

# **City of Gustavus**

## **Gustavus Disposal & Recycling Center (DRC)**

### **Closure Plan**

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#### **An estimate of the maximum inventory of wastes**

Total permitted disposal area is 215' x 165' with approximately 4' of waste below grade and 4' of waste above grade. Minus 5% soil inventory, yields 269,610 cubic feet or slightly under 10,000 cubic yards.

#### **Largest area of the Class III landfill likely to require a final cover**

39,375 square feet, 175 feet by 225 feet.

#### **Post closure use of the property**

Materials storage, open space.

#### **A description of the final cover and appearance**

The gate and fence will be removed from the original landfill area. Final soil cover will be installed over the entire cell, consisting of 3/4" minus granular material to a minimum depth of two feet, compacted in 6" lifts. Installed with the final cover will be a geotextile fabric, such as Mirafi 600X or other road base fabric. The geotextile shall be installed with a minimum of one foot granular material over it. The surface of the final cover shall be graded to drain with a minimum grade of 2%.

A description of the steps necessary to close the Class III landfill at any point in the facility's life

1. Purchase of geotextile fabric
2. Removal of chain link fence and gate
3. Applying soil cover over buried waste to achieve basic slope
4. Applying geotextile fabric with 1' - 2' overlap, fish scale pattern
5. Applying additional final cover to achieve minimum two foot thick coverage
6. Grading to achieve final sloping
7. Seeding finished ground with native grasses and/ or other native vegetation
8. Establish survey markers in the four corners of the closed landfill cell
9. Place notation on property deed as per 18 AAC 60.396(b)
10. Submit report to ADEC as per 8 AAC 60.396(c)

#### **Description of the methods and procedures for final cover**

The DRC Manager/ Operator would draft a competitive RFQ for the closure process. The City Council would review, amend and publish the RFQ. Local contractors are capable of all the steps involved. The RFQ would include the specifications for the purchase of the geotextile fabric, the quantity of pit run dirt and the minimum burial depth for the geotextile fabric. The DRC Manager/ Operator by separate RFQ process would contract with a surveyor for the placement of the 4 corner monuments.

**A schedule to complete all activities for closure**

Drafting the RFQ would be less than 3 days. Process for the City council to review, publish and awarding to the lowest responsive, responsible bidder would take two months. The Contract would allow time for the contractor to purchase the geotextile fabric and have it shipped to Gustavus. The project completion from date of award is estimated to be no more than 90 days from date of contract award.

**A description and map of proposed survey markers**

Map is attached with the proposed corner markers designated in [blue](#).

**Information regarding how funding will be obtained for closing the landfill**

**Total cost estimate for closure \$24,300**

Geotextile fabric	\$8,000
500 yards pit run gravel	\$7,000
16 hours equipment time for sloping and compacting	\$3,600
Seed mix, fence removal, misc. costs	\$1,000
Surveying costs	\$2,500
Contingency 10%	\$2,200

*(Numbers are adjusted for 3% inflation over 5 years)*

**Total cost estimate for post closure care \$6,000**

Per 18 AAC 60.396 the Closed disposal cell would receive at least 5 years of post-closure care. The estimated cost for each year's ground water monitoring, quarterly visual inspections and possible maintenance of the final cover is estimated to be less than \$1,000 annually. Estimating the cost over 5 years at 3% inflation yields \$5,628 (rounded).

**How funding will be obtained**

The City of Gustavus currently has a closure fund for the Gustavus DRC. As of May 22, 2010 this fund has a balance of \$57,116.62. The purpose of this fund is to help cover the closure and post-closure costs for the DRC.

**Calculations and estimates**

**An estimation of the maximum inventory of wastes to be onsite over the life of the facility**

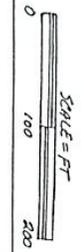
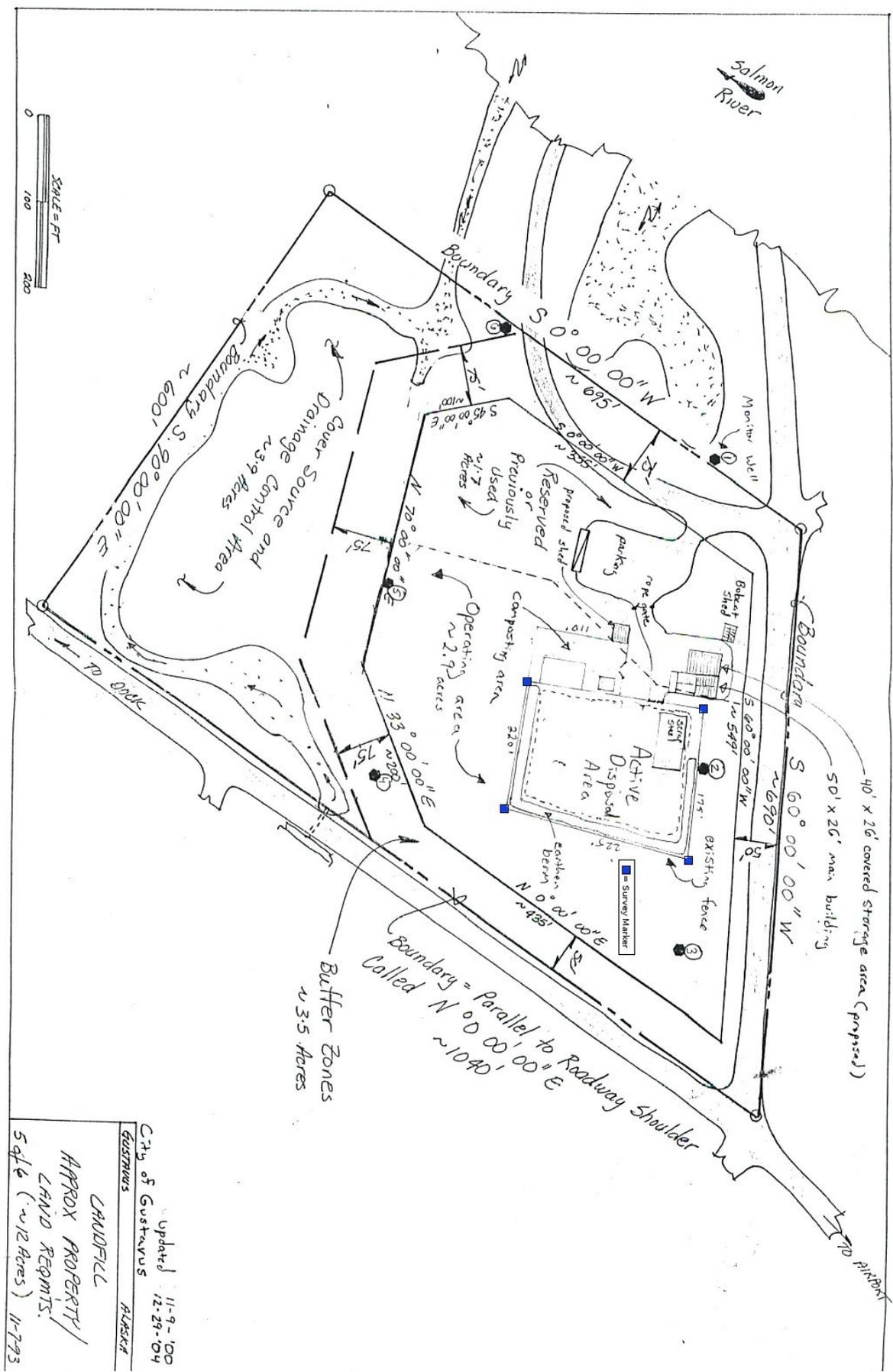
With closure of the existing landfill cell proposed for 2015 (coinciding with the permit renewal) the total waste disposed is estimated to be the same as maximum inventory of wastes specified earlier - slightly less than 10,000 yards

**An estimation of the largest area to require cover**

39,375 square feet, 175 feet by 225 feet.

**An estimation of the operational life of the facility**

The estimate for the current landfill area originally permitted in 1993 and at the current height of no more than 4' above grade, is 5 years or to 2015. The estimated lifespan of the entire 12 acre DRC site is dependent on subsequent planning and permitting.



City of Gustavus updated 11-9-'00  
 12-29-'04  
 GUSTAVUS ALASKA  
 CAUDFILL  
 APPROX PROPERTY  
 LAND REQUISITS  
 54½ (~12 Acres) 11-7-93