EcoAtlas and the California Aquatic Resources Inventory (CARI)

Update from the California Wetland Monitoring Workgroup

Eric Stein, Meredith Williams, Josh Collins, Cristina Grosso, Steve Steinberg

Topics for Today

- What is the scope of EcoAtlas?

- What is the California Aquatic Resources Inventory and how does it relate to EcoAtlas?

- Working with the Data Management workgroup

- Questions

Background on EcoAtlas

- Feb 2010 Monitoring Council endorsed WRAMP and advised CWMW to begin implementation

- Q: What does that mean?   A: Apply WRAMP tools
  - Mapping
  - Assessment
  - Coordinate among programs

- Q: How do we do that?   A: EcoAtlas (info mgmt)

- EcoAtlas release for CWMW review in September
  - Basemap (CARI) + assessment data + information management

EcoAtlas Web Tool

Purpose/definition

➤ *A system for data management and visualization of information on the extent and condition of aquatic resources*

➤ *Map-enabled tool to answer questions regarding where aquatic resources are and how they are doing*

➤ *Main information management system for wetlands monitoring and assessment*

What is the Intent of the EcoAtlas?

Different policies dictate different approaches …

Based on a standard tool kit …

And data and information management …

- **State of State's Wetlands**
  - **Wetland status/trends**

- **CWA 401/WDR**
  - **project monitoring in ambient context**

- **CWA 305(b)**
  - **Integrated assessment**

WRAMP

LEVEL **1** LANDSCAPE ASSESSMENT

LEVEL **2** RAPID ASSESSMENT

INTENSIVE ASSESSMENT **3**

EcoAtlas

- **CARI**
- **Project Tracking**
- **eCRAM**
- **web query tools**
- **watershed profiles**
- **data summaries**

EcoAtlas serves as the User Interface for WRAMP

EcoAtlas

Key Features

- Common aquatic resources base map (CARI)

- Project information across agency programs

- Ambient assessment data and reference site data

- Ability to generate project-specific reports

- User-defined queries to support regional & statewide reporting

California Aquatic Resource Inventory (CARI)

Comprehensive maps of wetlands, lakes, rivers and streams, and riparian areas

– Basis for assessing aquatic resource extent and change
– Base map to support condition assessment

Uses USGS NHD and USFWS NWI as the starting point

– Intensified with additional detail and resolution

– Increased accuracy

– Can accommodate different resolutions/level of detail

*Includes standard mapping protocols, QA measures and classification*

CARI Status

CARI v.0

- "Best Available" statewide dataset
  - Local intensifications
- September 2012 release on EcoAtlas

CARI v.1

- Enhance the datasets nearest to CARI standards to the standard (2013)

CARI v0

- 🟥 CARI in progress
- 🟦 CARI pilot projects; BAARI, TARI, Delta, So Cal
- 🟩 Six County Aquatic Resource Inventory (USACOE)
- 🟪 NWI <10 yrs old
- ⬜ NWI > 10 yrs old
- ▨ NWI digital data gaps
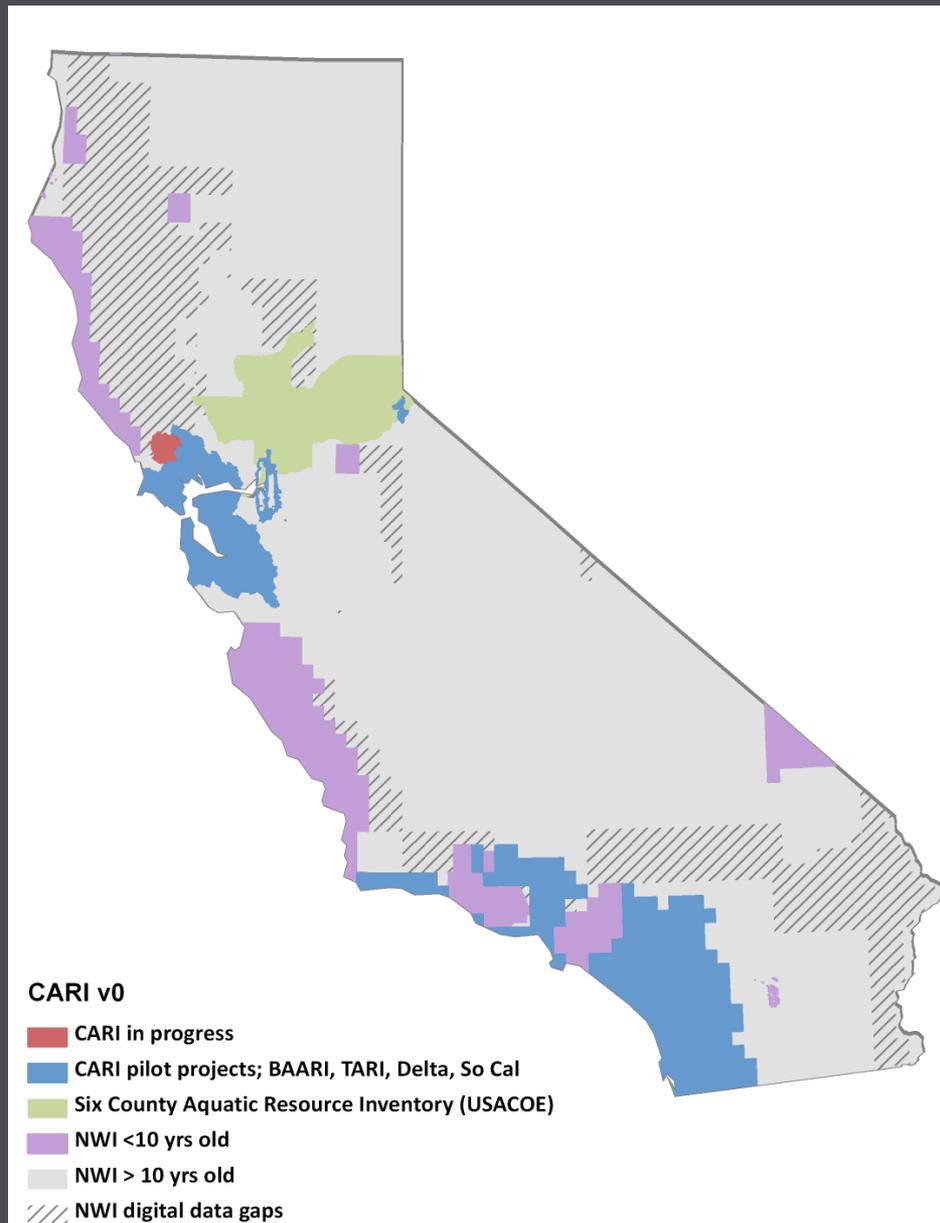
CARI Technical Advisory Team

- Began work in mid-2011
- Standards completed
- Classification completed
- Alignment with Wetlands S&T work
- Representatives from local, regional, state and federal agencies
  - USGS, National Hydrography Dataset
  - USGS, Interagency Watershed Mapping Committee
  - USFWS, National Wetland Inventory
  - State Water Quality Control Board
  - State Coastal Commission
  - CA Dept of Fish and Game
  - CA Dept of Water Resources
  - Bay Conservation and Development Commission
  - So Cal Coastal Watershed Research Program
  - San Francisco Estuary Institute
 - Marin County Planning Department
  - CSU Northridge

EcoAtlas Data:
Display of Habitat and Project Spatial Layers
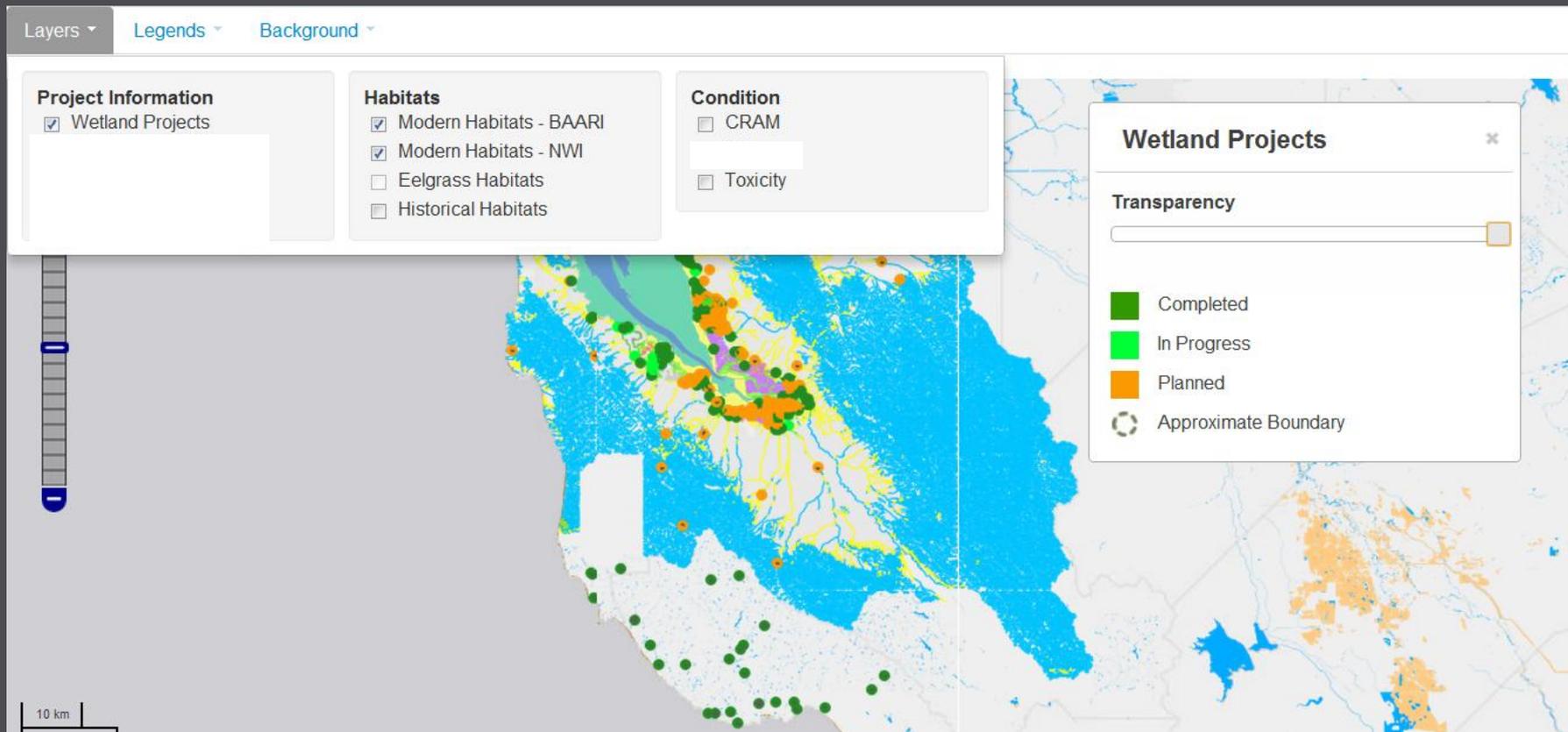
EcoAtlas Data:
Landscape Profile Summary
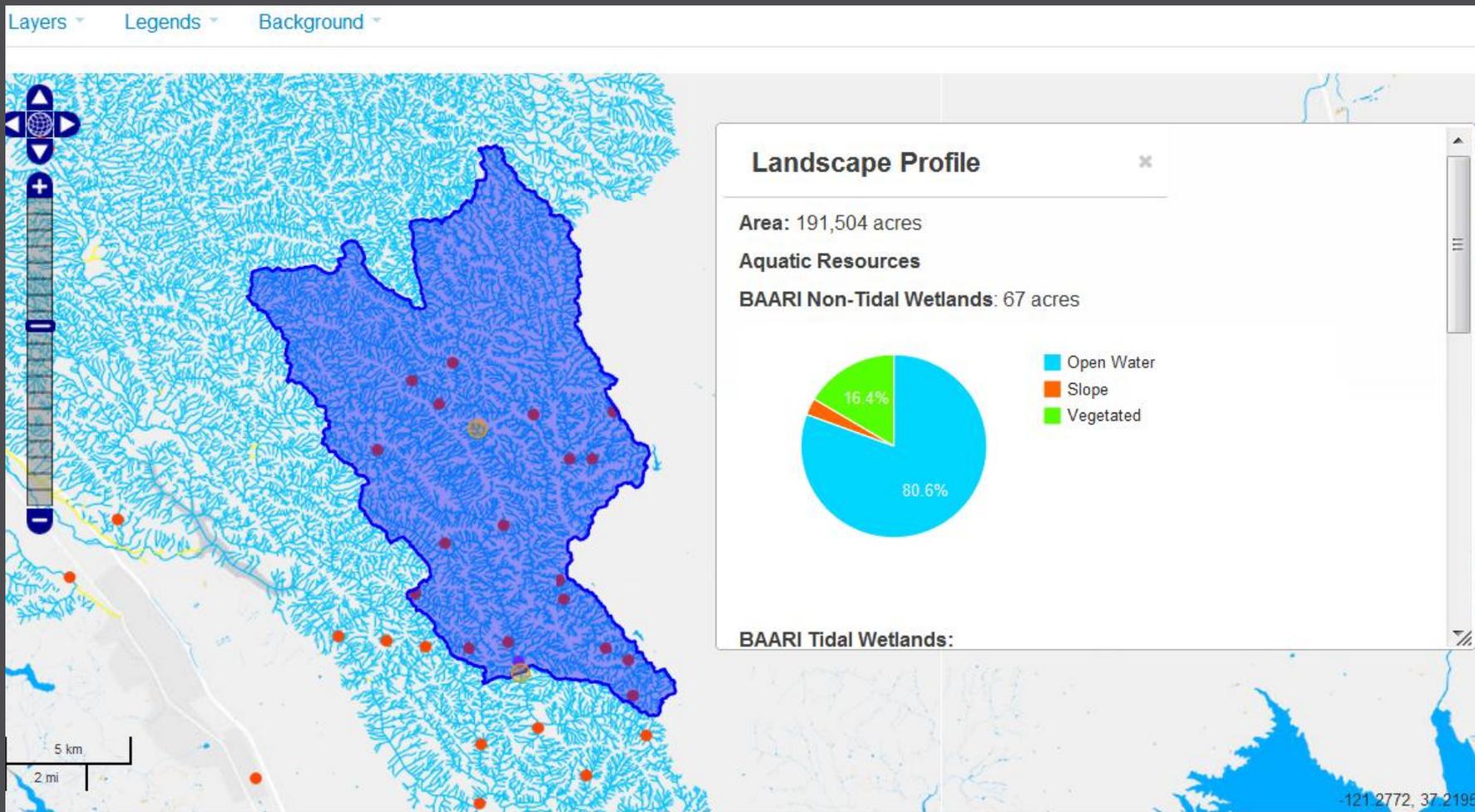
EcoAtlas Data:
Project Information + CRAM Data
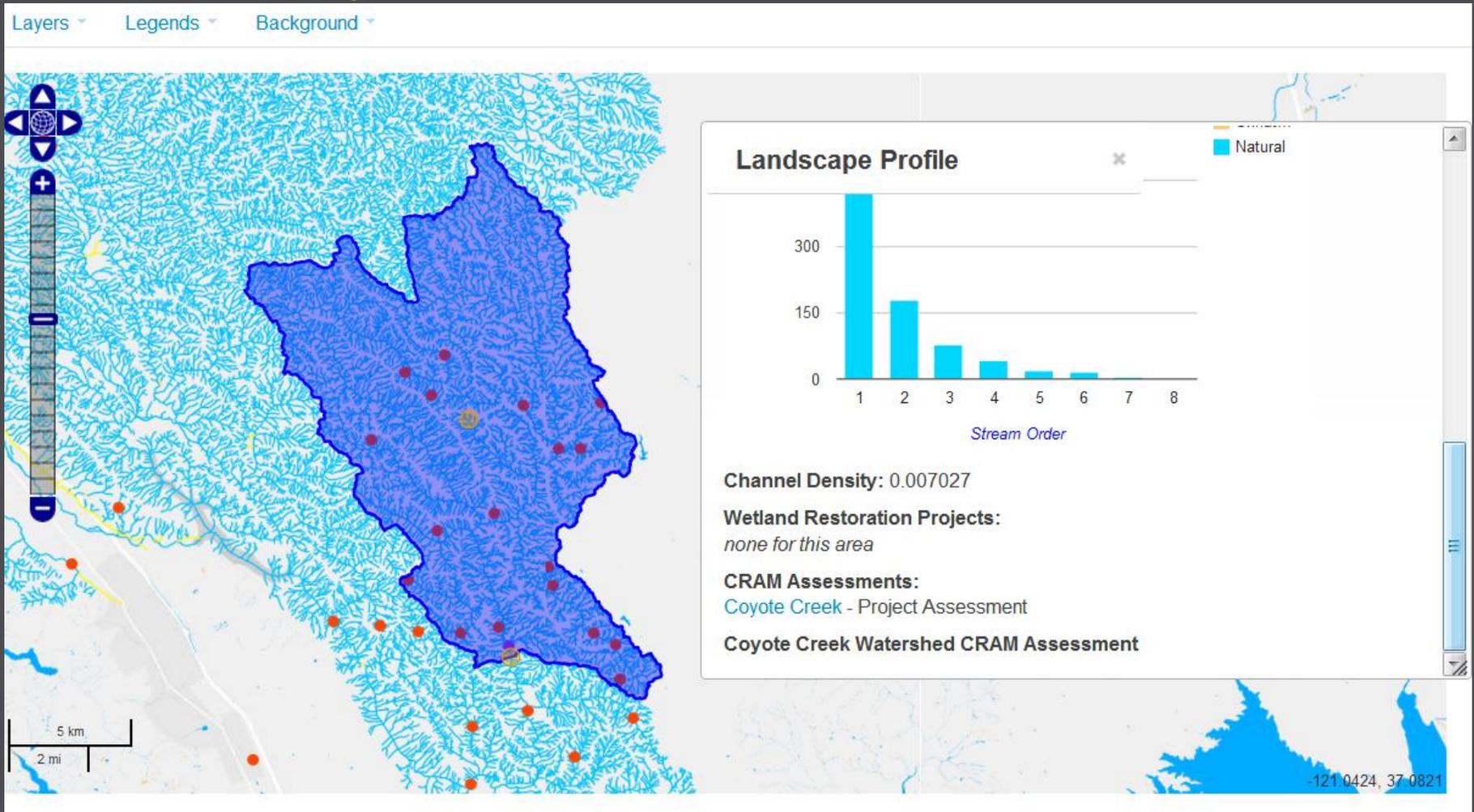
Watershed scale summaries of key information: aquatic resource extent, project activity, and associated data sets (e.g. CNDDB species info, land use info, other environmental monitoring data)

EcoAtlas Functionality Priorities

EcoAtlas will focus on the following wetland agency needs:

1. Incorporating wetlands and riparian areas into Integrated Reporting under Sections 305(b) of the CWA

2. Coordinating mitigation planning under the Federal CWA and the State Porter Cologne Water Quality Act and Wetland Policy

3. Tracking the effect of grant-funded wetland restoration projects

4. Reporting on the status of the State Wetlands Conservation Policy via the State of the State's Wetlands Report

- Full report and demonstration to Monitoring Council in November

Data Management Workgroup

The DMWG possesses the technical expertise to facilitate a working group to assess/develop standards.

- – Provide workgroups with methodologies for assessing data needs and making them known.

- – Recommend best practices for development of structured data formats, methods and web services facilitating development within and among portals.

- – Identify data that cuts across multiple themes and that therefore should be coordinated.

- – Evaluate and recommend data management strategies that comply with appropriate national and state guidelines.

- – Serve as a resource to workgroups for communicating data management recommendations in support of individual themes' data management efforts.

DMWG response to memo

- The DMWG received and reviewed the May 24th memo from the Wetland Workgroup.
  - Meredith Williams gave presentation to the DMWG at the June 6th meeting.
  - Additional discussion was conducted at the August 1st meeting.

- Given a lack of a specific question or direction from the Council on what sort of response was desired, the DMWG saw its role as being to evaluate the data needs and technological approaches of the Wetland Workgroup.
  - There was general agreement that the Wetland Workgroup has selected standards-based technologies appropriate to their objectives and compatible with other workgroups.

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Recommendations

- Because the Wetland workgroup's efforts will benefit multiple stakeholders, the DMWG makes the following recommendations:
    - Continued efforts around these tools and data should be coordinated with the DMWG.
    - The DMWG should facilitate additional communication between and among Council workgroups to ensure others benefit from these efforts.