

## **A review of the effectiveness of distributed storages to decrease flooding.**

- Distributed storages can offer substantial potential benefits to reducing flooding. For the catchments investigated, the potential benefit is typically in the range of 10-40% reduction in Annual Average Damages, and as high as 80% reduction in the best case.
- Given the potential benefits, distributed storages should be considered as a flood mitigation option when undertaking urban flood studies.
- Distributed storages are more likely to be of benefit in catchments which are highly urbanised, and with existing flooding problems.
- Flood modelling of each individual catchment is required to estimate benefits of distributed storages. In other words, the results from this study are not suitable for inferring likely benefits in other catchments.

When considering the outcomes of this review it should be noted that:

- Outcomes are based on *potential* benefits, not *probable* benefits
- Practical issues involved in implementation have not been considered e.g. how to achieve storage volumes, how to ensure ongoing maintenance and performance
- Governance and roles and responsibilities of agencies in the implementation of such a program is still yet to be defined

It is recommended that Elster Creek is a suitable catchment for distributed treatment modelling given it is highly urbanised, has existing flooding problems and the community is flood aware and keen for action. MW is progressing this and will provide a report to the Elster Creek Catchment Working Group when complete