GUDE LANDFILL REMEDIATION UPDATE

COMMUNITY MEETING - APRIL 8, 2021

WELCOME!

- Attendees should stay muted and keep video off during the presentation.

- If you have a question, please type it in the chat and it will be addressed following the presentation.

- The presentation will be recorded and posted to the Gude Landfill Remediation Web page.
MEETING EXPECTATIONS

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INTRODUCTIONS

- Montgomery County Department of Environmental Protection (DEP)
  - Jamie Foster, Project Manager – DEP Recycling and Resource Management Division (RRMD)

- EA Engineering, Science, and Technology, Inc. (EA)
  - Mark Gutberlet, P.E., BCEE – Project Manager

- Floura Teeter Landscape Architects (FTLA)
  - Megan Maffeo, PLA, LEED AP – Project Manager
PRESENTATION OUTLINE

• Community Engagement
• Landfill Background
• Proposed Corrective Measure
• Landfill Remediation
• Passive Land Use
• Next Steps
• County Contacts and Information
COMMUNITY ENGAGEMENT & COMMUNICATION

• GLCC/DEP Meetings – 58 meetings since June 2009
• Community Meetings – September 2009, September 2012, April 2016, October 2016, April 2021
• Derwood Station HOA Newsletters since 2009
• DEP Remediation Web page since June 2009
  http://www.montgomerycountymd.gov/sws/facilities/gude/
• DEP Letters and Fact Sheets
LANDFILL BACKGROUND


- Maryland Department of the Environment (MDE) directed DEP to initiate comprehensive site investigations to characterize groundwater quality in 2008.

- The County and MDE entered into a consent order in May 2013 to formalize requirements for the landfill assessment and remediation.
LANDFILL CAPPING & ADDITIONAL LANDFILL GAS COLLECTION

• Installation of a geomembrane cap over the flatter, grassed area of the landfill to reduce infiltration of rainwater and the potential for groundwater contamination and leachate seeps.

• Installation of additional landfill gas extraction wells to reduce landfill gas migration.
LANDFILL CAPPING & ADDITIONAL LANDFILL GAS COLLECTION

Property Boundary

Limit of Cap
ENVIRONMENTAL EFFECTS - TRAFFIC

<table>
<thead>
<tr>
<th>LONG-TERM EFFECTS</th>
<th>No noticeable change in traffic after construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION-PHASE EFFECTS</td>
<td>Traffic in and out of the site will increase during construction.</td>
</tr>
</tbody>
</table>

**CONSTRUCTION-PHASE MITIGATION STRATEGIES**

- Heavy construction traffic will be routed to Southlawn Lane site entrance away from residential areas.
## ENVIRONMENTAL EFFECTS - DUST

<table>
<thead>
<tr>
<th>LONG-TERM EFFECTS</th>
<th>No noticeable change in dust generation after construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION-PHASE EFFECTS</td>
<td>Dusts will be generated by construction activities.</td>
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</table>

### CONSTRUCTION-PHASE MITIGATION STRATEGIES

- Heavy construction traffic will be routed to Southlawn Lane site entrance away from residential areas.
- Stabilized construction entrances will be installed to minimize dust/dirt tracking at Southlawn Lane and East Gude Drive site entrances.
- On-site speed limit will be set.
- Access roads will be watered.
- Dump trucks will be covered.
ENVIRONMENTAL EFFECTS - NOISE

<table>
<thead>
<tr>
<th>LONG-TERM EFFECTS</th>
<th>No noticeable change in noise levels after construction.</th>
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<tbody>
<tr>
<td>CONSTRUCTION-PHASE EFFECTS</td>
<td>Noise will be generated by construction activities.</td>
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<tr>
<th>CONSTRUCTION-PHASE MITIGATION STRATEGIES</th>
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<tr>
<td>• Vegetative buffer will reduce noise.</td>
</tr>
<tr>
<td>• Work will be limited to weekday, daylight hours.</td>
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<tr>
<td>• Equipment will have mufflers.</td>
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<tr>
<td>• Montgomery County Noise Control Law will be followed.</td>
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<tr>
<td>• Noise Suppression Plan will be developed.</td>
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</table>
## ENVIRONMENTAL EFFECTS - ODORS

<table>
<thead>
<tr>
<th>LONG-TERM EFFECTS</th>
<th>Odor levels may be lower after construction due to closure cap and improved landfill gas collection</th>
</tr>
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<tr>
<td>CONSTRUCTION-PHASE EFFECTS</td>
<td>Odors will be released during waste excavation.</td>
</tr>
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</table>

### CONSTRUCTION-PHASE MITIGATION STRATEGIES

- Area of exposed waste will be limited and covered at the end of each day.
- Odor control measures such as foam over the waste or misting to eliminate odor will be employed if needed.
## ENVIRONMENTAL EFFECTS - SITE ACCESS, SAFETY, & SECURITY

<table>
<thead>
<tr>
<th>LONG-TERM EFFECTS</th>
<th>Site access will be improved by new public entrances and walking paths after construction.</th>
</tr>
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<tbody>
<tr>
<td>CONSTRUCTION-PHASE EFFECTS</td>
<td>Site access will be restricted during construction for safety reasons.</td>
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</table>

### CONSTRUCTION-PHASE MITIGATION STRATEGIES

- Site-Specific Health and Safety Plan will be developed to protect construction workers.
- Construction fencing and clear signage will be implemented to limit access to the site.
- Closed-circuit television surveillance system will be installed and monitored by the County.
COMPLETE PHASE F-I AND F-II FIRST
MASTER PLANNING TIMELINE

March 2018
Visioning and Goals / Guiding Principles

February - April 2019
Comparative Analysis of Potential Land Uses

July 2019
Preference Survey > 100 Responses

October 2019 - March 2021
Prepare CD’s and Specifications

March - August 2018
Existing Site Analysis - Physical Conditions

July 2019
3 Concept Alternatives Presented

October 2019
Preferred Concept Selected

Summer 2021
Issue for Bid

We are Here

2021 - 2025
Construction of Landfill and Passive Use Amenities

Opening of Passive Use Park

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

FLOURA TEETER
landscape architects
VISION AND GOALS

VISION:
Create a park-like environment with destination trails and limited amenities to allow access to the restored landscape of the landfill.

GOALS
• Maintain integrity of the landfill and allow for continued monitoring during post closure period.
• Accommodate uses to support function of Montgomery County Recycling and Resource Management Division.
• Include recreation uses compatible with the landfill.
• Explore the feasibility for connections to adjacent parks/paths.
• Establish a naturalistic meadow environment and encourage the interaction of native bird species with the new flora.
• Include signage or art to celebrate the new ecology.
• Create an environment that is safe for users.
• Maintain or enhance drainage swales and other features required for landfill reclamation.
POTENTIAL LAND USE ACTIVITIES

**COMPARATIVE ANALYSIS EVALUATION CRITERIA**

- Impact to Landfill Remediation
- Level of Maintenance
- Magnitude of Cost
- Noise Level Concerns
- Adjacency Concerns / Separation Requirements

<table>
<thead>
<tr>
<th>HIGH SUITABILITY</th>
<th>MEDIUM SUITABILITY</th>
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<tbody>
<tr>
<td>Natural Meadow Vegetation &amp; Habitat</td>
<td>Solar Array</td>
</tr>
<tr>
<td>Walking - Trail System</td>
<td>Dog Play - Off Leash</td>
</tr>
<tr>
<td>Dog Walking - On Leash</td>
<td>Disc Golf</td>
</tr>
<tr>
<td>Birdwatching</td>
<td>Children’s Playground</td>
</tr>
<tr>
<td>Kite Flying</td>
<td></td>
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<tr>
<td>Art /Sculpture</td>
<td></td>
</tr>
<tr>
<td>Children’s Nature Play</td>
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RECREATION TRAIL NETWORK

GRAVEL PUBLIC ACCESS

- Multi-functional, serves both recreation access and landfill gas extraction well access.

GRASS PUBLIC ACCESS

- Serves recreation access.

15' GRAVEL TRAIL

20' GRASS TRAIL
DESKTOPION - HIGH POINT LOOKOUT

- Highest elevation on-site
- View of Rockville Skyline
- 1/2 mile from Entry #1
- Less than 1/4 mile from Entry #2
- Maintained Lawn / Short Meadow

- Potential Uses:
  - Kite-flying
  - Seating / Rest in Nature
  - Birdwatching
  - Walking
DESTINATION - CHILDREN’S NATURE PLAY

- Designated Area
- Maintained Lawn / Mulched Area
- Easy to Access / High visibility
- Nature Inspired Play Elements
- Encourages Exploration
- Children Curate their Own Play Experience

PLAN

BIRD HOUSES

MAGNIFYING GLASS

GAMES
DESTINATION - DOG PLAY OFF LEASH

- Designated Area
- Fenced /Enclosed Space
- Maintained Lawn /Short Meadow
- Supervised /Off Leash Play
- Double Gated Entrance
- Separate Areas for Large and Small Dogs
DESTINATION - DISC GOLF

- Designated Area
- 9-hole Course
- Maintained Lawn /Short Meadow
HABITAT CREATION and ENVIRONMENTAL AWARENESS

- Open Field
- Native Meadow Planting
- Avian Habitat / Bird Nesting Boxes
- Educational Signage
Waystation #1 - Evolution of the Landfill
Waystation #2 - Weather Station
Waystation #3 - Pollinator Habitat
Waystation #4 - Avian Habitat

Elements included at waystations:
• Trail marker and directional signage
• Wayfinding map
• Educational signage
• Seating
RECREATION TRAIL AND WAYSTATION - VISUALIZATION
WAYSTATIONS and ENVIRONMENTAL EDUCATION

EVOLUTION OF THE LANDFILL

- 4.8 million tons of MSW (approx. 40% of the original landfill volume)
- The landfill is designed to last over 50 years
- Vegetative support soil
- Geosynthetics
- Sub-soil cap
- Regulated seeping waste and cover soil

METEOROLOGICAL WEATHER STATION

- Temperature and humidity
- Wind speed and direction
- Solar radiation
- Rainfall

AVIAN HABITAT

- Open meadow
- Over 200 bird species
- Bald eagle
- American kestrel
- Barn owl
- Common grackle
- Black-headed grosbeak
- Red-winged blackbird

POLLINATOR HABITAT

- Corridor habitats
- Food network
ENVIRONMENTAL ART - VISUALIZATION
ENVIRONMENTAL EDUCATION

6 AVIAN SPECIES

**Barn Owl**
Tyto alba

- Distinctive features:
  - White heart-shaped face with dark bordered eyes
  - Mantle, ear coverts, wings, and tail tufts
  - Uniform gray plumage above

- Habitat:
  - Requires large areas of open land for nesting bases

- Diet:
  - Feeds on small rodents, birds, and insects

- Breeding:
  - Eggs laid in nests

**Field Sparrow**
Spizella pusilla

- Distinctive features:
  - Small gray bird with a short tail
  - Male has a red cap

- Habitat:
  - Prefers open meadows and fields

- Diet:
  - Seeds, insects, and small invertebrates

- Breeding:
  - Nests built on the ground

6 FLORA SPECIES

**Common Milkweed**
Asclepias syriaca

- Distinctive features:
  - Tall, green stem with white flowers
  - Flowers attract monarch butterflies

- Habitat:
  - Prefers open fields and meadows

- Uses:
  - Host plant for monarch butterflies

**Tall Boneset**
Eupatorium seratium

- Distinctive features:
  - Tall, spiky flower heads
  - Flowers attract butterflies

- Habitat:
  - Found in open fields and meadows

- Uses:
  - Used in Native American medicine
**GUDE LANDFILL BIRD COUNT**
Facilitated by: FLOURA TEETER LANDSCAPE ARCHITECTS
In partnership with: MONTGOMERY BIRD CLUB
When: Saturday, May 2nd, 7:30am - 10:30am
Where: 600 E. Gude Drive
What: Investigate and inventory avian species
Why: Inform habitat restoration and reuse of Gude Landfill

For more information or to confirm attendance: Megan Maffeo
Email: mmaffeo@flourateeter.com Phone: 804-310-5122

Rain Date: Saturday May 16th, 7:30am - 10:30am
ONGOING COMMUNITY ENGAGEMENT

• GLCC/DEP Meetings

• DEP will continue to present documents to the community at principal milestones

• DEP will continue to post documents to the remediation web page
COUNTRY CONTACTS & INFORMATION

• Jamie Foster – County Project Manager
  - Senior Engineer, RRMD
  - 240-777-6574; Jamie.Foster@montgomerycountymd.gov

• Gude Landfill Remediation Web page
  - http://www.montgomerycountymd.gov/sws/facilities/gude/

• For any concerns or questions during construction:
  - 240-777-0311