The background features abstract, overlapping green geometric shapes in various shades of green, creating a modern and dynamic look. The shapes are primarily located on the left and right sides of the slide, framing the central text.

# Water Gremlin: Focus on Environment, Health, Safety and the Community

Minnesota CLE Webinar  
August 12, 2021

# Water Gremlin: Focus on Environment, Health, Safety and the Community

## ▶ Panelists:

- ▶ Joseph G. Maternowski, Hessian & McKasy, PA
- ▶ Representative Ami Wazlawik, MN House District 38B
- ▶ Jennifer Mayerle, WCCO Investigative Journalist

# Water Gremlin: Initial Perspectives

- ▶ Why is the Water Gremlin Matter Significant?
  - ▶ Public Policy
  - ▶ Media/Journalism
  - ▶ Legal

# Water Gremlin Background

- ▶ Incorporated in 1949
- ▶ Located in White Bear Township
- ▶ Several Hundred Employees
- ▶ Products – Lead Sinkers and Lead Battery Posts
- ▶ Dun & Bradstreet Reports Annual Sales of \$25.26 Million

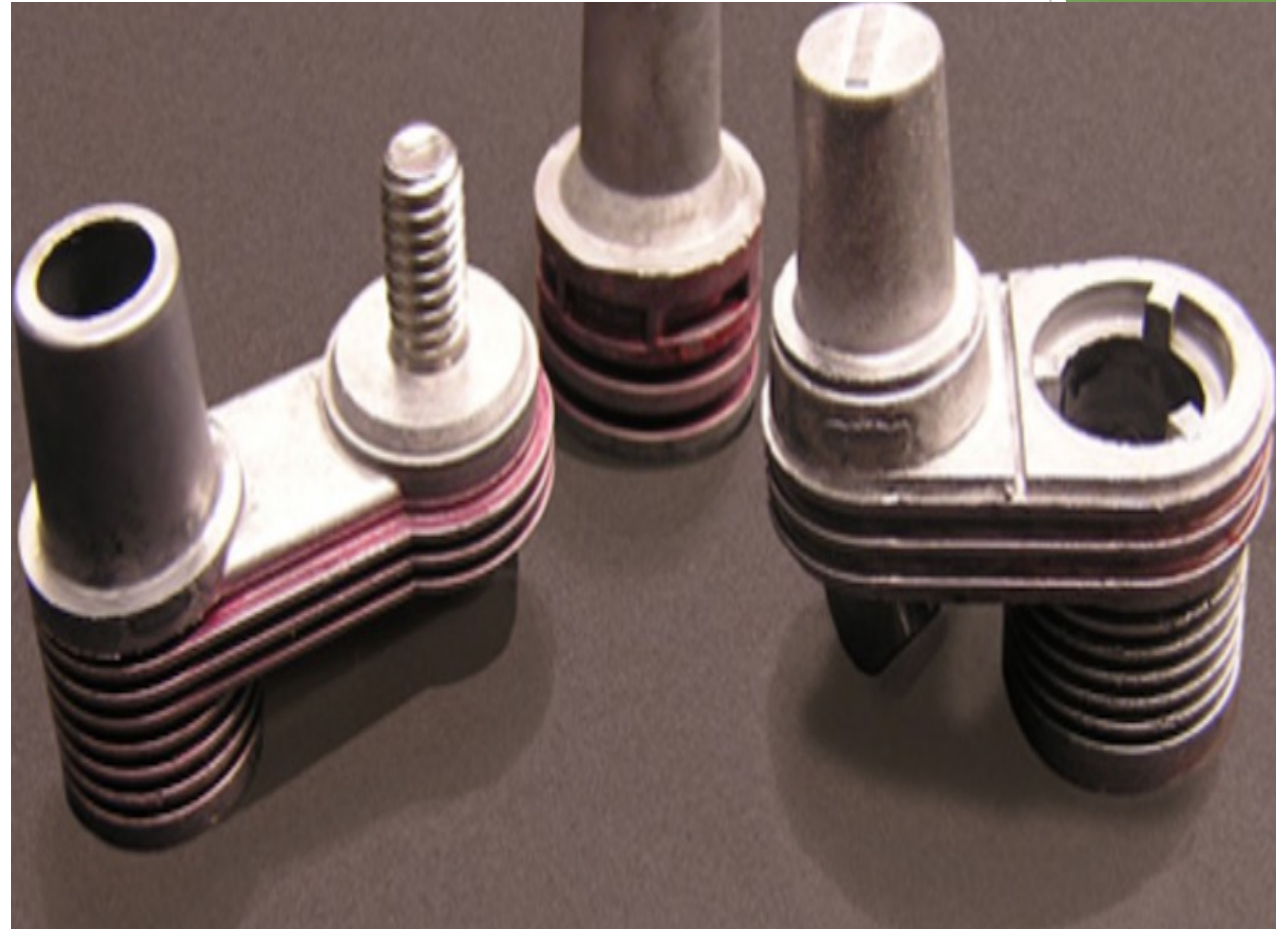
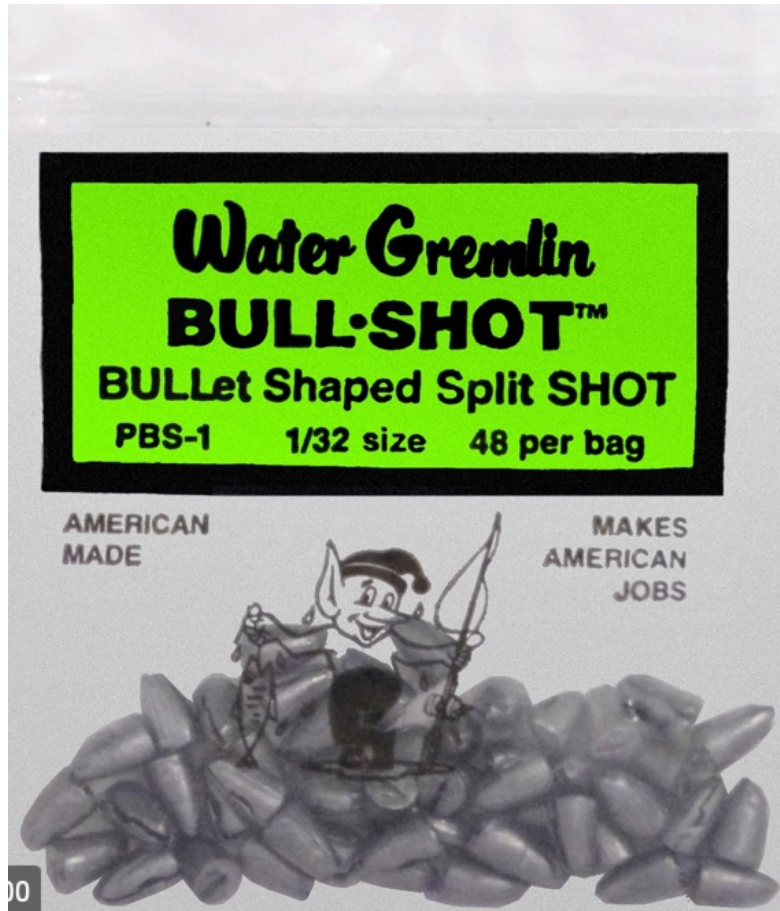


in (1940s)



in (present day)





## Water Gremlin Products

# Water Gremlin Environmental Overview

- ▶ Air Quality Permit
- ▶ Hazardous Waste Generator
- ▶ Storm Water Discharges

# Water Gremlin Contaminants of Concern

- ▶ TCE
- ▶ t-DCE
- ▶ Lead



# Trichloroethylene (TCE)

- ▶ EPA lists TCE as a carcinogen “by all means of exposure”
- ▶ TCE is classified as a “hazardous air pollutant” (HAP) and a “volatile organic compound” (VOC)
- ▶ Minnesota Department of Health (MDH) has issued guidance as to safe levels of exposure to TCE
  - ▶ In 2020 the Minnesota Legislature banned TCE in most applications

# Trans-1,2-Dichloroethylene (t-DCE)

- ▶ t-DCE is classified as a VOC.
- ▶ t-DCE is a principal component in some commercially available degreasers that may be alternatives to TCE in industrial or manufacturing uses.
  - ▶ Data from human studies of inhaled t-DCE are limited.
- ▶ MDH has not developed acute, short-term, or cancer guidance because of the lack of studies available with sufficient animal or human data.
- ▶ Health effects from breathing t-DCE if a person is exposed to high levels of t-DCE over a long time.

# Lead

- ▶ Lead can enter the body through inhalation or ingestion.
- ▶ Lead dust can attach to clothes, shoes, hair, skin and personal items such as water bottles, phones, lunch boxes, where it can leave a trail and transfer to a person's vehicle, carpet, floors and furniture.
  - ▶ This is known as “take home lead.”
- ▶ Lead exposure is a hazard for children and adults. Lead exposure affects children more severely. Health effects from lead exposure may include: Learning, behavior, and health problems in children, miscarriages, infertility, premature births, and stillbirths in pregnant women, underdeveloped brain and nervous system in growing fetus, impotence, reduced sex drive, low sperm, and abnormal sperm in men.

# MPCA: Air Quality Permitting

- ▶ Water Gremlin initially applied to the Minnesota Pollution Control Agency (MPCA) for an air quality permit in 1995 and reapplied in 1999. Permit issued in 2000
- ▶ For the period from at least 1993 and until 2000 Water Gremlin emissions from a major source of TCE were unregulated

# MPCA: Air Quality Permitting

- ▶ Water Gremlin applied for a permit amendment in 2001
  - ▶ Pollution control equipment not working properly
- ▶ Amendment informed MPCA new equipment would recapture and reuse TCE
- ▶ 2002 amendment issued by MPCA was consistent with the 2000 permit only contained limits on TCE purchases

# MPCA: Air Quality Permitting

- ▶ Water Gremlin control equipment passed its initial test in 2002
  - ▶ MPCA did not require re-tests
- ▶ Company repaired and rebuilt equipment in 2003 and 2005.
  - ▶ 2006 reissued permit required 95% efficiency.



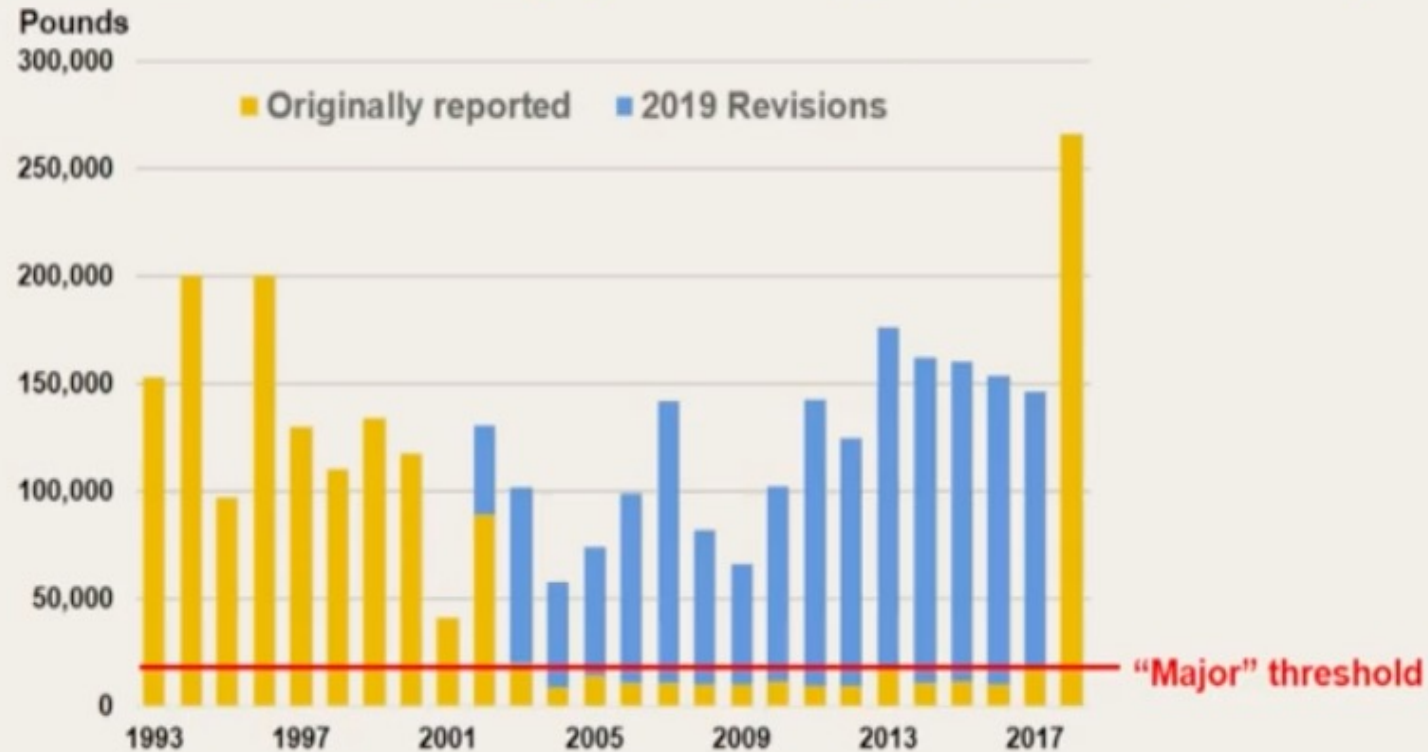
# MPCA: Air Quality Permitting

- ▶ Between 2010 to 2018 MPCA received periodic shutdown/breakdown notifications from Water Gremlin.
- ▶ In 2019, after Water Gremlin disclosed violations, MPCA concluded the equipment did not meet efficiency requirement for at least a decade.
- ▶ As a result, there was an extensive period of excess TCE emissions.

# Legislative Auditor: Enforcement Findings

- ▶ MPCA did not inspect Water Gremlin as frequently as required.
  - ▶ There was an eight-year gap in inspections.
- ▶ Although the TCE reuse was disclosed in company filings to the MPCA, MPCA inspectors were unaware of Water Gremlin's reuse of TCE.

## Water Gremlin has been a “major” pollution source, but this was disclosed in many years only in its revised reports



# Legislative Auditor: Enforcement Findings

- ▶ Between 2000 and 2002 Water Gremlin's reports to the MPCA disclosed excess emissions.
- ▶ MPCA focused on new control equipment and did not issue penalties for the company's emissions limits violations.

# Legislative Auditor: Enforcement Findings

- ▶ Ramsey County and the MPCA had inconsistent interpretations of the application of hazardous waste regulations to Water Gremlin's operations.

# MPCA: Audit Submission

## Minn. Stat. Section 114C.20 to 114C.40

- ▶ July 30, 2018: Water Gremlin discloses excess TCE emissions violating terms of the air quality permit.
- ▶ September 30, 2018: MPCA Water Gremlin Meeting to Discuss Audit
- ▶ November 8, 2019 MPCA Issues Alleged Violations Letter and Request for Information
- ▶ January 14, 2019: Water Gremlin agreed to the voluntary shut down of coating operations and looking for non-TCE coating options



# MPCA/MDH: Community TCE Exposure

- ▶ January 2019 Investigation Begins
  - ▶ Key MDH findings:
    - ▶ TCE is a known carcinogen
  - ▶ Exposure over time means increased risk
- ▶ People within 1.5 miles of the Water Gremlin plant could be at risk



**Source:** MPCA Orange shaded area represents estimated extent of TCE concentrations that may have exceeded the long-term MDH health benchmark.

# Community Concerns

- ▶ February 2019 MPCA/MDH host community meeting to disclose findings and exposure risk
- ▶ White Bear Area Neighborhood Concerned Citizens Group (NCCG) formed
- ▶ NCCG Mission: Education, Awareness, Advocacy, Accountability and Change





# Role of the Media

- ▶ Cover the evolving story
- ▶ Giving voice to citizens
- ▶ Asking probing questions
- ▶ Seeking accountability



# MPCA, MDH and Department of Labor and Industry Community Outreach

- ▶ Community Meetings (March 7, 2019)
- ▶ Availability Sessions (May 1 and 7, 2019)
- ▶ Community Meeting (August 27, 2019)
- ▶ Interagency Public Meeting (December 11, 2019)

# MPCA: Stipulation Agreement

March 1, 2019

Minn. Stat. §115.03, subd.1 and Minn. Stat. §116.07, subd. 9

## ▶ Alleged Violations:

- ▶ 750 Tons of Hazardous Air Pollutant (HAP) TCE Air Emissions

  - ▶ Exceedences since 2002

- ▶ 100 Tons of Excess HAP TCE Emissions in 2018 Alone

  - ▶ Civil Penalty Component:

  - ▶ \$4.5 Million Civil Penalty

  - ▶ \$1 Million in Air Monitoring

- ▶ Supplemental Environmental Project:

\$1.5 Million including planting 1,500 trees



# MPCA: Stipulation Agreement

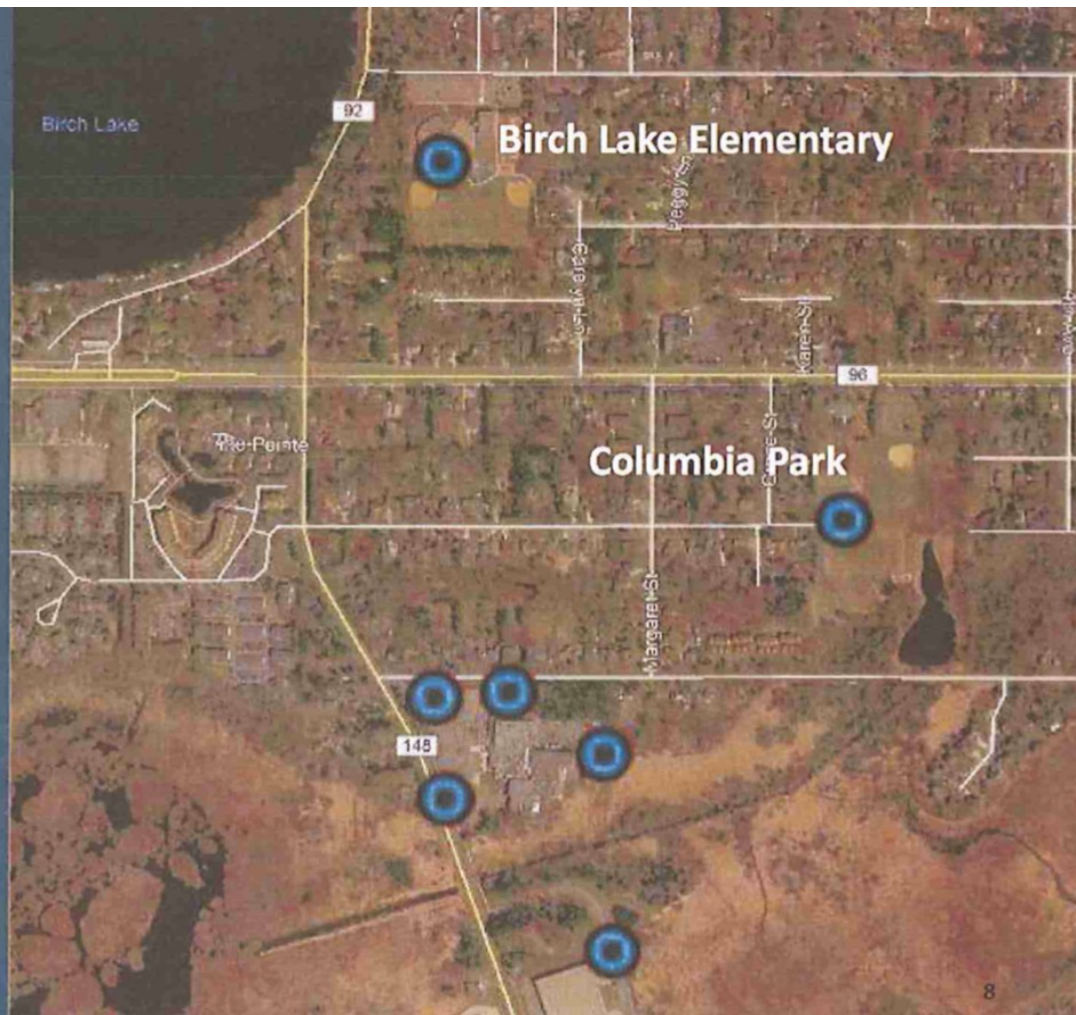
## March 1, 2019

- ▶ Requirements:
  - ▶ TCE Phase Out
- ▶ t-DCE Introduction as an Alternative
  - ▶ Remedial Investigation
- ▶ Reservation of MPCA Remedies

## Ambient air monitoring

*Five monitors currently tracking VOCs on Water Gremlin's facility.*

*Two new monitors were installed in the neighborhood.*





# MPCA: Remedial Investigation

- ▶ Extensive testing of soil, groundwater, surface water, sediment and soil vapor.
- ▶ Soil vapor mitigation
- ▶ Employee notification of vapors
- ▶ Sub-slab soil vapor mitigation system installed



# MPCA: Emergency Powers

## Minn. Stat. §116.11

- ▶ January 2019: Shut down related to use of TCE and implementation of t-DCE alternative
- ▶ August 2019: Coating line shut down due to release of t-DCE into soil beneath the building

# MPCA: Administrative Order: Round One

Minn. Stat. §115.03, subd. 1, Minn. Stat. §116.07, subd.9

- ▶ August 22, 2019: Release of t-DCE from unknown source(s) to soil vapor beneath the building
- ▶ MPCA orders: Shut down of t-DCE coating operations, sub-slab testing and mitigation of soil vapor hazard and continuation of remediation sampling

# MPCA: Administrative Order: Round Two

- ▶ November 5, 2019: Water Gremlin reported release of TCE and d-TCE on the floor underneath the coating operation
- ▶ 302 pounds of TCE hazardous waste had spilled over 15 <sup>1</sup>/<sub>2</sub> years. Water Gremlin's compaction process to constitute unpermitted treatment of hazardous wastes.
- ▶ Water Gremlin's industrial stormwater "no exposure" certification deemed invalid.
- ▶ MPCA orders: Proper management of hazardous waste, cessation of compaction/treatment, develop a floor management plan to address spills, implement stormwater management plan.



# MPCA: Administrative Order: Round Three

- ▶ January 17, 2020: Following August 2019 MPCA emergency shut down of t-DCE coating operations, MPCA permits restart of coating operations.
- ▶ MPCA finds Water Gremlin's corrective actions were insufficient.
  - ▶ MPCA orders: Sealing of floors, further testing and other operational restrictions.

# Minnesota Department of Health (MDH) and Department of Labor and Industry (MDLI)

Attorney General on behalf of MDLI seeks temporary injunction  
ceasing production of lead products due to employees leaving the  
workplace with lead dust.

MDH documents 24 cases of the children of employee with elevated  
levels of lead in their blood.

District Court orders lead cleanup of workers homes and cars and  
construction of new facilities to protect workers and prevent future  
contamination.

# Water Gremlin Employees Protest State Ordered Shutdown



Leppink v. Water Gremlin Company,  
944 NW2nd 493 (Minn. Ct. App. 2020)

- ▶ A “public health nuisance” under Minn. Stat. §145.075 (2018) is any activity or failure to act that adversely affects the public health. An activity or failure to act affects the public health if it affects a considerable number of persons, even if the effects are geographically dispersed.

# MPCA: Stipulation Agreement

## April 13, 2021

- ▶ Between September 2019 and February 2020 Ten (10) MPCA/Ramsey County Inspections

- ▶ Alleged Violations:

- ▶ Water Gremlin is a Large Quantity Generator of Hazardous Waste
    - ▶ Lead waste previously disclosed, but TCE and t-DCE wastes also generated
    - ▶ Various hazardous storage and management violations.
      - ▶ Industrial stormwater violations

# MPCA: Stipulation Agreement

## April 13, 2021

- ▶ Civil Penalty Component:  
\$325,000 Civil Penalty
  - ▶ Requirements:
- ▶ Water Gremlin required to return to compliance with hazardous waste and industrial stormwater regulations





# Minnesota Pollution Control Agency Regulation and Oversight of Water Gremlin

SPECIAL REVIEW  
February 2021

**OFFICE OF THE LEGISLATIVE AUDITOR**  
STATE OF MINNESOTA

# Legislative Auditor Special Review: Summary

- ▶ Water Gremlin underreported emissions for years
- ▶ Prior to 2019 MPCA missed opportunities to intervene more effectively
  - ▶ Water Gremlin must be accountable for its violations
- ▶ MPCA should be accountable for its permitting and enforcement activities



# Legislative Auditor Special Review: Recommendations

- ▶ MPCA should comply with inspection requirements
- ▶ In conducting compliance reviews MPCA should make full use of state and federal emission inventories
- ▶ MPCA and Metropolitan Counties should have common understanding of hazardous waste requirements

# Legislative Auditor Special Review: Conclusions

- ▶ MPCA did not regulate Water Gremlin as effectively as it should have
- ▶ Effective MPCA permitting and enforcement may have prevented pollution problems or to intervene sooner at Water Gremlin, although the Legislative Auditor cannot be certain

# MPCA: Air Permit Amendment

- ▶ Future operations and limitations
  - ▶ Community participation
- ▶ Water Gremlin submitted an application for a major amendment to its air permit on February 8, 2019. A permitting decision is expected in late 2021.
- ▶ MPCA issued minor air permit amendment on February 23, 2021.

# Minnesota Legislature

- ▶ TCE Ban – First State in the Nation to enact a restriction of this type.



# Minnesota Legislature

## NEXT STEPS

- ▶ MPCA Enforcement
- ▶ Citizen Engagement
- ▶ Environmental Justice
  - ▶ Penalty Authority
- ▶ Settlement Proceeds

# **TCE Alternatives Project**

## **Minnesota Technical Assistance Program**

Jane Paulson

Iowa Strategic Goals Program  
Presentation

March 23, 2021



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Questions?  
Thank you!

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