***FY06 ENVIRONMENTAL AUDIT CHECKLIST (✓) AND LEASE INSPECTION RESULTS FOR GRANITE CREEK MUNICIPAL LEASE SITES (October 2005 and April 2006)***

## *INTRODUCTION*

Task 5 of the FY05 approved workplan for the Granite Creek Recovery project called for the City and Borough of Sitka (CBS) to "prepare an environmental checklist and lease site inspection form for use by municipal staff in completing lease management reviews." The project's technical consultant was contracted to prepare the standardized checklist for review and adoption by CBS. The checklist/inspection form was developed based on the results of three field surveys of lease operations completed by the contractor in 2003 and 2004.

In 2002, municipal lease agreements were amended to include new pollution control terms. Common provisions now included in municipal lease agreements include solid waste disposal, fuel storage, creek setback standards, and ensuring the conditions of completed Stormwater Pollution Control Plans are followed. Environmental lease terms in the checklist summarize requirements in local lease agreements and also include proven operational best management practices included in the approved Granite Creek TMDL to comply with local and state requirements.

The *purpose* of the checklist is to provide a simple form for completing audits of lease operations against environmental requirements in each lease agreement. This is an important recommendation in the approved Granite Creek TMDL, which calls for increased municipal oversight of lease operations through annual audits. As the environmental requirements for material lease site agreements are almost identical from operator-to-operator, the checklist is greatly simplified. Golf Course and overburden site lease conditions vary in some cases from the standard material lease site conditions and therefore have some specific checklist entries.

*In FY06, environmental audits were performed in October 2005 and again in April 2006 using the audit checklist and lease site inspection form. These two audits are attached and represent project deliverables for the FY06 ACWA grant.*

The results of each lease compliance survey will be used by CBS Public Works Department to evaluate individual operations and to specify any operational adjustments or further lease amendments, as necessary. Additionally, the results provide information for preparing any necessary written directives to operators to clean up sites or move fuel tanks and wastes away from the creek.

Current lessees/leases to be reviewed against the environmental audit checklist include Tisher Construction, Southeast Earthmovers, McGraw Construction, Aggregate Construction, the Sitka Golf Association work on the Golf Course, and municipal leases overseen by the CBS (benchland overburden site and common pit material site).

***OCTOBER 27, 2005***
***GRANITE CREEK ENVIRONMENTAL AUDIT CHECKLIST AND LEASE SITE INSPECTION FORM:***
***GRAVEL LEASE OPERATIONS***

| ***ENVIRONMENTAL LEASE TERMS AND BMPS, BY CATEGORY*** | ***YES*** ✓ | ***NO*** ✓ | ***INSPECTOR'S COMMENTS AND ACTIONS*** |
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| **MATERIAL/GRAVEL LEASE SITE OPERATIONS** | | | All plans are submitted. Most recent is S&S plan in March 2005. Need verification that SWPPPs are maintained on site at all leases. |
| ❶ *All operators have submitted a Stormwater Pollution Prevention Plan (SWPPP) and received approval by CBS and ADEC. A copy of the Plan is maintained on site.* | ✓ | | |
| ❷ *Pit floor is graded so surface runoff is diverted to ditching and settling ponds prior to discharge to Granite Creek.* | ✓ | | Three new ponds and ditches at pit run area constructed mid-2005. |
| ❸ *No blasting or earthmoving occurs during heavy rains.* | | | Needs clear definition and followup to verify. |
| ❹ *Settling ponds are cleaned out and maintained at least annually.* | ✓**?** | | Sitka Golf Assoc cleans ponds annually. Need to document dates. |
| ❺ *Truck traffic is restricted to defined areas to reduce siltation from erodible soils.* | ✓ | | GC Road resurfaced in 6/05. |
| ❻ *Silt fencing is properly maintained; no breakouts occur.* | **N/A** | | No fences used on site. Hay bales in ditches. |
| ❼ *Vegetation and materials are not deposited into the stream or other water area.* | | ✓ | |
| ❽ *Obstructions to fish passage are not created by operations near the creek.* | | ✓ | |
| ❾ *Operators log the results of maintenance and inspections and maintain copies on site for CBS inspection per the SWPPP.* | | ✓ | Verification required for each lessee per EPA General Permit requirements. |
| **FUEL STORAGE AND CONTAINMENT** | | | |
| ❶ *Fuel, oil, and hazardous materials are stored a minimum of 50 feet away from creek banks.* | ✓ | | |
| ❷ *Fuel drums and tanks include liners and secondary containment to capture drips and large spills.* | | ✓ | No liners or secondary containment used for fuel storage. |
| **VEGETATED STREAM BUFFERS AND SETBACKS** | | | |
| ❶ *Construction equipment, aggregate stockpiles, vehicles or boats are stored at least 25 feet away from Granite Creek or its North and South Forks.* | | ✓ | Exceptions are 2 Tisher gravel piles, and isolated metals inside rope buffer area at Tisher and Shin lease sites. Photo taken. |
| ❷ *Stakes, ropes and berming installed along the stream tributary banks remain intact. Buffers are undisturbed. Equipment does* | ✓ | | CBS maintains ropes. |

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| *not encroach into the roped stream buffer areas.* | | | Few alders at dewater access at Shin lease and Tisher gravel pile by bridge. Thin buffers. |
| ❸ *Stream buffers show evidence of active, natural revegetation with alders and grasses.* | ✓ | | |
| ❹ *Gravel piles are placed well back of the roped buffer segments and do not encroach on the stream banks.* | | ✓ | 2 Tisher gravel piles encroach on stream bank and roped buffer. |
| ❺ *Does runoff from stockpiled materials drain to or discharge sediment to creek tributaries or banks.* | ✓ | | Tisher gravel pile nearest bridge sluffs some sediment. Not a major contribution. |
| ❻ *Roped stream buffers are routinely inspected and repaired, as needed.* | ✓ | | |
| ❼ *Expansion of stream buffers to a width of 25 ft from Ordinary High Water (OHW) along each stream bank occurs in some locations.* | ✓ | | Ropes have been moved back at selected locations to expand buffers. |
| ❽ *Stripped overburden is reused to stabilize and promote revegetation along stream buffers.* | | ✓ | Potential exists-South Fork seems best site. |
| ❾ *Other active revegetation techniques (e.g. seeding and planting) are used.* | | ✓ | New reveg and soil stabilization BMPs are being prepared in 2005 for possible future application by CBS. |
| **ROAD MAINTENANCE, DRAINAGE AND EROSION CONTROL** | | | |
| ❶ *Regular road grading occurs and provides non-breached berms along the roadside edge. Road maintenance during heavy rains is prohibited.* | ✓ | | Historic problem breach by N. Fork bridge [1]crossing. Needs boulder placement/road grading. |
| ❷ *Check dams placed in roadside ditches are working properly. Grasses (swales) are established in roadside ditches. CBS seeds ditches as needed to maintain grasses.* | ✓ | | Fine material in check dams may erode over time- needs checking. May need reseeding. |
| ❸ *Detention basins are adequately collecting and treating Granite Creek Road runoff.* | ✓ | | Mucking out every 2-3 years is recommended. |
| ❹ *CBS staff regularly maintains ponds and check dams.* | ✓ | | SGA completes work under contract w/ CBS. |
| ❺ *All road runoff on leases is collected in ditching and routed to and treated in settling ponds/detention basins before entering Granite Creek.* | ✓ | | Yes. Exception is occasional North Fork breach near bridge. |
| ❻ *Rerouted or new access roads are engineered to include ditching, culverts, and properly sized collection ponds to treat stormwater runoff.* | **N/A** | | Planned for spring 2006. Additional pond may be needed. |
| ❼ *Road construction is conducted to avoid damage to the creek. Any road crossings/improvements/diversions in the creek are approved by CBS before work begins.* | **N/A** | | Summer 2006 projected construction date. |
| ❽ *Identify and utilize specific segments where runoff is diverted to bioswales/vegetation to remove sediments before entering the creek. Either operators or CBS staff may participate.* | ✓ | | Shin's settling ponds discharge to large vegetated area before entering Granite Creek |

[1] Roadside berms need to be routinely checked for breaching/breakouts to reduce runoff down creek banks.

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| **SETTLING PONDS** | | | |
| ❶ *Settling ponds are collecting and treating stormwater runoff effectively.* | ✓ | | Very effective on a whole. Retention time during heavy rains is an issue. |
| ❷ *Ponds are maintained/cleaned out on an annual basis by city staff or contractors.* | ✓ | | SGA does work. Need dates verified. |
| ❸ *Settling pond cleanouts are restricted to the period June 1 through July 15 to protect fish.* | ✓ | | CBS verifies dates. |
| ❹ *New settling ponds are properly sized and located to collect and treat surface runoff. Ponds used for gravel washing need to provide longer retention times for sediment removal than do settling ponds receiving just surface runoff.* | ✓ | | During major operations at CBS pit run area, adequate pond retention time is an issue. 3 days needed to return to background turbidity. No gravel washing occurs. |
| **MONITORING** | | | |
| ❶ *TSS and turbidity levels are routinely measured by CBS staff at the Halibut Point Road bridge station to assess impacts. Water quality standards for these parameters (less than 5 NTUs above background and less than 5.46 mg/l TSS) are being met.* | ✓ | | Monthly TSS and turbidity monitoring is completed at key stations. |
| ❷ *Operators "self-monitor" the effects of their operations on water quality.* | | ✓ | Perhaps visually done. Need to verify whether annual monitoring rpts are filed with EPA. |
| ❸ *CBS coordinates scheduling with USGS staff on stream flow/water quality monitoring.* | ✓ | | |
| ❹ *A watershed team approach is used to address lease operations and solve problems. Lease operators, municipal staff, contractors, and other agencies are common participants.* | ✓ | ✓ | ADNR and ADF&G participation lessened after Habitat Unit reorganization. Other parties still active. |
| **SOLID WASTE STORAGE** | | | |
| ❶ *Are materials stored on the lease that are not associated with the operation and maintenance of the lease (e.g boats, abandoned vehicles)?* | ✓ | | Boats, asphalt, waste concrete piles. See **attached** SW inventory completed in June 2004. |
| ❷ *No permanent or long term improvements such as garages or shops or other type buildings and uses are found on the lease.* | | ✓ | Asbestos pipe, powder stored on J.McGraw lease in violation of lease terms. |
| **BENCHLAND WASTE DISPOSAL SITE/GOLF COURSE** | | | |
| ❶ *The forested muskeg buffer between the base of the overburden disposal site and Granite Creek remains undisturbed to provide maximize stormwater treatment.* | ✓ | | July 05 Corps permit allows additional berming and retains 150 ft buffer. |
| ❷ *Drainage from the uphill side of the proposed site should be intercepted and routed around the boundary berms to minimize contact with organics and subsequent leachate formation.* | ✓ | | This diversion remains effective in reducing surface water on site. |
| ❸ *A regular water quality monitoring program is conducted by CBS to evaluate fecal coliform bacteria, pH and turbidity levels* | ✓ | | Contractor monitoring at 8 stations, approx. twice per year. Solid waste |

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| *at established stations as part of the biosolids disposal permit.* | | | Class III permit application still in review by ADEC. |
| ❹ *Golf course lease site improvements do not contribute to increased surface runoff to collection ditches at the base of the old overburden berm.* | | ✓ | Settling ponds and diversion to GCR Road control runoff volume. Good erosion control practices. |
| **MUNICIPAL MANAGEMENT AND OVERSIGHT** | | | |
| ❶ *New developments in the watershed are planned, reviewed, and approved with environmental protection in mind. These projects must recognize and comply with water quality protection terms found in the Granite Creek Recovery Strategy and TMDL.* | ✓ | | See new development guidelines approved in June 2005 re: PubWorks and Planning Dept. coordination and envirnm'tl handouts. |
| ❷ *Material lease site reclamation (as appropriate) is consistent with the approved Reclamation Plan referenced in the lease agreement.* | **N/A** | | Future reclamation is subject to updated Plan and conditions (7/05). |
| ❸ *CBS staff completes annual audits of lease operation compliance with municipal terms.* | | ✓ | Contractor completes. CBS expects to complete future audits. |
| ❹ *Periodic training for lease operators is provided to improve operational efficiency and pollution control practices.* | | ✓ | Last training in Nov 02. Not all operators present. |
| ❺ *Fisheries enhancement projects are being considered by CBS as part of operations.* | ✓ | | Potential reroute of South Fork above falls to North Fork considered. |
| ❻ *CBS is implementing a "Planning Review Station" approach – or comparable process - for municipal reviews of development proposals in the Granite Creek watershed.* | ✓ | | See new June 2005 procedures for better CBS coordination and proactive environmental controls. Preapplication meeting for major projects. |
| **Attachment:** ***Inventory of materials and equipment at material lease sites in Granite Creek (June 2004).*** | | | |

Doug Redburn, Redburn Environmental & Regulatory Services
Agent for the City and Borough of Sitka — 27 October 2005

INSPECTOR'S NAME — DATE