

Episode 005 - Quality From the Source: A Look Into Source Water and Desal

When we talk about the water supply benefits the Pure Water Project Las Virgenes - Triunfo are going to provide to the region, the discussion inevitably leads to ocean desalination and why that isn't the immediate project being pursued considering the water supply issues both Las Virgenes Municipal Water District (LVMWD) and Triunfo Water & Sanitation District (TWSD) have faced recently. Join LVMWD Director of Engineering and External Affairs Joe McDermott and host Riki Clark as they examine the unique situation the JPA is in and how desal may be a fit for the future, what some of the challenges to desal are and how the quality of the water coming out of Tapia is such a good fit for advanced water purification.

Definitions and Terms:

Acre Feet - A common unit of measurement in the water industry, equals about 326,000 gallons, or enough water to cover a football field, one foot deep in water.

Brine - The salts and other constituents removed in the reverse osmosis process, commonly referred to as Reverse Osmosis Concentrate .

Calleguas Municipal Water District - Wholesale water provider for Ventura County.

Entrainment - When smaller organisms are sucked through the intake screens by the force of the flowing source water, often a concern in ocean desalination intake structures.

Impingement - when organisms sufficiently large to avoid going through intake screens are trapped against them by the force of the flowing source water, often a concern in ocean desalination intake structures.

Joint Powers Authority - A partnership between the TWSD and LVMWD to collect and treat the Malibu Creek Watershed region's wastewater at the Tapia Water Reclamation Facility. Areas served include Calabasas, Agoura Hills, Oak Park, Westlake Village and Parts of Thousand Oaks.

Ocean Desalination - The process of using advanced water filtration processes to remove salt from ocean water and create potable water from it.

Ocean Outfall - A common way that wastewater treatment plants discharge their effluent into the ocean far offshore.

Salinity - the dissolved salt content of a body of water. It is a strong contributor to conductivity and helps determine many aspects of the chemistry of natural waters and the biological processes within them.

Stranded Asset - When a capital project is no longer providing a benefit to the public despite the investment.

Title 22 Tertiary Treated Recycled Water - The recycled water that the JPA provides that due to additional treatment can be used for irrigation including on food crops

Total Maximum Daily Load (TMDL) - The max amount of something - nitrogen for instance - that is allowed to be discharged into a receiving water - Malibu Creek for the JPA.