



Upper Bluff Creek Restoration Project



Barr Engineering
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Compensatory Storage



- Installation of wetland outlet structure raises water level in wetland (reduces floodplain storage)
- Compensatory storage required to not raise 100-year elevation in wetland
- Approximate excavation volume of 2.8 acre-feet required
- Storage volume can be excavated from anywhere upstream of Galpin Boulevard culvert



Debris and Ravine Dump



- Potentially contaminated debris exists in creek bed downstream of wetland outlet structure



Compensatory Storage – Location #1



- Pros
 - Removal of debris and potentially contaminated materials from ravine
 - No impacts to wetlands
- Cons
 - Phase II ESA to assess potential for contamination
 - Coordination with MPCA's brownfield program (i.e. application, write up) could be a 6-month process
 - Excavated debris and potentially contaminated materials would need to go to landfill for disposal
 - Need MPCA approval and landfill acceptance for excavated debris
 - Additional specs./bid item
 - Approximately \$30-40k change order



Compensatory Storage – Location #2



- Pros
 - Avoids potentially contaminated materials
 - No change order or additional permitting considerations required
 - No impacts to wetlands
- Cons
 - Although project excavation would not encounter the dump, its debris and potentially contaminated materials remain in ravine
 - It is possible contaminated materials still be encountered at this location. If so, this could cause significant delays during construction and change order costs

