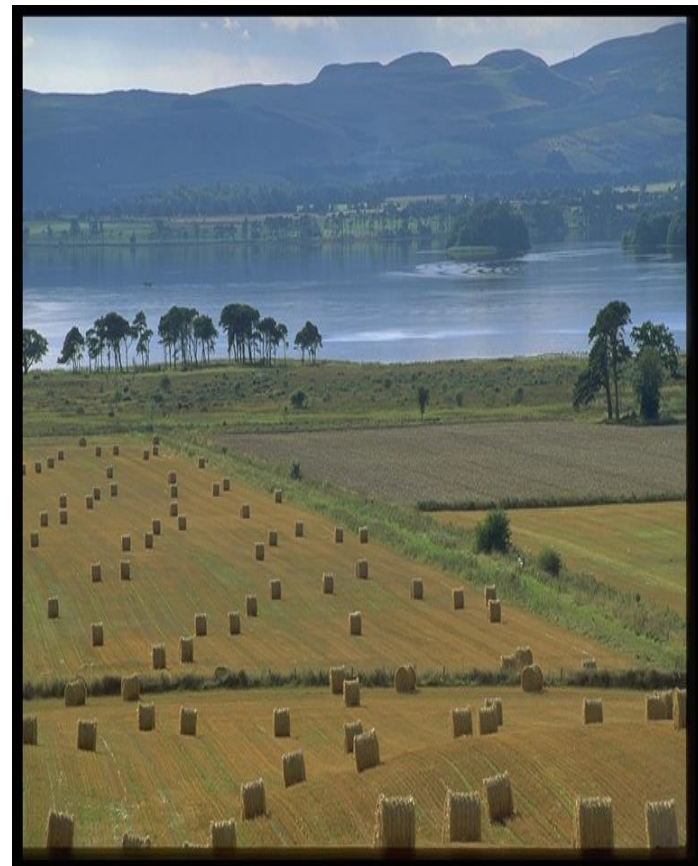


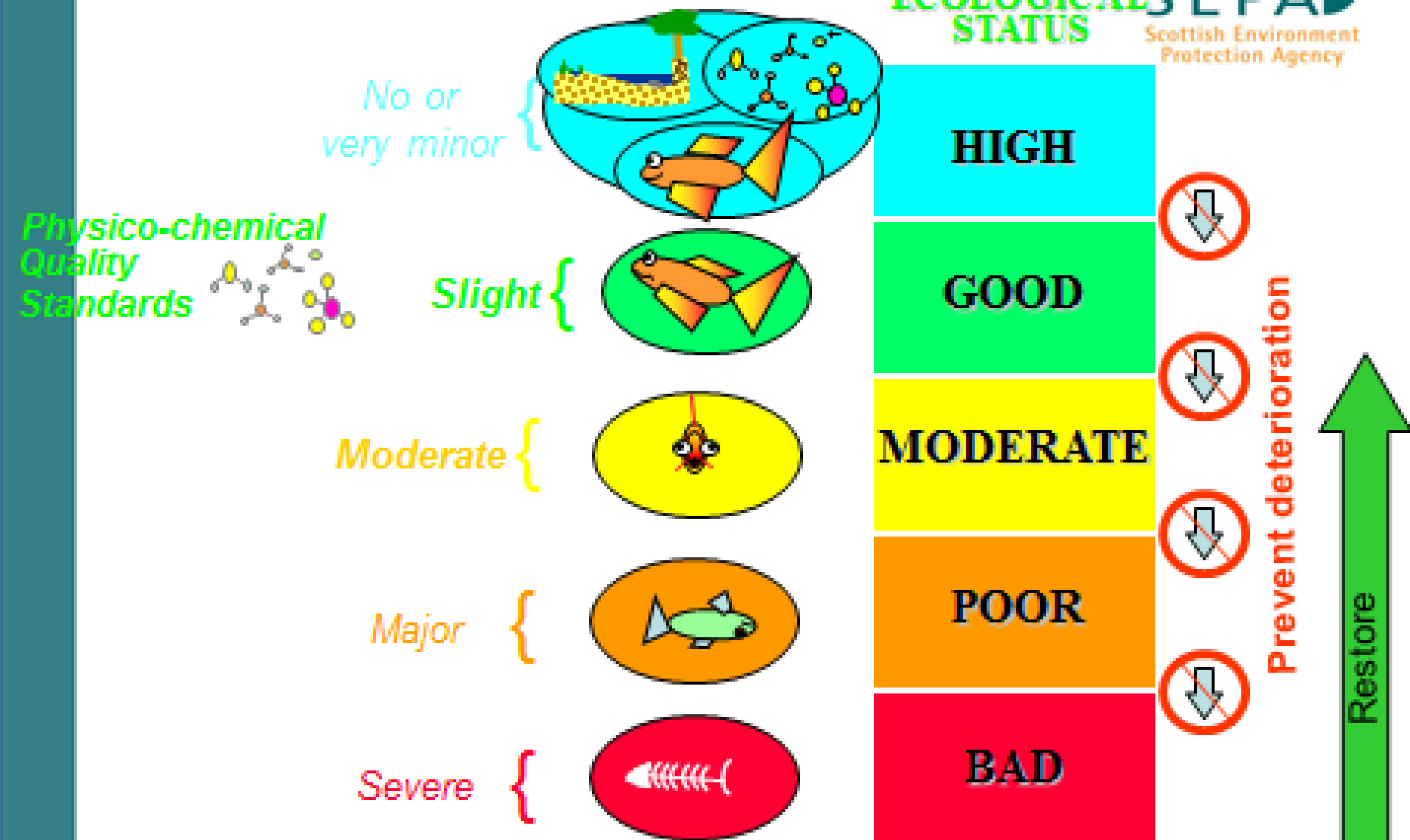
River Basin R&D Challenges

Willie Duncan
SEPA
April 2015

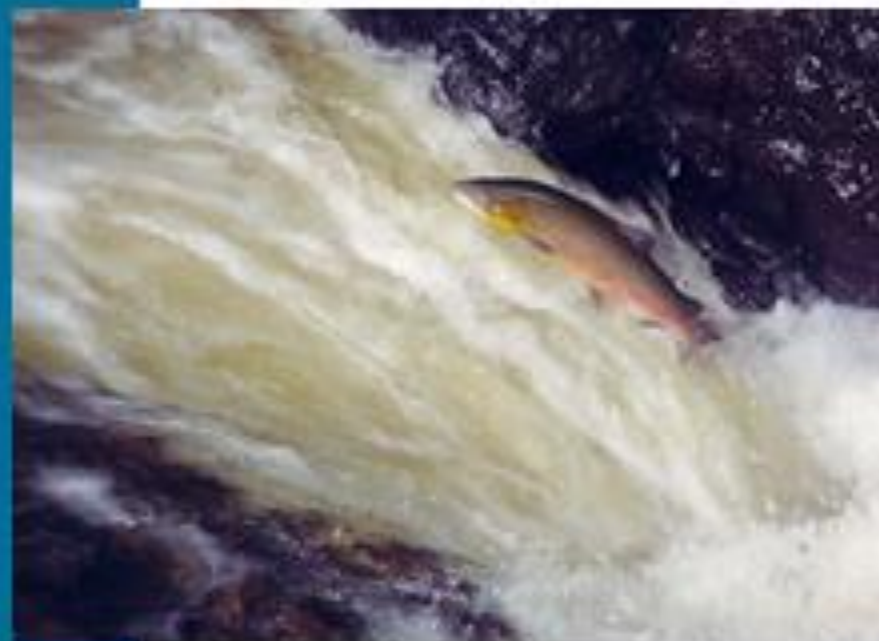
Outline

- Background to the day.
- Provide RBP Context in Scotland





The WFD- A Balancing Act



Atlantic Salmon



**A Significant
Scottish Export**

Today's Objectives

- Consultation on RBP2, closed last week.
- Time scales for implementation
- Identify R&D Challenges
- Major Issues
 - Valuing Nature
 - Managing Invasive Species
 - Improving the Physical Environment
 - Water Quality: Rural Diffuse Pollution
- Introduction by Key Note Speakers
- Break-out Sessions
- Report Back



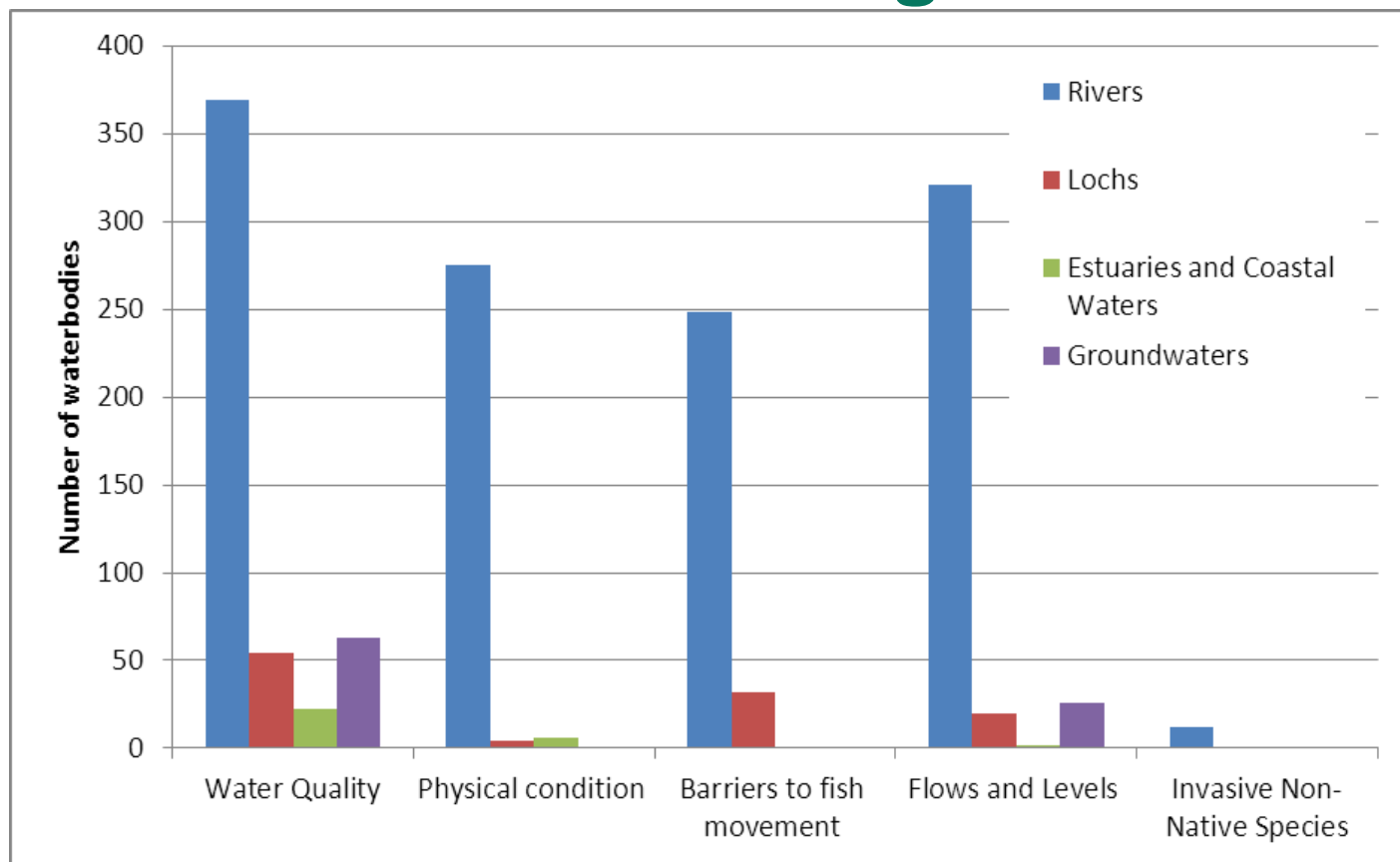
Why Protect the Water Environment

- Safeguarding and supporting the expansion of businesses that depend on a high quality water environment, such as tourism, fisheries, aquaculture and whisky production;
- Protecting drinking water supplies and avoiding increased purification treatment costs;
- Maintaining and expanding opportunities for a wide range of recreational activities;
- Contributing to the social well-being and regeneration of areas where a high quality water environment is, or has the potential to be, an important community amenity;
- Protecting and enhancing wildlife, including rare and endangered species;
- Improving our ability to cope with the effects of a changing climate (e.g. more frequent droughts, floods, heat waves etc.).

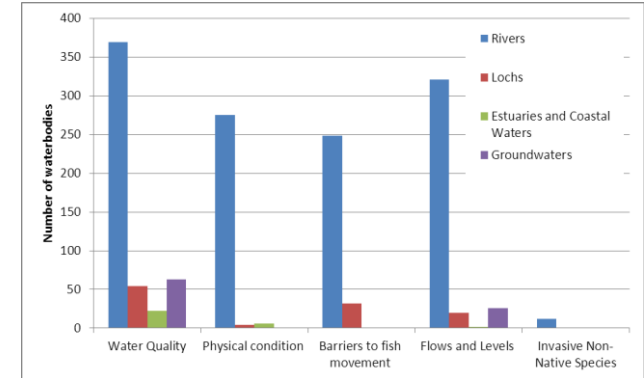
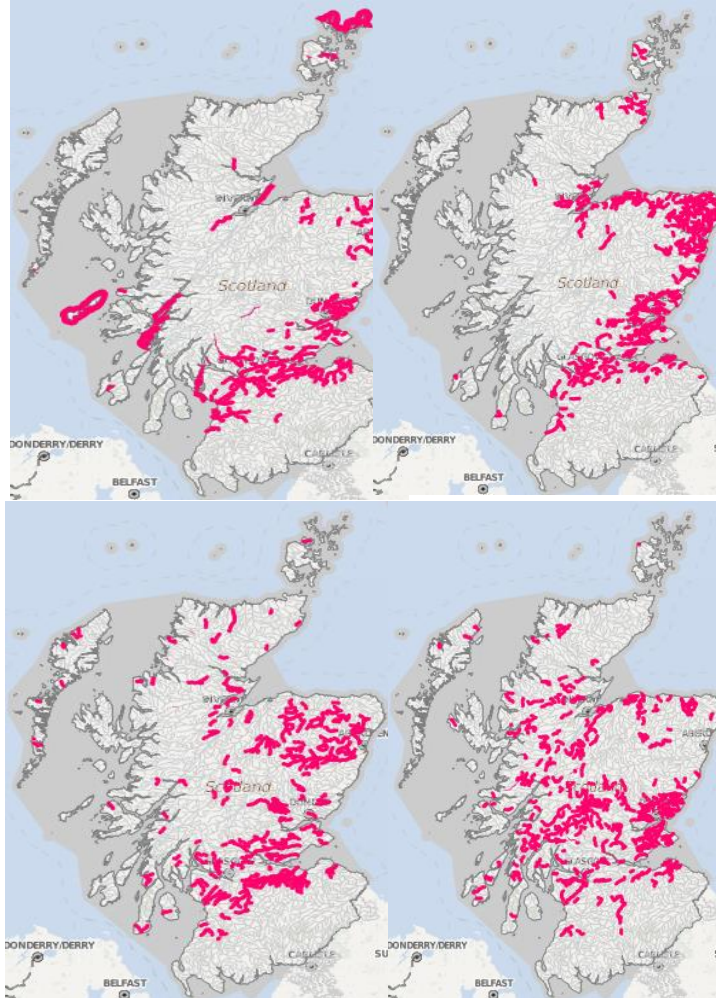


-

Reasons for Downgrades

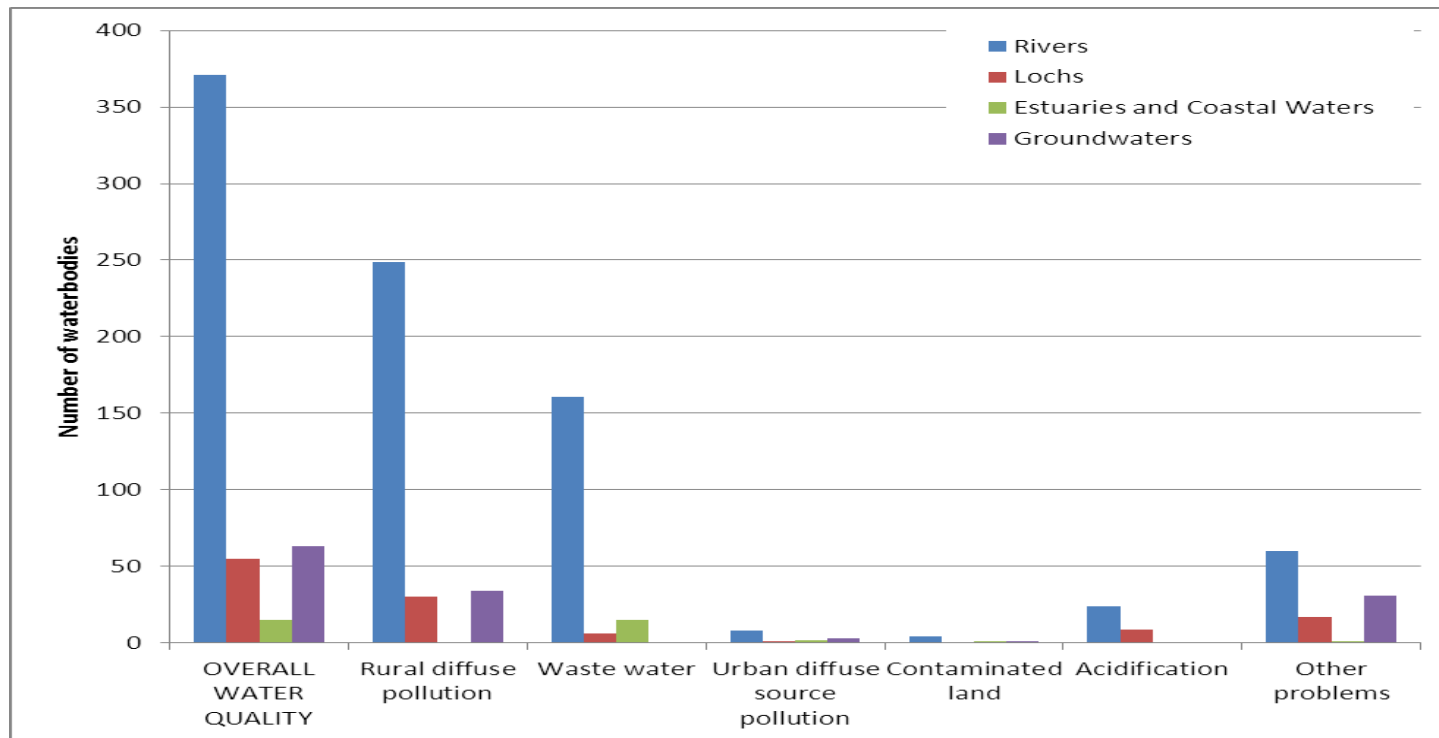


Unpacked Regional Patterns



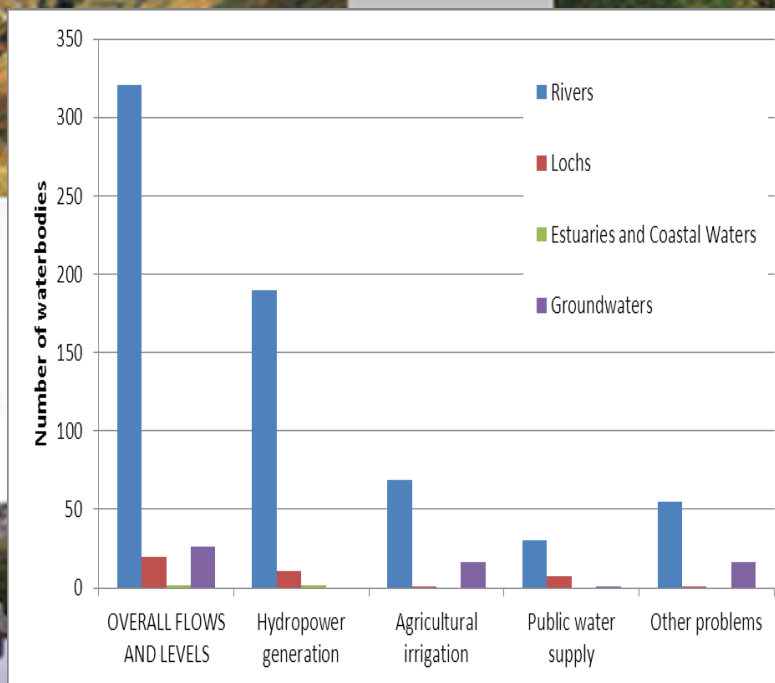
- Strong association between pressures and urban/rural development.
- Significant regional patterns

Unpacked Pressures- Water Quality



- Significant improvements in tackling traditional pressures.
- Rural Diffuse- Andy Vinten, will discuss further

Unpacked Pressures- Flows and Levels



Other R&D Areas

Evidence Base

- P/R Relationships
 - Morphology
 - Fine Sediment
 - Hydrology
 - Nutrients
- Further pressure diagnostic methods.
- Use of functional groups

Sampling Efficiencies

- Molecular/Genetic (DNA, e-DNA)
- Remote Sensing
 - Satellites
 - UAV
 - Globo-lakes
- Lite/Rapid Methods

Delivering Restoration

- Rural Diffuse Pollution
- Morphology
- Lakes-timescales

Thanks for listening!

