

<b>Title</b> Transmission System Redundancy	<b>Number</b> WTR-310	<b>Rev. no.</b> 0
<b>Responsibility</b> Drinking Water Division	<b>Supersedes</b> N/A	<b>Pages</b> 1
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## 1. PURPOSE

This policy establishes the decision-making criteria that Seattle Public Utilities uses for adding or retiring redundancy in the regional water transmission system.

## 2. POLICY

Consider redundancy in the transmission system on a case-by-case basis, with decisions based on an evaluation of net present value.

- A. Consider retiring existing redundant facilities within the transmission system when they are at the end of their economic lives and the costs of a new replacement facility exceeds the avoided risks costs.
- B. Consider adding redundancy within the transmission system when replacing facilities within the transmission system that have reached the end of economic lives or when performing repairs on existing facilities within the transmission system that require wholesale customer outages and the costs of redundancy are less than the avoided risks costs.
- C. To increase redundancy, consider installing temporary or permanent looped systems, cross-over valves, intermediate line valves, and/or additional shut-off valves in the transmission system when the improvement provides positive net present value to the system.
- D. When evaluating net present value of options over the life of the project, include the capital costs of installing the redundancy improvement and all O&M costs, such as those to repair the new facilities. Also include the benefits of any avoided risk costs, such as the costs of wholesale customer outages.