Memorandum

To: Mike Mullen

From: Fred Lavallee, P.E.

Date: August 29, 2007

Re: Winthrop Commerce Center - Update

This memo is to update you on the status of this project, for which a permit-by-rule was issued under Section 13 of Chapter 305 this July. There have been several unforeseen changes in this project since application.

The permit was for installation of a temporary sandbag cofferdam in Mill Stream in Winthrop. The cofferdam was to enclose a portion of a concrete retaining wall, under which #6 oil was intermittently discharging. The cofferdam was constructed to contain free product released by bedrock flushing and soil excavation.

During the excavation phase, it was discovered that the retaining wall footing was not constructed directly upon bedrock, as supposed; between 3' and 5' of heavily contaminated soil remained between the footing and the bedrock surface. If left in place, this soil would have continued to discharge product into Mill Stream. After evaluating options, it was decided to remove the retaining wall to access the remaining "dirty" soils, and replace the wall in kind.

The cofferdam was relocated deeper into the stream (westward) to facilitate wall removal and access the soils. In its new location, the retaining wall still obstructed less than half the channel width and has been in fact in the dry during much of the July and August low stream flows. The wall was removed between August 13th and 15th. Contaminated soils have been removed from beneath and behind the wall from then until yesterday, when the last contaminated soil was staged for offsite transport.

The work was complicated by the fact that the bedrock surface directly beneath the wall was lower than the Mill Stream water level, causing water to seep under the cofferdam into the excavation, rather than out of it. This water needed to be continuously pumped off during excavation to access the contaminated media. Virtually all free product continues to be captured, either in the cofferdam or in the downstream booms. However, since yesterday when excavation of fine-grained soils was taking place, water pumped from the excavation has had a higher-than-usual silt content which is not completely captured in by our control measures. Our contractor installed silt tube on the pump discharge today, which has reduced

siltation somewhat. Mill Stream is still visibly cloudy about 300' downstream at our first run of containment boom. It is only slightly turbid at the second boom run, just above the Rte. 202 culvert, and seems clear where the stream merges with Annabessacook Lake.

Siltation occurs only when the excavation - with its residual fine-grained soils - must be pumped down. This will occur only once or twice more, once to clean the bedrock surface for concrete placement, and again during the placement itself. Both these pumping events should take place within a week. The concrete footing and replacement wall will then be placed on approximately the same alignment as the original wall. When the wall is complete, the excavation will be backfilled as originally planned, with drainage stone and piping left in place for future flushing, in case it is needed. The cofferdam will be cleaned of free product but will remain in place for several weeks until we are confident no more product is being released. The cofferdam will be removed from Mill Stream in late fall, as will the downstream runs of boom.

Although replacing the retaining wall requires concrete work in the Mill Stream channel, the new structures will not encroach upon the channel any more than the original. All concrete placement will be done in the dry, and no heavy equipment traffic in the streambed will be required. Absent further surprises, the replacement wall should be completed by the end of September.

If you have any questions or concerns, please give me a call.

Memorandum

To: Mike Mullen BLWQ Enforcement Coordinator

From: Fred Lavallee, P.E. BRWM Division of Technical Services

Date: July 17, 2007

Re: Winthrop Commerce Center - Application for PBR for Water Quality Improvement

Project

BRWM is requesting permission under Chapter 305 to install and maintain a temporary cofferdam in Mill Stream, Winthrop, Maine, as part of project to eliminate oil discharges from the former Carleton Woolen Mill. The cofferdam was in fact constructed in June to contain seeping oil and this is an after-the-fact application.

BRWM plans to flush free product from shallow bedrock fractures with hot water, introduced through wells installed in the parking lot and cased several feet into bedrock. We plan thereafter to excavate the parking lot to the bedrock surface where contaminated soils remain, as identified in a June boring program. Further hot water flushing of the exposed bedrock will then be performed to mobilize as much free product as possible.

The cofferdam was installed on the east side of Mill Stream, parallel to and ten to fifteen feet removed from the mill's east retaining wall. Its upstream end is butted against the retaining wall approximately 40' from where Mill Stream exits from under the main mill buildings. It extends downstream about 150', terminating again against the retaining wall. It is constructed of sandbags, placed directly on ledge outcropping in the streambed, and its streamward face is armored with large stones at the upstream end. It projects 3'-4' above the streambed. It obstructs less than 1/4 of the stream channel width and may in fact be high and dry during summer low flows.

The cofferdam is intended to serve as an improvised oil/water separator, capturing free product released from contaminated soils, and discharging to the streambed through and under the retaining wall. The inside surface and floor of the cofferdam has been lined with poly, to impound a 1'-2' deep pool of water. Water from Mill Stream is fed into the impoundment at the upstream end by a pipe which passes through the sandbag wall. An underflow outlet pipe at the downstream end will allow excess water to outlet, while both floating and sunken product are trapped within the impoundment for recovery by sorbents, a skimmer, or vac-truck. Should any product escape the cofferdam, it will be captured by sorbent boom installed at three locations downstream of the mill property.

It is hoped to begin the flushing during the week of July 23rd and the excavation in mid-August. The cofferdam will remain in place until the excavation is backfilled, the parking lot is repaved, and there is little possibility of further releases of oil. The impoundment will then be cleaned of all collected product and contaminated materials. It will then be drained, the sandbags removed, and the armoring stone redistributed in the streambed. The foot of the retaining wall will be riprapped with stone sized for spring streamflow velocities. All work will be completed by 11/30/2007.

The attached photos show the cofferdam under construction, after placement of the sandbags, but before lining or installation of inlet and outlet pipes.

If you need clarification or additional information please let me know.

12/2006

DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Chapter 305)

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