

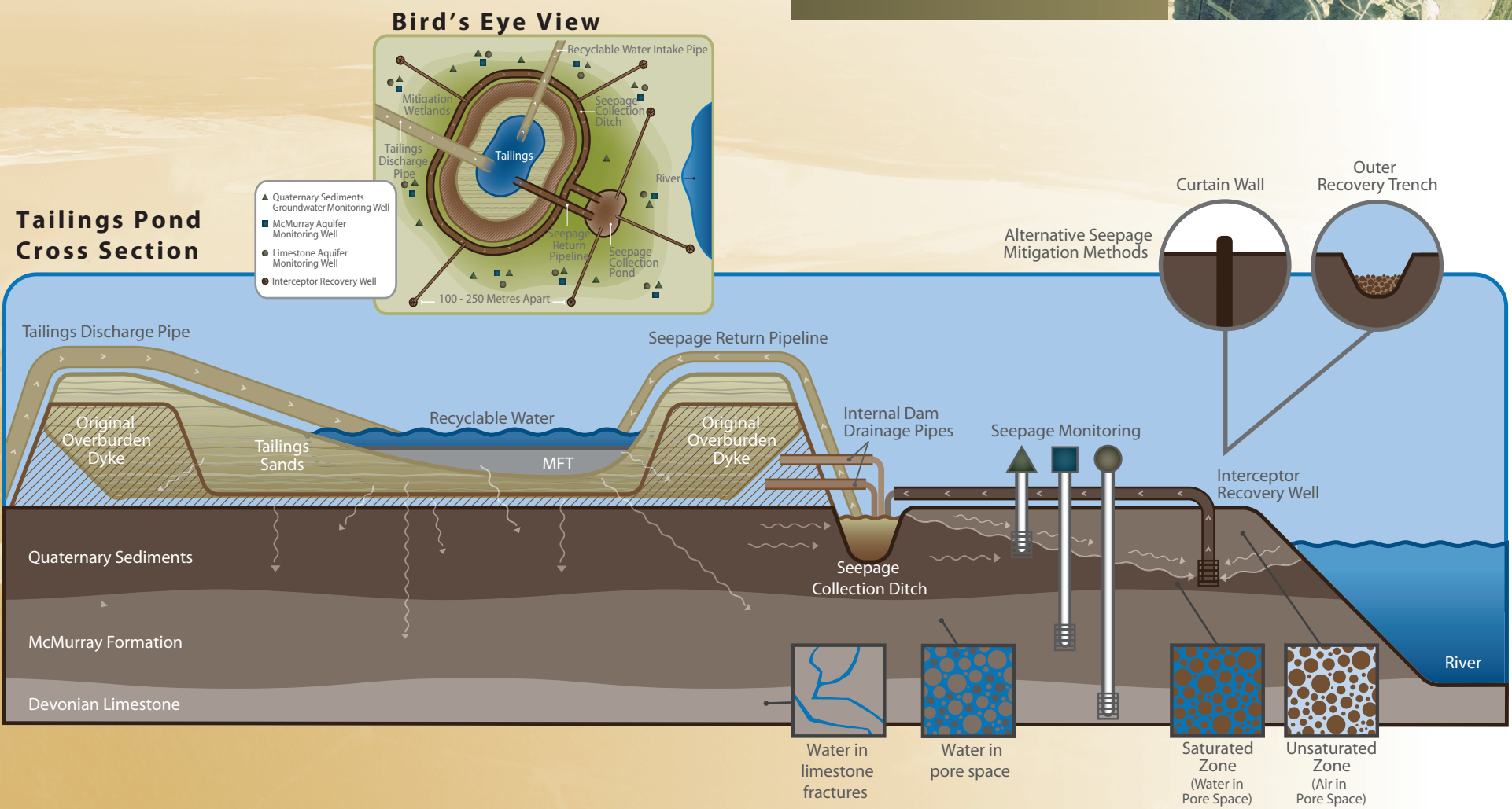

TAILINGS PONDS

September 2011

Oil sands mining companies construct tailings ponds to contain fluid tailings as provincial law strictly prohibits the release of water that has been in contact with bitumen into regional water bodies. The tailings ponds allow for water storage for reuse and a settling area for fine and coarse sands that can refill closed mine pits.

Tailings ponds cannot be completely sealed in order to stop all seepage. Instead, groundwater collection systems are installed to capture seepage and return it to the ponds.

Tailings are produced because water is used to extract bitumen from the oil sands. Oil sands tailings are composed of water, sand, clay, bitumen, organic compounds and solvents. The average 100,000 barrel a day oil sands mine creates enough fine tailings to fill over 8 Olympic-size swimming pools.



2000



2006



Suncor's research demonstrates the reclamation potential of wetlands containing consolidated tailings and recycled water.

A Future Outlook for Tailings

In 2009, tougher regulations were introduced for managing tailings, including mandated reductions in the amount of fluid tailings created and targeted dates for pond closures and reclamation.

Industry, academia and government experts continue to examine ways to help the tailings settle quicker, or even eliminate the need for fluid tailings altogether. The Alberta government continues to provide financial and other resources to further this important research.

