

INSIDER

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Ocean Outfall Pipelines and the Environment

"The North Coast of San Luis Obispo County is a national treasure". This statement helps guide Greenspace with our goals and activities. The California Coastal Commission has considered extending the permit for an ocean outfall line, for

twenty years, in order for San Simeon Acres to dispose of their treated sewage and other wastewater into the Pacific Ocean until they can arrange for a more modern waste disposal method. Unfortunately, humans as well as all ocean species are subject to toxic chemicals and pollutants, both natural and synthetic, that enter the ocean through various sources including wastewater outfall lines.

The town has been in a building moratorium for at least 20 years but leaders have not moved in the direction of modernization for their sewerage

disposal. San Simeon Acres, about four miles south of the original townsite at the mouth of Pico Creek, and so about halfway between old **San Simeon** and Cambria, was established in the 1950s. Most of the development at San Simeon Acres, including motels and cafes that serve visitors to Hearst Castle, was in the 1960s to the 1980s. Since that time, the citizens of California have recognized that the Central Coast is indeed a national treasure and have established a number of safeguards to protect the marine habitat from harm caused by development and other human activities. The Monterey Bay National Marine Sanctuary, the California Coastal Act and the Marine Life Protection Act are three of the stalwarts of local ocean protection.

The Pacific current runs from north to south carrying with it nutrients, sand for beaches and other constituents including chemicals and suspended particles from ocean dumping outfall lines from municipalities and industrial sites.

Changes in wide-scale and even small-scale oceanographic regimes (like dumping waste into the ocean) can alter endangered species foraging success through impacts on prey distributions and locations, which in turn affects reproductive success and survival. Climate shifts can transform outfall pipes thru sand movement, wave intensity, sea-level rise, and tidal effects on shorelines and river ways. Other potential human-caused stressors include noise, bioaccumulation of chemicals, overfishing, marine debris, and habitat deterioration or destruction. Incidence of

disease, parasitism, and adverse effects from algal blooms may also pose a threat to the health of endangered species. These impacts have the potential to alter the physiology, behavior, growth, and reproduction of individual species, shift patterns of larval dispersal and recruitment, modify the composition of ecological communities, and, change the structure, function, productivity, and resilience of marine ecosystems.

Consider that some of the chemical constituents entering the ocean through outfall lines are distributed by ocean currents, and eddies and are physically or chemically bound to particulate matter and can settle to the bottom or be washed ashore. Marine organisms can absorb dissolved chemicals



directly from seawater (by the gills or epidermis), and indirectly through contact with sediment, by ingesting sediment particles or suspended particulate matter, and through absorption from food organisms. Chemical compounds accumulate in an organism's tissue if they cannot be metabolized and eliminated faster than they are absorbed. Tissue concentration can also increase as these chemicals are passed through the food web from lower to higher consumer levels. The degree to which bioaccumulation occurs depends on the solubility, oxidation state, and degradability of the specific chemical. These differences determine how chemical compounds are distributed within biological communities and throughout the environment. The potential impacts of bioaccumulation by marine organisms include compromised immune response and disease resistance, altered behavior, diminished breeding success, developmental abnormalities, population declines via direct mortality, and shifts in the composition of communities by affecting top predators and keystone species. Spermicides, medicines, and other widely used human compounds can become part of the food chain.

Greenspace is alarmed by the potential of increased environmental harm to our State and Federal protected areas if the Cambria Community Services District considers using the San Simeon Acres outfall line to dispose of toxic, waste material generated by our new water and sewerage facility located on San Simeon Creek. The potential that Cambria's beaches and lagoons will be contaminated by years of dumping effluent and other waste in the ocean at San Simeon must not be The adverse effects to humans using allowed. public beaches for recreation near these dump sites need further analysis. Swimmers, surfers, kayakers and kids playing on the beach must be considered as well as long-term health impacts of eating locally caught seafood, and effects on property values and tourism. We want answers to these questions. Coastal communities must be more responsible then finding the cheapest way of waste disposal.

Sources: 301(h) Modified Secondary Treatment Requirements for Biochemical Oxygen Demand and Total Suspended Solids POINT LOMA OCEAN OUTFALL & POINT LOMA

WASTEWATER TREATMENT PLANT; <u>Coastal</u> Commission Staff Report for SSCSD Outfall.

Children, Hope and Nature

Greenspace is excited to announce two speakers joining us as part of an upcoming in a talk and Q&A event on behalf of Greenspace's 2018 speaker series focusing on the theme of "Children, Hope, and Nature." Catherine Ryan Hyde is an Amazon #1 selling author of over 35 released and forthcoming novels. She will be joining Sue Davis, who has 45 years of experience as an Early Childhood Educator and as an advocate for the Outdoor Classroom Project.

Sue will focus her talk on the emotional and physical benefits to child development and the well being of our society that come from spending time in nature, including an exploration of research and practices from other countries and ways we can all strengthen our deeper nature connections.

Catherine will be sharing what she learned following the release of her book and the resulting movie, <u>Pay It Forward</u>. Children changed her ideas about human nature. In many cases, the natural world has served both as a muse and as an important character in her novels, shaping characters' development and personal journeys.

The event is appropriate for all ages, and has something to offer for everyone, from parents, teachers and young adults to individuals who simply want to foster a deeper connection with the world around them.

Former San Luis Obispo County Superintendent of Schools, **Dr. Julian Crocker**, will be Master of Ceremonies at the event.

WHERE: Cambria Vets Hall at 1000 Main Street,

Cambria, CA

WHEN: February 25, 2018

TIME: 3-5 PM

Suggested donation of \$10

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The North Coast area of San Luis Obispo County is a national treasure. Greenspace will protect and enhance its ecological systems, cultural resources and marine habitats through land acquisition, education and advocacy.