

Development of national objectives for sediment-related attributes: Where we are at and what's left to do

INTRODUCTION

Background regarding the need for sediment objectives for water quality management and the work that has been initiated by the Ministry.

SESSION ONE

Stage 1 sediment objective development project – linking catchment sediment loads to potential sediment-related attributes (or environment state variables, ESV's). This followed a framework centred around sediment rating curves (SRCs), which relate suspended sediment concentration (SSC) to river flow rate. SRCs can be used both to link catchment sediment load to SSC and to convert flow exceedance distributions to SSC exceedance distributions. SSC can then be linked to other sediment-related attributes.

This session will include an overview of the project scope and summaries of the key sections:

- 1) Sediment rating curves and how they change with changing catchment sediment loads
- 2) Exceedance distributions of suspended sediment concentrations (SSC)
- 3) Quantifying the relationship between SSC and other ESVs (visual clarity and light penetration)
- 4) Linking catchment sediment load to deposited sediment
- 5) Robustness of the relationships between catchment loads and sediment ESV's.

SESSION TWO

Stage 2 sediment objective development project: relationships between sediment ESV's and biological responses – recommending sediment attribute thresholds.

This session will include an overview of the project scope and summaries of the following:

- 6) Collation of sediment ESV and biological data – what data do we have to work with?
- 7) Classification system and approach for:
 - a. Suspended sediment ESV's (fine sediment concentration, visual clarity, light penetration)
 - b. Deposited sediment
- 8) What's left to do? Biological responses and recommending sediment attribute thresholds

QUESTIONS/DISCUSSION