

## Giacomini Wetland Restoration

In July, the Seashore, National Park Foundation (NPF) and Point Reyes National Seashore Association (PRNSA) were notified by the Gordon and Betty Moore Foundation of a grant for \$2.54 million to support restoration efforts on the Giacomini Wetland. This was a great start to the effort to raise an estimated \$5 million for restoration. The project also received funing support of \$150,000 from the National Fish and Wildlife Foundation. Restoration planning is ongoing, with the EIS/EIR anticipated in early 2006.



Staff completed development of the Long-term Restoration Monitoring Program for the Giacomini Wetland.

## Horseshoe Pond Restoration to Coastal Lagoon

Major deconstruction at the Horseshoe Pond site was completed in September 2004. Monitoring of the site in 2005 showed dramatic changes to the restoration site, including extensive enlargement of the restored west channel outlet, development of an ebb channel and flood delta within the former pond area, removal of European beach grass and iceplant from the beach interface, and recovery of the restored quarry and road access.

Based on this first year of monitoring, the NPS has successfully restored natural hydrologic and ecological process to the site. The



site looks much more like the 1940s aerial images depict, and we have also observed changes in the beach condition, with accumulation of sand to the east, and scouring to the west. Ultimately, the water regime at the site will be controlled by shoreline process.

The most important factor to the long-term evolution of the site is the expansion of the tidal channel and export of pond accumulated fine sediment and organic material under prevailing northwest wind conditions. Observations of the ebb flow channel in conjunction with wind does show that the finer particles are entering the water column and moving out of the system.

Ultimately, park staff anticipate expansion of the intertidal marsh habitat, continued development of tidal channels within the former pond area, and seasonal lagoon closure within the area. As the geomorphic conditions evolve, so to will the aquatic and intertidal habitat. In addition, it is possible that the east and west arms of the area may develop different water regimes, potentially resulting in more diverse and unique estuarine habitat within the area.



March 2002 (top) and January 2005