

2014 Update

Prepared by:
Monterey County Water Resources Agency

Salinas River, March 1995

Pajaro, March 1995

Castroville, March 1995

Carmel River, February 1998

range from 4.3 to 8.8 feet per second. The drainage area and peak discharge, at select locations, are provided in Appendix B.

Most of the higher areas are mountainous with slopes averaging about 50 percent. They are penetrated by narrow alluvium filled valleys. Moving downstream toward Highway 68, these valleys widen and have more gentle slopes. The lowest portion of the watershed includes the El Toro Creek floodplain, which is the most highly urbanized area.

Figure 6: El Toro Creek, August 2002

Most of the mountainous region is brush-covered, especially those parts facing south and west. However, there is forest on those portions of the watersheds receiving more rain and having shady slopes. In certain areas the soil is granular and highly permeable, infiltrating a significant amount of precipitation. Large amounts of sediment and debris were deposited in the stream channel during the 1995 and 1998 floods resulting in increased flooding on lower El Toro Creek. The above photo, figure 6 was taken several hundred feet downstream from Creekside Condominiums looking downstream.

Pajaro River: Although there are no RL Properties along the Pajaro River, there has been historical flooding that has damaged many properties. The Pajaro Valley drainage basin separates the southern Santa Cruz Mountains to the north from the Gabilan Range to the south and extends east to the California Coast Range of mountains. The Pajaro River is the largest stream in the Pajaro Valley, draining approximately 1,190 square miles above the gage at Chittenden. Streams tributary to the Pajaro River include the Corralitos, Salsipuedes, Brown's Valley, Green Valley, Casserly, and Pescadero Creeks, which drain the southern slopes of the Santa Cruz Mountains. Tributaries to the Pajaro River that are outside of the Pajaro Valley include the Uvas and Llagas Creeks (draining the eastern slope of the Santa Cruz Mountains), Pacheco Creek, and the San Benito River in San Benito County. The river ultimately

Figure 7: Pajaro River near Gonda Street, March 2011.

Discussion (cont.)

- Public Review / Comment Period has started for this FMP 2014 Update
  - General Public
    - Currently on Agency Web Site

- Proposed Schedule
  - Mid to Late August 2015
    - BOD reapprove DRAFT FMP 2014 Update
    - DRAFT FMP 2014 Update released for Public Review
  - September 2015
    - Incorporate comments (if any)
    - Bring to County BOS for final adoption of FMP 2014 Update

TODAY'S ACTION

Adopt the *Monterey County Floodplain Management Plan 2014 Update*; and Recommend Adoption by the Monterey County Board of Supervisors.


MONTEREY COUNTY WATER RESOURCES AGENCY
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TODAY'S ACTION

Consider Approving the Monterey County Water Resources Agency's Community Engagement Plan.

Committee Action

- Planning Committee recommended the BOD approve the Plan at their August 19, 2015 meeting

Financial Impact

- Unknown at this time

- Initially Fund 111, then specific funds based on area of outreach

Discussion

- The Community Engagement Plan was developed to:
  - Provide effective engagement with stakeholders
  - Enhance relationships with regulators and legislators
  - Effectively communicate this plan to stakeholders

- Be strategic and deliberate regarding stakeholder outreach…

- Plan centers on being proactive instead of reactive when it comes to outreach…

Monterey County Water Resources Agency
893 Blanco Circle
Salinas, CA 93901

Agency Community Engagement Plan
2015

DRAFT

Discussion (cont.)

- Focus of CEP
  - Priority categories for outreach
    - SGMA
    - SRSMP / SRMP
    - Interlake Tunnel
    - Pure Water Monterey
    - Pajaro River Flood Risk Reduction Project
    - Routine Agency work
    - Grants

Discussion (cont.)

- Overall Strategy of CEP
  - Identify Key Stakeholders
    - Identify key stakeholder groups (including regulatory agencies)
    - Maintain database of contacts for groups
  - Identify opportunities for engagement
    - Project / Program / Issue dependent
  - Identify communication / outreach opportunities and methodologies
    - Web
    - Brochure
    - Meetings
    - External meetings (i.e. conferences, etc.)

Discussion (cont.)

- Breakdown of CEP Categories
  - Each category has the following components
    - Overview
    - Goal – number of meetings per month
    - Monthly Status
    - Graph showing meetings per month and goal
    - Significant Outcomes of the meetings
  - This version of Plan measures first half of 2015
- Currently the Agency is exceeding the number of meetings per month in each category

Summary

- CEP has been developed to be proactive regarding outreach, versus reactive
- CEP is focused on seven major categories
- CEP has four sections per category
- CEP provides graphic tracking of goal achievement
- CEP is tool for Agency to monitor its outreach efforts

TODAY'S ACTION

Approve the Monterey County Water Resources Agency's Community Engagement Plan.


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving the Personnel and Administration Committee Recommendation to Conduct Monterey County Water Resources Agency Standing Committee Meetings at 1441 Schilling Place, Salinas for Enhanced Efficiency and Effectiveness; and, Recommending Approval by the Monterey County Water Resources Agency Board of Supervisors.

TODAY'S ACTION

Approve the Personnel and Administration Committee Recommendation to Conduct Monterey County Water Resources Agency Standing Committee Meetings at 1441 Schilling Place, Salinas for Enhanced Efficiency and Effectiveness; and, Recommend Approval by the Monterey County Water Resources Agency Board of Supervisors.


MONTEREY COUNTY WATER RESOURCES AGENCY
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TODAY'S ACTION

Consider Receiving an Update on the Status of Monterey County Water Resources Agency's August 12, 2015 Correspondence to National Marine Fisheries Service Regarding Release Increase Options from Nacimiento Reservoir; and, Providing Direction to Staff.

Committee Action

- Reservoir Operations Committee met on July 2, 2015 and recommended keeping Nacimiento releases at 60 cubic feet per second (cfs).
- Reservoir Operations Committee met on August 6, 2015 and recommended maximizing releases from San Antonio Reservoir; if possible without take of a listed species.

Discussion

- Previously reported to the Board of Directors (BOD): On August 11, 2015 at a special BOD meeting; Staff:
  - Provided an update on reservoir releases
  - Summarized discussions and correspondence with NMFS regarding reservoir releases
  - Summarized Committee and BOD direction regarding reservoir releases

Discussion (cont.)

- August 11, 2015: Special meeting, BOD authorized Staff to confer with NMFS on proposed release options of 100 and 150 cfs from Nacimiento Reservoir.
- August 12, 2015: NMFS was provided with written correspondence (Attachment 1) detailing proposed release options and an analysis of impacts and benefits of proposed actions.

Discussion (cont.)

- August 20, 2015: NMFS provided written response to Agency letter of August 12th:
  - *"This is your third request since June 22, 2015, to increase reservoir releases."*
    - *"NMFS responded to this first request on July 1, 2015 stating that we strongly objected to the proposed increases in reservoir releases…"*
    - *"In our August 4, 2015, letter we informed MCWRA…that the proposed actions would not be exempt from federal ESA take prohibitions."*

Discussion (cont.)

- August 20, 2015: NMFS provided written response to Agency letter of August 12th (cont.):

  - *"If MCWRA increases Nacimiento Reservoir releases as proposed without first obtaining appropriate ESA section 7 or section 10(a)(1)(B) coverage, MCWRA runs the risk of violating section 9 of the ESA."*

TODAY'S ACTION

Receive an Update on the Status of Monterey County Water Resources Agency's August 12, 2015 Correspondence to National Marine Fisheries Service Regarding Release Increase Options from Nacimiento Reservoir; and, Provide Direction to Staff.


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Receiving an Update on a Fish Survey of San Antonio River Below San Antonio Dam; Providing Agency Staff Direction with Regard to Reducing San Antonio Reservoir to 644.9 feet (Dead Pool) in Order to Perform Essential Deferred Maintenance if the Action Will Not Result in a "Take" of Threatened or Endangered Species, or a Violation of the California and Federal Endangered Species Acts or Other State or Federal Law; and, Authorizing the General Manager to Execute Agreements Up to $60,000 if Needed to Complete Fishery Mitigation Work.

Committee Action

- August 6, 2015: The Reservoir Operations Committee recommended to the Board of Directors to direct Agency staff to maximize releases from San Antonio Reservoir in order to reach dead pool, to allow maximum accessibility and ensure worker safety, for making necessary repairs prior to the rainfall season, if it is found through a fish survey that maximizing releases will not result in a “take” of threatened or endangered species.

Prior BOD / BOS Action

- August 11, 2015: Directed staff to confer with National Marine Fisheries Service and California Department of Fish and Wildlife to determine if San Antonio Reservoir can be reduced to 644.9 feet (dead pool) in order to perform essential deferred maintenance and directed staff to implement a fish survey of San Antonio River downstream of the dam.

Financial Impact

- This action authorizes the General Manager to execute Agreements up to $60,000 if needed to complete fishery mitigation work.
- $60,000 total – Fund 116 – San Antonio Dam Operations and Maintenance

Discussion

San Antonio Reservoir present elevation ±653 feet. Main outlet conduit invert elevation 644.9 feet. Storage released to reach dead pool would be approximately 4,450 acre-feet. San Antonio Reservoir has not been this low since original construction. (Dead pool = elevation when water can no longer gravity-flow out of the reservoir)

Deferred maintenance work on the San Antonio Dam outlet works accomplished under the safest working conditions at dead pool:

1. Internal inspection of large diameter butterfly valve.
2. Clean internal sleeve of the main-conduit flow control valve; inspect other internal parts.
3. Inspect inside of main-conduit and recoat as needed.
4. Video inspect inside of concrete encased steel air-relief pipeline, repair leak.
5. Replace corroded plugs on main-conduit and small diameter bypass lines.
6. Perform other maintenance/repair work revealed from the above inspections.

Discussion (cont.)

Other work that could be accomplished in the safest manner while San Antonio Reservoir is at dead pool, but could be accomplished at other reservoir elevations:

7. Install new anchors for inlet structure trash rack replacement. DSOD requires trash rack replacement by December 31, 2020.

8. Cycle main-conduit large valves.

9. Replace one leaky main-conduit air/vac valve.

Discussion (cont.)

- Federal Endangered Species Act
  - Survey completed of San Antonio River downstream of dam
    - No steelhead trout found
  - MCWRA will request Technical Assistance from NMFS

- California Endangered Species Act
  - Survey completed of San Antonio River downstream of dam
    - No State listed species found
  - Fish & Game Code Section 1600 Lake/Streambed Alteration Agreement
    - Not applicable – no diversion, no alterations

Discussion (cont.)

- California Fish & Game Code Sec. 5937
  - Dam owner to allow water to pass downstream of dam for fish that may exist below dam
    - No longer applicable when dead pool reached

- $60,000 authorization if needed to complete fishery mitigation work.

TODAY'S ACTION

Receive an Update on a Fish Survey of San Antonio River Below San Antonio Dam; and Consider Providing Agency Staff Direction with Regard to Reducing San Antonio Reservoir to 644.9 feet (Dead Pool) in Order to Perform Essential Deferred Maintenance If the Action Will Not Result in a "Take" of Threatened or Endangered Species, or a Violation of the California And Federal Endangered Species Acts or Other Applicable State or Federal Law; and, Authorize the General Manager to Execute Agreements Up to $60,000 if Needed to Complete Fishery Mitigation Work.