

INDUSTRIAL SAND MINING REGULATORY SITE PERMITTING

PRESENTED BY
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REGULATORY AGENCIES

Local

Township

Municipality

County

State

Wisconsin Department of Natural Resources (WDNR)

Wisconsin Department of Transportation (WisDOT)

Wisconsin Department of Safety & Professional Services (DSPS)

REGULATORY AGENCIES

Federal

Mine Safety & Health Administration (MSHA)

Environmental Protection Agency (EPA)

United States Army Corps of Engineers (USACE)

Federal Aviation Administration (FAA)

National Institute for Occupational Safety and Health (NIOSH)

Fish and Wildlife Service (FWS)

RECLAMATION PLANS

WI Administrative Code NR 135 Effective December 1, 2000

To rehabilitate sites where nonmetallic mining takes place after the effective date of an applicable reclamation ordinance, in order to promote the removal or reuse of nonmetallic mining refuse, removal of roads no longer in use, grading of the nonmetallic mining site, replacement of topsoil, stabilization of soil conditions, establishment of vegetative cover, control of surface water flow and groundwater withdrawal, prevention of environmental pollution, development and reclamation of existing nonmetallic mining sites, and development and restoration of plant, fish and wildlife habitat if needed to comply with an approved reclamation plan.

To assure nonmetallic mining operations after the effective date of an applicable reclamation ordinance are conducted in a manner that promotes successful reclamation consistent with the standards established in this chapter, minimizes the cost of nonmetallic mining reclamation, encourages the development and reclamation of existing nonmetallic mining sites and, to the extent practicable, minimizes areas disturbed by nonmetallic mining at any time and provides for contemporaneous nonmetallic mining reclamation.

RECLAMATION PLANS

NR 135 Purpose of Reclamation

- To rehabilitate sites where nonmetallic mining takes place
- Promote the removal or reuse of mining refuse
- Remove roads no longer in use
- Grade the site
- Replace topsoil and stabilize soil conditions
- Establish vegetative cover
- Control surface water flow and groundwater withdrawal
- Prevent environmental pollution

RECLAMATION PLANS

NR 135 Purpose of Reclamation

- Reclaim existing sites

- Develop sites

- Develop and/or restore plant, fish and wildlife habitat if in the plan

- Assure operations are conducted to promote successful reclamation

- Minimize the cost of reclamation

- Minimize area disturbed at any one time

- Provides for contemporaneous (staged) reclamation

RECLAMATION PLANS

Typically administered by Counties sometimes Municipalities

Required prior to commencement of mining.

Public notice and right of hearing.

Endangered Resources Review

Financial assurance



Image Source: Google Earth Pro

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RECLAMATION PLANS

Annual report

Annual fees

Interim inspections

Deposit registration

Final desired reclamation



Image Source: Google Earth Pro

RECLAMATION PLANS



Image Source: Google Earth Pro

New Auburn, WI
Clay Borrow Site

RECLAMATION PLANS



Image Source: Google Earth Pro

Lake Wissota Golf, WI Partial Reclamation 1999

RECLAMATION PLANS



Image Source: Google Earth Pro

Lake Wissota Golf, WI Partial Reclamation 2011

RECLAMATION PLANS



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Lake Wissota Golf, WI Partial Reclamation 1999

RECLAMATION PLANS



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Lake Wissota Golf, WI Partial Reclamation 2011

ENVIRONMENTAL PERMITTING

Stormwater – WDNR, EPA

Wisconsin Pollutant Discharge Elimination System (WPDES) permit

- Nonmetallic Mining Operations General permit expires March 31, 2014

- Requires quarterly testing and annual reporting of runoff quality and quantity

- Required prior to mining

Stormwater Pollution Prevention Plan (SWPPP)

- Identifies all storage, treatment, and discharge locations

- Includes calculation summaries showing adequate sizing and treatment

- Required as part of the WPDES permit

Construction Site Notice of Intent (NOI)

- Requires Best Management Practices (BMP's)

- Does not require testing or reporting

- Required prior to breaking ground

ENVIRONMENTAL PERMITTING

Drinking Water – WDNR, EPA

High Capacity Well (HCW) permit

- Required prior to drilling a well(s) with a capacity ≥ 70 gallons per minute (gpm)

- Special review given when $< 1,200$ feet to a surface water or wetland

- Cannot adversely affect adjacent wells

- Annual reporting requirements

Potable Well permit

- Private well for employee usage

- Well drillers typically handle permitting

ENVIRONMENTAL PERMITTING

Surface Waters/Wetlands – Local, County, WDNR, EPA, USACE, FWS

Shoreland Zoning and Land Use Permits

Shorelands are the greater of;

- 1000 feet of a lake, pond or flowage

- 300 feet of a river or stream

- Landward side of the floodplain

County/Municipality Shoreland Zoning ordinances regulate activity within the “shoreland”

Chapter 30 permit required prior to surface water impacts (crossings, encroachments)

Wetlands – WDNR, EPA, USACE

Wetland delineations define presence/absence

WDNR viewer shows previous delineations and/or hydric soils

Chapter 30 permit required prior to wetland disturbance

Disturbances > 10,000 square feet (sf) require mitigation

ENVIRONMENTAL PERMITTING

Air – WDNR, EPA

Registration permit

- Required prior to mining
- Covers operations with no historic emissions
- Requires a Fugitive Dust Control Plan
- Daily tracking, annual reporting, training

Construction permit

- Required for drying operations
- Predicted results based on modeling
- Startup testing

Operation permit

- Valid for 5 years
- Malfunction Prevention and Abatement Plan (MPA)
- Stack compliance testing and reporting
- Public comment and hearing notice

OTHER SITE PERMITTING

Driveways – Local, WDOT

- Required prior to access
- County design requirements
- WDOT access restrictions and design requirements
- Road use agreements

Industrial By-Product permit – Local, WDNR

- Dependent on process additives
- Can be classified as a solid waste

Building permit – Local, DSPS

- Required prior to breaking ground



Image Source: Google Earth Pro

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OTHER SITE PERMITTING

Private Onsite Waste Treatment System (POWTS) – Local, DSPS

Required where no connection to municipality exists

Construction permit – FAA

Required if near airport or > 200 feet height

Spill Prevention Control and Countermeasure Plan (SPCC) – EPA

Required for onsite storage of large quantities of petroleum products



Image Source: Google Earth Pro

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MONITORING & ENFORCEMENT



Monitoring Well



Storm Water Monitoring



Air Monitoring Station



Water Supply Well

Images Source: Ayres Associates

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INDUSTRY REGULATIONS

Local Regulation (County and/or Municipality)

Reclamation, Zoning, Land Use, Licensing, Conditional Use Permits, Shoreland, Driveway, Road Use, POWTS, Building

State Regulations (WDNR, WDOT, DSPS)

Stormwater, Water Supply, Surface Water, Wetlands, Air, Archaeological, Historical, Endangered Resources, Highway Access, Industrial By-Product, Building, POWTS

Federal Regulations (EPA, MSHA, FAA, USACE, NIOSH)

Stormwater, Water Supply, Surface Water, Wetlands, Air, Building height, Occupational Safety (dust), Workplace Safety (noise, fall, PPE, hazards), Petroleum

QUESTIONS?



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