

# Gude Landfill Remediation Project Corrective Measures Implementation

*Montgomery County DEP - Division of Solid Waste Services*

*Northeast Maryland Waste Disposal Authority*

*June 2017*

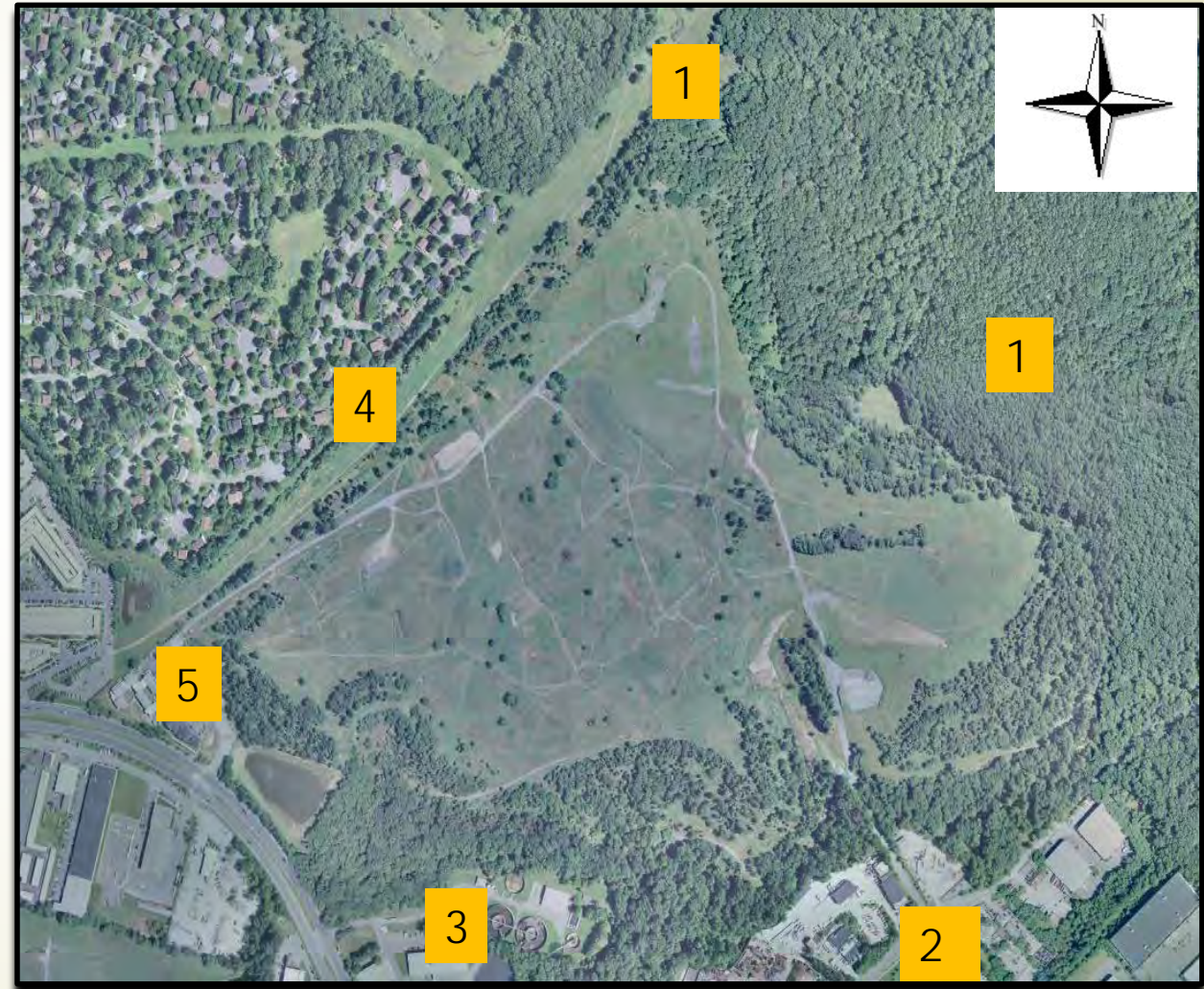
# Background

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- ▶ The Gude Landfill (Landfill) is located at 600 East Gude Drive, Rockville, MD. The Landfill was used for the disposal of MSW and incinerator residues from 1964 to 1982.
- ▶ The Landfill property encompasses approximately one hundred sixty-two (162) acres and approximately one hundred forty (140) acres were used for waste disposal.
- ▶ The County currently maintains an active landfill gas collection system including: enclosed flares, landfill gas extraction wells, and horizontal gas conveyance piping. The current gas-to-energy facility was shut down on June 1, 2017.
- ▶ A network of on-site and off-site groundwater monitoring wells; a network of on-site landfill gas monitoring wells; stormwater management infrastructure across the site; and environmental monitoring programs for groundwater, surface water, landfill gas and stormwater.

# Background

- ▶ The adjacent land uses to the Landfill site include:
  1. M-NCPPC land and Crabbs Branch Stream;
  2. Asphalt and cement production facilities, equipment storage yards, scrap metal recycling facilities, and Southlawn Lane;
  3. East Gude Drive, Washington Suburban Sanitary Commission (WSSC) property and Southlawn Branch Stream;
  4. Transcontinental (Williams Gas)/Columbia Gas natural gas pipeline right-of-way and the community of Derwood Station residential development; and
  5. Chase Partnership House/Men's Shelter.





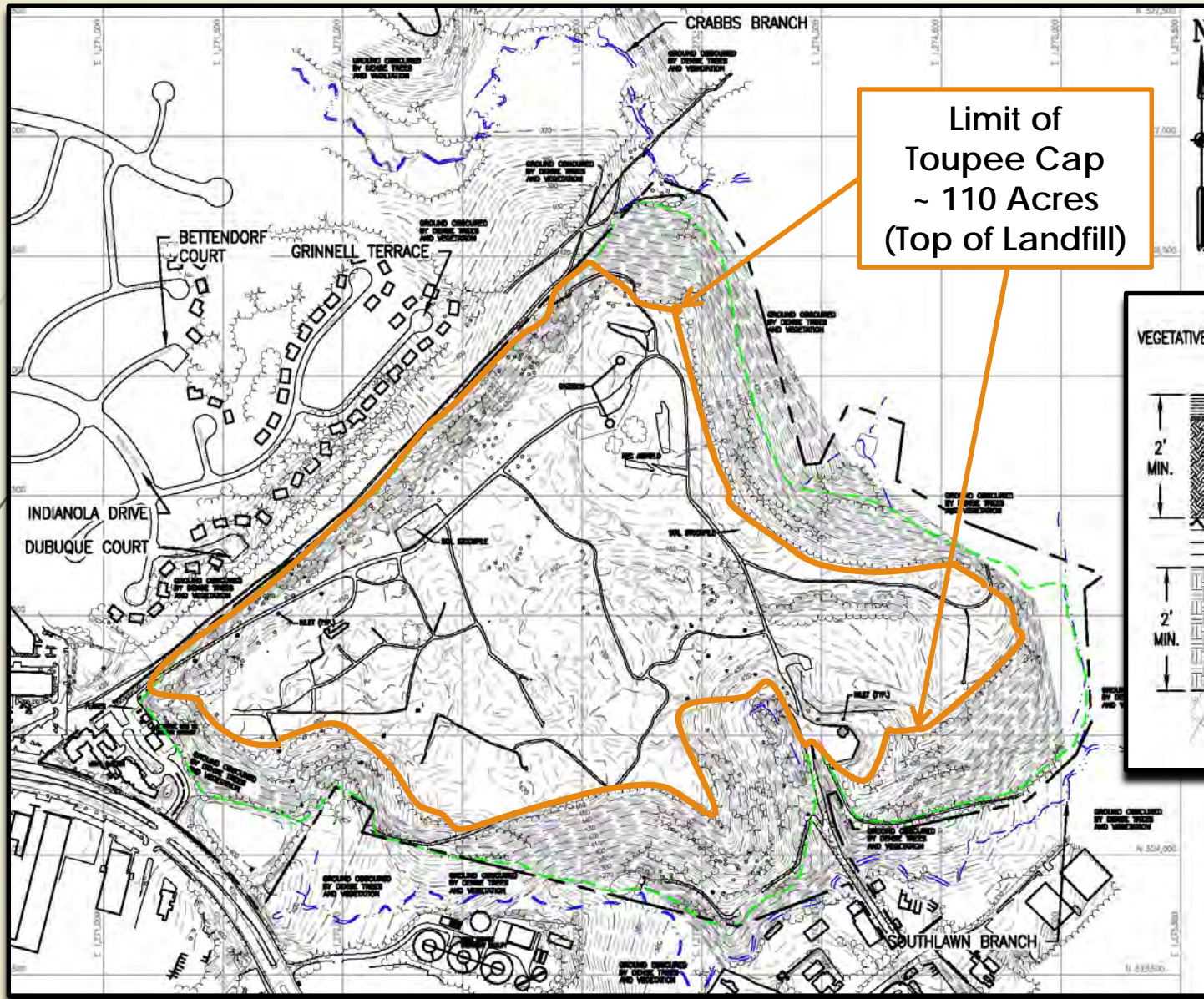
# Regulatory Compliance

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- ▶ 2009 – 2012, DEP completed the following activities:
  - ❖ Updated Groundwater and Landfill Gas Monitoring Plans. Semi-Annual and Quarterly Reporting.
  - ❖ Updated Stormwater Pollution Prevention Plan. Quarterly Site Inspections and Annual Updates.
  - ❖ Aerial and Field Site Survey, and Waste Delineation Study.
  - ❖ Nature and Extent Study and Amendment No.1 to address MDE comments.
  - ❖ Remediation Feasibility Memorandum.
- ▶ May 2013: DEP and MDE entered into a Consent Order Agreement that stipulated site investigations, compliance measures, and timelines for remediation efforts.
- ▶ October 2014: DEP and M-NCPPC completed a Land Exchange.
- ▶ January 2014/April 2016: DEP submitted the Initial Assessment of Corrective Measures (ACM) Report to MDE and the revised ACM, respectively.
- ▶ July 2016: MDE approved the revised ACM Report and the recommended Corrective Measure of “Toupee Capping and Additional Landfill Gas Collection.”

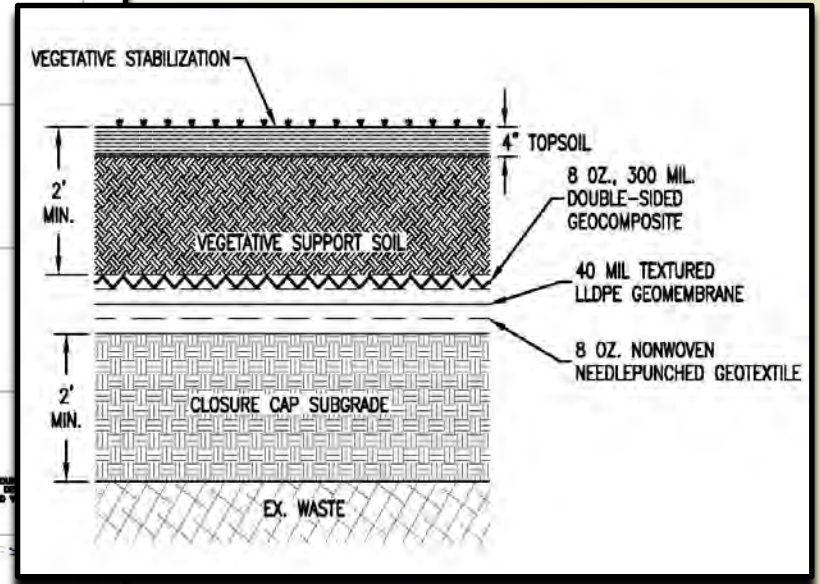
# Remediation Activities per ACM - Capping

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Limit of Toupee Cap ~ 110 Acres (Top of Landfill)

Phased Construction of the Toupee Cap will be implemented.





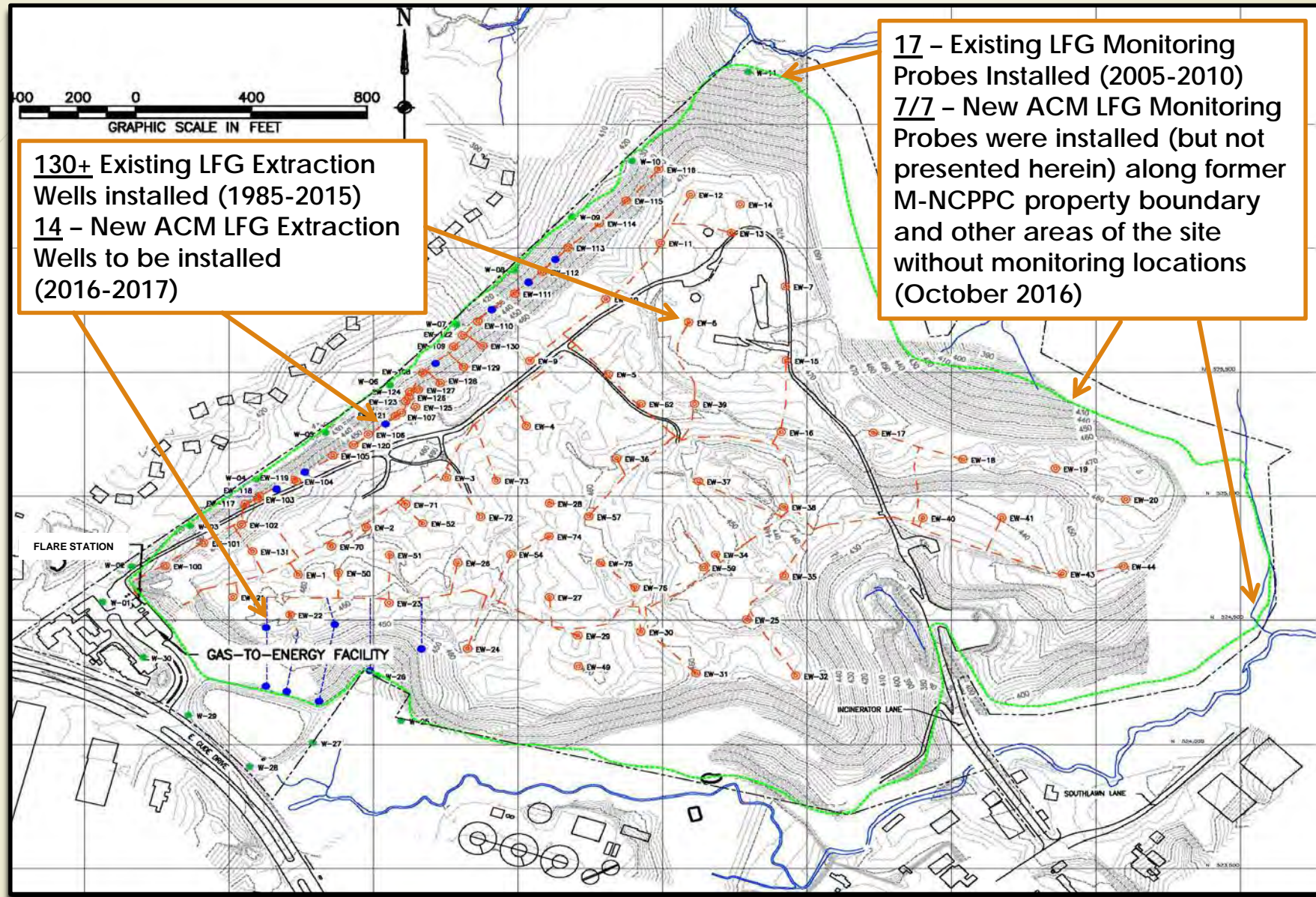
# Remediation Activities per ACM – Landfill Gas

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Phased Construction of the LFG System will be implemented.

130+ Existing LFG Extraction Wells installed (1985-2015)  
14 – New ACM LFG Extraction Wells to be installed (2016-2017)

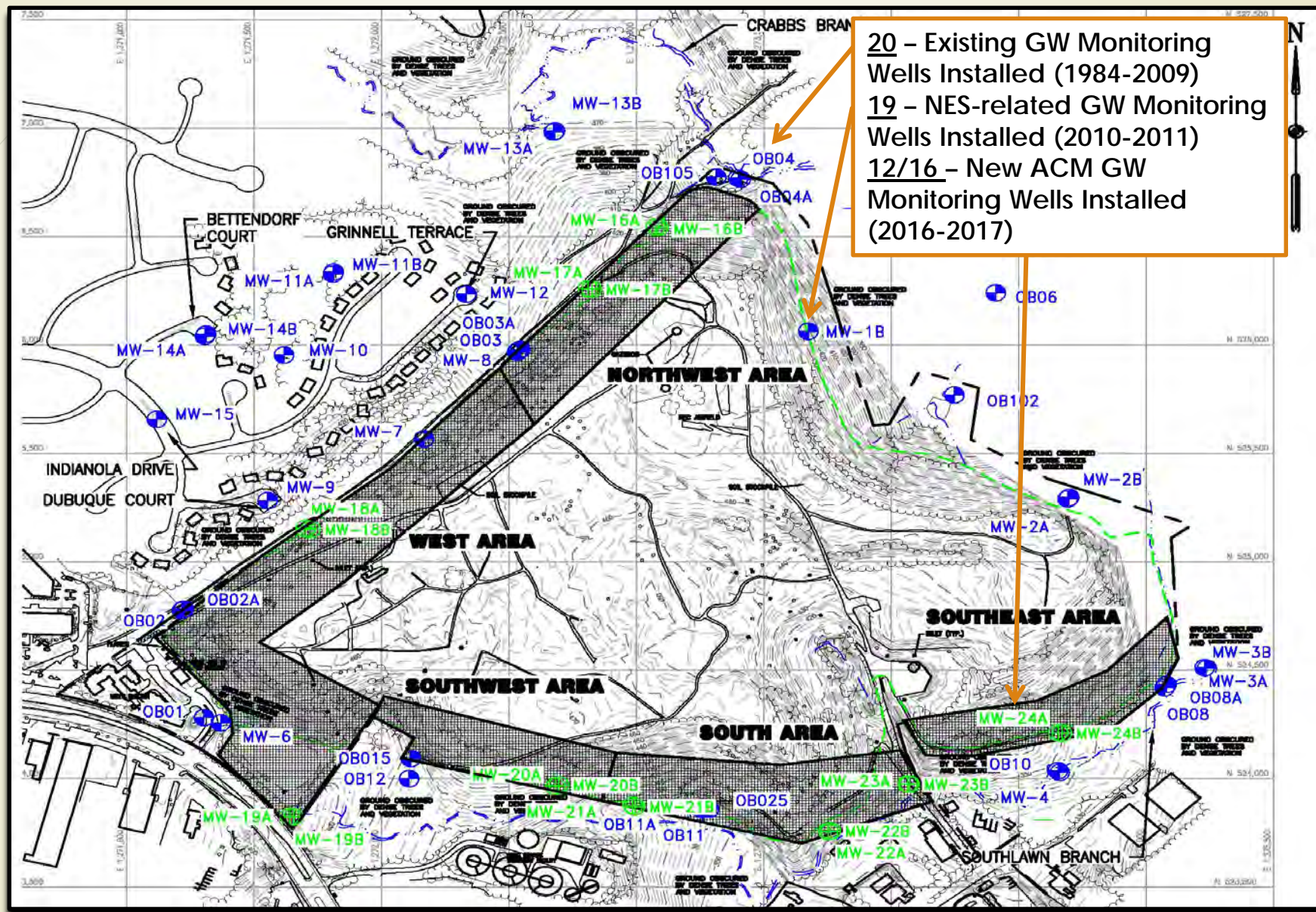
17 – Existing LFG Monitoring Probes Installed (2005-2010)  
7/7 – New ACM LFG Monitoring Probes were installed (but not presented herein) along former M-NCPPC property boundary and other areas of the site without monitoring locations (October 2016)





# Remediation Activities per ACM - Groundwater

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# Project Development and Roles

## Design Engineer / Construction Manager / Construction Contractor

- ▶ Contract 1: Design Engineer (RFP Issuance: July 14, 2017, Award: January 2018)
  - ❖ Project Management, Pre-Design, Design, Permitting and Right-of-Entry Services, Bidding, Stakeholder Engagement and Conceptual Land Use responsibilities per SOW.
  - ❖ Schedule Progress Meetings and Conference Calls during the design phase.
  - ❖ Wide-Range of Deliverables, Permits, and Schedule adherence throughout the project.
  
- ▶ Contract 2: Construction Manager (RFP Issuance: February 2018, Award: June 2018)
  - ❖ Constructability Reviews (e.g., conformance with approved design, pricing estimates, etc.).
  - ❖ Construction Management and Inspection responsibilities during construction activities.
  - ❖ Schedule Progress Meetings and Conference Calls during the construction phase.
  
- ▶ Contract 3: Construction Contractor (RFP Issuance: June 2019, Award: September 2019)
  - ❖ Perform the construction of the Remediation Project per the Design / Permitting requirements and within the allocated Budget and Schedule.
  - ❖ The Landfill site must maintain regulatory compliance for groundwater, landfill gas, leachate seeps, stormwater, E&S, and nuisance issues for dust, odors, noise, etc. must be minimized.



# Project Management and Coordination

- ▶ County and Authority Tasks and Roles
  - ❖ County – Manager Duties: NMWDA Task Order contract management, Budget, SOW, Permitting, and Schedule, etc.
  - ❖ NMWDA – Administrator Duties: DE, CM, CC contract administration, Budget, SOW, Permitting, and Schedule, etc.
  
- ▶ Project Management (DEP-DSWS PM and SC, and Authority PM)
  - ❖ Weekly Progress E-mails from DE/CM.
  - ❖ Monthly Progress Meetings and Conference Calls with DE/CM.
  - ❖ Progress Meetings and Conference Calls will alternate every 2 weeks.
  - ❖ Monthly Progress Reports from DE/CM.
  
- ▶ Project Coordination (PMs, DEP-DSWS SC and DC, Director and Deputy Director, DE or CM, and Authority ED).
  - ❖ Quarterly Review Meetings.

CC – Construction Contractor  
DE – Design Engineer  
ED – Executive Director  
SC – Section Chief

CM – Construction Manager  
DC – Division Chief  
PM – Project Manager  
SOW – Scope of Work

# Corrective Measures Design Progress Updates

- Kick-off Meetings for Stakeholders.
- NMWDA/County Approvals required to move onto the next design stage.
- Other County Stakeholders include: DGS, DOT, DPS, etc.

	Project Team	GLCC	Other County	M-NCPPC	MDE
Kickoff Meeting	●	●	●	●	●
30% Design	●	●	●	●	
60% Design	●	●	●	●	
90% Design	●	●	●	●	●



# Potential Land Uses under Consideration

- ▶ Design Engineer will work with the County / NMWDA / Stakeholders.
  - ❖ Land Use Comparative Analysis of potential land uses.
    - Initiate at 30% Corrective Measure Design.
    - Three (3) Review Meetings.
  - ❖ Land Use Conceptual Design for selected land uses.
    - Initiate at 60% Corrective Measure Design.
    - Two (2) Review Meetings.
    - Additional Engineering, Permitting, Stakeholder Engagement to be required for Land Uses.

Primary Land Use Considerations					
	Environmental Compliance	Passive Recreational	Renewable Energy	Non Industrial	Operational
GLCC	●	●	●	●	
County	●		●		●

# Potential Reuse and Acquisition of Soils / Fill

- ▶ Material reuse or acquisition prior to or during the Corrective Measures Construction.
- ▶ General Suitable for Soils and Fill:
  - ❖ Stockpile and Reuse of materials already on-site.
  - ❖ Materials generated from the Purple Line Construction (project on-hold).
  - ❖ Material generated from other potential projects in the County.
- ▶ Specification Standards for material type, consistency, testing, stockpiling, screening, QA/QC and certification as “clean fill” will need to be developed.
- ▶ Erosion and Sediment Control, Stormwater Management, and other engineering, permitting, and on-site maintenance requirements will need to be developed.
- ▶ Traffic Control and Management requirements will also need to be developed. A Traffic Study may also be required depending on the volume of vehicles.
- ▶ As the Purple Line project is on hold, a definitive decision date is needed for use of soil/fill materials.



# Budget Overview

- ▶ Design Budget  
(Corrective Measures and Conceptual Land Use)
- ▶ Construction Management and Inspection  
(Design Review and CM for Corrective Measures)
- ▶ Construction  
(Corrective Measures)
- ▶ Total Budget **\$ 28.7 million**

Note 1 – The Total Budget presented above is allocated for the implementation of the Corrective Measures, which shall be performed in accordance with the MDE Approved ACM and Consent Order for the Gude Landfill.

Note 2 – The Total Budget presented above does not include the implementation of the Potential Land Uses under consideration for the Gude Landfill. The design package for the Corrective Measures is considered the base contract. Additional land uses will be scoped as options and included if CIP funding is available following receipt of the base bid price for the corrective measures construction.

Note 3 – The Gude Landfill operations budget will need to be reviewed and updated after the complete construction of the Corrective Measures to reflect a 30-year Post-Closure Care Period (i.e. 2023 to 2052).

# Project Schedule

- ▶ Issuance of RFP July 14, 2017
- ▶ Pre-Proposal Meeting and Site Visit August 4, 2017
- ▶ Offeror Written Questions Due August 21, 2017
- ▶ Offeror Proposals Due September 9, 2017
- ▶ Proposal Evaluation/Negotiation/Award October 2017 – December 2017
- ▶ Engineering Design/Permitting January 2018 – June 2019
- ▶ Construction Management July 2018 – September 2022
- ▶ Bidding Services June 2019 – September 2019
- ▶ Construction September 2019 – September 2022



# Community / Stakeholder Engagement

- ▶ Monthly DEP-DSWS Meetings with the Gude Landfill Concerned Citizens (GLCC).
  - ❖ 43 Monthly Meetings have been held from 2009 – 2017.
  - ❖ Meetings will continue throughout the Remediation Project.
- ▶ Remediation Project Kick-off Meeting for GLCC and all Stakeholders.
- ▶ Design Progress Updates.
  - ❖ Updates to GLCC with Meetings for 30%, 60%, and 90% Design Stages.
  - ❖ Updates to Other Stakeholders with Meetings for 30% and 60% Design Stages.
- ▶ Conceptual Land Use Design Progress Updates.
  - ❖ Updates to GLCC / Stakeholders with Meetings for Draft and Final Comparative Analysis.
  - ❖ Updates to GLCC / Stakeholders with Meetings for Draft and Final Conceptual Designs.
  - ❖ Additional Engineering, Permitting, and Stakeholder Engagement will be required for Land Uses.

# M-NCPPC Involvement

- ▶ M-NCPPC Planning Dept. oversees a Mandatory Referral Process within the County.
  - ❖ Requires all federal, state, and local governments and public utilities to submit proposed projects (typically major land developments) for a Mandatory Referral review and approval by the Commission. The review may provide advisory comments .
- ▶ M-NCPPC may require Construction Permits if park land needs to be accessed.
- ▶ DEP-DSWS representatives to meet with M-NCPPC staff in early June 2017.
  - ❖ DEP-DSWS to provide an overview of the Remediation Project.
  - ❖ M-NCPPC to provide guidance on the Mandatory Referral Process.
  - ❖ M-NCPPC Parks Dept. to offer their historical and current position on Gude Landfill as a park.
- ▶ M-NCPPC may potentially be able to assist DEP-DSWS under future land use scenarios that involve plantings, reforestation, trails, and maintenance efforts.



# Corrective Measure Permitting

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- ▶ MDE Land Management will perform a courtesy review of the 90% Design Documents and issue a letter noting compliance with the ACM prior to construction.
  - ❖ Request MDE attendance at the Kick-Off Meeting, and provide progress updates for the 30% and 60% Designs to receive preliminary feedback (“Progressive MDE Involvement”).
  - ❖ MDE will attend Public Information Meetings / Hearings, if invited and available.
  - ❖ MDE will actively inspect the Project during Construction.
  
- ▶ MDE Water Management will perform a formal review of the Design Documents prior to permit issuance.
  - ❖ Most Corrective Measure activities will be covered under the existing 12-SW Permit.
  - ❖ Other potential activities, such as the addition of impervious surfaces or activities outside the cap will require a separate NOI and discharge permit associated with industrial activities.

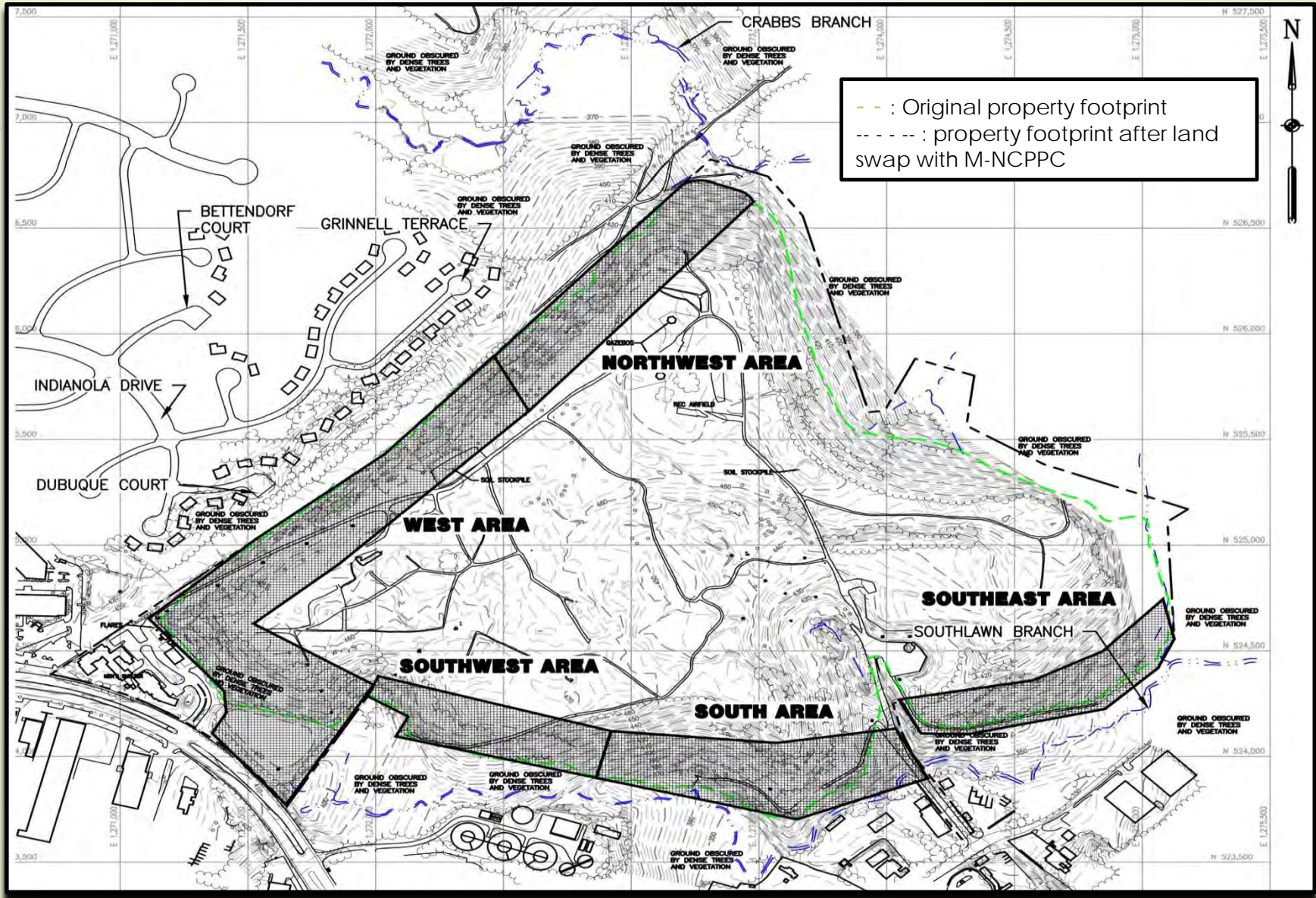
# Corrective Measure Permitting

- ▶ County DPS will review the project and issue permits related to construction activities.
  - ❖ Erosion and Sediment Control.
  - ❖ Stormwater.
  - ❖ Reforestation.
- ▶ Gas Pipeline Companies may require Right-of-Way Access Permits.
- ▶ Future Land Uses may trigger additional permitting (solar, structure upgrades, etc.)
  - ❖ MDE approval for solar installations.
  - ❖ DPS approval for construction and electrical for new buildings.
  - ❖ WSSC closed wastewater treatment plant



# Questions and Discussion

# M-NCPPC Land Exchange Boundary





# Historical Aerial Photos and Limit of Waste Placement



**1979**



**2009**



# Land Exchange Parcels

**"TOP" Parcel**  
(No Waste Placement on  
Montgomery County Land)

**"MIDDLE" Parcel**  
(Waste Placement on  
M-NCPPC Land)

**"BOTTOM" Parcel**  
(No Waste Placement on  
Montgomery County Land)

