USEPA Healthy Watersheds Initiative – California Project

In Support of the Healthy Streams Partnership
Healthy Watersheds Initiative

Purpose

- Identify healthy watersheds using an integrated systems approach
- Implement strategic programs that establish priorities for protecting healthy watersheds and restoring watersheds
HWI California Project

- Under the direction of the California Healthy Streams Partnership and working through contract task order manager, Laura Gabanaki at USEPA
Proposed CA Project

- Under direction of California Healthy Streams Partnership
- Working through contract task order manager Laura Gabanaki at USEPA
- USEPA contractor Cadmus Group
Proposed CA Project

- **Cadmus Group Tasks**
  - Use existing data from various programs/sources, both measured parameters and landscape indicators
    - Landscape
    - Habitat
    - Hydrology
    - Geomorphology
    - Water quality
    - Biological condition
  
  to identify healthy watersheds throughout California
Proposed CA Project

- Cadmus Group Tasks
  - See what integrated assessment methods other states have used and how they may be applied to California
  - Identify assumptions, uncertainties, use of surrogate information, and where California lacks adequate data
  - Due Date – November 12, 2012
Proposed CA Project

- **Healthy Watershed Initiative Tasks**
  - Supply list of potential data sources and provide access to data (done)
  - Add new workgroup members
    - No-point Source program
    - 401 Water Quality Certification program
  - Tie healthy watersheds to local stewardship and education programs, via citizen monitoring groups
  - Add the above information to the Healthy Steams Portal in Phase II
Examples from Other States
### 2010 Water Quality Index, Biotic Index, and Bay Health Index Scores

<table>
<thead>
<tr>
<th>Bay health scale</th>
<th>Lower Western Shore (MD)</th>
<th>Patuxent River</th>
<th>Upper Eastern Shore</th>
<th>York River</th>
<th>Choptank River</th>
<th>Potomac River</th>
<th>Lower Eastern Shore (Tangier)</th>
<th>Mid Bay</th>
<th>Overall Bay</th>
<th>Rappahannock River</th>
<th>Upper Western Shore</th>
<th>James River</th>
<th>Lower Bay</th>
<th>Upper Bay</th>
<th>Elizabeth River*</th>
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<td>Water Quality Index</td>
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<td>Biotic Index</td>
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</tbody>
</table>

(*score based on average of 4 indicators)*
Minnesota’s Watershed Assessment Tool
Assessment Reporting

Hydrologic Unit Code (HUC)

- HUC 8 Sub-Basins
  - Multi-metric Index
- HUC 12 Sub-Watersheds
  - Correlation Estimates

California Water Quality Monitor
Major Decision Points

- Technical approach
- Selected indicators for representing each healthy watersheds element
- Selected reference values for indicator normalization
- Selection of indicator weights (if any)
- Index calculation method (e.g., simple average or “independent applicability” approach)
- HUC12 statistical models
- Selection of most appropriate approach for presenting assessment results (e.g., maps, report cards, etc.)