

# Lot 13 (Holland Creek)

**Client:** Westmark Construction

**End Date:** 2020

**Location:** Ladysmith

**Industry Segment:** Transportation, Water, Sewer Systems & Stormwater Management

## Key Team Members

Drew Beiderwieden, Dan Pedersen (Design & Drawing)

Mike Shepherd (Construction Services)

Scott Sled (Surveying)

## Challenges:

- The creek present on-site posed logistical and regulatory challenges. A temporary bridge had to be built for site construction access prior to a permanent bridge being constructed.
- Sloped terrain required meticulous and extensive site grading in order to accommodate the large new multi-family development on a relatively small site.
- To avoid creek contamination from water runoff, new stormwater management systems had to be designed and installed in such a way that they diverted runoff before discharging the creek.
- Limited time windows to work on the project due to seasonal restrictions pertaining to working on and near water courses.

## Solutions:

- Tiered stormwater management systems were designed and installed, conveying water from the parking areas into bioswales, which ran through a piped system containing oil/water separators, before entering a large detention system, which aided in the mitigation of the stormwater discharge, without contamination, before entering the existing water course.
- Exceeded local engineering standards to future-proof the project and build redundancy, taking extra care to preserve and protect Holland Creek's fish habitat.

## Deliverables:

- Brand new building with 96 rental units
- Bridge
- Sophisticated tiered stormwater management system including:
- Detention system
- Oil/water separation system for water quality

Newcastle Engineering was hired for design, surveying, and construction services on Tidalwood: a new 96-unit rental building in Ladysmith, one of Canada's most charming small-town communities.

Protecting the nearby Holland Creek was a top priority throughout the project, and Newcastle Engineering worked extensively with a team of geotechnical, landscape, biologists and mechanical engineers to ensure the site's natural biodiversity would be preserved.

This project exceeded local environmental and engineering standards, effectively future-proofing stormwater management systems and building redundancies to minimize long-term costs.

