



Urban Resilience, Innovation and Adaptation

Ponds, Parks and People

TOUR INFORMATION PACKAGE – SEPT. 27, 2018



Welcome

After the 2013 Alberta floods, an extensive assessment of all High River's public green spaces, parks and boulevards was conducted, and key principles were identified to guide the Town's remediation, restoration and rebuilding program.

The Town made every effort to restore these spaces in a way that was sustainable and ecologically responsible while improving functionality and being financially responsible.

A total of 33 projects were carried out including continued work on storm ponds and dike landscaping, boulevard aerating: top-dressing and seeding: and replacing or rebuilding of structures like benches and patio stones.

Today, we will view some of these completed projects and explore the Town's new naturalized landscapes using native plant materials that are best suited to the geography, sunlight exposure, slope and moisture regime of the area.

Naturalizing the landscapes around ponds and lakes creates a buffer that limits erosion, reduces silt loading in ponds, promotes wild life habitat and improves water quality by creating a natural filter system to oxygenate the water. This natural ecology also reduces maintenance needs, decreases odours that occasionally occur in ponds and lakes, and offers additional protection from future high water events.

Tour Itinerary

(all times are subject to change based on the conversations that take place with participants at each location; it could be that everyone is extremely interested in one location/topic and we spend more time there than anticipated; the last location is optional based on time).

Please note: the entire afternoon is planned as a walking tour; please wear comfortable footwear and dress for the weather.

Presenters: Kim Unger, Tom Gilliss, Jessica Giesbrecht

1:30 p.m.- meet across the street from 1412 Riverside Drive

1:30 p.m. - Highwood Lake and Vista Mirage Storm Ponds: Storm pond naturalization

2:20 p.m. - Drive to Sobey's parking lot / walk to 1st Ave in Wallaceville

2:30 p.m. - Wallaceville: removal of a neighbourhood

3:00 p.m. - Dikes and Mitigation: Little Bow Dike and Town Dike

3:30 p.m. - George Lane Park: And the emotional victories of recovery

4:00 p.m. - Beachwood: removal of a neighbourhood and Baker Creek WRRP Project

4:30 p.m. - Tour end/ participant pick-up in the cul-de-sac across from 945 Macleod Trail

Highwood Lake and Vista Mirage Storm Ponds: Storm Pond Naturalization



(Above) Vista Mirage Storm Pond in 2014

Damage:

- The entire site was very silted
- Plant material in the riparian zone was destroyed
- Aquatic plant material along pond edge is destroyed
- Irrigation is destroyed
- Pathways damaged.



(Above) Highwood Lake in 2014

Damage:

- Damage to pathways
- Pond edge and stream edge damaged and silted
- Fountain destroyed.



(Above) Vista Mirage Storm Pond in 2018

Remediation completed:

- Replaced asphalt pathway
- Top lift damaged pathway
- Removed damaged sod, top dress and re-sod entire park
- Removed silts from aquatic zone, top dress and seed
- Repaired irrigation
- Replaced fountain
- Created a large naturalized grass area around the perimeter of the pond to improve water quality of water entering the pond and to make the pond more resilient if future flooding occurs.



(Above) Highwood Lake in 2018

Remediation completed:

- Removed damaged sod
- Aerated all areas
- Repaired silted pond edge and stream
- Restored riparian edge
- Replaced fountain and connect to power
- Repaired asphalt
- Replaced deciduous trees
- Replaced coniferous trees
- The open space around the pond is now naturalized to reduce maintenance, improve water quality, and enhance the park aesthetic.

Wallaceville: Removal of a neighbourhood



(Above) Wallaceville in 2013

Council made a difficult decision in the fall of 2013 to ask the Government of Alberta to undertake a buyout program for the neighbourhood of Wallaceville.

Given the new dike system and the natural flow of the Highwood River, it was not possible to protect the Wallaceville area in future high-water events.



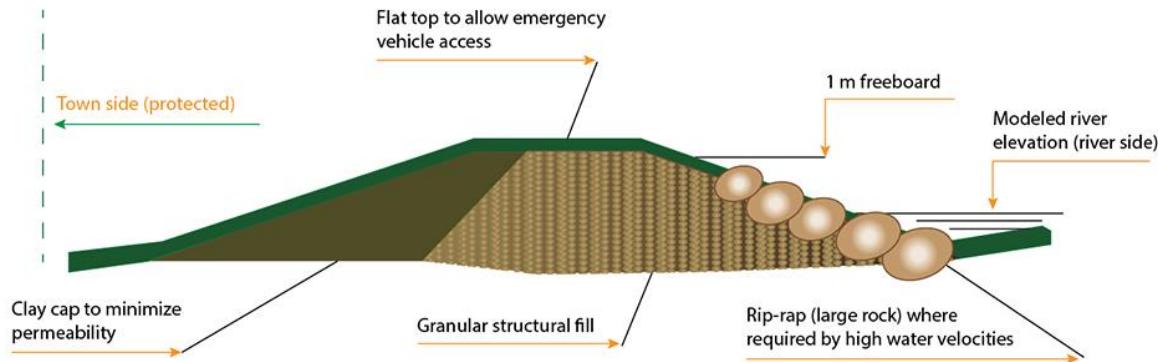
(Above) Wallaceville in 2018

As part of the Town's overall flood mitigation program, and long-term plan for a Centre Street transportation corridor, the Wallaceville area was returned to a naturalized/undeveloped state which will allow the river to flow more freely.

Wallaceville properties were purchased by the Government of Alberta and were demolished in the summer of 2016.

Dikes and Mitigation: Little Bow Dike and Town Dike

Anatomy of a dike



Over seven kilometers of permanent dikes have been constructed along the Highwood River. These have been built to protect against an upstream river flow rate of 1820 cubic metres per second, plus an additional vertical metre of free board protection.

As a comparison, the 2013 flood produced an upstream river flow rate of approximately 1820 cubic metres per second, which was the largest ever recorded in the last 100 years.



(Above) The Town's flood mitigation has been built into the Happy Trail system and features a naturalized landscape for beautification and protection purposes.

George Lane Memorial Park: The emotional victories of recovery



(Above) George Lane Memorial Park entrance, 2013

Located in downtown High River on the edge of the Highwood River, all areas of George Lane Memorial Park were covered by 1.5 metres to 2.0 metres of water for several days after the June 2013 flooding.

The grounds were covered by a 15 cm to 60 cm deposition of silts and flood debris. This resulted in substantial damage to the park's grounds and facilities, especially to the manicured open spaces and greenways.

Remediation efforts included reconstruction of ground materials, i.e.: top dressing, seeding, and sodding of grass areas, removal and reinstallation of gravel and shale, repair of chain link fencing, replacement of post and cable fencing, and top lift of asphalt.



(Above) George Lane Memorial Park entrance, after remediation

The jewel in High River's crown, George Lane Memorial Park is a heavily treed, luscious area – a staple to the High River community.

Seeing the completed Park remediation was one of the first visual and emotional indicators for residents that High River was recovering from the 2013 event.

The Park features a baseball diamond, events stage, horseshoe pits, a playground, community picnic areas, and a campground.

Beachwood: Removal of a neighbourhood



(Above) Beachwood Way S.W., Sept. 2014

The Government of Alberta purchased all properties in the neighbourhood of Beachwood as part of the provincial floodway relocation program.

The long-term plan for this area is to remove all buildings and infrastructure and return it to an undeveloped/naturalized state.

The Government of Alberta held an auction on the remaining buildings in Beachwood in 2017.

Demolition and remediation work in the Beachwood subdivision is underway and contractors have been busy in 2018 removing foundations, grinding concrete, demolishing buildings, backfilling and compacting in the area over the next few months.

Baker Creek WRRP Project

With the help of the Watershed Resiliency and Restoration Program, the Town of High River undertook a Riparian Restoration Project.

This project entails decompaction of the soil structure that occurred as a result of construction and planting of native trees shrubs and groundcovers.

The goal of this project was to restore and enhance an area of Town that was adversely affected by the flood and improve its flood and drought resiliency in the future.