

GRAND CENTRAL SANITARY LANDFILL, INC. NUISANCE MINIMIZATION AND CONTROL PLAN FEBRUARY 2019

1. INTRODUCTION

1.a. Overview

Grand Central Sanitary Landfill, Inc. (GCSL) will utilize the procedures described in this Nuisance Minimization and Control Plan in conjunction with the Quarterly Phasing Plan to assist in achieving or exceeding compliance with the specific performance standards related to nuisances that are established by regulation, and approvals issued by the Pennsylvania Department of Environmental Protection (DEP). This Plan is intended to replace previous plans and protocols to coordinate and update all nuisance control activities within a single document.

Solid waste management facilities, including GCSL, may create nuisances that must be proactively managed. As described in this Plan, engineering and operational systems at the facility, such as landfill gas management systems, litter fences, and active area controls, have been developed and employed at GCSL to prevent and control nuisances. As also discussed in this Plan, nuisance monitoring, assessment, and recovery activities are important. GCSL will continue to evaluate and improve nuisance control methods to help minimize the potential for off-site nuisances.

This Plan should be periodically revised and/or changed as nuisance control activities are refined and new techniques are developed, or changes are necessary to maintain compliance with applicable rules and regulations. This Plan may also be updated to provide additional information if requested by the Host Municipality or Host County. The current version of this Plan, along with associated reports, inspection reports and meteorological data will be maintained on-site for reference by site personnel and for review, as necessary, by regulatory personnel.

As GCSL continues operations and advances through the Southern Expansion Area, some site activities and features will move within closer proximity to certain sensitive receptors, including travelers of and residents along Pen Argyll Road, visitors of the Evergreen Cemetery and users of the Plainfield Township hike/bike trail. This Plan highlights nuisance control strategies that address these specific conditions.

1.b. Nuisance Control Inventory Map

GCSL will maintain an up-to-date Nuisance Control Inventory Map for the current disposal area and Southern Expansion Area to assist in nuisance control planning and execution. The map will be updated as conditions change and as the landfill and support activities develop and relocate. The map may depict the following features that are located within a one (1) mile radius of the facility:

- Predominant wind direction.

- The location of the WM of PA (Grand Central Sanitation) Hauling Facility.
- Truck staging areas.
- Radiation staging area.
- Key wastewater management system components (i.e. pump house(s), valve chambers, storage tanks etc.).
- Key landfill gas management system components (enclosed ground flares, condensate pump stations etc.).
- External 3rd Party Operations (permanent and temporary) that may result in a nuisance unrelated to landfill activities.

As GCSL continues operations and advances through the Southern Area Expansion, some site activities and features will move within closer proximity to certain sensitive receptors, including users of and residents along Pen Argyl Road, users of Evergreen Cemetery and the Plainfield Township hike/bike trail. The following other potentially sensitive receptors that are located within a one (1) mile radius of the facility will also be considered in the implementation of this Plan:

Tributary to and Little Bushkill Creek
 Weona Park
 Wind Gap Elementary and Pen Argyl High School
 Green and White fields

Later sections of this Plan include detailed nuisance control strategies that can be utilized to address potential nuisances related to these specific conditions.

The Nuisance Control Inventory Map will be utilized as a tool to plan specific nuisance control activities that will be undertaken to address conditions that are anticipated in the current and future phases of landfill development. The map will be maintained at the site and provided to QAT and other key GSLF personnel.

1.c. Plan Contents

The plan addresses GCSL’s Quality Assurance Team (QAT) activities, which are a key element of how GCSL monitors for and responds to any potential nuisance conditions.

The sections thereafter address each major area of nuisance control. Each of these sections is organized into two subsections: (a) “Control Measures” pertaining to background information, preventative actions, and countermeasures; and (b) “Monitoring and Follow-up” pertaining to how potential nuisance conditions are identified and addressed.

2. QUALITY ASSURANCE TEAM

2.a. Overview

GCSL’s Quality Assurance Team (QAT) is responsible for monitoring the facility’s

performance and conditions in nearby communities for off-site nuisances. The QAT responsibilities include the initiation of corrective action(s) and the assessment of the effectiveness of the corrective action(s) taken in response to nuisance observations.

The Quality Assurance Team's primary role is monitoring and assessing site conditions in order to facilitate quick response capabilities. It also provides a more direct conduit for establishing a cooperative relationship with the neighbors of GCSL by quickly addressing their concerns, problems, or questions.

2.b. Nuisance Monitoring Surveys

Routine observations by GCSL management and operational personnel occur during regular operation hours and can be available as needed. In addition, dedicated QAT personnel conduct routine observations during normal operating hours.

QAT monitoring locations and frequency are determined by such factors as season, temperature, other meteorological conditions, and site operational activities. The monitoring locations and frequency may also vary based on the same conditions.

QAT personnel conduct observations in and around the facility to monitor for potential nuisance sources and/or conditions. Using the Nuisance Control Inventory Map, and after verifying wind direction, giving consideration to specific landfill conditions, other known activities in the area, and unique receptor circumstances, QAT personnel will monitor the appropriate areas and determine the observation locations based these factors. In general, QAT personnel will perform nuisance monitoring in a way that they will spend time both on-site and off-site on a logical rotation. QAT personnel will document the time, location, and findings of their inspections, including any potential nuisance condition(s). QAT personnel will also be responsible for documenting corrective actions taken. Nuisance-related findings associated with third party sources will also be documented.

2.c. Community Fact Phone

GCSL maintains a "24/7 Community Fact Phone" (888-373-2917). Local residents can provide feedback directly to GCSL, including the communication of nuisance conditions suspected to have originated from the landfill. The Community Fact Phone is directed to an answering service where complaints and/or concerns can be registered and relayed to the on-duty staff at GCSL so that they can respond in a timely manner.

All phone calls are logged, along with follow-up actions taken to evaluate and address nuisance-related concerns. Feedback received via the Community Fact Phone can also be used to adjust the QAT's monitoring pattern and location. All service-related calls are immediately forwarded to Customer Service for follow-up and will not be documented in the Daily Nuisance Log, as they do not pertain to this Plan.

2.e. Communications and Notifications

Facility personnel are equipped with a cell phone so GCSL management can be promptly notified upon discovery of any potential nuisance condition(s). The cell phones also include a feature that allows personnel to receive notifications from the facility's automated systems. These automated communication features are described later in

this Plan.

The Quality Assurance Team will be available on a 24-hour basis to respond to complaints and/or concerns that are logged with the Community Fact Phone. The QAT and on-call staff will also ensure that responsible company personnel are available to accompany DEP staff within no more than 1 (one) hour of DEP's request to conduct a facility inspection.

DEP and the Host Municipality (Township Manager or other approved Designee) will be notified by GCSL management when there are unique circumstances or activities at the landfill that could increase the chance for potential nuisance conditions to develop, such as major storm events, unique construction projects, testing/shake-down activities, and equipment malfunctions. This procedure will help ensure that all pertinent information is gathered and communicated so that GCSL personnel, PADEP and the Host Municipality can provide informed explanations while addressing community concerns and complaints.

2.f. Organization and Training

The QAT is an integral part of GCSL's operational and management team. The District Manager is responsible for ensuring the coordination of the QAT activities with other personnel and activities, and for the overall execution of this Plan. The District Manager is also responsible for the development of updates to this Plan.

In addition to the QAT, the following departments (with associated key functions) with nuisance control responsibilities report to the District Manager:

- Landfill Operations – scale house, active area, capped site maintenance, intermediate slopes, drainage/E&S.
- Landfill Gas Management - gas wells/collectors, headers, control devices, monitoring.
- Wastewater Management - wastewater collection, conveyance, storage, treatment, effluent discharge compliance, by-product disposal.
- Engineering and Compliance – support the District Manager and all departments with technical and permitting expertise; weather station operation; manage and direct major construction contractors; maintain current version of Nuisance Control Inventory Map and NMCP.
- Community Relations – assist in communicating site plans and strategies to interested neighbors and local municipalities.

Each Department will be responsible for the periodic inspections and maintenance of nuisance control equipment required to implement this Plan. Each Department will also be responsible for planning for and scheduling available emergency back-up equipment, if necessary, to execute this Plan.

The NMCP will be reviewed with QAT and other key department personnel at least annually.

Other facility and contractor personnel will be familiarized with relevant components of this Plan as part of project kick-off meetings, project review meetings, and/or regularly scheduled facility update meetings.

2.g. Weather Monitoring

GCSL has a sophisticated weather station, which is located on a high point atop the closed landfill area. Real-time weather conditions for the facility are recorded. This information can be accessed from any computer or device with Internet capabilities at www.grandcentralweather.com. This website contains current and historical weather data that the QAT personnel can refer to in order to address questions or concerns that the QAT personnel may encounter, such as wind direction and speed. With this information the QAT personnel can concentrate their efforts in this location for any potential nuisances.

The weather station website also enables QAT personnel to manually enter the date and time in order to retrieve and review historical data. The information can be used to determine the local areas that may have been affected by a known or reported condition or incident. GCSL can use this information to refine the QAT monitoring activities and help complete an investigation in response to a nuisance complaint.

QAT personnel will refer to the weather station data to analyze present conditions and allow GCSL Management to implement quick and efficient changes to site operations or activities. As stated in the facilities Form 54 Background Meteorological Monitoring Plan, in the event the onsite weather station is off-line, other on-line weather services can be used as approved backup weather data sources.

In addition, the weather station includes a program to monitor the incoming data from the field-based weather station for preset parameters. The program monitors for extended periods of high winds and heavy amounts of rain in short time spans. When specified parameters are exceeded/satisfied, an alert is sent to the QAT personnel and site management via a cell phone text message alert and/or email. The message gives a brief description of what is occurring at the facility, which gives the site management the ability to expeditiously adjust the operations to fit the current conditions. In this way, GCSL can quickly adjust the activities of site personnel and QAT personnel to be responsive to high winds and other severe meteorological changes experienced at the facility.

3. VECTORS

3.a. Vector Control Measures

The primary control to prevent the attraction, harborage and breeding of rodents and birds is the proper placement of daily, intermediate and final cover. The attraction of rodents and birds has not been a significant nuisance concern at GCSL in the past.

GCSL will contract with a licensed animal removal service to evaluate the site for additional animal control activity, if necessary. The licensed animal removal service performs any necessary control or removal measures and completes a written report(s) that includes the observations and corrective action(s) taken to control and/or remove the vectors.

3.b. Vector Monitoring and Follow-up

Licensed contractors provide the primary monitoring and follow-up activities related to vectors. These firms periodically evaluate conditions at the GCSL site and implement appropriate prevention and response activities. In addition, the QAT personnel will monitor the facility and surrounding areas for problems involving vectors as they conduct their routine on- and off-site monitoring activities.

4. ODORS

4.a. Odor Control Measures

The following subsections discuss GCSL's current activities for reducing the potential for on-site odor generation and to minimize the possibility of off-site malodors.

GCSL currently employs the following integrated systems and activities that are intended to symbiotically provide a comprehensive network for the minimization of off-site malodors from the landfill.

4.b. Odor Neutralizers

GCSL can apply several odor neutralization technologies to minimize the potential for off-site malodors:

- Misted Neutralizer – concentrated liquid neutralizer, often diluted 8000:1 to 10,000:1, as the misting agent that is expelled from the Portable Mister Units.
- Direct Application Neutralizer – semi-concentrate liquid neutralizer, often diluted 5000:1; applied using water trucks. Neutralizers can be added to the water trucks and used to control malodors from specific sources. These sources include the active area, site access roads, parking lot and truck parking area. Treated effluent or RO Concentrate from the wastewater treatment plant can replace water for use on sources within lined portion of the landfill.
- Neutralizers can be added to the wastewater effluent tanker to aide odor control measures if needed.
- Granular – granular odor control material.
- Portable Turbine Mister – trailer-mounted unit, product storage tank, a diesel engine, pump and a turbine to dispense the neutralizing agent.

Note that since neutralizing agents are diluted with water, their use may be limited in freezing weather conditions. This limitation is offset by the fact that the generation and mobility of malodors are substantially less prevalent during the winter.

4.c. Landfill Gas Control Devices

The Green Knight Economic Development Corporation's (GKEDC) gas-to-energy plant represents the primary device for the controlled destruction of landfill gas generated at GCSL. The plant currently has the capacity to control up to 4,800 scfm of landfill gas (LFG) through three (3) turbines, which generates electricity. The gas-to-energy plant is located on GCSL's property and is subject to its own permit and operating requirements as set forth by the PADEP.

One (1) enclosed flare (Flare 3) has capacity to control LFG during planned and unplanned shutdowns at the plant, and for excess LFG that is not consumed by the GKEDC plant. The enclosed ground flare has a rated capacity of 5,000 scfm and is routinely utilized to help control LFG. In addition to this enclosed flare, a candlestick flare (Flare 4) may be used to control odors in the event a major enclosed flare shuts down or if a flare is out-of-service and unavailable. The candlestick flare may also be temporarily used to control point sources associated with new LFG control devices (i.e. vertical gas wells, horizontal loops, etc.). The candlestick flare has an approved capacity to operate up to 1500 scfm or 45.54 MMBTu/hr. The enclosed ground flare is operated by a real-time Supervisory Control and Data Acquisition (SCADA) and control system. Information concerning the SCADA system is included in Section 4.e. Landfill Gas Management Supervisory Control Data Acquisition System.

In the event of scheduled and/or unscheduled maintenance activities, the gas plant operators will be responsible to contact the QAT and Site Management via phone or e-mail to notify them of the shutdown. The gas plant operators will consult with the Environmental Field Technicians when conducting maintenance activities to ensure that there is adequate flow to fire Flare No. 3 simultaneously with Flare No.4 to control LFG during the shut-down. Any issues associated with the shutdown will be communicated to the Department immediately upon discovery.

4.d. Landfill Gas Collection

Potential odors from landfill gas that forms from aerobic and anaerobic decomposition of waste are primarily controlled through a network of gas extraction devices that are maintained under vacuum. The number of gas wells and the collection-piping network will continue to expand as the landfill mass increases to assure proper removal of landfill gas and control potential odors.

The collection system currently employs four methods of gas extraction that include vertical gas wells, horizontal gas loops, shallow/surface collectors, and wastewater collection system connections. Additional details on these collection devices can be found in the Gas Collection Control System Plan (GCCS).

4.e. Landfill Gas Management Supervisory Control and Data Acquisition System

A wireless (SCADA) system is installed for the Gas Collection and Control System (GCCS) to allow real-time data collection and communication with the existing landfill gas control devices including the enclosed bio-gas flare, LFG to energy plant, Wastewater Treatment Plant, the leachate pumphouses and the Condensate Pump Stations (CPS). The SCADA system relays information collected at these control

devices to a central computer utilizing a remote telemetry system. The data can be monitored at a single location to aid in troubleshooting potential operational issues before a portion of the GCCS goes down. The SCADA system is programmed to alert key personnel when preset alarm values are triggered, minimizing gas system downtime and possible compliance deviations of site specific operating parameters. The SCADA system computer uses an internal modem to alert the QAT and operational personnel with information containing a brief description of the alarm.

The SCADA system is designed to monitor key operating parameters for the control devices mentioned above. These parameters are important in preventing nuisance conditions and in can be helpful when investigating potential LFG odors.

4.f. Landfill Gas Response Activities

In the event the QAT personnel detects landfill gas odors that require follow-up, the following examples of typical corrective actions can be evaluated and implemented as appropriate:

- QAT will immediately contact the Well-Field Technician and/or District Manager/Operations Manager and alert them about the LFG odor.
- QAT will determine the approximate location at the facility that is the source of the LFG odor.
- If there is a surface collector, horizontal loop tie-in, or vertical gas well in the vicinity of the odor the Field Technician can make repairs to the collectors and/or make adjustments to vacuum conditions applied to the LFG controls in the area.
- If LFG controls currently in place potentially require augmentation, the Site Engineer will be involved so that additional controls can be designed and constructed.

4.g. Construction Events

It is necessary at times to perform construction in capped or intermediate cover areas. This construction can disturb the waste mass and creates an increased potential for malodors. Special care and attention should be considered to ensure that malodors are minimized and controlled. To control malodors during these construction activities (such as drilling, excavation and the relocation of old waste from these activities), GCSL will implement the following controls that can be used by both in-house and subcontractor personnel.

- Using a water truck, odor neutralizer can be applied during open waste excavation, or any other type of waste mass disturbance. These activities can be halted if a water truck is not present and operational.
- Portable mister units can be placed near the construction area.
- Typically, no more than 100 feet of trench excavation in waste will be open at any time during construction. All trenches will be backfilled, or covered, by the end of each working day.
- When required, a vacuum box will be utilized to help control potential odors during vertical gas well drilling.

A Construction Quality Assurance (CQA) inspector will be present to monitor major

construction activity. QAT will communicate with the inspector concerning conditions that are relevant to the NMCP and will coordinate monitoring activities accordingly. Construction activity associated with the proposed overlay in areas that are final capped will fall under these conditions. GCSL will minimize the amount of open cap area to reduce the risk of potential nuisances associated with cap removal (Please refer to the Form 14 for construction sequencing associated with final cap removal). If necessary, the QAT personnel will increase their monitoring frequency around the disturbed final cap areas to determine if additional nuisance control measures need to be initiated by the facility. The CQA inspector will also monitor work performed for the proposed overlay, and any changes in working conditions that may increase the potential for off-site nuisances will be communicated to the QAT.

4.h. Active Area Controls

The active area will be carefully limited to a size that minimizes the potential for off-site odors and allows for proper control or containment of blowing litter, while providing sufficient space for safe and efficient waste vehicle unloading operations. GCSL has established the following policy relating to active area size:

- The active area size is defined as the entire area containing uncovered waste, including both the unloading area and the compaction area, but not including the following:
 - Waste relocation operations
 - Excavation and trenching operations
 - Other areas that are not near the day's active disposal area and are being controlled in an appropriate manner
- As a general rule, the size of the active area will be maintained to minimize nuisances.
- The size will only be increased beyond the specified level with the approval of the District Manager or Designee. Such exceptions will only be made when (1) operational considerations warrant, and (2) there is very low risk of off-site nuisances due to weather conditions.
- The size of the active area is further reduced when weather conditions increase the potential for nuisance conditions. The size may also be reduced based on the findings of the QAT.

If conditions warrant based on the QAT observations, GCSL's operational management team can also implement the following changes to the operation:

- Portable odor neutralizer units can be deployed and/or relocated.
- The working face size should be reduced by 25% within one (1) hour of a persistent off-site active working face odor observation in populated areas.
- The reduced working face size should be maintained until no working face malodors are detected off-site for two consecutive hours.
- Additional measures to prevent working face malodors include immediate application of daily cover material and further reduction of the working face size.

4.i. Malodorous Waste Streams

When particularly malodorous loads enter the landfill, the potential for off-site malodors increase. To decrease the potential for the malodorous loads to emit an off-site odor, operations personnel are instructed to notify Management of particularly malodorous loads. When this occurs, these loads are immediately pushed into an excavation in the disposal area and covered with other wastes to contain the odors, rather than spread out, and compacted in the normal manner.

In the event of a particularly malodorous waste stream, GCSL may contact the generator and revise the waste acceptance criteria for that waste stream. In general, malodorous loads will not be rejected because the load could create nuisances while en-route back to or while being re-handled by the generator. However, failure for the generator to adequately control malodorous residual waste loads after the revised waste acceptance criteria has been established may require GCSL to cease acceptance of this waste stream (See Section 4.j. Nuisance Loads/Customer Letters).

4.j. Nuisance Loads/Customer Letters

Landfill operations and QAT personnel can monitor incoming waste streams for excessive malodors, as well as other nuisance-related issues including loose debris and dust. Once the generator of a nuisance-prone waste stream is identified, all the appropriate information including the generators name, address, and contact person will be forwarded to the District Manager or Designee. The District Manager or Designee will be responsible to evaluate the waste stream and, if necessary, send a letter to the generator or customer that clearly identifies the nuisance issue with the waste stream and includes an appropriate grace period for correction of the problem. It may also be appropriate for the District Manager or Designee to contact the generator before the letter goes out to explain the reason behind the letter and answer any initial questions the generator may have.

4.k. Leachate Seeps

Leachate seeps may occur when moisture from the buried waste mass develops a preferential pathway to the outside and/or intermediate surface areas of the landfill. Intermediate slopes and benches that are not yet synthetically capped can pose a potential for leachate seeps and the associated malodor releases. They generally tend to occur during the spring thaw or during and after heavy rain events.

Properly grading waste lift and placing, grading and compacting daily and intermediate cover soil to promote proper storm-water drainage away from the waste mass are the first steps to eliminate the potential for seeps. Further, trenches along the perimeter of each lift can be excavated at the start of a new lift to create a passive downward drain into the deeper underlying waste mass.

Should a seep develop, current procedures for response include the following:

- Dry odor neutralizers can be used as temporary control measures for minor leachate seeps.
- Seeps along the toe of outside slopes near the perimeter leachate piping system can be excavated through the cover soil and into the refuse. Excavated waste is

disposed in the current active area along with incoming wastes. The excavation is backfilled with drainage stone of the appropriate gradation. The stone is extended into the existing stone around the perimeter leachate collection piping system. After the stone backfill, the area is then covered with soil and compacted.

- Internal slope seeps, or seeps at higher elevations along outside slopes are excavated as described above except that the stone does not extend to the perimeter leachate collection trench. The excavation is back-filled with stone, covered with soil and compacted. This treatment drains the seep back into the refuse mass.

4.1. Odor Monitoring and Follow-up

The primary means employed by GCSL for the monitoring of potential odor conditions is the off-site observations used by the Quality Assurance Team and described in Section 2.b of this Plan.

In addition, the following monitoring activities generally occur:

- Environmental Technicians use both field observations and a FID to identify potential areas of gas emissions. Quarterly NSPS surface emissions monitoring required under GCSL's Title V air permit are conducted, in areas not required for this monitoring due to waste age, GCSL's environmental staff uses both field observations and a portable FID to identify potential areas of gas emissions.
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- The on-site wastewater treatment plant is monitored by the plant operators and by a 24-hour automated dial-out system. This system remotely notifies the responder to what the specific area of concern is or what the general operational problem is at the facility.

5. NOISE

5.a. Noise Control Measures

Waste disposal operations are limited by permit to the hours between 6AM and 6PM Monday through Saturday and by appointment. However, GCSL limits its operations between 6AM to 4PM for waste acceptance Monday through Friday, and 7 AM to 9 AM on Saturday to minimize the impact of off-site noise conditions.

Heavy equipment engine noise is primarily controlled by ensuring that all equipment is operated with the required muffler systems functioning properly, and in the manner intended by the manufacturer.

Back-up alarms are required under OSHA regulations and are necessary to ensure the safety of our employee's and customers. Back-up alarms can be an additional source of noise from heavy equipment. Back-up alarm noise can be minimized using control systems; an example is the "Smart Alarms" system, which monitors the background noise levels and adjusts the alarm loudness to an appropriate level given the

background noise.

GCSL has developed sound barriers around the facility to help shield the local communities from a majority of the sound from the daily operations. The facility constructs a berm along the outside perimeter with the daily disposal operations first to act as a barrier between the source of the noise (the working face) and the local community.

In an effort to minimize the impact of the facility's operation on the Evergreen Cemetery, GCSL will, at the request of the Board for the Evergreen Cemetery, suspend its operations during burial services.

5.b. Noise Monitoring and Follow-up

The primary means employed by GCSL for the monitoring of potential noise conditions is the field observations performed by the Quality Assurance Team and described in Section 2.b of this Plan.

6. DUST

6.a. Dust Control Measures

Dust can be generated from paved and unpaved roads, disturbed areas removed of vegetation, and can contribute to potential nuisance conditions during dry and warm weather periods.

10 mph and 15 mph speed limit restrictions are imposed on unpaved and paved roads (respectively) to reduce dust emissions from paved and unpaved roads. The main truck queuing area and primary site entrance road is paved. Water trucks are available on site and used, as necessary based on weather conditions, to control dust along all site roads. GCSL also employs a street sweeper to clean the paved private and public roads leading to and from the landfill.

GCSL has installed an automated Tire Wash System in order to minimize mud and/or dust tracking onto the roadways surrounding the facility. The system, which was installed in May 2004, has worked extremely well at cleaning off both the tires and undercarriages of the trucks as they go through the system. This system is occasionally deactivated for maintenance and/or repairs, and the retention pits are cleaned out as needed. During these periods, GCSL controls mud/dust tracking on the access road by frequent passes with a water truck and sweeper to prevent mud/dust build-up. Also, because the trucks have a longer roll-out before they exit onto a surrounding state roadway by traveling down the one-mile long access road, any remaining mud/dust falls off of the undercarriage and out of the tires of the truck before they exit the facility, thus minimizing off-site impacts. GCSL will make every effort to schedule routine maintenance and settling basin cleanings during favorable weather conditions (i.e. dry conditions) to prevent mud and/or dust track-out while the unit is out-of-service.

Water trucks and power sweepers can also be used to control any accumulation of mud and dust from paved parking and road surfaces. GCSL can also require construction contractors to have water trucks or employ an effective means of dust control for site

construction operations, when appropriate.

GCSL can utilize water from an abandoned on-site quarry for its dust suppression systems. Treated effluent from the wastewater treatment plant is also utilized for dust control within lined portions of the facility.

6.b. Dust Monitoring and Follow-up

The primary means employed by GCSL for the monitoring of potential dust conditions is the “Monitor-Respond-Assess-Monitor Loop” used by the Quality Assurance Team and described in Section 2.b of this Plan. In the event the truck wash is down for repair the QAT will periodically monitor the effectiveness of the water application and road sweeping to minimize mud/dust tracking. If the QAT determines that mud/dust tracking is occurring, GCSL will investigate alternative cleaning processes to control the track-out. The QAT will also periodically monitor the truck traffic while the truck wash unit is operating to determine the effectiveness of the unit and will notify site management if additional measures need to be taken to control track-out.

Equipment operators also continually monitor for dust problems, and communicate to fellow operations personnel or management to help facilitate countermeasures to further minimize any nuisances associated with dust.

7. LITTER

7.a. Litter Control Measures

All wastes are compacted after unloading occurs, which significantly reduces the potential for windblown debris. Daily cover is placed at the end of each workday to eliminate the generation of windblown litter.

Portable litter control fencing is positioned downwind of the working face to contain litter that can blow from unloading waste vehicles or from the active area. Portable litter fences are placed as close as possible around the active area while still allowing for traffic movement. The portable fences will usually be moved as the actual active area moves, or as winds change.

During particularly windy periods, GCSL can further minimize blowing litter conditions at the active area by wetting down the working face.

During periods of high winds, the size of the active area can be confined to reduce the area of exposed, non-compacted waste that is more vulnerable to blowing.

GCSL has identified other important considerations and practices that have been incorporated into the operations of the facility to reduce the potential of wind related nuisances. These are stated as follows:

- Wind direction from the North/Northwest to Southerly directions have the biggest affect on the disposal operations. In the past, wind from these directions has proven to cause most, if not all, off-site litter-related issues. Therefore, landfill

volumes may be reduced during a high wind-event of this nature. This will occur when the disposal activities are limited to higher elevations because low-lying working areas that are be shielded from the winds are not available.

It is important to closely monitor local forecasts and the onsite meteorological data. Action(s) including enacting the restricted load list (discussed below) and redirecting potential nuisance loads to other facilities, reducing the working face by at least 25 percent, moving litter control fences closer to the working face, or possible facility closure will be taken as necessary depending on the working face location, wind speed and direction. The facility will monitor the hourly forecasts and will reduce and/or shut down the working-face disposal operations at least (1) hour preceding forecasted arrival of a high-wind event if the sustained winds are forecasted to be 35 mph or greater and/or gusts exceeding 45 mph. Given the operational experience the facility has gained, since the implementation of this plan in 2006, workface location and wind direction/variability versus actual wind speed, plays a bigger role in off-site litter impacts. Workface location and wind direction/variability will be considered for all high wind events. GCSL will notify the Department by email an/or phone after a weather-related shutdown. Notifications will also be made for any pertinent events or circumstances that occur at or around GCSL that are not typical and may affect our operations including, but not limited to, a restriction on waste acceptance, reduction of daily waste volume, shut down of disposal operations, etc...

GCS can utilize a vacuum truck (for litter fence cleaning) during high wind events. Trucks/trailers will remain tarped while staged and/or unloading during high wind events. Exceptions may be allowed under certain circumstances such as (1) special operational circumstances (i.e. frozen loads, blockage or bridging within the trailer etc.); and (2) during safe weather conditions when winds are light or nonexistent.

Heavy plastic flaps could be installed on the tippers to reduce the potential for litter to blow from the elevated trailers that are discharging waste. The tippers can will also be fitted with netting across the top to further contain litter on high wind days. GCSL will adhere to a maximum sustained wind speed of 50 MPH (at the active area) during tipper operations. Semi-permanent litter control fencing has been erected around much of the site 's perimeter. This fencing also plays a key role in providing the last line of defense for preventing litter from escaping the property. This includes both the 30 ft. high and 50 ft. high litter fences that encompass the prevailing downwind perimeter of the facility. Loads known to contain Styrofoam, plastic bags, ash, and/or a significant amount of dust will not be permitted to dump during excessive wind conditions. A listing of such potential nuisance loads is maintained and updated as part of this plan and is enacted on high wind event days. GCSL can contact the applicable waste haulers to inform them of the weather conditions at the facility, and to let them know that the loads will be restricted from the facility until further notice.

7.c. Litter Monitoring and Follow-up

As discussed above, the continual monitoring of meteorological forecasts is a critical component of litter control at GCSL.

All GCSL personnel continually monitor the landfill for litter. GCSL management are

continuously evaluating litter conditions during operations and are responsible for deploying the necessary labor and equipment to pick-up accumulated litter.

Additionally, the field observations performed by the Quality Assurance Team and described in Section 2.b of this Plan is utilized to evaluate and control potential nuisance conditions caused by litter.

As discussed below, trucks are required to stop at a designated inspection point after the out-bound scale and perform a walk-around inspection of their vehicles. The inspection involves looking inside open-top trailers and roll-off trucks for any loose litter or debris, which must be removed before exiting the facility. They also inspect the hopper of rear load trucks for loose litter.

8. TRAFFIC

In order to control traffic-related nuisances, GCSL has developed a comprehensive program that combines control activities with monitoring and follow-up activities. Some of the key initiatives currently employed through this plan are as follows:

- Employees will periodically monitor the truck tire wash to ensure that the vehicles complete a full tire wash cycle while proceeding through the unit.
- Employees will periodically observe inbound vehicles for leaking loads, proper use of tarps, and overloaded vehicles.
- QAT personnel, and other employees, will periodically observe vehicle traffic to enforce the established speed limits and other safety regulations within the facility, as well as the established egress routes into the facility.
- The scalehouse personnel will periodically inspect the incoming vehicles for proper Act 90 identification and documentation.
- QAT personnel will periodically monitor the Roll-Off Trucks to ensure that they switch containers in the designated lined portion of the facility.
- Operators, on the working face, monitor trucks/trailers to ensure that the drivers sweep out the vehicle before they exit the working area.
- Overweight trucks are logged, and a copy of the violation form is provided to the driver. As a rule, overweight trucks are not rejected, in order to avoid such vehicles from re-entering the public roadways.

In addition to the responsibilities listed above, QAT personnel will also monitor the customer convenience center cans and recycling drop-off location to help ensure that the public is properly disposing of their household waste and recyclables.

Waste Management has extensive operating procedures for all company drivers that must be followed daily to facilitate safe vehicle conditions. Drivers are required to perform an extensive pre and post trip inspection of their vehicle before beginning their route at the beginning of each workday, and after completing their routes at the end of each workday. The information is recorded onto a Daily Vehicle Inspection Report and submitted to the maintenance department at the end of each shift. Any vehicle that has

safety related issues will be placed Out-of-Service (OAS) until that maintenance department can repair the vehicle and place it back in service.