

Wetland State-and-Transition Model Project

The Intermountain West encompasses 480 million acres within all or parts of 11 western states. Wetlands within the Intermountain West comprise 2% of the total area and approximately 50% of these wetlands have been lost to development, with many of the remaining influenced by water usage within their watershed.

Intermountain West wetlands are extremely important to many species of birds, especially during migration when millions of waterbirds use the region as a conduit between breeding and wintering areas. For example, during fall migration, millions of ducks (12-18 million), geese (1-2 million) and swans (~60,000) use these areas as stop-off locations in route to winter feeding grounds.

The Wetland State-and-Transition Model Project

State-and-transition models (STMs) distill current ecological knowledge of a system into a conceptual model that describes, graphically and in a narrative, the potential stable states and associated vegetation community phases. This tool provides a 'road map' for management that describes current status (i.e., current wetland condition) in order to determine potential management actions to perpetuate the current condition, or move toward a more preferred condition.

The Wetland STM project is creating a state-and-transition model to inform management of semi-permanently flooded wetlands in the Intermountain West and western Prairie Pothole Region, as well as designing a monitoring scheme to allow determination of current wetland condition.

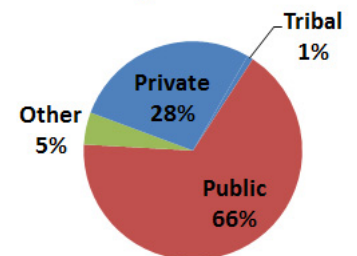
Products to date include:

- Draft STM for semi-permanently flooded wetlands
- Sampling of 49 wetlands within 12 National Wildlife Refuges in Regions 1, 6 and 8 to acquire data necessary to define and describe wetland vegetation community phases within states of the STM
- Database for managing project data
- Field sampling methods and protocols
- Annual reports, which include wetland unit-level summaries that provide baseline data



Nearly 90% of Intermountain West wetlands occur on 10% of the land area.

Ownership of wetlands within the Intermountain West with submerged aquatic vegetation



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