

WASTEWATER TREATMENT PLANT UPGRADE

Highlights:

- Wastewater is received by the Wastewater Treatment Plant (WWTP) from The City of Red Deer, the Town of Penhold, Springbrook, the Red Deer Airport and Gasoline Alley. The present WWTP process design capacity is 47,500 cubic meters of wastewater per day.
- The WWTP upgrade is a major component in the vision of a centralized regional wastewater treatment system in Central Alberta. This regional wastewater treatment system will treat wastewater from The City of Red Deer itself, plus regional wastewater transmission systems extending south and in the future from the west and north.
- The first communities to use the regionalized transmission system will be Olds, Innisfail, Bowden Institute and Bowden. These communities along with Penhold, Red Deer County and Mountain View County make up the South Red Deer Regional Wastewater Commission (SRDRWC).
- The WWTP upgrades are partially funded by the Alberta Government and will increase plant design capacity to 72,500 cubic meters per day.

Project Overview:

Upgrades to existing WWTP facilities, as well as additions to liquid stream trains and biosolids management are underway. Construction commenced in 2011 and is expected to be completed by the spring of 2015.

The liquid stream treatment includes two new primary clarifiers, a new bioreactor, three new secondary clarifiers and a new sludge pump house and blower building. The solids stream treatment includes converting a secondary digester to a primary digester, addition of a new dissolved air flotation unit and a new fermenter, as well as improvements to the heating and mixing systems. Excess digester gas will be used to generate power and heat for use in the plant.

The WWTP Phase 4 upgrades are approximately 90 per cent complete.

Budget Requirement and Council Decision Points:

The WWTP Phase 4 project has a capital budget estimate of \$90 million. This project does not have an effect on the 2015-2024 capital plan since funding was previously approved.

Funding Sources:

Funding for the WWTP upgrade will come from a variety of sources including utility reserves, provincial grants and debt.