

## Attachment 2 – Operations Plan

### **3.0 – PAROWAN LANDFILL OPERATIONS PLAN**

The Operation Plan for the Landfill has been written to address the requirements of Utah State Solid Waste Regulations and describes the proposed operations of the Parowan Class IVb Landfill. A more detailed separate document titled Operator's Manual - Iron County Landfill (prepared for the operations at the Iron Springs Landfill) contains supplemental information regarding overall operating procedures associated with landfilling practices. The Operator's Manual for the ISL is not included with this document.

The general arrangement of the Landfill is as indicated on Drawing 2 (Appendix A). The following section details the operational specifics of the Landfill. Forms used to document the operations of the Landfill are included in Appendix C.

#### **3.1 SCHEDULE OF CONSTRUCTION**

The Landfill was constructed west of the closed PML. Parowan stopped accepting waste at the PML in July 1995 with the construction of the final cover being completed immediately thereafter. The current Landfill commenced operation in the summer of 1999.

The construction and operation of the Landfill has been broken down into two Phases containing six total Cells (Drawing 3 – Appendix A); Phase A consisted of placing C&D waste across the bottom of the excavated cells. Phase A was constructed as 3 separate cells. Cell 1 was constructed next to the run-off control berm at the sites west side. Cell 2 was excavated from the southern half of Cell 1 eastward to the boundary of the PML. Cell 3 was excavated north of Cell 2 between Cell 1 and the PML. As of the summer of 2020, Cells 1, 2, and 3 were filled to capacity.

Phase B will systematically place C&D waste over Phase A. Phase B will consist of 3 cells (Cell 4, Cell 5, and Cell 6) starting with the placement of waste above Cell 1, progressing to waste disposal over Cell 2 and finally over Cell 3.

The operation of the Landfill will be continual in nature, the Phased arrangement is more of a design concept rather than actual operational milestones. Based on the actual waste stream, Phase A will provide operational airspace for the Parowan area through most of 2020. Phase B will commence operation as Phase A reaches capacity and last until approximately 2035. The landfill capacities were initially based upon a C&D waste stream starting at 3,900 tons per year and escalating at 5% each year thereafter. Actual data shows that there has been an overall decrease in the yearly waste stream in recent years. The future landfill life calculations are based on 13 tons per day over 260 operational days per year or approximately 3,400 tons per year.

### **3.2 DESCRIPTION OF WASTE HANDLING PROCEDURES**

#### **3.2.1 General**

The waste control program is designed to detect and deter attempts to dispose of hazardous, municipal solid waste or other unacceptable wastes at the Landfill. The program is designed to protect the health and safety of employees, customers, and the general public, as well as to protect against the contamination of the environment.

The Landfill is open for public and private disposal. Signs are posted along the Landfill access road to clearly indicate (1) the types of wastes that are accepted at the C&D facility; (2) the types of wastes not accepted at the site; and (3) the penalty for illegal disposal.

- All vehicles delivering wastes to the site will be met at the gate by a Technician. The Technician will inquire as to the contents of each incoming load and enter the description of the vehicle and waste content into the Daily Log.

- The vehicle will be directed to either the drop off facility, working face, ISL operations, or rejected due to unacceptable materials.
- Any vehicle suspected of carrying unacceptable materials (liquid waste, sludges, or hazardous waste) will be prevented from entering the disposal areas unless the driver can provide evidence that the waste is acceptable for disposal at the site. ICSW reserves the right to refuse service to any suspect load. Vehicles carrying unacceptable materials will be required to exit the site without discharging their loads.
  
- Loads will be regularly surveyed at the tipping area. If a discharged load contains inappropriate or unacceptable material, the discharger will be required to reload the material and remove it from the Landfill. If the discharger is not immediately identified, the area where the unacceptable material was discharged will be cordoned off. Unacceptable material will be moved to a designated area for identification and preparation for proper disposal.

No open burning or smoking is allowed near the work face.

### **3.2.2 Waste Acceptance Records**

A monthly summary of all landfill transactions will be created and kept on file at the Landfill or at the ISL operations. Any or all transactions may be retrieved as necessary.

### **3.2.3 Waste Disposal**

The geometry of the Landfill is such that the waste will be pushed upslope into place. Since Phase A has largely been filled, the C&D wastes will be dumped at the toe of the work face when possible and spread up the slope in one to two foot lifts, keeping the slope at a typical five to one (horizontal to vertical) configuration.

Work face dimensions will be kept narrow enough to minimize blowing litter and reduce the amount of soil needed for cover.

Typically, the D-6 Dozer is operated with the bucket facing uphill. Equipment operations across the slope are avoided to minimize the potential of equipment tipping over. In addition to safety concerns, a toe of slope to crest of slope working orientation provides the following benefits:

- Increases effective compaction.
- Increased visibility for waste placement and compaction.
- More uniform waste distribution.

The wastes will be compacted by making three to five passes up and down the slope. Compaction reduces litter, differential settlement, and the quantities of cover soil needed. Compaction also extends the life of the site, reduces unit costs, and leaves fewer voids to help reduce vector problems. Care is taken that no holes are left in the compacted waste. Voids are filled with additional waste as they develop. Cover soils will be applied to all areas of the active cell at a minimum of every 30 days. Cover soil is placed with the 938 Loader and final graded with the D-6 Dozer.

### **3.2.4 Special Wastes – Wastes Excluded from the Landfill**

#### ***3.2.4.1 Used Oil and Batteries***

Used Oil and Batteries are not accepted at the Landfill. ICSW directs patrons with used oil to "Used Oil Recycling Centers."

#### ***3.2.4.2 Appliances***

White goods are accepted at the Landfill and are separated for recycling. All appliances that contain or have contained refrigerants during their operation life are not accepted at the Landfill unless the patron can provide documentation of Freon removal prior to disposal. Used cars are accepted and stored near the facility entrance then transferred to the ISL operations.

### **3.2.4.3 Tires**

The Landfill accepts small quantities of tires from the general public for shipping to a tire recycler. Commercial haulers are prohibited from disposing of tires. A total of four passenger tires are accepted from the public with each load. No tires are disposed of at the Landfill.

### **3.2.4.4 Dead Animals**

Dead animals are not accepted at the Landfill. All dead animals are directed to the ISL operations.

### **3.2.4.5 Asbestos Waste**

Asbestos waste is not accepted at the Landfill.

### **3.2.4.6 Grease By-Products**

Grease By-Product wastes are not accepted at the Landfill.

### **3.2.4.7 Sewer Sludge**

Sewer sludge of any nature (wet or dry) is not accepted at the Landfill.

## **3.3 WASTE INSPECTION**

### **3.3.1 Landfill Spotting**

Learning to identify and exclude prohibited and hazardous waste from the Landfill is required to maintain the Class IVb classification and necessary for the safe operation of the Landfill. The Technicians are required to receive initial and periodic hazardous waste screening inspection training. Waste screening certificates of the training received are kept in the personnel files.

### 3.3.2 Random Waste Screening

Random inspections of incoming loads are conducted at least weekly or on a minimum of 1% of incoming loads (whichever is greater). If frequent violations are detected, additional random checks will be scheduled at the discretion of the Supervisor.

If a suspicious or unknown waste is encountered, the Technician proceeds with the waste screening as follows:

- The driver of the vehicle containing the suspect material is directed to the waste screening area.
- The waste screening form (Appendix C) is completed.
- Protective gear is worn (leather gloves, steel-toed boots, and hard hat).
- The suspect material is spread out with landfill equipment or hand tools and visually examined. Suspicious marking or materials, like the ones listed below, are investigated further:
  - Containers labeled hazardous
  - Material with unusual amounts of moisture
  - Biomedical (red bag) waste
  - Unidentified powders, smoke, or vapors
  - Liquids, sludges, pastes, or slurries
  - Asbestos or asbestos contaminated materials
  - Batteries
  - Other wastes not accepted by the Landfill
- The Supervisor is called if unstable wastes that cannot be handled safely or radioactive wastes are discovered or suspected.

### **3.3.3 Removal of Hazardous or Prohibited Waste**

Should hazardous or prohibited wastes be discovered during random waste screening or during tipping, the waste will be removed from the Landfill as follows:

- The waste will be loaded back on the hauler's vehicle. The hauler is then informed of the proper disposal options.
- If the hauler or generator is no longer on the premises and is known, they will be asked to retrieve the waste and informed of the proper disposal options.
- The Supervisor will arrange to have the waste transported to the proper disposal site and then bill the original hauler or generator.

A record of the removal of all hazardous or prohibited wastes will be kept in the site operational records.

### **3.3.4 Hazardous or Prohibited Waste Discovered After the Fact**

If hazardous or prohibited wastes are discovered at the Landfill after the hauler has left the premises, the following procedure will be used to remove them:

- Access to the area will be restricted.
- The Supervisor will be immediately notified.
- The Technician will remove the waste from the working face if it is safe to do so.
- The waste will be isolated in a secure area of the Landfill and the area cordoned off.
- Local authorities will be notified as appropriate.

The DWMRC, the hauler (if known), and the generator (if known) will be notified within 24 hours of the discovery. The generator (if known) will be responsible for the proper cleanup, transportation, and disposal of the waste.



### 3.3.5 Notification Procedures

The following agencies and people are contacted if any hazardous materials are discovered at the Landfill:

- Bruce Anderson, Landfill Supervisor..... (435) 865-7015
- Southwest Utah Public Health Department ..... (435) 586-2437
- Division Director, DWMRC..... (801) 536-0200
- Iron Co. Fire Department ..... (435) 590-4714

A record of conversation will be completed as each of the entities is contacted. The record of conversation will be kept in the site operational records.

## 3.4 FACILITY MONITORING AND INSPECTION

### 3.4.1 Groundwater

The Landfill is not required to monitor groundwater.

### 3.4.2 Surface Water

Run-on diversion structures have been installed around the perimeter of the Landfill site during the initial construction. The diversion structures include both ditches and berms. Potential run-on waters will be diverted away from the working face of the Landfill.

In general, surface water that falls within the Landfill will naturally be contained in the active area of the landfill. All potential run-on will be directed away from the Landfill via berms.

Run-off from the final cover will be managed by a combination of berms and ditches. The berms will be placed to divert the water around the active area to ditches. The Drawings (Appendix A) illustrate the locations and details of the run-off control structures.

ICSW staff will inspect the drainage system monthly. Temporary repairs will be made as required to any observed deficiencies until permanent repairs can be scheduled. ICSW or a licensed general contractor will repair drainage facilities as required.

### **3.4.3 Leachate Collection**

The Landfill is not required to collect or monitor leachate.

### **3.4.4 Landfill Gas**

The Landfill is not required to monitor landfill gas.

### **3.4.5 General Inspections**

Routine inspections are necessary to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to release of wastes to the environment or a threat to human health. Technicians are responsible for conducting and recording routine inspections of the landfill facilities according to the following schedule:

- Technicians (when operating equipment) perform pre-operational inspections of all equipment daily. A post-operational inspection is performed at the end of each shift while equipment is cooling down.
- All equipment is on a regular maintenance schedule. A logbook is maintained on each piece of equipment and any repairs and comments concerning the inspection are contained in the log. Oil samples are pulled when each machine is serviced and results are recorded in the machine log.
- Facility inspections are completed on a quarterly basis. Any needed corrective action items are recorded and the Technicians complete needed repairs. If a problem is of an urgent nature, the problem will be corrected immediately.

### **3.5 CONTIGENCY AND CORRECTIVE ACTION PLANS**

The Iron County Fire Department will be contacted in all cases where hazardous materials are suspected to be involved. The following sections outline procedures to be followed in case of fire, explosion, run-on/run-off contamination, or suspected groundwater contamination:

#### **3.5.1 Fire**

The potential for fire is a concern in any landfill. The Landfill follows a waste handling procedure to minimize the potential for a landfill fire. If any load comes to the Landfill on fire, the driver of the vehicle will be directed to a pre-designated area away from the working face. The burning waste will be unloaded, spread out, and immediately covered with sufficient amounts of soil to smother the fire. Once the burning waste cools and is deemed safe, the material will then be incorporated into the working face. Some loads coming to the Landfill may be on fire but not detected until after being unloaded at the working face. If a load of waste that is on fire is unloaded at the working face, the load of waste will be immediately removed from the working face, spread out, and covered with soil.

The Iron County Fire department will be called if it appears that Landfill personnel and equipment cannot contain any fire at the Landfill. The Iron County Fire department will also be called if a fire is burning below the Landfill surface or is difficult to reach or isolate.

In case of fire, the Supervisor will be notified immediately. A written report detailing the event will be placed in the operating record within seven days, including any corrective action taken.

#### **3.5.2 Explosion**

If an explosion occurs or seems possible, all personnel and customers will be accounted for and the Landfill evacuated. Corrective action will be immediately evaluated and implemented as soon as practicable.

The Supervisor will be notified immediately and the Iron County Fire department called. The Executive Secretary will be notified immediately.

### **3.5.3 Failure of Run-On/Run-Off Containment**

The purpose of the run-on/run-off control systems is to manage the stormwater falling in or near the Landfill. Were possible, water will be diverted away from the Landfill by utilizing ditches and berms. These ditches will be inspected on a regular basis and repaired as needed. All precipitation falling near the Landfill will flow around the perimeter towards the Parowan valley.

If a run-off ditch or berm fails, temporary berms or ditches will be constructed until a permanent run-off structure can be repaired.

Any temporary berms or other structures will be checked at least every 2 hours during the storm event until storm water flow has stopped. Permanent improvements or repairs will be made as soon as practicable.

The Supervisor will be notified immediately if a failure of the run-off systems is discovered. The event will be fully documented in the operating record, including corrective action within 14 days.

### **3.5.4 Groundwater Contamination**

The Landfill has no ground water monitoring wells. If ground water contamination is ever suspected, studies to evaluate the potential contamination will be conducted and the existence and/or extent of contamination will be documented. This program may include the installation of ground water monitoring wells. A ground water monitoring program would be developed and corrective action taken as deemed necessary, with the approval of the Executive Secretary.

### **3.6 CONTINGENCY PLAN FOR ALTERNATIVE WASTE HANDLING**

The most probable reason for a disruption in the waste handling procedures at the Landfill will be weather related. The Landfill may close during periods of inclement weather such as high winds, heavy rain, snow, flooding, or any other weather-related condition that would make travel or operations dangerous. The Landfill may also close for other reasons like fire, natural disaster, etc. In general, the ICSW staff minimizes the possibility of disruption of waste disposal services from an operational standpoint.

In case of equipment failure, replacement equipment will be mobilized from the ISL operations, or leased to continue operations while repairs are being made.

### **3.7 MAINTENANCE PLAN**

#### **3.7.1 Groundwater Monitoring System**

The Landfill is currently exempt from requirements for groundwater monitoring. As a result, no groundwater monitoring system is planned.

#### **3.7.2 Leachate Collection and Recovery System**

The Landfill is currently exempt from requirements for leachate collection. As a result, no leachate collection and recovery system is planned.

#### **3.7.3 Gas Monitoring System**

The Landfill is currently exempt from requirements for a landfill gas monitoring system. No gas collection system is planned.

### **3.8 DISEASE AND VECTOR CONTROL**

The vectors encountered at the Landfill are flies, birds, mosquitoes, rodents, skunks, and snakes. Due to the rural location of the landfill, stray house pets are occasionally encountered at the landfill. The program for controlling these vectors is as follows:

#### **3.8.1 Insects**

The elimination of breeding areas is essential in the control of insects. Landfill will minimize the breeding areas by covering the waste with soil at a minimum of every 30 days and maintaining surfaces to reduce ponded water.

#### **3.8.2 Rodents**

Reducing potential food sources minimizes rodent populations at the Landfill. Due to the nature of the C&D wastes, no significant numbers of mice or rats have been observed.

In the unlikely event of a significant increase in the number of rodents at the Landfill, a professional exterminator will be contacted. The exterminator would then establish an appropriate protocol for pest control in accordance with all county, state and federal regulations.

#### **3.8.3 Birds**

The Landfill has had minimal problems with birds. Good landfilling practices of waste compaction, daily covering of working faces, the minimization of ponded water, and the nature of the waste at the site has alleviated most of the bird problems. If the occasional need arises, the birds will be encouraged to leave by using cracker and whistler shells.

#### **3.8.4 Household Pets**

Because of the Landfills location, some stray cats and dogs may wander onto Landfill property. When stray animals are encountered (and can be caught), they are turned over to the animal

shelter. If the Technicians are unable to apprehend the animals, they are chased off the property.

### **3.8.5 Wildlife**

The Landfill has a variety of wildlife located on or near the landfill property. Wildlife includes deer, snakes, foxes, skunks, and coyotes. If problem skunks or snakes are encountered, they will be exterminated. If other site wildlife becomes a problem, the Landfill staff will coordinate with the Division of Wildlife Resources to provide methods and means to eliminate the problem.

In the event that any of these vectors become an unmanageable problem, the services of a professional exterminator will be employed.

### **3.8.6 Fugitive Dust**

The roads leading to the Landfill are paved, however; access roads to the Landfill are improved dirt/gravel roads and will need occasional dust control measures. General operational activities and site access by vehicles compounded by the occasional high wind may present a fugitive dust problem. If the dust problem elevates above the “minimum avoidable dust level”, the Technicians will apply water to problem areas.

### **3.8.7 Litter Control**

The nature of the C&D waste received at the Landfill is such that will naturally minimize the blowing of litter. However; due to the nature of Landfilling operations, blowing litter will still be an occasional problem. Landfill personnel perform routine litter cleanup to keep the Landfill and surrounding properties clear of windblown debris.

Whenever possible, the working face is placed downwind so that blowing litter is worked into the operating face. During windy conditions, landfill personnel minimize the spreading of the waste to reduce the amount of windblown debris.

### **3.9 RECYCLING**

Currently, recycling activities are conducted in conjunction with the ongoing C&D operations. Metals, junk cars, and appliances are accepted at the Landfill and are transported to the ISL operations for recycling. Tree limbs are chipped and made available for public purchase.

### **3.10 TRAINING PROGRAM**

As part of the initial training of new employees, the ISL Landfill Operator's Manual is required reading. All personnel are required to review the approved permit annually.

All personnel associated with the operation of the Landfill receive site specific training annually. The "Sanitary Landfill Operator Training Course" offered by the Solid Waste Association of North America (SWANA) is required by all employees. SWANA waste screening is also required of all Technicians. Certificates of completion are kept in personnel files.

Regular safety and equipment maintenance training sessions are held to ensure that employees are aware of the latest technologies and that good safety practices are used at all times.

### **3.11 RECORDKEEPING**

An operating record is maintained as part of a permanent record on the following items:

- Number of vehicles entering the landfill and types of wastes received on a monthly basis. Daily logs forms are submitted to the ISL operations for processing.
- Deviations from the approved Plan of Operation.
- Personnel training and notification procedures.
- Random load inspection log.



### **3.12 SUBMITTAL OF ANNUAL REPORT**

ICSW will submit a copy of its annual report to the Executive Secretary by March 1 of each year for the most recent calendar or fiscal year of facility operation. The annual report will include facility activities during the previous year and will include, at a minimum, the following:

- Name and address of facility.
- Calendar or fiscal year covered by the annual report.
- Annual quantity, in tons or volume, in cubic yards, and estimated in-place density in pounds per cubic yard of solid waste.
- Annual update of required financial assurances mechanism pursuant to Utah Administrative Code.
- Training programs completed.

### **3.13 INSPECTIONS**

The Supervisor, or his/her designee, will inspect the facility to minimize malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes to the environment or to a threat to human health. These inspections will be conducted on a quarterly basis, at a minimum. An inspection log (Appendix C) will be kept as part of the operating record. This log includes at least the date and time of inspection, the printed name and handwritten signature of the inspector, a notation of observations made, and the date and nature of any repairs or corrective actions. Inspection records are available to the Executive Secretary or an authorized representative upon request.

### **3.14 RECORDING WITH COUNTY RECORDER**

Plats and other data, as required by the County Recorder, will be recorded with the Iron County Recorder as part of the record of title no later than 60 days after certification of closure.

### **3.15 STATE AND LOCAL REQUIREMENTS**

The Landfill personnel will maintain compliance with all applicable state and local requirements including zoning, fire protection, water pollution prevention, air pollution prevention, and nuisance control.

### **3.16 SAFETY**

Landfill personnel are required to participate in an ongoing safety program. This program complies with the Occupational Safety and Health Administration (OSHA), and the National Institute of Occupational Safety and Health (NIOSH) regulations as applicable. This program is designed to make the site and equipment as secure as possible and to educate landfill personnel about safe work practices.

### **3.17 EMERGENCY PROCEDURES**

In the event of an accident or any other emergency situation, the Technician will immediately contact the Supervisor and proceeds as directed. If the Supervisor is not available, the Technician will call the appropriate emergency number posted by the telephone. The emergency telephone numbers are:

- Iron County Central Dispatch..... 911
- Fire Department.....(435) 590-4714
- Sheriff’s Office.....(435) 867-7500
- Cedar City Hospital.....(435) 868-5000
- Bruce Anderson, Landfill Supervisor.....(435) 586-7015