

Overview of Desalination Plant Impacts



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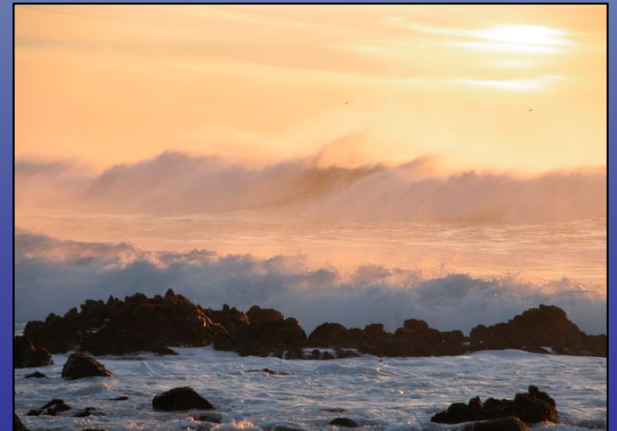
Overview of Impacts

- Desalination plant impacts can be positive and negative
- Impacts are highly variable from site to site; cannot generalize
- Primary negative impacts include:
 - ✓ construction
 - ✓ intake and discharge
 - ✓ energy use and emissions
 - ✓ land use
 - ✓ socioeconomic impacts
- Impacts can be mitigated through proper site design and operation



Positive Impacts of Desalination

- Water supply augmentation
- Reclamation of impaired sources
- Drought resistant reliable water supply
- Diversification of water supply options
- Provides high quality drinking water free of contaminants
- Potential future environmental benefits



Construction Impacts

- Similar issues to any other coastal development projects
- Potential impacts to seafloor, surf zone, and beach and dune ecology
- Wildlife disturbance
- Surface water quality degradation
- Impacts to recreational and commercial activities
- Impacts mitigated by using *Best Management Practices*



Energy Use and Emissions

- Desalination plants are energy intensive
- Desal plants will result in increased emissions which can:
 - ✓ impact human health and the environment
 - ✓ contribute to global climate change
- Mitigation measures include use of renewable energies, tradeoffs, and use of energy saving technologies and practices



Growth Inducing Impacts

- Desalination plants have the potential to induce growth in the Monterey Bay area by:
 - ✓ removing an obstacle to growth
 - ✓ adding a new water supply
- Can strain existing community services and infrastructure
- Can cause indirect environmental impacts
- Significant public concern exists regarding growth inducement
- CEQA requires evaluation of growth inducement
- Desalination plant capacities should be limited by growth forecasts in local land use plans and policies

Cumulative Impacts

Defined by CEQA as:

“an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts”

- Includes environmental impacts, AND public access, visual, and a variety of other socioeconomic impacts.
- Includes impacts to water quality and the marine environment due to the intake and brine discharge
- More information/studies are needed

Socioeconomic Impacts

- Population, housing, and community structure
- Economic growth and development
- Environmental Justice issues
- Water resource availability
- Land and marine use:
 - ✓ Recreational conflicts
 - ✓ Commercial conflicts
 - ✓ Nature conservation conflicts
- Utilities and services



Other Impacts and Issues

- Power plant once-through cooling co-location issues
- Private vs. public ownership
- Affects on sensitive ocean monitoring efforts
- Coastal erosion and armoring
- Impacts to groundwater
- Cultural resources
- Visual impacts

