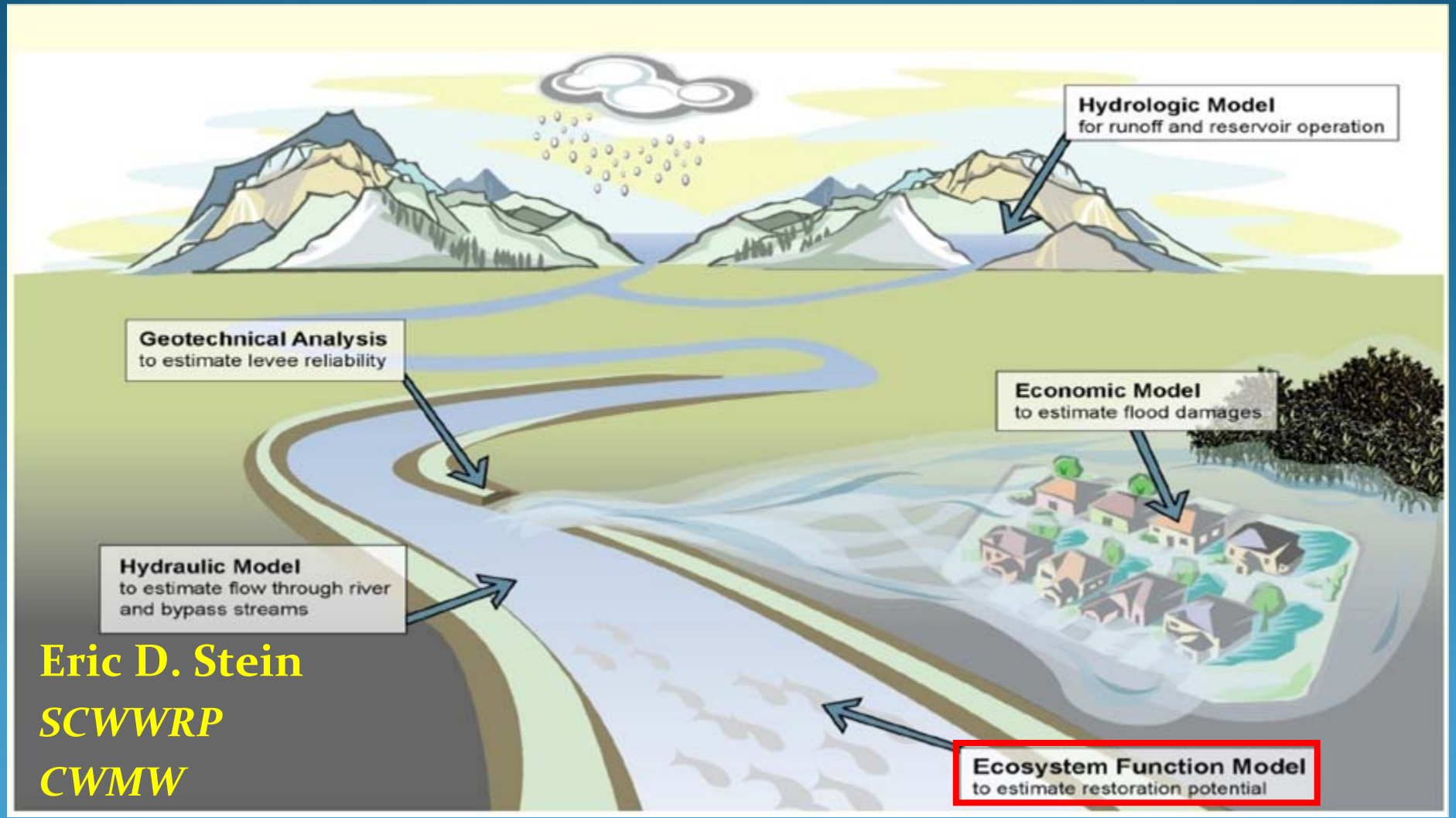
Central Valley Flood Protection – Riparian Mapping: Opportunities for Collaboration



Eric D. Stein
SCWWRP
CWMW

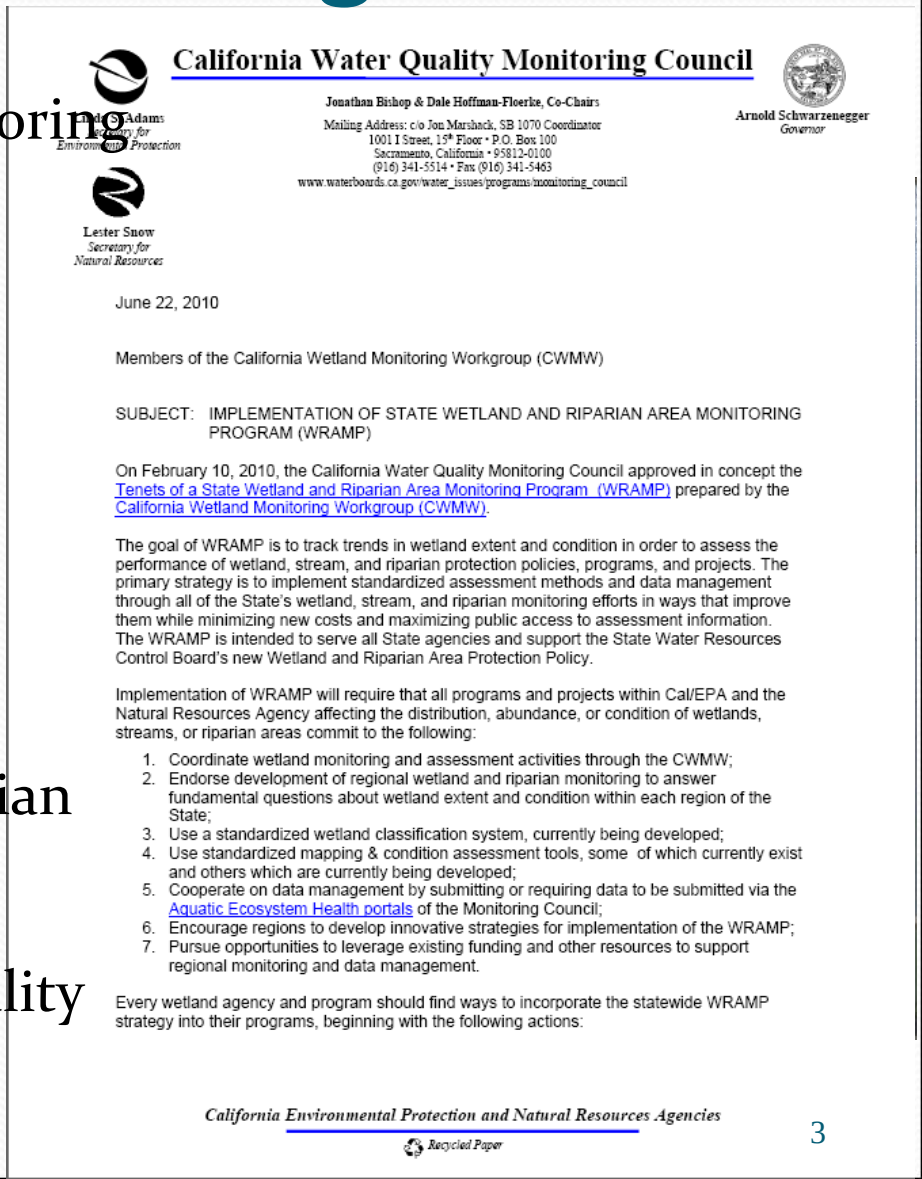
Senate Bill 5

- DWR and the Central Valley Flood Protection Board to prepare and adopt a Central Valley Flood Protection Plan (CVFPP)
  - flood protection requirements
  - public safety
  - ecological health

"establishment of riparian habitat and seasonal inundation of available flood plains where feasible"

State Wetland Monitoring Plan

- Product of the Ca. Wetland Monitoring Workgroup
- Consistent Statewide Framework
  - Mapping
  - Assessment
- Implementation through existing programs
- Supports State Wetland and Riparian Protection Policy
- Data managed through "water quality portals"



California Water Quality Monitoring Council

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Linda S. Adams
Secretary for Environmental Protection

Lester Snow
Secretary for Natural Resources

Arnold Schwarzenegger
Governor

June 22, 2010

Members of the California Wetland Monitoring Workgroup (CWMW)

SUBJECT: IMPLEMENTATION OF STATE WETLAND AND RIPARIAN AREA MONITORING PROGRAM (WRAMP)

On February 10, 2010, the California Water Quality Monitoring Council approved in concept the Tenets of a State Wetland and Riparian Area Monitoring Program (WRAMP) prepared by the California Wetland Monitoring Workgroup (CWMW).

The goal of WRAMP is to track trends in wetland extent and condition in order to assess the performance of wetland, stream, and riparian protection policies, programs, and projects. The primary strategy is to implement standardized assessment methods and data management through all of the State's wetland, stream, and riparian monitoring efforts in ways that improve them while minimizing new costs and maximizing public access to assessment information. The WRAMP is intended to serve all State agencies and support the State Water Resources Control Board's new Wetland and Riparian Area Protection Policy.

Implementation of WRAMP will require that all programs and projects within Cal/EPA and the Natural Resources Agency affecting the distribution, abundance, or condition of wetlands, streams, or riparian areas commit to the following:

1. Coordinate wetland monitoring and assessment activities through the CWMW;
2. Endorse development of regional wetland and riparian monitoring to answer fundamental questions about wetland extent and condition within each region of the State;
3. Use a standardized wetland classification system, currently being developed;
4. Use standardized mapping & condition assessment tools, some of which currently exist and others which are currently being developed;
5. Cooperate on data management by submitting or requiring data to be submitted via the Aquatic Ecosystem Health portals of the Monitoring Council;
6. Encourage regions to develop innovative strategies for implementation of the WRAMP;
7. Pursue opportunities to leverage existing funding and other resources to support regional monitoring and data management.

Every wetland agency and program should find ways to incorporate the statewide WRAMP strategy into their programs, beginning with the following actions:

California Environmental Protection and Natural Resources Agencies

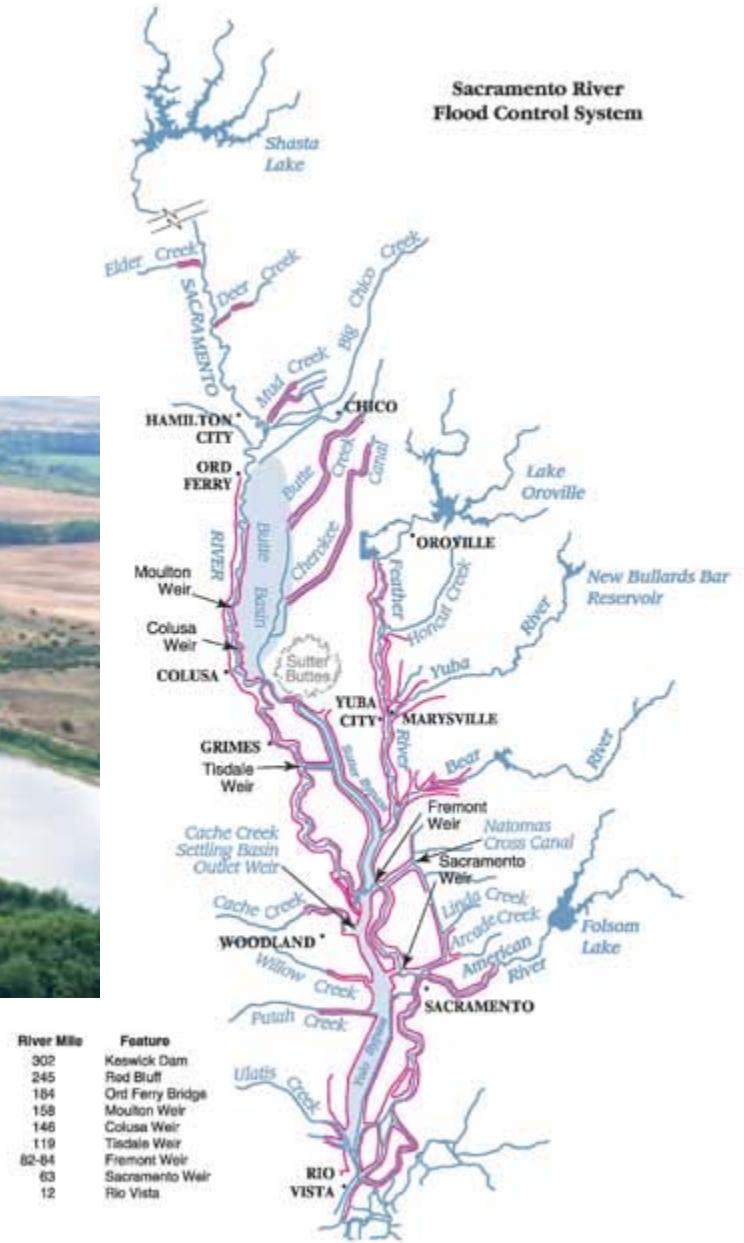
Recycled Paper

Goal of Statewide Wetland and Riparian Plan:

develop statewide base map of aquatic areas including natural and artificial channels, deepwater areas, wetlands, and riparian areas based on a common approach and classification system

OPPORTUNITIES FOR COLLABORATION

Mapping Riparian Vegetation

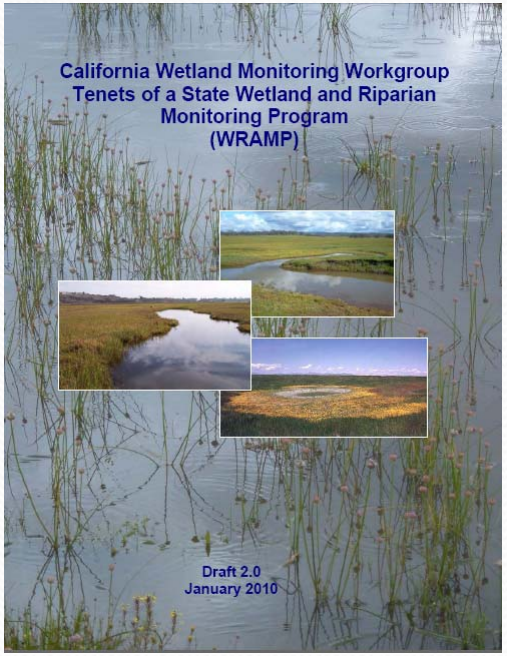


Captures habitat functions . . . .
Does not capture other functions

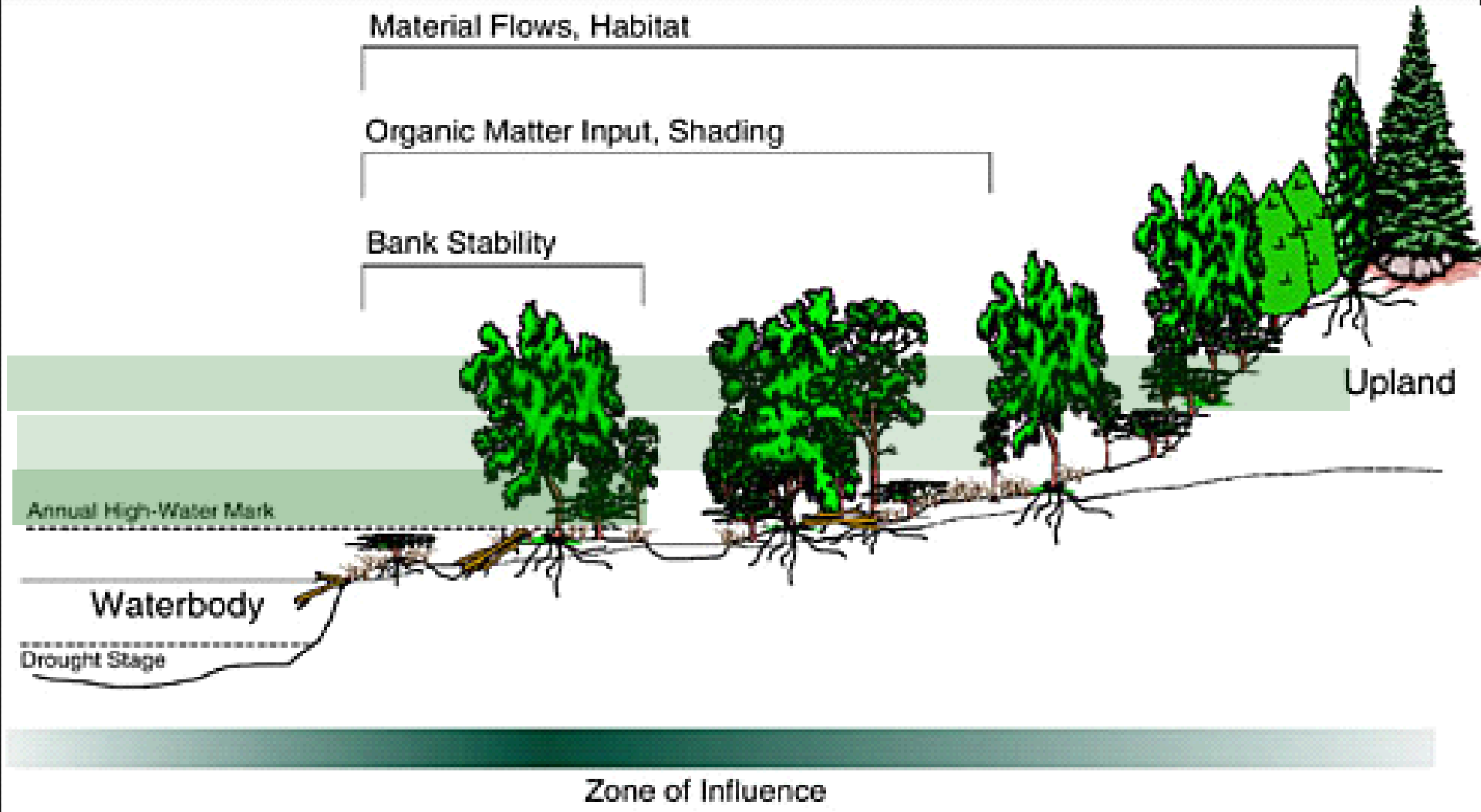
National Research Council Definition of "Riparian Area"

"They are areas through which surface and subsurface hydrology connect water bodies with their adjacent uplands. They include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems."

Riparian areas adjoin all waters of the State, including natural and artificial deepwater areas, wetlands, and channels, regardless of water regime.



Functional Riparian Area



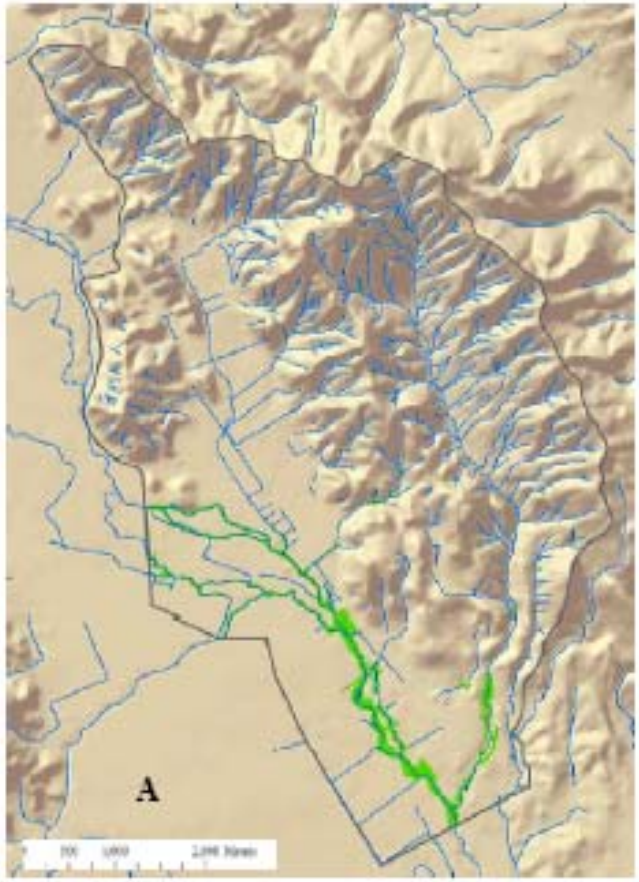
How Do We Map Functional Riparian Areas?

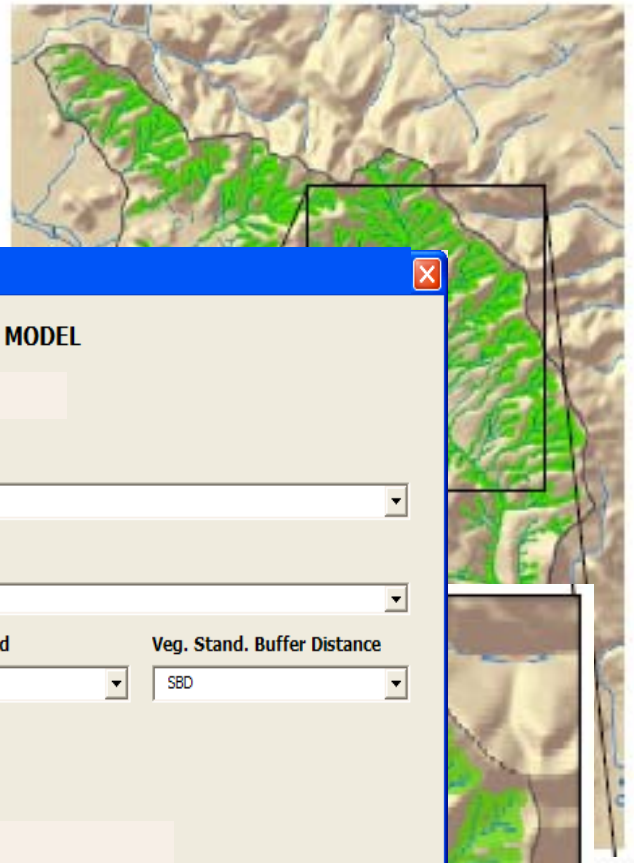
- **Model** "riparian area" based on user defined functions
  - Based on the NRC definition
  - Consistent with the State Riparian Area Protection Policy
  - Accounts for a broad suite of riparian functions
  - Customizable and compatible with other methods
    - Base vegetation mapping using CalVeg (or other veg layers)

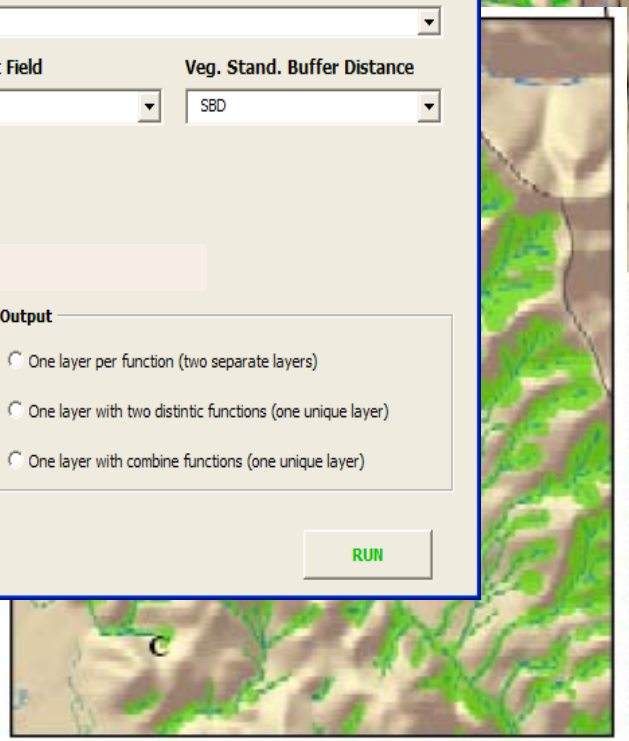
What it can be used for:

- Estimate riparian area past, present, and future
- Analyze and visualize alternative landscape scenarios
- Prioritize potential restoration areas
- Aid in comprehensive planning

Variable Riparian Areas







Hillslope Processes Module

RIPARIAN MODEL

Hillslope Processes Module

Riverine

Riverine_Det

Vegetation Data

SonomaWS_CalVeg_TAlb83

Vegetation Code Field	Tree Height Field	Veg. Stand. Buffer Distance
VEGCODE	TREEHT	SBD

Tree Height Factor: 2

Select Output Layers

Detail Level

- (•) Riparian Outline
- ( ) Detail Riparian with Attributes

Output

- ( ) One layer per function (two separate layers)
- ( ) One layer with two distintic functions (one unique layer)
- ( ) One layer with combine functions (one unique layer)

HELP

RUN

Next Steps

Opportunity to demonstrate ***application and utility*** of riparian model in significant mapping effort

- Initial coordination with DWR staff (done)
  - Logistically feasible w/minimal cost
- Technology transfer to Chico State
- Technical assistance and coordination through CWMW
- Include case study of how data is used to inform decision making process (e.g. Lower Feather River)

Thank You

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