



*Consulting Civil Engineers*

Kirsten Pauly, PE/PG, *Principal*  
Brian H. Mundstock, PE, *Principal*  
Mike Kettler, PE, *Principal*

January 15, 2008

Steve Thorp  
Scandia Code Official  
City of Scandia  
14727 209<sup>th</sup> Street North  
Scandia, MN 55073

Re: Dresel Contracting, Inc. Application Submittal

Dear Mr. Thorp:

Please find the enclosed additional information that you requested upon review of the Dresel Contracting., Inc. application for a permit to mine sand and gravel in Scandia. Based on the December 10, 2007 review letter and our January 3, 2008 meeting with City staff, the following additional items are included with this submittal:

1. 2 sets of full size engineered drawings signed by the engineer of record
2. Above maps at scale of at least 1" = 200'.
3. A survey signed by a registered land surveyor depicting monuments set and the external boundaries of and dimensions of the parcel. We have included a surveying worksheet for the property, however, we were unable to locate a certificate of survey. We are requesting that as a condition of the permit the applicant supply the City with a certificate of survey by May 1, 2008, so that we can have a survey and the monumenting performed this spring.
4. Clearly defined setbacks: Setback information, including distance to occupied structures has been added to Sheet C2.
5. Flood Elevations are required: A note has been added to sheet C2 that references the fact that the site is not located in an area prone to flooding as indicated on the preliminary flood insurance rate maps.
6. SWPPP: A copy of the SWPPP plan for the Dresel Contracting site is included in this attachment.
7. A note was added to sheet C4 that indicates the common mining border between Tiller Corporation's property and the Dresel Property will be mined in 2008 or thereafter.

The additional information resulted in revisions to sheet C2 and C42. We have enclosed twenty copies of the revised plans on 11X17.

If you have any further questions, please do not hesitate to contact me. We look forward to the remainder of the permitting process.

Sincerely,

A handwritten signature in blue ink that reads "Kirsten Pauly". The signature is written in a cursive, flowing style.

Kirsten Pauly, PE/PG  
SUNDE ENGINEERING, PLLC

cc: Josh Dresel



Consulting Civil Engineers

Kirsten Pauly, PE/PG, *Principal*

Brian Mundstock, PE, *Principal*

Mike Kettler, PE, *Principal*

April 23, 2008

Sherri Buss  
City of Scandia Planner  
TKDA  
444 Cedar Street Suite 1500  
Saint Paul, MN 551010-2140

Attached please find the additional information regarding Dresel Contracting's CUP for mining operation requested in your March 27, 2008 memo.

1. Concept Ultimate Use Plan:

This plan illustrates one potential use of the property after reclamation. This plan is conceptual only. Future development of the site may be agricultural or some other development that is in accordance with land use regulations at the time of development. Future development will require a formal application and approval by the City of Scandia.

1a. Reclamation Phasing C-3A: Attached is a reclamation phasing plan that illustrates where slope stabilization has occurred and the sequence of future restoration areas. Backfilling and stabilization of sideslopes will occur as mining along the perimeter of the mining areas is completed. The floor of the mining area will continue to be utilized for processing and stockpile area throughout the life of the mining operation. Perimeter berms will be utilized in final restoration grading work. This plan will be reviewed and updated as needed as part of the annual operator's permit.

2. Soil Balance calculation:

Clean soils are imported to this site and used for backfilling and restoration activity. The operator utilizes the various materials contained on-site on various local jobs. Excess soils from these jobs are backhauled to the site and utilized as fill material. Approximately 300,000 cy of material will be needed to complete restoration.

**Sunde Engineering, PLLC.**

10830 Nesbitt Avenue South • Bloomington, Minnesota 55437-3100  
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3. Seed Mixtures:

The Mining and Reclamation Plan, C-3, has been revised to include seed mixture and maintenance information.

4. Traffic Information:

The volume of material removed from this site varies from 0-100,000 cy/year. The table below illustrates the estimated average daily traffic from the Dresel site based on 50,000 cy/year and 100,000 cy/year. Material is also hauled into the site for recycling and reclamation activities. This material is typically brought into the site and then the truck is loaded with material to return to the job site so it does not represent additional truck trips.

The maximum daily truck traffic is estimated to be 150 truck trips per day.

| Volume (cy) | Tons    | Trucks/yr | Trucks/day | Trips/day | trucks/hour | trips/hr |
|-------------|---------|-----------|------------|-----------|-------------|----------|
| 50,000      | 70,000  | 3,500     | 19         | 39        | 2           | 3        |
| 100,000     | 140,000 | 7,000     | 39         | 78        | 3           | 6        |

Average traffic is based on an 8 month construction season

5 days a week, 180 construction days, 12 hours/day

Avg of 20 tons/truck

5. Hydrogeologic information:

This information is submitted under separate cover.



Kirsten Pauly, PE

Reg. No 21842

SUNDE ENGINEERING, PLLC

This summary focuses on data that is missing and required for LGB, Inc. to complete the Hydrogeologic evaluation of the identified site.

**Dresel Site**

- 1) ***Please provide a copy of Figure 2. Not received by LGB.***

A copy of Figure 2 is attached.

- 2) ***Please provide soil boring logs that were not included with the CUP. Not received by LGB.***

The soil borings were drilled several years ago as part of the County permitting process. We have been unable to locate copies of the logs. We were able to obtain some information from the engineer that prepared the County permit application (see item 4).

- 3) ***Boring locations are not shown on Figure 2 as indicated in text in Section 90. Please provide a map showing the locations of the soil borings.***

The Site Plan, C2 has been revised to show the three soil boring locations.

- 4) ***Are there survey data for the soil borings (i.e., grade elevation at the boring location when it was drilled)? If so, please provide. This will help determine / verify the accuracy of the groundwater elevations used to estimate flow direction.***

Survey data and water level information for the soil borings is from W. White, PE.

| <u>Boring #</u> | <u>Surface</u> | <u>Depth to Water</u> | <u>Water Table</u> |
|-----------------|----------------|-----------------------|--------------------|
| B-1             | 939.6          | 21'                   | 918.6              |
| B-2             | 945.9          | 27'                   | 918.9              |
| B-3             | 942.6          | 23'                   | 919.6              |

- 5) ***What time of year (month) were the borings drilled if not indicated on the logs?***

We do not have any information regarding the time of year that the borings were drilled.

- 6) ***Were the borings completed as temporary piezometers that depth the groundwater levels were measured? If so, are there survey data for these wells and provide a map showing there locations.***

No piezometers were not installed.

- 7) ***What time of year were the initial depth the groundwater levels estimated in the borings or wells?***

We do not know what time of year the water level measurements were made.

- 8) ***How was depth to groundwater determined from the borings?***

The distance from the surface of the borehole to the level of water encountered in the borehole was measured.

- 9) ***Section 9D requests a map of the groundwater depth, but this is not shown on Figure C1. Has a groundwater flow map been created? If so, please provide.***

A note has been added stating that based on borehole information the groundwater elevation for the site is about 919.0 feet above mean sea level. A ground water flow map has not been created. Installation of a down gradient monitoring well will help to define the groundwater flow.

**10) How was the elevation of groundwater determined as illustrated on cross-section A-A', B-B', C-C', and D-D' on plates C5 and C6?**

Groundwater elevations illustrated on the cross-sections were based on site borehole information and water table information found in the Geologic Atlas of Washington County, Minnesota (County Atlas Series, Atlas C-5, University of Minnesota, St. Paul, 1990) and available information from the Tiller site.

**11) The CUP states that there are no monitoring wells currently on site (Section 9P). Is it true that there are no water supply wells onsite? If there is a water supply well(s), please provide location map and well log(s).**

There are no monitoring wells currently onsite. There is a water supply well associated with the residence on the very eastern portion of the site, but we do not have any well log for this well.

Dresel Contracting, Inc.  
Scandia, MN

Stormwater Management Calculations

3/2008



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## Summary

The Dresel Contracting, Inc. sand and gravel mining facility is an active mining operation located on the NW corner of the intersection of Lofton Ave. and 218<sup>th</sup> Street in New Scandia Township. The mining operation is situated on a 57 acre site in the City of Scandia. The site is located within two separate watershed districts, the Carnellian-Marine-St. Croix WD, which covers the western  $\frac{3}{4}$  of the site and the Forest Lake-Comfort Lake WD, which covers the eastern  $\frac{1}{4}$  of the site. The boundary between the two watershed districts is not based on a watershed divide. It is established based on parcel boundary lines.

### Existing (Interim) Condition:

The site has been actively mined for the past several years. The area to be disturbed by mining encompasses 35.5 acres. Approximately 31 acres within the mining limits has been disturbed from mining activity. Currently, the majority of the disturbed area drains internally to low areas within the site. Collected water infiltrates and evaporates and is not discharged from the site. The locations of these low areas move throughout the site as mining activity moves throughout the site.

Screening berms have been established around the perimeter of the site. The outer portions of these berms drain off-site. Existing berms are stabilized with well established vegetation. Portions of the site have been stabilized by sloping and establishment of vegetation. There is a wetland located just west of the mining limits. According to the plans prepared as part of the Washington County permitting process for this site, the wetland was delineated in the field by Tim Fredbo water resource specialist, Washington Soil and Water Conservation District. The area adjacent to the wetland has already been mined. The area has been sloped and vegetation established to stabilize the slope.

Hydrologic computations have been prepared which evaluate the current condition of the site as well as the final reclamation condition of the site. Essentially the current condition also represents the interim or operating condition of the site. Past mining has redirected original site drainage to an internally drained condition over portions of the site that have been mined. The interim condition will continue to change as the remaining portion of the site is mined to completion.

The calculations illustrate the current sub-watershed areas and evaluate stormwater runoff entering the site, leaving the site, and remaining within the site. Curve numbers of the mapped soil types per the Natural Resources Conservation Service were used for all drainage areas except the pit (Drainage Area 1). The pit was assumed to be type "A" soils and a newly graded area

which has a CN of 77. For the Final (Restoration) Condition, type "B" soils were assumed for a grassed area with greater than 75% grass cover (CN 61) for the pit.

Final (Restoration) Condition:

Final reclamation will leave the site as open space with the slopes and floor stabilized with established vegetation. There will be no increase in rates of runoff leaving the site into the various subdrainage areas outside of the limits of the Dresel and Tiller mining areas. Instead of draining internally, as in the interim condition, the perimeter slopes and floor of the reclaimed mining area will drain to the north to the water body created by the adjacent Tiller Corporation's mining operation. There will be no hard surfaces associated with the reclamation condition, therefore no permanent stormwater management facilities will remain on-site after reclamation.

When final development eventually occurs on this site, appropriate stormwater management, sedimentation and erosion control plans will be prepared to reflect the proposed final development.

Table 1 Existing/Proposed Conditions

| DA    | Existing |               | Reclamation |               | Peak Flows (cfs) |       |       |        |             |       |       |        |
|-------|----------|---------------|-------------|---------------|------------------|-------|-------|--------|-------------|-------|-------|--------|
|       | Area (A) | Drainage      | Area (A)    | Drainage      | EXISTING         |       |       |        | RECLAMATION |       |       |        |
|       |          |               |             |               | 2 Yr             | 5 Yr  | 10 Yr | 100 Yr | 2 Yr        | 5 Yr  | 10 Yr | 100 Yr |
| 1     | 31.14    | internal      | 39.99       | offsite**     | 34.49            | 53.54 | 73.93 | 129.56 | 3.44        | 8.24  | 14.63 | 35.92  |
| 2     | 5.22     | offsite       | 4.42        | offsite       | 2.58             | 5.26  | 8.39  | 17.72  | 3.32        | 5.94  | 8.88  | 17.38  |
| 3     | 14.4     | into/through  | 12.04       | into/through  | 2.07             | 5.25  | 9.42  | 22.97  | 1.86        | 4.75  | 8.53  | 20.75  |
| 4     | 5.92     | offsite       | 5.17        | offsite       | 0.25             | 1.12  | 2.55  | 7.89   | 0.16        | 0.82  | 1.98  | 6.47   |
| 5     | 3.83     | offsite       | 2.9         | offsite       | 0.00             | 0.00  | 0.02  | 0.30   | 0.00        | 0.00  | 0.01  | 0.16   |
| 6     | 0.66     | offsite       | 0.66        | offsite       | 0.03             | 0.17  | 0.40  | 1.20   | 0.03        | 0.17  | 0.40  | 1.20   |
| 7     | 6.97     | internal      | 3.66        | internal      | 0.03             | 0.24  | 1.12  | 6.12   | 0.00        | 0.01  | 0.05  | 1.00   |
| 8     | 4.79     | into/internal | 2.06        | into/internal | 0.13             | 0.61  | 1.44  | 4.69   | 0.01        | 0.11  | 0.47  | 2.28   |
| Total | 72.93    |               | 70.9        |               | 39.58            | 66.19 | 97.27 | 190.45 | 8.82        | 20.04 | 34.95 | 85.16  |

\*See Attached Existing and Proposed Conditions Maps for Details

\*\*Upon final reclamation, the mining area will drain to the north into the Tiller lake.

Type "A" soils for a newly graded area (CN=77) were assumed for Drainage Area 1 (Gravel Pit) for the Existing Conditions. Type "B" soils for > 75% grass cover (CN=61) were assumed for Drainage Area 1 (Reclaimed Gravel Pit) for the Proposed/Reclamation Conditions. All other drainage areas reflect soil conditions mapped by the USDA – Natural Resources Conservation Service. Please refer to attached Soils Map for details.

**Table 2 Offsite Drainage**

| DA    | EXISTING |       |       |        | RECLAMATION |       |       |        |
|-------|----------|-------|-------|--------|-------------|-------|-------|--------|
|       | 2 Yr     | 5 Yr  | 10 Yr | 100 Yr | 2 Yr        | 5 Yr  | 10 Yr | 100 Yr |
| 1*    | 34.49    | 53.54 | 73.93 | 129.56 | 3.44        | 8.24  | 14.63 | 35.92  |
| 2     | 2.58     | 5.26  | 8.39  | 17.72  | 3.32        | 5.94  | 8.88  | 17.38  |
| 3     | 2.07     | 5.25  | 9.42  | 22.97  | 1.86        | 4.75  | 8.53  | 20.75  |
| 4     | 0.25     | 1.12  | 2.55  | 7.89   | 0.16        | 0.82  | 1.98  | 6.47   |
| 5     | 0.00     | 0.00  | 0.02  | 0.30   | 0.00        | 0.00  | 0.01  | 0.16   |
| 6     | 0.03     | 0.17  | 0.40  | 1.20   | 0.03        | 0.17  | 0.40  | 1.20   |
| Total | 39.42    | 65.34 | 94.71 | 179.64 | 8.81        | 19.92 | 34.43 | 81.88  |

\*Upon final reclamation, the mining area will drain to the north into the Tiller lake.

Proposed/Reclamation conditions offsite drainage does not exceed pre-development/existing conditions offsite drainage.

**Wetlands:**

There is one wetland basin located west of the proposed mining limits. The drainage area of this basin will be reduced as a result of mining operations. However, because the soils within the portion of the drainage area to be removed are permeable in nature, they result in very little runoff for the day to day storm events. Therefore, removal of drainage areas with permeable soils has very little impact during frequent day to day type rainstorm events. It is during less frequent (i.e. 100 yr) events where soils become saturated that there begins to be a substantial difference between the existing and proposed conditions.

The analysis shows that for frequent rainstorm events, the impact to the wetland basin will not be significant. Because the more frequent events sustain the wetlands, there should be no substantial indirect impact to the wetland basins as a result of the mining operation.

**Table 3 Wetland Impacted by Mining**

| Wetland | Drainage Area (A) Existing | Drainage Area (A) Reclaimed | Volume of Runoff (cf) 2 Yr Event |           | Volume of Runoff (cf) 5 Yr Event |           | Volume of Runoff (cf) 10 Yr Event |           |
|---------|----------------------------|-----------------------------|----------------------------------|-----------|----------------------------------|-----------|-----------------------------------|-----------|
|         |                            |                             | Existing                         | Reclaimed | Existing                         | Reclaimed | Existing                          | Reclaimed |
| 1       | 19.62                      | 16.46                       | 46,646                           | 43,709    | 68,327                           | 62,701    | 93,042                            | 84,122    |

\*Drainage area to the wetland, are areas 2 and 3.

With respect to specific items in the January 23, 2008 comment letter from the Comfort Lake Forest Lake Watershed District the following information is provided:

- 1) There is very little information provided in order to evaluate the site's overall impact on the surrounding environment with respect to the goals and policies in the Comfort Lake – Forest Lake Watershed District's Watershed Management Plan:*

With respect to the policies of the Comfort Lake Watershed District, the site has operated and will continue to operate in a manner to protect adjacent wetlands and waters from significant degradation and to protect wetlands and waters from significant wetland alteration, to maintain existing water uses, aquatic and wetland habitats and the level of water quality.

Specific District goals relevant to this site include water management and wetland management. Water management goals include preservation and use of natural storage and retention areas to control excess volumes and rates of runoff, preservation of groundwater recharge areas, measures to protect surface and groundwater quality, and monitoring of groundwater quantity and quality throughout the duration of mining operations.

The site operates under a Stormwater Pollution Prevention Plan. This plan has been developed to prevent stormwater that has contacted stripped areas or exposed soils from discharging from the site untreated. The mining operation creates storage and retention areas helping to control excess volumes and rates of runoff. The majority of stormwater is infiltrated, preserving groundwater recharge areas. Groundwater monitoring will be conducted to insure protection of groundwater quality.

Wetland goals include protection of District wetlands in accordance with existing rules and regulations using watershed based management activities and restoration. The wetland basin located west of the mining limits was field delineated as part of past permits with Washington County. Mining adjacent to the wetland has been completed. The excavation slope has been backfilled, sloped and stabilized with vegetation.

- 2) The site operates on two parcels on 57 acres of which 36 acres are within the active mining limits.*

No response needed.

- 3) *Only one wetland indicated in the site plan has been field delineated. In order to determine the types, sensitivities, and overall values of the wetlands on site, they all should be field delineated. Further, CLFLWD recommends that all wetlands be protected with buffer zone to be maintained outside the outer wetland boundary. The site maps do not indicate buffer zones.*

The only wetland basin not delineated in the field is indicated as PUBGx on the NWI maps. According to the operator, this basin was created as part of the mining operation and has subsequently been removed through the course of additional mining. A minimum twenty foot natural vegetation buffer zone will be maintained around the existing wetland. Work adjacent to the wetland has already been completed in accordance with the permit from Washington County. The active mining face adjacent to the wetlands has been backfilled sloped and vegetated. Please refer to the Drainage and Erosion Control Plan for details.

- 4) *There is no stormwater rate and volume modeling completed for the site. In order fulfill goals included within the District's Watershed Management Plan, interim and post-use (reclaimed) stormwater rates from the site for a 24-hour precipitation event with a return frequency of 2, 5, 10, or 100 years should not increase from pre-use conditions.*

*Further, increased runoff volumes can cause downstream flooding or exacerbate existing flooding concerns and can alter the hydrology of downstream wetlands. In order to alleviate these concerns and fulfill goals included within the District's Watershed Management Plan, the project site (existing, interim and reclaimed) should be designed to maintain existing runoff volumes for the 2-year event (2.8 inches).*

Stormwater rate and volume calculations have been performed. The results are presented in the Existing/Proposed Conditions section of this report. Also, please refer to HydroCAD output for further detail. Existing conditions are the same as interim conditions as the site is currently operating.

- 5) *There are no water quality models in order to determine pre-use, interim and post-use (reclaimed) phosphorus loads from the site. Submittal of a water quality modeling analysis of the site (using a model such as P8 or a method found in Appendix L of the Minnesota Stormwater Manual "Simple Method of Determining Phosphorus Export," for determining the pre-use and post-use nutrient loads from the site) would specifically address this concern.*

Currently there are no water quality models modeling phosphorus removal and loads because modeling them is based on ponding. There is no ponding

proposed for the interim and post-use conditions for offsite drainage areas, therefore phosphorus loads are not able to be modeled.

What can be said generally about the phosphorus loads from the site are that as mining continues to the north, east and west phosphorus loads leaving the site will be reduced as the drainage areas are reduced in size. Ultimately the reclamation condition will have less of a phosphorus load leaving the site than the pre-mining (with agricultural land uses) conditions.

- 6) *The watershed will also request design and construction details for the proposed BMP's mentioned in N. as well as detail as to where and when those BMP's will be used.*

Please refer to the SWPPP and the Drainage and Erosion Control Plan for additional information.

- 7) *In order to review the sites groundwater component/interaction, the watershed will request a copy of the groundwater monitoring plan, spill response and emergency response plans, and results of past groundwater monitoring that have been conducted.*

Please refer to section O. and P. in the Conditional Use Permit Application. Ground water monitoring has not been conducted in the past at this facility.

Although a comment letter was not received for this site from the Carnelian – Marine – St. Croix Watershed District, responses to comments they had in their Bracht Bros., review are provided.

- 1) *The submittal information received on January 18, 2008, is acceptable as far as general information on proposed operations and narrative requirements but lacks the specific information and detailed plans and design information the district will need to evaluate the project.*

- a. *Provide a wetland buffer plan.*

Vegetation will be maintained for a minimum of twenty feet between wetland and mining limits in order to provide a buffer to the wetland. Please refer to the Drainage and Erosion Control Plan.

- b. *Provide detailed drainage plan and supporting computations documenting that rates and volumes discharged off site are not increased over pre-settlement conditions; for the interim mining phases and final site at completion of mining activity. To estimate pre-settlement conditions district will accept assumption of existing conditions topography, "A" soils or mapped*

*existing soil types. A native prairie land cover should be assumed for the areas that are currently being mined. Drainage plan subwatershed maps and computations need to include off-site areas that drain to the property.*

Please refer to the following stormwater management calculations, exhibits and HydroCAD modeling for a detailed drainage plan. Assumptions are described in this summary and throughout the report.

- c. Design information for water quality features needs to be provided.*

The site utilizes internal low areas to collect stormwater within the floor of the mining area. The locations of these low areas change as mining progresses. The basins are not designed to any standard because stormwater does not discharge off site. Please also refer to the SWPPPP for the site.

- d. District will expect drainage plan and models to be of sufficient detail to also evaluate expected impact to on-site wetlands.*

Please refer to the following stormwater management calculations, exhibits and HydroCAD modeling.

- e. Drainage and erosion control plans need to include construction details for installation of stormwater management and erosion control practices (proposed BMP's). Design information on size of proposed practices and when they will be placed and how they will be maintained will also be required.*

Please refer to the Drainage and Erosion Control Plan. Currently screening berms are in place. Also, as mining progresses through silt fence will be added per the Drainage and Erosion Control Plan. Please also refer to the SWPPP.

- f. Provide copies of the groundwater monitoring plan (include reports on past monitoring activities under previous County permit), spill response plan and emergency response plan.*

Please refer to section O. and P. in the Conditional Use Permit Application. Also, please refer to section 14, Contingency Response Plan. Ground water monitoring has not been conducted at this site.











STORM WATER POLLUTION PREVENTION PLAN  
FOR  
DRESEL CONTRACTING, INC.  
Scandia, Minnesota

Permit number MNG490000

A. *GENERAL*

This plan has been prepared in compliance with the provisions contained within the National Pollutant Discharge Elimination System (NPDES) and State Disposal System (SDS) Permit MN G490000 for Construction Sand and Gravel, Rock Quarrying and Hot Mix Asphalt Production Facilities. The subject site is a sand and gravel mining operation. This plan shall remain on-site, or if there is no suitable on-site storage location, may be maintained at a readily available off-site location, and will not be submitted to the Minnesota Pollution Control Agency unless requested.

B. *Site Map*

A site map is attached which illustrates the following items: Township Range and Section, topography, wetlands, streams, ditches, lakes and other nearby surface waters, identification of DNR designated trout streams, outstanding resource value waters (OVRW's) and the Clean Water Act, Impaired Waters within one mile of the site, water wells, surface water supply intakes, pit dewatering points, direction of stormwater runoff from the site and name of surface water that receives any surface discharge. The plan also illustrates significant materials storage areas. There are no impervious surfaces within the mining area.

There are no OVRW's or DNR designated trout streams within 1 mile of the site. An Impaired Water, Bone Lake, is located 4600 feet northeast of the site. Most stormwater drains internally to low points within the site's mining limits. A small area within the northeast mining limit boundary drains to low points outside of the mining limits, but still within site boundaries or immediately adjacent to the site. A small area in the western portion of the site drains to the wetland located partially onsite to the west-southwest.

C. *POTENTIAL SOURCES OF POLLUTANTS*

The following are potential sources of contamination of storm water at the site.

1. Excavation areas: Sediment picked up in runoff contacting areas stripped in preparation of mining activity as well as exposed mining faces and pit floor.
2. Portable crushing and screening equipment operate periodically at the site. Leaks from equipment used at the site have the potential to contaminate stormwater.
3. Materials Storage areas. There are no chemicals or explosives stored on-site. Topsoil, overburden, natural aggregates and recycled asphalt and concrete are significant materials stored on-site.
4. Conveyors are not operated at this site.
5. Material loading occurs on the pit floor directly from the active face or from processed aggregate stockpiles located on the pit floor.
6. Roads and vehicle parking: All internal haul roads are gravel surfaced. There are no designated parking areas.
7. Fuel storage and fueling: All storage tanks are above ground and have secondary containment.
8. Vehicle and equipment maintenance activities are performed on-site. *No engine degreasing is performed on-site.*
9. Equipment washing is not performed on site.
10. Buildings: *There are no buildings associated with the mining operation.*
11. An asphalt plant is not associated with this operation. Therefore there is no asphalt storage, truck box lubrication or cleaning, wet scrubber discharge or sediment and sludge storage from asphalt plant operations occurring at this site.

**D. PRACTICES TO REDUCE POLLUTANTS IN STORM WATER DISCHARGES FROM THE SITE**

Perimeter controls

Best Management Practices (BMPs) implemented at the site which control stormwater and prevent it from discharging untreated from the site include silt fence and perimeter diversion berms where needed.

BMPs implemented at the site which will help to stabilize the site include seeding and mulching of areas that have been graded to final reclamation elevations.

BMPs to prevent stormwater from contact with significant materials include the grading of the pit floor to direct runoff from the floor of the mining operation away from significant materials.

In addition to these specific management practices used to reduce and minimize the potential for sediment discharge off-site, more general best management practices are used throughout the site such as erosion control fencing around sensitive areas, containment of aggregate stockpiles within recessed portions of the site, routine maintenance of equipment and employee training in the proper use and handling of equipment and materials handled on-site.

The permittee will, on at least an annual basis, review the current EPA approved list of impaired waters and the TMDLs to determine if and to what extent the site's Pollution Prevention Plan must address these impairments and TMDLs.

*E. NON-STORM WATER DISCHARGES*

There are no pit dewatering discharges or other non stormwater discharges from the site.

*F. MANAGEMENT AND RESPONSE*

Personnel responsible for managing the Storm Water Pollution Prevention Plan, implementation and reporting:

Primary Contact: Josh Dresel

Dresel Contracting, Inc.  
24044 July Avenue  
Chisago City, MN 55013

Phone: 651.257.9469

*G. INSPECTIONS*

The facility shall be inspected at least monthly during active operations to ensure that the Plan is followed and that Dresel Contracting is in

compliance with the requirements of their NPDES Stormwater Permit. A written record of the inspections will be maintained by Dresel Contracting. Information required for the annual report/site inventory will be updated as needed. All of the inspection and maintenance information will be recorded in writing and the records will be retained with the Pollution Prevention Plan. Records of the inspection and maintenance activity will include:

1. Date and time of inspections
2. Name of person completing the inspection,
3. Findings of the inspection, (including recommendations for completing maintenance activities)
4. Corrective actions taken (including dates, times and party completing maintenance activities)
5. The date and amount of rainfall events greater than ½ inch in 24 hours obtained by actual measurement at the site or data from the nearest National Weather Service Station of local precipitation data found at <http://www.crh.noaa.gov/mpx>,
6. Documentation of any changes made to the Plan.

#### H. FINAL STABILIZATION AND CLOSURE:

Dresel Contracting, Inc. will be released from the inspection, recording and reporting requirements of this permit for this site when they no longer conduct the activities authorized by this permit and certify on the Annual Report/ Site Inventory Form that:

- a. There is no stormwater runoff and/or pit dewatering from the site; or
- b. The Permittee certifies that a new owner or operator has assumed responsibility for the site; or
- c. The site closure achieves final stabilization.

Site closure must achieve final stabilization as follows:

- a. The drainageways that leave the site are stabilized to prevent erosion with riprap or other protective material.
- b. The soil disturbing activities at the site are completed and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.
- c. The drainage ditches constructed to drain water from the site are stabilized to preclude erosion.

- d. The temporary, synthetic, and structural erosion prevention and sediment BMPs (such as silt fence) are removed.
- e. The Permittee cleans out all sediment from conveyances and from temporary sedimentation basins that are to be used as permanent water quality management basins; sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage-ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.
- f. The Permittee installs permanent stormwater treatment for new impervious surfaces created as a result of the activities covered by this permit. The permanent stormwater treatment must be designed for 0.5 inches of runoff from all created impervious surfaces.
- g. Other BMPs as necessary are implemented so as to prevent erosion from the site excavation areas and stockpiles that have been used by the Permittee.

