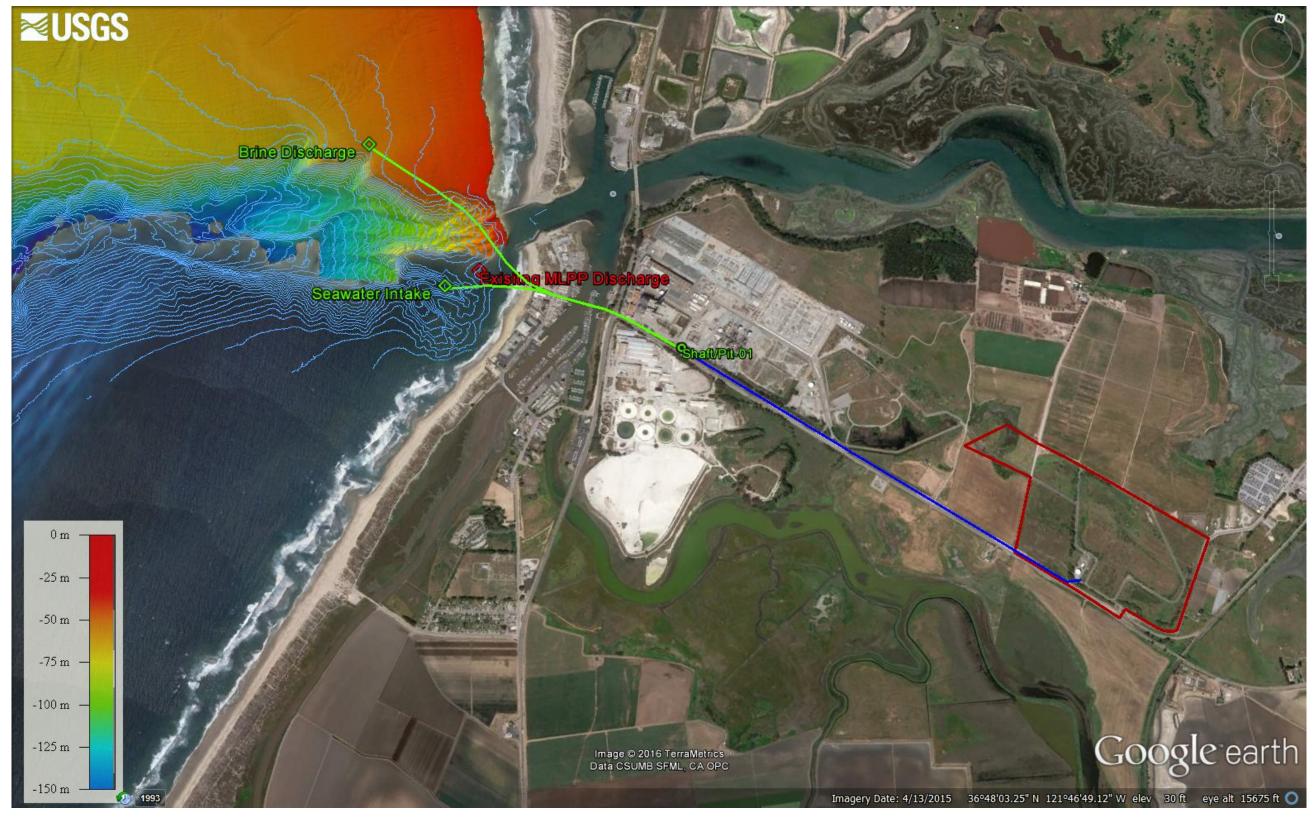


An Oceanographic Solution to Produce Fresh Water

## **Project Overview**



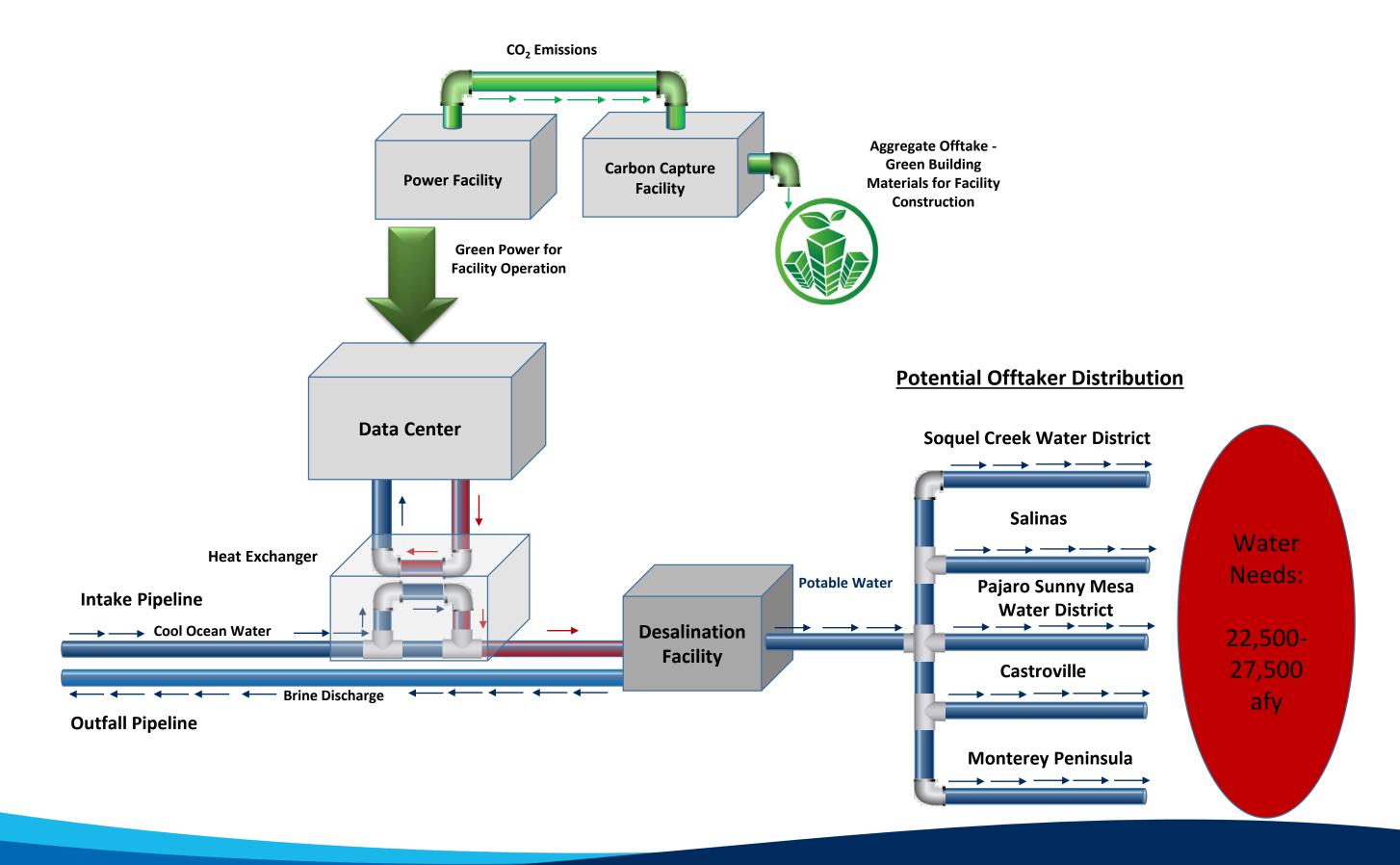


Seawater Conveyance System









# Impingement and Entrainment Evaluation Information from Tenera / Subsurface Feasibility from Hydrometrics



- Plankton Samples were taken at two depths; 80 ft and 130 ft, day and night, over a 12 month period (224 samples)
- Average concentration of total fish by depth:
  - Deep 0.271 larval fish per m<sup>3</sup>
  - Shallow 0.895 larval fish per m<sup>3</sup>
- Samples also revealed a significant difference in size between the deep and shallow locations.
- The addition of the 1.0 mm wedgewire screen reduces annual entrainment by nearly 4% at the deep location compared to 2% at the shallow location due to difference in fish size.

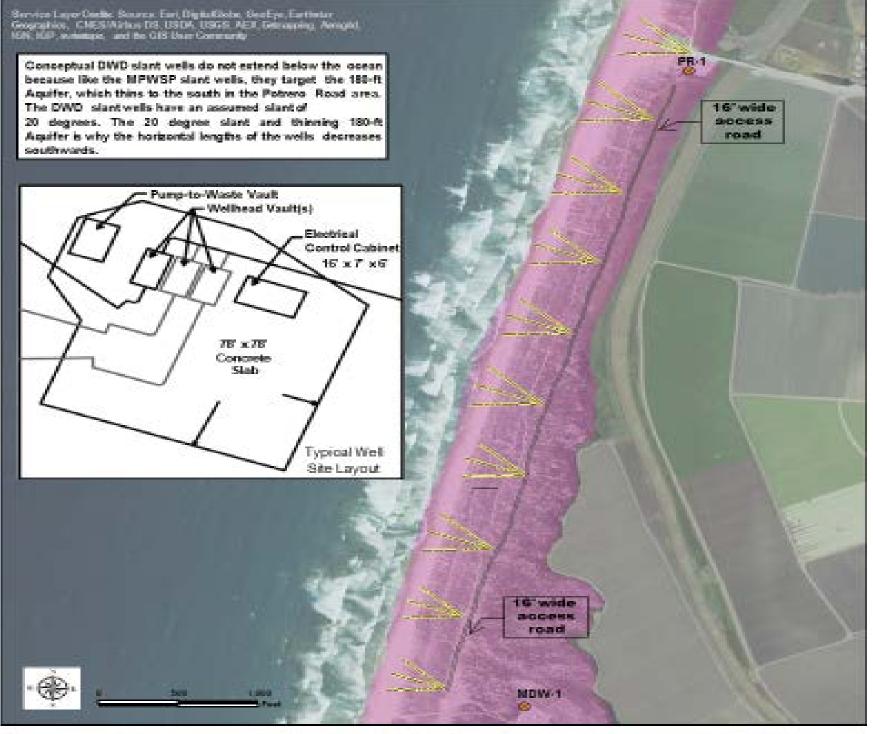
## 70% less larval fish per cubic meter at 130 ft.



#### Subsurface Feasibility



Site	Intake Type	Number of Facilities	Intake Facility Spacing (feet)	Ocean Front (miles)	Average Capacity per Facility (MGD)	Total Potential Capacity (MGD)	% Return Water to Basin	% of Required 25,000 AFY Product Water
Potrero Road	Slant wells	30	620	1.1	1.8	53.2	17%	79%
	Vertical wells	11	600	1.1	2.0	22.2	27%	29%
CEMEX	Slant wells	18	620	0.8	1.3	22.9	22%	32%
	Vertical wells	7	600	0.8				
Moss Landing Harbor	Hydrogeological unsuitable							



- ---- Conceptual 20 degree Stant Wells for Deepwater Desail
- Edges of Required Access Road (16 ft wide)
- Barehales (Geosciences, 2014)
- California State Parks



### Permitting - Determination of Need



#### **Sustainable Groundwater Management Act**

The Act mandates that local groundwater sustainability agencies develop groundwater sustainability plans to prevent "undesirable results" of chronic groundwater overdraft and other impacts, as well as to consider the interests of "all beneficial uses and users of groundwater ..."



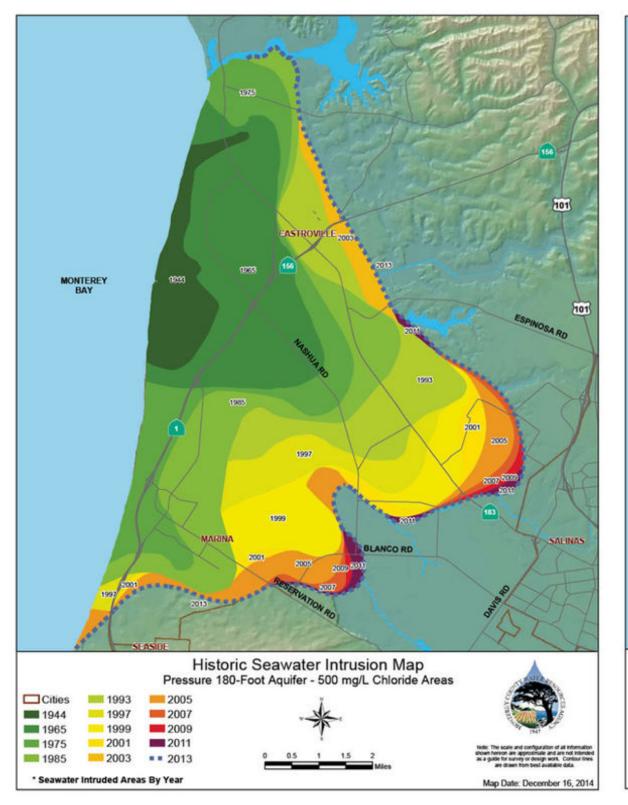
#### **Surface Water Cutbacks**

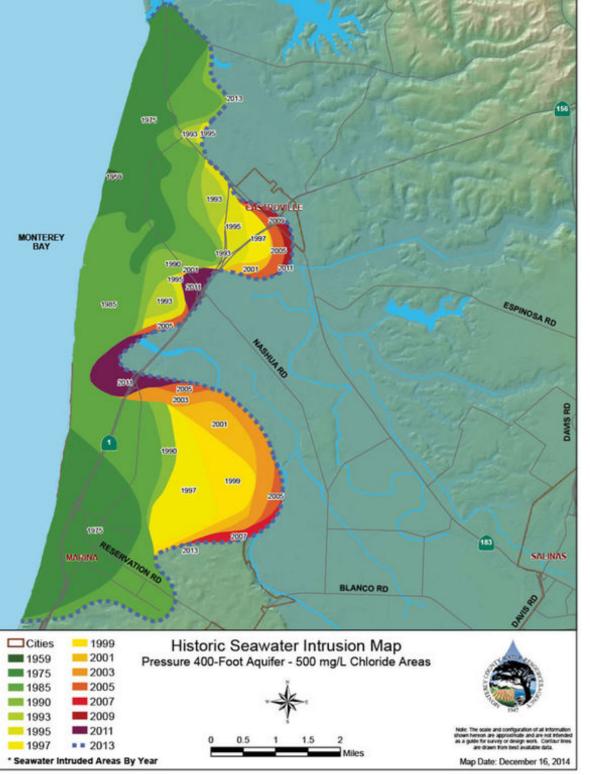
Both the Carmel River and the San Lorenzo River are either already under or will soon be under mandatory use reductions.

Based on current demands, mandated reductions in Monterey Bay area rivers and basins result in a <u>46,700 Acre Foot per Year deficit</u>. This will have to be addressed through a combination of conservation and supplemental supply projects. This does not account for needs associated with additional growth.



#### **Historic Seawater Intrusion in the Salinas Basin**







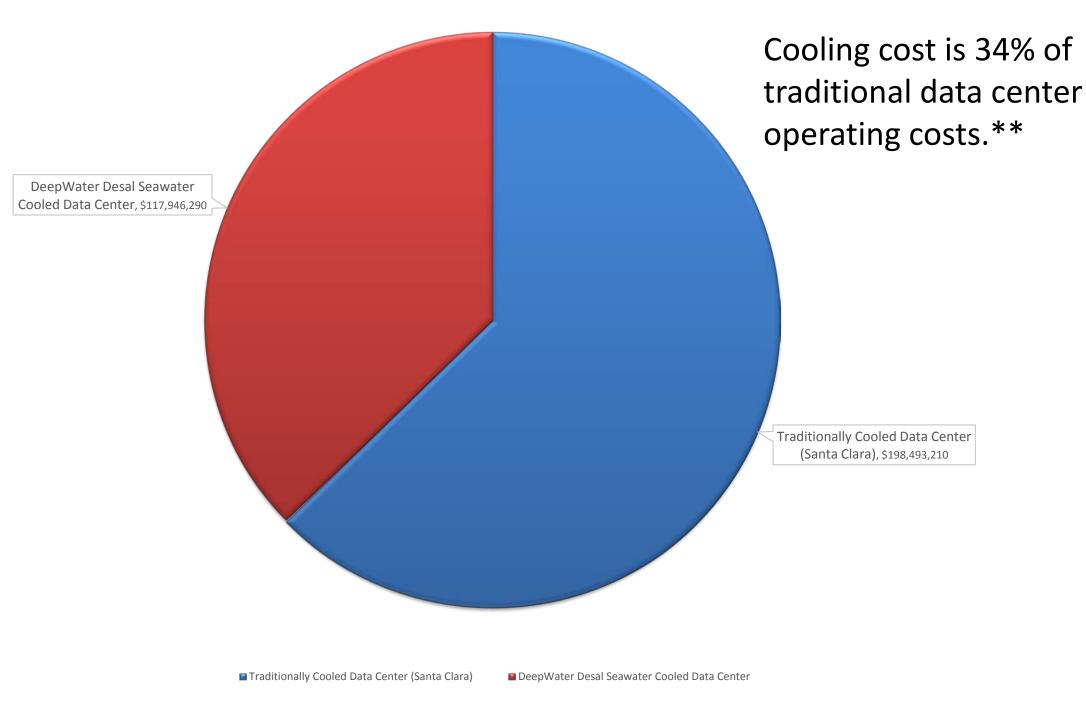
	Off Taker	Form of Agreement	Quantity	
A LINAS A PORTOR OF THE PARTY O	City of Salinas	Salinas Memo of Understanding Q2 2013 (via Cal Water Services and ALCO)	10,000-15,000 acre feet	
MONTEREY PENINSULA TER  MANAGEMENT DISTRICT	MPWMD www.mpwmd.dst.ca.us	Monterey Peninsula Reimbursement Agreement Q2 2014 (alternate to CalAm Project)	First Right to 9,000 acre feet	
SOQUEL CREEK WATER DISTRICT	Soquel Creek Water District www.soquelcreekwater.org	Kennedy/Jenks Engineering Study Q3 2014 MOI Executed Q2 2015	1,500 acre feet	
CASTROVILLEM . 1897 ESPANCES DISTRICTS	Castroville Community Services District www.castrovillecsd.org	MOI Signed Q3 2014	1,000 acre feet	
PAJARO / SUNNY MESA COMMUNITY SERVICES DISTRICT	Pajaro Sunny Mesa Community Services District www.castrovillecsd.org	MOI Signed Q1 2016	1,000 acre feet	

<sup>\*</sup>We are in discussions with several other off takers as well.

### **Data Center**







<sup>\*</sup>Includes annual cost of water used in cooling equipment

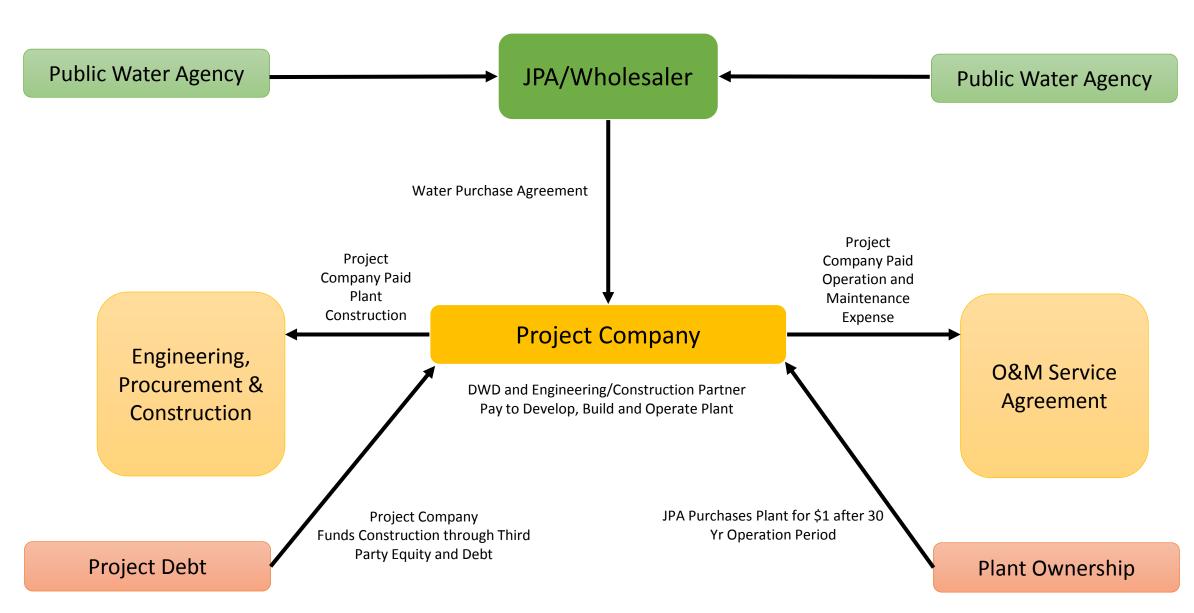
<sup>\*\*</sup>Based on PUE of 1.5

## Partnership Structure



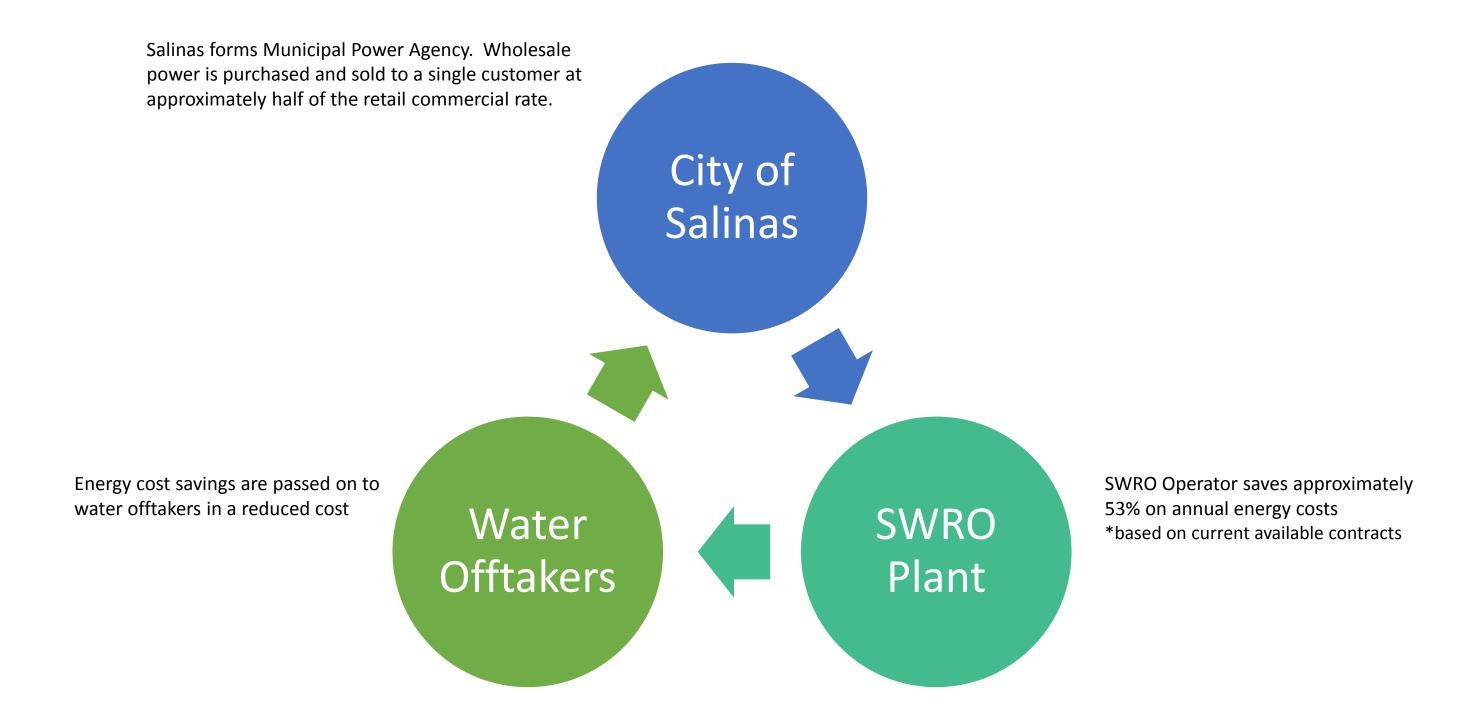


Design, Build, Own, Operate and Transfer Public Private Partnership Model



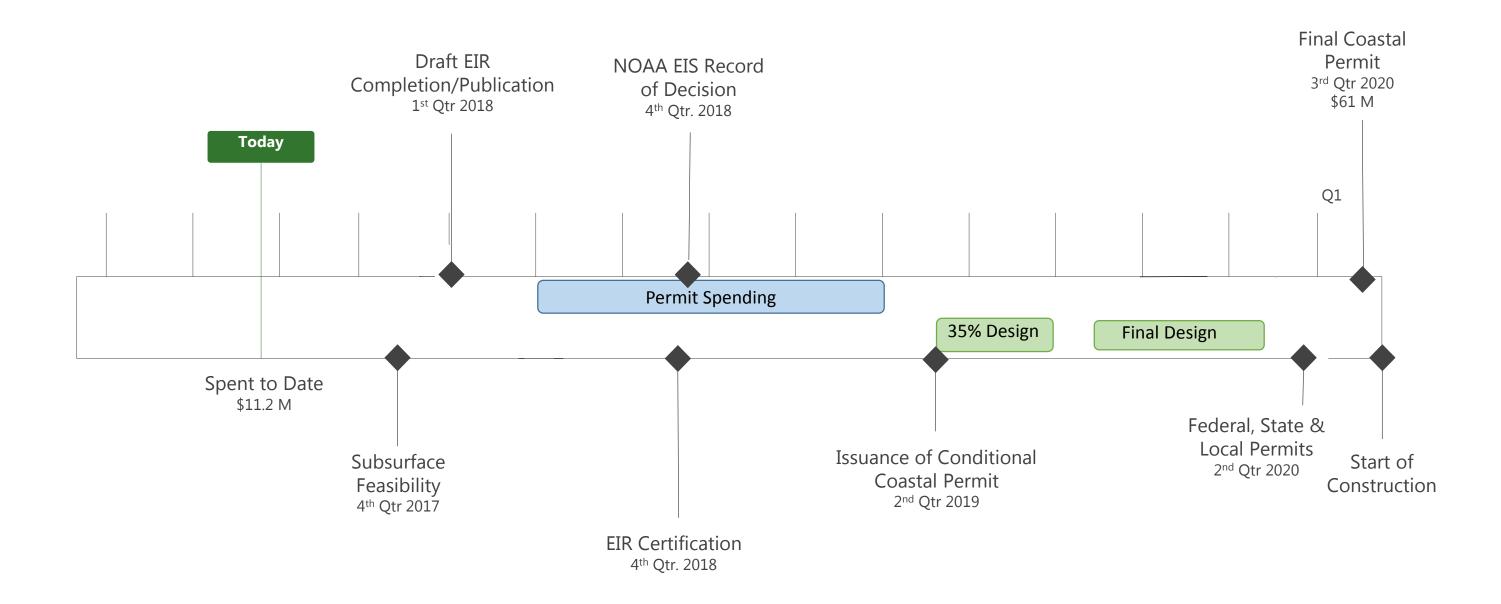
<sup>\*</sup>Transmission capital and Operating Costs are paid by Individual Off-takers or JPA





## Schedule/Budget – Milestones and Strategies







- Start with the Science
- Public Private Partnership
- Communicate and Collaborate with Stakeholders and Regulators
- An Oceanographic Solution to Produce Fresh Water

