

# Meeting Report

**Main Issue:** Water storage pond options

**Attendees:**

- (1) Allan Taylor - CZN
- (2) David Harpley - CZN
- (3) Lorraine Sawdon - DFO
- (4) Corrine Gibson - DFO
- (5) Sarah Olivier - DFO

**Meeting date:** Sept 1, 2011

**Summary of discussion:**

August 31<sup>st</sup> –CZN provided (via email) a photo showing the outline of the second water storage pond in relation to Prairie Creek to assist with discussions (see attached).

- On the photo, DFO observed a small, dry braided channel which divides into two within the vicinity of the proposed storage pond. CZN noted that one of the divisions is vegetated. DFO inquired about details of these channels and possible flows.
  - CZN said that, to their knowledge, water had been seen in the single channel on three (3) occasions over the last decade, including evidence of water flowing over the access road. The 3 occasions are during the recorded flood events in 2006 and 2007, and 2 weeks ago (2011). No other observation of water in these areas has been recorded. Given that the access road north of the mine was eroded in 2006 and 2007, and not previously since construction in 1981, CZN believe the 3 flood events and corresponding flow in the channel are the only 3 such events over the 30 year span. Consequently, CZN believes the normal high water mark to be on the creek-side of the access road.
  - CZN believes that when the single channel was active on the 3 occasions, it was for a few days at most each time. The floods were in response to prolonged summer rainfall, and flood peaks up to a few days were observed in other areas of the site.
- CZN assured DFO that the design of the water storage pond would consider floods and long terms stability
  - The toe of the berm would be armored to ensure stability
- DFO wanted clarification on how CZN will determine normal high water mark.
  - DFO's definition of normal or ordinary high water mark: "The usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the "active channel/bank-full level" which is often the 1:2 year flood flow return level." (This definition can be found in DFO's operational statements)

- DFO is still unclear on where the toe of the berm will be in relation to the normal high water mark of Prairie Creek
  - CZN did not include the small channels in their calculation of the 30 m buffer because they considered them to be beyond the normal high water mark
  
- Discussion about aggregate quantities and sources for 2<sup>nd</sup> pond dykes
  - CZN indicated that details can be found on p.8 of the Aug 2<sup>nd</sup>, 2011 documents. Aggregate material will include dug out portions within the area of the water storage pond as well as the back slope at the main site.
  - CZN stated that aggregate would not be taken from within the normal high water mark of Prairie Creek.
  
- Discussion about the August 19<sup>th</sup> Environmental Oversight Field report conducted by Hatfield
  - The report stated that there was not enough water in ponds to measure depth. DFO noticed water in a deeper pond in the picture provided on August 31<sup>st</sup> as well as in other pictures of the site. CZN advised that the objective of the survey was to confirm that there are no potentially fish-bearing streams connecting to Prairie Creek from the proposed pond site, and this was the case.
  - Though unlikely, DFO still cannot make a conclusion of whether the deeper pond is fish frequented until more information is provided.

**Outstanding issue(s):**

1. CZN will need to more accurately determine duration, frequency and seasonality of water entering the channel(s) within the area of the water storage pond or within the 30 m buffer.
2. DFO will require that CZN provide data to show how the normal high water mark has been calculated (i.e. based on flow data from Prairie Creek).
3. DFO will need to know the exact location of the outer berm of the water storage pond in relation to the normal high water mark.
4. Once completed, DFO will require final designs of the water storage pond.
5. DFO will require another field report that includes:
  - a. Investigations of depth, size and description of the deeper pond present within the area of the water storage pond (see attached excerpt from "Working near water" reference manual)
  - b. Details as stated in item 1

Signature of party representative: \_\_\_\_\_

*Janak Alvin*

Signature of developer representative: \_\_\_\_\_

*[Handwritten Signature]*

Date: \_\_\_\_\_

*29-10-11*