

HOW TO USE THE “SWAP AQUATIC TARGETS” DATA

General Information about Data

This data set was created to describe the spatial extent of aquatic targets for the 2015 California State Wildlife Action Plan (SWAP 2015) Update. The SWAP 2015 is required under the State and Tribal Wildlife Grants Program (SWG) to allow states and territories to receive Federal grant funds. It is a comprehensive vision for wildlife conservation initially completed in 2005 and updated in 2015.

The GIS data for SWAP are divided into two types - terrestrial (vegetation macrogroup based raster [pixel]) and aquatic (watershed based vector [polygon]) data. This file contains instructions about how to use the watershed based aquatic data (“SWAP Aquatic Targets” in BIOS). Because some aquatic projects may impact features such as meadows or marshes, which are found in the terrestrial data set, it is a good idea to do both aquatic and terrestrial assessments. Instructions for completing the terrestrial assessment can be found at “<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=149561>”.

General Information on BIOS

This data set can be used in CDFW’s BIOS (<https://map.dfg.ca.gov/bios/>) or ACE 3.0 or downloaded through BIOS. If you are unfamiliar with BIOS, instructions for finding project sites and getting their data or just downloading data to use in a GIS can be found at “<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150442>”.

Terminology/Field Descriptions (Field Descriptions are marked with an “*”)

SWAP: State Wildlife Action Plan, located at “<https://www.wildlife.ca.gov/SWAP/Final>”.

SWAP Province*: Regions based on USDA Ecoregions, with modifications in the San Francisco Bay Area to unify the Bay Delta, which would otherwise be divided among several ecoregions. There are 7 SWAP Provinces, including the Marine Province. This layer can be viewed in BIOS as “State Wildlife Action Plan Provinces”.

Conservation Unit*: A unit within a SWAP Province which defines an ecological region. Based on 4-digit hydrologic units. Each Conservation Unit is associated with a “SWAP Province”. In the case of aquatic features, the Conservation Units are associated with the province they overlap the most rather than being cut off at the boundaries. The Marine Province, which is a 3 mile buffer of the coast as defined by the National Oceanic and Atmospheric Administration (NOAA), is actually 4 Conservation Units, but is being treated as one in the aquatic GIS data for organizational purposes.

Conservation Target or “Target”*: A TARGET is an element of biodiversity at a project site, which can be a species, habitat/ecological system, or ecological process on which a project has chosen to focus. For the aquatic targets, these are either “species assemblages” or aquatic features that are considered ecologically important in a given CONSERVATION UNIT and are thus “targeted” for conservation with STRATEGIES, goals and actions (see Chapter 5, Volume I of the SWAP document) as well as climate adaptation STRATEGIES (Appendix G, Volume II of the SWAP document). Because of regional variations in species and habitat sensitivity, a species or aquatic feature which is a target in one Conservation Unit may or may not be a target in other Conservation Units.

“Native Fish” or “Native Species” Assemblage: A group of “Species of Greatest Conservation Need” (SGCN) and other species as defined in the Target Summaries in SWAP 2015, Chapter 5.

Strategy: The Strategies describe specific actions which will achieve the Conservation objectives. Matching project activities to specific Conservation Actions within Strategies will identify how a particular project supports the SWAP.

Target Summary Page*: The page on which a summary description of the TARGET can be found.

Target Strategy Page*: The page on which the STRATEGY description for a TARGET begins.

Target Climate Page*: The page on which the climate adaptation strategy for a given TARGET is described.

How to use this data set (all page numbers refer to Volume I, Chapter 5 of the SWAP document, unless otherwise specified)

1. **Locate your region of interest and collect the data.** Click on the data at your region of interest's location. If there is a value at that point, then you may have a Target (unlike the terrestrial data, which may have targets in blank areas). Some areas have more than one possible Target (look for values in the "...Target_2" or "...Target_3" fields). There are four data pieces to make note of:
 - a. *Conservation Target*: This is the SWAP name of the Conservation Target. It will be used to compare your project species or aquatic ecosystems to those of the Target.
 - b. *Target Summary Page*: This is the Page in the SWAP document for the description of the Target (in the "Target Summary" field of the table).
 - c. *Target Strategy Page*: This is the first page in the SWAP document where you will find the conservation strategies for the Target.
 - d. *Target Climate Page*: This is the page in the SWAP document where you will find the State and Federal Climate Adaptation Strategies. (Note: This is in Volume II of the SWAP document, in Appendix G).

If you have a possible Target, proceed with step 2. Otherwise, look at the terrestrial data (if your project involves ecosystems) or Statewide SWAP Goals (SWAP 2015, Volume I, Chapter 4).

2. **Identify if species or aquatic ecosystems from your project match those described in the Target Summary at that point:**
 - a. Go to the appropriate sub-chapter of the SWAP Document (online at <https://www.wildlife.ca.gov/SWAP/Final>).
 - b. The page for the Target Summary is in the '*Target 1 Summary Page*' field of the data.
 - c. Find the Target name (from the "*Conservation Target 1*" field in the data) and compare your species/aquatic ecosystems to the "Target Summary" in the SWAP document.
 - d. Repeat with "...Target_2" and "...Target_3", if applicable
3. **Determine which of the SWAP strategies, goals, and objectives may fit your project:**
 - a. Go to the strategy pages, which are identified in the "*Target Strategy Page*" field of the data attribute table. Each Target, or groups of Targets, has unique strategies. Look at the goals and strategies to see how your project may fit into the SWAP strategies, goals, objectives, and conservation actions. If your project does not fit any of the goals, look at the Statewide Goals.
 - b. Go to the Climate Adaptation Strategy pages, which are identified in the "*Target Climate Page*" field and located in of the SWAP 2015, Volume II, Appendix G to identify if your project fits into the California or National "Climate Adaptation Strategies".