

SCHEDULE "D"

Water Project List

As attached

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Project Purpose and Objectives Summary - Water

Project Name	Purpose and Objectives
BPWTP UV	<p>The purpose of this project is to provide an additional disinfection barrier to the water produced at the Buffalo Pound Water Treatment Plant (BPWTP) by means of Ultra Violet (UV) radiation. The objectives of this project are to;</p> <ul style="list-style-type: none"> • implement two UV reactors capable of treating the plants present rated capacity, • Install piping and appurtenances integral to the UV system, which will improve the hydraulic characteristics of the plant. • Install a third screw pump to provide full redundancy in the plant's pumping capability at the rated capacity. • Construct a building to contain the UV equipment.
BPWTP Electrical	<p>The purpose of this project is to construct an electrical substation at the Main Plant to replace the existing substation. The project will also add backup generators and switch gear to allow operation during a power failure as well as install a new power transmission main from the BPWTP Main Plant to the Lake Pump Station.</p>
BPWTP Expansion	<p>The purpose of this project is to expand the capacity of the BPWTP to accommodate growth. The objective is to add ~75 MLD to the plant capacity. It is anticipated that this project would add another process train to the existing plant.</p>
BPWTP Lake Pump & Clear Well	<p>The purpose of this project is to replace the existing clear well and pumps at Buffalo Pound Lake, which supply water to the treatment plant. The project would also expand upon the existing capacity to accommodate growth. It is anticipated that this project would add another 25 MLD of raw water supply to the plant.</p>
COR Pump Upgrades	<p>The purpose of this project is to upgrade the pumps/configuration of the City of Regina owned pumps which pump water from the BPWTP clear well to the City reservoirs. The objective is to add approximately 30 MLD of supply to the City system.</p>

<p>BPWTP Clear Well</p>	<p>The purpose of this project is to upgrade/expand the Clear Well at the Main Plant to allow an increased pumping capacity from the Plant to Regina. Currently the clear well is not large enough to maintain supply to larger pumps required for growth. The objective is to add sufficient clear well capacity to accommodate an increase of approximately 30 MLD of supply to the City system.</p>
<p>BPWTP Lagoon Expansion</p>	<p>The purpose of this project is to add capacity to the treatment plant's lagoons which will treat post process waste water from the plant before being released back into the Buffalo Pound Lake. The objective is to add sufficient lagoon capacity to accommodate approximately 150 MLD worth of plant capacity.</p>
<p>BPWTP Business Case – New vs. Renewal</p>	<p>The purpose of this project is to conduct a study which will evaluate options and recommend if the existing BPWTP should be renewed/rehabilitated or replaced to provide ongoing service to its customers. This project does not have a GTH Share in the Water Capital Contribution Model.</p>
<p>BPWTP Filter Upgrades</p>	<p>The purpose of this project is to upgrade the existing BPWTP Filters. The project would also expand upon the existing capacity to accommodate growth. It is anticipated that this project would add another 50 MLD of filter capacity to the plant.</p>
<p>BPWTP Mods to increase capacity</p>	<p>The purpose of this project is to create efficiencies in the BPWTP process that will increase capacity to accommodate future growth. It is anticipated that this project would add another 50 MLD to the treatment capacity of the plant.</p>
<p>Reservoir to defer 3rd forcemain</p>	<p>The purpose of this project is to defer the requirement for a 3rd supply main from the BPWTP to the City reservoirs, which could cost in excess of \$150M. The objective is to add a 50 ML of storage to the City system to compensate for the inability of the supply system from BPWTP to meet the City's Maximum Day Demand (MDD) in accordance with the City's Water Master Plan.</p>

<p>Growth Driven Regulatory Storage</p>	<p>The purpose of this project is to maintain level of service and satisfy the Provincial requirement of two times Average Day Demand (ADD) storage in the City water system for future growth. The objective is to add 85 ML of storage to the City's system in accordance with the City's Water Master Plan.</p>
<p>Supply Main to new pump station</p>	<p>The purpose of this project is to maintain level of service for the eastern portion of the City's Primary pressure Zone in response to continued growth throughout the zone. The objective is to install approximately 10 km of 900 mm supply mains to a new storage reservoir on the east side of the City in accordance with the City's Water Master Plan.</p>
<p>Pump station</p>	<p>The purpose of this project is to maintain level of service for the eastern portion of the City's Primary pressure Zone in response to continued growth throughout the zone. The objective is to construct a new 110 MLD pump station to provide customers with adequate pressure in accordance with the City's Water Master Plan.</p>