

**CITRUS COUNTY  
SOLID WASTE TRANSFER STATION  
OPERATION, MAINTENANCE AND CONTINGENCY PLAN**

**Prepared for:**

Citrus County Board of County Commissioners  
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## SECTION 1

### INTRODUCTION

The purpose of this document is to provide a manual of operating procedures for the Citrus County Transfer Station and Citizens Service Area (CSA).

This plan has been prepared in accordance with Florida Rule 62-701, Florida Administrative Code (F.A.C.) and Part B of FDEP's permit application form for solid waste processing facility. This document is an appendix to the existing Operations Plan for the landfill (21375-008-SO/01).

#### 1.1 FACILITY OVERVIEW

The Citrus County Transfer Station is owned and operated by the Citrus County Board of County Commissioners. The transfer station is located on the northern 30 acres of the County's active landfill site. Other co-located facilities on this portion of the County's site include:

- A scale facility consisting of a scale house, two inbound scales and two out bound scales. The inside, outbound scale is reversible and can serve as a third inbound scale when necessary.
- The Customer Service Area (CSA) which serves as a municipal solid waste (MSW) disposal location for private residents and private haulers. The CSA consists of an elevated area and unloading platform with eight roll-off containers and bunkers for the delivery and storage of tires in accordance with the waste tire facility permit, electronics, used oil, fluorescent light bulbs, scrap metal and white goods.
- A Household Hazardous Waste Collection and Storage Facility (HHW) which is co-located with the CSA.
- A yard and wood waste processing facility adjacent to and west of the CSA.
- Ancillary facilities including an electrical building, standby generator, fuel storage and dispensing area, trailer staging and equipment storage areas.
- An administration building, maintenance building, dry storage building and multi-purpose tent.
- A recycle collection center
- A leachate treatment facility

##### 1.1.1 Operating Hours

The operating hours of the existing CSA and landfill are 8:00 a.m. to 4:30 p.m., Monday through Friday and 8:00 a.m. to 2:30 p.m. on Saturdays. The operating hours are posted at the entrances to the facility. The proposed Transfer Station will be operated during the same hours until the

average amount of municipal waste processed each day is such that it warrants longer hours. The proposed recycling center is open 24 hours per day. The HHW is open for customer deliveries the same hours as the CSA on weekdays and on one Saturday each quarter. Citrus County staff have unlimited access to the HHW facility to deposit materials found during normal operations.

## **1.2 FACILITY EQUIPMENT**

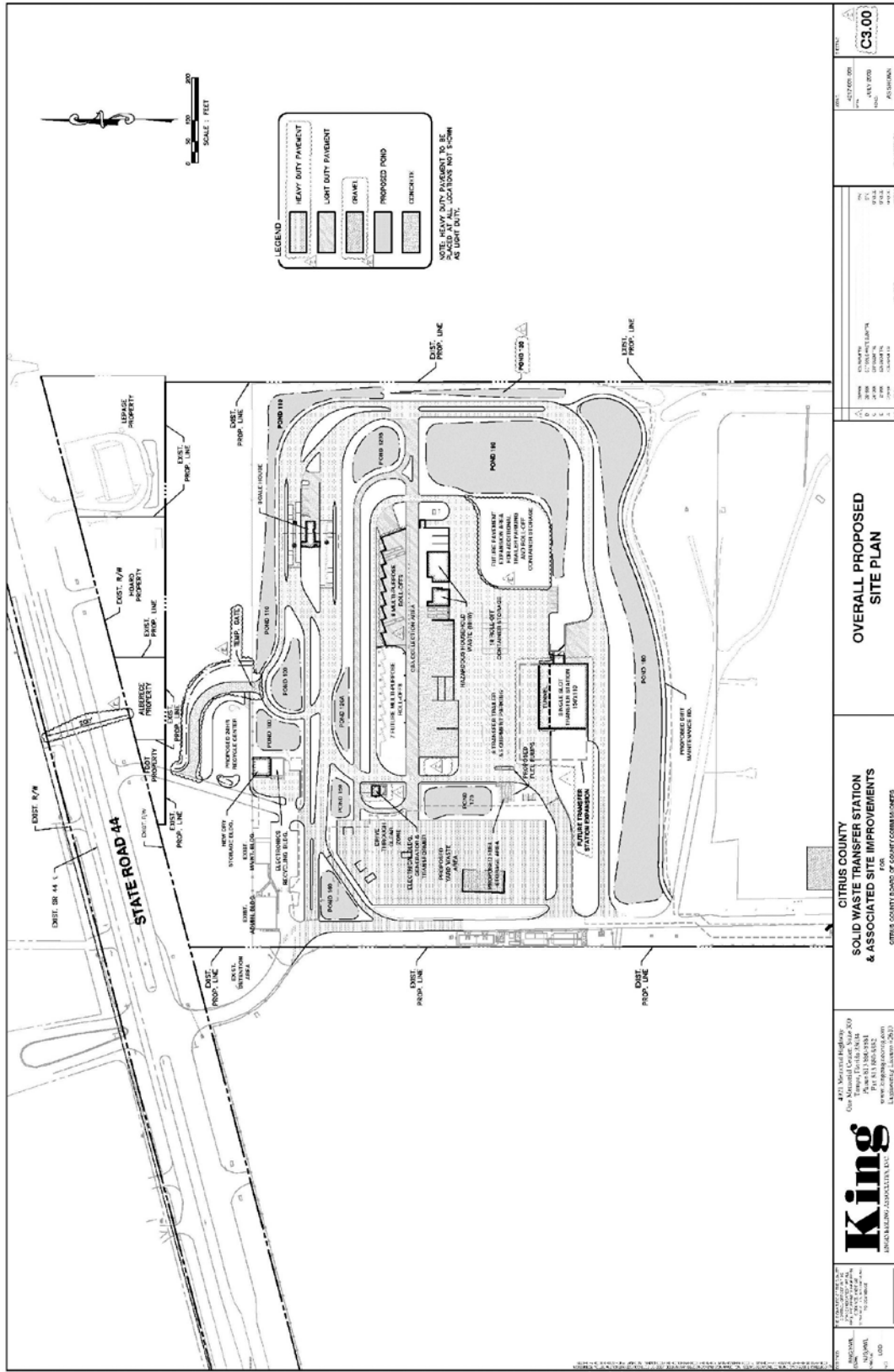
The County presently has equipment on site for management of their landfill, CSA and Yard Waste facilities. Equipment includes:

- Pickup trucks (2) for general maintenance and transport
- Utility vehicles (2) for transport
- Volvo A25 Articulated Dump Truck
- Water truck 2600 gallon tank
- (2) Front end loader, Caterpillar 950(H) with large 3.7cy multi-purpose bucket, broom, grapple and fork attachments
- Forklift, Caterpillar
- Track Loader, Bobcat, (Skid Steer)
- Roll-off truck for transporting roll-offs at the CSA to the landfill
- 20-yard and 30-yard roll-off boxes (10) for use at the CSA
- Bulldozer, Caterpillar D6
- Compactor, Caterpillar 826 G
- Compactor, Caterpillar 826 H
- Excavator, Caterpillar 320EL
- Fuel Truck, Ford F350 – with 420 gallon diesel fuel tank and air compressor
- (2) Lite Sets, Alamand, with 6kw generator (located in disposal cell and in Boneyard)
- Dump Trailer, 6' x 12', Hydraulic
- Grabber Attachment for 55 Gal. Drums, Attached to the Fork Lift
- Generator, 150 kW Caterpillar (Olympian), Trailer mounted,
- Water Transfer Pump, 6" outlet, Yanmar, Centrifugal
- Water Transfer Pump, 4" outlet, Mack, Hydraulic drive
- Water Transfer Pump, 4" outlet, Acme, Hydraulic drive
- Hand Tools and Mechanics Tools, at both the Maintenance Building and HHW.
- Zero Turn Mower, Toro and other various mowers and lawn maintenance equipment

The new scale facility will consist of a scale house, two inbound scales and two out bound scales. The inside, outbound scale is reversible and can serve as a third inbound scale when necessary. Each aboveground flat top scale is 70-feet long with a capacity of 200,000 lbs. The transfer station is operated using open top type technology utilizing a knuckleboom crane positioned over the loading pit that will be operated from a control booth adjacent to the pit. The number of transfer trucks needed will depend on factors such as pay-load and trip distance and

will be the responsibility of the sub-contractor. The County will obtain two front-end loaders, each with a 4.25 cubic yard capacity general purpose bucket with a rubber edge. The front-end loaders will be used to manage stored material on the waste tipping floor and to push waste into the loading pit. Other equipment the County plans on procuring includes a skid steer with broom and blade attachments, a Yard truck which may be owned or leased depending on contract and if composting yard waste , a scarab or similar may be purchased. Equipment for screening and mulching will be contracted.

Figure 1-1



<p>DATE: 4/27/2014          TIME: 11:54 AM          USER: JLM</p>	<p>SCALE: 1" = 100'-0"</p>	<p>PROJECT: CITRUS COUNTY SOLID WASTE TRANSFER STATION &amp; ASSOCIATED SITE IMPROVEMENTS</p>	<p>DATE: 4/27/2014          TIME: 11:54 AM          USER: JLM</p>	<p>SCALE: 1" = 100'-0"</p>	<p>PROJECT: CITRUS COUNTY SOLID WASTE TRANSFER STATION &amp; ASSOCIATED SITE IMPROVEMENTS</p>
<p><b>OVERALL PROPOSED SITE PLAN</b></p>			<p><b>CITRUS COUNTY SOLID WASTE TRANSFER STATION &amp; ASSOCIATED SITE IMPROVEMENTS</b></p>		
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## SECTION 2

### FACILITY OPERATIONS

#### 2.1 WASTE ACCEPTANCE AND PROCESSING

##### 2.1.1 Acceptable Materials

All solid waste arriving at the facility is routed through the scalehouse. Scalehouse attendants screen visible loads for unacceptable materials including recyclables, hazardous waste, and medical waste. All commercial haulers arriving at the site are weighed at the scale house and directed to the transfer station or to the landfill. In general, residents with less than nine bags of MSW or yard waste, or residents with flat rate items such as tires, propane tanks, electronics, batteries and fluorescent light bulbs, check in at the scale house and are not weighed. Residents and private haulers with more than nine bags of MSW or yard waste are weighed in and out at the scale house as are residents and private haulers with large loads that dispose of their waste on the transfer station tipping floor.

The scale house attendant directs customers to the proper location for disposal. Customers delivering MSW, tires, propane tanks, electronics, batteries and fluorescent light bulbs are directed to the CSA. Household hazardous wastes are temporarily received and stored in the HHW 7 days per week, and one Saturday per quarter. Customers delivering yard waste are directed to the yard waste facility. An attendant is located at the Citizen's Service Area, at the Transfer Station and at the landfill working face to observe the types of waste actually deposited.

##### 2.1.2 Unauthorized Waste

If prohibited wastes are discovered by the scalehouse attendant or one of the facility attendants, the vehicle will be directed back to the administration office. If the waste has not yet been unloaded, the person responsible for shipping the waste will be notified and the vehicle driver will be directed to leave the site. If the waste has been deposited, the area of the waste load should be blocked from public access until the generator or hauler of the waste cleans up the waste. If the generator or hauler of the waste cannot be identified or is unable to remove the waste, Citrus County will be responsible for cleanup, transportation, and disposal of the waste at an appropriate waste management facility. In all cases, the FDEP should be notified.

The following wastes shall not be accepted at the facility:

- Wastes containing polychlorinated biphenyl (PCBs).
- Biomedical wastes.
- Containers or tanks twenty gallons or larger in capacity.



- Hazardous/CESQG wastes except for those accepted at the HHW and included in the current permit.

Special waste shall be collected at the CSA or HHW and managed as follows:

- Used oil and antifreeze is placed at the HHW facility and collected by a contractor.
- Lawn debris and yard waste is placed within the registered yard waste processing facility for management.
- Tires are placed into the permitted used tire facility for management.
- Appliances/White Goods - all freon containing appliances shall have the freon removed by County personnel and then placed within the scrap metal recycling container which is collected daily by a contractor.
- Scrap Metal - all scrap metal shall be placed within the scrap metal bunker until collected daily by a contractor.
- Electronics – all electronics shall be placed within the Electronics Recycling storage area and collected by a recycling contractor once several pallets are loaded.
- Lead acid batteries are placed on pallets and collected by a recycling contractor once several pallets are loaded.
- Mercury-containing devices, or spent mercury-containing lamps, shall be placed in containers and stored until removed for proper disposal by a designated contractor.

Used propane tanks shall be stored in the appropriate container until collected by a recycling contractor

## **2.2 PROCESSING CAPACITY**

### **2.2.1 Transfer Station**

The proposed transfer station building will be a roughly 17,500 square foot pre-engineered metal building. The single slot transfer station will have a 13,100 square foot tipping floor with the capacity to store roughly 610 tons of waste, and process a peak daily load of 850 tons. Four entry doors will allow for multiple commercial waste haulers to enter the building and empty their contents onto the tipping floor at a time, if traffic coordination permits.

### **2.2.2 Citizen Service Area (CSA)**

The CSA will have 5,900 square feet for used tire drop off, and 5,750 square feet for metals. The HHW will have 3,621 square feet available for sorting, with additional area for loading and

sorted piles of electronics, paint, and battery waste.

## **2.3 SOLID WASTE HANDLING**

### **2.3.1 Solid Waste Receiving and Weighing**

All vehicles destined for the landfill, transfer station, CSA, HHW or the yard waste facility enter the site via SR-44. All customers must head east and pass through the scale facility as they enter and exit the site. Customers are weighed and charged in accordance with the current fee schedules. From the scale facility, commercial haulers are directed to either the transfer station or the landfill. Residential customers are directed to the CSA, HHW or yard waste area. Depending on their load, residential customers and small scale commercial haulers may also be directed to the self-haul unloading area at the transfer station.

Transfer trailers will enter the site from the main entrance at SR-44 and head south along the western boundary of the site and then east to the transfer building. In the tunnel, the open-top trailers will be loaded from above and a knuckleboom crane will compress and groom the load. A scale will be located in the tunnels to monitor the load in the trailers. The weight of the load will be displayed on a screen located on the tipping floor as well as in an area visible to the trailer driver.

### **2.3.2 Solid Waste Unloading and Handling**

#### **2.3.2.1 Transfer Station**

Upon approaching the transfer station, all commercial vehicles are directed by the tipping floor attendant to a point on the floor where they can back up their vehicle and discard their waste. Private haulers are directed to the self-haul entrance, by which there is a 2.5-foot wall over which they can toss their waste onto the tipping floor. The waste unloaded on the tipping floor is inspected visually by the attendant prior to being moved on the floor or pushed into the pit for loading into a transfer trailer. Front end wheel loaders are used on the tipping floor to move and sort the waste received and to load the waste into the pit and into a transfer trailer. After unloading, haulers will exit the tipping floor and proceed to return to the main entrance by reverse of the same route by which they arrived at the transfer station building.

#### **2.3.2.2 CSA**

The future operation and maintenance procedures of the CSA will continue to be the same as existing CSA operations. The CSA has a full time attendant assigned for all hours of operation. A laborer is also assigned to the area to facilitate litter control and other related tasks that arise during operation hours. When customers approach the scalehouse after first entering the property, they are directed by the scale house attendant as to whether they should take their waste to the transfer station, the landfill, or the CSA. At the CSA, all customers are required to check with the attendant to provide proof of residency and identify the type of waste being delivered. If necessary, the attendant will

direct the patron to specific roll-off containers. Patrons are required to empty their own vehicles into the roll-off containers and then may leave the site.

As each container is filled to capacity, it is either loaded onto a roll-off trailer and taken off site immediately or moved to a staging area until a roll-off trailer is available. Each loaded containers if transported within a few days. Scrap metal is delivered to a contracted processing facility. Tires are delivered to a separate processing facility.

## **2.4 TRAFFIC FLOW**

All vehicles enter the site via the main entrance on SR-44. After entering the site, all haulers and residents head east to the scale facility. After exiting the scale facility, all vehicles turn south. CSA, HHW and yard waste customers then turn west while commercial haulers and other vehicles destined for the transfer station or landfill continue south and then west up the tipping floor approach road. Vehicles will then back into the transfer station from the south or up to the self-haul unloading area from the east, or will continue west to the landfill access road. Vehicles leaving the landfill or the transfer station will follow this same route in reverse.

After turning west off the main road, CSA, HHW and yard waste customers take the CSA loop road west. Yard waste customers continue west in the yard west facility. CSA and HHW customers turn south before the yard waste facility and then east onto the CSA/HHW center aisle. Traffic from these facilities continues east, back to the main road, and then north and west to the scale facility and the site exit. Residents have the option of turning north after the scale facility to enter the 24-hour recycling center and exit to SR-44.

Transfer trailers enter the site from the main entrance at SR-44 and head south along the western boundary of the property and then east into the staging area. Transfer trailers travel through the transfer station tunnels in a clock-wise direction. After being loaded and weighed in the tunnels, the trailers will continue west to the road on the western boundary of the property and then north to the main exit or the recycling center exit.

Loaded scrap metal, electronics, tires, and hazardous waste trailers will exit onto the main road on the east side of the CSA, cross the outbound scales and then exit the site through the main exit.

### **2.4.1 Transfer Station**

Signs are strategically located throughout the site, warning vehicles of speed limits and potential hazards. Haulers are instructed not to drive on the waste tipping floor until directed by the operating staff. Attendants and vehicle attendants verbally give instructions as required and maintain traffic on the tipping floor.

Self haulers at the self-haul unloading area are also directed to remain in their vehicle until they are advised when it is safe to back up to the unloading area. This area consists of an overhead door in the southeast corner of the transfer station with an elevated bottom wall. Much like the

walls at the CSA, customers using the self-haul unloading area at the transfer station are required to back in against the ±2.5-foot high wall at the overhead door, exit the vehicle, and throw their trash over the wall and onto the tipping floor. Children are instructed to remain in the vehicle.

#### **2.4.2 Citizen Service Area**

The CSA has a full time attendant assigned for all hours of operation. A laborer is also assigned to the area to facilitate litter control and any other task that arises during operation hours. If necessary, the attendant will direct the patron to specific roll-off containers or storage bins. Patrons are required to empty their own vehicles into the roll-off containers and bins, and then may continue to the Recycling Center or leave the site.

#### **2.4.3 Yard Waste Facility**

Customers delivering yard waste proceed to the YWF tipping area, and are directed by on-site personnel and traffic cones to the proper location to unload. Upon removal of yard waste from delivery vehicles, the customers then proceed through the CSA and then back to the County scale house to be weighed out and to complete their transactions.

Customers loading mulch are directed to either the hand or machine load area of the yard waste facility by on-site personnel. After loading the mulch, the customers proceed through the CSA and then back through the scale facility to leave the site. These vehicles are not weighed out.

#### **2.4.4 Recycling Collection Center**

The Recycle Center customers will enter the site from a separate entrance on SR-44, or after passing through the outbound scales. After dropping off the material at one of the recycling bins, they exit the recycling collection center directly onto SR-44. Vehicles from the recycling center are not allowed to enter the site from this entrance.

## SECTION 3

### FACILITY MAINTENANCE / HOUSEKEEPING

#### 3.1 NUISANCE CONTROLS

##### 3.1.1 Insect, Odor and Vector Control

Odor control for the CSA consists of removal of all waste to the landfill or transfer station prior to closing daily, plus cleaning of temporary storage areas as needed.

In the transfer station, waste is processed on a first-in, first out basis. Stored municipal solid waste does not remain on the floor for more than 24 hours except under unusual circumstance under which wastes may be stored for up to seven days. The following methods are used to minimize off-site odors:

- The tipping floor is cleaned as needed to control odors.
- The loading areas, sumps and drains, and compaction equipment are cleaned regularly.
- Wastes are managed inside the Transfer Building and containers.
- Loaded wastes are removed from the site frequently.
- The Facility Manager, or his/her designee, screens incoming loads for odor problems. Loads that have begun to degrade and may soon emit objectionable odors are given loading priority so that they can be quickly placed in trucks and transferred from the facility.

Areas where waste is stored or processed are cleaned at least weekly to prevent odor or vector problems, and all drains and leachate conveyances are kept clean so that leachate flow is not impeded.

In addition to proper management practices, the transfer station uses air exchange as a means of controlling dust and odor. Twelve exhaust fans on the tipping floor walls and roof, and four propeller fans in the tunnel provide the capability of up to 22 air exchanges per hour, which should mitigate the potential for nuisance odors at the facility.

Should off-site odors become problematic, the Operations Crew Leader will investigate, determine the source of the problem, and institute corrective actions as appropriate. Additional odor control methods may be implemented, as needed. The facility will be operated to control objectionable odors in accordance with FAC 62-296.320(2).

##### 3.1.2 Litter Control

Personnel are assigned to the transfer station to facilitate litter control during normal operating hours. The tunnel will be cleaned of all litter periodically during the course of operations and at the end of each business day. If absolutely necessary, waste not stored on the tipping floor or

transported off-site will be stored in transfer trailers either covered with a tarp or parked in the transfer station, within an area served by the leachate collection system, until the next business day.

### **3.1.3 Dust Control**

The new Transfer Station building design includes provisions to control nuisance dust and odors at the facility. Emissions of particulate matter will be controlled in the following manner:

- All entrance and exit access roads into the transfer building will be asphalt and/or concrete. In addition, the tipping floor inside the transfer station building will be concrete.
- The building design includes a series of supply and exhaust fans to alleviate dust and odors inside the transfer station building.

### **3.1.4 Noise Control**

No significant noise sources are present onsite other than normal mobile equipment. The nearest occupied structures are also characterized as industrial zoned land uses. The transfer station building is fully enclosed except for the doorways, which minimizes the escape of noise resulting from waste processing.

Employees are encouraged to wear hearing protection where practical and per regulations, where not posing a safety hazard to others.

## **3.2 FIRE AND EXPLOSIONS**

Fire and explosion control issues are presented in Section 5, Contingency Plan.

## **3.3 SPILL PREVENTION AND REACTION PLAN**

Corrective actions for spills and other operation accidents are presented in Section 5, Contingency Plan.

## **3.4 LIQUIDS MANAGEMENT**

### **3.4.1 Leachate Management**

The transfer station has a leachate collection system to collect leachate on the tipping floor and the tunnels and convey the leachate to the leachate pump station which then pumps it to the existing landfill leachate pump station. Roofing over the tipping floor and tunnel, along with grading of roadway surfaces outside the transfer station eliminate the mixing of leachate with storm water. Leachate generated within the transfer station flows into the leachate collection system trench drain on the tipping floor and floor drains in the tunnels. For ease in cleaning, the trench drains are equipped with removable grates wide enough to accommodate a shovel. Leachate trench drains in the transfer station are cleaned as required or, as a minimum, at the end

of each business day.

An HDPE gravity collection system conveys the leachate from the trench drains to the proposed leachate pump station. A 4-inch leachate force main conveys leachate from the pump station to the existing landfill pump station for conveyance to either the leachate holding tanks or the leachate treatment system. The operation of the proposed leachate pump station is as follows:

- Upon wet well sump level rise, the Pressure Transducer sensors will sense the rising sewage leachate levels and upon the set pressure (second level) being reached, will start the lead pump. With the lead pump operating, the wet well level shall lower to the Pressure Transducer pressure turnoff setting and the pump shall stop. Alternating relay shall index on the stopping of the pump, so that the lag pump will start on the next operation. If the level continues to rise when the lead pump is operating, the pressure setting within the Pressure Transducer (third level) will start the lag pump and activate the visual alarm light. Both the lead and lag pump shall operate together until the pressure setting within the Transducer turns off both pumps.
- If the level of the wet well should continue to rise when both pumps are operating, the high level non-mercury switch (fourth level) shall be energized and the audible alarm shall be activated. If one (1) pump shall fail for any reason, the second pump shall operate on the override control (third level pressure setting), and the flashing visual alarm light shall activate. If the level shall then rise past the fourth level control, the audible alarm shall be activated. The high level non-mercury switch shall be adjustable, for level setting, from the surface.

The leachate collection system for the remaining system is operated and maintained, and leachate monitoring and reporting is conducted in accordance with Section 9 of this Operations Plan.

### **3.4.2 Surface and Groundwater Protection**

The proposed traffic and waste handling activities occur on surfaces that are paved and graded to control surface drainage and prevent contamination of groundwater.

The facility manages the waste transfer operations (unloading and loading) in an enclosed building. This minimizes the volume of stormwater that contacts the waste materials, thereby reducing the volume of potentially contaminated contact wastewater, which is treated as leachate. Leachate generated within the transfer station floor and loading area is collected as described previously and is not discharged to surface water.

## **3.5 FIRE PROTECTION**

The site has dual potable water systems consisting of a domestic water system and a fire system. The fire system consists of a series of 8-inch water mains with fire hydrants placed no further than 400-feet from any building. In addition, the transfer station building and the office area of

the HHW were constructed with automatic fire sprinkler systems. A fire and potable water booster pump station provide pressure to meet fire flow requirements. The processing area of the HHW is equipped with an automatic foam fire protection system.

Fire extinguishers are present in each building and in the cab of all heavy machinery, control rooms, and electrical rooms.

The Transfer Station attendants must be constantly alert for possible fires either from a load that is delivered or from a malfunction in the transfer station systems.

Staff shall immediately contact 911 if a fire is observed. Then, and only if trained and if they elect to, they may attempt to extinguish the flame with the fire suppression equipment at hand until the fire department arrives.

### **3.6 CLEANING AND SHUTDOWN PROCEDURES**

At the end of the day, the staff ensure the following procedures are completed:

- All truck doors on the tipping floor level are closed and secured, this will also include the overhead door in self-haul drop off area on the east side of the tipping floor.
- Sweeping up and litter control around the scalehouse, transfer station and CCC;
- Cleaning out of leachate grates.
- A complete walk around of all equipment. Damage or issues that might have accrued are noted on the operator's inspection sheet for that machine.
- The tunnel area is inspected for any damage or issues that might impact the operation of the transfer station and its overhead doors are closed and secured.
- A check of the transfer station is completed to make sure that no unauthorized persons are present.
- All lights are turned off in the tipping floor and tunnel area.
- The restroom area is inspected for any damage or issues that might have occurred during the day.
- No waste is accepted in the transfer station while it is closed.



## **SECTION 4**

### **WASTE RECORDS**

Each month, a report of the amount of waste received, in tons, will be compiled. The report will also include estimates of the amounts of the following waste types:

- Household waste;
- Commercial waste;
- Construction and demolition debris;
- Yard trash;
- Waste tires;
- Materials collected at the HHW;
- Recyclables.

Reports are compiled monthly and maintained and are made available to FDEP on request.

## **SECTION 5**

### **ACCESS CONTROL**

The entire Citrus County Transfer Station facility and adjacent landfill is fenced, and access is gate controlled at all times. Figure 1-1 is a site plan of the entire transfer station and CSA access control facilities. The transfer station, CSA and associated facilities operate and accept waste Monday through Saturday, as follows:

Monday - Friday: 8:00 a.m. to 4:30 p.m.

Holidays and Saturday: 8:00 a.m. to 2:30 p.m.

During Holiday periods, the operating hours may be adjusted.

## SECTION 6

### WASTE MONITORING

#### 6.1 WASTE INSPECTION

Citrus County has implemented a load checking program to detect and discourage attempts to dispose of unauthorized wastes at the transfer station and CSA. This program includes at least three random checks by personnel each week and inspection of suspicious loads, which are vehicles that have previously been determined to have delivered unauthorized waste, or loads that have unusual physical characteristics.

If any regulated hazardous wastes are identified during load checking the waste will be immediately placed in the household hazardous waste collection and storage facility for sorting and storage. Following is a summary of the load inspection program. The complete load inspection plan is kept on file in the Citrus County Landfill office.

1. Personnel will direct a minimum of three (3) vehicles per week to a separate area within the working disposal area.
2. The driver of the vehicle will be asked the source of the waste by the inspector. The load will be completely unloaded and spread uniformly so that all waste is visible.
3. The inspector will proceed to inspect the load for unauthorized waste. These shall include, but are not limited to the following:
  - Restricted materials (tires, yard waste, etc)
  - Regulated hazardous waste
  - Biomedical waste
  - Containers of liquids
  - Compressed gas cylinders
  - PCB wastes (Transformers)
  - Large quantity of household type hazardous waste (Indication of business source)
4. If any restricted items are observed, the waste will be relocated by the County to the appropriate disposal/management area. If a commercial hauler, the collection company will be contacted to send a representative to verify the contents of the load with the inspector and the Crew Leader. The payment for disposal of the waste will be the sole responsibility of the person responsible for shipping the waste.
5. The person responsible for shipping the waste will provide a manifest documenting the proper disposal of the unauthorized waste found during inspection. The manifest must indicate the corresponding identification number assigned to the waste during inspection.

6. If any regulated hazardous waste or biomedical waste is observed, the Crew Leader will implement the Solid Waste Management Operations Emergency Response Plan for the Identification of Regulated Hazardous Waste. This plan includes notifying FDEP, persons responsible for shipping the wastes, and the generator of the wastes.
7. Landfill personnel will relocate all special wastes such as tires, appliances, lead acid batteries, and lawn debris to the proper disposal areas. A separate invoice will be issued to the persons responsible for shipping the waste and made part of the inspection report. See Section 2.4 for procedures for handling special wastes.
8. If any large quantities of household hazardous waste are identified, it will be relocated to the household hazardous waste storage facility.
9. Copies of all completed inspection reports will be forwarded to the Administrative Office for the Division of Solid Waste Management, the persons responsible for shipping the waste, and the Citrus County Special Operations Section. These records will be maintained for three years.
10. Vehicles that have previously been determined to have delivered unauthorized waste will be considered suspicious and may be subject to inspection at any time and in the same manner as the random inspections.

## **6.2 HAZARDOUS WASTES AND HANDLING PROCEDURES**

Hazardous waste identified during the load checking program will temporarily be stored in the household hazardous waste collection and storage facility, and all handling procedures must follow the Household Hazardous Waste Operations Plan, which is on file in the landfill office.

Items in the transfer station (TS) that are identified to be unauthorized will be given back to the driver that delivered them. If the driver does not accept the material the transfer station attendant will note the truck information and fill out a load inspection sheet for the unauthorized material. The County will also notify the FDEP of the driver's refusal to accept the unauthorized material. The material left in the transfer station will then be moved to a temporary holding area away from material being processed. The location of the holding area will be designated on a daily basis depending on the day's operations and will be cleared out daily of material staged there. If the material discovered is not authorized to be handled at the Citrus County Central Landfill or Hazardous Household Waste Area, then appropriate arrangements will be made to properly handle the material. If material discovered in the transfer station is hazardous the transfer station attendants will use their portable radio to contact supervision and inform them of the issue. Once notified, supervision or the transfer station operator on duty will take appropriate actions to mitigate the issue. The steps may include but are limited to, evacuating the transfer station or calling Citrus County Fire and Rescue or 911.

## **SECTION 7**

### **STORMWATER MANAGEMENT SYSTEM AND MAINTENANCE**

#### **7.1 STORMWATER BEST MANAGEMENT PRACTICES**

The transfer station and associated facilities use the following stormwater best management practices (BMPs):

- Sideswales
- Grass
- Sod
- Dry retention stormwater ponds

Plans and cross sections of these systems are on file with the FDEP Southwest District office as part of the site's Environmental Resource Permit (ERP) application package.

The contents of the roll-off containers in the CSA will be monitored and evaluated on a continuous basis to determine if their contents could generate a significant amount of leachate in the event of inclement weather. If so, these containers are to be removed and emptied. Incidental leachate that may be found on the ground shall be cleaned up.

#### **7.2 STORMWATER MAINTENANCE PROCEDURES**

Stormwater management system operation and maintenance shall be in accordance with Stormwater Management Operations & Maintenance Manual which was approved with the transfer station/CSA Environmental Resource Permit (ERP). The Stormwater Management System will be operated and maintained as necessary to meet the requirements of Rule 62-701.400(9), F.A.C.

## **SECTION 8**

### **EQUIPMENT AND OPERATIONAL FEATURES**

#### **8.1 EQUIPMENT**

The new transfer station will be operated using open top type technology utilizing a knuckleboom crane positioned over the loading pit that will be operated from a control booth over the slot. The crane will be used to level and compact material that is loaded into the open top transfer trailers. Citrus County will contract the hauling of the municipal waste from the transfer station to the landfill. The number of transfer trucks needed will depend on factors such as pay-load and trip distance and will be the responsibility of the contractor. The County will obtain additional buckets for its front-end loaders as required to work in the transfer station, landfill or CSA. Normal maintenance will be performed on site. Major maintenance item repairs (e.g., engine, transmissions, auxiliary drives) will be handled either at the maintenance facilities or at off-site service facilities.

#### **8.2 BACKUP EQUIPMENT**

In the event of an unscheduled shutdown of the transfer station, the doors to the tipping floor will be closed and the scale house will notified to divert trucks delivering waste to the Landfill area. If the Solid Waste Management Division Director did not initiate the shutdown, the transfer station attendant will notify he or she or their designee of the issue causing the shutdown. If the shutdown impacts the tunnel area those doors shall also be shut. In the event the shutdown was due to an emergency, the FDEP will be notified within 24 hours. As needed other resources will be called to assist with re-opening the transfer station.

#### **8.3 COMMUNICATION EQUIPMENT**

Transfer station employees will be able to communicate by two-way radios, and a telephone is located at the scalehouse and administrative office.

#### **8.4 FIRE PROTECTION AND FIRE FIGHTING CAPABILITIES**

The site has dual potable water systems consisting of a domestic water system and a fire system. The fire system consists of a series of 8-inch water mains with fire hydrants placed no further than 400-feet from any building. In addition, the new transfer station building and the HHW have automatic fire sprinkler systems. Fire and potable water booster pump stations provide pressure to meet fire flow requirements.

Additional emergency response equipment readily available on-site is listed in the Landfill and Related Facilities Emergency Incidents Plan.

## **8.5 SIGNS**

Appropriate signs will be utilized and maintained to ensure maximum safety, efficiency, and general information. Signage will include, at a minimum, facility name and operating authority, traffic flow, hours of operation, disposal rates, and restrictions or conditions of disposal.

## SECTION 9

### LEACHATE MANAGEMENT

Leachate is collected by trench drains on the transfer station tipping floor and tunnel and conveyed by 6-inch High Density Polyethylene (HDPE) pipes to a manhole located to the west of the transfer station tunnel. Roofing over the tipping floor and tunnel, along with grading of roadway surfaces outside the transfer station, eliminate the mixing of leachate with storm water. The trench drains are equipped with removable grates wide enough to accommodate a shovel. Cleanouts within the building combined with the manhole allow access for inspection and cleaning of the leachate lines.

An 8-inch gravity line conveys the leachate from the manhole to the transfer station leachate pump station located at the north toe-of-slope of the hill to the west of the transfer station. Two submersible pumps in the pump station convey the leachate from the wet well into a 4-inch force main that runs to a meter assembly adjacent to the landfill master leachate pump station. After being metered, leachate from the transfer station is discharged into the landfill leachate pump station wet well. Facility personnel will record transfer station leachate flows daily. This will allow the transfer station leachate flows to be separated from the landfill leachate flows. Leachate generation/flow records will be kept at the facility as part of the official operation record.

The landfill leachate pump station conveys the combined leachate from the transfer station, the landfill and the closed 7-acre landfill to the leachate storage tanks located at the southwest corner of the landfill site or to the on-site leachate treatment facility. Leachate from the landfills is monitored, sampled and analyzed in accordance with Section 9 of the Landfill Operating Plan. There are no FDEP requirements to sample or monitor the leachate from the transfer station, although the Division Director may choose to implement some level of sampling and analyses for operations purposes.

#### 9.1 OPERATION AND MAINTENANCE OF LEACHATE COLLECTION SYSTEM

The Utility Operator is responsible for maintenance of the leachate systems, including the site piping and pump station. The pump station equipment manufacturer will provide operation and maintenance manuals for the system components. Maintenance of each component will be performed in accordance with manufacturer specifications and documented on a Maintenance Summary Form, included in Appendix B. Operation and maintenance manuals include the following:

- Description of unit and component parts, including normal operating characteristics and limiting conditions.
- Operating procedures.
- Maintenance and overhaul procedures.



- Installation instructions.
- Original manufacturer's parts list, illustrations, and detailed assembly drawings.
- Spare parts ordering instructions.
- Manufacturer's printed operating and maintenance instructions.

Daily maintenance on each the pump station will also include reading flow meters and making sure each pump is operational. Pumping rates and electrical draw will be confirmed semiannually. If these tests indicate significantly reduced performance, the pumps will be pulled for inspection and repair. A replacement pump will be installed while the repairs are being made. Proper operation of the pump station is as follows:

1. Upon pump station wet well sump level rise, the Pressure Transducer sensors will sense the rising leachate levels and upon the set pressure (second level) being reached, will start the lead pump. With the lead pump operating, the wet well level shall lower to the Pressure Transducer pressure turnoff setting and the pump shall stop. Alternating relay shall index on the stopping of the pump, so that the lag pump will start on the next operation. If the level continues to rise when the lead pump is operating, the pressure setting within the Pressure Transducer (third level) will start the lag pump and activate the visual alarm light. Both the lead and lag pump shall operate together until the pressure setting within the Transducer turns off both pumps.
2. If the level of the wet well should continue to rise when both pumps are operating, the high level non-mercury switch (fourth level) shall be energized and the audible alarm shall be activated. If one (1) pump shall fail for any reason, the second pump shall operate on the override control (third level pressure setting), and the flashing visual alarm light shall activate. If the level shall then rise past the fourth level control, the audible alarm shall be activated. The high level non-mercury switch shall be adjustable, for level setting, from the surface.

If leachate backs up into the transfer station trench drains, the leachate collection system will be inspected. Possible reasons for back up are pump station malfunction or trench drain or drain line blockage. If pipe blockage is identified, the pipe will be power jetted using the available cleanouts or the leachate manhole to remove the blockage.

## **9.2 LEACHATE HANDLING (IF REGULATED AS HAZARDOUS WASTE)**

If, in the future, the leachate becomes classified as a hazardous waste, it will be managed in accordance with Rule 62-730, F.A.C., or other rules as may be applicable at the time.

## **9.3 OFF-SITE TREATMENT**

Leachate is normally treated and disposed of on site. If off site treatment and disposal is

necessary, leachate will be transported to one of several Citrus County Utilities wastewater treatment plants. No written agreement exists with Citrus County Utilities because it is a division of this department.

#### **9.4 ON-SITE TREATMENT**

Leachate will be treated on-site. A powdered activated carbon enhanced, activated sludge plant treats all leachate generated at the landfill and at the transfer station. This plant, manufactured by ZIMPRO, provides sequential batch treatment in two stages. There are two first stage reactors and one-second stage reactor. The first stage is aerobic for nitrification of the ammonia in the leachate, and the second is an anoxic treatment process for denitrification. The second stage is supplemented with methanol to support the microorganisms due to low influent nutrients. Carbon provides removal of metals, complex organics and serves as microbial attachment medium. Mobile dissolved ions are not removed. After filtration and chlorination, the effluent is ready for on-site disposal. Sludge from the treatment process is dewatered and disposed in the landfill. The Leachate System Operation Process and Instrumentation Diagram (P&ID) is filed in the landfill office and provides further information on the operation of the leachate collection and treatment system.

The leachate is initially pumped to the on-site leachate storage tank prior to treatment. Liquid levels will be measured daily in the leachate storage tank units. The tank exterior will be visually inspected weekly. The tank interior will be inspected at least every three years, and more frequently if it is drained. At the time of draining, accumulated sediment will be removed and interior maintenance will be performed. If failures are detected, repairs will be made as soon as possible and before tank is brought back into operation. Electrical and mechanical equipment maintenance will follow manufacturer's recommendations. Inspection reports will be kept in the landfill office.

Presently the 7-acre closed landfill and the active landfill cells produce an average daily leachate generation of less than 12,000 GPD, providing more than 50% of capacity for future uses. Based on similar facilities, the new Transfer Station is anticipated to produce 167 GPD of leachate on average plus approximately 5,000 gallons per week during the tipping floor washdown.

Based on the operating record of the leachate treatment system, reports of influent and effluent quality and groundwater monitoring at the effluent disposal ponds, the leachate treatment system is performing adequately.

#### **9.5 CONTINGENCY PLAN FOR MANAGING LEACHATE**

If on site leachate treatment is interrupted, leachate will be transported to one of several Citrus County Utilities wastewater treatment plants. Because multiple wastewater treatment plants are available for leachate disposal, complete interruption of off site disposal ability is not anticipated.

## **9.6 RECORDING LEACHATE QUANTITIES**

Quantities of leachate collected by the leachate collection and removal system are recorded in gallons per day from the leachate flow observations. Utilities staff record daily flow amounts on a standard form. Completed forms are compiled monthly with the compiled form sent to the facility manager to be filed in the facility's operating record.

# **Appendix A - Sample Load Checking Inspection Forms**

**CITRUS COUNTY WASTE COLLECTION AND DISPOSAL  
CITRUS COUNTY CODE, CHAPTER 82, SECTION 101  
VEHICLE INSPECTION CHECKLIST**

**COLLECTOR'S NAME:** \_\_\_\_\_ **COUNTY ID NO:** \_\_\_\_\_

**VEHICLE:** \_\_\_\_\_

TYPE	SIZE	VEHICLE ID NO.
YEAR	MAKE	LICENSE NO.

**INSPECTED BY:** \_\_\_\_\_ **for SWM.**

	YES	NO
1. Collectors name and phone no. properly displayed.	_____	_____
2. Vehicle identification no. properly displayed. (Co. ID# & Truck # located on drivers side door & front bumper)	_____	_____
3. Vehicle reasonably water tight.	_____	_____
4. Solid metal sides with covered metal top	_____	_____
5. Vehicle uniformly painted & reasonably clean	_____	_____
6. Back up alarm operational	_____	_____
7. Fire extinguisher and triangles in vehicle	_____	_____
8. Proof of Insurance/Registration in vehicle	_____	_____
9. Tarp provided for roll-off vehicle	_____	_____
10. Securing system for roll-off vehicles (tie down straps/hooks)	_____	_____
11. Waste Tire Transporter Decal, if applicable	_____	_____
12. VEHICLE IN COMPLIANCE	_____	_____

**If No, explanation or re-inspection list:**

\_\_\_\_\_

**DATE:** \_\_\_\_\_ **TARE WEIGHT:** \_\_\_\_\_

**RE-INSPECTION DATE (if applicable):** \_\_\_\_\_

**FOR ITEM NUMBER(s):** \_\_\_\_\_

\_\_\_\_\_

**Information entered into Auto Scale 2000 (date & initials)** \_\_\_\_\_

**Bar Code Label printed (date and initials)** \_\_\_\_\_

White Copy: Landfill Office  
Yellow Copy: Driver Inspection complete  
Pink Copy: Driver Re-inspection needed

# **Appendix B - Maintenance Summary Form**

<b>Equipment Number:</b>	20316 826H Compactor	9314 Pan Scraper	20154 Roll-off Mileage	20426 R/A Loader
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	20041 Dump Truck	20433 D6T Dozer	20164 826G Compactor	20427 Cell Loader
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<b>OPERATOR DAILY CHECKS</b>	9300 Dump Truck	20248 J/D Tractor	20033 J/D Mower	20315 Workman
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	20249 Slope Mower			
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<b>&amp; SERVICES</b>	<b>WEEK OF:</b>			<b>TO:</b>		
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	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday
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Daily Walk Around Inspection											
Beginning Hours											
Refuel Hours											
Ending Hours											
Fuel Added, Gallons											
Check / Top-off Engine Oil											
Check Coolant Level / Radiator											
Check Hydraulic Oil Level											
Check Transmission Oil Level											
Check Drivetrain For Leaks											
Remove Debris From Pinch Areas											
LUBRICATE every 10 hours											
Drain Fuel Filter Water Separator											
Backup Alarm & Fire Extinguisher											
Clean Windows and Cab Interior											
Quick Coupler and Tire Pressure											
Check / Clean Cab Fresh Air Filter											
Clean Primary Engine Air Cleaner											
Initials											

**Operator Comments:** *"Have you greased and cleaned "YOUR " machine lately"*

Total Hours Operated		Next Service Due		
Total Fuel Used				
Gallons Per Hour		Posted		

# **Appendix C - Leachate Collection System Inspection Report**



**LEACHATE COLLECTION SYSTEM  
INSPECTION FORM**

**Name of Facility:** Citrus County Transfer Station

**Week Beginning:**

**Address of Facility:** 230 West Gulf to Lake Highway, Lecanto, FL 34461

**Phone:** 352-527-7670

	Mon	Tues	Wed	Thurs	Fri	Sat
Floor Drains Clean						
High Level Alarm Operating						
Pumps Running Properly						
Pipes and Fittings Not Leaking						
Floats Clean and Operable						
Valve Vault Drain Clean						
Telemetry System Operating						
Flow Meter Total Reading (gal)						
Inspected By: (Initials)						

Comments:

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