**PROJECT NAME**: ECK 322 EXTENSION PROJECT **PROJECT NUMBER**: WSB 026882-000

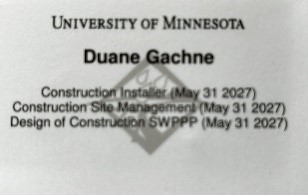
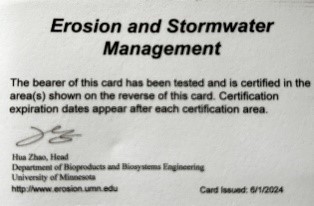
**PROJECT LOCATION**: STREET: WEAVER LAKE ROAD CITY: MAPLE GROVE COUNTY: HENNEPIN

STATE: MINNESOTA ZIP: 55311 LATITUDE/LONGITUDE: 45.1031/-93.4758

THE PLANNED SCOPE OF THE PROJECT INCLUDES:

XCEL ENERGY IS PROPOSING INSTALLATION OF NEW MANHOLE AND DUCT LINE ALONG WEAVER LAKE ROAD, MAPLE GROVE PARKWAY AND 89TH AVENUE NORTH IN MAPLE GROVE, MINNESOTA. PROJECT ACTIVITIES WILL BEGIN ON THE NORTH SIDE OF 89TH AVE N BETWEEN COUNTY RD 101 & MAPLE GROVE PKWY, THEN SOUTH ON THE WEST SIDE OF MAPLE GROVE PKWY TO WEAVER LAKE ROAD AND FINALLY, THE SOUTH SIDE OF WEAVER LAKE ROAD FROM MAPLE GROVE PKWY TO THE BOSTON SCIENTIFIC CAMPUS LOCATED AT 1 SCIMED PLACE, MAPLE GROVE, MN.

|  |  |
| --- | --- |
| TENTATIVE CONSTRUCTION SCHEDULE (OPERATOR SHOULD PROVIDE ESTIMATED CONSTRUCTION SCHEDULE TO THE ENGINEER) | |
| CONSTRUCTION ACTIVITIES: | ESTIMATED DATES OF SOIL DISTURBANCE ACTIVITIES: |
| TEMPORARY SEDIMENT CONTROL BMPS & REMOVALS | JAN 2025 – MAR 2026 |
| UTILITY WORK | JAN 2025 - MAR 2026 |
| FINAL STABILIZATION | MAR 2026 |



**PROJECT PERSONNEL AND TRAINING**

SWPPP DEVELOPER:

WSB (DUANE GACHNE)

3701 40TH AVE NW SUITE 100

ROCHESTER, MN, 55901

507-910-2983/DGACHNE@WSBENG.COM

CONTRACTOR TO PROVIDE CERTIFICATION OF EROSION CONTROL OFFICER AND ANY OTHER CREW MEMBERS WHO WILL WORK ON THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. PROVIDE PROOF OF CERTIFICATION AT THE PRECONSTRUCTION MEETING. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

**CHAIN OF RESPONSIBILITY**

XCEL ENERGY AND THE CONTRACTOR ARE CO-PERMITTEES FOR THE NPDES CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA.

|  |  |  |  |
| --- | --- | --- | --- |
| NAME  **CONTRACTOR TO COMPLETE** | COMPANY | TITLE | PHONE |
| SIMON CHRISTENSEN | XCEL ENERGY | OWNER CONTACT | 612-216-8185 |
|  |  | CONTRACTOR CONTACT |  |
| JACK GLECKLER | WSB | ON SITE ESC INSPECTOR | 763-772-8457 |
|  |  |  |  |

**AGENCY CONTACTS**

|  |  |  |
| --- | --- | --- |
| ORGANIZATION | CONTACT NAME | PHONE |
| MPCA (EMERGENCY) 24 HOUR | STATE DUTY OFFICER | 1-800-422-0798 |
| MPCA | JOSH NORMAN | 651-757-2389  JOSH.NORMAN@STATE.MN.US |
| CITY OF MAPLE GROVE LGU | DEREK ASCHE | 763-494-6354  DASCHE@MAPLEGROVEMN.GOV |
| ELM CREEK WMC | ERIK MEGOW | 763-252-6857  ERIK.MEGOW@STANTEC.COM |
| MNDNR | WES SAUNDERS-PIERCE | 651-259-5822  WES.SAUNDERS-PEARCE@STATE.MN.US |

**LOCATION OF SWPPP REQUIREMENTS**

THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET AS WELL AS IN THE PROJECT MANUAL OR ON FILE WITH THE PROJECT OWNER.

|  |  |
| --- | --- |
| DESCRIPTION | LOCATION |
| TEMPORARY/PERMANENT EROSION CONTROL MEASURES | PLAN SET |
| DIRECTION OF FLOW | PLAN SET |
| CONSTRUCTION NOTES & STANDARD PLATES | PLAN SET |
| DRAINAGE PLAN & CONSTRUCTION PLAN | PLAN SET |
| BMP TABULATION | PLAN SET |
| STORMWATER CALCULATIONS | DRAINAGE REPORT & HYDRAULIC REPORT. AVAILABLE UPON REQUEST |

**RECEIVING WATERS**

A SPECIAL AND IMPAIRED WATERS SEARCH WAS COMPLETED USING THE MPCA SEARCH ENGINE ON 10/14/2024. BASED ON THIS REVIEW, THE FOLLOWING SPECIAL/IMPAIRED WATERS (WITH CONSTRUCTION RELATED IMPAIRMENTS) ARE LOCATED WITHIN ONE MILE OF, AND DOWNSTREAM OF, ANY PROJECT DISCHARGE POINTS. PARTS 23.9 & 23.10 OF THE NPDES PERMIT APPLY.

|  |  |
| --- | --- |
| WATERBODY | IMPAIRMENT(S) |
| RUSH CREEK (SOUTH FORK) | BENTHIC MACROINVERTEBRATES BIOASSESSMENTS; CHLORIDE; ESCHERICHIA COLI; FISH BIOASSESSMENTS |
| ELM CREEK | BENTHIC MACROINVERTEBRATES BIOASSESSMENTS; CHLORIDE; ESCHERICHIA COLI; FISH BIOASSESSMENTS; DISSOLVED OXYGEN; TOTAL SUSPENDED SOLIDS |
| RICE MAIN LAKE | NUTRIENTS |
| FISH LAKE | FISH BIOASSESSMENTS; MERCURY IN FISH TISSUE |

**AREAS OF ENVIRONMENTAL SENSITIVITY (AES) AND INFESTED WATERS**

IN ADDITION TO THE LIST OF SPECIAL AND IMPAIRED WATERS, THE CONTRACTOR SHALL BE AWARE THAT THERE ARE WETLANDS AND EXISTING STORMWATER FACILITIES WITHIN AND NEAR THE PROJECT BOUNDARY. THERE IS A MAP OF KNOWN NATURAL RESOURCES ON THE LAST PAGE OF THE SWPPP NARRATIVE. AREAS OF ENVIRONMENTAL SENSITIVITY ARE ALSO CALLED OUT ON THE PLAN SHEETS.

**SOIL TYPES**

A USDA-NRCS SOIL SURVEY WAS COMPLETED FOR THIS PROJECT ON 10/14/2024. LESTER LOAM AND CORDOVA LOAM ARE THE PREDOMINATING SOILS ALONG MOST OF THE ALIGNMENT. ADDITIONAL SOIL INFORMATION CAN BE FOUND ON THE USDA-NCRS SOIL SURVEY WEBPAGE. SOIL CLASSIFICATIONS FOR HIGHLY ERODIBLE LAND (HEL), POTENTIALLY HIGHLY ERODIBLE LAND (PHEL), AND NOT HIGHLY ERODIBLE LAND (NHEL) SOILS CAN BE FOUND ON *FIGURE 1. SWPPP RESOURCE MAP.*

NATIVE TOPSOIL WILL BE STRIPPED; IF MATERIAL NEEDS TO BE STOCKPILED, APPROPRIATE ACTION WILL TAKE PLACE TO ENSURE THE STOCKPILES HAVE ALL PROPER BMPS IN PLACE ACCORDING TO THIS SWPPP AND THE NPDES PERMIT.

**ENVIRONMENTAL REVIEW**

NO FORMAL ENVIRONMENTAL REVIEW WAS REQUIRED FOR THIS PROJECT.

WETLANDS: NO WETLAND IMPACTS ARE ANTICIPATED WITH THIS PROJECT.

THREATENED/ENDANGERED SPECIES: HENNEPIN COUNTY LISTS THE NORTHERN LONG-EARED BAT, TRICOLORED BAT (PROPOSED), MONARCH BUTTERFLY (CANDIDATE), AND RUSTY PATCHED BUMBLE BEE AS THREATENED/ENDANGERED SPECIES WITHIN THE COUNTY. TREE REMOVAL SHOULD OCCUR OUTSIDE OF THE NORTHERN LONG-EARED BAT ACTIVE SEASON (APRIL 1 TO OCTOBER 31). BASED ON THE CONSTRUCTION ACTIVITIES, IT IS DETERMINED THAT THE PROJECT WILL HAVE NO EFFECT ON THESE SPECIES OR THEIR HABITATS. HOWEVER, IF THESE SPECIES ARE FOUND, CONTRACTOR IS TO STOP WORK IMMEDIATELY FOR FURTHER INVESTIGATION.

DRINKING WATER/WELLS: ACCORDING TO THE MDH, THE PROJECT IS NOT LOCATED WITHIN ANY DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA) NOR NEAR ANY WELLHEAD PROTECTION AREAS.

CONTAMINATED PROPERTIES: THE MPCA’S “WHAT’S IN MY NEIGHBORHOOD” DATABASE WAS REVIEWED ON 10/14/2024. THE RESULTS OF THIS REVIEW SHOW TWO (2) KNOWN CONTAMINATED PROPERTIES (HAZARDOUS WASTE SITE & PETROLEUM REMEDIATION SITE) LOCATED ALONG TO THE PROJECT ALIGNMENT: ID 198453, ID 22864. THE PROJECT ACTIVITY IS NOT PROPOSED TO UNEARTH ANY CONTAMINATED SOIL, CONTAMINATED WATER, AND/OR REGULATED WASTE. REFER TO MNDOT SPEC 1717.1.A. FOR POTENTIAL INDICATORS OF CONTAMINATED MATERIALS AND REGULATED WASTE. IF CONTAMINATED MATERIAL, CONTAMINATED WATER, AND/OR REGULATED MATERIALS ARE FOUND, CREWS ARE TO STOP WORK IMMEDIATELY FOR FURTHER INVESTIGATION/TESTING.

FLOOD CONTINGENCY PLAN: PROJECT ACTIVITIES MAY OCCUR WITHIN THE 100-YEAR FLOODPLAIN OR FLOODWAY, THEREFORE, THE PROJECT ENGINEER (AT THEIR DISCRETION) MAY REQUIRE A PREVENTATIVE FLOOD CONTINGENCY PLAN FOR SPECIFIC PROJECT ACTIVITIES AND AREAS IF SEASONAL PRECIPITATION POSSES A POTENTIAL RISK OF FLOODING WORK AREAS WITHIN THE PROJECT LIMITS. THIS PLAN SHALL BE SUBMITTED BY THE OPERATOR TO THE PROJECT ENGINEER FOR APPROVAL A MINIMUM OF 72 HOURS PRIOR TO THE SCHEDULED WORK AND/OR DURING ACTIVE WORK WITHIN THE FLOODPLAIN. NO WORK WITHIN THE FLOODPLAIN CAN COMMENCE UNTIL WRITTEN APPROVAL HAS BEEN GRANTED BY THE PROJECT ENGINEER.

**LAND FEATURE CHANGES**

TOTAL AREA TO BE DISTURBED = 1.8 ACRES

IMPERVIOUS AREA: PRE-CONSTRUCTION = 1.8 ACRES/POST-CONSTRUCTION = 1.8 ACRES

NET INCREASE OF IMPERVIOUS AREA = 0.00 ACRES

LONG TERM MAINTENANCE AND OPERATION:

PERMANENT STORMWATER TREATMENT IS NOT REQUIRED UNDER THE MPCA CONSTRUCTION STORMWATER GENERAL PERMIT BECAUSE THE PROJECT DOES NOT RESULT IN A NET INCREASE IN IMPERVIOUS SURFACES. ELM CREEK WATERSHED MANAGEMENT COMISSION’S RULE D REQUIRES STORMWATER MANAGEMENT. THIS PLAN WILL BE UPDATED WITH AN ATTACHMENT DESCRIBING RULE D COMPLIANCE IN PARTNERSHIP WITH THE CITY OF MAPLE GROVE.

**STABILIZATION TIME FRAMES**

|  |  |  |
| --- | --- | --- |
| AREA | TIME FRAME | NOTES |
| EXPOSED AREAS | IMMEDIATELY AND NO LATER THAN 7 DAYS OF BEING UNWORKED | 1, 4, 5 |
| LAST 200 LINEAL FEET OF DRAINAGE DITCH/SWALE | WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER/PROPERTY EDGE | 1, 2, 3 |
| REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE | 7 DAYS | 1, 3 |
| PIPE AND CULVERT OUTLETS | 24 HOURS |  |
| STOCKPILES | 7 DAYS | 1 |

1. INITIATE STABILIZATION IMMEDIATELY WHEN CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. COMPLETE STABILIZATION WITHIN THE TIME FRAME LISTED. IN MANY INSTANCES THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING THE COURSE OF THE PROJECT. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE EXEMPT FROM THE STABILIZATION REQUIREMENT.
2. STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).
3. APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.
4. STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE MULCHED OR BLANKETED WITHIN THE TIME FRAMES IN THE NPDES PERMIT.
5. KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES, AND BLANKETS.

**SITE INSPECTION AND MAINTENANCE**

THE EROSION CONTROL OFFICER IS TO INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE OPERATOR SHALL PROVIDE A RAINFALL GAUGE ON-SITE AT VARIOUS MILE INTERVALS ALONG THE ALIGNMENT. INSPECT ALL TEMPORARY AND PERMANENT PROJECT BMPS UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED. INSPECT SURFACE WATER INCLUDING DRAINAGE DITCHES FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. INSPECT SURROUNDING PROPERTIES FOR EVIDENCE OF OFF-SITE SEDIMENT ACCUMULATION. ALL INSPECTIONS AND MAINTENANCE CONDUCTED MUST BE RECORDED IN WRITING BY THE OPERATOR AND RETAINED WITH THE SWPPP. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT ENGINEER. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:

1. DATE, TIME, AND NAME OF PERSON(S) CONDUCTING INSPECTIONS;
2. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
3. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); INCLUDING DOCUMENTATION/PHOTOS OF IMPLEMENTED BMPS INTENDED TO CORRECT A PROBLEM BUT FAILED.
4. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS;
5. DOCUMENTATION OF CHANGES MADE TO THE SWPPP.

REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY UNLESS LISTED DIFFERENTLY BELOW:

1. REPAIR, REPLACE, OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
2. REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES 1/2 THE HEIGHT AND/OR DEPTH OF THE DEVICE.
3. REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. STABILIZE ANY AREAS THAT ARE DISTURBED BY SEDIMENT REMOVAL OPERATIONS. SEDIMENT REMOVAL AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF DISCOVERY.
4. REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE WITHIN ONE (1) CALENDAR DAY OF DISCOVERY. STREET SWEEPING MAY HAVE TO OCCUR MORE OFTEN TO MINIMIZE OFF SITE IMPACTS. LIGHTLY WET THE PAVEMENT PRIOR TO SWEEPING.
5. MAINTAIN ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOT HAS BEEN SUBMITTED TO THE MPCA.

**CONSTRUCTION ACTIVITY REQUIREMENTS: EROSION/SEDIMENT CONTROL, PROCEDURES, & MAINTENANCE STANDARDS**

1. AMEND THE SWPPP AND DOCUMENT ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS IN A TIMELY MANNER. SWPPP AMENDMENTS AND SITE PLANS WILL BE PREPARED BY THE OPERATOR AND SUBMITTED TO THE OWNER FOR REVIEW AND WRITTEN APPROVAL BY THE PROJECT OWNER (OR DESIGNATED REPRESENTATIVE). STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.
2. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER’S ACCEPTANCE FOR STAGING/STOCKPILE MANAGEMENT AREAS, CONCRETE MANAGEMENT, FUGITIVE DUST CONTROL PLAN, SPILL CONTAINMENT PLAN, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS “SITE MANAGEMENT PLAN AREA”, ANY WORK THAT WILL REQUIRE DEWATERING, ANY ADDITIONAL PLANS LISTED IN THE PROJECT SPECIFICATIONS, AND AS REQUIRED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR PROJECT ENGINEER TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.
3. THERE IS NO CONSTRUCTION PHASING OR STAGING DEFINED BY THE OWNER FOR THIS PROJECT. THE SCHEDULE FOR INSTALLING TEMPORARY BMPS SHALL BE INCORPORATED INTO THE OPERATOR’S WEEKLY SCHEDULE FOR EACH CONSTRUCTION STAGE AND PRESENTED TO THE OWNER’S REPRESENTATIVE.
4. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.
5. DO NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. DELINEATE AREAS NOT TO BE DISTURBED AND WETLANDS (EVEN AREAS THAT ARE PERMITTED FOR CONSTRUCTION) PRIOR TO STARTING GROUND DISTURBING ACTIVITIES. IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS, OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.
6. ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE. PROVIDE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES AS NEEDED TO KEEP CHANNELS FROM ERODING AND TO PREVENT NUISANCE CONDITIONS AT THE OUTLET.
7. DIRECT DISCHARGE FROM BMPS TO VEGETATED AREAS WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.
8. LOCATE PERIMETER CONTROL ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J-HOOKS AT A MAXIMUM OF 100-FOOT INTERVALS.
9. ALL STOCKPILES MUST HAVE PERIMETER SEDIMENT CONTROLS IMPLEMENTED AND MAINTAINED AT ALL TIMES AND SHOULD BE INSTALLED PRIOR TO INITIATION OF STOCKPILING. PILES CANNOT BE PLACED IN BUFFER AREAS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE TO PREVENT STORMWATER RUN-ON INTO THE STOCKPILE.
10. STEEP SLOPES MAY BE TEMPORARILY CREATED DURING GRADING OPERATIONS. STABILIZATION OF STEEP SLOPES (3:1 OR GREATER) SHALL BE PROPERLY CAT-TRACKED AND STABILIZED PER THE EROSION CONTROL PLAN. LONG SLOPES CAN BE BROKEN UP WITH SEDIMENT CONTROL LOGS IF EROSION IS EVIDENT.
11. DITCH CHECKS WILL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.
12. ALL STORM DRAIN INLETS, THAT RECEIVE PROJECT STORMWATER, MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED AND THE PERMITTEE(S) HAS RECEIVED WRITTEN CORRESPONDENCE FROM THE JURISDICTIONAL AUTHORITY VERIFYING THE NEED FOR REMOVAL. WRITTEN CORRESPONDENCE MUST BE DOCUMENTED IN THE SWPPP.
13. SILT FENCE IS NOT AN ACCEPTABLE CATCH BASIN INLET PROTECTION BMP. CONTACTOR SHALL CLEAN, REMOVE AND DISPOSE OF SEDIMENT, AND/OR REPLACE STORM DRAIN INLET PROTECTION ON A ROUTINE BASIS TO ENSURE THE DEVICE IS FULLY FUNCTIONAL PRIOR TO THE NEXT FORECASTED PRECIPITATION EVENT (30% OR GREATER).
14. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS/TRAPS TO THE DESIGN CAPACITY AFTER COMPLETING ALL UP-GRADIENT LAND DISTURBING ACTIVITY. USE A SKIMMER DEVICE FOR BASIN DRAINING.
15. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.
16. THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN AND NARRATIVE TO THE PROJECT ENGINEER FOR APPROVAL 7 DAYS PRIOR TO UNDERTAKING THESE ACTIVITIES. DEWATERING PLAN MUST INCLUDE BMP’S TO PREVENT SEDIMENT TRANSPORT, EROSION, AND ADVERSE IMPACTS TO DOWNSTREAM RECEIVING WATERS. THE DEWATERING PLAN MUST ALSO INCLUDE ANY SPECIFIC CHEMICAL TREATMENTS (FLOC, POLYMERS, ETC.) THAT WILL BE USED. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ANY PERMIT NECESSARY FOR THESE ACTIVITIES; THE DEWATERING PLAN AND DNR APPROPRIATIONS PERMIT WILL BECOME PART OF THE SWPPP. THE CONTRACTOR SHALL VISUALLY CHECK AND PHOTOGRAPH THE DISCHARGE AT THE BEGINNING AND AT LEAST ONCE EVERY 24 HOURS OF OPERATION TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS WILL NOT RESULT FROM THE DISCHARGE.

**TEMPORARY & PERMANENT EROSION CONTROL BMPS**

SEED MIX: SEED MIX SHALL BE USED IN CONSTRUCTION AND REVEGETATION PROJECTS IN ORDER TO ENHANCE SOIL NUTRIENT AVAILABILITY AND BIOLOGICAL SOIL STRUCTURE, ENCOURAGE NATIVE PLAN SUCCESSION, REDUCE EROSION, AND DISCOURAGE INVASIVE PLANT SPECIES. INOCULATION OF SOILS WITH MYCORRHIZAL FUNGI OR THE PRESENCE OF PRE-EXISTING SOIL MICROBES IS ESSENTIAL FOR THE STABILIZATION OF ADVERSE SOILS, ESTABLISHMENT OF NATIVE GRASSES, AND THE EXCLUSION OF NON-NATIVE “ANNUALS” AND NOXIOUS WEEDS.

EROSION CONTROL BLANKET: EROSION CONTROL BLANKETS (ECBS) ARE A SOIL STABILIZATION (EROSION CONTROL) BMP, INTENDED TO PROTECT DISTURBED SOIL SURFACES FROM RAINDROP IMPACT EROSION. ECBS ARE CARPET-LIKE MATS, INSTALLED OVER AND ANCHORED TO THE PROPERLY PREPARED SOIL SURFACES. PROPERLY SELECTED AND INSTALLED, ECBS CAN MIMIC THE BENEFICIAL EFFECTS OF VEGETATIVE COVER THEREBY REDUCING EROSION RATES BY OVER 90%. ECBS ALSO PROTECT SEEDS AND PROVIDE A BENEFICIAL ENVIRONMENT FOR VEGETATION TO BECOME ESTABLISHED. CONTRACTOR SHALL VERIFY DURING REGULAR INSPECTIONS THAT NO GULLIES, RILLS, OR SCOUR HOLES HAVE FORMED UNDER EROSION CONTROL BLANKETS AND MATS AND CORRECT ALL ERODED AREAS WITHIN 7 OR 14 DAYS. ALL REPAIRS MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

HYDRAULIC MATRICES: HYDRAULIC MATRICES ARE EROSION CONTROL PRODUCTS THAT ARE USED TO STABILIZE EXPOSED SOILS. THESE MATRICES ARE APPLIED IN A SLURRY, PRODUCED BY MIXING FIBER, WATER AND A BINDING AGENT TOGETHER IN A MECHANICAL HYDRO-SEEDER. WOOD FIBER IS WIDELY USED BUT OTHER FIBERS CAN INCLUDE PAPER, STRAW, COIR, CORN, ETC. THE EFFECTIVENESS OF THESE HYDRAULIC MATRICES ARE DEPENDENT ON:

* PROPER SOIL PREPARATION
* APPLICATION RATES (DEPENDENT ON THE MANUFACTURERS RECOMMENDATIONS)
* THE TYPE OF FIBERS USED
* THE TYPE OF BOND AGENT(S) ADDED

THESE HYDRAULIC MATRICES ARE CLASSIFIED IN THE MNDOT SPEC BOOK AND APPROVED PRODUCTS LIST, DEPENDING ON THE PRODUCT CHARACTERISTICS, STRENGTH, AND LONGEVITY. HYDRAULIC MATRICES USED INCLUDE: ORGANIC FIBER MATRIX, HYDRAULIC MULCH MATRIX, STABILIZED FIBER MATRIX, BONDED FIBER MATRIX, AND FIBER REINFORCED MATRIX.

SOD TYPE LAWN: SOD IS A PERMANENT EROSION PREVENTION BMP THAT PROVIDES INSTANTANEOUS SOIL STABILIZATION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SOD AS OUTLINED IN THE PROJECT SPECIFICATIONS.

**TEMPORARY & PERMANENT SEDIMENT CONTROL BMPS**

SEDIMENT CONTROL LOGS: SEDIMENT CONTROL LOGS ARE MANUFACTURED FROM STRAW, WOOD EXCELSIOR, COCONUT FIBERS, AND/OR OTHER MATERIALS THAT ARE BOUND WITH POLYPROPYLENE OR BIODEGRADABLE NETTING INTO TIGHT TUBULAR ROLLS. FIBER ROLLS CONTROL THREE TYPES OF EROSIONAL PROCESSES; EROSION CONTROL, RUN OFF CONTROL, AND SEDIMENT CONTROL. SEDIMENT CONTROL LOGS CAN BE USED FOR THE FOLLOWING:

* SLOPE INTERRUPTERS TO REDUCE EROSION ON NEWLY CONSTRUCTED SLOPES
* TEMPORARY DITCH CHECKS TO REDUCE RUNOFF VELOCITIES IN DRAINAGE CHANNELS
* SEDIMENT CONTROL BARRIERS FOR SMALL DISTURBED SOIL AREAS SUCH AS STOCKPILES, DISCRETE SLOPES, OR INDIVIDUAL LOTS

MACHINE SLICED SILT FENCE: A SILT FENCE IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF FILTER FABRIC ENTRENCHED INTO THE SOIL AND ATTACHED TO SUPPORTING POSTS. SILT FENCE IS INTENDED TO BE INSTALLED WHERE SEDIMENT-LADEN WATER CAN POND, THUS ALLOWING THE SEDIMENT TO FALL OUT OF SUSPENSION AND SEPARATE FROM THE RUNOFF. SILT FENCE INSTALLED WITH A TRENCHER OR BY SLICING IS THE MOST EFFECTIVE INSTALLATION METHOD TO ENSURE AGAINST COMMON SILT FENCE FAILURES. THE BMP WILL BE CLEANED OUT OR REPLACED WHEN THE SEDIMENT REACHES 1/2 THE HEIGHT OF THE FENCE.

STABILIZED CONSTRUCTION EXIT: TEMPORARY CONSTRUCTION EXITS ARE CONSTRUCTED AT THE EGRESS POINT FROM THE CONSTRUCTION AREA ONTO A PAVED ROAD. A STABILIZED CONSTRUCTION EXIT IS A TRACKING CONTROL BMP INTENDED TO PREVENT TRACKING OF SOIL FROM THE CONSTRUCTION SITE BY EQUIPMENT AND VEHICLES. THE EXITS ARE CONSTRUCTED OF LARGE ANGULAR ROCK, STEEL RIBS (RUMBLE STRIPS), OR TRACK PADS INTENDED TO KNOCK THE MUD OFF THE TIRES BEFORE TRAVELING ONTO THE ROADWAY.

DUST CONTROL: OPERATOR WILL COMPLY WITH STATE RULE 7011.0150 ON DUST PREVENTION REQUIREMENTS. DUST FROM THE SITE WILL BE CONTROLLED BY INCREASED STREET SWEEPING AND/OR USING A MOBILE PRESSURE-TYPE DISTRIBUTOR TRUCK TO APPLY POTABLE WATER TO DISTURBED AREAS. THE MOBILE UNIT WILL APPLY WATER AT A RATE NECESSARY TO PREVENT RUNOFF AND PONDING.

**BMP QUANTITIES**

|  |  |
| --- | --- |
| bmp | cALCULATIONS AND QUANTITY |
| SEDIMENT CONTROL LOG(s) | 9” X 25’ SEDIMENT LOGS WILL BE USED ALONG PROJECT ALIGNMENT  OPEN TRENCH (NO MORE THAN 120’ OPEN PER WEEK)  250 LINEAR FEET OF 9” SEDIMENT LOGS THAT WILL MOVE WITH PROJECT ACTIVITY  qUANTITY OF 10 SEDIMENT CONTROL LOGS  MANHOLE AREAS  DISTURBED AREAS OF 8’ X 14’  44 LINEAR FEET OF 9” SEDIMENT LOGS THAT WILL MOVE WITH MANHOLE ACTIVITY  QUANTITY OF 2 SEDIMENT CONTROL LOGS |
| inlet protection bmps | 71 |

**POLLUTION PREVENTION MANAGEMENT**

POTENTIAL SOURCES OF POLLUTANTS FROM CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO:

1. SEDIMENT AND FUGITIVE DUST GENERATED FROM CLEARING AND GRUBBING, IMPORT/EXPORT OPERATIONS, REMOVALS/COMPACTION, MASS/FINE GRADING, EXCAVATIONS, TRENCHING, TOPSOIL STRIPING STOCKPILING, WET/DRY PAVEMENT CUTTING, STREET CONSTRUCTION.
2. BASIC/ACIDIC PH LEVELS FROM CURB AND GUTTER, MANHOLE STRUCTURES, SIDEWALKS, DRIVEWAY APRONS, FOUNDATIONS, BRIDGE ABUTMENTS, WET/DRY PAVEMENT CUTTING, MASONRY WASHOUT/CLEANOUT.
3. EXCESS NUTRIENTS FROM LANDSCAPING INSTALLATIONS, SOIL ADDITIVES, FERTILIZATION, MULCHING.
4. HYDROCARBONS FROM STREET CONSTRUCTION, DEMOLITION/REMOVALS, WET/DRY PAVEMENT CUTTING.

OPERATOR WILL COMPLY WITH ALL OF THE POLLUTION PREVENTION AND MANAGEMENT MEASURES IDENTIFIED IN THE NPDES-CSW PERMIT, PART 12.1. STORAGE AND DISPOSAL OF CONSTRUCTION AND HAZARDOUS WASTES MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

1. POSITION AND STAKE DOWN ALL PORTABLE TOILETS SO THEY CANNOT BE TIPPED OR KNOCKED OVER. SUPPLY ADEQUATE SECONDARY CONTAINMENT.
2. SECONDARY CONTAINMENT IS NEEDED AROUND ALL STATIONARY EQUIPMENT (GENERATORS, PUMPS, LIGHT PLANTS, ETC.) PROVIDE CONTAINMENT FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE.
3. NO ENGINE DEGREASING IS ALLOWED ON SITE.
4. VEHICLE AND EQUIPMENT WASHING TO OCCUR IN DESIGNATED AREA AS DETERMINED BY THE CONTRACTOR SUBMITTAL OF A MANAGEMENT PLAN FOR THESE ACTIVITIES.
5. PROPERLY CLEAN UP AND REPORT ALL SPILLS AS REQUIRED BY THE MPCA AND MNDOT SPECIFICATIONS.
6. PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE.
7. PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY.

STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.

1. SLURRY FROM CONCRETE OPERATIONS MUST BE VACUUMED UP IMMEDIATELY. NO CONCRETE WASHOUT SHALL COME IN CONTACT WITH THE GROUND AND MUST BE PROPERLY DISPOSED OF.
2. A SIGN MUST BE INSTALLED ADJACENT TO EACH CONCRETE WASHOUT FACILITY.
3. CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN TO THE ENGINEER PRIOR TO CONSTRUCTION.
4. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTINGS, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.

**FINAL STABILIZATION**

FINAL STABILIZATION IS ACHIEVED WHEN NPDES CGP PARTS 13.1-13.7 (AS APPLICABLE) ARE COMPLETED PRIOR TO SUBMISSION OF THE NOTICE OF TERMINATION (NOT) TO MPCA.

1. ALL AREAS MUST BE STABILIZED WITH A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%.
2. ALL TEMPORARY SEDIMENT CONTROL BMP MEASURES MUST BE REMOVED PRIOR TO SUBMITTING PERMIT NOT.
3. THE NOT SUBMITTAL MUST INCLUDE EITHER GROUND OR AERIAL PHOTOGRAPHS SHOWING THE AFOREMENTIONED REQUIREMENTS OF HAVE BEEN MET.

A map of a river

Description automatically generated