

Using the 1-2-3 Framework to build California Capacity to Assess Wetlands

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Goal

Build capacity for timely public reports on the status and trends in wetland condition and associated services for watersheds, special districts, and the state as a whole.

Translation

Track the effects of wetland projects, land use, and nature on the extent, condition, and services of wetlands.

Account for the public investment in wetland restoration and protection by assessing the performance of wetland policies and programs.

Coming to Terms (vocabulary matters)

"wetland," "watershed," "riparian"
"condition," "function," "service,"
"project" are key terms needing
consensus definitions.

Ca Challenges: Physical Geography

- 1,000 miles of latitude
- 14,000 ft of elevation range
- Desert playas, temperate rainforests
- 5,000-acre estuarine marshes
- 5 ft² vernal pools

Ca Challenges: Political Landscape

Separation of wetland management and regulation between Resources Agency and Cal EPA decouples regulatory and management policies and programs.

Departments promulgate different key definitions and assessment methods pursuant to their missions.

Science-based NGOs have large R&D role.

Alternative Strategies

- A. Focus on regulatory side
 - + regulation is here to stay
 - ignores management needs

- B. Focus on management side
 - + supports land management
 - lacks regulatory incentives

- C. Focus on both sides
 - + more comprehensive
 - potentially high coordination costs

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the best tools and approaches won't get used unless they are required through regulatory process. Federal and state regulatory agencies must require monitoring efforts to use standard data collection tools, QA/QC procedures, data transfer formats, and data management systems or there can be no monitoring "program."

Josh Collins, 9/13/2007

Alternative Strategies

or

- D. Focus on both sides with limited scope and prepare to fall back to "A" (focus on regulatory side) if necessary
 - + begins to bridge among management and regulatory policies and programs
 - + involves acceptable costs and risks

Current Strategy

- Use 1-2-3 Approach
- Focus on Level 1 and Level 2
- Increase Level 3 work through validation of Levels 1 and 2
- Assess statewide ambient condition of estuarine wetlands using Level 2
- Assess riverine projects relative to ambient condition in three demonstration coastal watershed using Level 1-3.

1-2-3 Applications

(3-tiered approach as organizing framework)

Management	Level 1 Product	Regulation
CaWI, NWI, NHD	Habitat Maps	305b, 401 Cert., 319, 303d
Ca Grants Programs	Project Tracking	401 Cert.
	Permit Tracking	401 Cert.

1-2-3 Applications

Management	Level 2 Product	Regulation
Local Watershed Councils	Ambient Assessment	305b, 401 Cert., 319, 303d
	Project Assessment	401 Cert.

1-2-3 Applications

Management	Level 3 Product	Regulation
Local Watershed Councils	Standards for Data Collection and Formatting	305b, 401 Cert., 319, 303d

Relevance is Key to Implementation

- Each tool must fill recognized info. gap
 - Data relate directly to vetted assessment questions
 - No solutions looking for problems
- Requires championship
 - Persistent gentle pressure through repeated demonstration for sake of staff and other practitioners

Example Implementation

Broad interest among Ca agencies to assess performance of no-net-loss policy by tracking net change in wetland acres.

But not the mission of any Ca program.

401 Cert. Program needs to track permits, and system for tracking wetland acres can also track permits.

A deal is struck: 401 cert. applicants have to map habitats within impacted wetlands and 401 projects as a permit condition.

Data and Information Management

- Organize around real data and workers
- Use Internet uploads to minimize transcription and web-based maps as query portals (eCRAM, Wetland Tracker)
- Include metadata and QAQC in database
- Build nodes-on-network of regional data centers with links to State data hub, NWI, NHD, EPA, and other data stewards

Public wants to know:
will monitoring make things better?

We could use monitoring and assessment to accurately document the decline and collapse of our ecosystems -

or

We could use the tools to set wetland standards and performance criteria -

And to track progress toward watershed goals.

Using 1-2-3 to set Performance Criteria

Level 2 can provide narrative descriptions of the best the achievable form and structure that can be translated into project designs.

The distribution of Level 2 results can be used to identify the range of acceptable endpoints of conditions as assessed at Level 2.

The same process can be used for selected services that are assessed at Level 3.

Level 1 can be used to adjust criteria for landscape constraints and track performance.

1-2-3 Framework:

Science Support for Watershed Goals

How much of what habitats can we achieve,
where, and why?

Goals shared among local, regional, state, and federal agencies "cap" watersheds for ecological services.

Once goals are set, tracking habitat conditions and related services promotes coordination of policies, programs, and projects to achieve the goals.

A "Goals Project" Sees Wetlands As Parts of Watersheds

Upstream channel incision and downstream flooding are chronic watershed problems due to land uses that increase runoff, and

"Isolated" wetlands that reduce runoff help arrest incision and reduce flood hazards.

Watershed goals yield design hydrographs as watershed performance criteria. Hydrographs are sensitive to gains or losses of all land covers, including "isolated" and other wetlands.

Let's use 1-2-3 to assess status and trends, forecast change, set wetland standards, develop performance criteria, recommend habitat designs, establish watershed-based habitat goals, assess compliance, and track progress.

Thank you