

# Water Resources Demand Management Assistance Project

水资源需求管理援助项目

## Legislation and Water Quality Management

立法与水质管理

March 2010

2010年3月



# INTRODUCTION

## 引言

- How legislation can be used to protect water quality  
如何通过立法来保护水质
- Good international practice using the examples of UK and European Union (EU) law  
通过英国和欧盟的法律实例，介绍国际最佳经验。
- Focus: point source pollution as opposed to diffuse source pollution  
重点：点源污染与面源污染



# Legislative tools include...



## 立法工具

- Environmental Impact Assessment  
环境影响评价
- Civil Liability & clean up costs  
民事责任&清理成本
- Information rights  
信息权利
- Permitting  
许可发放

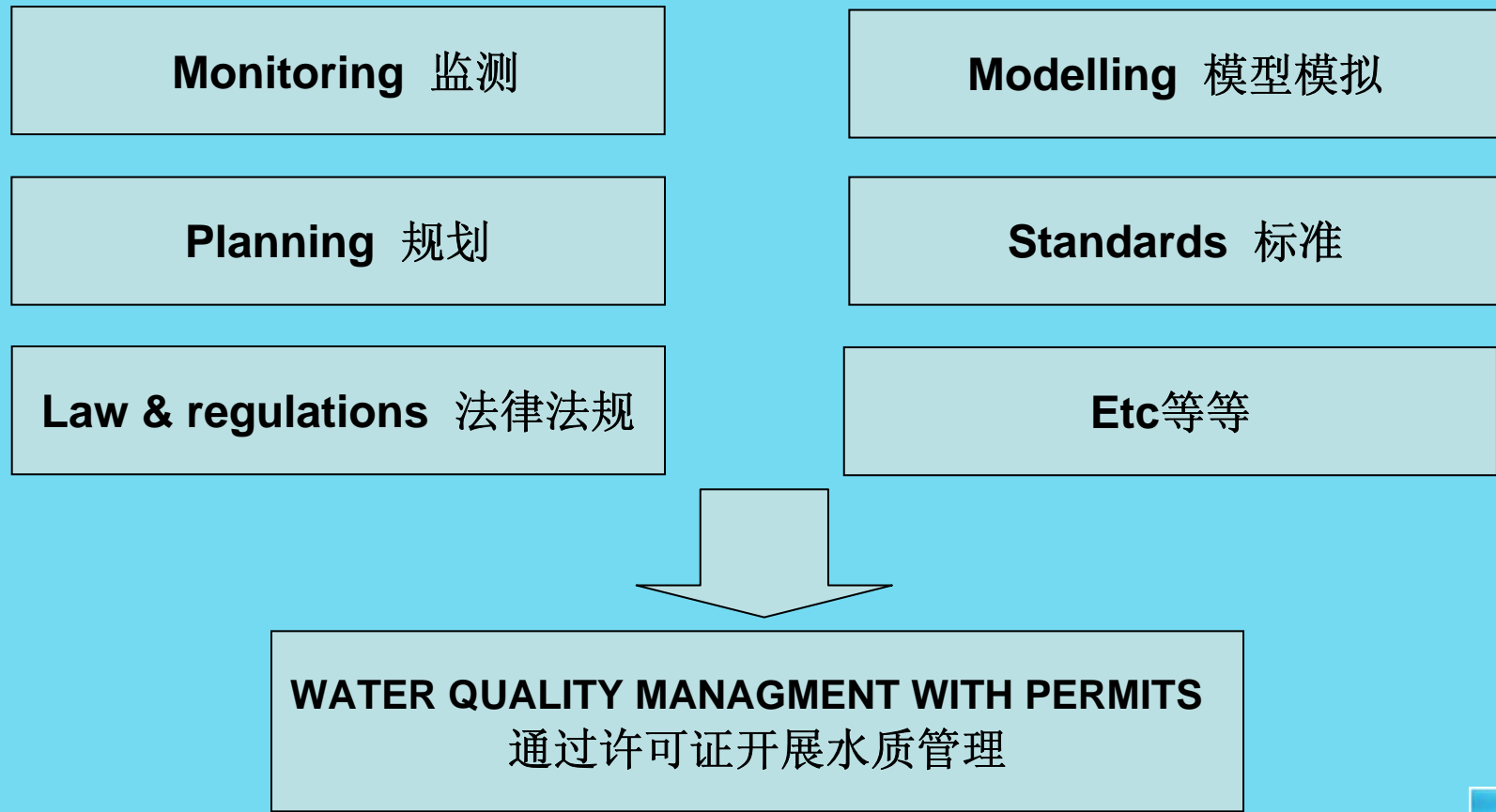


# How permits are a key tool for water quality management



## 为什么许可证是水质管理的一项重要工具

From the general to the specific.....由一般到具体.....



# Discharge permitting

## 排污许可

- The main legal instrument for regulating point source discharges  
调控点源排放的主要法律手段
- Ubiquitous  
普遍存在
- General prohibition: all discharges brought within the permitting regime  
一般禁律：许可证发放制度下的所有排污
- Do not create ‘rights’ but do provide legal certainty for polluters  
不要创建“权利”，但要为排污者提供法律确定性
- Need for a clear and robust legal framework  
需要一个明确而强有力的法律框架



# Permit conditions why - they are so important

## 为什么许可证条款如此重要

- Each permit holder can clearly understand what s/he must do in order to comply with the conditions of the permit  
每个持证人都要清楚了解许可证条款，只有这样才能够达标。
- To enable an inspector to inspect against the conditions of the permit in order to verify compliance  
检查人员能够对照许可证条款核实达标情况
- In the event that non-compliance is alleged, a court or other tribunal can make a definitive ruling  
如果有人被指控违反许可证条款，法院或其它仲裁机构可以作出最终裁决



# How legal provisions can assist in setting permit conditions

法律条款如何有助于设定许可证条款

- Types of standard

标准类型

- Discharge standards 排放标准
- Water quality standards 水质标准
- Process standards 工艺标准
- Ecological Standards 生态标准

- In Europe these standards are specified in EU Law

在欧洲，欧盟法律明确规定了这些标准

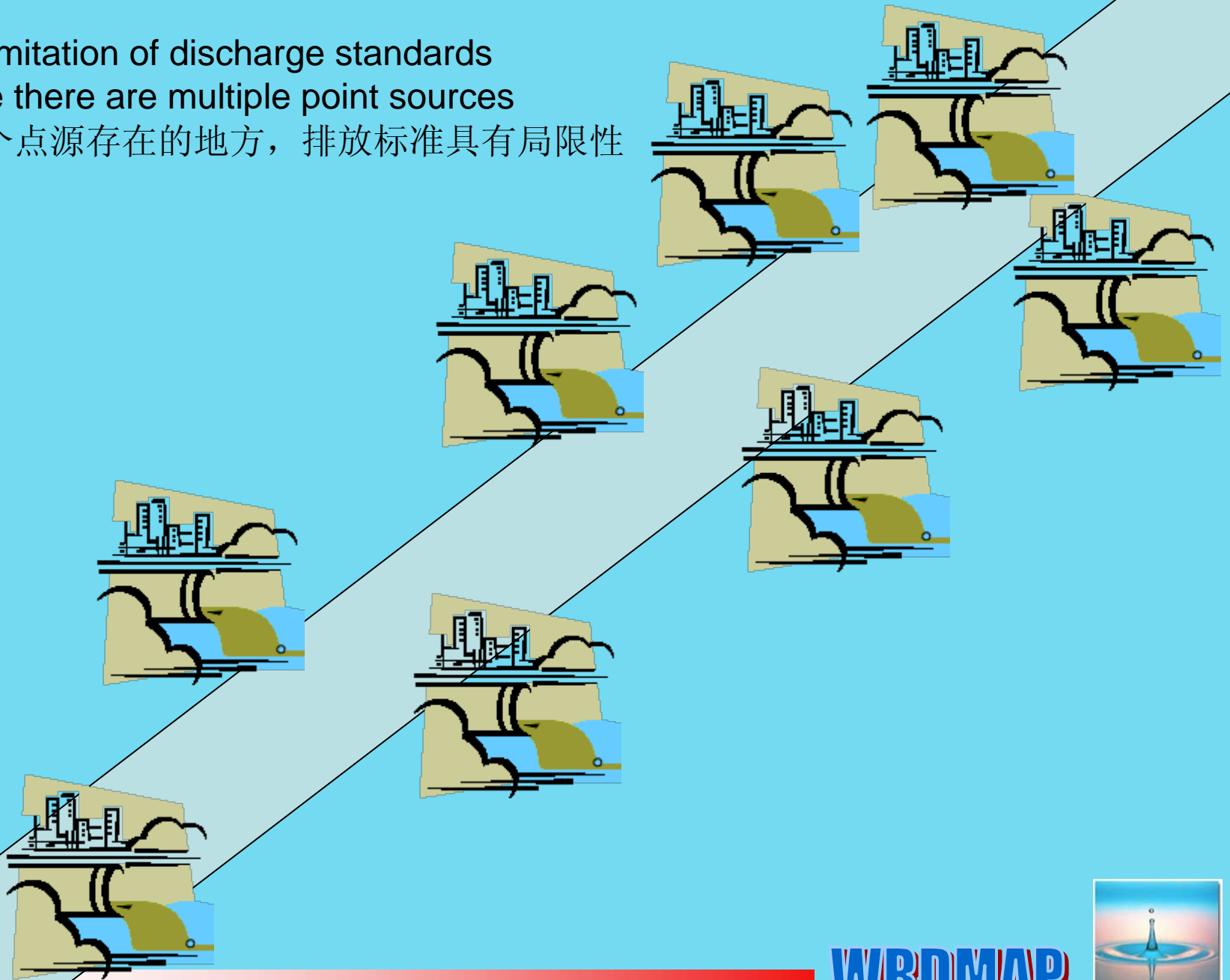


# Discharge standards 排放标准

- Introduced in the 1970s
- Sought to reduce or eliminate the discharge of certain particularly harmful substances into water bodies
- 试图减少或杜绝在水体中排放某些特定有害物质
- ‘Black list’ substances “黑名单”物质
  - Could only be discharged on the basis of a discharge permit  
只能在持有许可证的情况下排放
  - Had to comply with strict EU discharge standards  
必须遵守严格的欧盟排放标准
- Grey list substances 灰色名单物质
  - National legal standards had to be developed  
必须制定国家法定标准
  - Could only be discharged on the basis of a discharge permit  
只能在持有许可证的情况下排放
- Limitations of discharge standards 排污标准的局限性
  - Multiple point sources 多点源
  - Diffuse sources 面源



The limitation of discharge standards  
where there are multiple point sources  
在多个点源存在的地方，排放标准具有局限性



# Water quality standards 水质标准

- **Standards are set by reference to the use to which the waters in question are put**  
根据具体水体用途来设定水质标准
- **These included**包括：
  - **Drinking water sources**引用水源
  - **Bathing water**洗澡水
  - **Freshwater fisheries**淡水渔业
  - **Shell fish**贝类动物
- **The EU Member States were required**  
欧盟各成员国必须要：
  - **identify relevant water bodies**  
确定相关水体
  - **set legally binding water quality standards**  
制定具有法律约束力的水质标准
  - **ensure compliance with water quality standards**  
确保水质标准得到落实
- **Limitations of water quality standards**  
水质标准的局限性



# Process/management standards # 1



## 工艺/管理标准#1

- **Specify how certain activities are to be performed**  
明确规定如何开展某些活动

### Urban Waste Water

城市污水

Approach 方法

- Identification of sensitive and less sensitive areas  
确定敏感区和次敏感区
- Ensure provision of proper collection and treatment equipment (through the construction of treatment plants) 确保提供合适的收集与处理设备（通过建设处理厂）
- Regulate discharge of industrial waste water to sewer 对工业废污水的管网排泄进行调控

### Nitrates from agricultural activities

农业活动排放的硝酸盐

● Approach 方法

- Identify affected waters and nitrate vulnerable zones Nitrates 确定受影响水域和硝酸盐敏感区
- 'Code of Good Agricultural Practice' “农业良好耕作”法规
- Manure storage – duration and security 粪肥储存 — 时间与安全
- Manure and fertiliser use – maximum rate of application 粪肥和化肥的使用 — 最大用量标准
- Define action and monitoring programmes 明确行动与监测计划

**WRD**MAP



## 工艺管理标准#2

### Integrated Pollution Control and Prevention

#### 一体化污染防控

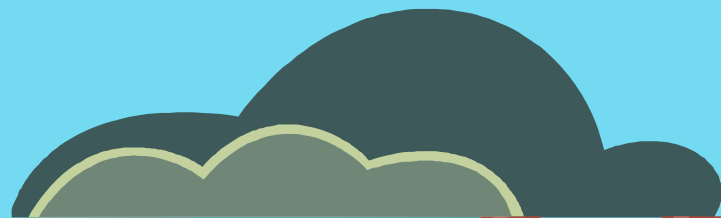
#### Approach 方法

- Applies to large industrial installations  
适用于大型工业设施
- Integrated approach to permitting to prevent or reduce emissions to air, water and land and to achieve a high degree of environmental protection  
以整合的许可模式防止或减少向大气、水体及陆地排放，实现高水平环境保护
- A single integrated permit  
单一的整合许可证
- Legal obligation: use of limit values and “Best Available Techniques”  
法律义务：采用限制值和最佳可用技术
- Challenges  
挑战

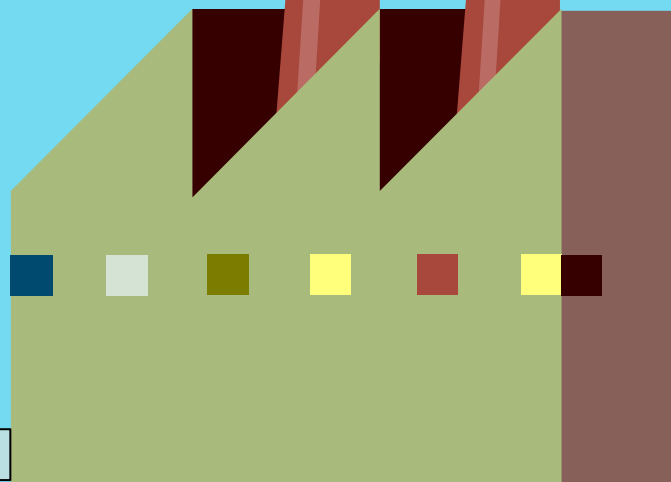
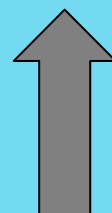


# Integrated Pollution Control and Prevention

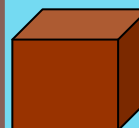
## 一体化污染防控



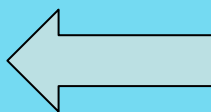
Air pollution  
大气污染



Solid waste  
固体污染



Water pollution  
水污染



**WRD MAP**



## 进一步的一体化：水框架指令# 1

- **Establishes a basic framework for water management**  
旨在建立一个基本的水资源管理框架
- **Does not simply lay down water protection standards but also addresses the organisational and procedural aspects of water management**  
不仅规定水资源保护标准，而且还探讨了水资源管理的体制和程序
- **Most of the earlier directives will be repealed and replaced with new instruments adopted in accordance with the Water Framework Directive.** 将来适当的时候，大多数以前的指令将会废止，并根据水框架指令，采纳新的规定。



# Water Framework Directive # 2

## 水框架指令# 2

- **Scope – all water resources including coastal waters**  
范围 — 包括沿海水域在内的所有水资源
- **Establishment of river basin districts**  
建立河流流域区
  - **International river basin districts**  
国际河流流域区
- **Ecological standards – Europe has moved beyond chemical standards to ecological standards**  
生态标准 – 欧洲已经从化学标准跨越到了生态标准



# Water Framework Directive # 3

## 水框架指令# 3

- **Use of the ‘combined approach’ = controls over emissions subject to environmental quality standards**  
采取“联合模式”=根据环境质量标准控制排放
- **Preparation of a detailed programmes of measures**  
制定详细的措施计划
- **Preparation of a river basin management plans**  
制定流域管理计划
- **Public participation**  
公众参与
- **Cost recovery for water services**  
水服务成本回收
- **Approach to abstractions**  
取水方法



## How do these standards influence individual decisions ?

这些标准如何影响到每一个决策？

In the UK the law formally specifies that the decision maker must consider a range of factors including:

英国法律明文规定决策者必须考虑一系列因素，包括：

- water quality standards set for the receiving waters  
水质标准为接受水体而定
- relevant discharge standards 相关排污标准
- relevant process standards 相关工艺标准
- any other effects on the receiving waters, including potential impacts on existing downstream users  
对接受水体的任何其它影响，包括对目前下游用户的潜在影响
- potential impacts on protected areas 对保护区的潜在影响
- the synergistic or ‘cocktail’ effect of the discharge – including in terms of the current contents of the waters and potential or planned future discharges

排放协同增效影响或“鸡尾酒”效应。其中，不仅要考虑当前水体的成份，而且还要考虑潜在的排放或者计划中的排放。



## Moreover permit conditions are specified in law 法律具体规定了许可证条款

These include:

- the place where the discharge may take place  
可能排放的地点
- the nature, origin, composition, temperature, volume, timing and rate of the discharges 排污的性质、排污源、所含成份、温度、水量、流速和排污时段
- treatment processes 处理工艺
- sampling equipment and procedures 取样设备和步骤
- recording and reporting requirements 记录和汇报要求

The result: permits which are lengthy, detailed and precise  
结果：许可证的内容很多，条款很详尽和确切



# Permit conditions – specified in law (3)

## 许可证条款 — 法律具体规定 (3)

- (f) as to the keeping of records of the nature, origin, composition, temperature, volume and rate of the discharges and, in particular, of records of readings of meters and other recording apparatus provided in accordance with any other condition attached to the consent;  
记录排放物性质、排污源、成份、温度、水量和流速数据，尤其是记录许可证内附带的任何其它条款要求的仪表以及记录仪器的读数；
- (g) as to the making of returns and the giving of other information to the Authority about the nature, origin, composition, temperature, volume and rate of the discharges;  
向环保局报告并提供关于排放物性质、排污源、成份、温度、水量和流速数据；
- and it is hereby declared that a consent may be given under this paragraph subject to different conditions in respect of different periods.  
特此宣布，根据本款法律，许可证的发放可以随不同时段的不同条件要求而定。



# Conclusion

## 结论

- Central role of discharge permitting  
排污许可证的核心作用
- Vital importance of discharge permit conditions  
排污许可证条款至关重要
- Need for clear procedures and mechanisms for decision-making and coordination to be set out in law  
需要有清晰的程序和决策与协调机制，法律应当做出相应规定
- Need for mechanisms to ensure compliance  
需要有确保达标的机制



**Thank You**  
**谢谢!**

