Monmouth County Reclamation Center

Introduction and Monmouth County Reclamation Center (MCRC) Background

- Respect the difficulty living with odors
- Many complaints registered
- Here to explain, not excuse
- Here to answer your questions:
  - Why does it smell?
  - What are we doing about the smell?
  - How long will it take?

County of Monmouth Good Neighbor Policy RE: MCRC Operations

- **County focuses on being a Good Neighbor**
- Addressed concerns in the past
  - Litter on Shafto Road:
    - Highway and MCRC litter patrol
  - Sea Gull and Starling issue:
    - Falcon Program $350k/year
  - **Complaint Hotline: 732-922-2666**
  - Traffic light on Shafto at Mazza Transfer Facility
    - Through the SWAC
    - Response to towns request
  - Host Community Fee
    - Paid Tinton Falls $2.4M to $2.7M for past 3 years
    - Paid $21.2 million from 2010-18
    - Rate increased $4.10-$6.60 since 2010
      - Minimum requirement $1/ Ton
    - 2018 Tinton Falls paid $2.7 million
  - Consistent Odors, 2018-19
    - Serious concern
    - County has been addressing and will continue to address until solved

Authority and Financial Information

- Authority
  - The County operates the MCRC Landfill due to State Law (NJSA13/13-1 et seq) Solid Waste Management Act
  - Solid Waste Plan (SWP)
- SWP provides for the landfill
- Incinerator voted down in referendum
- DEP has total and complete authority
- Monmouth Regional Health Authority

- Finances
  - MCRC loses money annually
  - 10 years operating loss=$38M
  - 5 years operating loss = $22M
  - Issues on horizon
    - TNSA SIU Permit modification
    - Leachate pre-treatment plant
    - Capital investments: landfill
    - Lack of Fund Balance to transfer
    - Emergency construction contract(s)
    - Tip Fee in State range from $59.54 to $130.55
    - Tip Fee $77.10; 8th lowest (includes all taxes)

Landfill Vicinity

Landfill Layout

Monmouth County Reclamation Center

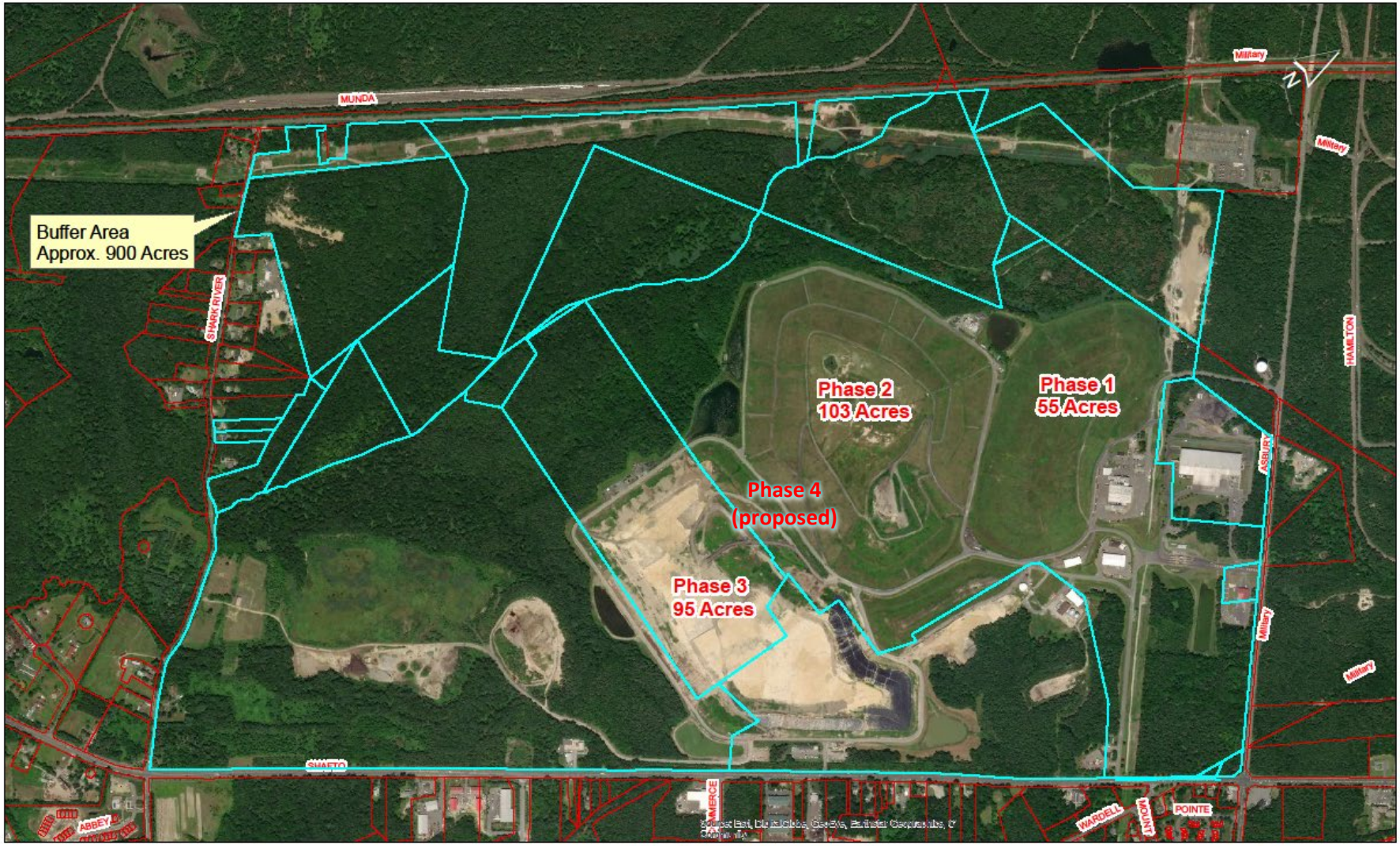
0.1 Miles

* - Source: Monmouth County GIS

Monmouth County Reclamation Center History

- Overall Monmouth County Reclamation Center Facility approximately 900 acres
- Phase 1 Landfill - Closed
  - 55 acres
  - Operated from 1976 through 1986
  - Closed and capped in 1989
- Phase 2 Landfill – Partially Closed
  - 103 acres
  - Operated from 1985 through 1997
  - Side slopes capped
  - Approximately 3 acres used for landfilling non-baled waste
- Phase 3 Landfill – Operational
  - 95 acres
  - Began operation in 1997
  - HDPE Cap in place over 15 acres since 2013
- Phase 4 Landfill – Proposed
  - Valley fill design with 30 acres of new liner
  - Will not require lateral expansion
  - Moves working area further from residential areas

Landfill Properties



Monmouth County Reclamation Center
Landfill and Buffer Area

0.25 Miles

* - Source: Monmouth County GIS

What we do at the Landfill

- Disposal site for all 53 municipalities
- Operates 310 days per year
- 400,000 tons per year:
  - 1,300 tons of waste per day, equal to 2,600,000 pounds of waste per day
- The average person generates approximately 4 pounds of waste per day
- An average of 170 municipal haulers, 645 commercial haulers and 297 residential vehicles visit the facility per week

- Typical household waste, commercial waste (restaurants, stores, etc.) and construction waste

- Other categories of waste, add between 2-5 tons/ year

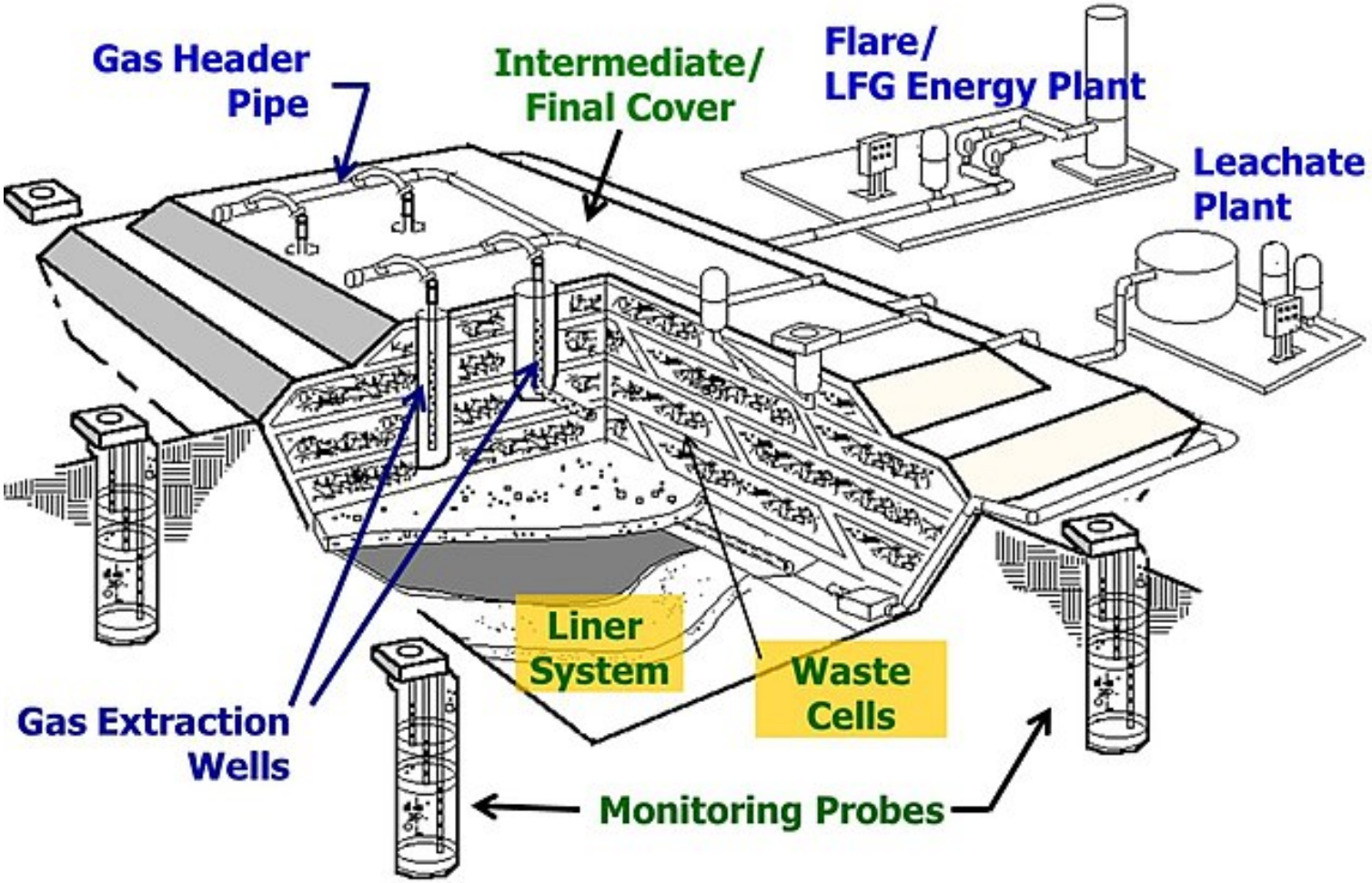
How much waste is accepted at the Landfill

Year	Household and Commercial Waste (tons)	Construction Waste (tons)	Total Waste (tons)
2016	365,993	11,124	377,117
2017	375,708	11,851	387,559
2018	385,148	13,582	398,730

Monmouth County Reclamation Center Major Collection Systems

- Landfill Gas
  - Methane Gas
  - System includes pipes and extraction wells buried within the landfill
  - Collected gas transported to an on-site electricity generator
  - Gas to Energy system generates up to 9 megawatts of renewable electricity, enough to power almost 5,900 homes
  - Electrical power is sold to the local utility
  - New system to produce clean gas to gas and sold to NJ Natural Gas

- Landfill Leachate
  - Landfill leachate: Any liquid that comes in contact with garbage
    - Rain water
    - Water content in garbage
    - In 2018, removed over 55 million gallons
  - Collection System:
    - Liner, pumps, storage tank
    - On-site treatment plant
    - Haul off-site for treatment


Gas Header Pipe
Intermediate/ Final Cover
Flare/ LFG Energy Plant
Leachate Plant
Liner System
Waste Cells
Gas Extraction Wells
Monitoring Probes

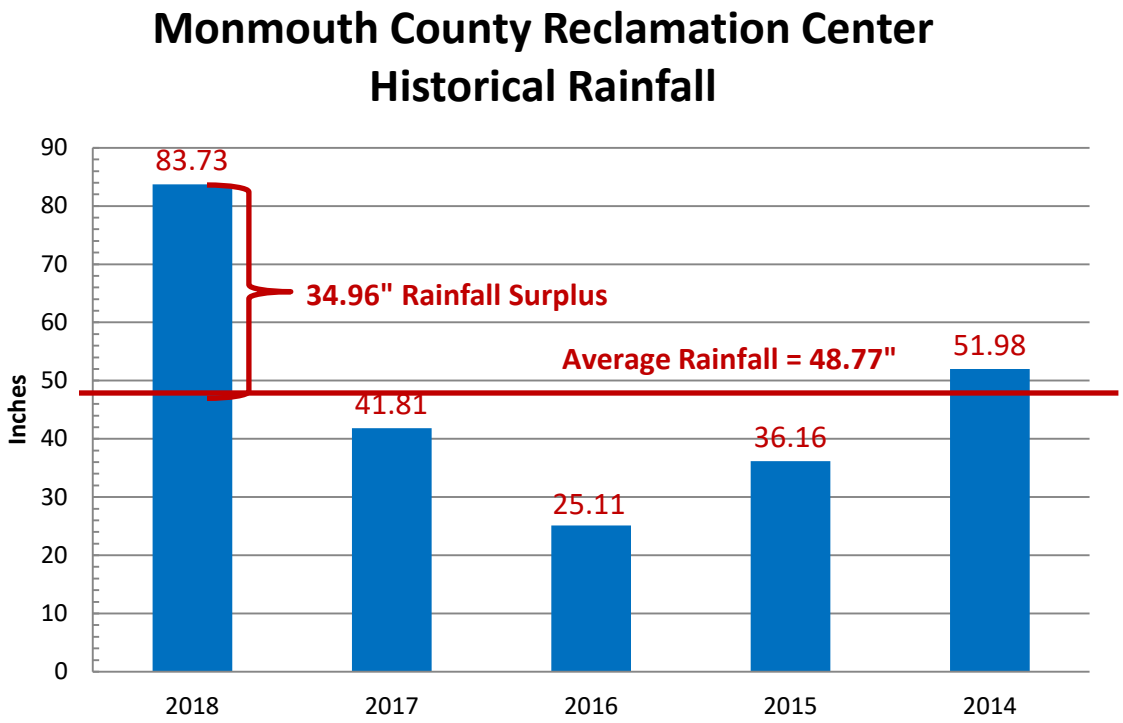
Fundamental Questions

- Why does it smell?
- What are we doing about it?
- When will it get better?

- Landfill
- Three main sources of recent odors:
  - Landfill gas
  - Leachate seeps
  - Phase 3 Slope Repair Project
    - 11 acres exposed
    - Landfill gas collection system disconnected
    - RAIN, RAIN, RAIN

Why does it smell ?

- Recent leachate odors
  - 2018 was New Jersey's wettest year on record:



Why does it smell ?

Recent Landfill Gas Odors

- Rain = Excessive Leachate
  - Floods gas collection pipes
  - Reduces collection effectiveness
  - Causes seeps: liquid travels laterally and vertically
  - Leachate exposed to air = odors
- Shift to predominant Western Winds winter months

Why does it smell ?

What are we doing about it?

Immediate and on-going

- Phase 3 regarding and drainage project
  - 11 acre project
  - $1.1 million
  - Started September, 2018
  - Finished January 15, 2019
  - Redirected seeps to collection system
- Reconnected Landfill Gas Collection and Control System
  - Completed January 11, 2019
- Increase vacuum in Landfill Gas Collection and Control System
- Daily application of odor neutralizer, priority areas
- Additional daily cover on landfill
  - Wood chips
  - Organic mix: sand, top soil, dredge spoils
  - More effective coverage

What are we doing about it?

Intermediate: 4-6 Months

- Installation of additional landfill gas wells
- Evaluate Installation of an odor misting system
- Evaluate alternative odor neutralizing products
- Explore the use of exposed HDPE caps on critical areas
- Dedicated crew: leachate seeps and cover maintenance
- Review Plan for landfilling on Phase 3
- Pursue Plans for Phase 4 Expansion which moves active landfill away from residential area

What are we doing about it?

- Continue to monitor landfill conditions and modify operations appropriately
- Continue to expand the landfill gas collection system
- Continue to explore new technologies and funding for odor control improvements

When will it get better?

- Mitigation items are on-going
- Expected to show increasing results
- Focus on daily covering expected to provide increasing relief
- Additional gas wells to be initiated by March 15, 2019
- Final review of misting system by mid-February
- If approved as effective, could begin construction by April
- Review alternative deodorizers complete by February 15, 2019

When will it get better?

- There is no switch to turn off the odor
- Relief will occur gradually, and has started already
- We anticipate gradual positive effects from all of the actions that we are taking
- Excessive rain this spring will have a negative impact, but not the same as experienced in 2018
- We expect that the chronic, consistent odors that have occurred over the past several months will cease by the summer.

When will it get better?

Communication Plan will be put into effect immediately:

- As projects start, we will notify Tinton Falls and our neighbors
- When projects are completed Tinton Falls will be notified as well
- We continually provide tours to interested groups
- We are proposing that we will host a landfill tour on May 18, 2019
- Provide status update at a June meeting as part of our communications plan and commitment to our Good Neighbor policy
- Updates will be posted on www.visitmonmouth.com

Why does it smell?

- Leachate seeps
- Landfill Gas Collection and Control System
- Slope cover maintenance
- Daily cover
- RAIN, RAIN, RAIN

Summary

- What are we doing about it?
  - Immediate
    - Construction-Redirect seeps
    - Reconnected Landfill Gas Collection and Control System
    - Changing Daily Cover
  - Community notification- information for projects
    - Town officials notified
    - Flyers to nearby residences
    - Hotline procedure clarified
    - Work with Monmouth Regional Health Commission
    - Updates posted on www.visitmonmouth.com

Summary

Intermediate actions: 4-6 months

- Expansion of Landfill Gas Collection and Control System
- Review potential for placement of additional intermediate HDPE cover membrane
- Evaluate misting system
- Continue to focus on permitting and construction of Phase 4 expansion which moves active landfill away from residential area

Summary

Summary

We are aware of the odors

- Factors that cause landfill odors are known
- Modifying operations
- Investment in effective controls:
  - Landfill gas collection
  - Misting system
- Goal is to significantly reduce continuous odors
- Target: Spring and Summer 2019

Procedure for lodging an odor complaint

- Call number and leave message on hotline answering machine. Please leave your name, date of your call, time of your call, address, phone number and nature of complaint/ location of odor
- MCRC Security will forward information to on-call staff member within an hour
- MCRC Staff will call complainant back when received

Monmouth County Reclamation Center

Odor Complaint Hotline

732-922-2666