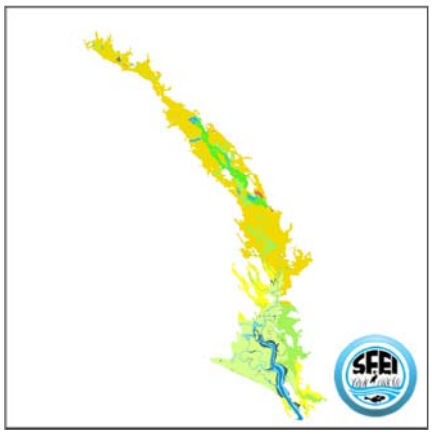
Historical_Habitats

File Geodatabase Feature Class



Tags

Historical ecology, Napa, Napa River, Napa Valley, Napa County, California, USA, creek, channel, river, slough, habitat, meadow, willow, riparian, pond, panne, marsh, alkali, lake, wetland, oak, savanna, forest, vernal pool, historical condition, ecology, landscape ecology, pre Euro-American

Summary

Geospatial data describing the historical conditions of Napa Valley were developed to provide information for flood protection, watershed management, habitat restoration, local education, and research.

Description

This dataset represents a reconstruction of the historical landscape and prevailing conditions of Napa Valley prior to Euro-American modification. It integrates many sources of data describing the historical features of Napa Valley. Extensive supporting information, including bibliographic references and research methods, can be found in the Napa Valley Historical Ecology Atlas forthcoming from UC Press (2012).

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The dataset provides information about early geomorphic and ecological characteristics of Napa Valley. A geographic information system (GIS) was used to collect, catalog, and analyze the spatial components of the study area. Historical maps and aerial photography were georeferenced, allowing us to compare historical layers to each other and to contemporary aerial photography and maps. Additionally, the georeferenced maps were used as means to geographically locate information gathered from surveyor notes, early explorers' journals, travelers' accounts, and newspaper articles. The GIS was used to capture a synthesis of the historical landscape.

By integrating hundreds of georeferenced maps and photographs combined with narrative sources, we constructed a synthesis layer representing the historical landscape. Polygon and line layers were developed to depict features in the historical landscape. These layers include **Historical Habitats**, **Historical Channels**, and **Historical Distributaries**.

Historical habitat types mapped as polygons include:

- Alkali Meadow
- Braided Channel

- Broad Riparian Forest
- Deep Bay/Channel
- Grassland
- Live Oak Savanna
- Perennial Freshwater Pond
- Shallow Bay/Channel
- Tidal Flat
- Tidal Marsh
- Tidal Marsh Panne
- Valley Freshwater Marsh
- Valley Oak Savanna
- Vernal Pool/Swale Area
- Wet Meadow
- Willow Grove

Historical channels and **distributaries** were mapped as polyline features. Channels were coded as follows:

- Mainstem Channel(of Napa River)
- Historical Channel (Tributary to the Napa River mainstem)
- Floodplain Slough (Typically wide and shallow, and/or within a historical wetland)
- Paleochannel (A less well-defined, possibly prehistoric, drainage visible in aerial photos)
- Spring Channel (a small channel downstream from a valley spring)
- Tidal Channel (A major channel whose water level is affected by the tide. Small tidal channels were not mapped)

Historical distributary points were mapped to mark the endpoints of historically discontinuous channels.

This geodatabase provides direct information about **historical data sources, certainty levels, and notes** pertaining to different areas and features. These allow the user to intelligently assess the applicability of the data for the chosen technical question.

Primary and Secondary Source (Primary_Source, Secondary_Source):

The major source materials used to map the feature are listed using, to the extent possible, standard textual citation form. Full bibliographic information can be obtained from the corresponding record in the Endnote bibliographic database and/or report bibliography. When a source directly contributed to the location of a feature, it was listed as a Primary Source; when it indirectly helped locate a feature, it was listed as a Secondary Source. Not all features have secondary sources.

Certainty Attributes(InterpCert, Shape_Cert, Loc_Cert):

Three distinct kinds of certainty are recorded: the certainty of our **interpretation**of the feature, its **size/shape**, and **its location**.

Certainty of Interpretation

The following certainty level codes are used in the feature class attribute (InterpCert):

- High (H): Feature definitely representative of conditions circa 1769-1850.
- Medium (M): Feature probably representative of conditions circa 1769-1850.
- Low (L): Feature possibly representative of conditions circa 1769-1850.

Certainty of Size and Shape

The following certainty level codes are used in the feature class attribute (Shape_Cert):

- High (H): Accurate source material that probably closely follows actual shape; estimated to be within ±10% of actual area.
- Medium (M): Less accurate source material that probably generally follows actual shape; estimated to be between 50%-200% of actual area.
- Low (L): Inaccurate source material that may not follow actual shape; estimated to be between 25%-400% of actual area.

Certainty of Location

The following certainty level codes are used in the feature class attribute (Loc_Cert):

- High (H): Expected maximum horizontal displacement less than 50 meters.
- Medium (M): Expected maximum horizontal displacement less than 150 meters.
- Low (L): Expected maximum horizontal displacement less than 500 meters.

Notes

Direct and indirect quotes from data sources are included in this field when they were available. Other clarifying notes relating to evidence and methodology are included in this field as well

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As with any map or GIS layer, confidence or certainty varies geographically due to differences in source data or methods. For more detail about methods refer to:

Grossinger, RM, Striplen CJ, Brewster E, Beller EE, Askevold R. 2007. Historical landscape ecology of an urbanized California valley: wetlands and woodlands in the Santa Clara Valley. Landscape Ecology.:103-120.

Technical users are strongly encouraged to read Grossiger et al. 2007 and the forthcoming Napa Historical Ecology Atlas (to be published by UC press in 2012) to gain a stronger understanding of the strengths and limitations of the dataset.

For additional information about this project refer to: http://www.sfei.org/NapaRiverHE

Credits

San Francisco Estuary Institute 2011

Access and use limitations

Confidence or certainty varies geographically due to differences in source data or methods. For more detail about methods refer to: Grossinger, RM, Striplen CJ, Brewster E, Beller EE, Askevold R. 2007. Historical landscape ecology of an urbanized California valley: wetlands and woodlands in the Santa Clara Valley. Landscape Ecology.:103-120. Technical users are strongly encouraged to read Grossiger et al. 2007 and the forthcoming Napa Historical Ecology Atlas (to be published by UC press in 2012) to gain a stronger understanding of the strengths and limitations of the dataset.

ArcGIS Metadata ▼

FGDC Metadata ▼