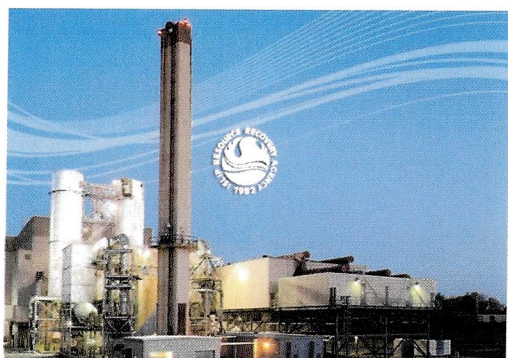
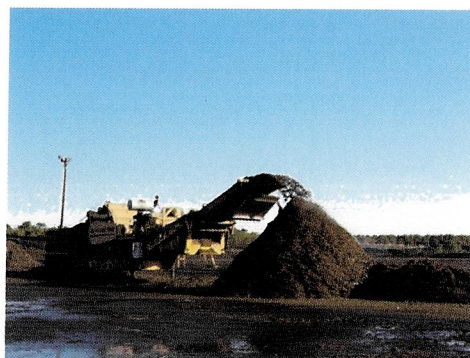




2020

ANNUAL REPORT

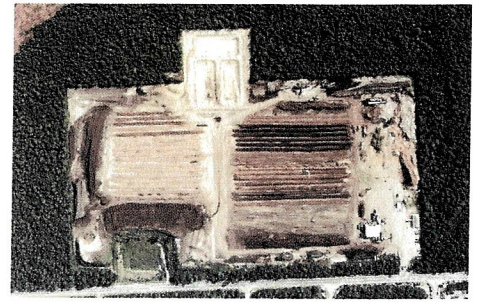


Town of Islip
Department of Environmental Control
ISLIP RESOURCE RECOVERY AGENCY

Introduction

The Islip Resource Recovery Agency and the Town of Islip Department of Environmental Control provide solid waste management services to Islip Town residents. The Town program is in conformance with New York State mandated hierarchy of solid waste management priorities. Education on all levels stress the direction to reduce waste at the source, reuse what is possible, and recycle such as possible. The waste that remains should be composted, incinerated under controlled conditions to produce electricity and the remainder buried in a lined landfill. To implement this concept of an integrated waste management program, the Agency and Department operate and manage curbside residential waste collection for all residential units and provide separate collection of solid waste, bulk items, recyclable materials and yard waste. Agency/Town permitted solid waste management facilities include a Materials Recycling facility, a Yard Waste Composting facility, a Waste-to-Energy facility, a Clean Fill/Landfill and a Groundwater Treatment Plant. This allows the Town to manage its residential waste stream in environmentally sound facilities directly under the control of the Town's elected officials. There is minimum reliance on the use of waste transfer to out-of-Town waste disposal facilities. Planning is ongoing to improve the recovery recyclable materials from the waste stream, to improve the marketability of the yard waste compost, and to maintain minimal downtime of electrical generation. Revenues are made from the sale of recovered materials, the sale of compost, the sale of bulk metals and electrical power sales.

The Department has four other functions beyond the operation of the waste management program. These functions are permitting of solid waste collection companies, landscapers, and waste transfer stations, inspectional services related to enforcing Chapters 21 and 31 of the Town Code, the management and operation of the Town Animal Shelter and Adopt-a-Pet Center, and operation of an aquaculture program in a portion of the Great South Bay. The Shelter has a mission to maximize the number of adoptions, reunite owners with lost pets and prevent animal abuse.

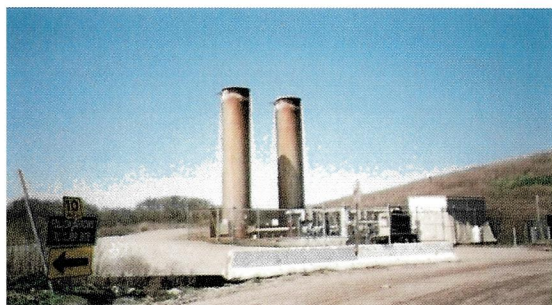


Blydenburgh Road Landfill Complex

The Islip Resource Recovery Agency owns, operates and maintains a 109 acre landfill complex located in the Hamlet of Hauppauge between Blydenburgh Road and Hoffman Lane. The acreage consists of a 13-acre and 17.5 acre Phase I and Phase II active Construction and Demolition Clean fills Landfills, capped and closed 66-acre ash fill and Municipal Solid Waste Landfill and a Groundwater Remediation Treatment Facility. The remaining acreage is committed to buffer zones, leachate storage facilities, offices, scale houses, maintenance building and landfill gas recovery equipment.

The Clean fill Landfills are NYSDEC permitted facilities for the disposal of construction and demolition debris and residues from recycling processing operations pursuant to 6 NYCRR Part 360 Regulations. The Cleanfill consists of double synthetic liner system with leachate collection and detection systems and associated appurtenances.

The selected remediation for the MSW landfill was to cap the MSW Landfill and Ash Monofiill, extract contaminated groundwater, treat the groundwater down gradient of the landfill, and recharge the treated groundwater in the vicinity of the site. The Landfill capping and closure for this segment of the site was completed in December of 1993. Construction of the remediation extraction wells and treatment facility was completed in August of 1996.



2020 Tons Landfilled

	Year-to-Date
Commercial - Log: 5500, 5503, 7900	23,884
Residential - Log: 7904	545
Town Facilities DPW/Parks, Airport - Log: 6400, 5030, 5040	824
DEC Glass/BUD - Log: 6401	2002
DEC/Trailer (C&D from MRF) - Log 4020	3,996
Other - C&D From Compost) - Log 6402 - DPW Street Sweepings (6416), DPW Mill Pond Cover (6417), Sweepings (6418)	10,066
DEC Compost Material to Hauppauge Log: 6403	5
TOTAL:	41,322

Groundwater Treatment Facility

To mitigate the impact an unlined section of the Blydenburgh Road Landfill had on the local groundwater, the Agency operates a groundwater retrieval/treatment/recharge system of five deep wells down gradient from the fill. The impacted water is pumped from the wells and enters a treatment plant opposite the landfill on Blydenburgh Road. The treatment process is aeration, chemical oxidation, solids separation and filtration. The clean water is returned to the aquifer via six recharge wells. The Plant is permitted and monitored by the New York State Department of Environmental Conservation (NYSDEC). Water samples are taken for analysis and reporting to the State.

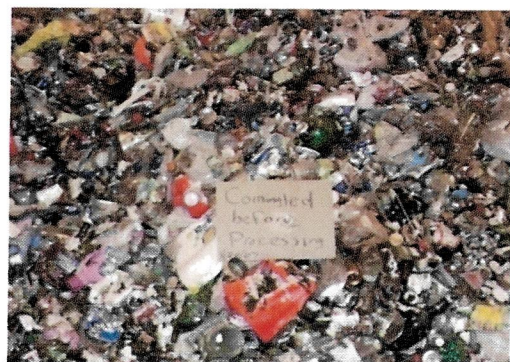


Multi-Purpose Recycling Facility

The Recycling Program in the Town of Islip incorporates a split pick up system. Newspapers, magazines and brown corrugated cardboard are placed in the WRAP containers on alternate Wednesdays. Then, food and beverage cans, glass bottles and jars, and plastic bottles are placed in the WRAP containers on the second alternate Wednesday. The Multi-Purpose Recycling Facility is located on Lincoln Avenue in Holbrook and on average it processes more than 600,000 pounds of recyclables weekly.



To Market:	2020/Tons
<u>Paper</u> - 0010,0013, 0034, 0040, 1004	6,636
<u>OCC</u> - 0027, 0030	0.00
<u>Cans, Metals</u> - 0009, 0011, 0058, 0012	605
<u>Plastics</u> - 0032, 0003, 0019, 0020, 0023, 6415	28
<u>E-Waste</u> - 0045, 0055, 0056, 0057	31
<u>Disposal</u> : 6407, 6414	0
<u>Glass to Landfill - for Reuse:</u> 6401	2,020
TOTAL:	9,320



MacArthur Compost Facility

The Town developed a Yard Waste Composting Facility in 1988 as an integral part of its Solid Waste Management Plan. Located on the northern perimeter of the Long Island MacArthur Airport, in the hamlet of Ronkonkoma, the forty-acre facility was designed to process all of the leaves, grass, tree and brush debris generated in the Town. The facility was designed to process 60,000 tons of material annually. The yard waste is collected separately via the Town's Consolidated Refuse and Garbage Districts. For an eight week season in the spring and autumn seasons, and a two-week period in the winter, residents can place unlimited amounts of yard waste out for collection.

The facility uses a mechanically-turned windrow composting system to accelerate composting and to control odors. Equipment selection, pre and post-processing systems development and materials handling procedures have been developed based on best management practices. The windrow systems, as well as the other aspects of site operations are monitored to control odors.

During the past decade, several program and process modifications have been made, including, the implementation of a waste reduction campaign; the 'Don't-Bag-It' Program, to encourage residents to leave grass clipping on the lawn. Major changes in pre-processing of the inbound material have been made to increase the overall rate of material throughput, expand the wood processing capability, and develop additional products for market. Currently, all compost and mulch products produced at the facility are sold to commercial markets and are provided free-of-charge in limited quantities to Town residents. Tip fees are charged to landscapers, and large generators of inbound yard waste to offset costs of operation.

MATERIAL - RECEIVED	2020/TONS	
Yard Waste - 7500, 7501, 7503, 7504, 7505, 7510, 7530, 7540, 7900, 7905	51,386	94%
Wood Chips - 7100, 7507, 7508, 7906	3,363	6%
TOTAL:	54,749	100%

MARKETED MATERIAL	CUBIC YDS	
Screened Compost - 6412, 7801, 7802, 7803, 7814, 7815, 7902	18,381	98%
Wood Mulch - 7810, 7813, 7908	383	2%
TOTAL:	18,764	100%
REVENUE \$ COMPOST/WOOD MULCH	\$196,549	

Office of Recycling

EDUCATION OF THE TOWN RESIDENTS

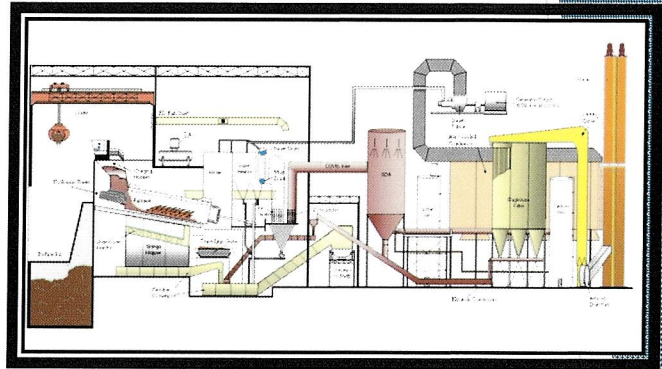
Since the development of solid waste management programs on a local level, the education of the Town residents of all ages is an important element of waste reduction, reuse and recycling. A well educated public will understand the need to reduce the amount of waste generated through careful purchases, use of all purchases and proper disposal of waste items. Donations of food to community pantries and kitchen and reusable items to thrift stores for resale/reuse will reduce the amount of waste destined for ultimate disposal. A knowledge of municipal recycling programs such as the items that are recoverable in the local program and collection days are important to establish a routine of placing the recyclable materials at the curb for collection. The individual management of yard and garden wastes can be done in several ways; such as use of composting mowers, creating a backyard composting pile, use of paper bags instead of plastic if the material is placed curbside for collection. Residents generating electronic waste, household hazardous wastes, waste oils and Freon-containing appliances; should be informed of the special handling requirements of these items. Waste Management is a large fraction the annual budget of the Town. Taxpayers should be aware of the many factors impacting costs, such as; regulations on the federal and state levels, equipment costs, direct and indirect personnel costs, fuel and facility construction and maintenance.

The Town and Agency has a multi-faceted education program consisting of the following elements:

- An educator visits schools on all levels to explain the waste management program;
- Guided tours of the waste management facilities are provided to schools and interested groups;
- Annual recycling calendars with specific information are mailed to all residents;
- Informational displays and recycling containers are placed at many public gatherings;
- Mailings are used for special yard waste collection periods in the spring, autumn and winter;
- The Commissioner appears routinely with the Supervisor on the Town's public TV channel;
- Notices are placed in local newspapers for the annual household hazardous waste collection day and paper shredding events; and
- A Town office paper recycling program brings recycling to the workplace; and
- Cooperation with local service and clean community groups at area clean-ups and plantings



MacArthur Power Generating Waste-to-Energy Facility



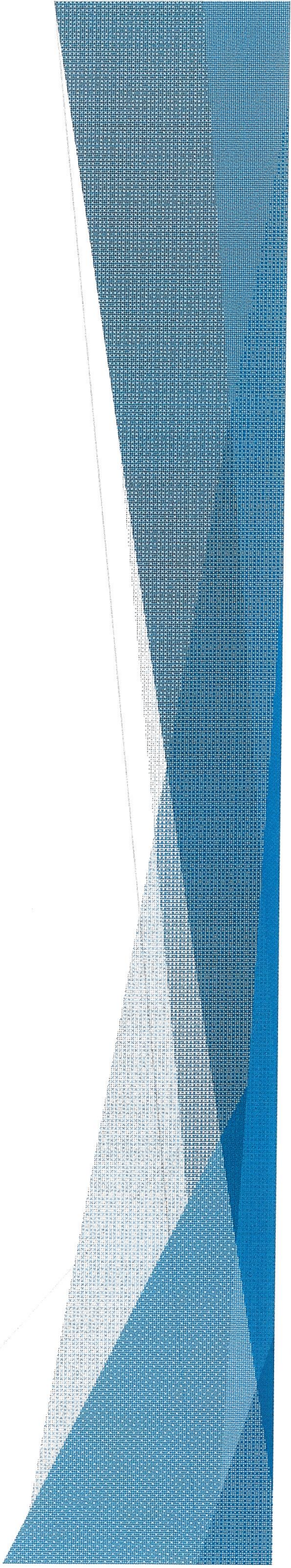
This facility was constructed by the Agency for the Town, and was completed in March of 1989 in response to State legislation known as the “Long Island Landfill Law”, which banned the landfilling of unprocessed solid waste over the groundwater aquifer in Nassau and Suffolk counties. This technology chosen to replace the landfill and to reduce the volumes of residential solid waste is known as Waste-to-energy (WTE). Several companies had systems available under the WTE umbrella. The Agency selected the O’Connor Rotary Combustor with a design capacity of 190,000 tons per year under a thirty year service agreement. The facility is located on Veterans Memorial Highway, adjacent to the Town’s Long Island MacArthur Airport in Ronkonkoma.

The facility has two refractory lined, large, inclined, rotating cylinders where the waste is combusted to reduce its volume. The heat generated by the process produces steam, which drives a turbine and then an electric power generator. The resulting electrical power is sold to the Long Island Power Authority (LIPA) on a 24/7 schedule. The solid waste produced power from the three other regional waste-to-energy facilities reduces the dependence on oil and gas to generate electricity for the needs of the Nassau-Suffolk area.

The emissions from the combustion process pass through an advanced air pollution control process to remove particulate matter, mercury and other heavy metals. The emissions are monitored continuously and recorded for review by the regulatory agencies. Scrap metal is recovered from the ash for reuse. The ash is transported to the Brookhaven Town Landfill, a permitted site, for disposal.

Ongoing Engineering

Blydenburgh Road Landfill Complex (BRLC):

1. Continued operation and repairs at Groundwater Treatment Facility (GTF)
 2. Continued Post Closure Groundwater Monitoring Program
 3. Ongoing placement and compaction of C & D material
 4. Ongoing placement of sand cover fill progression
 5. Grade stakes installed at Cleanfill for filling/slope grading
 6. Ongoing repairs and maintenance of Heavy Equipment
 7. Ongoing monitoring and repairs of Leachate and Gas Collection Systems
 8. Prepared and submitted Annual Operating Report to NYSDEC
 9. Submitted Monthly Gas Monitoring Reports
 10. Continued Removal and Disposal of Leachate
- 

Ongoing Engineering

MacArthur Resource Recovery Facility (MRRF):

1. Continued to submit Quarterly, Semi-Annual, and Annual Title V Air Reports
2. Continued to submit Annual Emission Statement and Greenhouse Gas Reports
3. Continued to submit Quarterly, Semi-Annual, and Annual NYSDEC Part 360 Operating Reports.
4. Continued Annual Stack Test in compliance with NYSDEC requirements
5. Continued testing and reporting to NYSDEC Annual Relative Accuracy Test and Quarterly Cylinder Gas Tests
6. Completed all maintenance and repairs items listed on the Annual Engineering Inspection Report

Multi-Purpose Recycling and Transfer Facility and IRRA Collection Unit:

1. Recorded and submitted Monthly Gas Monitor Reports to NYSDEC
2. Prepared and submitted NYSDEC Annual Recycling and Transfer Reports
3. Continued receiving and processing comingled Glass, Metal and Plastic
4. Continued receiving and processing Paper and Cardboard
5. Operated a Household Hazardous Waste Receiving Facility

Ongoing Engineering

Sonia Road Landfill:

1. Continued Gas Monitoring Recording and Reporting Program
2. Continued Post Closure Groundwater Monitoring Program
3. Continued to receive monthly lease payments
4. Continued removal and disposal of Condensate
5. Continued monitoring and repair of Gas Collection System

Lincoln Avenue Landfill:

1. Continued Gas Monitoring Recording and Reporting Program
2. Continued groundwater monitoring and reporting to NYSDEC
3. Continued Post Closure Monitoring and maintenance

IRRA Collection Unit:

1. Continued collection of Residential Waste

Compost Facility:

1. Continued to submit Annual NYSDEC Operating Reports

Other:

1. Managed contracts for Recycled Paper
2. Managed contracts for Recycled Plastics
3. Managed contracts for Recycled Metals
4. Managed contracts for Recycled E-Waste
5. Managed Contract and Removal of Household Hazardous Waste
6. Managed Transfer Station - Removal of C & D and Residential Rubbish
7. Managed Contracts for Recycled Comingled Plastics moving forward
8. Offered Paper Shredding Event for public

Ongoing Engineering

Reports:

1. Construction & Demolition Landfill
2. Construction & Demolition Processing
3. Household Hazardous Waste Collection & Storage
4. Recyclable Handling and Recovery
5. Transfer Station
6. Yard Waste Composting
7. E-Waste Collection
8. Municipal Waste Combustor
9. Planning Unit Recycling Report
10. Post Closure Monitoring Blydenburgh
11. Post Closure Monitoring Sonia Road
12. Waste to Energy Electronic Greenhouse Gas Reporting to USEPA
13. Blydenburgh Electronic Greenhouse Gas Reporting to USEPA
14. Groundwater Treatment Plant Monthly DMR Discharge
15. Gas Migration Monthly Report
16. Groundwater Monitoring Closed MSW
17. Groundwater Monitoring Cleanfill
18. Air (Gas Stacks) Closed MSW
19. Well Condition Reports
20. Gas Report Gas Extraction MSW & Cleanfills
21. Title V Air Monitoring Blydenburgh and Waste to Energy Facility
22. Suffolk County Waste Removal Blydenburgh Cleanfill
23. Suffolk County Waste Removal Sonia Road
24. Two Year Solid Waste Management Plan Update
25. Electronic Greenhouse Gas Reports for Waste to Energy Facility and Blydenburgh

Ongoing Engineering

2021 “To Do” List

1. Continue operation of GWT Plant in accordance with DEC requirements
2. Continue recording Greenhouse Gas at Blydenburgh for reporting to EPA
3. Continue to address issues pertaining to proposed EPA and DEC regulations regarding NOX and Greenhouse gas emissions at the MRRF as Regulations dictate
4. Manage Maintenance and Repairs of Leachate and Gas Collection Systems
5. Manage Placement of C & D Material – Fill Progression
6. Submit Monthly Gas Monitoring Reports
7. Manage Leachate Removal Contract
8. Submit Annual Operations Reports for Blydenburgh Landfill
9. Submit Annual Operations Reports for Recycling and Transfer Facility
10. Manage all Recycling Contracts and Monthly Costs
11. Submit Annual Recycling Report
12. Submit Annual Planning Unit MSW Report
13. Prepare Bids for Purchase of Heavy Equipment
14. Compile and summarize Commercial MSW and Recyclable
15. Pursue additional/alternative Revenue Enhancing Projects at the Waste to Energy Facility
16. Complete System Upgrades at Recycling Facility
17. Update Program Control Logic System at Recycling facility
18. Continue Reporting to DEC and EPA Annual Emissions Statements.