SANTA CRUZ DESAL
SCDA
ALTERNATIVES

4 Problems with DESALINATION

1 ENERGY USE & CLIMATE CHANGE

Desal requires 7-10 times the energy of ground-water pumping, leading some to call desalinated water "liquid electricity."

ENERGY ➡ CO2

Santa Barbara

This $34 million desalination plant has never been used. Desal water would have cost the city 25 times more than it's current supply.

2 COST TO RATEPAYERS: UNKNOWN

Santa Cruz's current water supply is inexpensive to treat—$170 for a million gallons, according to the *Integrated Water Plan* (2003). A survey of existing desal plants by Pacific Institute lists a range of $3600-$6000 for a million gallons.

3 IMPACT ON MARINE LIFE

Suction into desal plant filters kills plankton that are the basis for the ocean food web, along with fish eggs and fish larvae. Coagulants, antiscalants and biocides will be discharged into the Marine Sanctuary.

3 million gallons of ocean water every day will be cleansed of tiny sea life.

Frequent red tides like this one in 2007 produce domoic acid, a neuro-toxin.

4 WATER QUALITY & SAFETY

- Reverse osmosis membranes can be damaged by "bio-fouling" (microbial attack) or chlorine exposure. Membranes that fail allow salts and contaminants to pass through.
- Mixing desalinated water with City water from streams produced unacceptable levels of carcinogenic tri-halomethanes during City testing. City neighborhoods risk drinking water that could exceed regulatory standards for tri-halomethanes.

Give ALTERNATIVES a Chance!

1 REGIONAL WATER EXCHANGES

The County Water Resources Deptartment has commissioned a study of water exchanges between Santa Cruz and Soquel Creek Water District. Santa Cruz would deliver water to Soquel District during periods of high winter flow in the San Lorenzo River and North Coast Streams, allowing Soquel District to reduce well water pumping. In exchange, Soquel District would deliver well water to Santa Cruz during droughts. Taking water from streams during high flow periods can be compatible with migration of native fish.

2 CONSERVATION AS DROUGHT PROTECTION

When the City proposed desalination in 2003, water demand was projected to rise to 4.8 billion gallons by 2010. Instead, water demand dropped—to 3.6 billion gallons/year by 2008, and even lower in 2010. This means that in a worst-case drought, customer curtailments would be much lower than the 2003 estimate of 39%. Conservation has made desal unnecessary.

Conservation resulted in reservoir levels above 90% at the end of the dry season in 2009 & 2010.

3 WATER-NEUTRAL DEVELOPMENT

Soquel Creek Water District requires developers to offset 120% of water demand from new projects by funding conservation retrofits in existing buildings. Santa Cruz should follow that example.

What WE CAN Do!

Conserve **- Keep use under 60 gallons/person/day**

Promote **- Sustainable water alternatives**

Vote **- Put the choice of desal on the ballot**

Join **- DesalAlternatives.org**

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