
Economic Aspects of Preparing River Basin Management Plans under the Water Framework Directive

Friday 14th November, 2008

- Goodbody engaged by the Water Services National Training Group (www.wsntg.ie)
- Producing guidance material and training for the people preparing River Basin Management Plans:
 - Cost Effectiveness Analysis
 - Disproportionate Cost Analysis
- Working with a Steering Group from Department, WSNTG, Local Authorities and EPA
- Certain insights into how the Water Framework Directive will be implemented and hence how it will affect grassland management

- Requirements of the Water Framework Directive
 - All water bodies must reach at least good status by 2015
 - Management and reporting system to ensure that this target is reached
- “Basic” and “Supplementary” Measures
- Choice of measures based on Cost Effectiveness Analysis
- Any derogations based on Disproportionate Cost Analysis

Objectives of the Water Framework Directive:

- To protect and enhance the status of aquatic ecosystems;
- At least “good status” by 2015;
- Sustainable water use;
- Sufficient supply of water for sustainable, balanced and equitable water use;
- Protection of the aquatic environment by controlling discharges, emissions and losses of priority substances;
- Mitigating the effects of flood and droughts;
- Protecting territorial and marine waters; and,
- Establishing a register of “protected areas”.

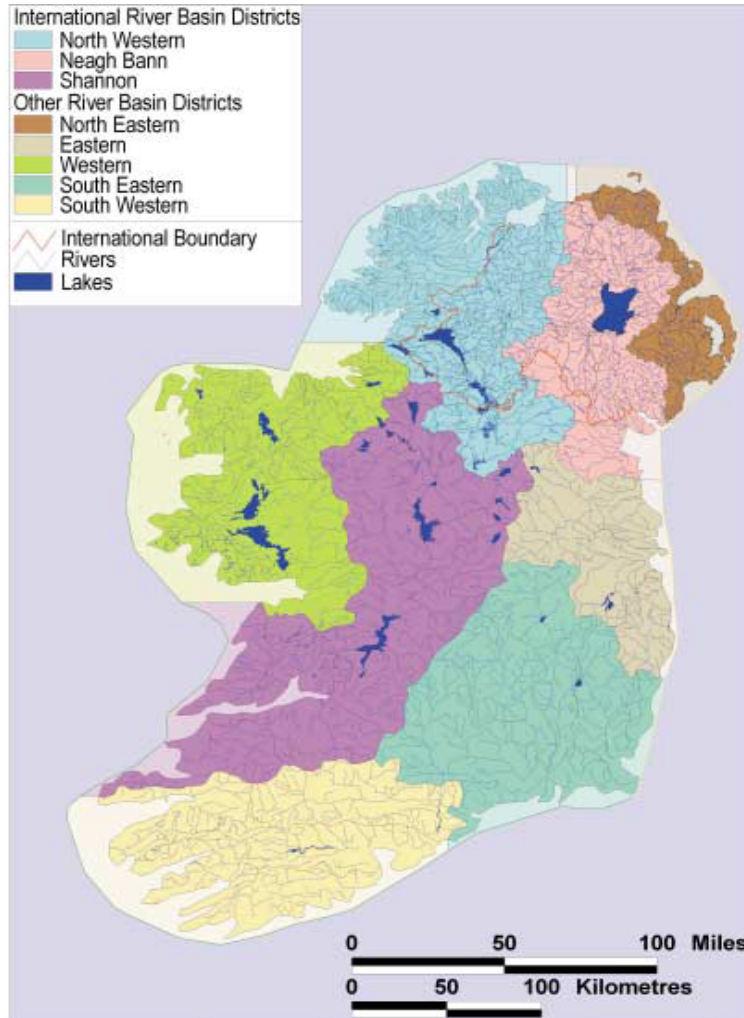
Good Water Status:

- Ecological **and** Chemical
- Five possible levels: High, Good, Moderate, Poor and Bad
- Good ecological status:
 - Biological quality elements;
 - Physico-chemical conditions;
 - Relevant specific synthetic or non-synthetic pollutants; and
 - Hydromorphological elements.
- Must score “good” on all four
- Chemical status specific targets for named substances

Management and Reporting under the WFD

- Establishes Districts and Authorities
 - Island of Ireland divided into 8 RBDs
 - Republic of Ireland: Eastern, Western, South Eastern, South Western
 - Northern Ireland: North Eastern
 - International: North Western, Neagh-Bann, Shannon
- Districts must report water quality
- Publish a plan to meet quality standard
- Report progress on meeting the standard
- These River Basin Management Plans due in 2009, 2015 and 2021

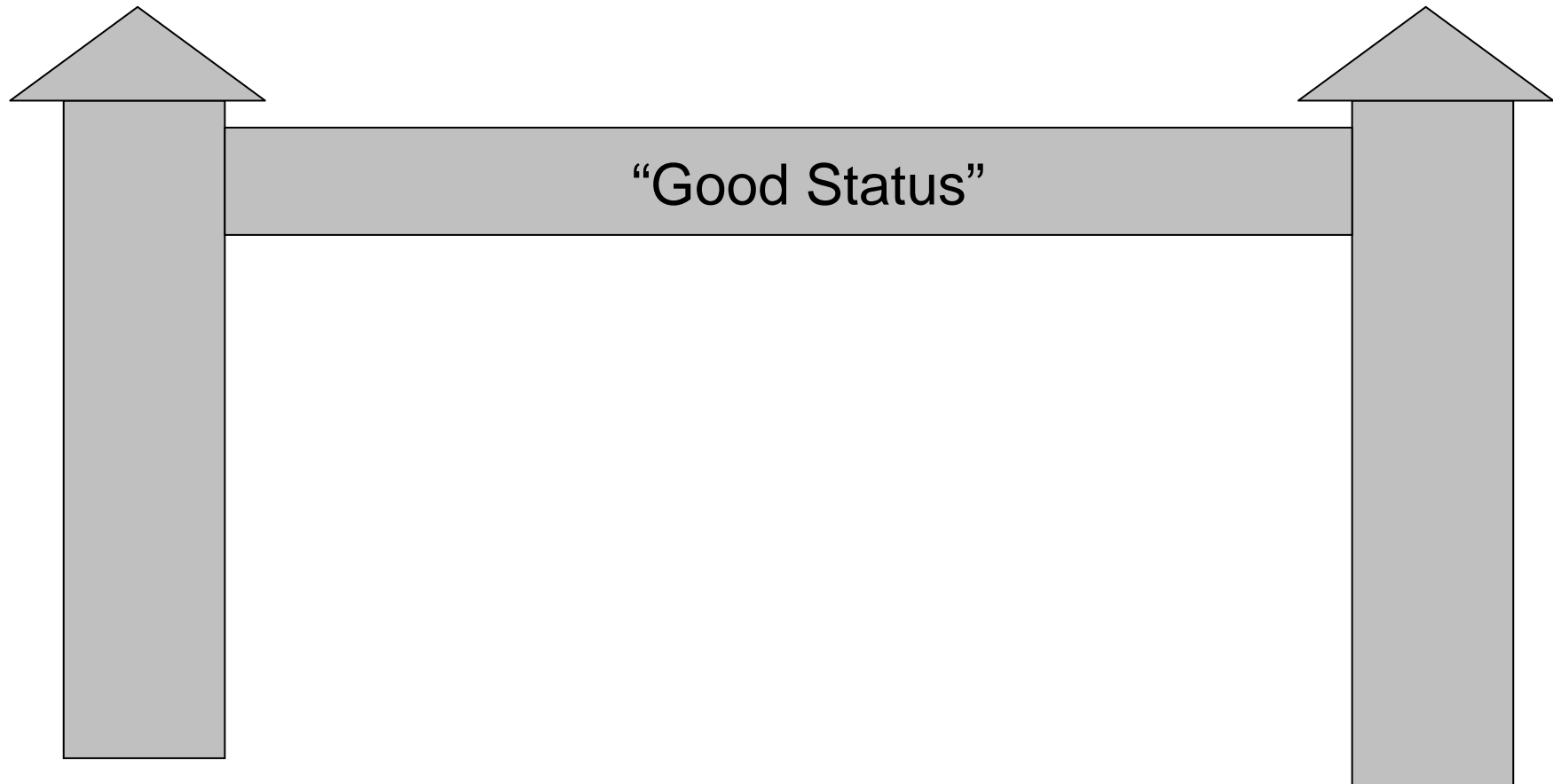
Requirements of the WFD 4

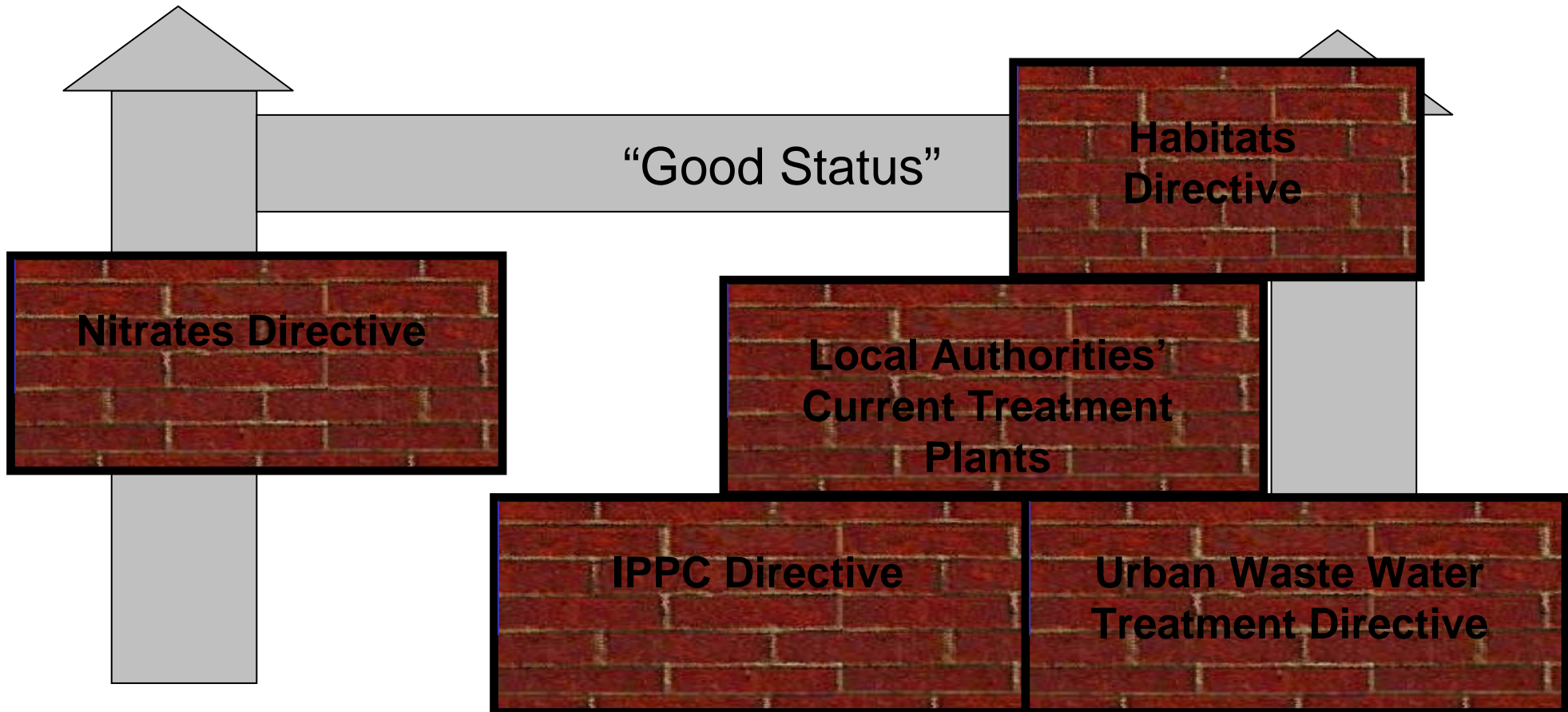


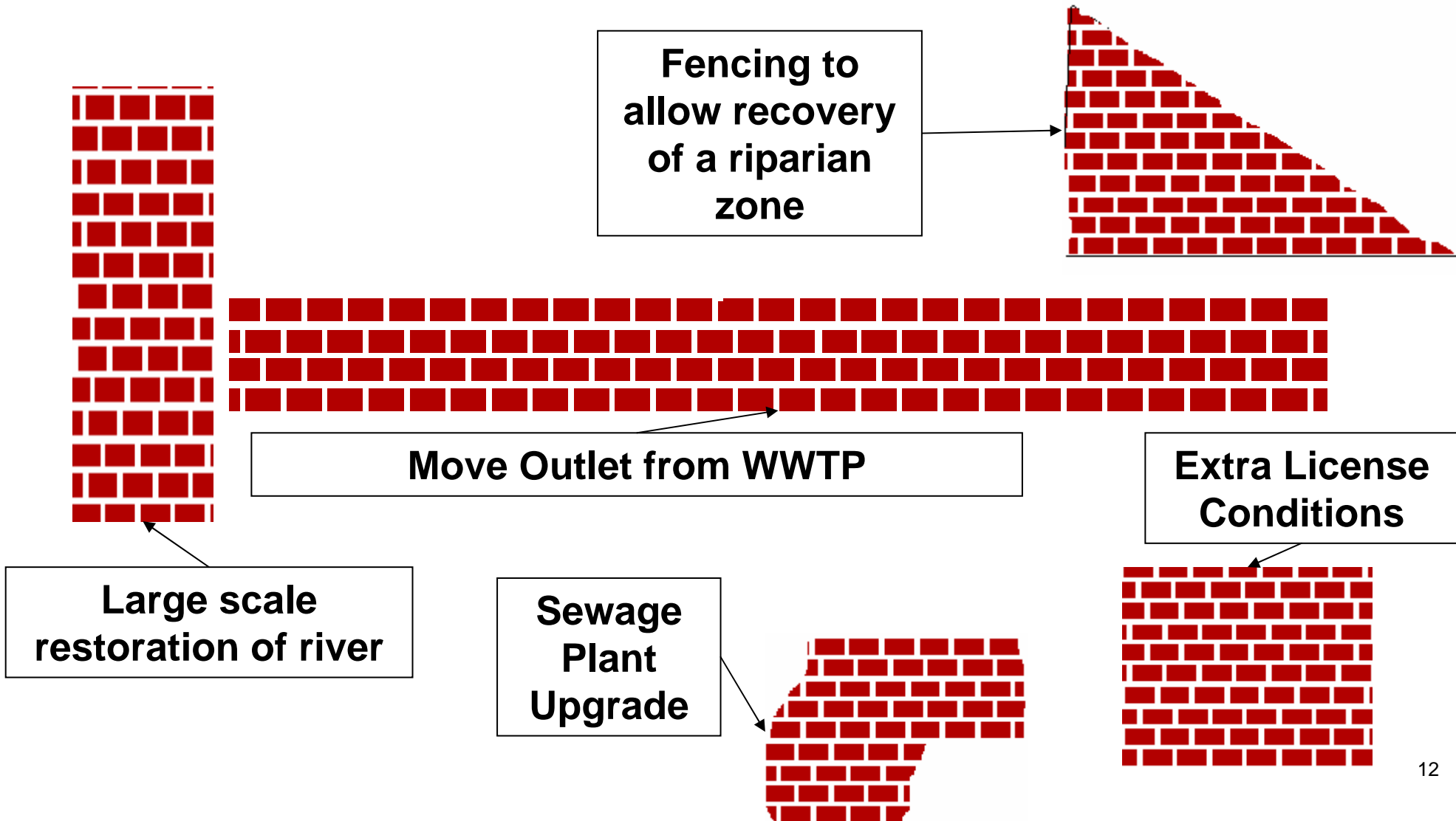
Implications for management of grasslands:

- Ambitious Targets for Water Quality
- Management and reporting in place to achieve these targets
- Effect of grasslands on water quality will be closely scrutinised

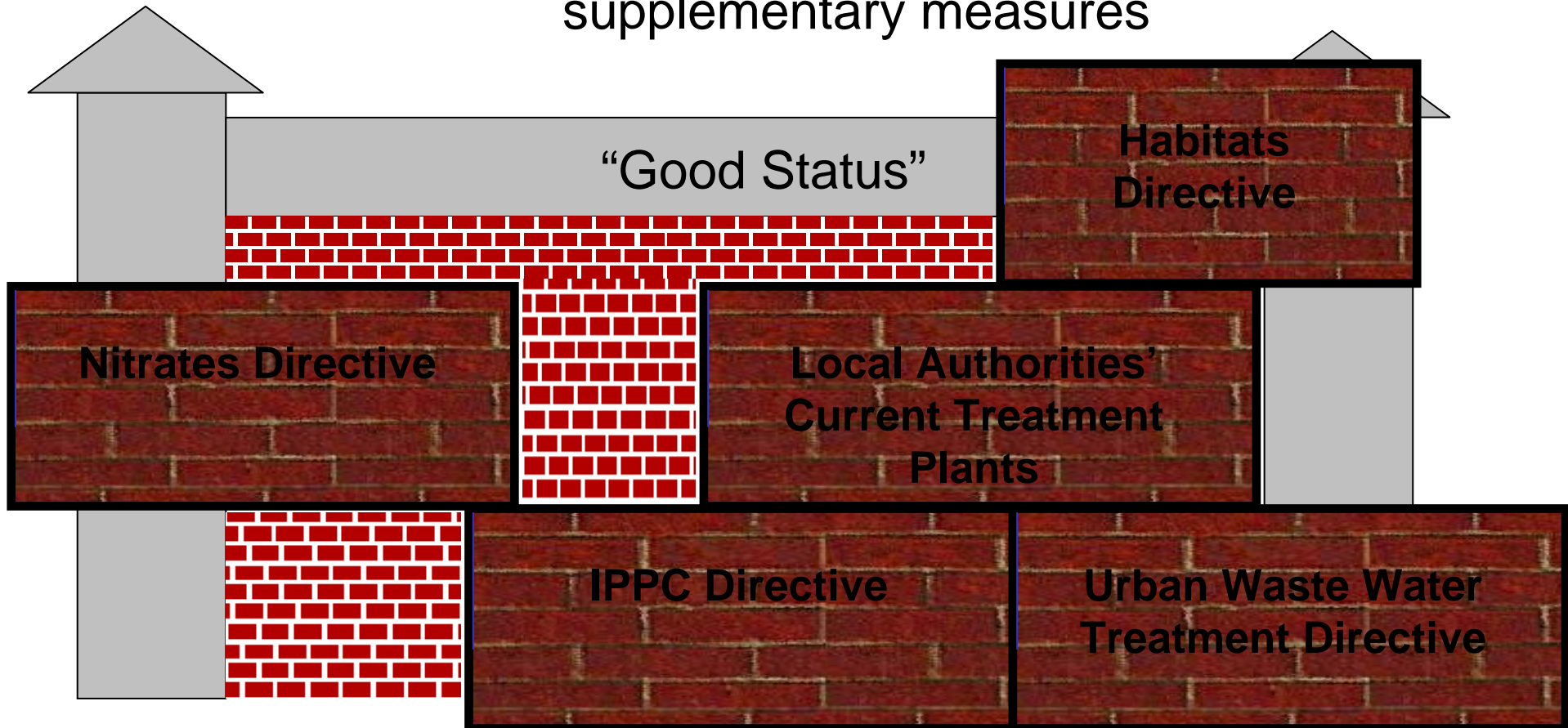
- Important new concept of “Supplementary Measures”
- WFD sets a target for water quality
- Obligations under existing legislation are “Basic”
- Supplementary measures may be necessary
- River Basin District can choose its own supplementary measures
- These must be the most cost effective set available







Fill the gaps using the most cost effective set of supplementary measures



- Flexible and imaginative way of imposing a common, high standard of water quality across a diverse Community
- Does not qualify obligations under existing legislation in any way
- “Cost Effectiveness Analysis” should not affect decision making
- Any existing measures on the management of grasslands will remain in force
- River Basin Districts may impose additional measures on grasslands, if this is the most cost effective way to reach Good Status

- Continue all current activities and policies
 - Waste Water Treatment
 - Licensing of industry
 - Policing
 - Maintaining, or not, embankments etc.
- All basic measures are in force
 - Fulfilling all legislative requirements
- Foreseeable growth in population
- Trends in industrial and agricultural activity.



Forecast
Water
Quality in
2015

- Good Status Gap
 - Water bodies where there is currently moderate or worse status
 - Water bodies where good status is not maintained
 - Areas where current high status is not maintained
- Identify “supplementary” measures that are technically capable of closing these gaps
- River Basin Management Plan will have to set out a programme of these supplementary measures to address any status gap

- Outputs are measured through a numeric scoring system
- Each upward movement in status achieves a score of one incremental unit
- These scores are aggregated and “discounted” over thirty years

| Table 4.1: Output and Water Status Transitions | |
|---|-------------------|
| Water Status Transition | Incremental Units |
| Bad to Good | 3 |
| Poor to Good | 2 |
| Moderate to Good | 1 |
| Moderate to High | 2 |

- Four types of cost
 - Public implementation costs
 - Industry (including agriculture) costs
 - Consumer costs
 - External costs
- Much wider than usual financial costs
- Measured at 2009 prices
- Includes cost imposed on Agriculture

| Measure | Output | Cost | Cost effectiveness ratio (€000/unit) |
|-------------------------|--------|---------|--------------------------------------|
| Natural Recovery | 9.55 | €0.098m | 10 |
| Assisted Recovery | 11.74 | €2.646m | 225 |
| Large Scale Restoration | 14.21 | €6.926m | 487 |

Implications for management of grasslands:

- Any Supplementary measures affecting grasslands must be cost effective
- Decision to impose these supplementary measures must be disclosed in RBMP
- Costs imposed on agriculture must be taken into account

- DCA may be used to justify
 - Postponement of good status beyond 2015
 - Setting a lower ultimate status target
 - Heavily modified water body
 - Future modifications
- “Disproportionate Cost” is not defined in the WFD
- But EU likely to take conservative and critical stance
- DCA is not the easy option
- May be applied in exceptional circumstances

- No comprehensive EU guidance
- Some discussion taking place at an EU level, and in individual Member States as to what this might mean:
 - Costs > benefits
 - Disproportionate impact on a particular group
 - Affordability for the public authority.
- Disproportionate Cost may be used to justify derogations from good status by 2015, will not affect any basic obligations