2006 Sustainable Water Challenge Project Entry

Council: Ku-ring-gai Council

Project Title: **Scenario Planning** **Project Category:** **Planning and Policy**

Project Summary

The Ancient Mariner Scenarios were developed to facilitate a holistic view towards the management of urban water in Sydney. The project brought together over 70 participants from Universities, government agencies, councils and businesses over two and a half days to discuss current and emerging trends, future directions and relevance and impact of policy on the urban water cycle. Four scenarios on the the future direction of urban water management were developed against the themes of ownership of water infrastructure and environmental attitudes. The project was funded by the NSW Stormwater Trust as part of the development of a planning tool for the preparation of the next generation of stormwater management plans and by design adopted a whole of water cycle perspective in its analysis and impact.

Project Objectives:

There were four primary objectives:

1. To understand and embrace the connections in the urban water cycle as part of a strategic planning process;
2. To engage a diversity of stakeholders, particularly against the then climate of top down decisions on the future directions of Sydney's potable water supply
3. To assist the NSW Stormwater Trust in the development of a planning document for stormwater management; and
4. To experiment with a new planning process and tool that engaged and embraced diversity in decision making.

Project Outcomes

Scenario planning was chosen as a tool to engage the strategic process as it forces 'creative thinking', and identifies possible issues that may occur from a number of situations (as seen in Figure 2). This is enhanced by incorporating people from diverse backgrounds as they bring different view points into the scenario building process.

Four scenarios were developed around biaxial themes of ownership of water infrastructure and appreciation of the environment (refer to Figure 1):
- Scenario A: ***SHREK CORP*** High appreciation of the environment, centralised governance
- Scenario B: ***GREENACRES*** High appreciation of the environment, decentralised governance
- Scenario C: ***DAMN CREEK*** Low appreciation of the environment, decentralised governance
- Scenario D: ***DOMINATURE*** Low appreciation of the environment, centralised governance

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In each of the four scenarios the impact of differing aspects of governance, health, community values and the environment were considered and woven into the scenario stories. The scenarios also introduced key influences, directly and indirectly related to the water industry that would likely have an impact on the future management and policy decisions. This methodology was deliberate so as to embrace the inherent complexity of the systems which lead to change and see that systemic intervention, in the form of legislation, education, and cultural change make changes in these systems and not in isolation.

The second phase of the scenario planning stage was to test the impact and relevance of policy decisions within and against each of the futures. Issues or directions that were found in all scenarios 'No Brainers', suggest that they will be central to each future, and therefore need to be factored in planning processes. There are a number of other strategies that are relevant in at least two scenarios 'Keep-safes', which suggest they should be highly considered in developing strategic plans. The strategies that are relevant in only one of the scenarios, 'Riskies' imply caution should be taken with the timing of their implementation. Examples of these relevant to stormwater include:

No Brainers
- Stormwater harvesting for reuse
- Ownership of water falling on property rests with property owner
- Pricing policy of water yield on private property (landholder right)

Keep-safes
- Storage – Building codes enable permanent storage (onsite treatment)
- Assign a value to waste water
- Quality determines price
- Practicality at source central
- Need for reuse

Riskies
- Storage – protection of water catchments
- Design and inclusion of water reuse and recycling infrastructure in new developments and subdivisions

A key element in the development of the scenario planning process was the understanding that the water industry is indeed complex and subject to many intervening pressures. Some we can influence, others we can at best imagine and hope to plan for. Notwithstanding the immediate issues of water supply in many urban areas in NSW, the recognition that the way water across all its forms is governed remains a critical issue if a more sustainable future, what ever this may be, is to be realised (as seen in Figure 3).

Environmental scenario drivers

-Sustainability of renewable natural capital and depletion of finite natural capital
-Climate change: no rain and storms and uncertain in terms of time and scale and its effects.
-Potential for an environmental disaster
-Variable appreciation of the environment
-Appreciation of water as a renewable resource.

Technical scenario drivers:

- The scenario planning process selected two of the critical uncertainties to be our scenario world drivers: driver number one was the degree of appreciation for the natural environment and driver number two the degree of centralisation of governance of the water industry.
- Plotting these two drivers created four scenario quadrants of the Ancient Mariner world.
- Detail the WSUD features used in your project. List any external assistance that was sought to provide technical input.
- Over 70 people involved

Transferable

The outcomes of this project were specifically designed to inform and shape how many organisations and professionals think about water management. By design the process sought to encompass all aspects of urban water management, whilst recognising the governance issues involved in the co-ordination and joint planning by state agencies, utilities, councils and others. The scenarios and their assumptions are designed to be revisited in the near future to 'test' the relevance and applicability of the scenarios and the impact of current and future policies and actions.

Difficulties Encountered

This project was driven by a local government agency that was not a main water service provider, but believed that that the project was important on a broad context. Engagement of State Government was found to be difficult at the commencement of the project though willing during the workshops. Unknown will be the long term benefit of the planning process in terms of influencing government policy such as Water plan 21 that is more narrow in focus and does not recognised the external drivers as explored in the scenario exercise.

The project took a significant amount of time to plan and implement. Time was also an issue for the attendees over the 2.5 day commitment.. With such a large group and given the complexity of the topic an extra day would have been beneficial in developing a more detailed set of outcomes.

The finished report was given to all who participated, but the use of the report in developing any plans for the future is still at the discretion of the participants. The idea of the project was to provide a greater understanding in to the complexities that surround the water industry, and give guidance to policy development.

Pictures, Plans, Design Drawings and Maps:

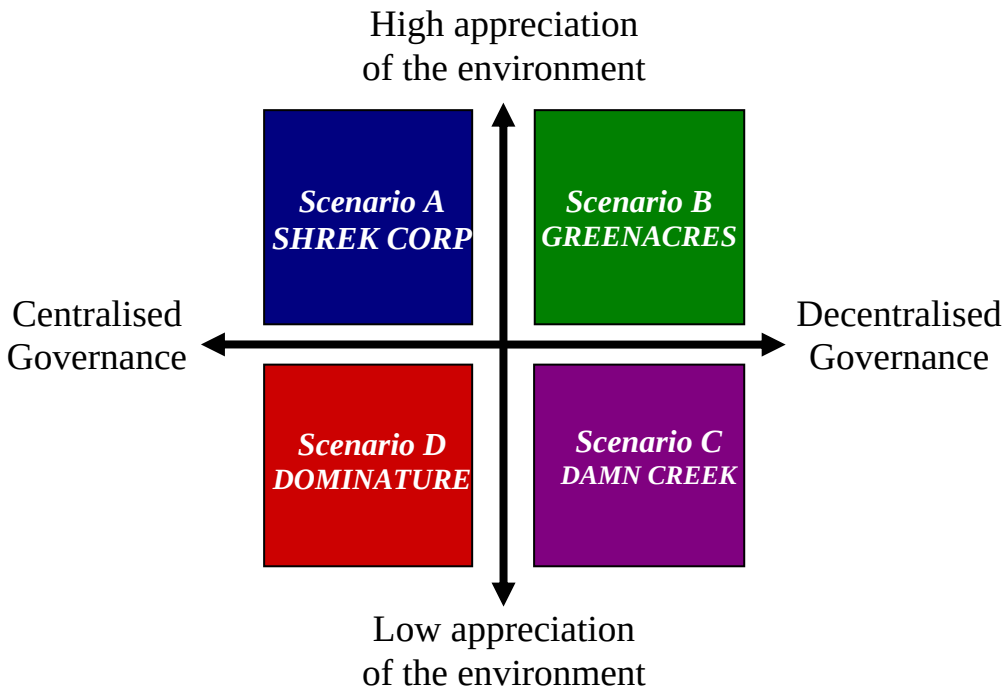

Figure 1: The environment and governance were used as the drivers to create the different scenario quadrants of the Ancient Mariner world.

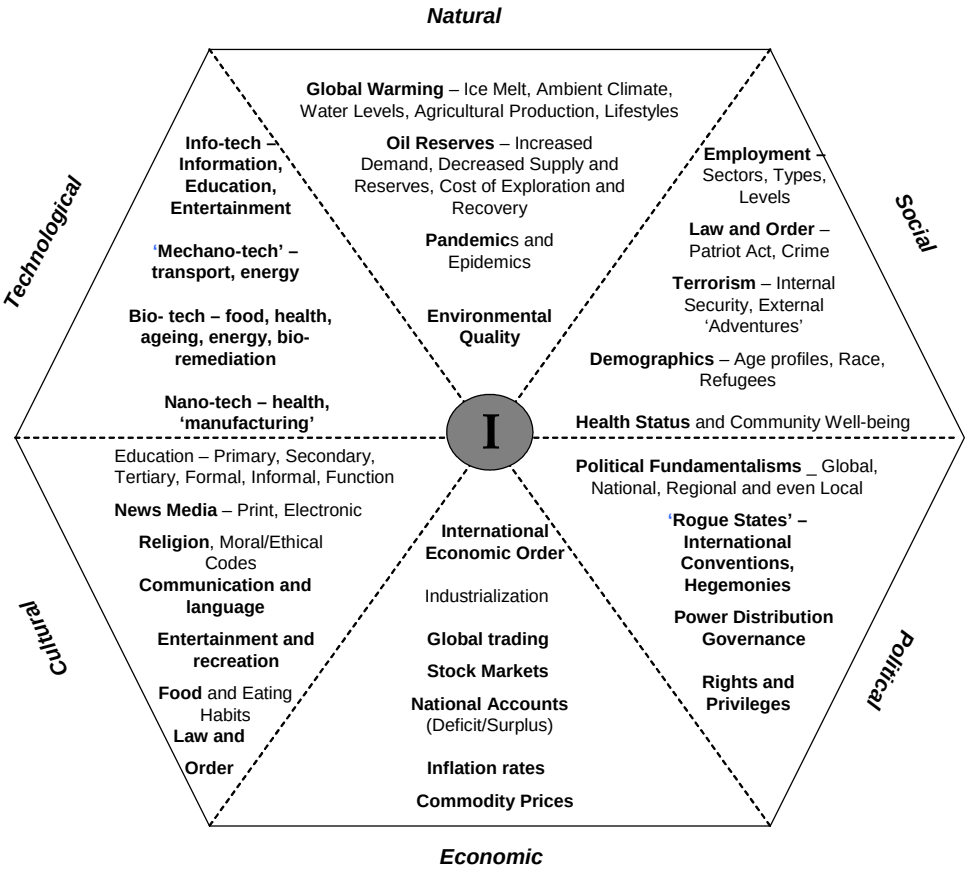

Figure 2: The INSPECT model is one approach that was used for this project to identify what is happening in the world against an individual's perceptions

of the natural, social, political, economic, cultural and technological environments

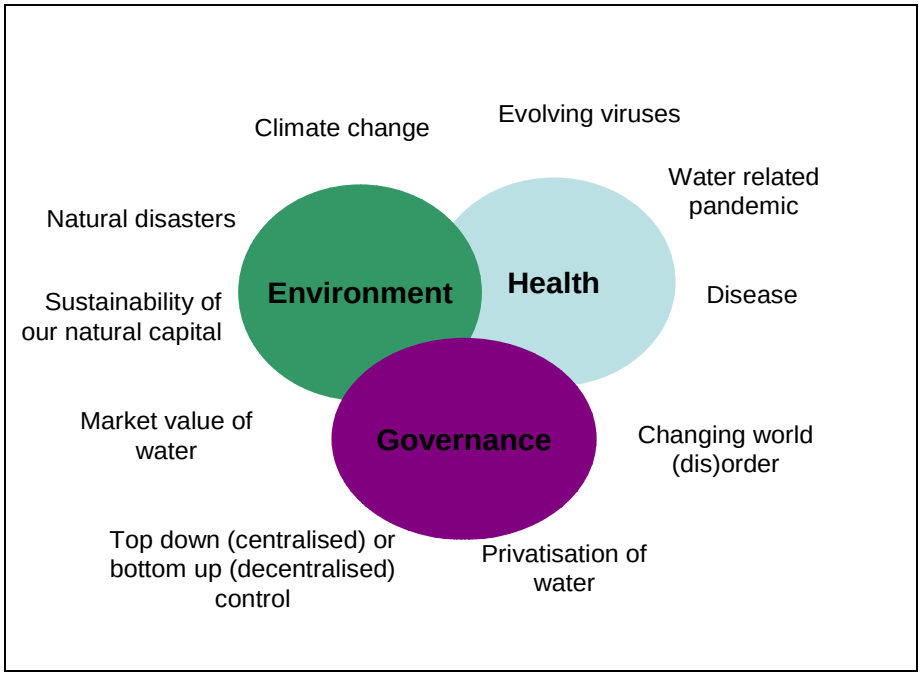

Figure 3: This figure represents the mapping we did to identify the critical uncertainties which we believe will impact on future of urban water management to the year 2030.

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