



Agenda Item: 17-1119

Council Meeting Date: June 19, 2017

## Briefing Note – To Committee

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### **Subject: Blackfoot Drainage – For Information**

**Recommendation:** THAT the County of Vermilion River Policy and Priorities Committee receive the Blackfoot Drainage briefing note for information.

**Background:** Blackfoot continues to have drainage issues in the Industrial Storm Water Pond and along Range Road 20 from the railroad tracks north of Highway 16 to Devonia Lake. There has been a review of the 2014 drainage study and several areas to be addressed:

1. On May 23, while out on site, 4 culverts located approximately a mile south of Highway 16 have collapsed ends allowing water to back up and run out onto farm fields.
2. Drainage along Range Road 20 has minimal fall from Highway 16 south for 1800m. The fall is only 2.3m. The existing drainage channel has several inconsistencies.
3. There are several different sized culverts used in the approaches of businesses in Kam's Industrial Park. When the storm pond is pumped out these undersized culverts hold back water.
4. North of Highway 16, water backs up in the ditches along Range Road 20. This is partly due to an Alberta Transportation culvert under Highway 16 and also due to culvert placement on the south side of Highway 16 and Range Road 20. The culvert elevation is set to maintain the wetlands on both sides of Highway 16.

**Discussion:** Resolutions for the areas addressed above:

1. Drainage along Range Road 20 can be improved significantly with the replacement of two culverts on the west side of Range Road 20. These approach culverts are for

access to NW-30 and SW-31. These culverts were replaced on May 31 as part of regular maintenance.

2. Drainage along Range Road 20 can be improved a little in the short term by cleaning out the cattails in the ditch to allow water flow. There is very minimal drop along the ditch and in order to complete this phase of the work we would require input from Alberta Environment.
3. The Devonia drainage from where Kam's Industrial Park daylight into the ditch to where it crosses Range Road 22 needs to have several culverts cleaned and/or reinstalled with larger culverts. The slope is minimal and it takes very little to impede the water flow. Then all the culverts and ditch should be checked to ensure the drainage is working as per the design or if other maintenance is required.
4. Lastly, the drainage across Highway 16. The culverts in the Highway need to be checked by Alberta Transportation to make sure they are functioning as designed. The ditch on the east side of Range Road 20 to the railroad tracks could then be cleaned to allow better water flow.

These are short term solutions to improve the drainage over the next year. Long term solutions have been proposed in the 2014 drainage studies and may require updating and planning.

**Desired Outcome(s):** To improve drainage along Range Road 20

### **Implication of Recommendation:**

**Financial:** There is funding in the budget for maintenance but a grader or large rubber tire excavator may be required to work off Range Road 20.

Implementation:

- Culverts on Range Road 20 replaced on May 31<sup>st</sup>
- Alberta Transportation to unplug culvert on Highway 16
- Small survey of subdivision and put together a work plan.
- Have Extera look at Range Road 20 to see what, if any, approvals are needed to clear the ditch. Look at clearing by late fall.

**Prepared by: Don Munro**

**June 6, 2017**