

## COMMUNITY WASTE SOLUTIONS

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November 26, 2012

Alaska Department of Environmental Conservation, Solid Waste Program  
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### **RE: Response to September 26, 2012 request for compliance plan—Waste Permit SW3A018-16**

Dear Ms. Woods,

The ADEC requested that Community Waste Solutions (CWS) submit a plan by November 26 to achieve landfill compliance. This plan describes how and when the company will resolve the compliance problems. The narrative presentation below is in the same order as your 9/26 correspondence. Attachment 1 is a reference table showing the compliance efforts organized by date. Attachment 2 is a photo log showing recent work and will be referenced in the narrative.

### **18 AAC 60.810. Surface water monitoring. (a) The department will require a surface water monitoring system at a facility if the department finds that surface water pollution is likely to endanger public health or cause a violation of the water quality standards in 18 AAC 70.**

The compliance water quality tests due in May/June of 2012 were missed and Zinc, Iron, Copper and Nickel were missed from our second event (September/October). In August, CWS conducted voluntary water quality testing beyond the requirements of ADEC. Tests included VOC, GRO, DRO, RRO, PCB and RICRA metals. No violations of water quality standards were observed.

#### **Plan to Achieve Compliance:**

The company will make a higher commitment to staff and managerial training to ensure that compliance water quality testing, and other requirements of our permit, are conducted as required. To ensure that the CWS staff and management is informed about permit and plan of operations requirements, a staff training will be conducted every other month (6-times yearly) with topics selected from the CWS Operational Plan (OP). A well-organized notebook of staff training topics, handouts, learning objectives and evaluative tools will be kept on file at CWS. Training dates for 2013 are: January 8, March 6, May 6, July 8, September 6 and November 4. Examples of possible training topics include:

- Reviewing components of the CWS Monitoring Plan, including surface water monitoring
- Reporting dates, forms and other requirements
- Visual facility monitoring goals and expectations
- Standard Operating Procedures from the OP
- Waste profiling and special and unacceptable wastes
- Composting procedures

- C/D & inert waste screening,
- Vehicle inspection and safety
- Screening for RACM and Non-RACM wastes (both prohibited at CWS)
- Other topics as needed

Because drainage improvements have eliminated the central ponding area (discussed below), twice-yearly samples will be collected at the lower sampling location. The ADEC reporting form will be used to present results. In 2013, CWS will contract with Chilkat Environmental to conduct sampling and to train CWS staff in correct sampling procedures.

**18 AAC 60.233. Controlling impacts outside facility boundaries. The owner or operator of a landfill or solid waste treatment works shall ensure that**

**(1) a minimum setback of 50 feet is kept between the waste management area and the property line of the facility; and**

**(2) dust, odor, noise, traffic, and other effects from the operation of the facility do not become a nuisance or a hazard to the public health, safety, or welfare.**

**2012 Compliance Effort:**

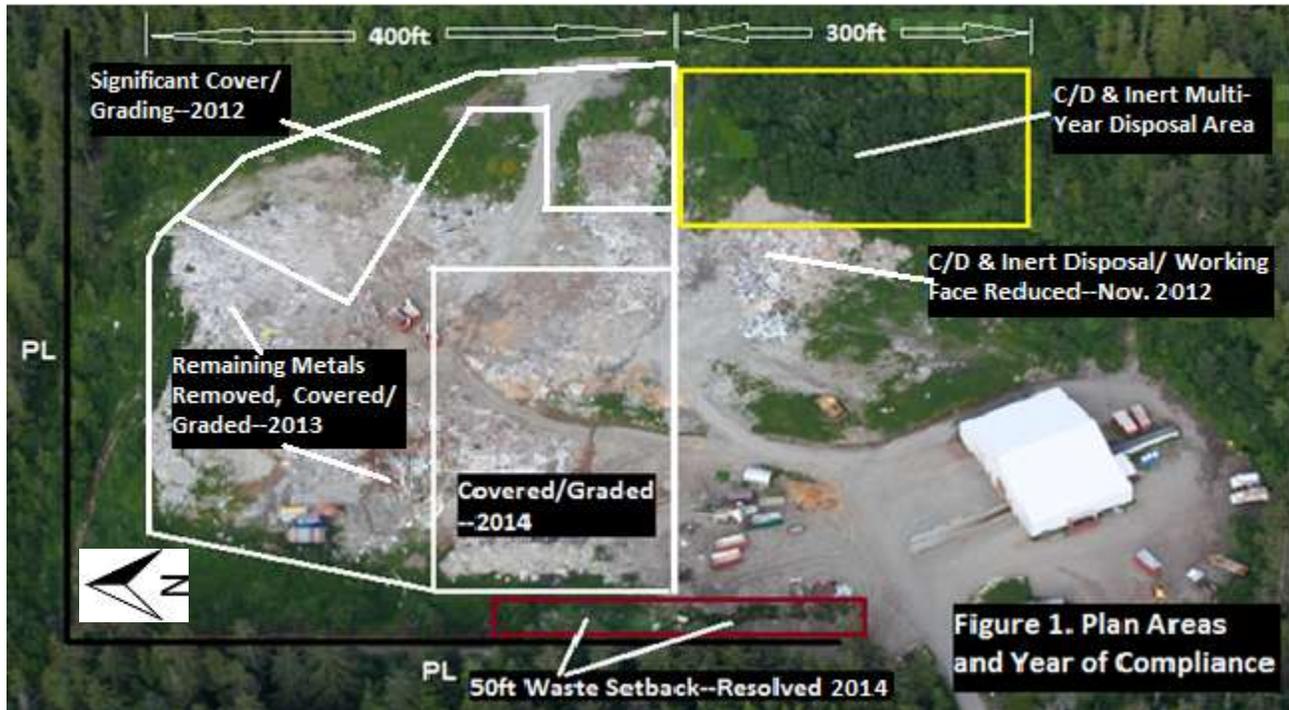
Figure 1 shows the approximate area, bounded in red, where waste is within the 50 foot setback from the western property line. From late 2011 until late June, 2012, CWS took steps to resolve the problem by securing a purchase agreement from Haines Borough for 5-acres of property adjoining the west property line, including paying for the appraisal. After seven months, it became clear that the manager would not forward land sale question to the assembly and CWS suspended this effort. A discussion of this issue was sent to the borough and copied to you by email on August 10, 2012.

**Plan to Achieve Compliance:**

In the coming year we will continue to evaluate how best to achieve compliance. CWS has an aggressive work plan for spring/summer 2013 (discussed below). However, it may be possible to move the material in late 2013.

We are not eliminating the potential for a land purchase. Adding a fraction of an acre may be all that is needed to address the boundary issue. By November 1, 2014 we will: a) have a modified proposal before the borough manager or b) have removed the waste from the setback area. Before negotiating for a new land-sale, CWS would need unambiguous support from the borough administration and assurances that the process would be swift. If the chosen course of action was to seek a new sale agreement, compliance would not be achieved until the sale was finalized. .

Figure 1.



**18 AAC 60.345. Cover material, working face, and litter control requirements for a Class III MSWLF.**

(a) The owner or operator of a Class III MSWLF shall cover disposed solid waste with six inches of earthen material, or an alternative material approved by the department, as needed to control disease vectors, fire, odor, blowing liner, and scavenging. (b) The owner or operator shall ensure that the working face of the landfill is kept as small as practical to reduce the potential for windblown litter or attraction of birds and animals. (c) The owner or operator shall ensure that litter is

- (1) controlled by fencing or another approved means; and
- (2) removed from access roads and other areas of the facility.

**2012 Compliance Effort:**

*a) C/D and Inert Waste Disposal and Long-Term Fill-Planning*

Figure 1 shows the area (yellow) where construction and demolition (C/D) and inert wastes will be disposed using a multi-year fill plan. A three-times yearly program of shallow, concurrent trench, fill and cover will be used so that excavations will not violate 18 AAC 60.225. The clay layer in this area is intercepted at a depth of 6 – 10 feet. Trenches will go deep enough to intercept the clay layer. Figure 2 shows the planned multi-year trench and fill pattern. In November, the active working face for C/D and inert wastes was buried in a portion of Level 1/Cell 1 (Photo1). Figure 3 provides a cross-sectional view of the trenching required in the C/D & inert fill plan. CWS expects this fill plan to last for at least five years.

Figure 2.

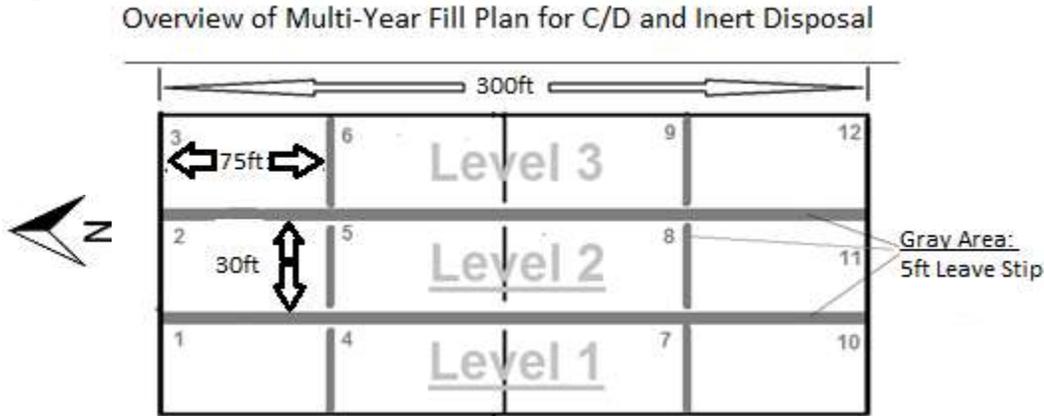
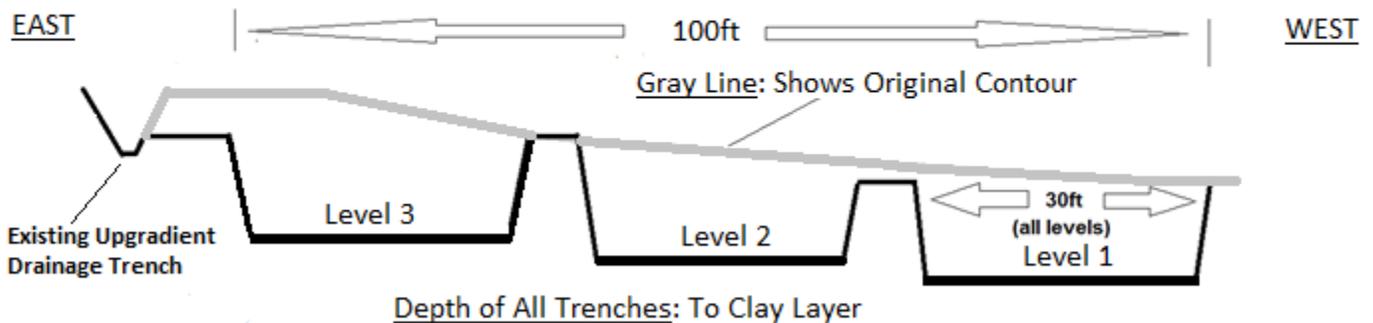


Figure 3.

Cross-Sectional View: General Trenching Plan for Multi-Year C/D and Inert Disposal



Yearly C/D & Inert Waste Disposal Scheduling—At a minimum, concurrent trench fill & cover activities be completed three times yearly, using the following schedule:

- 1) Between May 1 and June 1 (snow conditions dependent),
- 2) Between July 1 – August 15,
- 3) Between October 1 and November 1.

Fill Order and Concurrent C/D & Inert Disposal Practices--The grid in figure 3 is being filled in the same sequence as the cell numbers: Cell 1, followed by Cell 2, 3, etc. As of this writing, the cell was to compressed with a Cat 330 excavator, but it has yet to be capped with 2 feet of soil (see photo log). This area is also discussed below under the 2012 Compliance Efforts regarding 18 AAC 60.225 (drainage control).

*b) Addressing Litter Issues, Removal of Metals and Covering/Grading Old Landfill Areas*

Collection of Litter and Institutionalizing Litter Control -- Since your inspection, CWS has invested 80 staff-hours hand picking trash, yielding 18 cubic yards. A significant portion of the litter on the west, east and southern perimeter areas has been removed. CWS is now working towards clearing up the northern slope area. Operations Manager Mike Dorris does weekly inspections of the facility and surrounding areas to ensure that litter is kept under control and persistently monitored.

Making Cover Material Available— The trench-fill-cover disposal strategy discussed above yields more soil material than it uses. Our November 2012 burial of C/D netted about 800 cubic yards of soil for use as cover. We estimate that the multi-year fill plan will net approximately 500 cubic yards of soil resource yearly, which can be applied to other landfill areas.

In 2012, the up-gradient water diversion ditch and berm along the eastern and southern boundary of the landfill area were brushed and cleared. Cover was also applied to northeastern areas of the property (figure 1, photo log). The average depth of the up-gradient ditch, along the southward 2/3 of its length, is 7.3 feet. Removing as much as five feet from the up-gradient berm is possible without affecting the integrity of the ditch. This excavation will yield about 2,200 cubic yards of cover material. In total, with material netted from C/D and inert disposal, approximately 3000 cubic yards is readily available, enough to cover three acres to a depth of 8-inches.

#### **Plan for Compliance:**

Covering and Grading in 2013 and 2014— A significant quantity of metal was exported in 2012. Additional metals must be consolidated and exported (area shown in figure 1). We expect to accomplish this in early summer of 2013, depending on the availability of Tonsgaard Construction. Figure 1 shows areas where CWS will apply and grade at least 6 inches of soil cover. CWS expects to have the 2013 and 2014 areas covered by September 1 of each year.

**18 AAC 60.225. Surface water requirements. (a) The owner or operator of a solid waste disposal facility may not allow the placement of solid waste in surface water unless that placement is allowed in a permit issued under AS 46.03.100 and this chapter.**

#### **2012 Compliance Effort:**

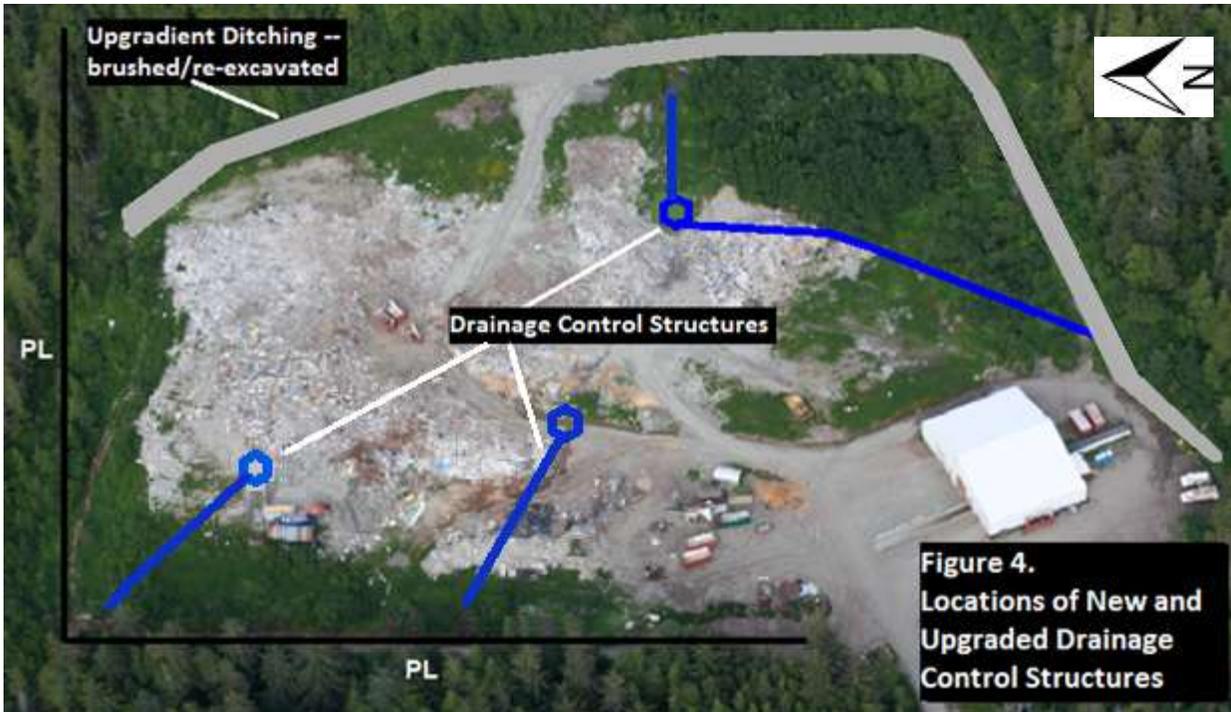
Figure 4 shows locations where CWS made drainage improvements during 2012. Existing up-gradient drainage ditches were brushed and cleaned (see photo log). In consultation with Chilkat Environmental, CWS installed three new french-drain style drainage control structures (DCS). Each DCS consists of a large drainage collection cell about 15 feet across connected to a trench. Excavation for the DCS structures was to the clay layer—generally about 10-15 ft. The DCS west and south of the new C/D & inert disposal area was excavated to a maximum depth of 18 feet.

Each DCS is partially backfilled with tires. Tires are being used as they provide a durable, high-void pathway for water. A cap of heavy rock and rip-rap will be applied to each trench and cell. The weather to date has been favorable. CWS is continuing to invest significant staff resources to finish the drainage work this year. With continued favorable weather, the CWS Operations Manager anticipates the capping to be completed by the end of 2012.

The effect of this work on the persistent areas of ponding is significant. The central non-compliant ponding area (where past compliance water samples were drawn) is gone. The DCS extending to the area referred to as

“Bear Pond” provides a preferential pathway for source water in this area. Ponding in this area has also been eliminated. The blue-lines in figure 4 show the locations of each drainage cell and trench. The photo log in Attachment 2 provides images of DCS construction.

Figure 4.



CWS anticipates that the DCS installations will permanently end the ponding issues and significantly reduce waste-water contact. Operations Manager Michael Dorris recently noted, “We have taken every measure to ensure there is good drainage and we’re seeing good results.”

**Plan to Achieve Compliance:**

CWS anticipates having the new drainage structures capped with heavy rock by years end, weather permitting.

**18 AAC 60.230. Disease vector, wildlife, and domestic animal control. (a) The owner or operator of a facility subject to the permit requirements of AS 46.03.100 and this chapter shall manage the facility so that**

- (1) disease vectors do not endanger public health, safety, or welfare or create a nuisance;**
- (2) wildlife and domestic animals do not endanger public health, safety, or welfare, become harmed by contact with the waste; or become a nuisance; the requirements of this paragraph do not apply to a Class III MSWLF.**

**(b) The owner or operator of a Class III MSWLF shall minimize, to the extent practical, access by wildlife and domestic animals to putrescible waste deposited at the MSWLF.**

**2012 Compliance Effort:**

In late 2011, CWS hired a new Operations Manager and began screening inert waste much more carefully. The practice of outdoor storage of sewage sludge, received from the Haines Borough WWTP, also ended in 2012. Today, all putrescible waste is handled within the Waste Processing Facility. All mixed waste is exported and source separated food waste is directly moved to the company's composting system.

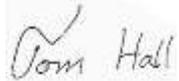
This fall CWS purchased an exhaust fan for the building. We are also working to increase our knowledge and foster a partnership so that the bear problem can be solved. A Memorandum of Understanding (MOU) with the Alaska Chilkoot Bear Foundation (ACBF) is being drafted (Attachment 3). Several members of the ACBF board possess exceptional knowledge about electric fencing and preventing bear problems. This fall, CWS and the ACBF representatives met in person four times, including visiting the landfill. One of these meetings included the Haines Borough Mayor, Manager and Chief of Police to discuss bear issues.

**Plan to Achieve Compliance:**

We will be installing the 2,600cfm, *Triangle GPX* exhaust fan before spring, 2013. Regarding the electric fence design, CWS will be requesting design support from Area Biologist, Ryan Scott. A new, robust electric fence system will be activated by July 1, 2013. We anticipate a system that is continuously armed but does not interfere with daily activity. At present, CWS and the ACBF are discussing a system with "Gap-Zapper" mats at all building access and egress points. The mats, in theory, shock only bare (bear) feet.

The odor issue that you experienced on August 14<sup>th</sup> is caused by the Carbon-Nitrogen ratio in the compost mixing trammel. A wet mixture with excess Nitrogen (low Carbon:Nitrogen ratio) can cause significant odor. At the time of your inspection, CWS was processing its 4<sup>th</sup> batch of compost. CWS continues to modify its composting practices. The company will continue gaining experience and odor will become less of a problem.

Sincerely,



Tom Hall, Owner  
Community Waste Solutions

**Attachments:**

1--Reference Table--Compliance Effort by Date; 2--Photo Log; 3—Draft MOU w/ ACBF