



# PRELIMINARY RESULTS OF AN INTERNATIONAL RIVER RESTORATION SURVEY



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## BACKGROUND & METHODS:

Generalizations and basic statistics describing the diverse activities and perceptions of the restoration community are difficult to make. Currently, generalizations are made from the perspectives and experiences of individuals alone. A web-based survey drawing on the experiences of the international community was launched to provide a dynamic database of generic information and perceptions about river restoration. Such a database can provide a stronger basis for assessing common problems and trends. Different groups of questions were asked of respondents, based on their involvement in river restoration (Table 1). Partial results from 25 November 2003 to 1 April 2004 are summarized in this poster.



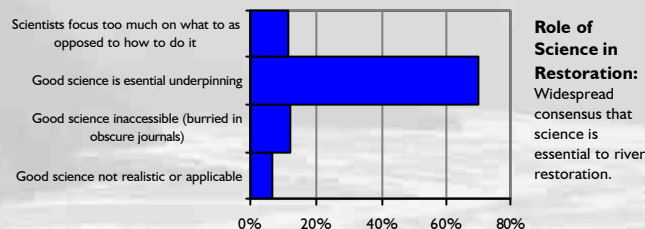
**Web-Based Format-** All responses are solicited and processed online. An interactive website now displays the results in real-time.

Table 1 - Questions asked by involvement in river restoration.

	Advocates	Managers	Practitioners	Scientists	Stakeholders
4 Background Questions	✓	✓	✓	✓	✓
5 Project Type Questions	✓	✓	✓	✓	✓
2 Goal and Objective Development Questions		✓	✓		
12 Design Questions			✓		
3 Construction Questions			✓	✓	
3 Monitoring Questions			✓	✓	✓
7 Opinion Questions	✓	✓	✓	✓	✓

## CONSENSUS?

The river restoration literature is rich with approaches, criticisms and strategic considerations. However, similar to Wilcock (1997), we hypothesized that discrepancies in opinions about restoration techniques might emerge between restoration scientists, practitioners and managers. *Contrary to our hypothesis, responses were generally consistent between scientists, practitioners and managers for most questions.*



**Role of Science in Restoration:** Widespread consensus that science is essential to river restoration.

## Practitioners Actually Using Restoration Approaches:

• **78%** of practitioners reported using some elements of published restoration approaches.  
• Most popular approaches were Rosgen (1996), FISRWG (1998) and the RRC's *Manual of River Restoration Techniques* with 30%, 27% and 25% of respondents using each respectively.

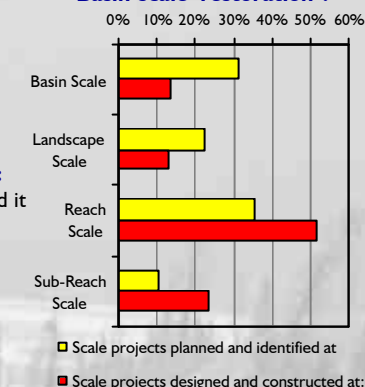
## Majority of Practitioners Using Modelling in Design:

- **60%** use hydrologic models
- **55%** use hydrodynamic models
- **58%** use other models

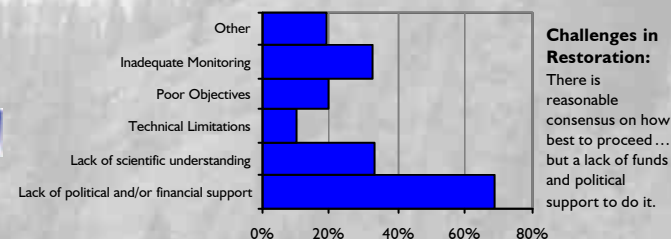
## Rip-Rap is Not Restoration:

- Only **3%** of practitioners said it was okay to include 'hard measures' to insure stability.
- **70%** favoured a dynamic morphology design, allowing adjustments with respect to anticipated sediment loads

## 'Basin-scale' restoration ?



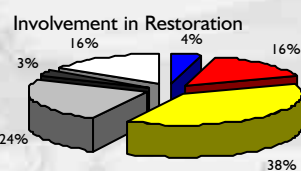
## CHALLENGE IS £ NOT NEW IDEAS



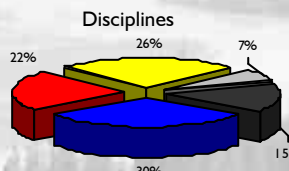
**Challenges in Restoration:** There is reasonable consensus on how best to proceed... but a lack of funds and political support to do it.

## RESPONDENT DEMOGRAPHICS:

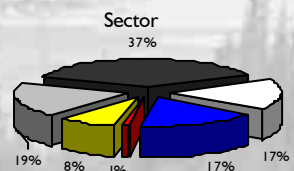
489 respondents from 36 countries on every continent; 25% from UK; 46% from USA



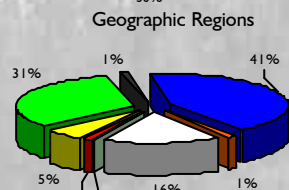
- Advocate
- Manager
- Practitioner
- Scientists
- Stakeholder
- Did not Specify



- Biological Sciences
- Engineering
- Earth Sciences
- Planning/Architecture
- Other



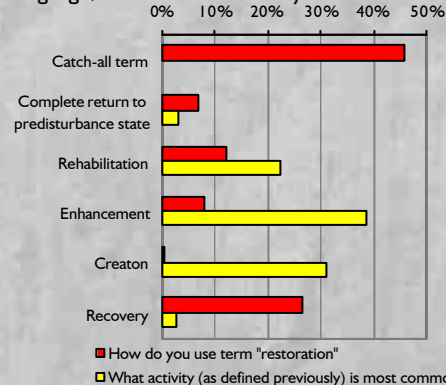
- Academia & Education
- Public
- Non-Profit (NGO)
- Private Sector
- Public Sector
- Did not Specify



- Africa
- Asia
- Australia & New Zealand
- Europe
- Middle East
- North America
- South America
- Did not Specify

## WHAT IS 'RESTORATION'?

How is the term 'restoration' used in every day language, versus what is actually built?



## REFERENCES:

- FISRWG 1998. *Stream Corridor Restoration: Principles, Processes, and Practices*. GPO Item No. 0120-A, Federal Interagency Stream Restoration Working Group, Washington D.C.
- Rosgen, D. 1996. *Applied River Morphology*, Pagosa Springs, CO: Wildland Hydrology.
- RRC 2002. *Manual of River Restoration Techniques*. The River Restoration Centre, Silsoe, UK.
- Wheaton, J.M., Sear, D.A., Darby, S.E. and Milne, J.A. The International River Restoration Survey. Internet URL: [http://www.geog.soton.ac.uk/users/Wheaton/RestorationSurvey\\_Cover.asp](http://www.geog.soton.ac.uk/users/Wheaton/RestorationSurvey_Cover.asp).
- Wilcock, P. 1997. Friction Between River Science and Practice: The Case of River Restoration, *EOS, Transactions of the American Geophysical Union*, 78(40).

Want to take the survey, find out more, view results in real-time, or download reports? This and other information is available from the survey website:

[http://www.geog.soton.ac.uk/users/Wheaton/RestorationSurvey\\_Cover.asp](http://www.geog.soton.ac.uk/users/Wheaton/RestorationSurvey_Cover.asp)