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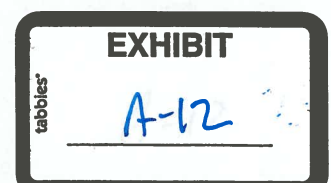
Mr. Daniel F. Hanlon, Esq.
Marquardt & Belmont, P.C.
311 S. County Farm Road, Suite I
Wheaton, IL 60187

Subject: Review of local siting application for proposed transfer station near West DuPage Airport

Dear Mr. Hanlon:

Geosyntec Consultants, Inc. (Geosyntec) has reviewed various applicable sections of a draft local siting application prepared by Civil Engineering Consultants, Inc. (CEC) for a new municipal solid waste (MSW) transfer station at the Lakeshore Recycling Systems, LLC (LRS) transfer facility. The new MSW transfer station at LRS facility, located at 1655 Powis Road, West Chicago, DuPage County, would accept municipal solid waste (MSW) and single stream recyclable (SSR) materials. Currently the LRS facility is permitted to accept only construction and demolition (C&D) waste and therefore is not required to have local siting approval under the Illinois Environmental Protection Act (Act). LRS are seeking both local siting and Illinois Environmental Protection Agency (IEPA) approvals prior to construction of the new MSW transfer station. The evaluation has been organized to include the following sections:

- Project Background
- Documents Reviewed
- Compliance with FAA Advisory Circular
- Proposed bird mitigation methods
- Industry standards for odor and bird mitigation
- Proposed conditions for airport and facility operating agreement



PROJECT BACKGROUND

FAA Advisory Circular

FAA Advisory Circular (AC) 150/5200-33C provides guidance for land uses which may act as attractants to hazardous wildlife near airports. The primary goal is to minimize hazards to aircraft posed by birds and other wildlife. Hazardous wildlife (birds, deer, etc.) attractants include natural and constructed areas that provide suitable habitats and food odors.

Aircraft collisions with birds and other wildlife in recent decades may impact public health and safety and significant financial losses, especially in highly developed areas. The AC seeks to reduce the potential for collisions through strategic land-use planning at properties adjacent to airports. Properties near airports with ponds, wetlands, marshes, or tall grasses, including water management facilities, golf courses, and properties with surface water management infrastructure may attract wildlife seeking suitable habitat. Agricultural facilities, waste management operations, restaurants, and other facilities that create food odors near airport properties may also attract wildlife.

Hazardous wildlife attractants are recommended to be at least 5,000 feet from an airport serving piston-powered aircraft. This distance is based on flight patterns of aircraft, the altitude at which most strikes occur, and recommendations from the National Transportation Safety Board (NTSB).

Fully enclosed MSW transfer stations are considered compatible with safe airport operations as long as they are outside of the runway protection zone (RPZ). The RPZ is an area off the end of a runway established to enhance the protection of people and property on the ground.

Site Location

The LRS transfer station is within less than 5,000 feet of DuPage Airport Runway 28 and partially located within RPZ. The RPZ for the DuPage Airport is defined as the area within 1,000 feet of the end of a runway. The proposed MSW transfer facility is located adjacent to the southern property boundary, outside the RPZ. Per the AC, in order to be considered compatible with safe airport operations, the proposed facility must meet the FAA's definition of fully enclosed.

Key Definitions

Waste-handling facilities must meet the following criteria to be considered enclosed per the AC:

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- Receive garbage behind closed doors for processing;
- Remove all residue by enclosed vehicles that do not leak or have waste clinging to the exterior;
- Neither handle nor store putrescible waste outside or in partially enclosed structures accessible to wildlife;
- Control odors by ventilation and filtration systems (odor masking is not considered acceptable).

Documents Reviewed

The following documents were reviewed as part of this evaluation:

- Request to DuPage Airport Authority, Lakeshore Recycling Systems, LLC, West Dupage Recycling & Transfer Facility, CEC Project 163-899, dated 8 September 2021, including the following attachments:
 - Draft Criterion 2 – Design, Location Standards, and Operating Plan, CEC, dated July 2021;
 - Appendix 2-I Ventilation and Odor Control System Design, CEC, dated 8 September 2021;
 - LRS West DuPage Recycling & Transfer Station Local Siting Application Design Drawings, CEC, dated July 2021;
- Lakeshore Recycling Services Wildlife Hazard Site Visit, Loomacres Wildlife Management, June 2019;
- United States Environmental Protection Agency (USEPA) Waste Transfer Stations Manual¹;
- Solid Waste Associate of North America (SWANA) Transfer Station Management Course Manual².

¹ USEPA Division Solid Waste and Emergency Response, Waste Transfer Stations: A Manual for Decision-Making, EPA530-D-01-001, April 2001

² SWANA, Transfer Station Management Course Manual, 2016.

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COMPLIANCE WITH FAA ADVISORY CIRCULAR

The proposed LRS facility meets the AC's criteria for an enclosed transfer station. Overhead doors will be closed during normal operations except to allow ingress/egress of trucks for unloading and loading waste. Trucks carrying MSW to and from the facility will be required to be tarped, not leaking, and without waste clinging to the exterior. The MSW area will have an active ventilation and filtration system for odor control and wastes temporarily stored outside will be in tarped trucks. Based on the information provided to Geosyntec, the proposed new MSW transfer station will meet the definition of an enclosed transfer station.

OTHER BIRD MITIGATION METHODS

Applicants' Expert Recommendations

In June 2019, Loomacre Wildlife Management conducted a wildlife hazard evaluation at the LRS facility and made recommendations to minimize hazardous wildlife attractants. Most of Loomacre's recommendations, which focus on exterior conditions at the facility, were incorporated into the operating plan. Section 2.4.18 of the proposed facility operating plan discusses implementation of the following mitigation measures:

- Train staff to develop a wildlife hazard mitigation plan;
- Install anti-perching devices at the MSW and SSR buildings;
- Perform quarterly wildlife surveys at the MSW and SSR buildings;
- Use deterrents in misters;
- Install netting along roof structures;
- Focus ventilation on areas with high odor-causing potential;
- Place rip-rap around bank of west pond;
- Monitor wildlife with game cameras;
- Vary wildlife harassment techniques;
- Maintain grass height of one foot or less; and
- Install a wire grid system at both ponds.

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REGULATORY AND INDUSTRY STANDARDS FOR ODOR AND BIRD MITIGATION

The USEPA manual for waste transfer station includes sixteen facility design and operating procedures for odor mitigation, as shown in **Table 1**. Several of these procedures are similar to the AC criteria for fully enclosed structures, including enclosed trucks, use of odor neutralizing systems, and keeping exterior doors closed. SWANA has also established industry standards that incorporate USEPA’s procedure for odor control, including:

- Maintaining enclosed operations;
- Following a “first-in, first-out” policy;
- Rapid handling of odorous waste;
- Incorporating odor control agents into dust-control misting systems;
- Regular facility cleaning, and;
- Using active odor treatment systems.

Table 1 provides a comparison of the USEPA recommended procedures to the design and operating conditions proposed by LRS. The proposed facility design and operating plan incorporates the applicable USEPA and SWANA designs and operating procedures.

PROPOSED CONDITIONS FOR AIRPORT AND FACILITY OPERATING AGREEMENT

The draft agreement between the DuPage Airport Authority and LRS should include a reference to the draft final version of the September 8, 2021 letter, and include specific references to Attachment 4 in regard to the LRS Transfer Facility Operating Plan. The following modifications are recommended to the September 8, 2021 submittal:

- Section 2.0 – Design Features and Operational Procedures
- Attachment 3 – Design Drawings: Wildlife Hazard Mitigations are not shown in the design drawings. It is recommended that details regarding the type and location of mitigation measures be added for clarity.
- Attachment 4, Section 2.4.3: Repeated non-compliance with LRS’s tarping policy is not defined. Section 2.4.3 should be modified to include a copy of the tarping policy as an attachment.

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- Attachment 4, Section 2.4.11 – Odor Control: The current odor control system is designed to manage organic odors only. Should odors related to hydrogen sulfide or other reduced sulfur compounds be detected off-site, a filtration or treatment system designed for those compounds should be incorporated into the active odor mitigation system;
- Attachment 4, Section 2.4.18 – Wildlife Hazard Mitigation: Addition of rip rap to the east pond is recommended for consideration by LRS and DAA. Rip rap placed around the east pond would serve the dual purposes of discouraging wildlife and eliminating or reducing the need for mowing along the steep bank between the paved area and the east pond. Reduced mowing requirements, especially when the soils along the bank are wet or saturated, would help prevent erosion caused by tire ruts and be safer for site employees.
- Attachment 4, Section 2.4.18 – Wildlife Hazard Mitigation: Proposed quarterly wildlife surveys should be expanded from the MSW and SSR buildings to the entire facility, including ponds, storage areas, and inactive equipment, as recommended in the Loomacre report.
- Attachment 4, Section 2.4.18 – Wildlife Hazard Mitigation: It is recommended that recordkeeping for quarterly wildlife surveys and wildlife camera footage be retained by LRS for a minimum period of time and submitted DAA on a quarterly basis.
- Attachment 4, Section 2.4.18 – Wildlife Hazard Mitigation: It is recommended that LRS develop a communications plan with DAA to alert DAA staff of the presence of wildlife hazards if they are observed onsite, as recommended in the Loomacre report.

The agreement between the DAA and LRS should include the following:

- Item 5: (***In addition to current language***) Should LRS sell the Transfer Facility, Oscar, LLC, or the new Transfer Facility operator shall maintain quarterly payments to the DAA throughout the operating period of the Transfer Facility.
- Item 6: LRS shall comply will all design and operational features described in Section 2.0 of the letter (included as Exhibit B to the agreement) and the Operating Plan (included as Attachment 4 of Exhibit B).
- Item 7: (In addition to current language) If the DAA becomes aware of any concerns created by the construction or operation of the Transfer Station on the Subject Property

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after issuance of the final non-appealable siting approval pursuant to ILCS 5/39.2 and DAA and LRS are unable to resolve the DAA's concern, then (*reference to conflict resolution clause*)

- Item 8 (NEW): LRS establish a line of communication with personnel at the DAA and make available all wildlife inspection records and video footage upon request. Further, LRS will allow DAA or their authorized representatives access to the LRS facility for wildlife hazard management/harassment upon request.
- Item 9 (NEW): Should LRS close its Powis Road operations and sell or surrender the site infrastructure (utilities, structures, all site improvements) to Oscar, LLC, or another entity, the New Avigation Easement shall not be modified or withdrawn.

If you have any questions on this evaluation, please reach out to either Regan Welch at (614) 468-0417 or Jesse Varsho at (630) 203-3349.

Sincerely,

Regan Welch
Senior Project Engineer

Jesse P. Varsho, P.E., P.G.
Principal Engineer

Attachment

Copies to:

Table 1: Comparison of Proposed Facility Design to USEPA Recommendations

USEPA Facility Design and Operating Procedure Recommendation	LRS Proposed MSW Transfer Facility	Site Document Reference
Increase distance between the odor source and receiver	Doors to be kept closed, see next entry.	
Evaluate the prevailing wind direction to determine building orientation and setback to adjacent properties	The MSW receiving area of the building is located on the western side of the property. (Closed landfill)	Design drawings
Orient the building and doorways with respect to odor-sensitive neighboring properties and close doors as practical during operating hours	<ul style="list-style-type: none"> The MSW receiving area of the building is located on the western side of the property, which is a closed landfill. The MSW and SSR transfer building will not have any open sides (doors will stay closed except for vehicle ingress and egress). Further, unloading and loading of the waste will be done only inside the transfer station building while the doors are closed. The loading ramp exit area will be equipped with an auto-tarping device for trucks to be tarped before they exit the building. The MSW and SSR transfer building will be equipped with fast opening/closing door at all vehicle ingress/egress locations including openings for transfer trailers and waste collection vehicles. Doors will also be provided at vehicle access locations to the C&D Tipping Building and any storage bunkers under the sorting line. The doors are sized and will be operated to minimize the area open to the outside at any one time. 	DuPage Airport Authority Submittal 090821 Section 2.4.5 of the Operating Plan Section 2.4.11 of the Operating Plan Drawing C302
Design floors for easy cleanup (concrete surfaces with positive slope drainage system). Eliminate crevices, corners, and flat surfaces to avoid waste residue accumulation.	Will be required as part of IEPA Operating Permit Provided in Design Drawings	Drawing C302
Seal concrete and other semiporous surface to prevent absorption of odor-producing residues.	Not Discussed	--
Minimize onsite waste storage, both in the facility and in the loaded trailers, by immediately loading odorous/potentially odorous wastes into transfer trailers and quickly transferring them to the disposal site.	<ul style="list-style-type: none"> Waste may be kept temporarily outside in transfer trailers which are tarped/covered for no more than 24 hours except over holidays and weekends, when the time shall be extended by an additional 24 hours for holiday and 48 hours for a weekend. Per the Host Agreement, MSW will be removed from the tipping floor with a frequency adequate to greatly minimize the generation of odors. 	Section 2.4.5 of the Operating Plan Section 2.4.11 of the Operating Plan
Incorporate odor neutralizing systems.	<ul style="list-style-type: none"> The MSW and SSR transfer building will be equipped with a ventilation and filtration system designed to provide the necessary air exchanges and effectively eliminate any odors from the exhaust. Due to the Site's proximity to the DuPage Airport, the MSW and SSR transfer building will be equipped with a ventilation and filtration system. The ventilation system will remove air from the building and be designed to work in conjunction with the building design and operations to provide the necessary air exchanges within the building. The filtration system will be designed to effectively eliminate any odors from the exhaust. The ventilation and filtration system will include the following: <ul style="list-style-type: none"> Ventilation fans mounted in the roof or outside the walls of the MSW and SSR transfer building; <ul style="list-style-type: none"> A duct system at the inlet of each ventilation fan; An ozone generating equipment and dispersion device installed within each duct system which will destroy any odorous compounds or bacteria; and <ul style="list-style-type: none"> A particulate filter system at the inlet of each ventilation unit. 	DuPage Airport Authority Submittal 090821 Section 2.4.11 of the Operating Plan Drawing C301 Equipment Specification (DuPage Airport Authority Submittal 090821, Appendix 2-I)

Table 1: Comparison of Proposed Facility Design to USEPA Recommendations

Remove all waste from the tipping floor or pit at the end of each operating day, then clean those areas to remove remaining residues.	<ul style="list-style-type: none"> The West DuPage RTS shall have the tipping floor free of waste and cleaned with a mechanical street sweeper by the end of each operating day. Waste may be stored overnight temporarily in the event of an emergency. The tipping floor will be cleaned using a mechanical street sweeper with a water spray and vacuum system at least once per 24-hour period. The tipping floor and barrier walls will be cleaned with a pressure washer after sweeping at least weekly to remove waste residue and further control odors. A disinfectant may be used in the wash water to control odors. The area behind the barrier walls will also be routinely inspected and cleaned. All excess wash waters from the tipping floor will be directed through the oil-water separator to the sanitary sewer system. 	Section 2.4.5 of the Operating Plan Section 2.4.7 of the Operating Plan
Use enclosed trailers whenever possible when loaded trailers must sit on site temporarily before transfer.	Loaded trailers stored overnight will be covered with a tarp and staged at least 500 feet from the Powis Road right-of-way.	Section 2.4.5 of the Operating Plan
Practice "first-in, first-out" waste handling practices so wastes are not allowed to sit on site for long periods of time.	The MSW transfer station addition has been designed as a "first in, first out" facility.	--
Collect and remove partially full containers at rural stations where accumulation of full loads could take several days.	NA	--
Keep building catch basins, floor drains and drainage systems clean so odor-causing residues do not build up.	Will be required as part of IEPA Operating Permit	--
Treat drainage systems periodically with odor-neutralizing and bacteria-inhibiting solutions.	Not Applicable since transfer station drainage system will be discussed to sanitary sewer system	--
Divert odorous waste loads to facilities with less sensitive surroundings during adverse weather conditions.	NA	--
Refuse highly odorous wastes.	If malodors are detected off-site, the source of odor generation will be removed from the site, and the off-site condition will be monitored by site personnel to insure against reoccurrence. If a continuous source of odorous materials is identified, the generator will be contacted and advised that the materials must be effectively treated for odor control or the service will be discontinued and the materials no longer brought to the site.	Section 2.4.11 of the Operating Plan
Practice other "good housekeeping" measures, including regularly cleaning and disinfecting containers, equipment, and other surfaces that come into contact with waste.	Will be required as part of IEPA Operating Permit	Section 2.4.9 of the Operating Plan