San Juan County Eelgrass Survey
GIS Mapping Methodology

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Survey data were received from Marine Resources Consultants and Washington Department of Natural Resources Submerged Vegetation Monitoring Program (SVMP).

Survey data received from Marine Resources Consultants were contained within separate files identified by the survey track ID, e.g. sjs0134. Survey data is in the form of points labeled with the presence or absence of Eelgrass (*Z. marina*). All point data have been reformatted in the following manner;

1. Database columns are labeled SiteCode, Track, Year, Month, Day, Hour, Min, Sec, Eelgrass, Video, Latitude, Longitude.
2. Latitude and Longitude have been converted to Washington State Plane North, Feet, High Precision Geodetic Network (HPGN).

All point data received from Marine Resources Consultants were consolidated into one monolithic table. Microsoft Access was used as the database manager for this project. Point data from Washington Department of Natural Resources, Submerged Vegetation Monitoring Program were combined with the data from Marine Resources Consultants in the Access database to create a database table named "Allpoints".

All points used in this project, regardless of source, can be found in the Eelgrass.mdb file in the table Allpoints. This table is the basis of and is the same as the arcview theme allpoints.shp

All source data, in it's original form, can be found in the directory "SourceData".

Depth statistics for this project were developed by Marine Resources Consultants. The database table "alldepth" in Eelgrass.mdb contains the depth analyses provided by Marine Resource Consultants. All depth data used in the project was provided by Marine Resource Consultants. No depth calculations or analyses were performed in the creation of the mapbook.

The ArcView GIS theme "outerline.shp" was created via interactive heads up digitizing directed by Marine Resources Consultants staff. Following their direction a line representing the outermost (deepest) edge of the surveyed eelgrass using the trackline points where eelgrass was observed. Following the digitizing process the "outerline" theme was segmented to correspond with the endpoints of the survey tracklines. These segments were labeled with the related trackline sitecode.

For purposes of linking depth or other analyses to the outerline theme, all linkage is performed on sitecodes.. Data received with place names as a site code were converted to the actual site code prior to linkage.

Depth data linked to the outerline theme were characterized in ArcView into three depth categories. These depth categories were colored magenta for depths between 2 and 13 feet, green for depths between 13 and 21 feet and blue for depths between 21 and 30 feet.

For display and presentation purposes the outerline theme, colored as described, has been overlayed over digital NOAA Nautical Charts and as a single color line over digital USGS Quad maps.

The GIS techniques used in this project are purely data assembly, coordinate conversion, retrieval and display. There are no analyses presented here.