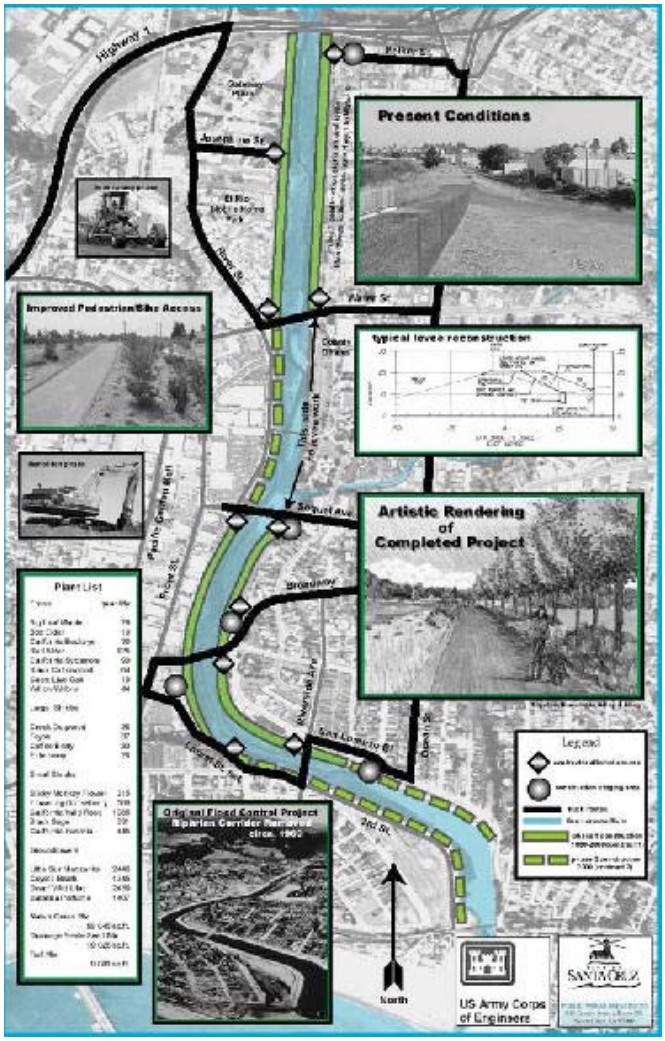
GRADUATE THESIS DEFENSE AND LECTURE SERIES
Environmental Studies Department

Presenting Matthew Johnston
Shade and Salinity in a Coastal Lagoon: What Bugs the Bugs?

When: Tuesday February 7, 2006, 4:30pm to 6:00pm
Where: BBC 126

About Matthew Johnston: I graduated from UCSC in 1988 with a degree in Psychology, and after several years of working with at risk teenagers, I realized my calling was to save the planet not the people. After 2 years at Cabrillo College and 5+ years at SJSU I'm almost there. I've been a Resource Planner for the County of Santa Cruz for the past 5 years writing initial studies, issuing permits for riparian work, and most recently I've become the enforcer of environmental regulations for the County.



Abstract:
During the summer of 2000, I collected macroinvertebrate samples during the initial phase of the upgrade of the levees along the San Lorenzo River, in Santa Cruz, California. Samples were obtained from three microhabitats influenced by tides in the lagoon: 100% fresh water; partial inundation by salt water; and constantly inundated with salt water. I also studied the effects of adding shade to the lagoon, particularly the effects on indicator species. Overall, there was more diversity of species in fresh water than in saline, and more individuals in shaded areas than in areas exposed to full sun. This data suggests that (1) due to salinity, an EPT index is not appropriate for determining water quality in a coastal lagoon; (2) adding shade to a coastal lagoon will increase the abundance and diversity of macroinvertebrates that are an essential food source for salmonids.