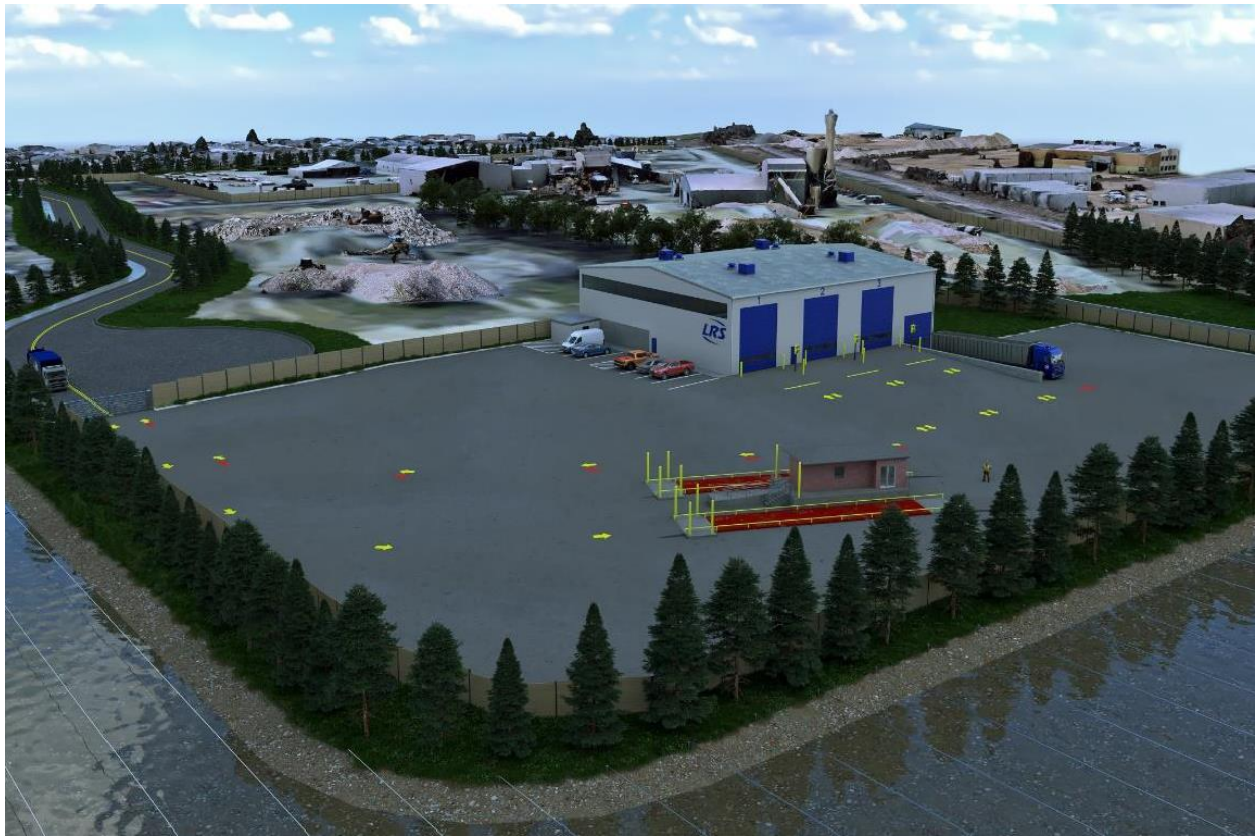
HRC Transfer Station



Local Siting Hearing

Karl W. Finke, P.E., P.G.

- Project Director - Andrews Engineering, Inc.
- Geological Engineering Degree from University of Missouri – Rolla
- Masters of Business Administration – Columbia College
- Registered Professional Engineer – Illinois & Missouri
- Register Professional Geologist - Missouri
- Over 26 years experience in all aspects of solid waste
- Regional MSW Landfill Siting Testimony
- MSW Landfill and Transfer Station design, permitting, construction quality assurance, closure and post-closure
- Utility Waste Landfill and Coal Tailings Disposal design, permitting, and closure

The Benefits:

- Improved pricing for waste and recycling management
- Improved level of service for waste and recycling management
- Funding for community
- **Highest level of environmental protection and safety**
- Ideal location
- Minimal impacts on traffic

TRANSFER STATION DEVELOPMENT PROCESS

- Local Siting Approval
- IEPA Development Permit
- Local Building Permits
- Construction
- IEPA Operating Permit

Criteria Covered In This Presentation

Criterion 2 Protection of Public Health, Safety, and Welfare

Criterion 4 Located Outside the100-year Floodplain or Flood Proofed

Criterion 5 Establish Accident Prevention/Emergency Response Plan

Criterion 7 Non-Acceptance of Hazardous Waste

Criterion 9 Meet Applicable Regulated Recharge Area Requirements

Criterion 2 – Public Health, Safety, and Welfare

- “The facility is so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected”
- The proposed HRC Transfer Station will be operated by Lakeshore Recycling Systems, LLC.
- The proposed HRC Transfer Station site is:
  - Approximately 3.09 acres
  - Located in an undeveloped and isolated portion of the approx. 42 acre Henson Recycling Campus
  - Located outside the corporate limits of the City of Bloomington and currently zoned M-2 Manufacturing District.

Criterion 2 – Public Health, Safety, and Welfare

Location Standards

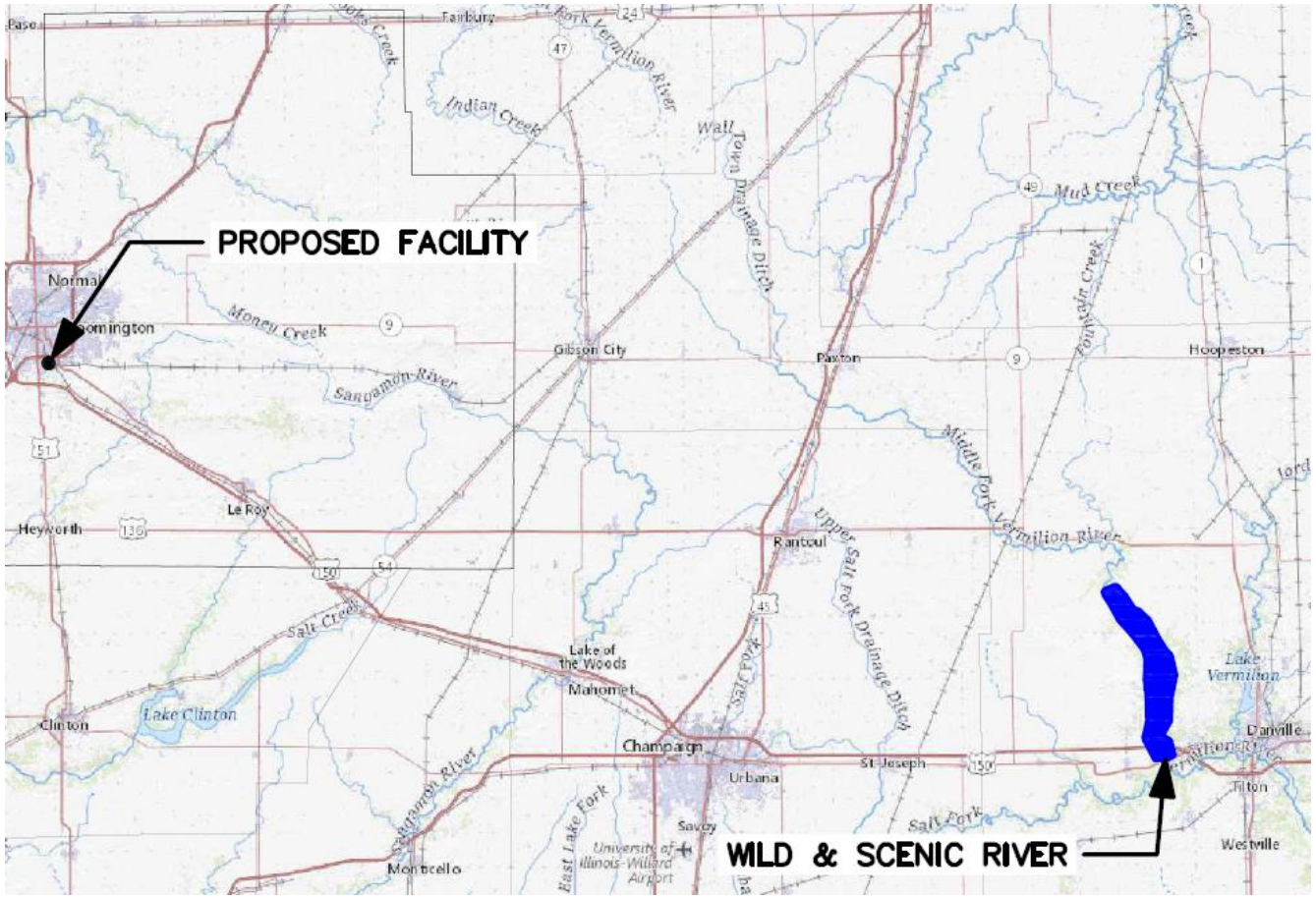
- Archaeological, Architectural or Historical Sites
- Threatened or Endangered Species
- Wild and Scenic Rivers
- Residential Setback
- Wetlands
- Airports
- 100 Year Floodplain (Criterion 4)
- Regulated Recharge Area (Criterion 9)

Criterion 2 – Public Health, Safety, and Welfare

Location Standards

Wild and Scenic Rivers

Illinois only has one registered Wild and Scenic River and it is the Middle Fork of the Vermilion River. This river is over 60 miles from the proposed transfer station.

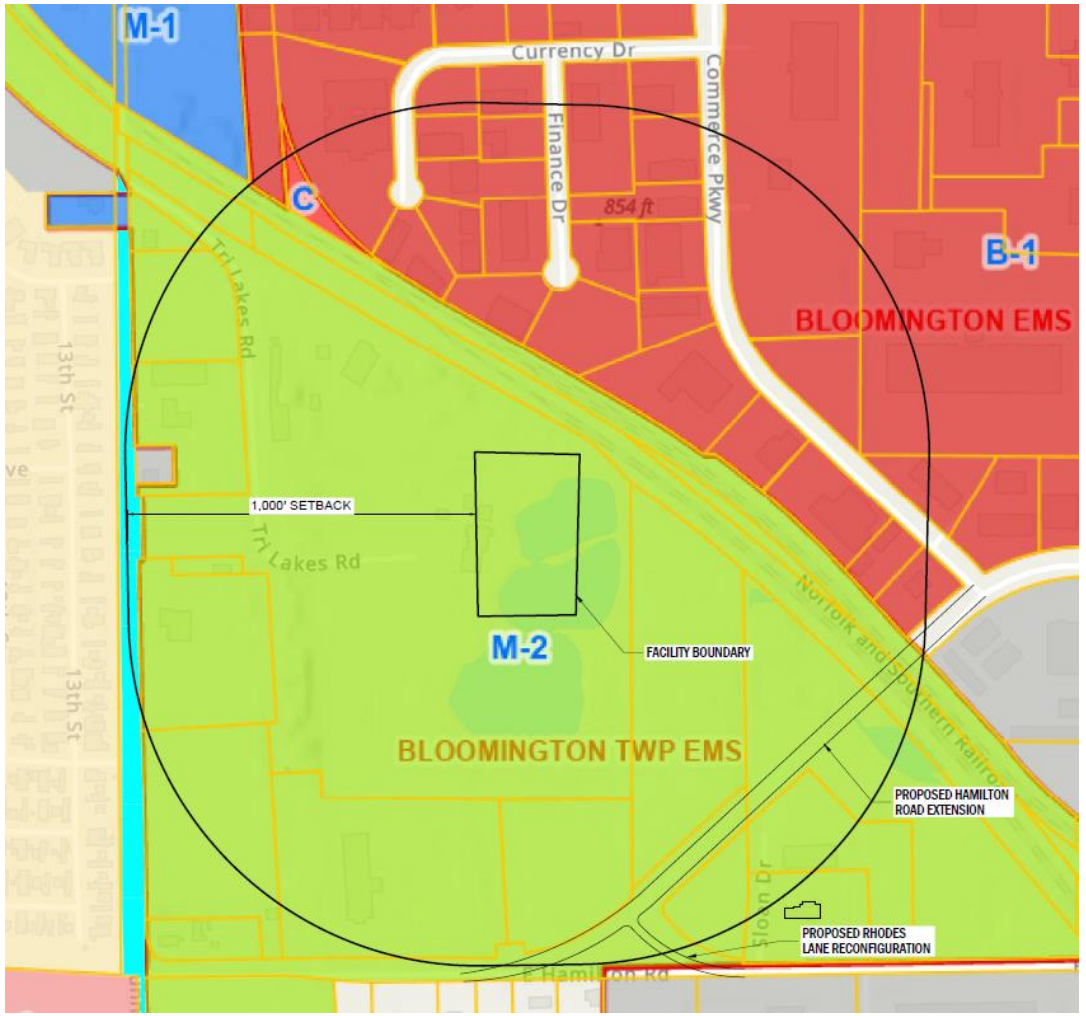


Criterion 2 – Public Health, Safety, and Welfare

Location Standards

Residential Properties

- The nearest residence is located over 1,000 feet to the southeast along Hamilton Road
- The nearest residentially zoned property is located over 1,000 feet to the west across Bunn Street



Criterion 2 – Public Health, Safety, and Welfare

Location Standards

ACOE Jurisdictional Determination of Wetlands

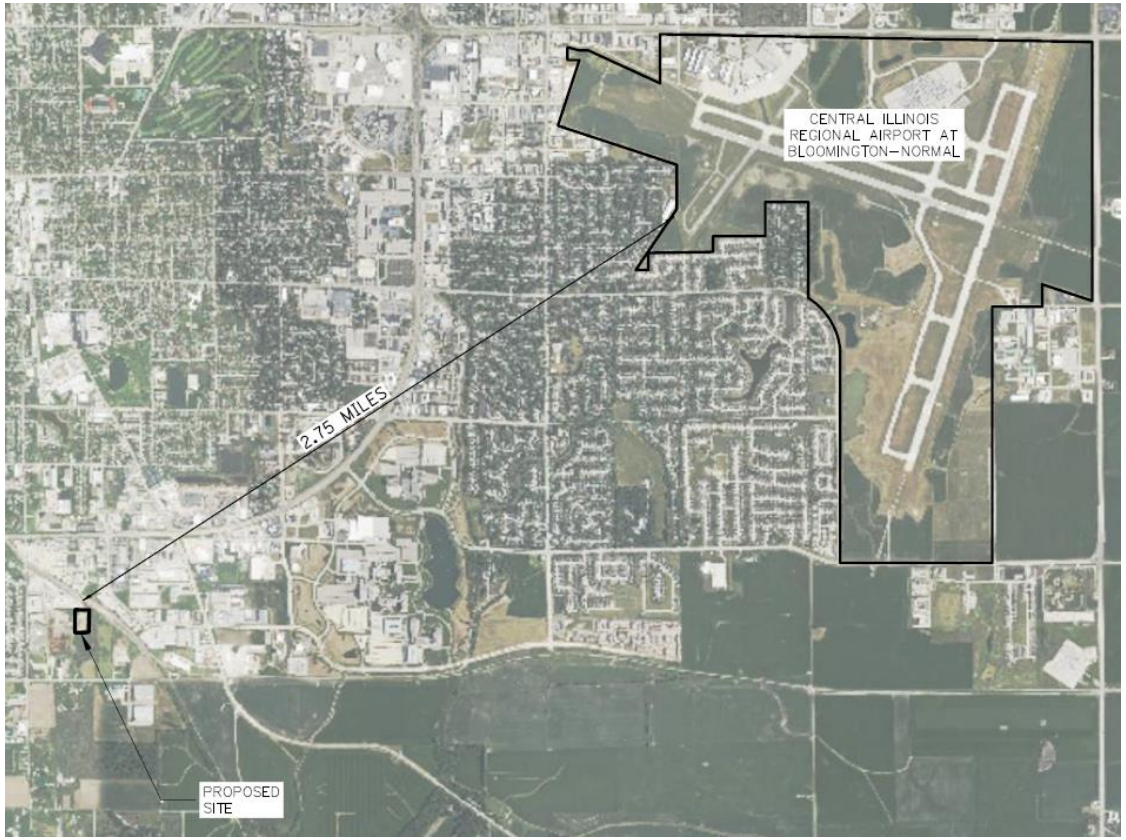
- A wetland study was performed on the site.
- The Army Corp of Engineers (ACOE) determined that no jurisdictional wetlands are present on the site.

Criterion 2 – Public Health, Safety, and Welfare

Location Standards

Airport Study

- The proposed transfer station is approximately 2.75 miles southwest of the Central Illinois Regional Airport (CIRA).
- The FAA provides guidance on land uses within 5 miles of a public airport, including MSW transfer stations, that have the potential to attract hazardous wildlife on or near public-use airports.
- The transfer station design and operations will exceed the FAA guidance.
- CIRA and LRS have agreed to work together to not cause any increase in wildlife attractants.



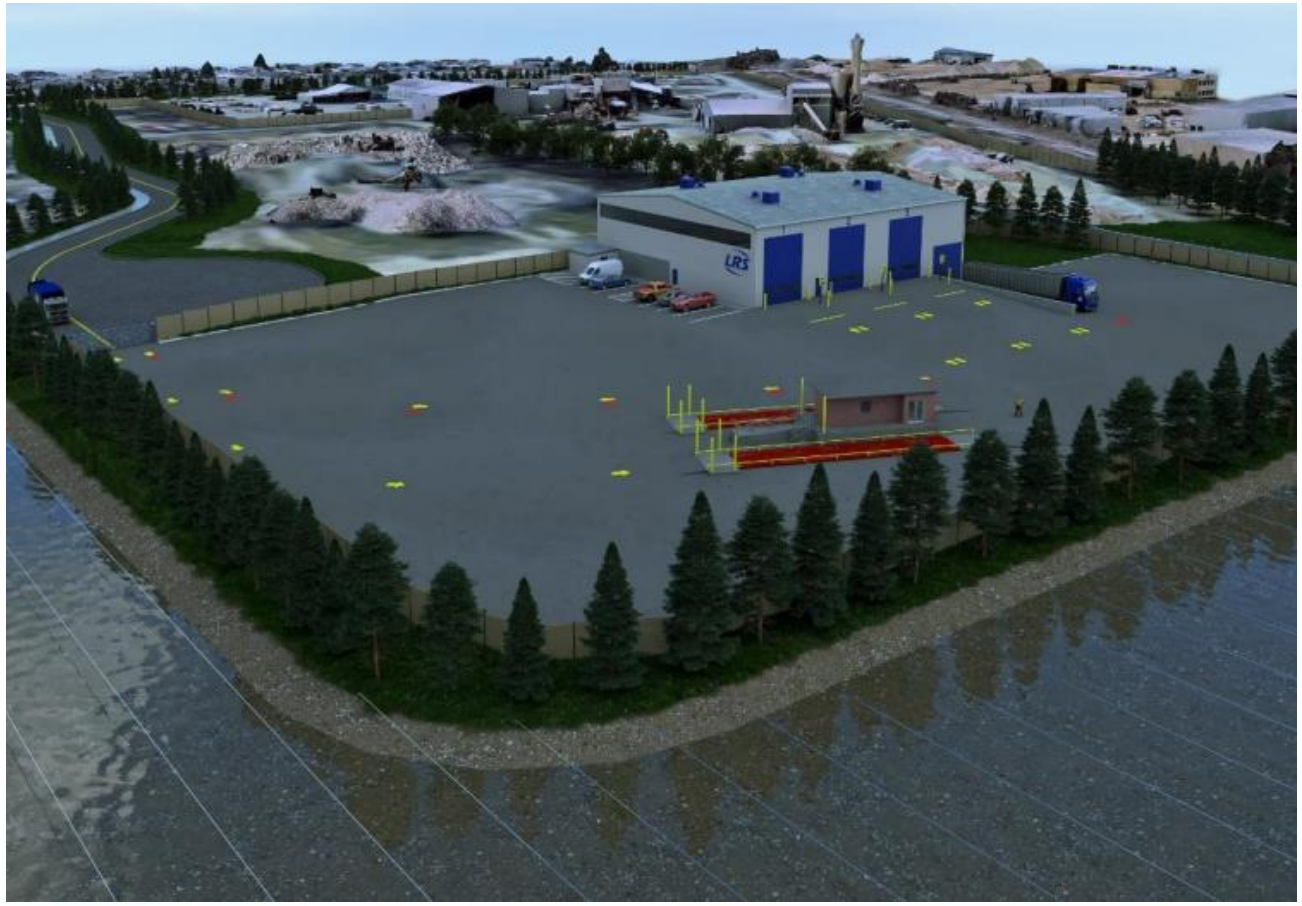
Criterion 2 – Public Health, Safety, and Welfare

Wildlife Hazard Mitigation

- **No Exposed Waste**
  - Fully Enclosed Transfer Station with all waste handling performed indoors
  - Rapid opening/closing bay doors
  - All inbound and outbound vehicles will be either fully enclosed or tarped
- **Ventilation and Filtration System in the Transfer Station Building**
  - Provide a negative air pressure condition to capture indoor air
  - Treatment of exhaust with ozone to eliminate any odors
- **Routine Wildlife Surveys by Trained Staff**
- **Use of Wildlife Deterrents such as Anti-Perching Devices and Misters**
- **Installation of Grid-Wire System over Adjacent Pond to Deter Use by Birds**

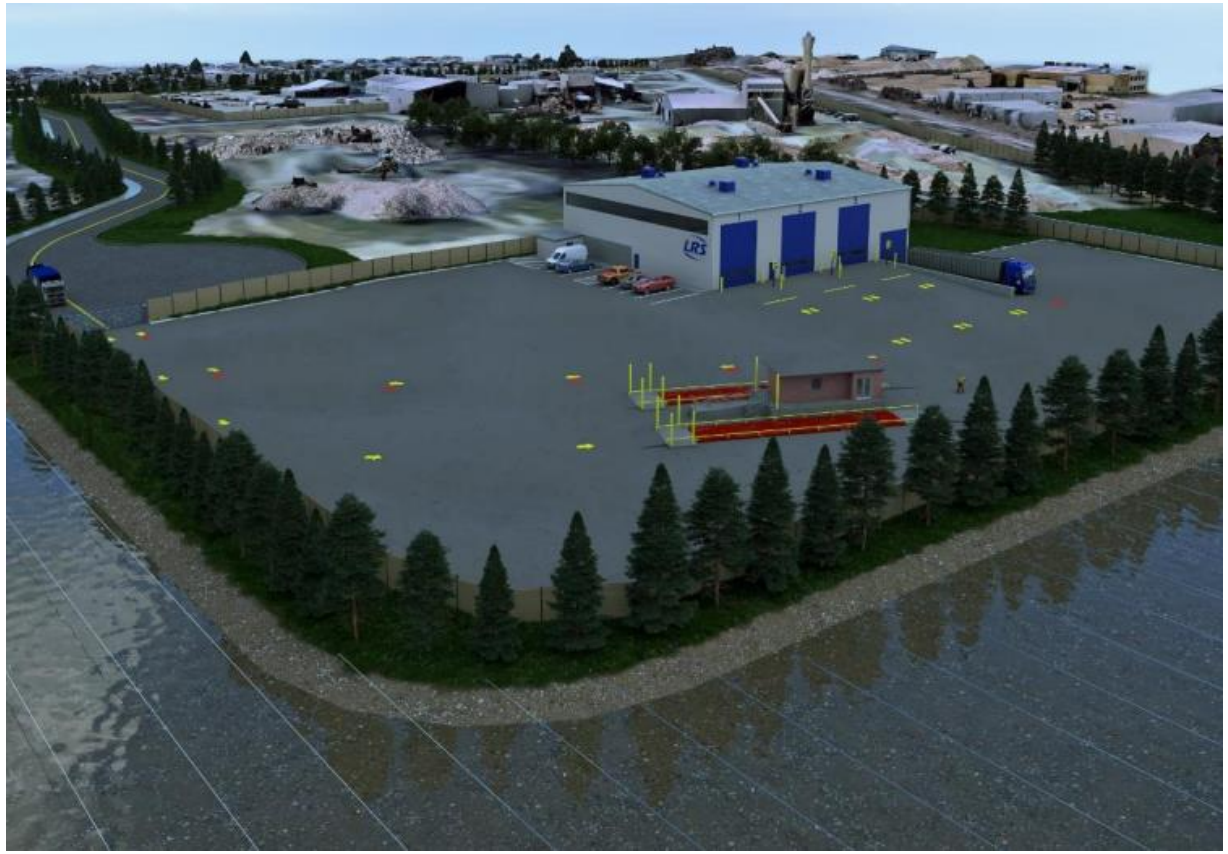
Criterion 2 – Public Health, Safety, and Welfare
Site Features and Design

- Pre-Engineered metal building with:
  - 3 bay doors for incoming vehicles
  - One load out bay
  - Ventilation and filtration system
  - Mechanical room
- Scale house and scale
- Fencing and entrance gate
- Employee Parking



Criterion 2 – Public Health, Safety, and Welfare
Site Features and Design

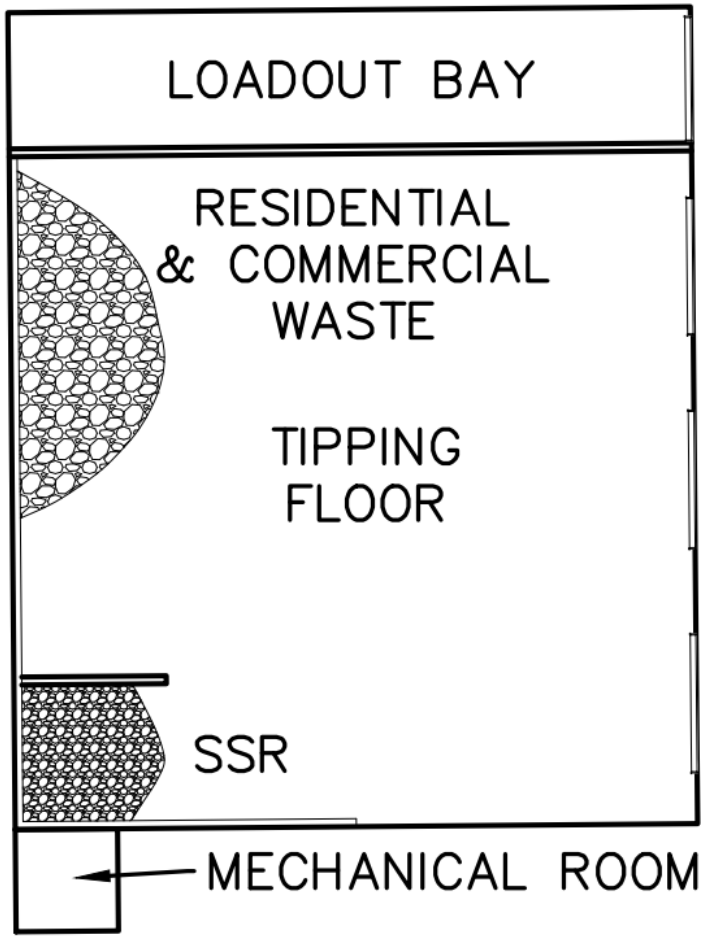
- Below ground on-site stormwater detention
- Camera system for security and operations
- Lighting system
- Utilities
- Adjacent landscaping and pond with grid wire system



Criterion 2 – Public Health, Safety, and Welfare

Building Design Features

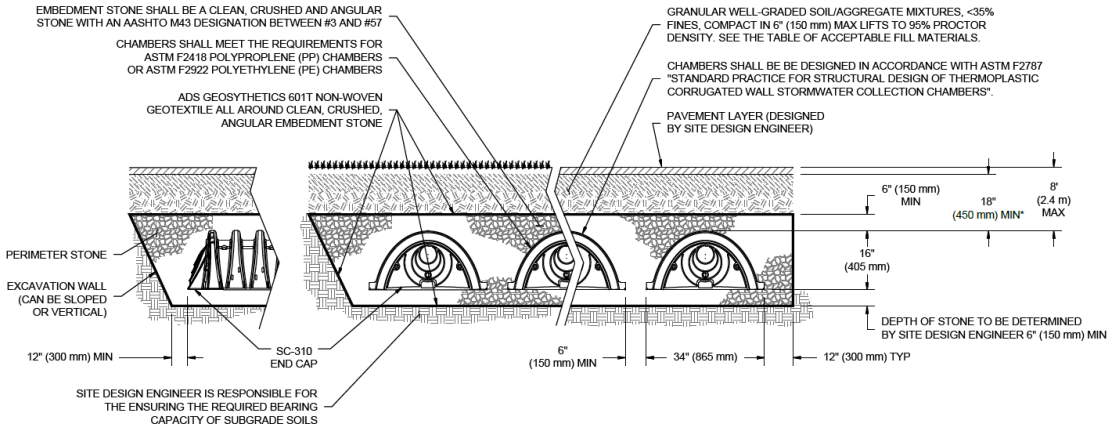
- Pre-Engineered 100’ x 120’ Metal Building with Concrete Short-Walls and Floor
- Steel Plated Concrete Push-Walls
- Elevated tipping floor with generous storage and maneuvering space
- At grade load out bay for efficient loading



Criterion 2 – Public Health, Safety, and Welfare

On-Site Stormwater

- Stormwater will be managed in subsurface systems to maximize site utilization and provide abundant storage and treatment. Storage volumes and discharge rates meet the requirements of McLean County.



Criterion 2 – Public Health, Safety, and Welfare

Acceptable Wastes/Materials

- Residential Waste – garbage from households
- Commercial Waste – garbage from businesses and institutions
- Residential and Commercial Recyclables - Various recyclables (e.g., paper, cardboard, bottles, cans) that are mixed together in a single bin/container

Criterion 2 – Public Health, Safety, and Welfare

Unacceptable Wastes

- Hazardous Waste as defined by Section 3.220 of the Act
- Potentially Infectious Medical Waste
- Asbestos Waste
- White Goods (appliances)
- Batteries
- Tires

Criterion 2 – Public Health, Safety, and Welfare

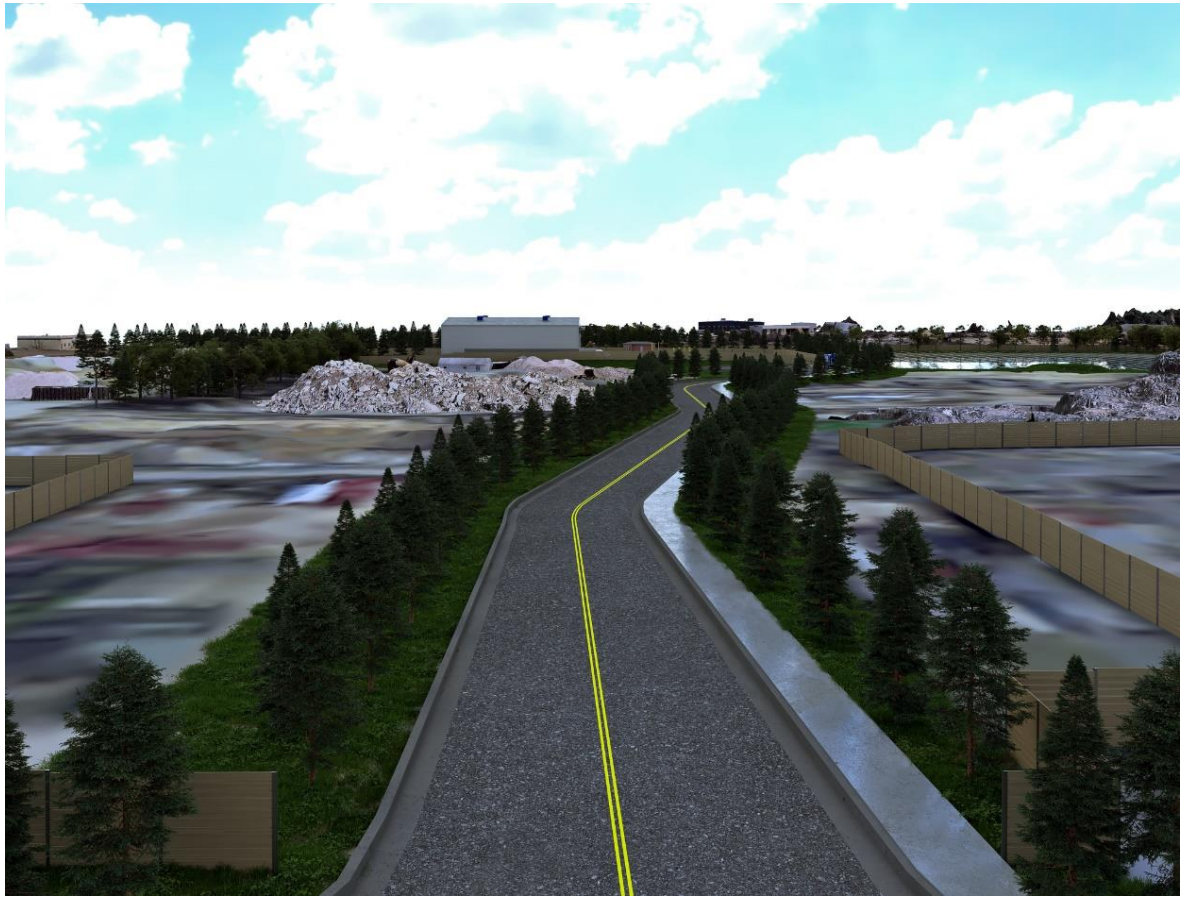
Operations

- Loads of Residential & Commercial Waste from collection vehicles will be consolidated into larger loads for transport to an area landfill for disposal
  - All waste handling will occur indoors
  - Three to four incoming collection vehicles = one larger load
  - Waste on-site for only a short time (e.g., first-in, first-out)
  - Effective controls for odors and blowing litter
- Loads of recyclables from collection vehicles will be consolidated into larger loads for transport to a material recovery facility (MRF) for separation and re-use as a commodity

Criterion 2 – Public Health, Safety, and Welfare

HDI Court

- New road to provide access from Bunn Street to the HRC Transfer Station
- Will be a public road paid for by private funding
- Will include a sidewalk, landscaping and utility corridor to provide utilities for the HRC Transfer Station



Criterion 2 – Public Health, Safety, and Welfare

Run Video

Criterion 2 – Public Health, Safety, and Welfare

Throughput Analysis

The estimated facility maximum daily average of 400 tons throughput analysis was performed.

1. Vehicle Stacking/Queuing at inbound scale
2. Facility throughput
   - Tipping (or unloading) from collection vehicles
   - Loading of transfer trailers
   - Material staged on tipping floor

Criterion 2 – Public Health, Safety, and Welfare

Key Assumptions

Time (Hour Beginning)	Estimated Throughput Breakdown		
	Estimated Hour Inbound Collector Vehicles		Estimated Hourly Outbound Transfer
	Packer (trucks)	Roll-off (trucks)	Transfer (trucks)
6:00 AM	1	0	0
7:00 AM	2	1	1
8:00 AM	4	2	1
9:00 AM	5	1	2
10:00 AM	7	1	2
11:00 AM	7	0	2
12:00 PM	3	1	2
1:00 PM	4	1	2
2:00 PM	6	1	2
3:00 PM	4	2	2
4:00 PM	1	2	0
5:00 PM	0	0	1
DAILY TOTALS	**44**	**12**	**17**

Criterion 2 – Public Health, Safety, and Welfare

Key Assumptions

- **Tonnage Capacities and Densities**
  1. 1 ton of Residential & Commercial Waste = 5 cy of waste on the floor of facility
  2. Transfer trailer capacity = 24 tons
  3. Packer Truck capacity = 8 tons
  4. Roll-off capacity = 4 tons

- **Cycle Times**
  1. Scale Study
  2. Evaluation of Transfer Stations by Andrews Engineering, Inc.
  3. Transfer Station Experience of Andrews Engineering, Inc.
  4. Operational Experience of Andrews Engineering, Inc.
  5. Design of Scales, Access Roads, and Roadway Entrance for 400 TPD Capacity Facility

Criterion 2 – Public Health, Safety, and Welfare

Summary Table – Throughput Analysis – 400 TPD

Parameter	Estimated Peak Requirement at 400 TPD Maximum	Design Capacity	Excess Capacity	Percentage of Required Capacity Provided
Peak Hour Collector Vehicle Stacking at Scaling	0 collector vehicles/peak hr	6 collector vehicles	6 collector vehicles	**>1000%**
Peak 15 Minute Collector Vehicle Stacking at Scale	0 collector vehicles/peak 15 minutes	6 collector vehicles	6 collector vehicles	**>1000%**
Outbound Transfer Trucks	2 transfer trucks/hr	3 transfer trucks/hr	1 transfer trucks/hr	**150%**
Collector Vehicle Unloading	8 collector vehicles/hr	21 collector vehicles/hr	13 collector vehicles/hr	**263%**
Facility Staging	180 cy	400 cy	220 cy	**222%**

Criterion 2 – Public Health, Safety, and Welfare

Throughput Analysis Summary

- No collector vehicles will be stacked behind the scale during the peak one hour or peak 15 minutes.
- There is conservatively excess capacity for one additional transfer truck per hour.
- With only 8 collector vehicles unloading per hour and with 3 bays for unloading, there is excess capacity of 13 additional collector vehicles per hour.

Criterion 2 – Public Health, Safety, and Welfare

Key Site Operational Controls

- **Hours**
  - Monday through Friday - 6:00 a.m. to 6:00 p.m.
  - Saturday - 6:00 a.m. to 12:00 p.m.

- **Odor and Dust Control**
  - Daily Street Sweeping of Transfer Station, HDI Court and Bunn Street
  - Facility Cleaning and Housekeeping

- **Litter Control**
  - Site Staff Patrol Daily
  - Tarped/Covered Loads
  - Fences

Criterion 2 – Public Health, Safety, and Welfare

Key Site Operational Controls

- **Vector Control**
  - First In – First Out
  - Quarterly (at a minimum) Pest Control Services
- **Noise Control**
  - Door Orientation & Closed Immediately Upon Truck Entrance/Exit
  - Equipment Mufflers
  - State of the Art Back-Up Alarms (White Noise –Low Frequency)
- **Training For Staff**
  - Operational Training
  - Safety Training
- **Load Checking**
  - Trained Staff Visually Check All Loads At Scale and On Tipping Floor
  - 3 Random Formal Load Checks Per Week

Criterion 2 – Public Health, Safety, and Welfare

Summary/Benefit

- **Meets all the location standard requirements**
- **Exceeds FAA guidance for land uses within 5 miles of a public airport**
- **The HRC Transfer Station has been overdesigned for the amount of materials proposed to be accepted**
- **Would provide the county with a new modern transfer station with enhanced safety and environmental protections**

Criterion 2 – Public Health, Safety, and Welfare

Opinion

The Facility is so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected.

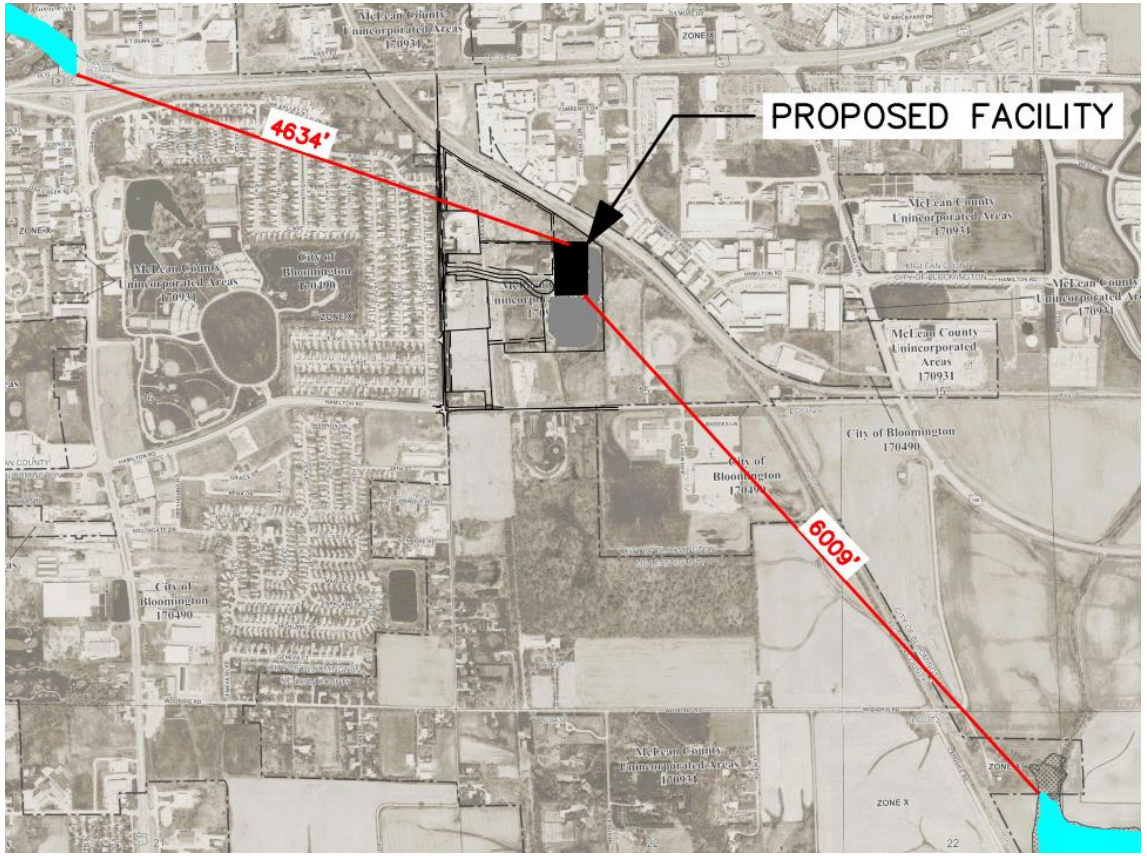
Criterion 4 – 100 Yr. Floodplain

"The facility is located outside the boundary of the 100-year floodplain or the site is flood proofed"

The facility is greater than 4,600 feet from the nearest 100-year floodplain.

Opinion

The proposed facility is located outside the boundary of the 100-year floodplain.



Criterion 5 – Accident Prevention/ Emergency Response Plan

"The plan of operations for the Facility is designed to minimize the danger to the surrounding area from fires, spills and other operational accidents"

- Establishment of "Accident, Fire Protection and Contingency Plan".
- Designated person as Emergency Coordinator

List of Emergency Coordinators – HRC Transfer Station

Primary Emergency Coordinator		On-Site Back-up Coordinator (Work Hours Only)	
Name:	John Doe	Name:	Jane Doe
Title:	Primary Emer. Coordinator	Title:	Back-up Coordinator
Office:	(309) 555-1234	Office:	(309) 555-2345
Cell:	(309) 555-9876	Cell:	(309) 555-8765
Site:	(309) 555-5000	Site:	(309) 555-5000

Corporate Office Emergency Coordinator

Name:

Title: Director of Operations

Office: (844) NeedLRS

Fire Prevention Measures

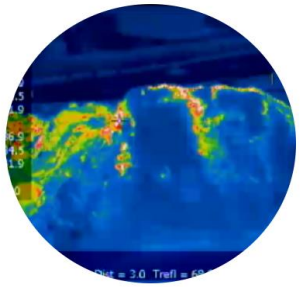
- Visually inspecting incoming loads prior to and during handling
- Placement of fire extinguishers in multiple locations and trained personnel on proper use
- Installation of a dry pipe fire suppression sprinkler system in the transfer station building
- Additional water availability from an on-site fire hydrant
- Installation of Fire Rover equipment to detect and extinguish any potentially smoldering/burning waste in transfer station building 24/7

Criterion 5 – Accident Prevention/Emergency Response Plan

Fire Rover

- Used at multiple LRS facilities
- Demonstrated to be Effective

24/7 EARLY FIRE DETECTION & SUPPRESSION



DESIGNED TO PROTECT TRANSFER STATIONS

TO STOP FIRES BEFORE THEY START

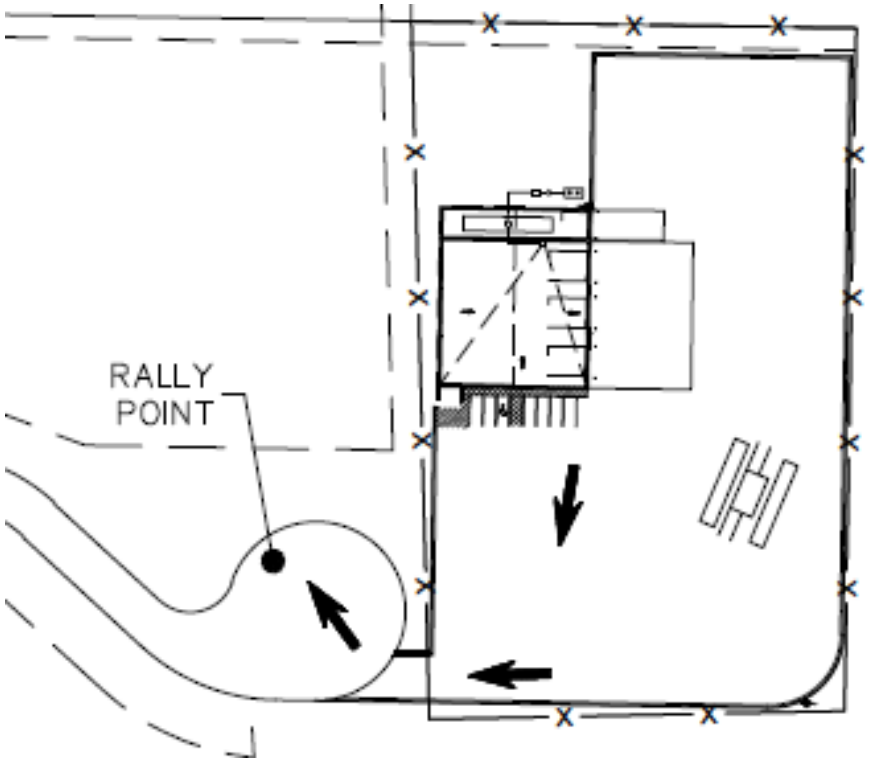
Spill Prevention Measures

- Train facility personnel in the operation and maintenance of equipment to prevent spills
- Availability of spill clean up kits
- Stormwater control system designed to prevent any spills from leaving facility

Accident Prevention

- Training and monitoring of safety rules including:
  - Use of Personal Protective Equipment (PPE)
  - Use of hearing protection
  - Keep sources of ignition away from flammables
  - Good housekeeping
  - Implementation of lock-out and tag-out procedures
  - Proper reporting of all unsafe conditions

Evacuation Procedures and Routes



Criterion 5 – Fire, Spills, or other Operational Accidents

Summary/Benefit

- **A new modern transfer station with enhanced safety and environmental protections**
- **In addition to typical fire prevention protection, LRS has elected to use the fire rover at their facilities**

Criterion 5 – Fire, Spills, or other Operational Accidents

Opinion

The plan of operations for the Facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents.

Criterion 7 – Hazardous Waste

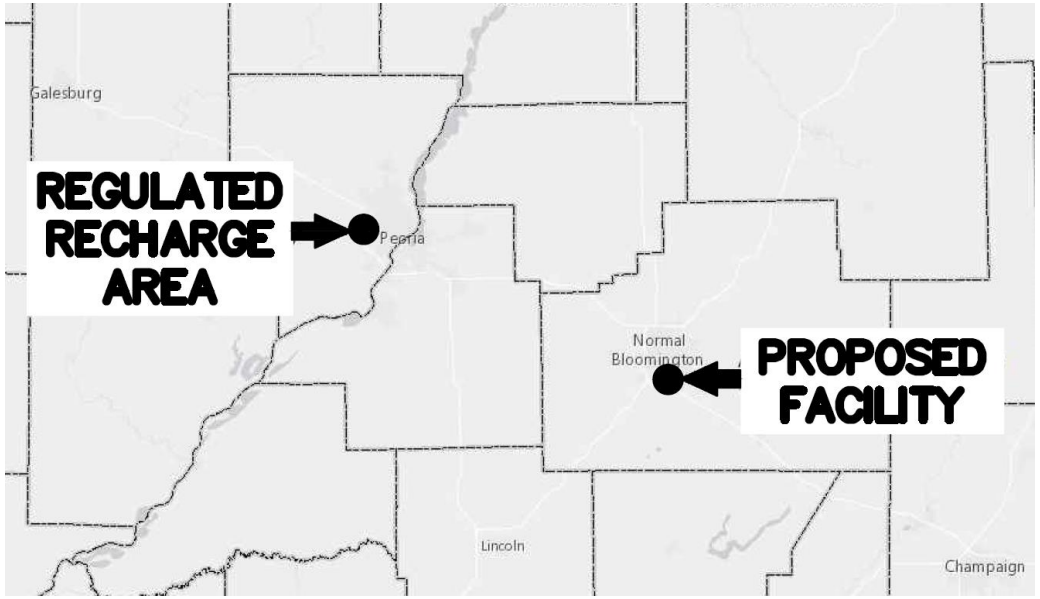
“If the Facility will be treating, storing, or disposing of hazardous waste, an emergency response plan exists for the Facility that includes notification, containment, and evacuation procedures to be used in case of accidental release”

Opinion

The proposed facility will NOT be treating, storing, or disposing of Hazardous Wastes therefore Criterion 7 is not applicable.

Criterion 9 – Regulated Recharge Area

"If the Facility will be located within a regulated recharge area, any applicable requirements specified by the (Illinois Pollution Control) Board for such areas have been met."



Opinion

The proposed facility will NOT be located within an area that is designated as a regulated recharge area.