









# Goals Today

Today: EQB is here to listen to your opinions and discussions on environmental review thresholds as they relate to silica sand.

**We want to hear what is important to you.**

Focusing on these questions:

- Why is a threshold needed?
- What would make a threshold reasonable?
- What is the proper qualitative measure of that type of project or that impact?
- What is the proper quantitative measure of that type of project or that impact?
- Is the threshold administratively manageable?

# Legislative charge:

- CHAPTER 114--H.F. No. 976; Sec. 105. **RULES; SILICA SAND.**
  - (d) The Environmental Quality Board shall amend its rules for environmental review, adopted under Minnesota Statutes, chapter 116D, for silica sand mining and processing to take into account the increased activity in the state and concerns over the size of specific operations. The Environmental Quality Board shall consider whether the requirements of Minnesota Statutes, section 116C.991, should remain part of the environmental review requirements for silica sand and whether the requirements should be different for different geographic areas of the state.

# Interim Rule:

- **116C.991 ENVIRONMENTAL REVIEW; SILICA SAND PROJECTS.**

(a) Until July 1, 2015, an environmental assessment worksheet must be prepared for any silica sand project that meets or exceeds the following thresholds, unless the project meets or exceeds the thresholds for an environmental impact statement under rules of the Environmental Quality Board and an environmental impact statement must be prepared:

(1) excavates 20 or more acres of land to a mean depth of ten feet or more during its existence. The local government is the responsible governmental unit; or

(2) is designed to store or is capable of storing more than 7,500 tons of silica sand or has an annual throughput of more than 200,000 tons of silica sand and is not required to receive a permit from the Pollution Control Agency. The Pollution Control Agency is the responsible governmental unit.

# 116C.991 continued

(b) In addition to the contents required under statute and rule, an environmental assessment worksheet completed according to this section must include:

1. a hydrogeologic investigation assessing potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water;
2. for a project with the potential to require a groundwater appropriation permit from the commissioner of natural resources, an assessment of the water resources available for appropriation;
3. an air quality impact assessment that includes an assessment of the potential effects from airborne particulates and dust;
4. a traffic impact analysis, including documentation of existing transportation systems, analysis of the potential effects of the project on transportation, and mitigation measures to eliminate or minimize adverse impacts;
5. an assessment of compatibility of the project with other existing uses; and
6. mitigation measures that could eliminate or minimize any adverse environmental effects for the project.

# Statement of Need & Reasonableness

Minnesota Statutes, section 14.131, sets out eight factors for a regulatory analysis that must be included in the SONAR:

1. a description of the classes of persons who probably will be affected by the proposed rule...
2. probable costs to the agency and to any other agency of the implementation and enforcement...
3. less costly methods or less intrusive methods for achieving the purpose of the proposed rule...
4. a description of any alternative methods...
5. the probable costs of complying with the proposed rule...
6. the probable costs or consequences of not adopting the proposed rule...
7. an assessment of any differences between the proposed rule and existing federal regulations...
8. an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule...

# Minnesota Rules Chap. 4410

- Authority
  - ...issued under authority granted in Minnesota Statutes, chapter 116D, to **implement the environmental review procedures** established by the Minnesota Environmental Policy Act.
- Purpose
  - **Environmental documents shall contain information that addresses the significant environmental issues of a proposed action.** This information shall be available to governmental units and citizens early in the decision making process.
  - **Environmental documents shall not be used to justify a decision, nor shall indications of adverse environmental effects necessarily require that a project be disapproved.** Environmental documents shall be used as guides in issuing, amending, and denying permits and carrying out other responsibilities of governmental units to avoid or minimize adverse environmental effects and to restore and enhance environmental quality
- Objective(s)
  - **provide usable information to the project proposer, governmental decision makers and the public concerning the primary environmental effects of a proposed project;**

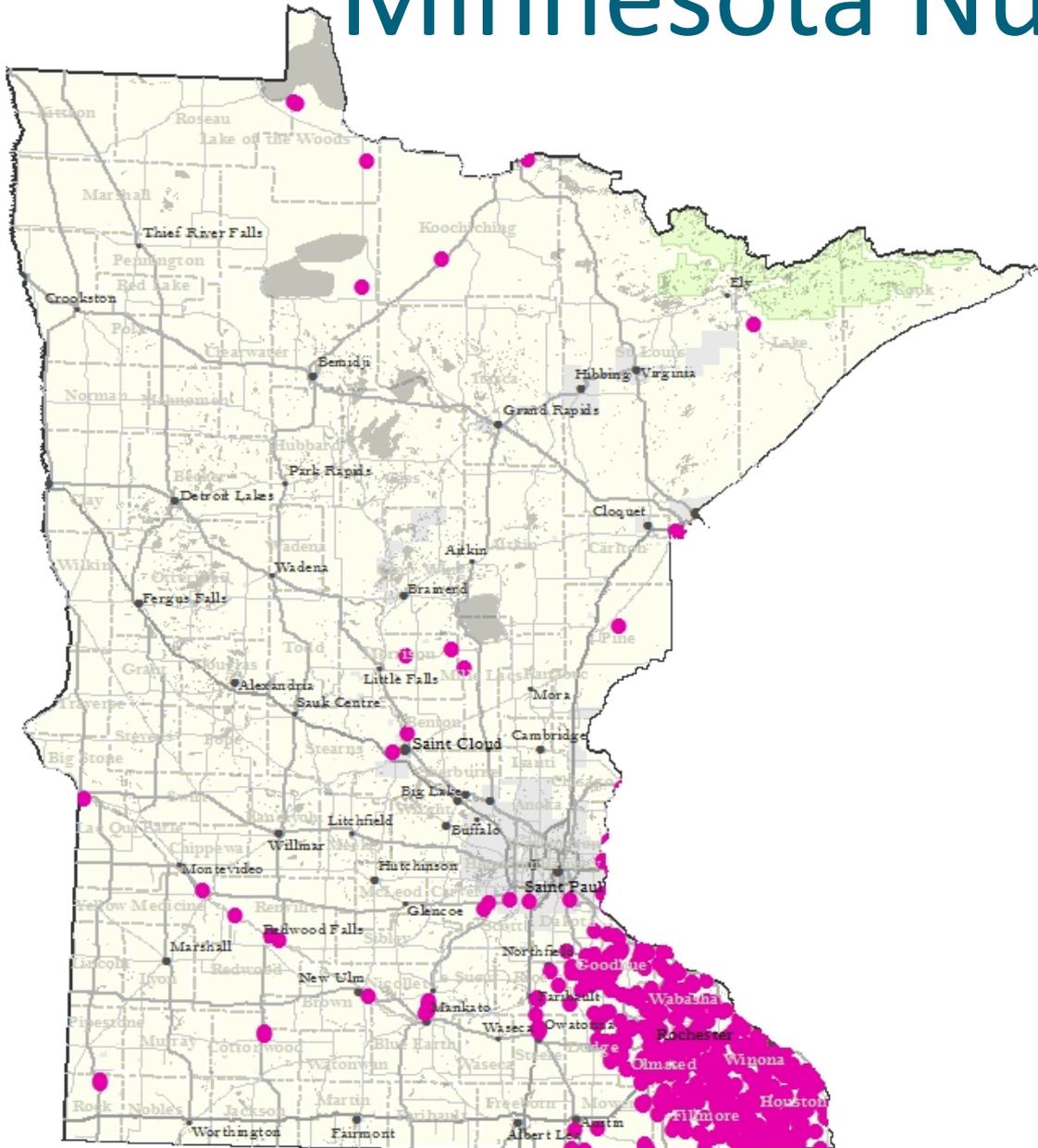
# Historical Context

- **1982 Statement of Need and Reasonableness**
  - 4410. Subp. 8. Transfer Facilities
  - 4410. Subp. 10. Storage Facilities
  - 4410. Subp. 12. Nonmetallic Mining

# 2004 EQB Survey of RGUs

- EQB conducted a survey for 4410 mandatory categories with 13 total respondents (cities and counties)
- The non-metallic mineral category was one of the categories in which there appeared to be a strong argument for changing the mandatory threshold level.
- Largest percentage of recommendations for a lower threshold and the smallest percentage of recommendations for a higher one.
- Lower to 20 acres and 10 foot mean depth.

# Minnesota Numbers



- **77%** of non-metallic mines are SE Minnesota –ASIS/MNDOT
- **Out of the 509 quarries, 391 quarries are located in the Paleozoic Plateau, which equals approx. 77%**
- **17 EAWs since 2012** – within the non-metallic mining mandatory category (non peat) – LGU as RGU
- **4 EIS since 2012** – within the non-metallic mining mandatory category (non peat) – LGU as RGU

# Wisconsin DNR Numbers

- **62 mines**
  - Avg. 131.19 acres | Median 106.50 acres
- **31 Mine/Processing facilities**
- **13 Mine/Processing/Rail Load-out/Ship Out**
- **10 Dryer/Processing/Load Out (Rail)**
- **3 Wet Processing Facilities**



Questions?



LUNCH

# Interim Rules:

- **116C.991 ENVIRONMENTAL REVIEW; SILICA SAND PROJECTS.**

(a) Until July 1, 2015, an environmental assessment worksheet must be prepared for any silica sand project that meets or exceeds the following thresholds, unless the project meets or exceeds the thresholds for an environmental impact statement under rules of the Environmental Quality Board and an environmental impact statement must be prepared:

(1) excavates 20 or more acres of land to a mean depth of ten feet or more during its existence. The local government is the responsible governmental unit; or

(2) is designed to store or is capable of storing more than 7,500 tons of silica sand or has an annual throughput of more than 200,000 tons of silica sand and is not required to receive a permit from the Pollution Control Agency. The Pollution Control Agency is the responsible governmental unit.

# Survey Results:

- General observations?
- What about the results stuck out to panelists?
- What are the key categories for discussion?

# Survey buckets

- **Mine Size:**
  - Life of the mine/Expansion/Extraction
  - Shoreland/Paleozoic Plateau/Trout Stream Setback
  - Groundwater
- **Storage Size:**
  - Amount/Expansion
  - Shoreland/Paleozoic Plateau/Trout Stream Setback
- **Throughput:**
  - Amount/Expansion
  - Shoreland/Paleozoic Plateau/Trout Stream Setback
- **Processing Facility:**
  - Amount/Expansion
  - Shoreland/Paleozoic Plateau/Trout Stream Setback
- **Responsible Government Unit (RGU)**
- **Geographic Areas of the State**

# Mine Size

- Q<sub>1</sub> Interim thresholds appropriate – mine size/depth?
  - EAW = higher-40(4); lower-10(4); All (3); appropriate(2)
  - EIS = appropriate (4); All(3)
- Q<sub>3</sub> Thresholds within sensitive shoreland area (Current rule for non-metallic mining – 4410)
  - EAW = same (7); less than (4)
  - EIS = less than (6); same (4)
- Q<sub>5</sub> Thresholds for Underground Mines
  - EAW = All(6); None (3); 10-feet (2)
  - EIS = All (4); None (3)

# Mine Size

- Q7 Underground mines within sensitive shoreland
  - EAW = All (7); None (3)
  - EIS = All(5); None (3)
- Q8 Paleozoic Plateau within one mile of a trout stream threshold
  - EAW = All(8); 40 acres (3); 20 acres (2)
  - EIS = All (5); 160 acres (2)
- Q9 Other areas of the state but within one mile of a trout stream threshold
  - EAW = All (8); 40 acres (3)
  - EIS = All (5); 160 acres (3)

# Mine Size

- Q23 EIS (Q24 EAW): Appropriate threshold for silica sand project/mine that enters the groundwater table:
  - EAW = All (8); 20+ acres (2); None (2)
  - EIS = All (4); None (3)
- Q24 EIS (Q25 EAW): Appropriate threshold for silica sand project/mine [sensitive shoreland area] that enters the groundwater table:
  - EAW = All (7); None (2)
  - EIS = All (5); 160+ acres(2)
- Q30 EIS (Q31 EAW): Should thresholds be different for different geographic areas of the state?
  - EAW = Yes (6); No (6)
  - EIS = Yes (7); No (3)

# Mine Expansion

- Q2 Expansion– mine size/depth?
  - EAW = All (6); 100% (2); 50% (2)
  - EIS = All (3); 50% (2)
- Q4 Expansion of mine in Sensitive Shoreland Area
  - EAW = All (7); 40 acres (2)
  - EIS = All (4); 25% (2)
- Q6 Expansion of Underground Mines
  - EAW = All (5); No EAW (3)
  - EIS = All (4); No EIS (3)

# Mine Expansion

- Q25 EIS (Q26 EAW): Appropriate threshold for expansion of a silica sand project/mine that enters the groundwater table:
  - EAW = All (7); 100%(2)
  - EIS = All (4)
- Q26 EIS (Q27 EAW): Appropriate threshold for expansion of a silica sand project/mine [sensitive shoreland area] that enters the groundwater table:
  - EAW = All (8); 100%(2)
  - EIS = All (4)

# Mine Extraction

- Q<sub>10</sub> Extraction Threshold trigger ER?
  - EAW = Yes (3); No (7); 10 tons (2)
  - EIS = Yes (1); 10 tons (3); No (5)
- Q<sub>11</sub> Extraction threshold within sensitive shoreland areas
  - EAW = All (7); Not administratively manageable (6)
  - EIS = All (3); Any that extracts more than 5,000,000 tons annually (2)
- Q<sub>12</sub> Extraction expansion threshold within sensitive shoreland areas
  - EAW = All (7); 100% (2)
  - EIS = All (4)

# Storage

- Q13 Interim storage thresholds appropriate?
  - EAW = No-lower (5); No-higher (3); Yes (2)
  - EIS = No facility should require an EIS (4); Any over 7,500 tons of storage (4)
- Q14 Storage in sensitive shoreland thresholds?
  - EAW = Same (5); Half (4); All (3)
  - EIS = Same (5); Half (2); All (3)
- EAW Q15 Storage thresholds administratively manageable?
  - EAW = Yes (9); No (3)

# Storage Expansion

- Q15 EIS (Q16 EAW): Threshold for expansion of existing storage:
  - EIS = All (3);
  - EAW = All (5); 50% (2); 100%(2)
- Q16 EIS (Q17 EAW): Threshold for expansion of existing storage within sensitive shoreland:
  - EAW = All (5); 100% (2)
  - EIS = All (4);

# Throughput

- Q17 EIS (Q18 EAW): Throughput thresholds for EAW and EIS:
  - EAW = Interim (3); Higher 500,000 (4); All (3)
  - EIS = No EIS (4); All (3)
- Q18 EIS (Q19 EAW): Throughput thresholds for EAW and EIS in sensitive shoreland area:
  - EAW = All (5); should be no different (5)
  - EIS = No difference (4); All (3)
- Q19 EIS (Q20 EAW): Throughput expansion thresholds for EAW and EIS:
  - EAW = All (5); 50% (2); 10% (2); none (2)
  - EIS = All (3);

# Processing

- Q<sub>20</sub> EIS (Q<sub>21</sub> EAW): Appropriate threshold for processing facilities:
  - EAW = 1,000,000 annually (5); All (4) none (2)
  - EIS = All (3); None (3)
- Q<sub>22</sub> EIS (Q<sub>23</sub> EAW): Appropriate threshold for silica sand processing facilities in sensitive shoreland area:
  - EAW = All (6); 500,000 tons (5)
  - EIS = All (5); None (2)
- Q<sub>21</sub> EIS (Q<sub>22</sub> EAW): Appropriate threshold for expansion of silica sand processing facilities:
  - EAW = All (4); None (4)
  - EIS = All (3); None (3)

# RGU

- Q27 EIS (Q28 EAW): Who should be the RGU for silica sand mines/projects:
  - EAW = LGU (6); EQB (3); Other (2)
  - EIS = Other (5); LGU (3); EQB (3)
- Q29 EIS (Q30 EAW): RGU for silica sand projects/mines in sensitive shoreland area?
  - EAW = LGU (5); DNR (4); EQB (2)
  - EIS = LGU (3); EQB (3); DNR (2);
- Q28 EIS (Q29 EAW): If a DNR trout stream setback permit is required should the DNR be the RGU?
  - EAW = Yes (7); No (4)
  - EIS = Yes (4); No (3)

# Survey Results

- Q32 EAW: DNR permit required, but silica sand project falls under the established threshold, should an EAW be required?
  - EAW = No (8); Yes (5)

# Survey Results

- Q32 EIS (Q33 EAW): Other thresholds that we should consider?
  - EAW = Yes (7); No (5)
  - EIS = Yes (6); No (4)

# Exemptions

- What should exemptions be for silica sand mines?
- Should they be different for different geographic regions of the state?
- Exemptions for storage piles?
- Exemptions for throughput?
- Discretionary?

# 116C.991

(b) In addition to the contents required under statute and rule, an environmental assessment worksheet completed according to this section must include:

1. a hydrogeologic investigation assessing potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water;
2. for a project with the potential to require a groundwater appropriation permit from the commissioner of natural resources, an assessment of the water resources available for appropriation;
3. an air quality impact assessment that includes an assessment of the potential effects from airborne particulates and dust;
4. a traffic impact analysis, including documentation of existing transportation systems, analysis of the potential effects of the project on transportation, and mitigation measures to eliminate or minimize adverse impacts;
5. an assessment of compatibility of the project with other existing uses; and
6. mitigation measures that could eliminate or minimize any adverse environmental effects for the project.

# Continuing Today: Scope

- Panel Interests & Rule Concepts
- Panel Interests: Not Yet Addressed
- Panel Interests: Rulemaking Scope
  - Alternative Options
- Panel Interests: Other

# Panel Interests & Rule Concepts

- **Better Defined Scope:**
  - A2: Maintain the scope of process
  - A3: Site specific
  - A4: Relevant to SiO<sub>2</sub> sand
  - A5: Relevant to environmental impacts of silica sand operations
- **Reasoned Thresholds and Requirements:**
  - B1: Reasonable and fair
  - B2: Intent of environmental review to outcomes of the rules
  - B4: Relevant to SiO<sub>2</sub> sand
  - B5: Relevant to environmental impacts of silica sand operations
  - B6: Thresholds
  - B7: Fairness –uniform requirements

# Panel Interests & Rule Concepts

- **Assure Appropriate Jurisdiction:**
  - F2 Maintain appropriate jurisdiction for enforcement (permitting agency)

# Panel Interests: Not Yet Addressed

- **Address Impacts:**
  - D1: Identify mitigation measures for impacts in EAW

# Panel Interests: Rulemaking Scope

- **Better Define Scope:**
  - A7: Redefine “environment” to include economy, culture, history.
- **Adequate State Resources:**
  - E1: Adequate state agency resources for environmental review
- **Assure Appropriate Jurisdiction:**
  - F4: RGU coordinated by state/region (enforcement concerns)
  - F5: >1 RGU | consideration and arbitration

# Panel Interests: Other

- **Reasoned Thresholds and Requirements:**
  - B3: Want better mandatory thresholds (including land transfer transparency) [Scope issue?]
- **Informed RGU:**
  - C1: Citizens engage agency task group (ex. Petition) [Silica Sand Technical Assistance Team]

# Panel Interests: Other

- **Address Impacts:**

- D2: Take water chemicals out of the equation (all companies/business) [Scope issue?]
- D3: Accountability EAW → CUP rationale [Scope issue?]
- D4: RGU decision making [E.R is not a decision]
- D5: LGUs have complete and factual information [within E.R]
- D6: Proposer financial responsible (reclamation bond/mitigation) [Scope?]
- D7: Proactive proposer (responsible for people health, environments and property) [Scope?]

- **Adequate State Resources:**

- E2: Recognize that the EQB guidelines for local government may have limitations [Scope?]

- **Assure Appropriate Jurisdiction:**

- F1: Permitting vs. enforcement (permitting agency) [E.R. is not enforcement]
- F6: Options for conflicting RGUs [within E.R]

# Survey/Panel Interests:

- Rule Concepts:
  - A2, A3, A4, A5, A6, B1, B2, B4, B5, B6, B7, F2
- Not Yet Addressed:
  - D1
- Rulemaking Scope:
  - A7, E1, F4, F5
- Other:
  - B3, C1, D2, D3, D4, D5, D6, D7, E2, F1, F6



# Thank you

Questions?

Erik Dahl, EQB Staff

[Erik.Dahl@state.mn.us](mailto:Erik.Dahl@state.mn.us)

651-757-2364