

MONITORING VIOLATIONS AT A SAND DUNE MINE

1. Study and become familiar with the sand dune mining law. It is contained in the Lake Michigan Federation report *Vanishing Lake Michigan Sand Dunes: Threats from Mining*. It is also on the world wide web at:

http://www.dnr.state.mi.us/www/law/law_book/statutes/code/part637.html

2. Determine the permit number of the mine. Pam Studebaker in the Permit & Bonding Unit of the Geological Survey Division of the DEQ can give you the permit number and official name of the mine. Her telephone number is (517)334-6951.
3. Under FOIA (Freedom of Information Act) request the complete file on the mine (use its name and permit number to identify it). This will include the permit application(s), Environmental Impact Statement (EIS), Progressive Cell Unit Mining & Reclamation Plan (PCUMRP), 15 Year Mining Plan, correspondence, amendments, plans of the mine, field reports, bonding requirements, etc. You will have to pay for the cost of reproduction but having all of the information is necessary.

Currently, Pam Studebaker is the person responsible for processing FOIA requests. You may email your request to her at studebap@state.mi.us or by mail at Geological Survey Division, Department of Environmental Quality, P.O. Box 30256, Lansing, MI 48909-7756. You may also fax your request to her at (517)334-6919.

4. Convene neighbors and neighborhood representatives to familiarize those being effected by the mine with what is happening and to build a list of concerns, nuisances and disturbances. Meet with local officials to determine if local ordinances are being violated (e.g. noise ordinance). Request their assistance in approaching legislators. Raise some funds. Our experience is that you will need \$5,000 to \$6,000 to fully document violations at a mine.
5. Have aerial photographs made of the mine and printed at the same scale as the plans in the PCUMRP (usually 1"=200'). This should be aerial survey quality and will cost between \$1,100 and \$1,600.
6. Retain an engineering firm to review the material assembled. While you may be able to do it yourselves, an independent engineer carries more weight. The DEQ will eventually deny that there are any violations and will try to create the impression that you as ordinary citizens do not understand the law, or that the "allegations" are based on inaccurate data.

Have the engineer prepare a written report that you can attach to your correspondence. These services might cost \$2,000 to \$4,000.

7. Once violations have been discovered and documented by the engineer, you should improve your evidence. Get close up, oblique aerial photographs of specific areas. (These will probably cost \$300 to \$500. If you have a friend who is a pilot and you have access to a good camera, take them yourself.) These can be supplemented with ground photographs.
8. Write to Chief Harold Fitch, Geological Survey Division, P.O. Box 30256, Lansing, MI 48909-7756 describing all of the violations and attach your evidence and the engineering report. Copy Governor Engler, your state legislators, your township supervisor. It is better to call your legislators, describe your concerns and meet with them.

Notify the media of your findings and share your photographs, plans, engineering reports, etc.

9. Prepare to follow through. You must be persistent if you are to get the mine into compliance with the law and the PCUMRP.

SAND DUNE MINING LAW: BASIC OPERATING CONCEPTS

1. A mine is divided into “Cell Units” no larger than 10 acres (prior to 1977, 30 acre cell units were allowed). Cell units are placed in various states as described below.
2. Three (3) cells may be active at any time.
3. Three (3) cells may be in interim status at any time.
4. Conformance bonds are required for all active and interim cells in the amount of \$2000/acre.
5. A plant site is allowed that does not have to be reclaimed until all mining is complete

| State | Definition |
|----------|---|
| Inactive | Cell is in its natural state. Special conditions of the permit expressly prohibit mining equipment and vehicles on inactive cells, and removal or damage of vegetation in inactive cells. |
| Active | Cell has mining activity (including removing vegetation and topsoil in preparation for mining). |
| Interim | <p>“all sand dune mining and reclamation within the cell unit has been completed, but vegetation has not sustained itself through one growing season.” 63701(k)</p> <p>Reclamation includes:</p> <ul style="list-style-type: none"> Slopes graded to 1:3 Submerged slopes graded to 1:6 to 6 feet depth Revegetated with native species or species approved in PCUMRP – 80% coverage with no bare area greater than 25 sf All mining equipment has been removed except a roadway, conveyor or slurry pipeline corridor may be maintained and are considered part of the plant site. |
| Released | <p>Same as above except:</p> <ul style="list-style-type: none"> No 10' x 10' test area has less than 80% survival of planted vegetation. Plant material has sustained itself for 1 full growing season (1 year) |

CHECKLIST OF PROBABLE VIOLATIONS

The following list contains violations that we have discovered at three different mines.

1. Failure to reclaim according to the law or the PCUMRP.
 - a. Plant material not as called for in PCUMRP
 - b. Bare areas larger than allowed (in interim status and released status)
 - c. Planting at wider spacing than called for in the PCUMRP.
 - d. Submerged slopes steeper than 1:6
 - e. Final grades (above water table) steeper than 1:3.
 - f. Not using planting methods specified in PCUMRP (e.g. failure to spread topsoil, or failure to fertilize or irrigate).
 - g. Cell released before plant material has sustained itself for a full year.
 - h. Delaying planting beyond schedule established in the PCUMRP.
2. Dredging (creating a lake in order to extract sand below the water table) without a Land and Water Management permit.
3. Encroachment into buffer areas
4. Failure to file a 15 year mining plan or update it when a new permit was issued or when the mine changed hands.
5. Inadequate fencing (to prevent trespassing, to protect public, to keep off-road vehicles off the site).
6. Blowing sand.
7. Too many cells in interim or active status
8. "Plant site" expanding into "released cells"
9. Use of released cells for mining activities or for support of mining activities (e.g. storage of unused equipment.
10. Use of inactive cells for moving equipment, haul roads, storage of topsoil, etc.
11. Removing vegetation from an inactive cell or part of an inactive cell.
12. Permit amendments issued without public notice having been given. Note that if a citizen asks for a public hearing and shows good reason for a hearing, the DEQ must hold one before amending a permit.
13. Failure to file the PCUMRP with the county soil conservation district.
14. Violations of special conditions of the permit.
15. Changing boundaries of cell units without amending the permit.
16. Creating by amendment a cell unit larger than 10 acres.