California Seawater Desalination

A New Source of High Quality Water

POSEIDON RESOURCES

August 21, 2009

Presentation to Select Committee on Regional Solutions to State's Water Crisis

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Introduction to Poseidon Resources

- Privately held company that develops and invests in water infrastructure projects
- Headquartered in Stamford, CT with local California offices in Huntington Beach, San Diego and San Jose
- Representative landmark projects:
  - Largest privately funded municipal wastewater treatment plant in the U.S. – Cranston, RI
  - Developed and financed 5 complex water treatment infrastructure assets in Mexico – Pemex
  - Permitted first large-scale seawater desalination facility in California – Carlsbad, CA

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Desalination Worldwide

- Mature Technology
  - 8,200 Plants Operating Worldwide
  - 9.8 Billion Gallons Per Day of drinking water

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California Counting On Desalination

- State Water Plan Update – need for 500,000 AF/Year of desalination by 2030
- MWD – planning on 150,000 AF/Year of desalination by 2020
- Regional and local water agencies adopting desalination as part of water management plans
- Approximately 20 seawater desalination projects in various stages of development

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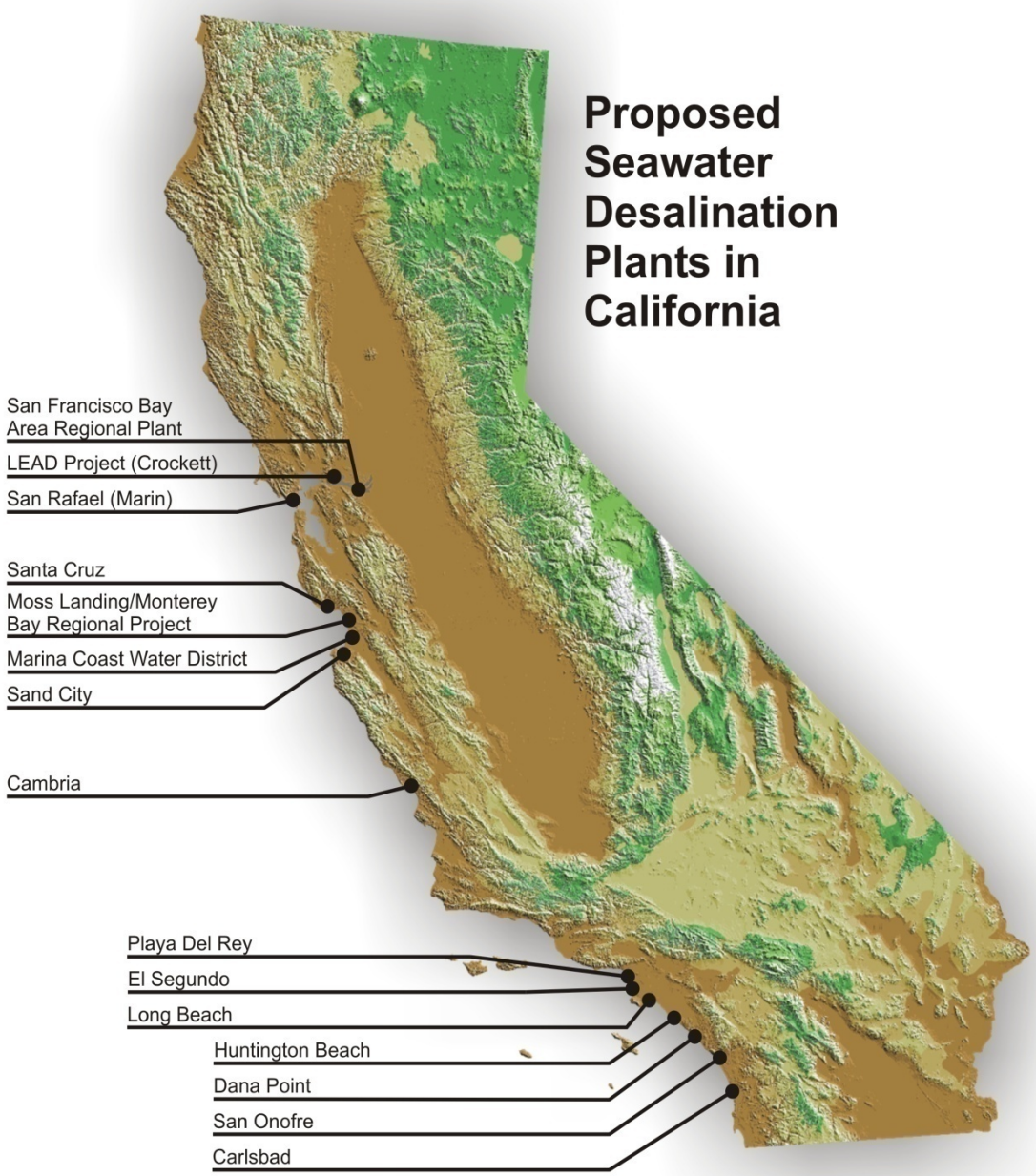

Northern California:

- 10 Projects;
- Total Capacity – 150 MGD +

Southern California:

- 7 Projects;
- Total Capacity – 200 MGD +

State and Regional Benefits

- Entirely New Water Supply
- Reduced Pressure on Delta
- Offset Cuts in Imported Supplies
- Increased Water Supply Reliability
- Improved Water Quality
- Environmentally Sensitive
- Strong Public Support
- Economic Development and Job Creation

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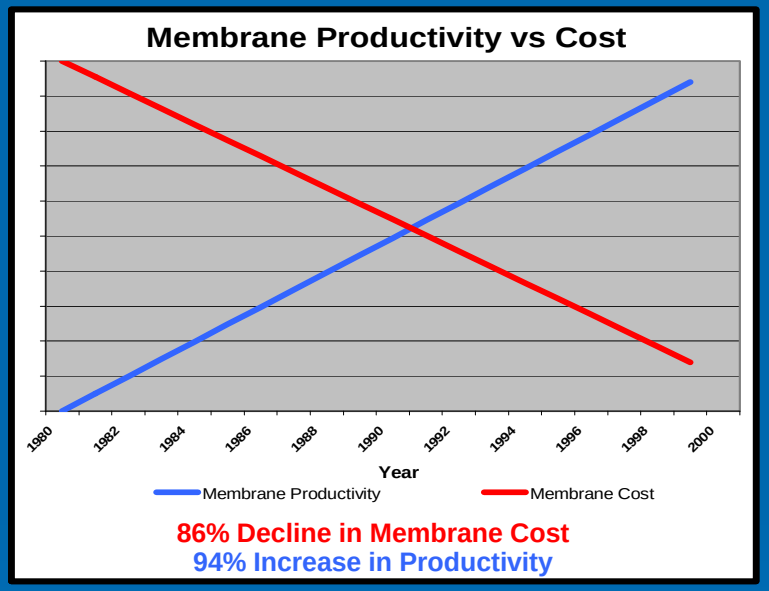
Desalinated Water Is Now Cost Competitive

- Desal Technology Costs Dropping
- Use of existing infrastructure
- Increased production efficiency
- Imported water costs rising
  - 14% increase in January to:
    - $579/AF (Tier One)
    - $695/AF (Tier Two)
  - 19.7% increase in Sept. to:
    - $701/AF (Tier One)
    - $781/AF (Tier Two)
- Desal cost dropping
  - Currently about $1,100/AF
  - MWD $250 incentive - $850/AF



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Huntington Beach Desalination Facility

Location:	*Orange County – City of Huntington Beach*
Size:	*56,000 Acre Feet (50 MGD)*
Technology:	*Reverse Osmosis Membrane Filtration using existing seawater circulating water intake and discharge piping infrastructure*
Estimated Cost:	*$350 Million; EPC Contractor team selected*
Water Supply Interest:	*100% capacity under consideration*
Schedule:	*On-Line 2013*

Huntington Beach Power Station without Desal Project

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Water Purchase Agreements – Status

- MOU with 11 OC Public Water Agencies
  - Metropolitan Water District of Orange County (MWDOC)
  - City of Anaheim Public Utilities Department
  - El Toro Water District
  - Irvine Ranch Water District
  - Laguna Beach County Water District
  - Mesa Consolidated Water District
  - Moulton Niguel Water District
  - City of Santa Ana Public Works Agency
  - Santa Margarita Water District
  - South Coast Water District
  - Trabuco Canyon Water District

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HBDF – Permitting History

Local Land Use Permits:	*EIR Certified –Sept 2005* *Appeal Denied –Nov 2006* *HB Conditional Use Permit – Feb 2006* *HB Coastal Development Permit- Feb 2006*
NPDES Permit	*Discharge Permit –Aug 2006, Santa Ana Board* *Appeal Denied –Aug 2007*
CA Depart of Public Health	*Conceptual Approval – August 2002*
State Lands Commission	*Lease for Intake and Discharge Piping – Hearing 2009*
California Coastal Commission	*Coastal Development Permit – Hearing 2009*

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Huntington Beach Generating Station

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Huntington Beach Desalination Facility

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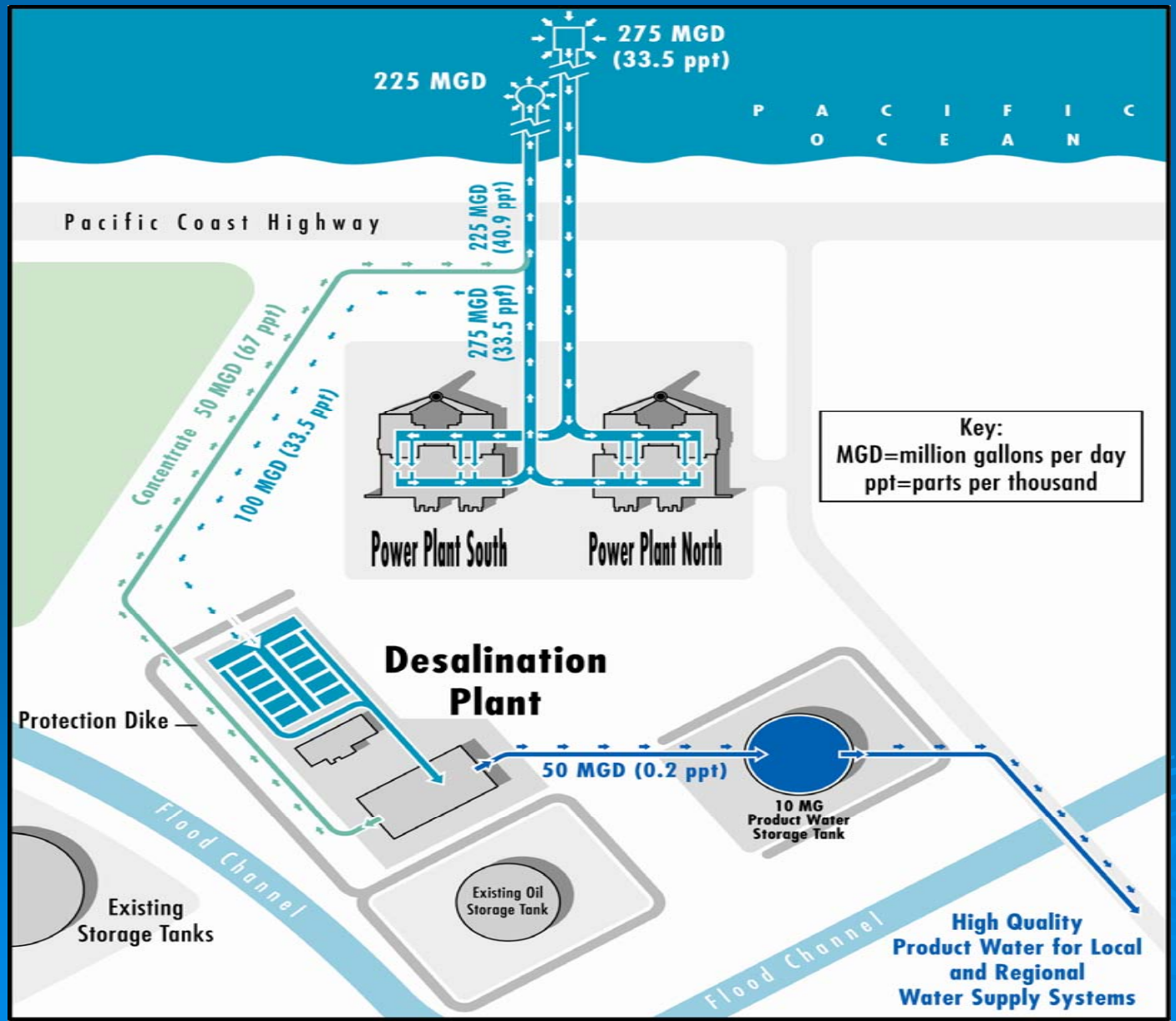
Flow Schematic



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Regional Benefits

- 50% of OC water is imported
- Diversification of Supplies
- Approximately 8 Percent of Orange County Demand
- Drought-Proof Source
- High Water Quality
- No Significant Environmental Impacts

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Conclusion

- California must develop new local water supplies
- There is no “silver bullet”
- Large-scale Reserve Osmosis plants are proven technology
- Desalination projects must be evaluated on a site specific basis

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