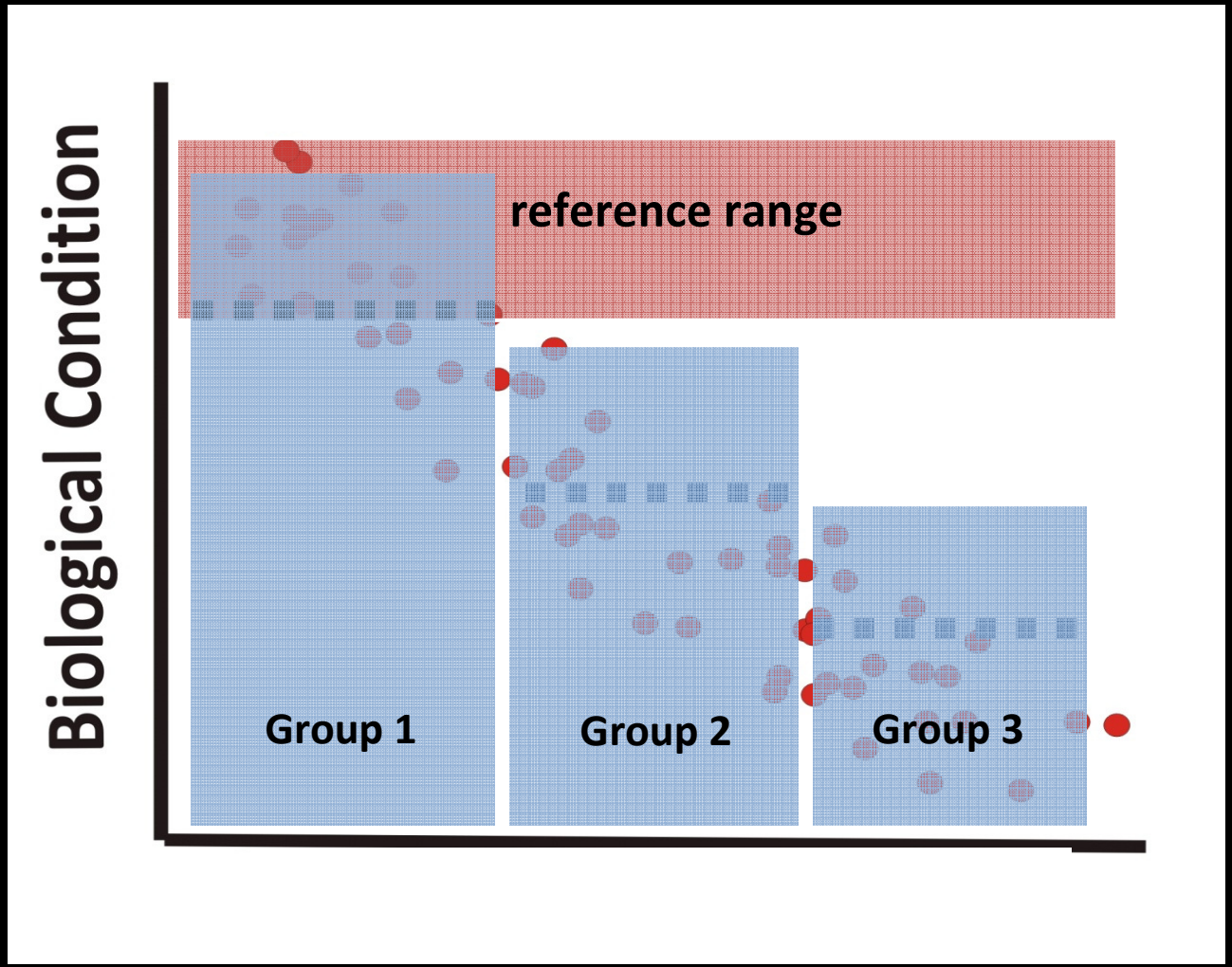
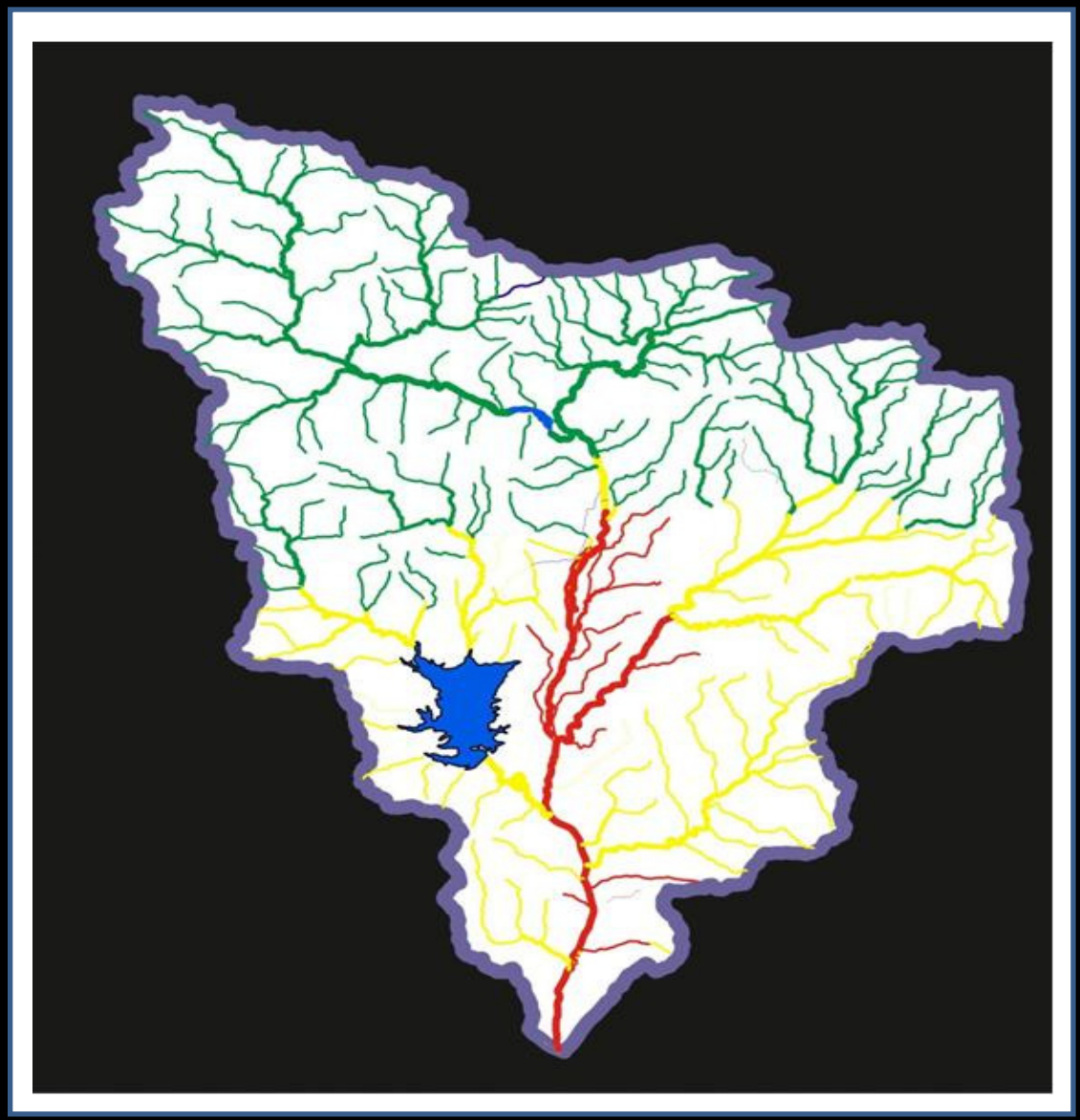
Waterbody Classification and Scoring

Waterbody Classification

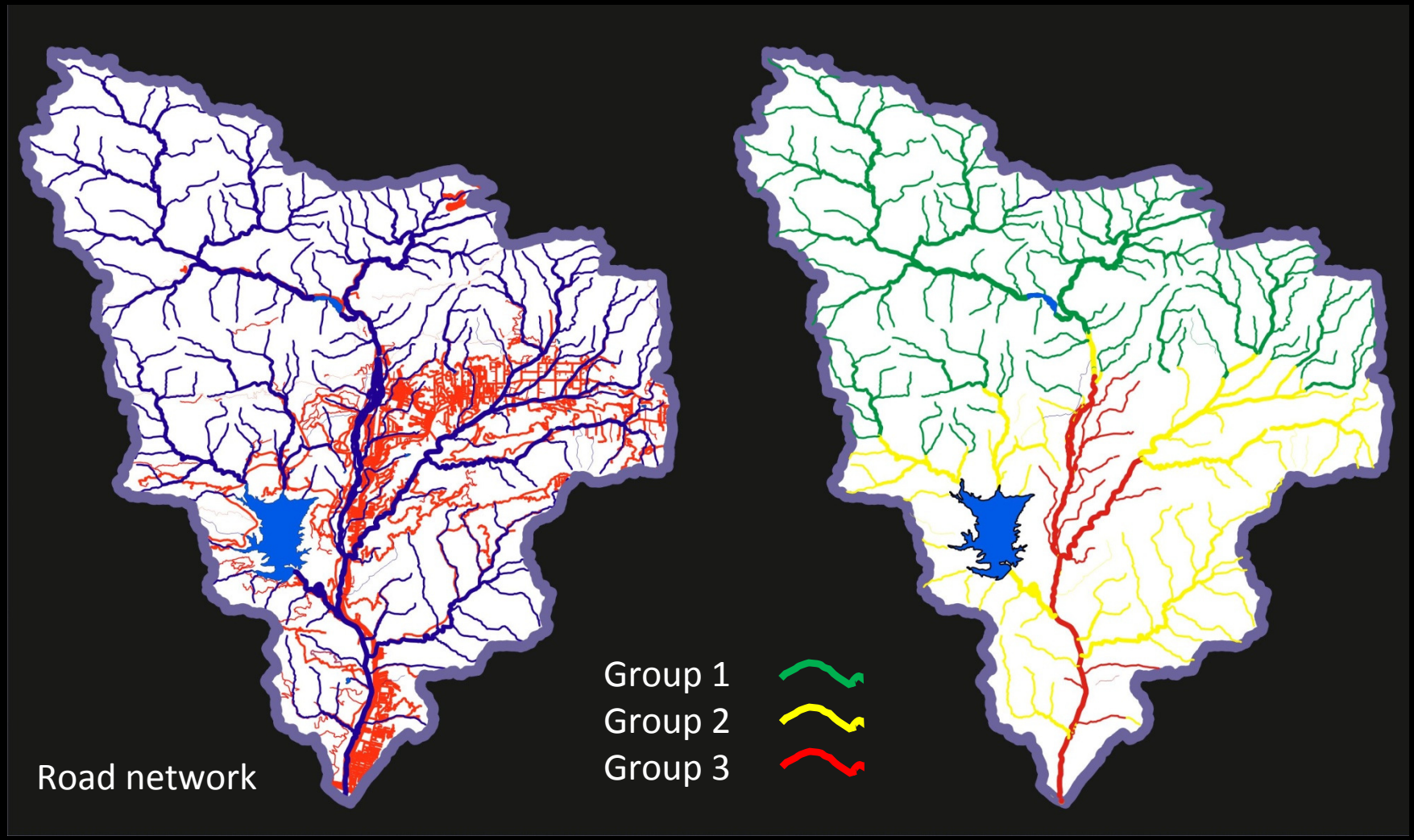
Goal is to assign biological expectation to every wadeable, perennial stream



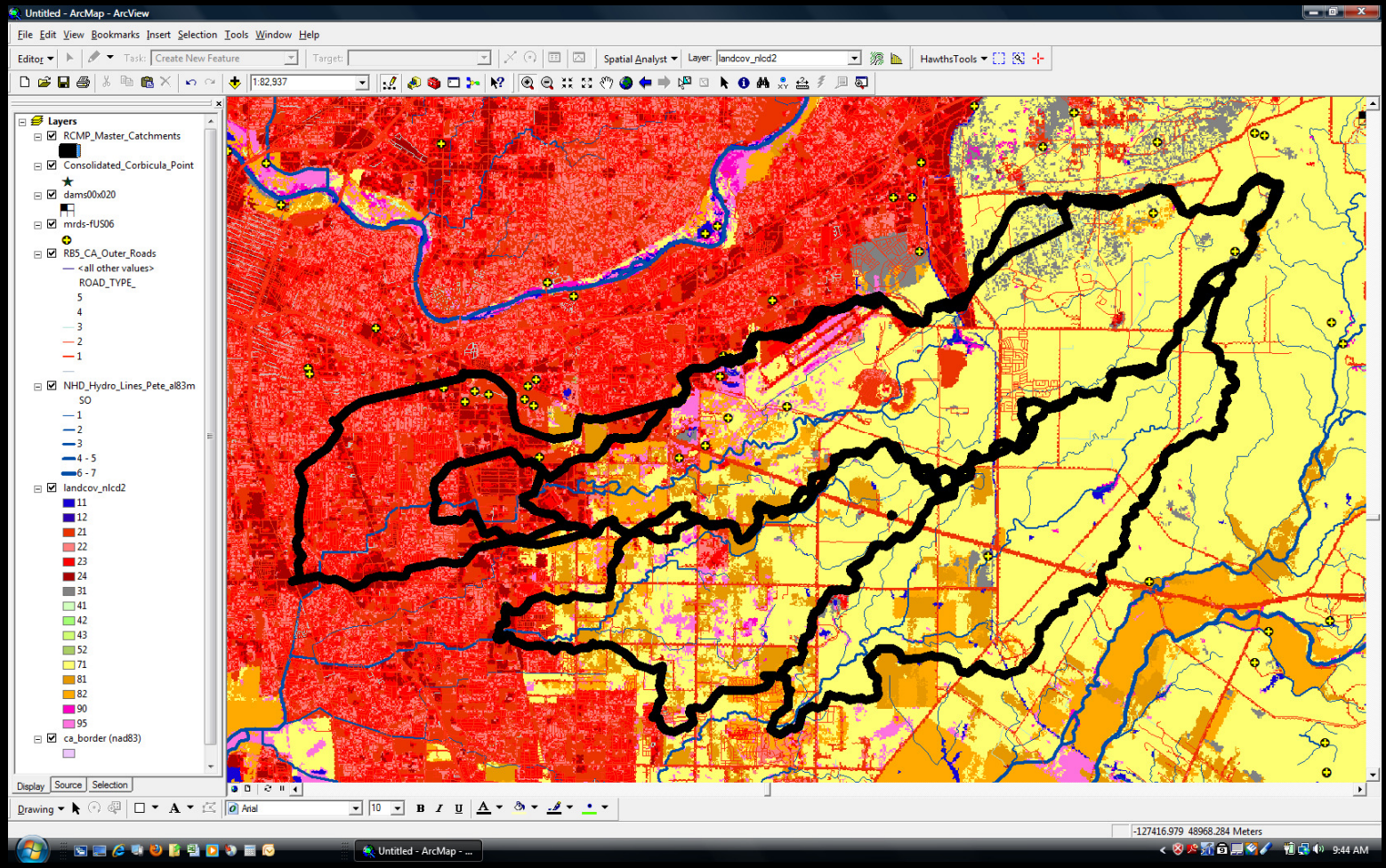
All stream segments are assigned to a group



Process is to map key variables from the stressor response models to stream segments



Requires both extensive GIS modeling and field verification



Classification Challenges

- (very) Imperfect GIS coverages
  - Hydrology (perennial streams, non-perennial streams)
  - Stressor variables
- Model Issues:
  - Uneven strength of models in different regions might result in missing portions of the state
  - How does model uncertainty relate to mapping uncertainty?

Application Challenges:

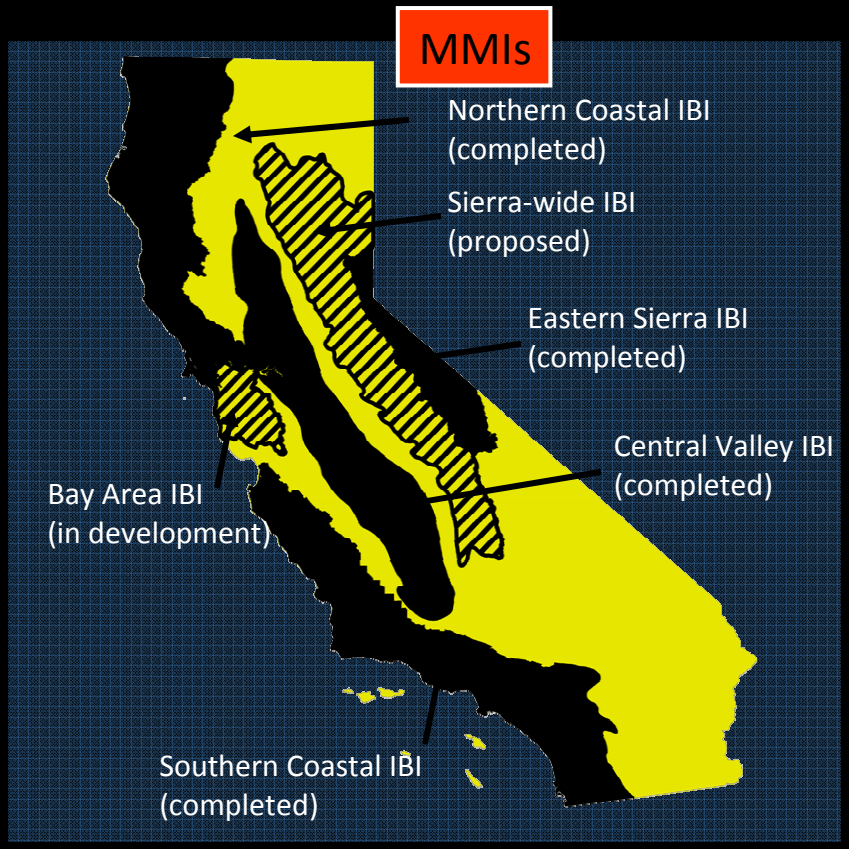
- Scale differences between stressor layers and stream layers (e.g., population data)
- How are segments defined?
  - -- Same as 303d segments?
  - -- Something else?
- What resolution is most suitable for classification?
  - – Local area, entire watershed, local riparian, entire riparian?
- Need a mechanism for proposing and adopting changes to the initial classification

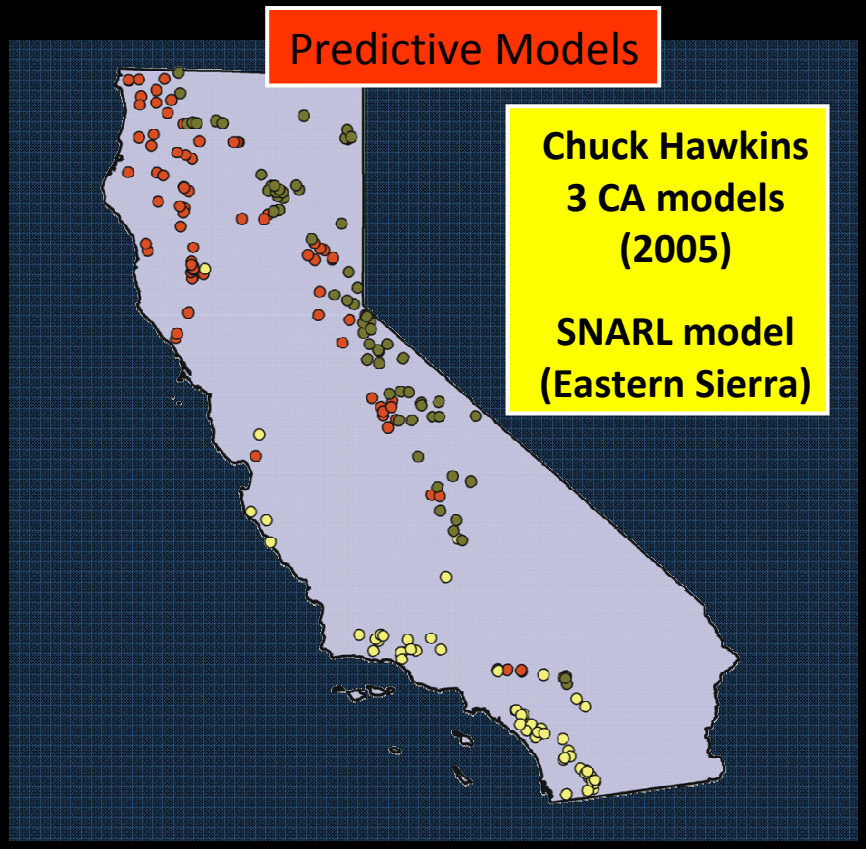
Scoring Tools

- Current status
- Limitations in current tools
- Plans for biological objectives
- Data Management Needs

Scoring Tools: current status

- IBIs are available for several regions of California
- 3 - O/E models cover the entire state





Limitations in current scoring tools

- Inconsistent development process
- Not standardized/calibrated statewide
- Gaps in coverage
- What are limits to applicability?
  - Geographic boundaries
  - Natural gradient boundaries (e.g., elevation, gradient)

Scoring Tools

- Simplest option: standardize existing tools
  - PROS: minimal effort
  - CONS: *see prior limitations slide*
- Full version: Develop new tools for all locations (O/Es and MMIs, standard and alternate regions)
  - PROS: complete coverage
  - CONS: data limitations
- Intermediate options: subject of future meetings

Classification and Scoring