# Welcome to a Celebration of Environmental Economics and the 50<sup>th</sup> Anniversary of the Clean Water Act!

Organizing Committee: Cathy Kling, Chris Moore, Dan Phaneuf, Dave Keiser, Joel Corona, Mainul Hoque, and Tina Andarge

Travel Coordinator and Onsite Fixer-of-Problems: Joey Gates

Logistics: Breakfast and Lunch available both days to all attendees Dinner on your own





#### **Motivation and Goals**

Clean Water Act 1972 and Reagan Executive Order 12291

- Regulatory action shall not be undertaken unless the potential benefits to society from the regulation outweigh the potential costs to society;
- Regulatory objectives shall be chosen to maximize the net benefits to society;

Economists at EPA and those working with them led and enabled the development of needed nonmarket valuation methods to support regulatory and policy decisions

Today: celebrate EPA's historical and continuing leadership role in the evolution of nonmarket valuation methods, especially stated preference (SP), from their nascent beginnings to mature tools



| 9:30-10:30 a.m.  | Welcome and Introduction  |
|------------------|---|
|                  | Maureen Cropper: Historical Perspective on NMV and SP in Policy Analysis Al McGartland: Role of Benefit-cost Analysis and Why NMV and SP Methods Are Needed   |
| 10:30-10:45 a.m. | Break   |
| 10:45-11:45 a.m. | Panel: Historical Perspective, Challenges, and Opportunities for the Future (Moderator: Daniel Phaneuf)   |
|                  | Richard Carson: Regulatory Analysis; From E.O. 12291 to Today  Daniel Phaneuf: From Exxon to BP: Status and Developments in Stated  Preference Validity  Chris Moore: Challenges in Implementation and Potential Ways Forward |
| Noon-1:00 p      | Lunch (Moderator: Tihitina Andarge)  Sally Katzen: A Legal and Regulatory Perspective on the Role of Nonmarket Valuation and Stated Preference Approaches in Benefit Cost Analysis and Regulatory Review                      |

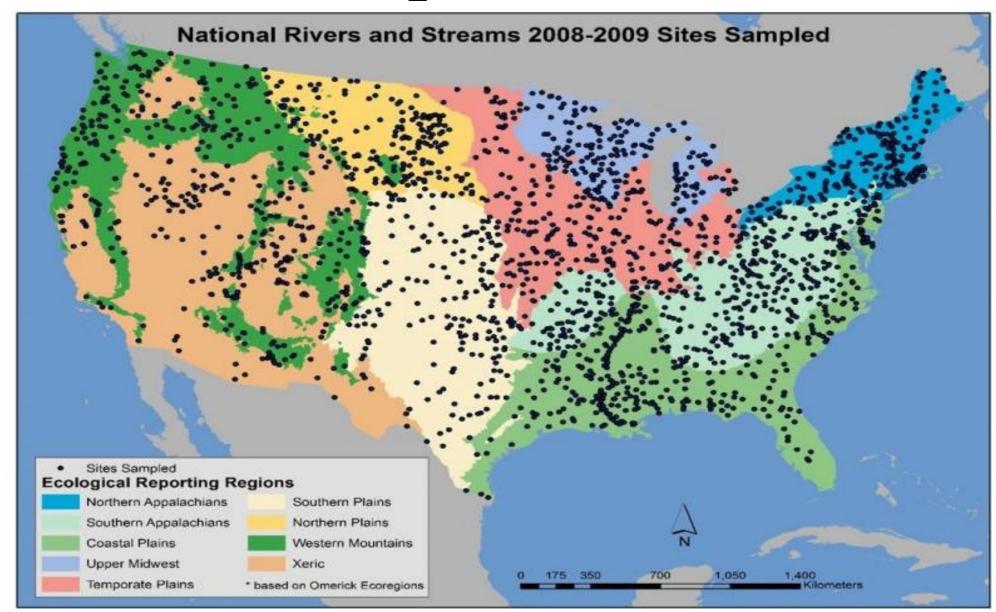


## Clean Water Act Turns 50!



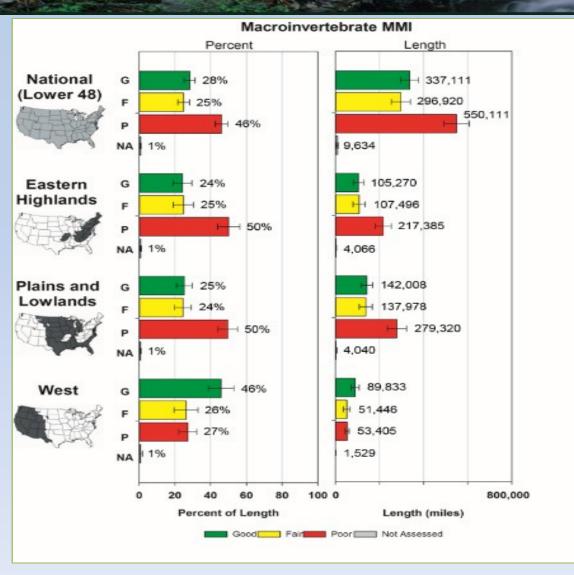


### **EPA: National Aquatic Resource Surveys**



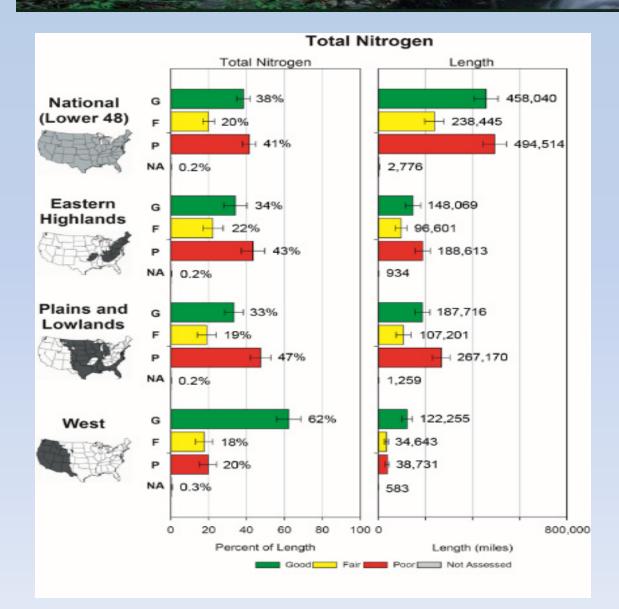


#### **Benthic Macroinvertebrates MMI**



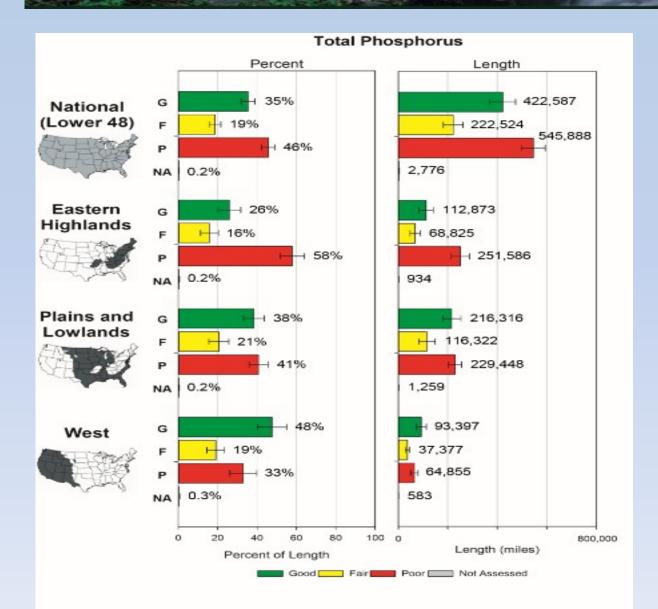
- 46% of river/stream miles are rated poor for biology
- Only 28% rated good

#### Total Nitrogen



- •Nationally, 41% of river/stream miles are rated poor for total nitrogen
- 38% rated good

#### Total Phosphorous



- •Nationally, 46% of river/stream miles are rated poor for total phosphorus
- Only 35% good

# Have Existing Regulations Passed a BCA Test? Would Additional Ones?

Water Quality Benefits STAR grants, January 2015 PREAMBLE:

"One limitation of previous water quality benefit estimates is that they have included a narrow range of water benefits and values. This is problematic for states and local governments because excluding benefits leads to potential underestimation of total benefits."



#### **EPA Call for More Information**

"... research to advance knowledge of how changes in water quality, including incremental or step improvements, can be valued at appropriate spatial scales using advanced non-use valuation methods for the Nation's inland fresh water small streams, lakes and rivers, estuaries, coastal waters, and the Great Lakes."



| 1:10-2:25         | Highlights of New Research on the Value of Water Quality Improvements (Moderator: David Keiser)   |
|-------------------|---|
| p.m.              | "Measuring the Social Benefits of Water Quality Improvements to Support Regulatory Objectives" <b>Julie Hewitt</b> "Spatial Dimensions of Water Quality Value in New England River Networks" <b>Robert J. Johnston</b> "Disentangling Water Quality Indices to Enhance the Valuation of Divergent Ecosystem Services" <b>Frank Lupi</b> |
| 2:25-2:35<br>p.m. | Break   |
| 2:35-3:50         | Highlights of New Research on the Value of Water Quality Improvements (Moderator: Mainul Hoque)   |
| p.m.              |   |
| •                 | "Estimating the Benefits of Stream Water Quality Improvements in Urbanizing Watersheds" Roger von Haefen  |
|                   | "Valuing Improvements in Ecological Integrity in Local and Regional Watersheds" Christian Vossler   |
|                   | "Improving models of biological condition to support existence valuation of freshwater ecosystems" Ryan Hill  |
| 3:50-4:00         | Break   |
| p.m.              |   |
| 4:00-5:15         | Invited Perspectives and Discussion (Moderator: Cathy Kling)  |
| p.m.              |   |
|                   | Ian Bateman, Bonnie Keeler, Sheila Olmstead, and John Whitehead   |

