

# Public Meeting

## WE ENERGIES CALEDONIA & PLEASANT PRAIRIE POWER PLANT COAL COMBUSTION RESIDUAL LANDFILL INITIAL PERMITTING

Alicia Zewicki, DNR Contact and Content Expert

Mark Peters, Content Expert

Malena Grimm, DNR Hearing Officer

December 10, 2024

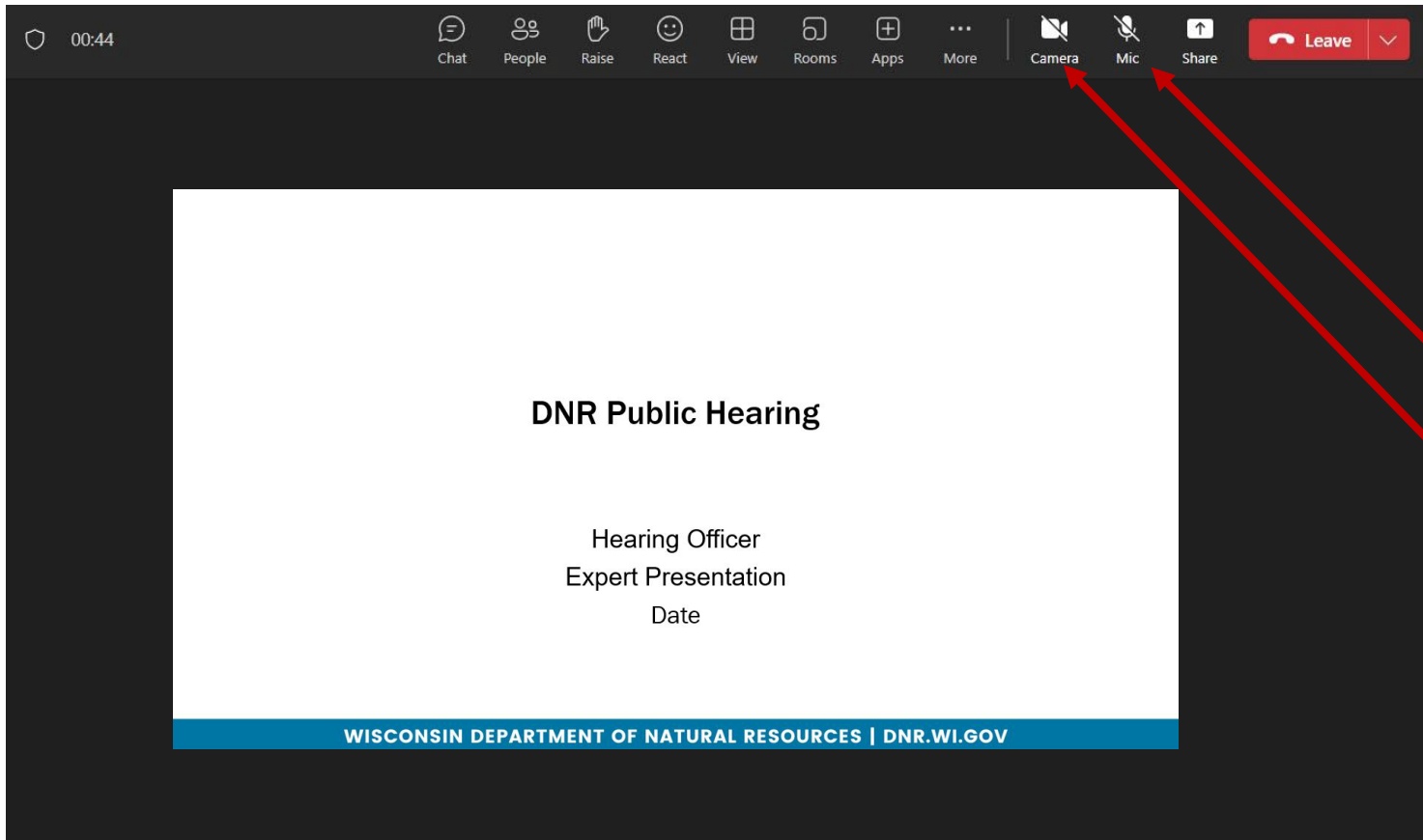
# Reason for meeting:

Plan of operation modification report for initial permitting

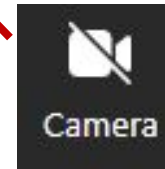
s. NR 514.045, Wis. Adm. Code

- Requires submittal of a plan of operation modification
  - Demonstrations for performance, locational, design and monitoring criteria
  - Updated sampling plan, fugitive dust control plan, run-on/run-off control plan, closure and long-term care plans
- Completeness review, *public meeting*, and 60-day public comment period
- Draft decision and response to comments will be posted online

# Attendees Using Teams

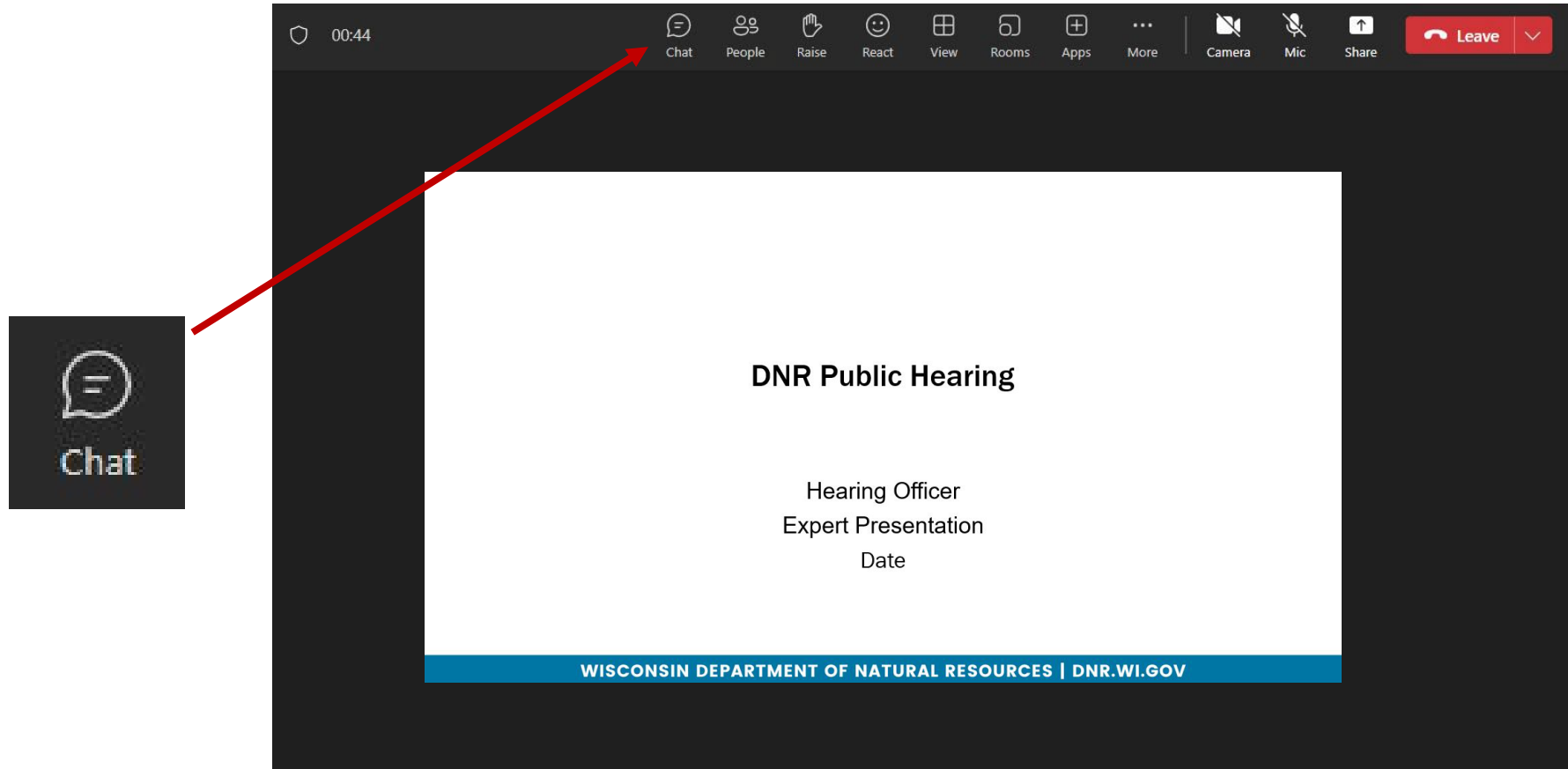


- You are currently **muted**
- You cannot share video



# For Assistance with Teams

Use the **Chat** feature to contact the Teams Host with technical questions



# Comments

Comments on the proposed rule must be received on or before January 20, 2025.

## **Written comments should be submitted to:**

Attn: Alicia Zewicki

Department of Natural Resources

141 NW Barstow St. Room 180, Waukesha, WI 53188

[alicia.zewicki@wisconsin.gov](mailto:alicia.zewicki@wisconsin.gov)

# Where to find Caledonia & Pleasant Prairie Submittal Documents

Refer to the Waste Program Public Comment webpage:  
<https://dnr.wisconsin.gov/topic/Waste/Comment.html>

## **WE ENERGIES CALEDONIA LANDFILL**

Notice of completeness and public meeting for the We Energies Caledonia Ash Landfill Coal Combustion Residual Landfill Initial Permitting located in Section 1, T4N, R22E, Village of Caledonia, Racine County, Wisconsin. The facility's DNR license number is 3232.

**Public notice date: Nov. 21, 2024**

**Public meeting date: Dec. 10, 2024**

**Public comment deadline: Jan. 20, 2025**

The meeting can be accessed using the [Teams Meeting Link](#) or join by phone 608-571-2209 (456997962#), Meeting ID: 284 841 605 476, Passcode: 8ohfoY. This will be a joint public meeting with the We Energies Pleasant Prairie initial permitting.

Warning: Several of these files are large, so downloading may take a few minutes on slow internet connections. The documents available here can also be viewed at one of the locations listed in the public notice.

### **Documents prepared by the DNR:**

- [Public Notice \[PDF\]](#)
- [Coal Combustion Residual Plan Modification Completeness Determination Letter \[PDF\]](#)

### **Documents prepared and submitted on behalf of the applicant:**

- [Plan of Operation Modification – Part 1 \[PDF\]](#)
- [Plan of Operation Modification – Part 2 \[PDF\]](#)



# Caledonia Landfill

Virtual Public Meeting | Dec. 10, 2024

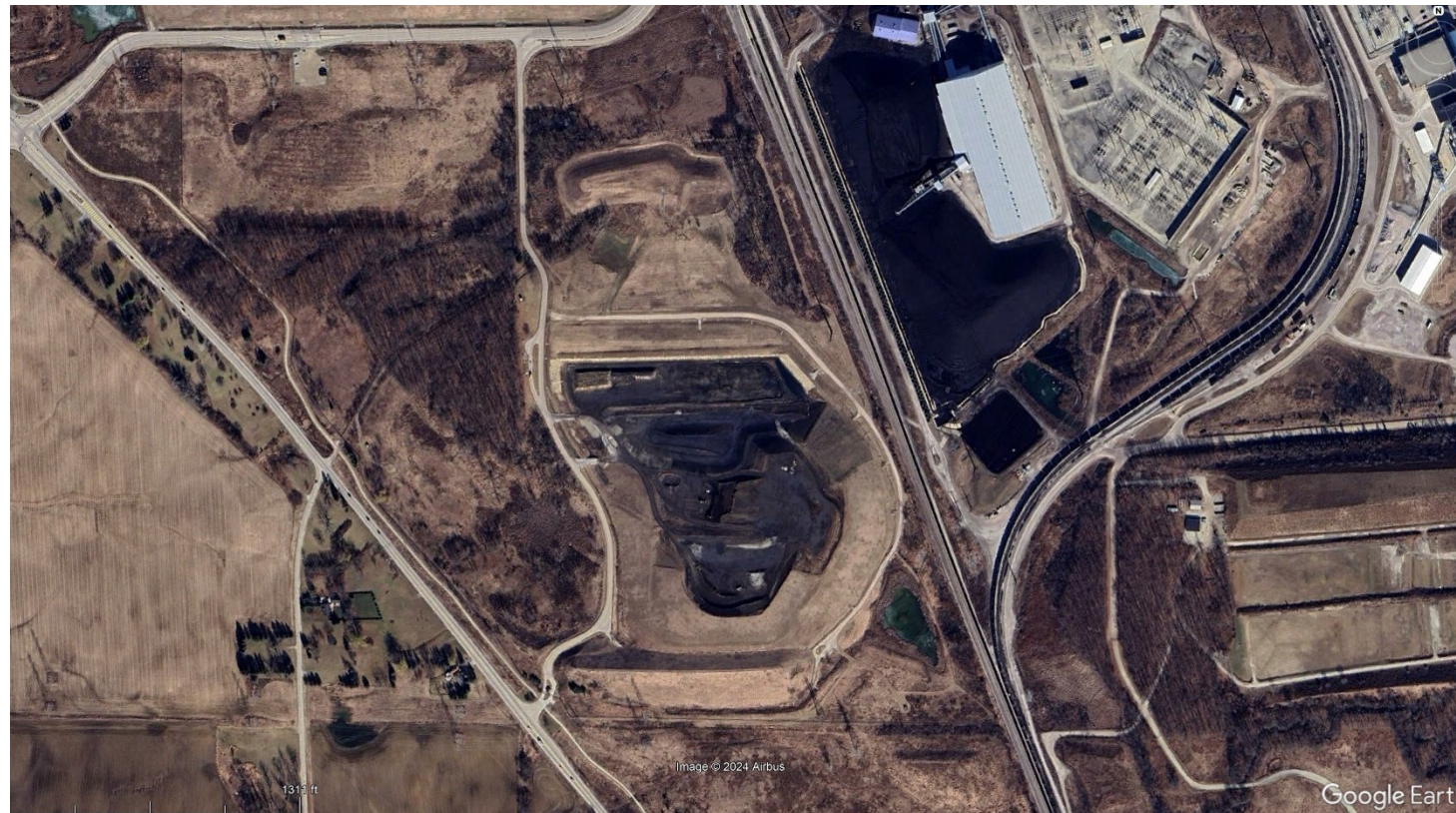
# Agenda

## Presenter

John Trast

GEI Consultants

- Permit history
- Construction and operation history
- Overall landfill summary





# Permit history

Feb. 11, 1986 – Landfill Feasibility Approval issued by WDNR

Aug. 27, 1987 – Plan of Operation Approval for a 45-acre, 4.05M CY landfill

- Landfill to be developed in 18 sequential cells: 10 at base grades, 8 overlying those
- Zone of saturation landfill with 5-foot-thick compacted clay liner and leachate collection system
- Final cover system: 6-inch grading layer, 2-foot compacted clay cover, 2 feet rooting soil and 6 inches topsoil
- Originally permitted under NR 180 Solid Waste Management; however, design complied with NR 500
- Current regulations NR 500 Solid Waste Management went into effect January 1988
- Caledonia Landfill is considered an “Approved facility” as defined by s. 289.01(3)
- Agreement with WDNR for beneficial use of stored CCR

# Permit history

May 19, 2010 – Plan of Operation Modification (POM) Approval – Revised landfill design

- Staged development plan revised to eliminate “overlying cells” to shrink open area and reduce leachate
- Base liner system of cells 10, 12, and 14/16 was modified to composite base liner system
- Final cover system of cells 2, 3, 4, 6 and 8 was modified to composite final cover system

Feb. 1, 2023 – CCR Landfill POM for Initial Permitting

- Original submittal Jan. 31, 2023, revised submittals April 28, 2023; March 12, 2024; and Sept. 6, 2024
- WDNR completeness determination Nov. 14, 2024
- Updated design (2024):
  - Composite base liner 2-foot soil barrier layer, GCL, geomembrane
  - Final cover geomembrane and 36 inches of soil

# Landfill construction and operation history

## Landfill construction and operation

- Cells 1 and 2 – Constructed December 1991, slope closures July 1995 and July 2018, respectively

## Currently operating cells include:

- Cell 3 – Constructed November 1993, slope closure January 1998 and July 2018
- Cell 4 – Constructed December 1994, slope closures October 1998 and March 1994
- Cell 6 – Constructed February 1997, slope closures March 2004 and March 2024
- Cell 8 – Constructed May 1999, slope closure March 2024
- Cell 10 – Constructed November 2010

## Updated design (2024):

- Composite base liner 2-foot soil barrier layer, GCL, geomembrane
- Final cover geomembrane and 36 inches of soil

# Overall Landfill Summary

## **Landfill – Original Permitting (1986-1987)**

- Landfill Feasibility 1986
- Plan of Operation Approved 1987
- 45-acre, 4.05M CY Landfill
- Compacted clay liner (5 feet thick)
- Leachate collection system
- Compacted clay cover (2 feet thick)
- Cover soils (2 feet thick + 0.5 feet topsoil)

## **Landfill – Updated Design (2010)**

- Revised development plan
- Compacted clay (4 feet) and geomembrane liner
- Final cover geomembrane and 30 inches of soil

## **CCR – Updated Design (2024)**

- Composite base liner 2-foot soil barrier layer, GCL, geomembrane
- Final cover geomembrane and 36 inches of soil



# **Pleasant Prairie Power Plant Ash Landfill**

Virtual Public Meeting | Dec.10, 2024

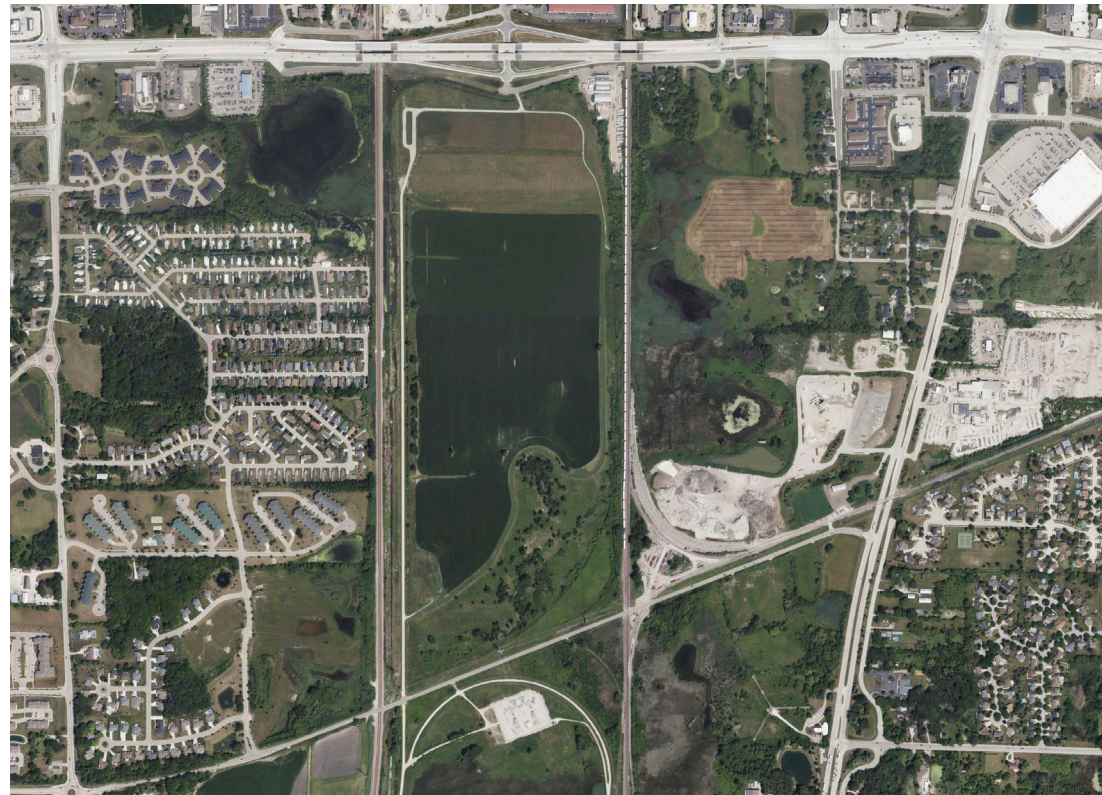
# Agenda

## Presenter

John Trast

GEI Consultants

- Permit history
- Construction and operation history
- Overall landfill summary



# Permit history

May 12, 1978 – Plan of Operation approval; 133-acre and 4.57M CY landfill

- Approved 25 cells, clay base liner, no leachate collection system, and soil final cover
- Originally permitted under NR 151 – Solid Waste Management (June 1973 to 1978), then regulated under NR 180 Solid Waste Management (June 1978 to January 1988)
- Current regulations are NR 500 Solid Waste Management
- PPPP landfill “approved facility” as defined by s. 289.01(3), as WDNR determined plan of operation complies with s. 289.30 requirements

Sept. 3, 1997 – Hydrogeologic investigation, Monitoring Plan modification

- Evaluated piezometric water levels in landfill
- Added water supply wells and private wells to monitoring program; added additional monitoring parameters

Feb. 5, 2001 – Environmental Cooperative Agreement

- Agreement with WDNR for beneficial use of stored CCR

# Permit history

July 18, 2013 – Plan of Operation Modification (POM) approval to revise the entire landfill design

- Landfill footprint reduced to 67.1 acres; removed landfill from flood plain, wetlands and native prairie
- Staged development plan – 6 cells, volume remained 4.57M CY
- Base liner system (composite base liner), leachate collection system and final cover system (composite final cover system) in compliance with NR 500

Oct. 15, 2018 – POM approval for premature closure

- Submitted revised final waste grades to close landfill below permitted grades
- Closure conducted in three phases starting in 2019, completed in 2022

Feb. 1, 2023 – CCR landfill POM for initial permitting

- Original submittal Jan. 31, 2023; revised submittals April 28, 2023, March 12, 2024 and Sept. 6, 2024
- WDNR completeness determination Nov. 14, 2024



# Landfill construction and operation history

## Landfill construction and operation

- Cell 1 – Constructed August 1980; closed January 1987; removed 2013
- Cell 2 – Constructed October 1985; closed June 1991; removed 2013
- Cell 3 – Constructed November 1988, closed October 1994; removed 2013
- Cell 4 – Constructed April 1993; closed by removal in 2014
- New Cell 1 – Constructed July 2014; operated until closed June 2022

## Beneficial reuse

- 1998 – Began beneficial reuse of ash in accordance with NR 538
- 2000 – Began reclaiming and processing ash in Cell 4
- 2003 – Began ash removal from cells 1-3 in accordance with WDNR cooperative agreement
- 2013 – All ash from cells 1-3 excavated (Cell 4 used to store ash designated for beneficial reuse)
- 2014 – Cell 4 closure by removal completed, all remaining ash placed in New Cell 1

# Overall Landfill Summary

## **Landfill – Original Permitted Design (1978)**

- Permitted as a 133-acre, 4.57M cy landfill
- The landfill as originally permitted infringed on wetlands, floodplain and native prairie
- 5-foot compacted clay liner, no leachate collection system
- 2-foot compacted clay cover
- 10 acres was constructed and filled (Cells 1-4)

## **Beneficial Reuse of CCR (1998-2014)**

- We Energies began beneficial use of as under NR 538
- Signed a cooperative agreement with WDNR to excavate, process, and beneficially use ash from closed Cells 1-3
- Beneficially used all ash from PPPP landfill prior to updated design and New Cell 1

## **Landfill – Updated Design (2013)**

- Updated permit to comply with current state and federal CCR rules
- Improve environmental performance AND reduce construction cost
- Remove from wetlands, floodplain, and native prairie

## **Landfill – Closed (2018-2022)**

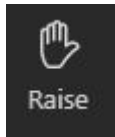
- With retirement of PPPP, the landfill was no longer needed and closed in three stages 2019, 2021, and 2022


Questions?

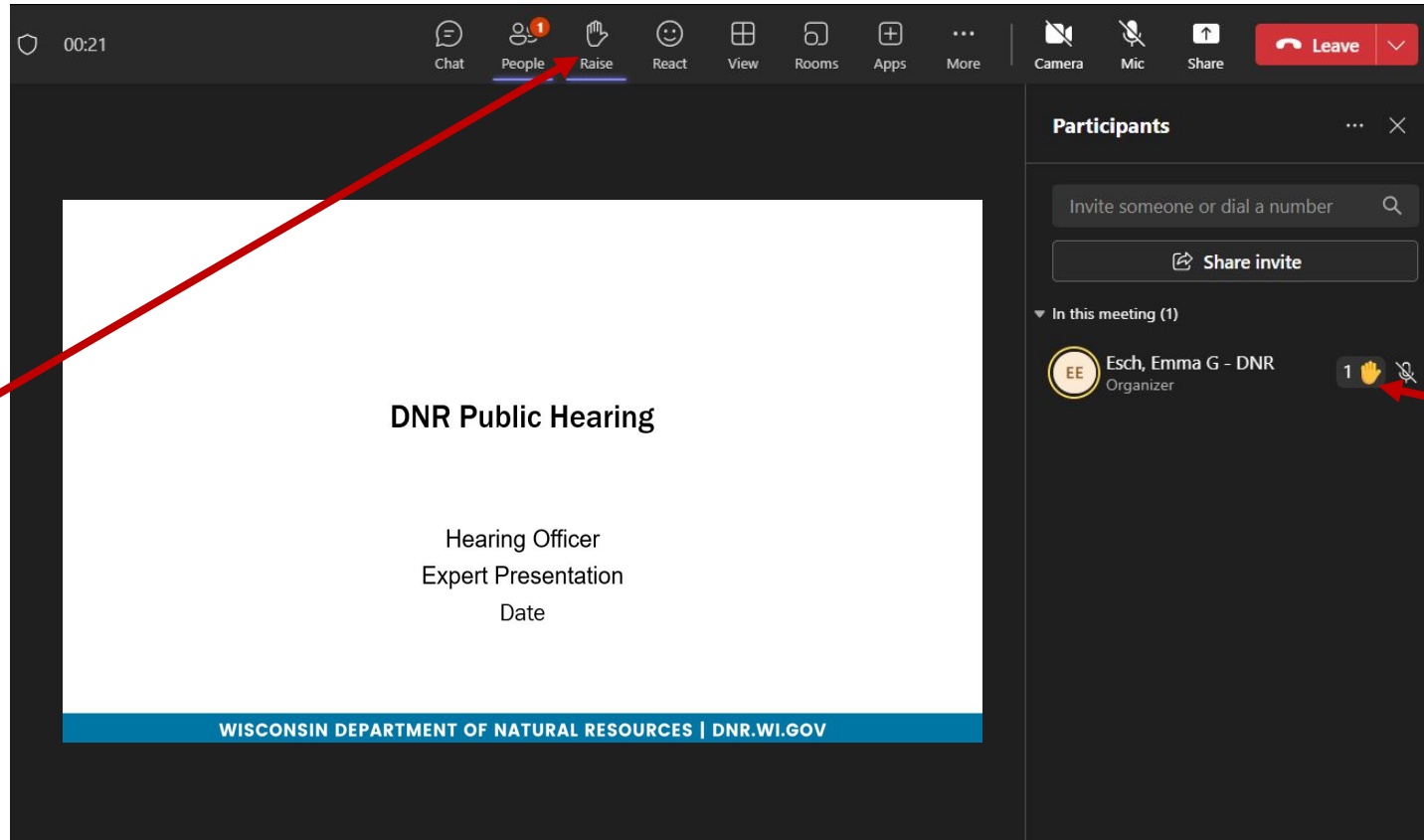


# Meeting Logistics (Teams): Raising Your Hand

If you'd like to comment, click **Raise Hand**.



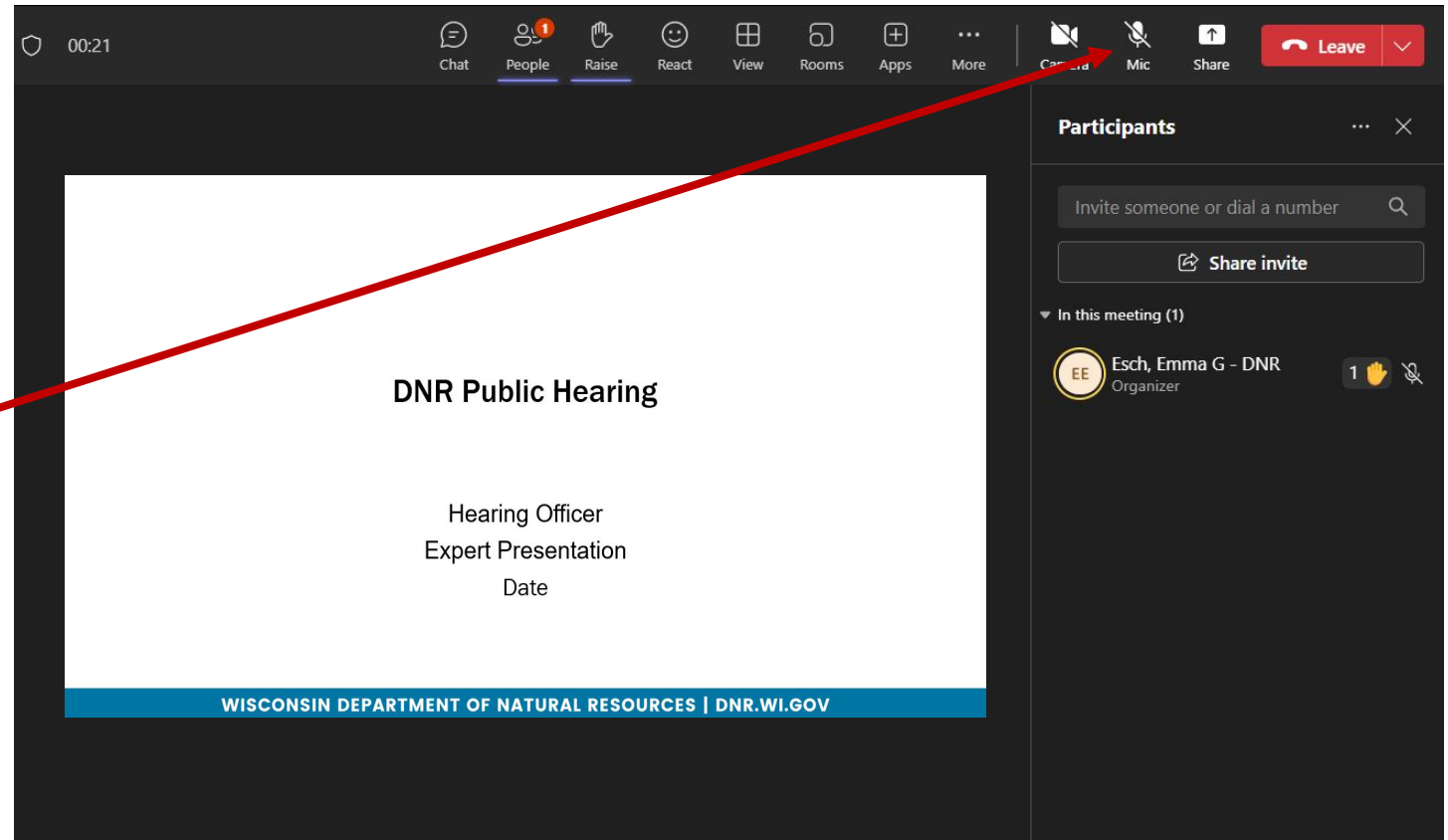
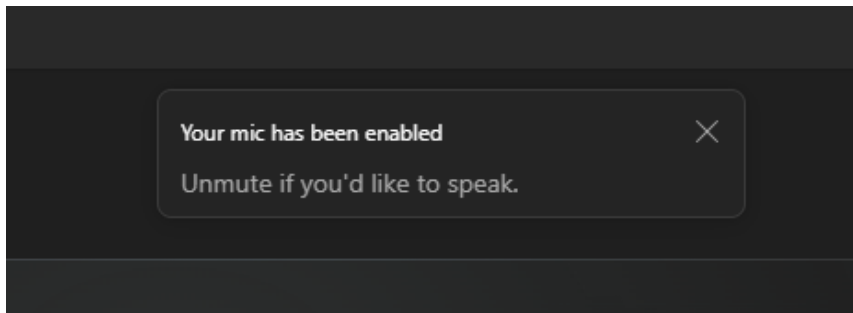
 By phone:  
Dial \*5 to raise hand.



A "Raised Hand" icon will appear next to your name in the "People" window.

# Meeting Logistics (Teams): Unmuting

You should receive a pop-up “*Your mic has been enabled*”, then *click Unmute*.



By phone:  
You'll be prompted to unmute by dialing \*6.

# Oral comments

- Public testimony
  - Please state your name and address for the record
  - Make your statement for the record
    - A written comment of your testimony is also appreciated

# Written comments

Comments must be received on or before January 20, 2025. Written comments may be submitted by U.S. mail or email and will have the same weight and effect as oral statements presented today.

## **Written comments and any questions should be submitted to:**

Attn: Alicia Zewicki

Department of Natural Resources

141 NW Barstow St. Room 180, Waukesha, WI 53188

(715) 491-8546

[alicia.zewicki@wisconsin.gov](mailto:alicia.zewicki@wisconsin.gov)

Documents may be viewed at:

<https://dnr.wisconsin.gov/topic/Waste/Comment.html>

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