

**ENVIRONMENTAL AUDIT CHECKLIST (✓) AND LEASE INSPECTION  
FORM FOR GRANITE CREEK MUNICIPAL LEASE SITES  
APRIL 2006**

**INTRODUCTION**

Task 5 of the FY05 approved workplan for the Granite Creek Recovery project calls 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.

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).

**APRIL 19-20, 2006<sup>1</sup>**  
**GRANITE CREEK ENVIRONMENTAL AUDIT CHECKLIST AND LEASE SITE**  
**INSPECTION FORM:**  
**(GRAVEL LEASE OPERATIONS and OVERBURDEN/LANDFILL SITE)**

<b>ENVIRONMENTAL LEASE TERMS AND BMPS, BY CATEGORY</b>	<b>YES ✓</b>	<b>NO ✓</b>	<b>INSPECTOR'S COMMENTS AND ACTIONS<sup>2</sup></b>
<p><b>MATERIAL/GRAVEL LEASE SITE OPERATIONS</b></p> <p>① 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. ✓</p> <p>② Pit floor is graded so surface runoff is diverted to ditching and settling ponds prior to discharge to Granite Creek. ✓</p> <p>③ No blasting or earthmoving occurs during heavy rains.</p> <p>④ Settling ponds are cleaned out and maintained at least annually. ✓?</p> <p>⑤ Truck traffic is restricted to defined areas to reduce siltation from erodible soils. ✓</p> <p>⑥ Silt fencing is properly maintained; no breakouts occur. N/A</p> <p>⑦ Vegetation and materials are not deposited into the stream or other water area. ✓</p> <p>⑧ Obstructions to fish passage are not created by operations near the creek. ✓</p> <p>⑨ Operators log the results of maintenance and inspections and maintain copies on site for CBS inspection per the SWPPP. ✓</p> <hr/> <p><b>FUEL STORAGE AND CONTAINMENT</b></p> <p>① Fuel, oil, and hazardous materials are stored a minimum of 50 feet away from creek banks. ✓</p> <p>② Fuel drums and tanks include liners and secondary containment to capture drips and large spills. ✓</p> <hr/> <p><b>VEGETATED STREAM BUFFERS AND SETBACKS</b></p> <p>① Construction equipment, aggregate stockpiles, vehicles or boats are stored at least 25 feet away from Granite Creek or its North and South Forks. ✓</p>			<p>All plans are submitted. Most recent is S&amp;S plan in March 2005. Need verification that SWPPPs are maintained on site at all leases.</p> <p>Three new ponds and ditches at pit run area constructed mid-2005.</p> <p>Still needs clear definition and follow-up to verify compliance. Need to document dates. <b><i>GCr Road detention ponds need cleaning. CBS Ponds 1 and 2 and D. McGraw Pond 1 need cleaning from June 1-July 15, 06.</i></b> GC Road resurfaced in 6/05.</p> <p>No fences used on site. Hay bales in ditches. <b><i>Road bank breakout identified at North Fork; repair needed.</i></b> OK</p> <p>OK</p> <p>Verification required for each lessee per EPA General Permit requirements. <b><i>Still require verification of logs on-site.</i></b></p> <p><b><i>Several full 55- gal fuel drums stored at J. McGraw temporary lease. While greater than 50 feet from creek, without secondary containment, spills could reach tributaries through drainage ditches and ponds. Asbestos pipe.</i></b> No liners or secondary containment used for fuel storage at any lease site.</p> <p><b><i>Two Tisher gravel piles were removed since the October 2005 audit and the area contoured.</i></b> Isolated metals remain inside rope buffer area at Tisher and Shin lease sites. Photo documented.</p>

<sup>1</sup> A separate audit report completed for October 2005 is also available. Format is identical to the April 2006 report.

<sup>2</sup> Updates on actions/remedies listed in the October 2005 audit and new findings since are noted in ***bold and italics.***

<p>② <i>Stakes, ropes and berming installed along the stream tributary banks remain intact. Buffers are undisturbed. Equipment does not encroach into the roped stream buffer areas.</i></p>	✓		CBS maintains ropes.
<p>③ <i>Stream buffers show evidence of active, natural revegetation with alders and grasses.</i></p>	✓		<p>Few alders at dewater access at Shin lease and Tisher gravel pile by bridge. Thin buffers. <b>Spot reseeding proposed.</b></p>
<p>④ <i>Gravel piles are placed well back of the roped buffer segments and do not encroach on the stream banks.</i></p>	✓	✓	<p><b>Tisher material piles removed and no longer encroach on banks. New roped buffer is proposed with log barrier to protect area and limit encroachment. Remains of removed gravel pile nearest bridge continues to sluff some sediment. Contouring recommended with rope/log barrier.</b> OK.</p>
<p>⑤ <i>Does runoff from stockpiled materials drain to or discharge sediment to creek tributaries or banks.</i></p>	✓		<p>Ropes have been moved back at selected locations to expand buffers. <b>Lease road realignment will provide for 25 ft buffer along N. Fork. South Fork already has 15 ft in most cases.</b> Potential exists – South Fork is best site.</p>
<p>⑥ <i>Roped stream buffers are routinely inspected and repaired, as needed.</i></p>	✓		<p><b>New reveg and soil stabilization BMPs completed in April 2006. They propose active revegetation in several locations.</b></p>
<p>⑦ <i>Expansion of stream buffers to a width of 25 ft from Ordinary High Water (OHW) along each stream bank occurs in some locations.</i></p>	✓		<p>Historic problem breach by N. Fork bridge <sup>3</sup>crossing. <b>Riprap was replaced and the road graded since Oct 05.</b> Fine material in check dams may erode over time- needs checking.</p>
<p>⑧ <i>Stripped overburden is reused to stabilize and promote revegetation along stream buffers.</i></p>	✓	✓	<p><b>Ditches need reseeding to promote grass growth. Road gravel smoothening.</b></p>
<p>⑨ <i>Other active revegetation techniques (e.g. seeding and planting) are used.</i></p>	✓	✓	<p><b>Very effective. Basins are filling up with sediment. Needs mucking out in summer 2006 and then every 2-3 years.</b> SGA completes work under contract w/ CBS. <b>Needs reminder schedule.</b></p>
<p><b>ROAD MAINTENANCE, DRAINAGE AND EROSION CONTROL</b></p>			
<p>① <i>Regular road grading occurs and provides non-breached berms along the roadside edge. Road maintenance during heavy rains is prohibited.</i></p>	✓		<p>Yes. Exception is occasional North Fork breach near bridge in high traffic area.</p>
<p>② <i>Check dams placed in roadside ditches are working properly. Grasses (swales) are established in roadside ditches. CBS seeds ditches as needed to maintain grasses.</i></p>	✓		<p><b>Survey planned for May 2006. Engineering plans still need careful review. Additional pond may be needed.</b></p>
<p>③ <i>Detention basins are adequately collecting and treating Granite Creek Road runoff.</i></p>	✓		<p><b>Fall 2006 –spring 2007 projected</b> construction date for lease road realign.</p>
<p>④ <i>CBS staff regularly maintains ponds and check dams.</i></p>	✓		<p>Shin’s settling ponds discharge to large</p>
<p>⑤ <i>All road runoff on leases is collected in ditching and routed to and treated in settling ponds/detention basins before entering Granite Creek.</i></p>	✓		
<p>⑥ <i>Rerouted or new access roads are engineered to include ditching, culverts, and properly sized collection ponds to treat stormwater runoff.</i></p>	N/A		
<p>⑦ <i>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.</i></p>	N/A		
<p>⑧ <i>Identify and utilize specific segments where runoff is diverted</i></p>			

<sup>3</sup> Roadside berms need to be routinely checked for breaching/breakouts to reduce runoff down creek banks.

<p>to bioswales/vegetation to remove sediments before entering the creek. Either operators or CBS staff may participate.</p>	✓	<p>vegetated area before entering Granite Creek. <b>Still functioning properly.</b></p>
<p><b>SETTLING PONDS</b></p> <p>① <i>Settling ponds are collecting and treating stormwater runoff effectively.</i></p> <p>② <i>Ponds are maintained/cleaned out on an annual basis by city staff or contractors.</i></p> <p>③ <i>Settling pond cleanouts are restricted to the period June 1 through July 15 to protect fish.</i></p> <p>④ <i>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.</i></p>	✓ ✓ ✓ ✓	<p>Very effective in series. Retention time during heavy rains is an issue. SGA does work. Need dates verified. <b>Several ponds need cleaning. Debris also needs to be removed from D.McGraw pond and filter fabric replaced. J. McGraw pond culvert choked with sediment.</b> CBS verifies in-water work dates with operators before cleaning occurs.</p> <p>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.</p>
<p><b>MONITORING</b></p> <p>① <i>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.</i></p> <p>② <i>Operators “self-monitor” the effects of their operations on water quality.</i></p> <p>③ <i>CBS coordinates scheduling with USGS staff on stream flow/water quality monitoring.</i></p> <p>④ <i>A watershed team approach is used to address lease operations and solve problems. Lease operators, municipal staff, contractors, and other agencies are common participants.</i></p>	✓ ✓ ✓ ✓	<p>Monthly TSS and turbidity monitoring is completed at key stations. High degree of compliance.</p> <p>Perhaps visually done. Need to verify whether annual monitoring rpts are filed with EPA.</p> <p><b>Funding for USGS flow measurements ended June 2005. SD Curve used now.</b></p> <p>ADNR and ADF&amp;G participation lessened after Habitat Unit reorganization. Other parties still active.</p>
<p><b>SOLID WASTE STORAGE</b></p> <p>① <i>Are materials stored on the lease that are not associated with the operation and maintenance of the lease (e.g boats, abandoned vehicles)?</i></p> <p>② <i>No permanent or long term improvements such as garages or shops or other type buildings and uses are found on the lease.</i></p>	✓ ✓	<p>Boats, asphalt, waste concrete piles, waste pipe. See <b>attached</b> SW inventory completed in June 2004. <b>Asbestos pipe, demolition waste</b> stored on J.McGraw lease in violation of lease terms. <b>CBS has directed removal of unauthorized wastes from lease site. Many leases expire in June 2006, requiring waste removal.</b></p>
<p><b>BENCHLAND WASTE DISPOSAL SITE/GOLF COURSE</b></p> <p>① <i>The forested muskeg buffer between the base of the overburden disposal site and Granite Creek remains undisturbed to provide maximize stormwater treatment.</i></p> <p>② <i>Drainage from the uphill side of the proposed site should be intercepted and routed around the boundary berms to minimize</i></p>	✓ ✓	<p>July 05 Corps permit allows additional berming and retains 150 ft buffer. <b>Buffer and silt fencing remain intact.</b></p> <p>This diversion remains effective in reducing surface water on site. <b>Very little standing water on waste surface.</b></p>

<p><i>contact with organics and subsequent leachate formation.</i></p> <p>③ <i>A regular water quality monitoring program is conducted by CBS to evaluate fecal coliform bacteria, pH and turbidity levels at established stations as part of the biosolids disposal permit.</i></p> <p>④ <i>Golf course lease site improvements do not contribute to increased surface runoff to collection ditches at the base of the old overburden berm.</i></p> <p>⑤ <i>New organic waste overburden disposal site (at D.McGraw lease) and operations retain forested buffer adjacent to North Fork and does not result in sediment or leachate runoff to Granite Creek.</i></p>	<p>✓</p> <p>✓</p> <p>✓</p>	<p>Contractor monitoring at 8 stations, approx. twice per year. Solid waste Class III permit application still in review by ADEC. <b><i>Five new Granite Cr monitoring stations established April 06</i></b></p> <p>Settling ponds and diversion to GCR Road control runoff volume. Good erosion control practices <b><i>and effective seeding of steep banks.</i></b></p> <p><b><i>Pushing soil/stumps over road banks is within 50 ft of North Fork. Silt fencing recommended to contain soils. Riparian buffer needs continued protection.</i></b></p>
<p><b>MUNICIPAL MANAGEMENT AND OVERSIGHT</b></p>		
<p>① <i>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.</i></p>	<p>✓</p>	<p>See development guidelines approved in June 2005 re: new PubWorks and Planning Dept. coordination and environm'tl handouts. <b><i>New landfill, overburden disposal site, expanded gravel operations, and new housing proposed along creek require close oversight and coordination between CBS Depts. Setbacks and stipulations are imposed.</i></b></p>
<p>② <i>Material lease site reclamation (as appropriate) is consistent with the approved Reclamation Plan referenced in the lease agreement.</i></p>	<p>N/A</p>	<p>Future reclamation is subject to updated Plan and conditions (7/05).</p>
<p>③ <i>CBS staff completes annual audits of lease operation compliance with municipal terms.</i></p>	<p>✓</p>	<p>Contractor completes. CBS expects to complete future audits.</p>
<p>④ <i>Periodic training for lease operators is provided to improve operational efficiency and pollution control practices.</i></p>	<p>✓</p>	<p>Last training in Nov 02. Not all operators present.</p>
<p>⑤ <i>Fisheries enhancement projects are being considered by CBS as part of operations.</i></p>	<p>✓</p>	<p>Potential reroute of South Fork above falls to North Fork considered.</p>
<p>⑥ <i>CBS is implementing a "Planning Review Station" approach – or comparable process - for municipal reviews of development proposals in the Granite Creek watershed.</i></p>	<p>✓</p>	<p>See new June 2005 procedures for better CBS coordination and proactive environmental controls. Preapplication meeting for major projects. <b><i>New housing and landfill applications are pending.</i></b></p>