

## Edison Nuclear Generation Environmental Stewardship

Southern California Edison, an Edison International company, is developing two of the largest and most important new environmental projects on the West Coast as part of its operation of the San Onofre Nuclear Generating Station – the San Dieguito Wetland Restoration Project near Del Mar and a large kelp reef project off the coast of San Clemente.

### Edison's San Dieguito Wetland Restoration Project

This \$86 million restoration project will create more than 160 acres of coastal wetlands in the San Dieguito River Valley of San Diego County. The project will restore tidal flows, natural habitat and vegetation, offsetting the estimated impact on fish populations of the San Onofre Nuclear Generating Station cooling water system.



The wetlands project includes construction of the coastal segment of the Coast to Crest Trail along the San Dieguito River. The trail will create an outer perimeter to help protect sensitive habitat and vegetation inside the nature preserve.

Started in 2006, the construction phase of the project is expected to be completed in early 2009. It includes a portion of the San Dieguito River Park, a scenic trail system enhanced by viewing platforms and a visitor's center.

### Expected Benefits

Among the benefits from the project will be:

- Noticeable increases of salt marsh areas, fish population and wildlife.
- Enhanced tidal flow to the lagoon will be created by keeping the inlet at Del Mar beach open.
- Eight thousand lineal feet of earthen berms will be capable of withstanding a 100-year flood and protecting the wetlands from flood-borne sediment buildup, while channeling valuable sand to the beaches.



- The project will add more than 160 acres of new wetlands to Southern California, including more than 100 acres of tidal salt marsh land. In total, 440 acres of enhanced wetlands will be visible to guests.



- The restoration project will increase the diversity of wetlands plant and animal life in the area. The wetlands eventually will serve as a fish nursery, a refuge for migratory waterfowl and endangered species. It also will serve as an open space for recreational activities. And the project will protect the existing habitat and marine life of the lagoon.

An estimated 250,000 vehicles per day or nearly 90 million people per year will be able to see the wetlands area as they drive past on Interstate 5.

### Edison's Wheeler North Reef Project

Named after Wheeler J. North, the late Caltech marine biologist who was one of the early pioneers in kelp research, Edison's 22-acre experimental artificial kelp reef located a half-mile off the coast of San Clemente will eventually become a \$20 million, 150 acre habitat for a variety of local marine life.



Wheeler North, Ph.D., 1922 to 2002, professor of environmental science, California Institute of Technology

Edison began work on the reef in 1999 after receiving approval from the California Coastal Commission to offset the relatively minor impact on the nearby kelp bed from the ocean water cooling system used at the San Onofre Nuclear Generating Station. In 2005, the commission declared the experiment a success, setting the stage for its expansion in 2008 to a 150-acre reef made up of quarry rock placed on the ocean floor.

### Expected Benefits

- The reef will add a significant amount of new marine life habitat to the coastal region.

Additionally, Edison uses technologies for preventing fish from becoming caught in the intake system of the nuclear plant's cooling system, significantly reducing fish losses and returning most caught fish to the ocean alive.

