SEPA
Scottish Environment Protection Agency

Hydro Developments Regulatory Requirements

Richard Fyfe
Specialist II (Water)

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Overview

- WFD Background
- Potential Impacts
- Environmental Standards
- Assessment Process
- Mitigation measures
- Application Process & Timescales

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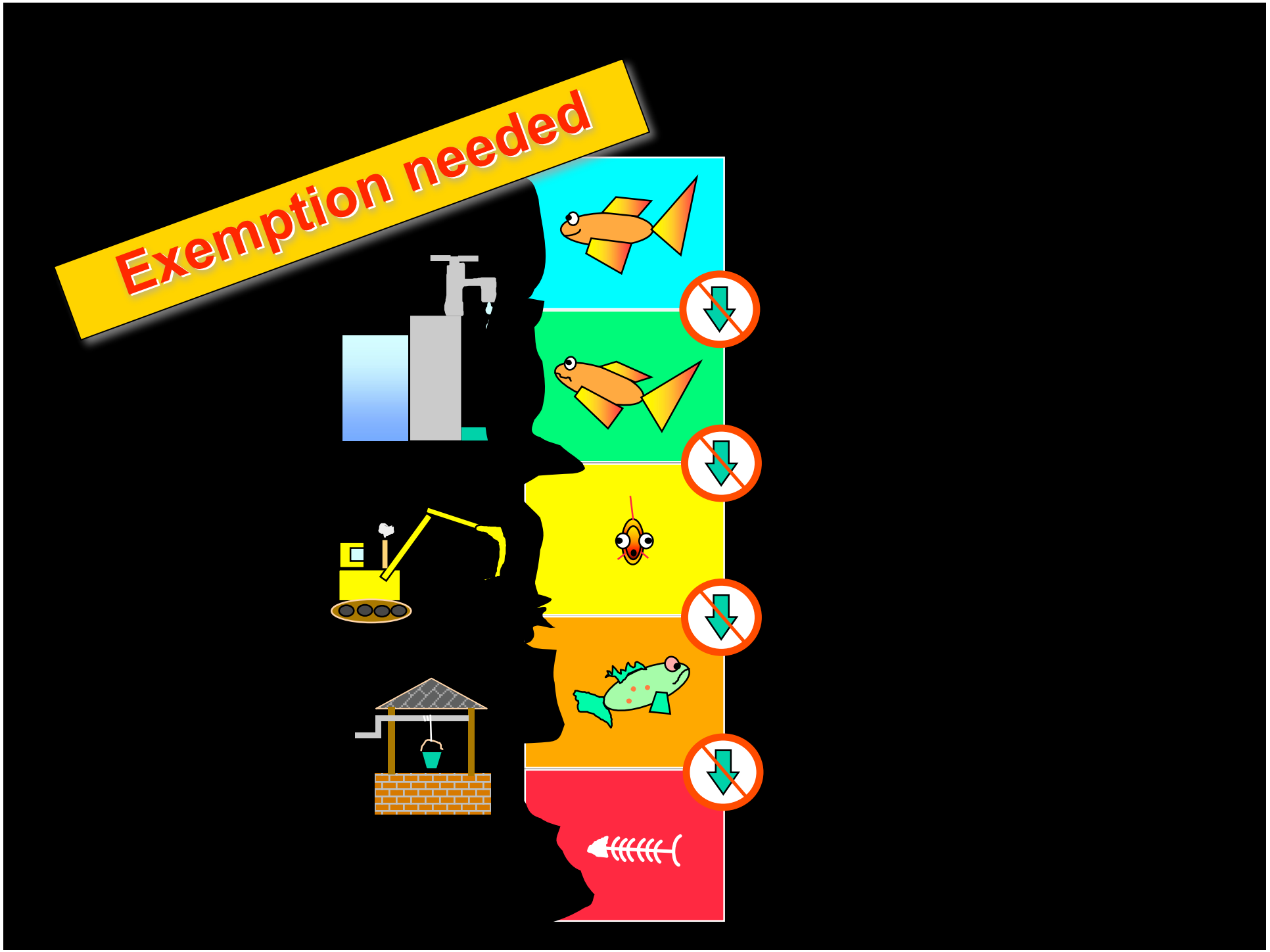
Water Framework Directive

- SEPA must prevent deterioration of status
- Seek to improve to 'good' status
- Promote sustainable water use
- Protect other water users
- **By controlling abstraction & impoundment activities**
- **Using the Water Environment (Controlled Activities) (Scotland) Regulations 2005**


Exemption needed

SEPA and Renewables

- **Key message**
- Hydropower is one of Scotland's largest sources of renewable energy and it is important to promote further hydropower development in order to reduce carbon dioxide emissions. *However*, it can not be renewable energy at any price. Getting the balance right between promoting hydropower and protecting and improving the water environment is a key challenge for SEPA.

Potential Impacts

- Short term impacts during construction
- Sediment run off from roads etc.
- Mobilisation of sediment from bed or banks of river
- Oils

Potential Impacts

- Altered flow regime
- Loss of low/mid range flows – impact on biodiversity
- Fish and fisheries – barriers to migration and spawning
- Loss of wetted margins & habitats
- Third party users
- Sedimentation problems u/s and d/s of impoundments

Scheme during construction

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Always expect the unexpected

Scheme following construction & restoration

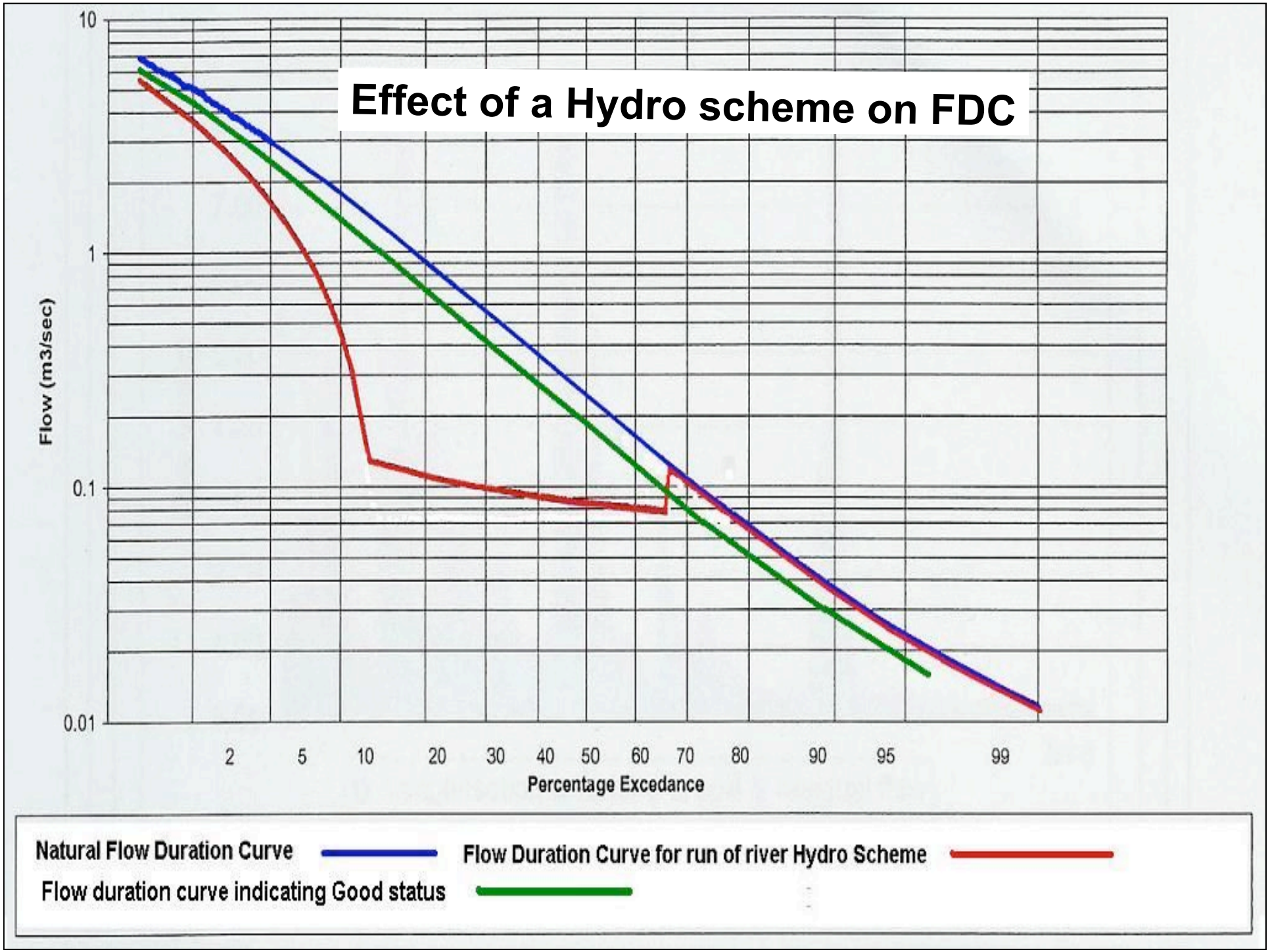
(short term impacts)

Environmental Standards

- The Scotland River Basin District (Surface Water Typology and Environmental Standards) (Scotland) Directions 2007
- In force from 1 October 2007
- Presumption (Expectation) to refuse applications which breach standards

Use of Standards

- **SEPA will normally be expected to use their powers to prevent controlled activities from causing a failure of an environmental standard, by**
- refusing to grant applications to undertake controlled activities that would result in failure of an environmental standard;
- granting authorisations subject to such conditions as they consider necessary to ensure controlled activities do not cause a failure of an environmental standard;
- Such action will help protect Scotland's water environment and the interests of other users of the water environment; and contribute to achieving the WFD's objective of preventing deterioration of status of any water body


Effect of a Hydro scheme on FDC
Flow (m3/sec)
10
1
0.1
0.01
2
5
10
20
30
40
50
60
70
80
90
95
99
Percentage Excedance
Natural Flow Duration Curve
Flow Duration Curve for run of river Hydro Scheme
Flow duration curve indicating Good status

Hydropower Applications

- The vast majority of applications for hydro schemes will breach environmental standards – these are in place to ensure the water environment is protected
- Some of these will also threaten ecological status – and will need to be reported to Europe via the River Basin Plan
- To authorise hydro scheme applications requires SEPA to carry out specific assessments under CAR and/or WFD

Balancing the Environment and Renewables

- SEPA needs to strike the right balance between the protection of the water environment and the social, economic and environmental benefits gained from its sustainable use.
- SEPA may decide it is appropriate to authorise an activity which would cause a failure of environmental standard where they consider the benefits to sustainable development, human health or human safety of so doing would outweigh the adverse social, economic and environmental consequences.

Derogation (Exemption) Tests

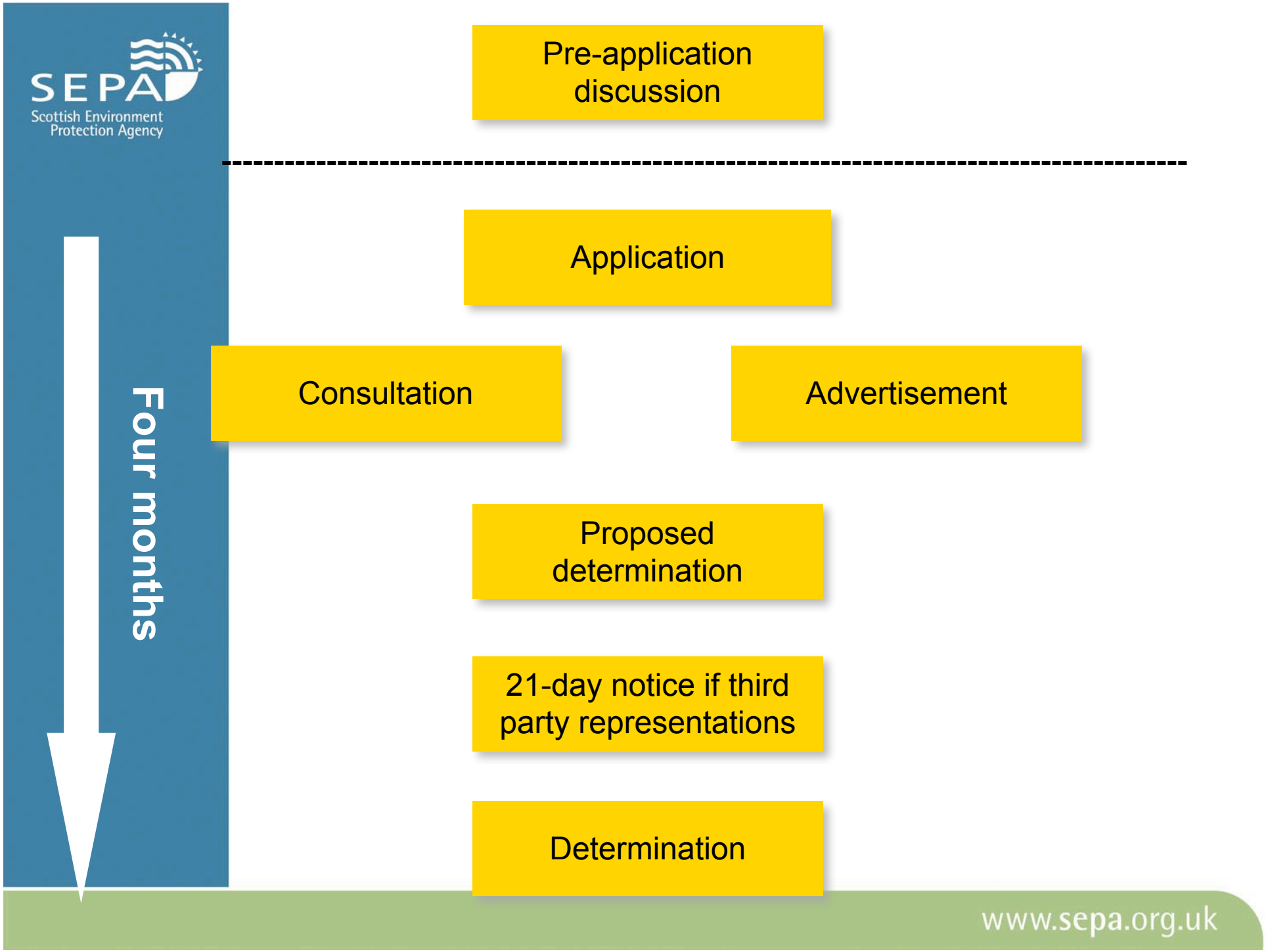
- Set out in Article 4(7) of WFD
- Apply where activities result in the deterioration of ecological status
- CAR requires a similar test where an Env. Std. is breached
- Regulatory Method 34 developed as guidance for staff
- Used for breaches of standards as well as status

How does assessment work?

- What is the current status of the affected waterbody?
- What effect will the proposal have on its own and in combination?
- Will Environmental Standards be compromised?
- Will ecological status be affected?
- Will third parties be affected?
- Can the impacts be mitigated against?
- Is the proposal licensable?

Application process

- Contact your local office at initial scoping stage
- Contact other responsible authorities and interested parties at earliest stage
- Forms and details of fees available on website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Four months
Pre-application discussion
Application
Consultation
Advertisement
Proposed determination
21-day notice if third party representations
Determination
www.sepa.org.uk

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Information required

- Scheme Details
- Hydrology Data
- Physical Habitat / River Morphological data
- Ecology Data
- Relevant Local Issues
- Pollution Control
- Monitoring
- Wider benefits of Proposal

Advertising

- When SEPA serve notice for the application to be advertised the clock stops.
- Adverts to be placed within 28 days of notice being served
- Clock could be stopped for up to two months.
- Allows third parties to raise any issues
- In time responses allow call in request

Consultation

- No specific consultees within CAR
- Designation of Responsible Authorities
- Requires RA's to work cooperatively
- Aim is for an integrated approach to managing & protecting the water environment
- SEPA will therefore seek the advice of RA's as appropriate
- Where responses are received within statutory time limits RA's have the same right to request call-in as any third party

Call In and Appeals

- Responding within the 28 days allows third parties to seek a call-in by Scottish Ministers if they are not satisfied with SEPA's decision
- Appeal process gives the applicant the right to appeal any licence conditions which they consider to be unreasonable