Integrated Water Cycle Management scenarios – which one to use?

**WHAT IS THE NSW GOVERNMENT LOOKING FOR IN IWCM SCENARIOS?**
The Integrated Water Cycle Management (IWCM) process needs to show that all reasonably expected urban water service management challenges and opportunities, likely to occur over the next 30 years, have been considered and procedures put in place to manage them effectively and sustainably. Scenarios are the result of the IWCM process based on assessment of the challenges and opportunities in determining what is best for the community and management of the urban water service.

**WHY USE SCENARIOS?**
The IWCM scenario has an important role in achieving the overall aim of the IWCM process, which is sound and sustainable urban water services. Developing the scenarios identifies the best way to address the urban water service problems (issues) and provide the best future strategy (options and scenarios) for the community.

**WHAT IS AN IWCM SCENARIO?**
An IWCM scenario is a mix of options that, together, address the urban water service issues. Scenarios are about different ways of providing the desired future urban water service. Using scenarios allows consideration and comparison by the community through the Project Reference Group (PRG) and utility. The correct use of scenarios is critical to achieving the objectives of the IWCM process.

**THE FOUR SCENARIOS**
There are four main types of scenario – ‘business as usual’, ‘simplified’, ‘traditional’ and ‘integrated’. The ‘business as usual’ scenario differs from the others as it adopts existing urban water service actions, rather than developing new ideas. This scenario is used to assess whether the utility’s present actions and formally adopted plans will address the urban water service issues found during the IWCM Evaluation. If it does not, other scenarios will need to be developed.

The role of the ‘business as usual’ scenario
The unique role of the ‘business as usual’ scenario is to indicate what the utility is doing, or has formally planned to do, in order to manage the urban water service and address present and future issues. Some utilities are likely to have many, if not most, of their existing IWCM issues under control. The IWCM process has been established to confirm that existing issues have been addressed and check if any issues have been missed.

The ‘business as usual’ scenario allows utilities to indicate commitments to formally adopted actions and to reconsider existing actions which may not be working. The utility can decide to remove existing or adopted actions if they are not considered effective. It also allows for the assessment of future planned actions to see if there is a better way of addressing the issue. If the ‘business as usual’ scenario still addresses all IWCM issues, then the IWCM process is complete.
The role of the ‘simplified’ scenario

The ‘simplified’ scenario is an opportunity for the utility and community to develop a Simplified IWCM Strategy, if no significant capital works are required within 10 years, and all IWCM issues are addressed. By adopting the ‘simplified’ scenario, no further scenarios are required and no scenario comparison is needed. The ‘simplified’ scenario can be based on the ‘business as usual’ scenario with additional actions included or it can be a totally new scenario.

The options in the ‘simplified’ scenario can include new or improved best practice options, minor capital works or significant capital works beyond 10 years. As long as there are no significant capital works within 10 years, and all IWCM issues are addressed, the ‘simplified’ scenario is acceptable. The use of this scenario requires the completion of a Simplified IWCM Strategy.

The role of the ‘traditional’ scenario

The ‘traditional’ scenario is used where significant capital works are required within 10 years. It also requires the completion of a Detailed IWCM Strategy. The ‘traditional’ scenario allows comparison between how urban water service issues could be addressed if the water supply, sewerage and stormwater issues were addressed separately, against how they could be managed in an integrated way. The ‘traditional’ scenario reflects what has been the more accepted method of addressing urban water service issues individually, rather than looking for integrated solutions.

It is important to remember that the ‘traditional’ scenario is not a historical solution. Rather, it compares the benefits of an integrated versus a non-integrated approach.

The role of the ‘integrated’ scenario(s)

Where significant capital works are required within 10 years, it is necessary to develop about three ‘integrated’ scenarios and to evaluate these on a triple bottom line (TBL) basis to determine the solution which provides the best value for money.

The ‘integrated’ scenario addresses the issues by looking for greater efficiency and sustainability through integration across water services when a solution is being considered for any single issue. This approach takes advantage of options that address or influence more than one issue. Integrated scenarios do not address different levels of service, revised time frames or downgraded solutions. They address different mixes of options or ways to address the same set of issues to the same agreed level.

The level of issue solution must be the same, even though different approaches are used and these approaches result in changed secondary benefits, e.g. supporting an important community objective.

‘Integrated’ scenarios should be developed with different mixes of options to show which level of integration is best. It’s best to start with the simplest integration, and then explore greater amalgamation of issues and options. This allows the utility, PRG and community to see which level of integration provides the ‘best value for money’ solution on the basis of the environmental, social and economic impacts (refer to Information Sheet 6).
Relationship between the different scenarios

Comparison of data and targets define non-compliances - this defines IWCM Issues

‘Business as usual’ scenario

If it addresses all IWCM issues

IWCM Issues not addressed by the ‘Business as usual’ scenario

If no significant capital works within 10 years (optional process)

If significant capital works within 10 years

‘Traditional’ scenario (Optional)

‘Integrated’ scenarios (Required)

All IWCM issues addressed by ‘Traditional’ and/or ‘Integrated’ scenarios

Triple Bottom Line (TBL) evaluation and comparison of scenarios

Detailed IWCM Strategy

Simplified IWCM Strategy

No IWCM Strategy needed

FURTHER INFORMATION

For further information, or to discuss any aspect of the Integrated Water Cycle Management process, please contact your NSW Office of Water regional Water Utility Officer. Contact details can be found on the ‘Contact Us’ page of www.water.nsw.gov.au. For more general IWCM enquiries or information email information@water.nsw.gov.au.