This is a comment on the California-American Water Company Monterey Peninsula Water Supply Project DEIR. Submitted 9/30/2015

Dr. Doug Smith (former board member of MCWRA) Professor and Chair Division of Science and Environmental Policy CSU Monterey Bay

### <u>Water Rights</u>

The proposed project has two main problems with water rights. 1) The boundary between the "Seaside Basin" and "Salinas Basin" is not realistic. 2) There is too much uncertainty in the chemistry and water table impacts of the slant wells.

### 1) Conflicting language in the Agency Act

The "Agency Act," the founding document of the Monterey County Water Resources Agency (MCWRA) states in section 9.d.3 that a power of the agency is to:

(3) Appropriate and acquire water and water rights, and import water into the Agency and conserve within or outside the Agency, water for any purpose useful to the Agency.

The "Agency" is the "county" Agency, not the "Salinas Groundwater Basin" Agency, so the intent of this language is to preserve the "county's" water resources.

Amplifying the same point, the Agency Act states in 9.d.1 that it has the power to:

(d) (1) Store water in surface or underground reservoirs within or outside the Agency for the common benefit of the Agency of any zones affected.

However, the focus of the water rights discussion has been the statement in the same document under Section 9.u:

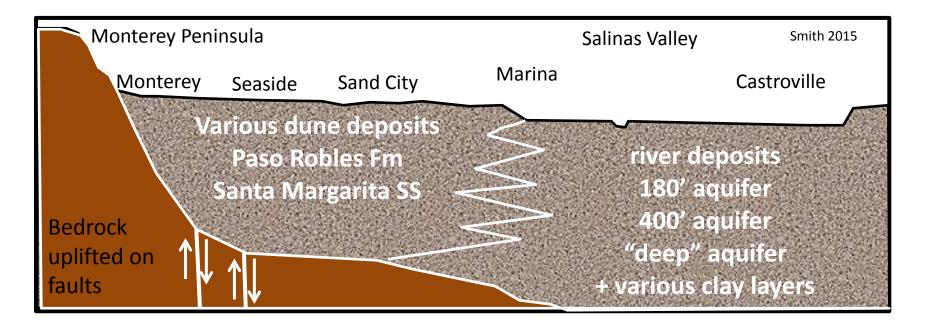
(u) Prevent the export of groundwater from the Salinas River Groundwater Basin, except that use of water from the basin on any part of Fort Ord shall not be deemed an export. Nothing in this act prevents the development and use of the Seaside Groundwater Basin for use on any lands within or outside that basin.

However, as argued below, the Seaside and Salinas groundwater basisn are the same rocks, accessing the same waters.

### 2) The Seaside Basin and Salinas Basin are the same basin

The Seaside Basin and Salinas River Basin share the same water (Figures Below). There is no physical geological barrier to groundwater flow between the basins. Water flows to one set of pumps or another strictly based upon pressure gradients, not a physical divide. The current delineation between the Seaside Basin and Salinas groundwater basin is ridge in the water table. Water on the north side flows to the Salinas basin and water on the south of the ridge flows to the Seaside basin. The ridge is a relict of unsustainable groundwater use in both regions (Figures Below). The overuse has dropped the water table down around wells, leaving a ridge under Fort Ord lands. The ridge is can move, based upon which side uses more water. It is an ephemeral feature that should not be used to legaly define water basins.

## Single Geologic Aquifer Cross sectional view toward the sea



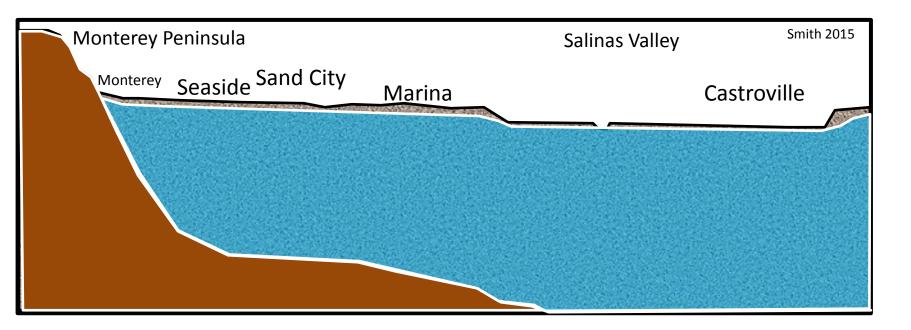


**Aquifer Material** 

Non-Aquifer Rocks

Groundwater

### Natural conditions Flow mainly out to sea—away from viewer





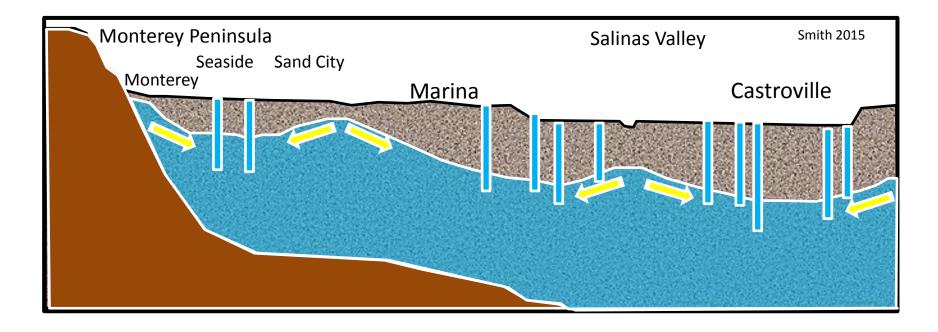
**Aquifer Material** 

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# Today

### Two basins separated by artifact of unsustainable use





Aquifer Material



Non-Aquifer Rocks

Groundwater

#### 3) The water chemistry will change through time.

The original slant well geometry was meant to bring pure sea water down from the sea bed. That end was not met. The well draws laterally, thereby pulling in at least some water from the Salinas aquifer system. Because groundwater is involved, the rights as described in the proposal are based upon water chemistry. The saltier the water we draw into the well, the more desalinated water can be exported to the south. Since the basin groundwater is clearly impacting the well water salinity, there could be a change in the proportion of water that is permitted for removal from the site through time.

It has been stated that a benefit of the desal wells would be to draw Salinas basin water seaward, thereby cleaning the saltwater intrusion area. This outcome seems more probable in light of the well testing that shows a clear connection between the well and the groundwater basin. But, as the basin water becomes less salty, the well water will also become less salty, so a higher proportion of the desal water would remain in the Salinas Valley. This outcome is problematic for the rate payers who are called upon to build the desalination facility at great cost.

#### **Sustainability**

The carbon footprint of the proposed project is unsustainable. Energy use byproducts will increase the region's greenhouse gas emissions substantially at a time when municipalities are being required to reduce emissions and to mitigate for their carbon budget. Constructing large-scale, energy-inefficient infrastructure flies against the global need for reduced carbon emissions and environmental sustainability. Dependence on hydrocarbon energy for water supplies is not sustainable, and should not be fostered. There is growing evidence that global hydrocarbon reserves will be depleted before this project is paid for.