

Central Coast GIS User Group

7/28/2010 12:15-1:45

Location: Central Lincoln

Agenda

I. Introductions and quick update on current projects (agenda review also)

II. Regular meeting business (e.g., Upcoming GIS events/conferences, next meeting location and presenters or topics, discussions, updates, etc.)

III. *Calculating Bathymetric and Spatial Distributions of Estuarine Eelgrass*

Patrick Clinton, U.S.EPA NHEERL/ORD/WED/PCEB

David Young, U.S.EPA

Distributions of native eelgrass *Zostera marina* within the intertidal and shallow subtidal zones of three Oregon estuaries (Tillamook, Yaquina, and Alsea) were classified from color infrared aerial orthophotography acquired at extreme low tide. Image processing software, Spatial Analyst algorithms and ArcScan editing were used to classify the imagery. Classification accuracy was measured by comparing >10% field point intercept count with >10% classification raster FocalSum results. Overall accuracies ranged from 84 to 100 percent. Bathymetric soundings were interpolated using TopoGrid, combined with eelgrass rasters and exported for pivot table analysis. Over 90 percent of the surface-visible eelgrass in the estuaries occurred within the depth interval -0.9 m (-3 ft) to +0.9 m (+3 ft) relative to Mean Lower Low Water. Depth distributions of eelgrass were also calculated by river kilometer and salinity gradient. Results of the analysis highlight similarities and differences in eelgrass depth distribution in geomorphically differentiated estuarine ecosystems.

IV. Map Critiques

Remaining schedule (every other second Wednesday):

Jan 13

March 10

May 12 (This meeting)

July 28 (Note: this is 4th Wednesday)

September 8 (near Labor Day)

November 10 (near Veterans Day)