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Governance Pillar  
政策对话支柱

Sustainable Urbanisation and  
Water Trading Study 2014  
城镇化过程中的水资源保障研究 2014

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# The PDSF Team

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- ◆ Dr Martin Griffiths – UK 英国 马丁·格里菲斯博士



# New Urbanization Policy 新型城镇化

*The 18th congress of CPC, “National Plan on New Urbanization” proposed a new direction and pattern of future development of urbanization in China*  
**中国共产党18大确定了未来中国城镇化的方向和模式**

- ◆ Urbanization will be one of the major drivers for China’s socioeconomic development in the coming decades;

城镇化是未来几十年内中国社会经济发展的主要驱动因素之一；

- ◆ Focus on sustainable development instead of only GDP growth and improving living quality instead of living standards;

新型城镇化强调可持续发展（而不是单纯的经济增长）和改善生活质量（而不是简单的生活水平的提高）；





# Sustainable Urbanisation and Water Trading Study 2014

## 城镇化过程中的水资源保障研究 2014

### Objectives 目标

- Investigate options to increase water security in growing cities 研究提出方案来改善不断扩展的城市的水安全状况
- To ‘facilitate the CPC, “*National Plan on New Urbanization*” 支持中国政府新型城镇化计划
- Develop a view on an appropriate mix of policy options to improve water allocation 提出一组政策方案来改善水资源分配
- Review market instruments and water trading 审议市场机制和水交易
- Provide case studies from EU, China and Global water situations 提供中国、欧洲和其他地区的案例研究



# Water Security 水安全

## Water Security Definition 水安全

*“The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.”*

**“人类具有获得足量、可接受质量的水的能力，从而维持生计、良好生存状况和社会经济发展，免受水污染和水生疾病的影响，保护生态环境，维持区域安全和政治稳定。”**

*From - The United Nations Water Department (2013) 摘自联合国水司 (2013)*



# Develop common terminology and Dialogue 共同的术语和对话

## Water Rights 水权

- In UK historic water rights are legally binding rights that require compensation if removed 在英国，水权具有法律效力——如果剥夺，需要予以补偿
- In China this term is used more loosely and water rights are not legally binding, and no compensation is required 在中国，水权术语用得有些随意，目前没有法律效力，不需要补偿
- Linked to very different land ownership approach between EU and China 在中国和欧洲，水权与不同的土地所有制方法相关联





# Develop Common Principles 制定共同的原则

## Principles原则

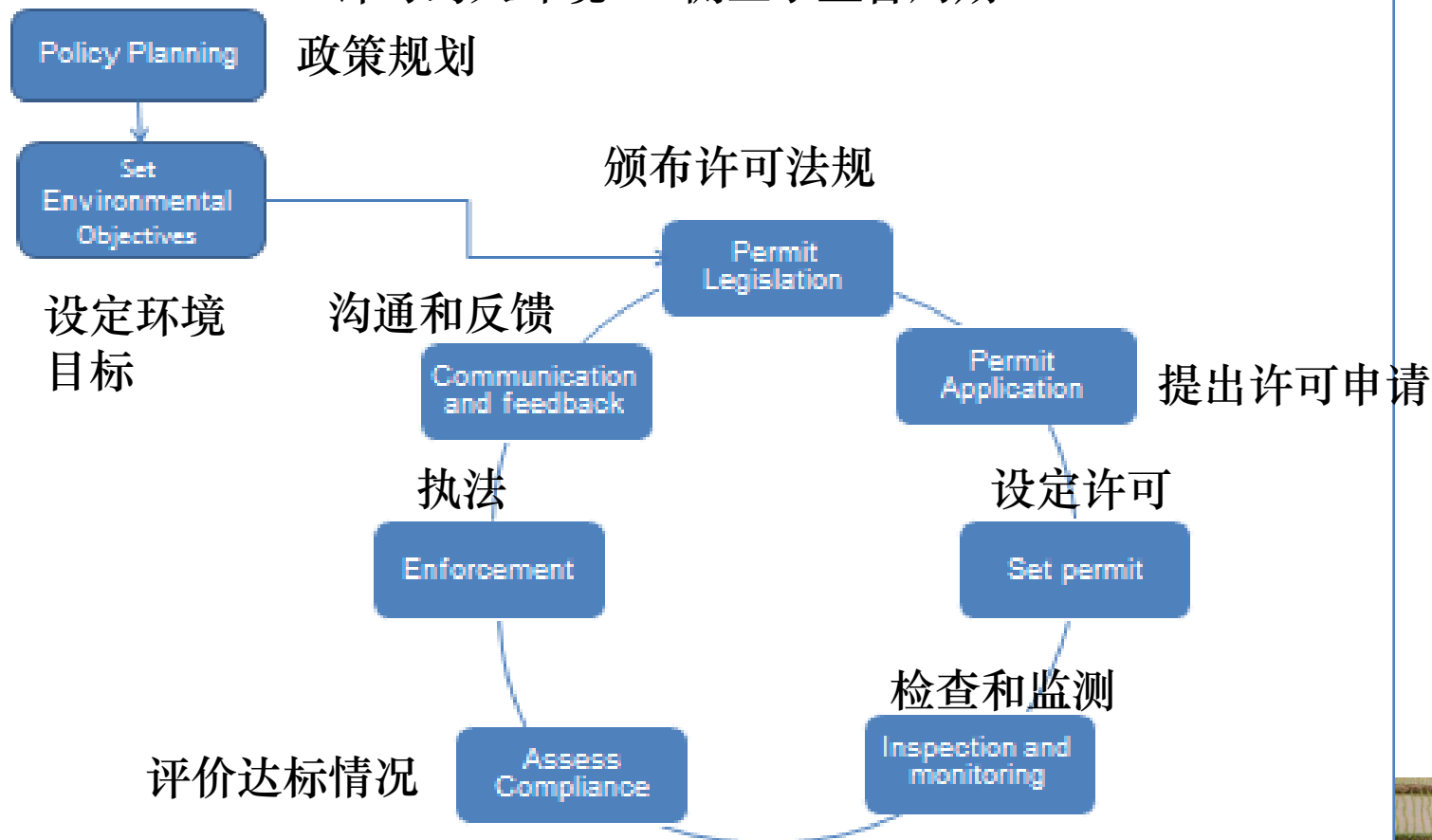
- It is the permit that is traded, not the water  
交易的是许可证，而不是水
- Move towards full cost of water service  
逐步走向全成本水服务
- We should not commodify water  
不应将水商品化



# Regulatory options to implement 将要实施的监管方案

## Permitting Context – Focus on the Regulatory Cycle

许可的大环境 — 侧重于监管周期





# Translate into permit conditions 转化到许可条件中

**CHINA  
EUROPE**  
Water Platform

Application No: WRW/122 Licence Serial No: 28/39/14/354  
Please quote the serial number in all correspondence about this licence



## FULL LICENCE TO ABSTRACT WATER

The Environment Agency ("the Agency") grants this licence to:-

This licence authorises the licence holder to abstract water from the source of supply described in the Schedule of Conditions to this licence and subject to the provisions of that Schedule. The licence became effective on the date of issue shown below and shall remain in force until date of expiry.

Signed: *Keren Parker*

Date of issue: 10 November 2008

Keren Parker  
Environmental Planning Team Leader

Date of Expiry: 31 March 2018

Environment Agency  
Thames Region, West Area  
Red Kite House  
Howbery Park  
Wallingford  
OX10 8BD

The licence should be kept safe and its existence disclosed on any sale of the property to which it relates. Please read the 'important notes' on the cover to this licence.

Note: References to "the map" are to the map, which is attached to this licence.  
References to "the Agency" are to the Environment Agency or any successor body.

Environment Act 1995  
Water Resources Act 1991 as amended by the Water Act 2003  
Water Resources (Abstraction and Impounding) Regulations 2006

Licence Serial No: 28/39/14/354

## SCHEDULE OF CONDITIONS

### SOURCE OF SUPPLY

Waters:

### LOCATION OF ABSTRACTION

in National Grid References:

### QUANTITY OF ABSTRACTION

of maximum output not exceeding 105.6 litres per second.

### USE OF ABSTRACTION

reservoir and use in wetland reserve.

### PERIOD OF ABSTRACTION

the months November to March inclusive.

### MAXIMUM QUANTITY OF WATER TO BE ABSTRACTED DURING ANY PERIOD SUBJECT TO CONDITION 9

10 cubic metres per hour  
10 cubic metres per day  
10 cubic metres per year

in any period of 90 consecutive minutes, a day means any period of 24 consecutive minutes starting on 1 April and ending on 31 March.

# 取水许可证

取水(粤鼎)字[2009]第00012号

取水权人名称: 广东鼎湖山泉有限公司

法定代表人: 吴木生

取水地点: 鼎湖山老龙潭、天湖水源

退水地点: 广东省肇庆市鼎湖区鼎湖大道31园区

取水方式: 引水

退水方式: 自流排放

取水量: 年最大伍拾捌万立方米

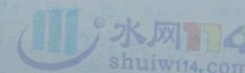
退水量: 最大4万立方米/年

取水用途: 生产桶(瓶)装饮用水

退水水质要求: 必须按国家颁布标准排放污水

水源类型: 地表水

有效期限: 自2009年7月13日至2012年7月13日



鼎湖区水利局  
审批机关(印章)  
2009年8月5日

# 排放污染物许可证

编号: 湘环(排)字第(015)号

持证单位: 大唐耒阳发电厂

法人代表: 周友幸

地址: 耒阳市振兴路185号

允许排放的污染物: 详见副本

允许排放污染物强度: (详见副本)

有效期: 2010年11月4日至2011年11月4日

发证机关: (盖章)

2010年11月4日



# China Urbanisation – Regulatory pre-requisites

## 中国城镇化 – 监管方面的前提条件



# China Urbanisation – Market instruments

## 中国城镇化 – 市场机制





# Examples of Water Trading

## 水权交易实例

- Very few examples of successful water trading across the world 世界范围内，成功的水权交易实例不多
- A lot of economic theory and debate 关于水权交易的经济理论和争论很多
- A number of established one-to-one trades 有一些一对一的交易
  - Beijing has one of the largest 北京是其中最大的之一
- Australia has the most developed system 澳大利亚水权交易体系发展最完备
  - Share based trading 基于股份的交易





## Lessons from Australia 澳大利亚经验

- Must get regulatory system in place and review to prepare for trading 监管体系必须到位，要对其进行重新审议，以便为水权交易做好准备
- Need near real time monitoring of abstractions and river flows 需要近乎实时的取水监测和河流流量监测
- Water allocations and connections must be fully understood 必须充分理解水分配和水循环
- Allocate shares according to permit volumes with government guarantee 按照许可水量分配股份，政府给予担保
- River is allocated 30% of shares 河流配有30%的股份
- Set up ‘banking’ style system and water statements on-line 建立“银行”类型的系统和在线水结算单
- Australia had some false starts which proved expensive for government 澳大利亚起步时犯了一些错误，导致政府付出了高昂的代价



## Initial – Conclusions初步结论

- Must retain the ability for MWR to manage water resources to ensure water security and to reallocate water to growing cities 水利部必须保留管理水资源的能力，来确保水安全并将水重新分配给不断发展中的城市
- Ensure ability to manage water resources in a changing climate 确保在气候变化条件下管理水资源的能力
- Could be done with regulatory tools alone 可以仅凭监管工具就可以实现
- Economic Instruments may assist in facilitating this 经济工具可以帮助推进



## Initial – Conclusions初步结论

- One – to – one trading in China has been helpful  
在中国，一对一交易很有帮助
- Full scale water trading needs significant preparation and strict regulatory controls  
完全展开水权交易需要大量的准备工作和严格的监管控制
- Could consider small scale pilot in a catchment  
可以考虑在小流域开展小规模试点



# Sustainable Urbanisation and Water Trading Study 城镇化水资源保障研究

## Timetable 时间表

- Core study week, Beijing, 27 October to 2 November 核心工作，北京，10月27日至11月2日
- Presentation at CEWP meeting 4 December 2014 年度高层会报告，2014年12月4日
- Consultation Draft Report Mid January 2015 年1月中旬对报告初稿征求意见
- Final Report end January 2015 最终报告，2015年1月底





Thank You 谢谢

