Model Standards and Criteria for Silica Sand

What does that mean for the Aggregate Industry?

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Model Standards and Criteria

Provide an overview of Legislation passed last spring related to model standards and criteria

Review proposed standards and criteria

Present specific examples of the proposed standards that if adopted have the biggest potential for impacts to the aggregate industry.

Describe current regulatory framework – similarity between aggregate mining and silica sand mining.

What can aggregate producers do to participate in this process?

SILICA SAND MINING MODEL STANDARDS AND CRITERIA

Minnesota 2013 Session Laws
CHAPTER 114-H.F. No. 976

1. By October 1, 2013, the Environmental Quality Board, in consultation with local units of government, shall develop model standards and criteria for mining, processing, and transporting silica sand.

2. Standards and criteria ***may*** be used by local units of government in developing local ordinances.

3. Standards and criteria shall be different for different geographic areas of the state. Karst conditions and landforms are considered unique when compared with the uniform hydrology of the Minnesota Valley. The standards and criteria should reflect the differences in varying regions of the state.

Categories of Standards

Setbacks or buffers for mining and processing:

- Some categories are areas that are currently regulated in local ordinances
- Others are categories that are regulated in state permits
- Others are potential new areas of regulation

Categories of Standards EQB required to establish

Setbacks or buffers for mining and processing:

a) ***Residence or residential zoning district boundary; (EQB added public school, church and park to list)***
b) ***Property line or right-of-way line;***

Currently regulated within most local ordinances or as conditions set in the CUP or IUP. Some LGUs consider mitigation such as screening berms to reduce setbacks

Categories of Standards

Setbacks or buffers for mining and processing:

a) Residence or residential zoning district boundary;
b) Property line or right-of-way line;
c) Ordinary high water levels of public waters;
d) Bluffs;

Typically regulated within the local shoreland ordinance.

Categories of Standards

Setbacks or buffers for mining and processing:

a) Residence or residential zoning district boundary;
b) Property line or right-of-way line;
c) Ordinary high water levels of public waters;
d) Bluffs;
e) Designated trout streams;
f) calcareous fens;

Not typically regulated on a local level
Covered under state water appropriation permit
New area of local regulation.

Categories of Standards

Setbacks or buffers for mining and processing:

a) Residence or residential zoning district boundary;
b) Property line or right-of-way line;
c) Ordinary high water levels of public waters;
d) Bluffs;
e) Designated trout streams;
f) calcareous fens;
g) wellhead protection areas;

- Typically not regulated on a local level within mining ordinance but vulnerability to drinking water is evaluated in a formal wellhead protection plan
- New area of local regulation.

Categories of Standards

Setbacks or buffers for mining and processing:

a) Residence or residential zoning district boundary;
b) Property line or right-of-way line;
c) Ordinary high water levels of public waters;
d) Bluffs;
e) Designated trout streams;
f) calcareous fens;
g) wellhead protection areas;
h) critical natural habitat areas;
i) a natural resource easements

Not regulated on a local level or within state permits
New area of local regulation

Additional Categories of Standards

1. standards for hours of operation;
2. groundwater and surface water quality and quantity monitoring and mitigation plan requirements,
3. air monitoring and data submission requirements;
4. dust control requirements;
5. noise testing and mitigation plan requirements;
6. blast monitoring plan requirements;
7. lighting requirements;
8. inspection requirements;
9. containment requirements for silica sand in temporary storage to protect air and water quality;
10. containment requirements for chemicals used in processing;
11. financial assurance requirements;
12. road and bridge impacts and requirements; and
13. reclamation plan requirements as required under the rules adopted by the commissioner of natural resources.

Review of Key Proposed Standards and Criteria (EQB's FIRST DRAFT)

Setbacks:

- EQBs draft provides specific setback distances for each of the criteria
- Setbacks are typically substantially greater than those in existing mining ordinances
- Many of the EQB setbacks appear arbitrary, lack justification and are not science based.

Example:
Ordinary High Water Levels of Public Waters

EQB's draft recommendations:

No silica sand mining or processing in shorelands

LGU should prohibit silica sand mining below the water table in floodplains

* (Definition of Shoreland along a river includes the landward extent of the entire floodplain)

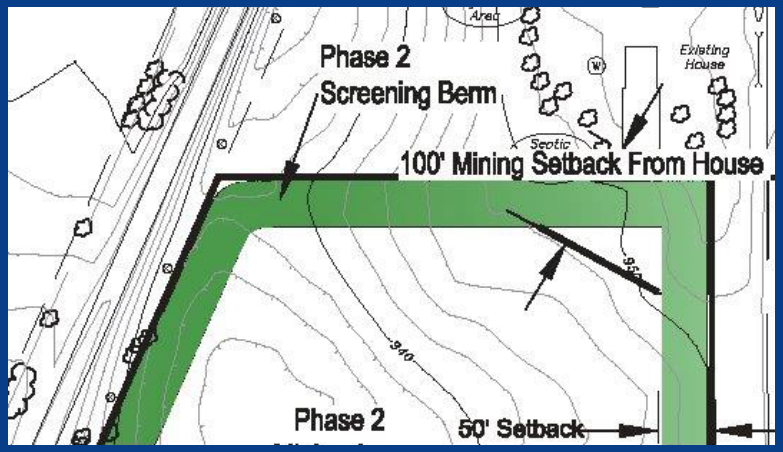
Recommended ban of silica sand mining in specific areas where aggregate mining often occurs:

EQB's draft recommendation despite the fact that the DNR's model shoreland ordinance allows extraction as a conditional use in floodplains and within shoreland districts and does not prohibit mining below the water table.

Example:
Setbacks from a residence or residential zoning district

EQB added public school, church and park to list and recommends 500 foot setback from all

Property line or right-of-way line; 100 foot setback



Currently local ordinances range from 0-500’ from residential

30-50’ typical from property lines and right of ways

Silent on schools, churches and parks

Example: Wellhead Protection Areas

EQB's Draft Recommended Standards:

Mining should not be allowed below the water table within a wellhead protection area.

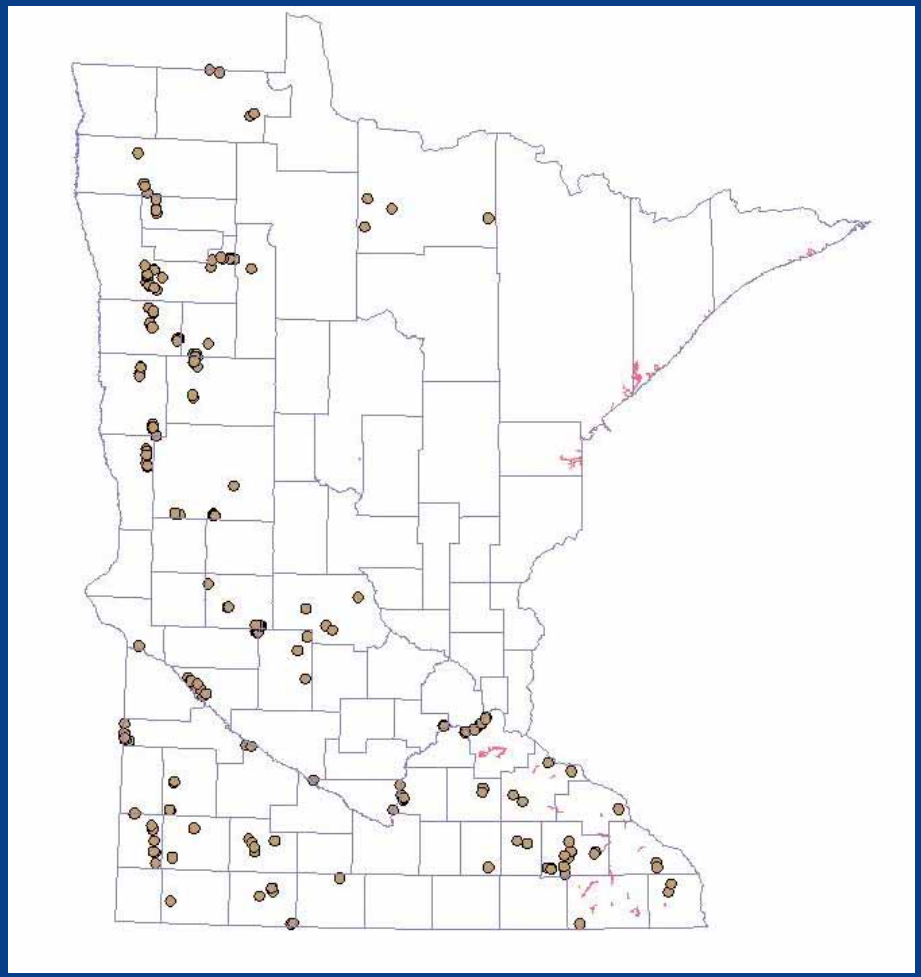
Processing activities using water or chemicals, should not be allowed in wellhead protection areas.

Storage of equipment, fuel, explosives, or other potential contaminants should be prohibited in drinking water supply management areas.

This recommendation despite the fact that the Dept. of Health guidance allows:

- mining within a wellhead protection area
- Storage and use of fuel and chemicals within a wellhead protection area with proper best management practices such as secondary containment, impervious pads and spill prevention plans.

Example: Calcareous Fens/Trout Streams:



EQBs Recommended Standards:

Calcareous Fen: No Mining within 3 miles of a fen if water appropriations permit is requested unless a fen management plan has been approved by the Commissioner.

Does not account for the wide variation in water use from small washing operations to large scale dewatering operations. Is not consistent with the potential impacts identified through detailed hydrologic modelling of various mining operations.

Trout Stream – SE MN Trout stream setback permit

900 feet all other areas

Example: Parks

state or national wilderness areas
state or national parks
national monuments
state or national wild, scenic, or recreational river
designated scientific and natural areas

EQB Proposed Setback:

¼ mile for mining or processing

Some of the criteria to be established by the EQB are new, not addressed in local ordinances or state permits

natural resource easement paid wholly or in part by public funds

"natural resource easements" is undefined in Minnesota law and rules and could refer to a variety of easements that might exist.

critical natural habitat areas;

The EQB's draft model standard for both categories is 500 feet with no basis for why 500 feet is protective or necessary.

Current Regulatory Environment Silica Sand and Aggregates

Mining:
- Clearing and Grubbing
- Stripping Topsoil
- Removal of Overburden
- Use of Explosives
- Excavation
- Dredging
- Dewatering
- Stockpiling
- Loading and hauling

Processing:
- Crushing
- Washing
- Screening
- Drying

Reclamation:
- Backfill
- Slope stabilization
- Topsoil
- Revegetation

Equipment:
- Dozer
- Excavator
- Loader
- Grader
- Water truck
- Dredge
- Dragline
- Haul Truck
- Crushers
- Screeners
- Conveyors

- Few material differences exist between silica sand and aggregate mining and processing

Additional Similarities Silica Sand Aggregate Mines

- Similar range of size
- Similar settings
- Above and below water table
- Along river valleys in terrace deposits
- In floodplains and shoreland districts
- In wellhead protection areas
- Adjacent to parks and SNA's
- Within 3 miles of calcareous fens

Some silica sand resources are located below active sand and gravel or limestone quarry operations

Current Regulatory Environment Silica Sand and Aggregates

Local government – Land Use Authority IUP/CUP

Local Government RGU for Environmental Review

State Permits:

- Water use
- Air emissions
- Wetlands
- Stormwater
- Fuel Storage
- Threatened or Endangered Species

Biggest Potential Issues for Aggregate Producers:

- Local units of government adopt standards recommended by EQB
- Apply them to a single ordinance regulating mineral Extraction (as is currently the model)
- Even if LGU does not adopt them, these standards may well be used by opponents to a proposed aggregate mining facility as being the standard of care that should be adopted within a CUP or IUP.

Status of development of model standards

1. Did not make the October 1, 2013 deadline:

2. Published draft standards for each of the criteria (and then some);
   - Churches
   - Public schools
   - Parks
   - Floodplains
   - Wilderness areas
   - National monuments
   - Wild, scenic or recreational rivers
   - Scientific and natural areas (SNAs)

Status of development of model standards

3. Held three public meetings to gather input from pubic;
4. Sent out a survey to local governments; and
5. Working with other state agencies to finalize standards

What's next?

EQB staff will be presenting their second draft to a subcommittee of the EQB Board mid-December

Public comment period +/- 25 days

Mid-January the standards and criteria will be presented to the full EQB for a vote to adopt so that the document will be finalized by the start of the 2014 Legislative session in February

What can aggregate producers do?

Provide comments during the public comment period
Engage your state legislatures and local regulators

Messages:
Process will result in restrictive and unreasonable regulations on the aggregate industry as an unintended consequence of the EQB's work

The best sources for model standards and criteria for the EQB to utilize are existing ordinances of local governments that currently regulate mining facilities.

Local governments should be encouraged to rely on existing state permit programs and regulations to address certain potential issues.

The EQB should focus on developing recommendations that encourage the LGU to incorporate site specific conditions in their land use permits based on scientific studies and site specific data collected as part of the environmental review and permitting process as opposed to the one size first all approach that is currently being presented by the EQB.

THANK YOU!