

The role of environmental stewardship in sediment management: the example of the Fraser River basin, British Columbia, Canada

Philip N. Owens

University of Northern British Columbia, 3333 University Way, Prince George, British Columbia, V2N 4ZN, Canada

Phone: +001-250 960 6617

E-mail: owensp@unbc.ca

Introduction: Increasingly, the management of sediment requires a basin scale approach [1-3]. In most river basins, this approach requires the inclusion of stakeholders in the consultation and decision making processes [4]. However, there are a variety of different ways in which stakeholders can be engaged in the dialogue and contribute to the decision making process. This paper discusses the role of environmental stewardship within basin-scale sediment management and focuses on initiatives within the Fraser River basin.

Study area and Methods: The Fraser Basin is located within the province of British Columbia, Canada. It occupies an area of about 220,000 km² and drains into the city of Vancouver which has a regionally important port. The basin has a range of land uses and environments which result in a variety of different perspectives on what sediment is, what its functions are, and how it should be managed. This makes it difficult to develop broadly acceptable sediment management plans. There are several initiatives within the Fraser Basin which use the concept of environmental stewardship to manage the basin in a sustainable way. Central to this is the development of sustainability indicators and the involvement of stakeholders. This presentation will describe several initiatives based on on-going projects.

Results and Discussion: The experience in the Fraser basin to date suggests that environmental stewardship offers much potential for evaluating why and how sediment should be managed at the river-basin scale. In particular, this approach provides mechanisms to evaluate and monitor river basin health, and to engage various different stakeholders. It has enabled successful local- and basin-scale sediment management projects in the contributing catchment and in the Port of Vancouver.

References: [1] Owens (2005) *J Soils Sediments* 5:201-212; [2] SedNet (2007) *J Soils Sediments* 7:117-132; [3] Owens (Ed.) (2008) *Sediment Management at the River Basin Scale*, Elsevier; [4] Slob et al. (2008) Sediment management and stakeholder involvement. In: [3].



Fig. 1: The Fraser Basin, British Columbia, Canada.