

## Appendix B

---

Environmental Assessment



## Memo-to-File: Addendum No. 2

**To:** Environmental Assessment File CBH2007-04  
*Culvert Repairs, Big Johnny's Turn*  
*Cabot Trail, Neil's Harbour, NS*

**Date:** 23 January 2013

In March 2007, an environmental assessment (EA) was approved for culvert repair work at Big Johnny's Turn, Cabot Trail, Nova Scotia. A DFO *Letter-of-Advice* was issued for the undertaking at that time. In it, environmental protection measures while working in and near aquatic environments were outlined. The Victoria County Water Utility Services were also closely involved with that project; helping ensure proper safeguards to mitigate downstream water quality impacts. Upon project completion later that fall, no mishaps or accidents occurred resulting from work activities. In retrospect, from environmental monitoring and municipality involvement perspectives (pers. comm. R. Dauphinee, Jan 2013) things went quite well.

Recent inspections revealed structural deterioration at three other nearby culverts locations (See attached map). This memo covers work associated with culvert 3 only, tentatively scheduled during the summer 2013 for 10 to 12 week period. Repairs to the remaining two culverts will happen at a later date as funds become available.

This proposal is similar in scope to the 2007 Big Johnny's Culvert project, which, in the author's view, negates the need to re-evaluate under a new screening. The contractor is **expected** to comply with measures set out in the original screening while working at this new location (See attachment). An updated Letter of Advice is anticipated from DFO once they have had a chance to review the proposal (submitted earlier today). The Letter will likely recommend a timeline during which the project can proceed, typically between June and September.

The proposed action consists of replacing deteriorated support structures, including concrete footings. Project components include:

- Minor site preparations (e.g., site delineation, minor vegetation removal, erosion control, etc)
- Cofferdam installation (e.g., minor streambed excavation, water diversion bypass, etc.)
- Concrete works (e.g., removal of damaged concrete, install forms, pouring, disassembly, etc.)
- Miscellaneous (e.g., traffic control, notification to staff & municipality, site rehabilitation, etc).

To reiterate, from the worksite, Trout Brook flows south-easterly toward the community of Neil's Harbour, over 10kms downstream. This community relies on the stream for most of its water demands. It will be therefore important for the contractor to follow standard best management practices and proposed mitigation contained herein. Robert Dauphinee is asking to be updated on this project as it unfolds with no major concerns beyond that.

Implementation of this proposal will have a net benefit for aquatic species compared to the current structure with development of the dissipation pool, and increased culvert diameter.

For further information, contact Archie Doucette at 902.224.4233 or [archie.doucette@pc.gc.ca](mailto:archie.doucette@pc.gc.ca)





## DETERMINATION

☐

Taking into account the implementation of any mitigation measures that the responsible authority considers appropriate, the project is not likely to cause significant adverse environmental effects.

☐

Taking into account the implementation of any mitigation measures that the responsible authority considers appropriate, the project is likely to cause significant adverse environmental effects that cannot be justified in the circumstances.

Name: Archie Doucette

*EA & Restoration Ecologist*

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

Signature: X

Name: Derek Quann

*Resource Conservation Manager*

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

Signature: X

\_\_\_\_\_

Name: H       Robichaud

*CBH Superintendent*

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

Signature: X

\_\_\_\_\_

## COMMENTS:



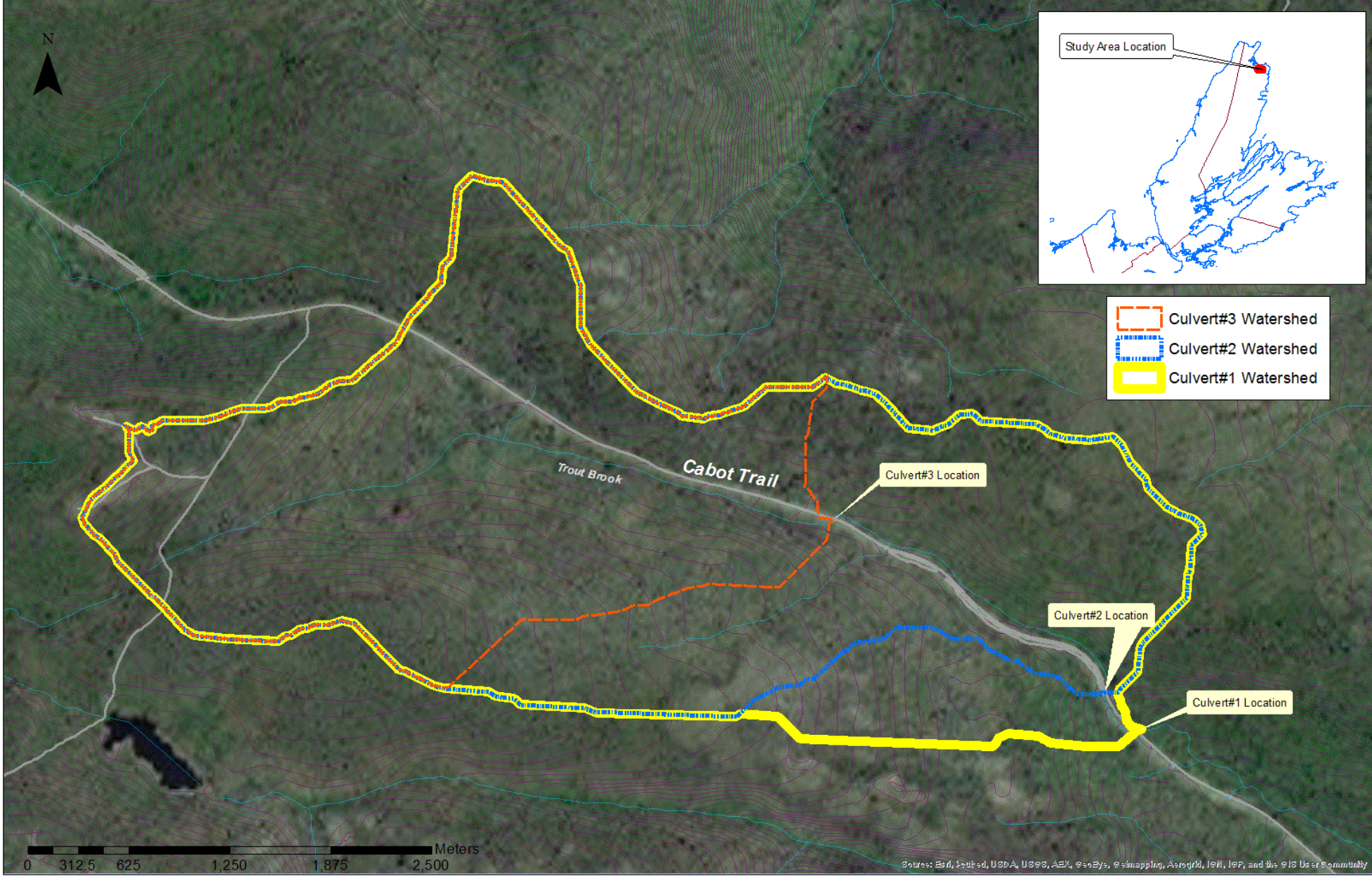
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## MITIGATION MEASURES

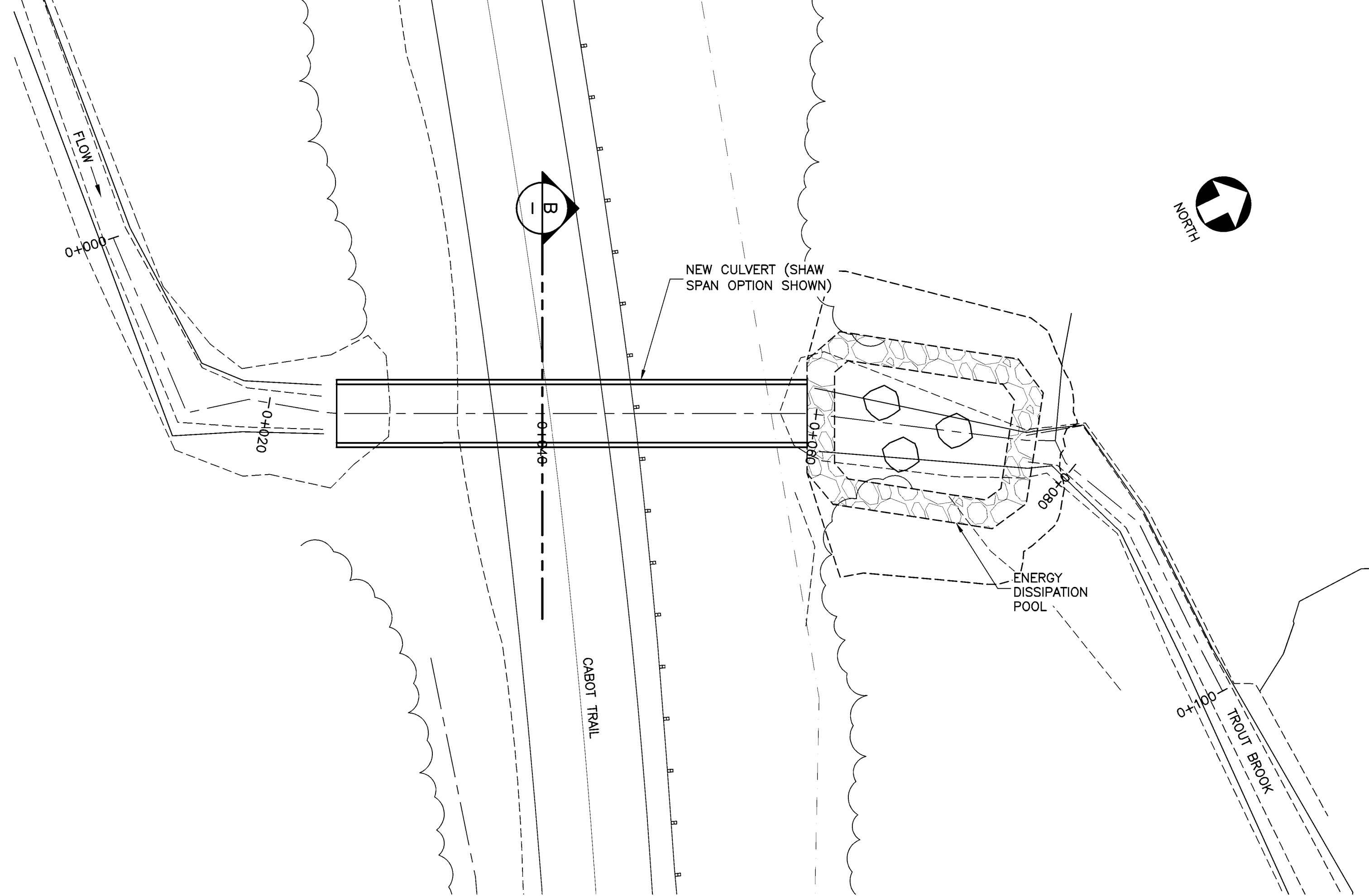
1. The author must be contacted at least two weeks prior to construction activities 902. 224.3798.
2. A pre-construction meeting shall be held involving the project engineer, contractor and park officials to discuss logistics, mitigation measures, scheduling, etc. Victoria County Public Works Representative Robert Dauphinee (902) 295-3144 will be invited. Mr. Dauphine may require having someone on standby at the water facility during the repair period. In so doing, in the event of serious mishap, facility shutdown could be initiated forthwith. Attendees will also be briefed on their environmental obligations when working in a national park, and explained the park's purpose, mandate, regulations etc.
3. The principal contractor will be responsible for informing employees about the importance of following mitigation measures, with particular emphasis on keeping the stream free from construction debris & contaminants;
4. The contractor must have a copy of the mitigation measures available onsite in a conspicuous location;
5. The EPO will ensure that the mitigation measures detailed in this environmental screening are adequately carried out. Additional mitigation measures may be required if deemed necessary;
6. The contractor is expected to follow the regulations set out in the *Canadian National Parks Act*. Most noteworthy, prohibited activities include illegal fishing, open fires, improper garbage disposal, and feeding wildlife;
7. The contractor must develop a contingency plan prior to commencement of undertaking. The plan must address extreme events such as collapse of dams or diversion structures, unusually high water levels, accidental spills, leaks of potentially deleterious substances and culvert collapse;
8. The EPO is authorized to cease work activities relating to an immediate and unexpected hazard to the environment (i.e., improper fuelling, broken fuel line<); and,
9. This EA will become part of the project specifications. It must be understood that when the contractor agrees to the terms and conditions of the project that, in effect, they are also agreeing the terms and conditions of this environmental assessment.
10. The contractor shall prevent construction-generated material, including clay, silt, sand and other aggregate material from entering stream. Erosion control devices, siltation fences, settling ponds, filters, etc. must be maintained in top working order and will be completely removed after operations. Under the Canadian EPA, Federal Fisheries Act and Nova Scotia Environment Act sediment is prohibited from being released into any waterbodies;
11. The contractor shall not disturb the banks of any waterway, brook or lake and not operate machinery in or cause any disturbance to shorelines, banks or streamside vegetation beyond the defined limits;
12. Fuelling of all equipment will be done **100m** away from the subject stream on flat stable surfaces and in a manner that will least likely result in spillage. The newly constructed weather information tower has one such pull-off and is located approximately 100m northwest on Cabot Trail. Fuelling of equipment will be restricted to the identified staging areas. Fuelling will be done in a manner that restricts the potential release of petroleum product into the receiving environment. The contractor must have a spill contingency response plan including an adequate supply of sorbent material and berming devices to contain spill(s). This must be readily available and workers must be trained for its use and be ready, willing and able to respond to any spill incidents. Report spills to the 24-hour environmental emergencies reporting system (1- 800-565-1633) or to the Ingonish Warden Office (902) 285-2542;
13. Halt construction activity on exposed soil during events of high rainfall and runoff;
14. Schedule high noise level activities to avoid critical life stages (e.g., breeding, nesting, rearing, migration). Consult with Parks Canada to discuss any localized wildlife concerns;
15. Minimize idling of engines at all times and reduce speeds when travelling to and from site;
16. When working adjacent to areas bordering aquatic habitats, clear only a minimum required for construction activities and retain vegetation barriers or riparian zones where possible. No vegetation shall be cut outside the marked limits unless granted permission by EPO;

17. Ensure stored or transported materials are covered with tarps or equivalent material. Trucks carrying excavated and fill material will be loaded in a manner not exceeding vehicle capacity;
18. Geotextiles and/ or other polyethylene sheeting must be placed over areas prone to erosion, especially during precipitation events;
19. An EPO will conduct site inspections to ensure mitigation measures are followed and provide assistance if required necessary;
20. Wherever possible, the contractor shall use separate storage areas for topsoil and subsoil layers and shall replace them in the same order;
21. Contractor must ensure no fresh concrete, fuels, oils, or wood preservatives or any other contaminant enters a watercourse, ground surface or other areas of the natural environment;
22. Silt control will be placed downstream and maintained regularly. Regularly inspect and repair erosion control structures;
23. One length of containment boom for spill containment will be strung across the stream beyond the silt containment fence on the downstream side of the site;
24. Any fish must be removed from the construction site by qualified personnel and placed upstream away from site. Barriers must be maintained throughout period of construction to prevent fish entry;
25. In the event that rain is forecasted, the contractor will discuss the level of threat with the EPO. Preparations should be made accordingly to protect stream and worksite. This may include increased stabilization of infrastructure or temporary site closure. Every effort will be made to respond to such events with as much advanced notice as possible;
26. Controlling sediment-laden water may require a series of containment structures pumping in a controlled manner away from site to designated settling or filtration areas. The EPO should be consulted to assist with any such initiatives.
27. Dams shall have sufficient freeboard to withstand rises in water levels that can be reasonably be expected from prolonged rains factoring in the time of year;
28. Dams must be constructed to achieve maximum impermeability;
29. Suitable earth-moving equipment should be available on short notice for infrastructure failure;
30. Dewatering from any body of water is not permitted;
31. Contractor will develop an onsite *Waste Management Plan* during operation for material relating to concrete works including, form scraps, drill dust, waste concrete and others;
32. Concrete trucks or other pieces of heavy equipment will not be cleaned inside the park;
33. Various information programs relating to delays, possible closures, or potential hazards would minimize visitor inconvenience and community safety concern;
34. Construction activities will occur between June and September 2007 to coincide with the fisheries window period. This is also during the peak visitation period. To reduce the impact, this EA recommends commencing the project sooner rather than later in this period;
35. Signage will be installed to follow Provincial (i.e., speed limits<) & Federal (i.e., bilingual<) standards;
36. Consideration of impacts resulting from possible accidents and malfunctions is required. Contingency plans will be prepared for site-specific conditions;
37. Project may be subject to *stop-work-order* for non-compliance with proposed mitigation measures;
38. Additional mitigation may be required as the project progresses;
39. Prior to completion, any implementation of landscaping design feature such as resloping or resurfacing the area, importation of topsoil, revegetation (i.e., reseeding or replanting), application of mulches or matings etc. will be done through the coordination of the EPO. Emphasis on the prevention and spread exotic species, improper use of fertilizers etc. will be of particular concern;
40. Before completion, the site manager, contractor, park's General Works representative(s) and EPO will conduct a final inspection to address outstanding issues.

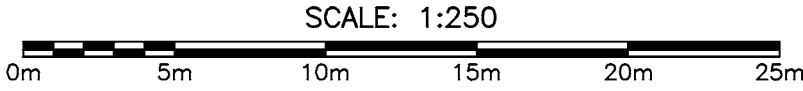






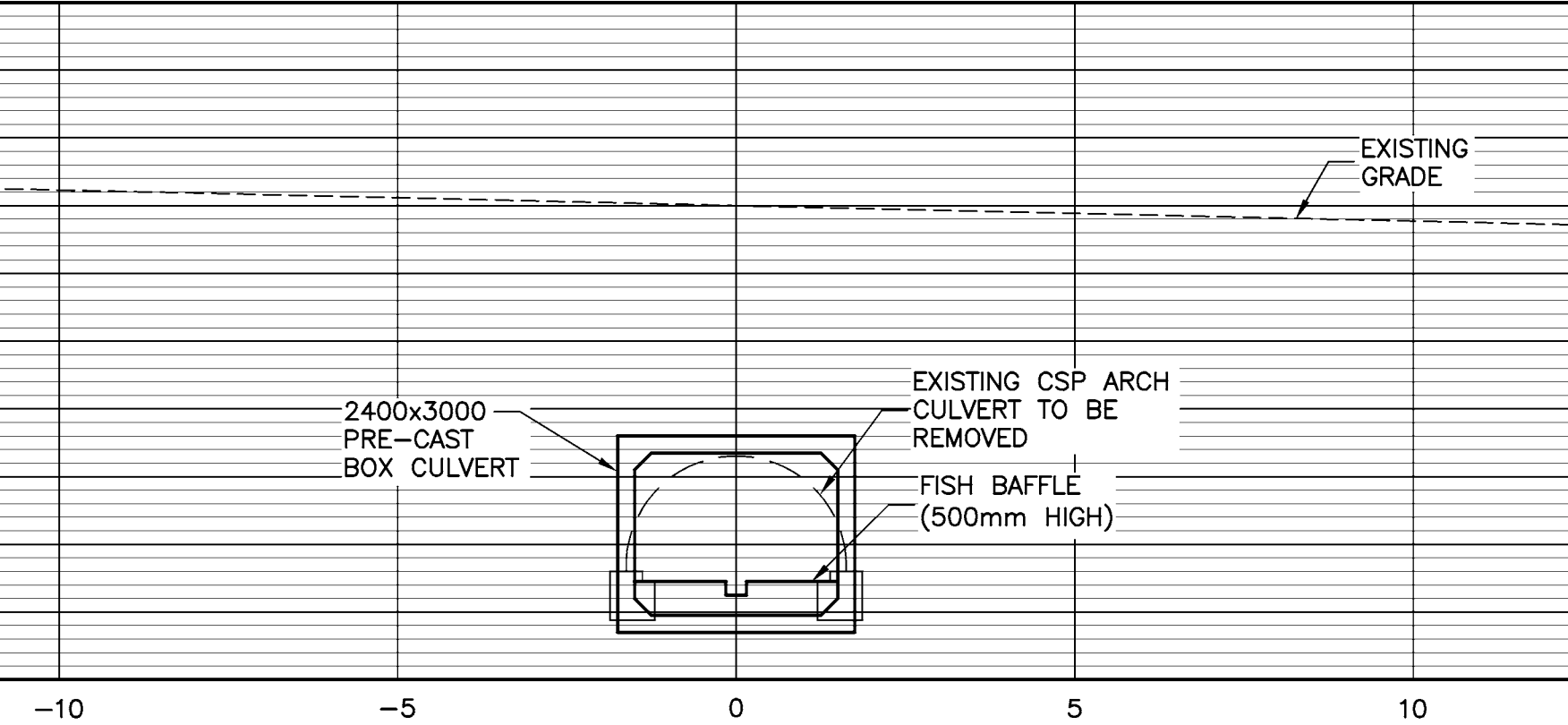
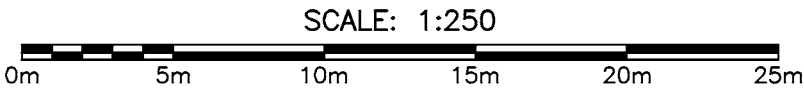


CULVERT No. 3 PROPOSED CONDITIONS PLAN

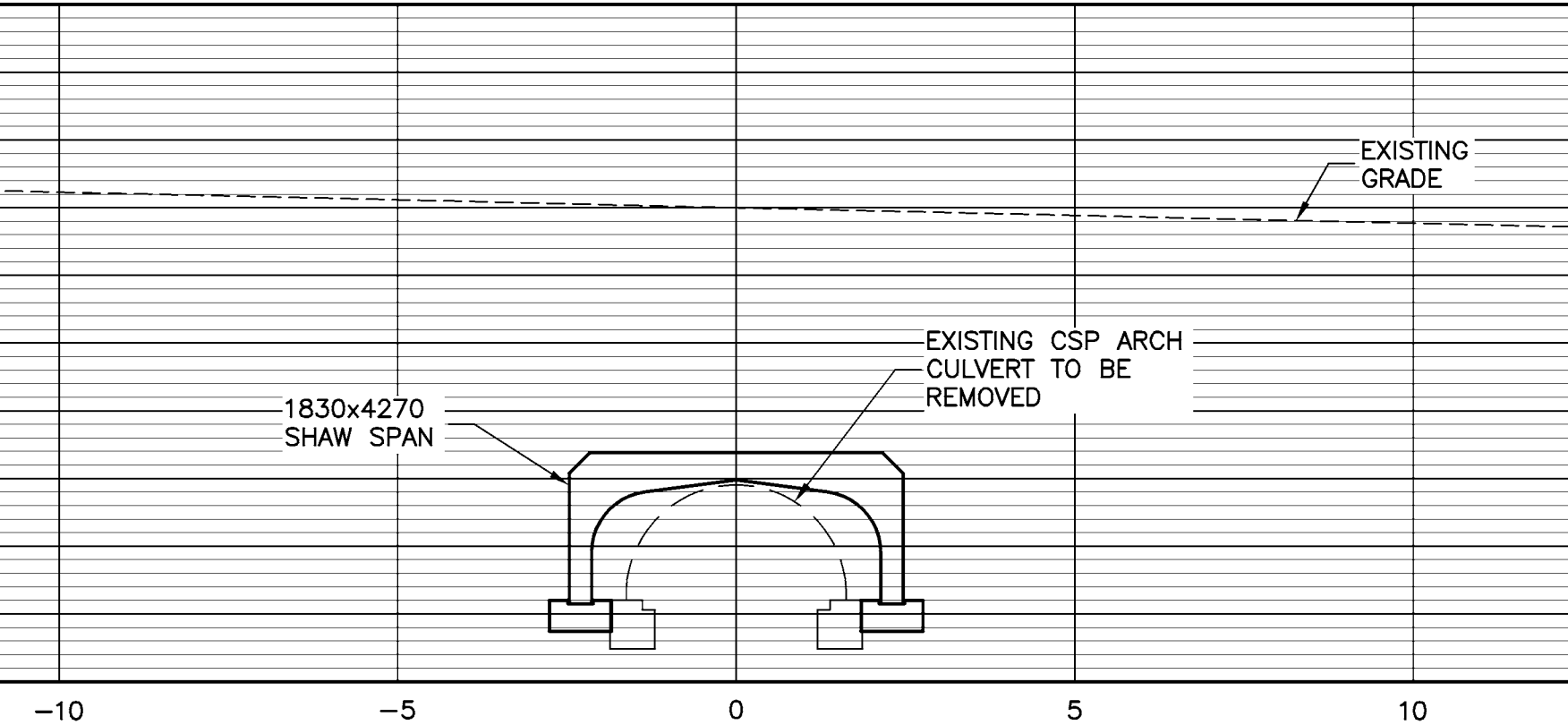
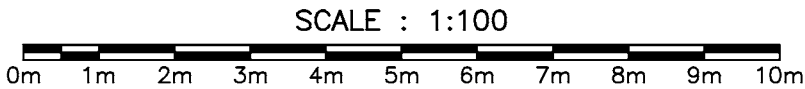
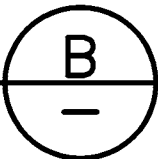


SCALE: 1:250

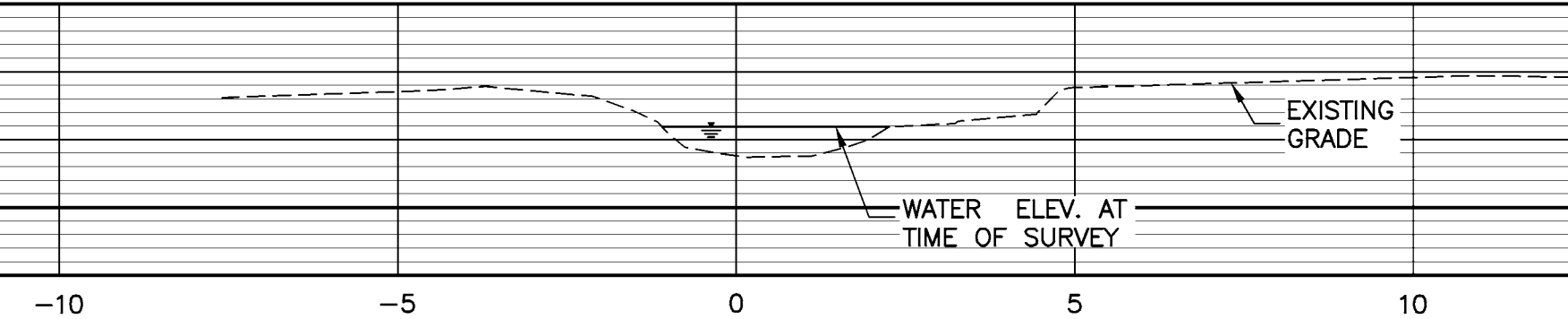
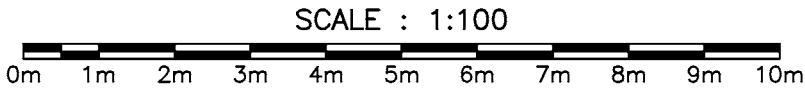
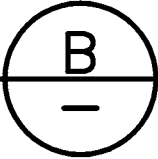
CULVERT No. 3 PROPOSED CONDITIONS PLAN



SECTION—CULVERT No. 3 REPLACEMENT OPTION 1



SECTION—CULVERT No. 3 REPLACEMENT OPTION 2



SECTION—TROUT BROOK OUTLET

