



June 26, 2017

Dan Duchniak
Waukesha Water Utility
PO Box 1648
Waukesha, WI 53187

Subject: Information needed for DNR and PSC WEPA documents

Dear Mr. Duchniak:

The purpose of this letter is to provide the Waukesha Water Utility with guidance on the types of information the DNR and PSC will need to complete both of their requirements for compliance with the Wisconsin Environmental Policy Act (WEPA).

Pursuant to WEPA and Chapter NR 150, Wis. Admin. Code, the DNR prepared an Environmental Impact Statement (EIS) as part of the DNR's analysis of Waukesha Water Utility's Great Lakes water project. A draft EIS was issued in July 2015. Public comments were received and public hearings were held in August 2015. The EIS was revised and updated in response to public comments and released as a "Preliminary Final EIS" in January 2016. The Department will further update the analysis and release a Final EIS and a WEPA compliance determination prior to the issuance of any permits and funding decisions.

It is our understanding that the Public Service Commission of Wisconsin (PSC) will also need to show compliance with WEPA for its decisions relative to the Waukesha Water Utility's proposed project. The current expected timeline is that Waukesha would file an application with the PSC for this project after the DNR's WEPA compliance determination would be issued.

While the Preliminary Final EIS included analysis of proposed pipeline routes, the planning and design work occurring in 2017 will provide refined information that must be addressed in the Final EIS. Since the PSC has established application filing requirements (see attachment) for such projects and will later need to complete its own WEPA compliance determination, we recommend you submit information in a format and with the substance that meets both the DNR and PSC requirements. Doing so will ensure both agencies are able to use the same information to complete the WEPA analysis. Please note, this does not require full technical design of the project, but would include the likely route corridor and any route alternatives. An analysis of those environmental features along the corridor, land use tables, mitigation plans and best management practices to reduce or avoid environmental impacts will be necessary.

Stacy Schumacher, PSC environmental analyst and I would be glad to provide more guidance if needed.

Sincerely,

A handwritten signature in cursive script, appearing to read "James Pardee".

James Pardee

DNR WEPA Coordinator

cc:

Stacy Schumacher- PSCW

Ben Callan- DNR Project Coordinator

Environmental Impact -Application Filing Requirements Type 2 Water Projects

A complete application must contain the following information or a showing must be made as to why the information is not applicable. The information requirements for Type 2 water projects include all facilities such as water mains, intake structures, pump stations, and treatment facilities. Within this document, additional information requirements apply to Type 2 water projects that are also a new water utility. The application's organization should follow the major format and numbering system of these filing requirements. Questions about the applicability of specific information requirements should be discussed with PSC and DNR staff during pre-application consultation.

1.0 Project Overview

- 1.1.** Provide a list of all cities, village, and townships and their respective counties that the proposed project, any associated facilities, and any potential construction activities would cross or potentially impact.
- 1.2.** Describe all proposed construction including mains, pump houses, water treatment facilities, storage tanks, and intake structures.
- 1.3.** Identify if proposed construction is new construction, changes to an existing facility, or abandonment of a facility.
- 1.4.** Provide the capital costs for the proposed project.
- 1.5.** Provide the anticipated construction schedule, noting any phases or seasonal or regulatory construction constraints.
- 1.6.** Provide the names and contact information for utility representatives available to answer technical questions concerning the proposed project, cost, rates, etc.
- 1.7.** Provide information supporting the purpose and necessity of the project.
- 1.8.** Provide an analysis of the effect of the project on the quality and reliability of service.
- 1.9. Other Agency Correspondence/Permits/Approvals**
 - 1.9.1.** Identify any issues or concerns raised by any state, federal, or local government and how those issues/concerns have been addressed in the application.
 - 1.9.2.** Provide a list of all federal, state, and local permits/approvals that would be required for this project and their status.

1.10. Mailing Lists

- 1.10.1.** Provide the following mailing lists:
 - 1.10.2.** Properties that would be crossed by any construction of the project. Include the owners name, the address of the property, and the property owner's address if different from the property's address.

- 1.10.3. Public properties, such as schools or other government-owned land through which structures or mains would be constructed.
- 1.10.4. Chief executive officers of cities, villages, townships, and counties potentially affected by the project.
- 1.10.5. Regional Planning Commission with jurisdiction over the project area.
- 1.10.6. Applicable state and federal agencies

1.11. Project Maps

Below is a list of the most common items that should be included in application project maps. Route maps should use the best and most recent data available. Maps must clearly portray the project in a format and scale that is unambiguous and easy to understand. Labels and symbology used on the maps must be clearly visible. The range of required maps/illustrations and whether they should be submitted electronically or in paper form will be discussed during the pre-application consultations.

- **Aerial Photographs**
Must be the most recent aerial available, not more than three years old. Encompass at least one mile beyond generation site boundaries and all connecting facilities.
- **Project Data**
 - Alternative routes/segments
 - Proposed routes and segments
 - Segment nodes
 - Proposed associated facilities
 - Access roads proposed outside of ROW
 - Proposed laydown areas
- **Environmental Data**
 - Rivers, lakes, and other waterways
 - Outstanding or Exceptional Waterways, Trout Streams, Wild or Scenic Rivers
 - Field-delineated wetlands and Wisconsin Wetland Inventory wetlands
 - Archeological sites
 - Soils and hydric soils
 - NHI rare species occurrences (confidential)
 - Topographic maps
 - Floodplains and flood-prone areas
- **Parcel Data**
 - Private properties
 - Public properties (symbolized differently than private properties)
 - Tribal properties
 - Political subdivision boundaries
 - Township, range, section
- **Land Use**
 - Existing land cover and land use
 - Zoning
 - Recreation areas and trails
- **Utility/Infrastructure Data**
 - Existing electric, natural gas, water, or other infrastructure adjacent to or within the proposed easement

- Applicable infrastructure ROWs (e.g., DOT, pipeline, electric distribution, electric transmission, railroad, trail)
- Roads, highways, interstates, railroads
- **DNR-required information**
Include information such as locations of possible Chapter 30 activities (e.g., grading, riprap), temporary clear span bridges, pole locations and ROW, Wisconsin Wetland Inventory, wetland/waterway field data (correlatable to DNR tables), etc. (see Sections 6.4 and 6.5).

1.12. ESRI ArcGIS Data Files

- 1.12.1. Use the most recent version of ESRI ArcGIS to support all maps and information submitted as part of the application.
- 1.12.2. Provide a spreadsheet that lists each GIS file (clearly named and organized), a description of the data, data source, and the date when the data was generated or collected for field data.

2.0 Project Development and Alternatives

- 2.1.** Describe the purpose and necessity of the proposed project with supporting data.
- 2.2.** Describe how the proposed project relates to any future projects the applicant is considering in the area.
- 2.3.** Describe any major system level alternatives such as connections to a different water system, use of a different water source, additional water treatment. Explain why these alternatives were not selected and their approximate costs.
- 2.4.** Describe the factors considered when evaluating possible routes and locations for the water main and associated facilities.
- 2.5.** Identify possible route corridors (including existing linear corridors in the area and major land use boundaries) that were considered and explain why those corridors were or were not chosen.
- 2.6.** Describe any issues and concerns raised during the pre-application consultation meetings with state agency staff. Describe how the issues and concerns were addressed during selection of the proposed routes.
- 2.7.** Describe any contacts or consultations held with government entities, landowners, and other interested parties prior to application submittal regarding alternate project routes. Identify any issues and concerns raised, and describe how the issues and concerns were addressed in the selection of the proposed routes.

3.0 Route Information

- 3.1.** Provide a general description of the proposed route and project area including the percentage of the route that will be constructed within road ROWs.
- 3.2.** For each segment of the route, provide the following information:
 - 3.2.1. Main diameters
 - 3.2.2. Main materials
 - 3.2.3. The number of hydrants
- 3.3. Associated Facilities Information**

For projects that involve construction of associated facilities such as pump houses, storage tanks, treatment facilities, and/or intake structures, provide the following information for each facility.

 - 3.3.1. Drawing or diagram showing the location, dimensions (in feet and acres), and site layout of the associated facilities.
 - 3.3.2. Size (in acres) of the land purchase required and orientation of the facilities within the purchased parcel.
 - 3.3.3. Location of all mains entering and leaving the facility. Show details on any structures that might impact adjacent land owners.
 - 3.3.4. Location of any waterways or wetlands within the purchased parcel and how the construction of the facilities would avoid, minimize, or mitigate the potential impacts.
 - 3.3.5. Details on any access roads required (width, length, location, etc.).
 - 3.3.6. Details on any proposed landscaping.
- 3.4.** Identify and describe the location, footprint, and existing land use of staging areas and any additional temporary workspace required.
- 3.5. Impact Tables**

Provide Route Summary and Segment Impact Tables in Microsoft Excel spreadsheets. For each table indicate the type and date of source material and the methods used to determine the table inputs.

 - 3.5.1. Table 1: General Route Impacts. The length of segments of the proposed routes and the requirements for new and shared ROW.
 - 3.5.2. Table 2: Land Cover.
 - 3.5.3. Table 3: Federal, State, Local and tribal Lands Excluding Road ROWs.
- 3.6.** For route segments that would corridor share with Wisconsin Department of Transportation (WisDOT) ROWs, provide documentation that the proposed route is generally acceptable to WisDOT.
- 3.7.** For route segments that would corridor share with town or county roads, state whether the municipality has been notified of the proposed facilities and describe the potential temporary and permanent impacts to the road.
- 3.8.** For route segments that would share or cross ROW with railroads, provide the following information:
 - 3.8.1. Owner(s) of the railroad

- 3.8.2. Whether the railroad is active or abandoned
- 3.8.3. Whether the owner of the railroad agrees to corridor sharing.

3.9. Construction Impacts

- 3.9.1. Discuss the proposed construction sequence for all proposed facilities.
- 3.9.2. Provide a general description of project construction methods including machinery to be used, size of trench, and width/dimensions of construction disturbance zone.
- 3.9.3. Describe the construction disturbance zone and whether all work would be conducted inside the proposed ROW. Identify those areas where construction disturbance would occur outside of the proposed ROW.
- 3.9.4. Describe any special construction methods that would be used in/around agricultural lands, forest lands, surface waters, or wetlands.
- 3.9.5. If construction methods other than open trench are proposed at any locations, indicate on the maps or air photos the locations where the alternative methods would be employed and describe the alternative construction methods in detail.

3.10. Off-ROW Access Roads

- 3.10.1. Identify those areas along the proposed routes where off-ROW access roads may be required.
- 3.10.2. For each access road, provide the dimensions (length and width) and construction method.
- 3.10.3. Discuss the reasons for the necessity for off-ROW access roads.
- 3.10.4. Provide quantitative land cover information and estimated distances for the off-ROW access roads similar to the information provided in PSC Impact Tables.
- 3.10.5. If the off-ROW access roads would be modified post-construction, provide details.

4.0 Community Impacts

4.1. Communication with Potentially Affected Public

- 4.1.1. List all attempts made to communicate with and provide information to the public.
- 4.1.2. Provide a description of public information meetings and who was invited.
- 4.1.3. Submit copies of the public outreach mailings and handouts.
- 4.1.4. Provide electronic copies of written public comments (e.g., letters, emails, forms, etc.) submitted prior to filing the application with the PSC

4.2. Construction Impacts to Property Owners

- 4.2.1. Provide details on methods for mitigating inconveniences caused by construction to home owners and businesses along the route. Include issues related to temporary and permanent impacts of noise, dust, curbs, sidewalks, and landscape vegetation that may be affected.
- 4.2.2. Provide details on safety procedures, methods and timing of notification during construction and duration of construction as it affects individual property owners.

4.3. Potential Impacts to Agricultural Lands

For agricultural lands that may be impacted by any aspect of the proposed project, describe the following:

- 4.3.1. Type of farming: pasture, row crops, or other type (e.g., orchards, tree plantations, cranberry bogs, etc.).
- 4.3.2. Any agricultural practices that may be affected by the project, such as irrigations systems, windbreaks, organic farming practices, and drain tiles.
- 4.3.3. Identify the number and size of parcels enrolled in farmland preservation programs that may be affected by the proposed project.
- 4.3.4. Specific details for mitigating or minimizing construction impacts in and around agricultural lands.
- 4.3.5. Whether a DATCP Agricultural Impact Statement would be required.

5.0 Natural Resource Impacts

- 5.1.** For forested lands that may be impacted, describe the type of woodlands, dominant species, age, ownership (e.g., private, county forest), enrolled in a forestry program (e.g., Managed Forest Law, Forest Crop Law), and use (e.g., recreation, timber).
- 5.2.** Identify any conservation easements that would be impacted by the proposed project.
- 5.3.** Identify any flood-sensitive facilities that would be located in designated flood plains or flood-prone areas.
- 5.4. Wetlands**
See Section 6.0 for additional DNR requirements for impacts to wetlands and DNR tables.
- 5.4.1. For each route segment, provide the total number of proposed wetland crossings, the wetland type (Wisconsin Wetland Inventory classification), and the detail the construction activities that would occur in close proximity to the wetland.
- 5.4.2. Identify any wetlands potentially impacted by the proposed project that are in or adjacent to an area of special natural resource interest or high-quality wetlands as defined by DNR.
- 5.4.3. For wetlands that would be open trenched, provide the length and width of the trench.
- 5.4.4. Provide the methods to be used for avoiding, minimizing, and mitigating construction impacts in and near wetlands.
- 5.5. Waterbodies/Waterways**
See Section 9.0 for additional DNR requirements for impacts to wetlands and DNR tables.
- 5.5.1. For each route segment and proposed associated facilities, provide the total number of waterbody or waterway crossings.
- 5.5.2. Identify any locations of construction activities that would occur below the ordinary high-water mark (OHWM) of a waterbody or waterway.
- 5.5.3. For each proposed waterbody and waterway crossing, identify the need and method for constructing the crossing.
- 5.5.4. Provide the methods to be used for avoiding, minimizing, and finally mitigating construction impacts in and near waterbodies and waterways.
- 5.5.5. Identify any waters in the project area that are classified as follows and the site-specific methods that would be used to mitigate potential impacts to these waterways:
- 5.5.5.1. Outstanding or Exceptional Resource Waters
 - 5.5.5.2. Trout Streams
 - 5.5.5.3. Wild or Scenic Rivers.
- 5.6. Construction Methods through Wetlands and Waterways**
Describe construction methods and potential impacts for constructing through and near wetlands and waterways.
- 5.6.1. For each type of construction method provide the machinery to be used, the size of the trench, the dimensions of the construction disturbance zone, and the dimensions of any temporary work space requirements.

- 5.6.2. Jack and Bore and Directional Drill Operations
 - 5.6.2.1. Identify the location of all jack and bore or directional drilling operations.
 - 5.6.2.2. Discuss the purpose of the proposed construction method at each location.
 - 5.6.2.3. Describe the construction method in detail.
 - 5.6.2.4. Provide the temporary construction needs and limitations such as boring pits, staging areas, frac-outs, timing, weather, etc.

5.7. Rare Species and Natural Communities (see Section 7.0)

- 5.7.1. Document communication with DNR and USFWS, as applicable.
- 5.7.2. Document compliance with DNR and USFWS direction, as applicable.
- 5.7.3. For each route and location of associated facilities, discuss concerns and potential impacts to rare species as identified in the Endangered Resources Review and any field studies.
 - 5.7.3.1. For any DNR-identified follow-up actions that must be taken to comply with endangered species law, discuss how each action or rare species identified would affect the proposed project and the specific segment.
 - 5.7.3.2. For any DNR-identified recommended actions to help conserve Wisconsin's rare species and high-quality natural communities, discuss which actions would be incorporated into the proposed project.

5.8. Invasive Species (Uplands and Wetlands)

- 5.8.1. Describe areas where invasive species or disease-causing organisms have been observed or are a concern for the construction of the project main and associated facilities (e.g., invasive plants, oak wilt, emerald ash borer, etc.).
- 5.8.2. Identify areas where invasive species are dominant at sites of proposed construction activities.
- 5.8.3. Describe mitigation methods that would be used to avoid the spread of invasive plants or disease-causing organisms and comply with Wis. Admin. Code ch. NR 40, such as cleaning of machinery, surveys, etc.

5.9. Archaeological and Historical Resources

- 5.9.1. Provide a copy of the results of a Wisconsin Historic Preservation Database (WHPD) cultural resources search for the entire project construction area, whether it is completed in-house or by a consulting archaeologist. In the search results, list each archeological, historical, or sacred resource from the WHPD that would be found in areas of project-related construction, by State Site number, Burial Site number (if any), and Name
- 5.9.2. For each archeological or historical resource identified, describe without showing the specific location of the resource how the proposed project might affect the resource and how the project could be modified to reduce or eliminate any potential effect on the resource.

5.10. Restoration of Disturbed Areas

Provide a re-vegetation and site restoration plan which discusses the following items:

- 5.10.1. Type of re-vegetation proposed for impacted areas.
- 5.10.2. Vegetative monitoring criteria (number of post-construction years or percent cover achieved) and methods
- 5.10.3. Invasive species monitoring and management.
- 5.10.4. Proposed landscaping at any associated facilities.

6.0 DNR Permits and Approvals for Impacts to Waterways and Wetlands

Submit the appropriate waterway and wetland permit application materials for all proposed project construction that may impact a waterway or wetland. DNR permit materials can be found at <http://dnr.wi.gov/topic/sectors/energy.html>. Permits may also be required by the U.S. Army Corps of Engineers. Application materials will also include the following items.

6.1. DNR Tables for Wetland and Waterways

For each route, complete a DNR Waterway/Wetland Impact Location Table and a Waterway/Wetland Environmental Inventory Table (DNR Tables 1 and 2) in the directional order that the wetlands and waterways would be encountered.

6.2. Wetland Practicable Alternatives Analysis (Wis. Admin. Code Ch. NR 103)

- 6.2.1. Describe how wetlands were factored into the corridor and route selection process.
- 6.2.2. Describe how the location of proposed routes and design of the line avoids and minimizes wetland impacts including consideration for placing structures outside wetlands. Explain how proposed access routes will avoid or minimize wetland impacts.
- 6.2.3. For proposed construction that will impact wetlands, detail why project alternatives are not practicable after taking into consideration cost, available technology, and logistics in light of overall project purpose.
- 6.2.4. If wetland impacts cannot be avoided, describe all temporary and permanent impacts, as well as the construction and restoration methods that would be used to minimize wetland impacts.

6.3. Wetland Delineations

Identify all wetlands on a map in accordance with the U.S. Army Corps of Engineers' January 1987 Technical Report Y-87-1 entitled, "Corps of Engineers Wetland Delineation Manual" and relevant guidance documents. Wetland delineation reports should not be submitted as part of the printed application but in electronic format only.

In lieu of field-delineating wetlands, it is acceptable to identify wetland boundaries by utilizing a more conservative approach including the use of remote sensing tools. These wetland determinations can then be refined with simple field surveys to determine the general upland/wetland boundaries.

Remote sensing of wetland boundaries should include wet and potentially wet areas identified from existing mapping resources, including: Wisconsin Wetland Inventory, NRCS Soil Survey, USGS Topographic Maps, and available USDA FSA Slides.

These wetland boundary determinations can be refined with field verification by taking into account topography and vegetation. If vegetation is lacking, hydrology indicators¹ such as inundation, saturation in upper 12 inches, watermarks, drift lines, sediment deposits, drainage patterns, and water-stained leaves should be used to define the general edge of the wetland.

6.4. Mapping Wetland and Waterway Crossings

For segments in or adjacent to wetlands or waterways provide maps with the following information:

¹ A more complete list of hydrology indicators can be found in the Corps of Engineers Wetland Delineation Manual, Report Y-87-1, 1987, Appendix B, Routine Wetland Determination form.

- 6.4.1. Recent aerial photo.
- 6.4.2. Proposed main or facility.
- 6.4.3. ROW or construction area.
- 6.4.4. Waterways.
- 6.4.5. Wisconsin Wetland Inventory.
- 6.4.6. Delineated wetlands.
- 6.4.7. Hydric soils.
- 6.4.8. Any proposed temporary bridge locations.
- 6.4.9. Locations for other Chapter 30 activities such as grading or riprap.

7.0 Endangered, Threatened, Special Concern Species and Natural Communities

Pre-application meetings with DNR staff are required to determine the information necessary to be included in the application. DNR staff will indicate the type, scope, and timing of required field work relative to the application process. More information can be found on the DNR website:

<http://dnr.wi.gov/topic/endangeredresources/laws.html>.

Endangered Resource (ER) Reviews may be done by either requesting a review from the Utility and Energy Reviewer in the DNR Bureau of Natural Heritage Conservation (BNHC) or by submitting a proposed ER review completed by a certified individual to the Utility and Energy Reviewer for concurrence. Please note that NHI-related information (i.e., the names and locations of endangered, threatened, special concern species, natural communities, and habitat features) are considered confidential. Submit information in both a redacted (non-confidential) and confidential version.

- 7.1.** Submit a DNR-ER review for all route segments and associated facilities.
- 7.2.** Submit maps and/or data files showing NHI occurrences.
- 7.3.** Submit results from habitat or natural community assessments and biological surveys for the proposed routes segments that WNDR has requested to be included in the application. Results from additional surveys conducted during the review of the application, prior to the start of construction, and/or post-construction must be submitted as they are completed.

DNR Guidance Information (not a PSC requirement)

This and the following three checklists serve as guidance in the completion of the DNR Erosion Control, Material Management, and Dewatering Plans necessary to meet the requirements of Chapter 30 and NR 216 Permits. These are not requirements for a PSC CPCN or CA.

DNR Guidance for Erosion Control Plans

WNDR may require if appropriate, a description of erosion control measures to be utilized. If the project will involve land disturbance in excess of 1 acre, the applicant's request for permits under Wis. Stat § 30.025 must include a request for a Construction Site Erosion Control and Storm Water Discharge Permit from DNR. This permit may also authorize construction site pit and trench dewatering wastewater discharges to surface waters or seepage systems.

Also if the project will involve land disturbance in excess of 1 acre, the applicant will be required to submit a Construction Site Notice of Intent (NOI) form and to develop an Erosion Control and Storm Water Management Plan describing the best management practices that will be used on-site for erosion control. The DNR-approved erosion and sediment control technical standard and NOI form are available on the DNR Storm Water Program web-site at: <http://dnr.wi.gov/topic/stormwater/>.

Applicants may opt to refer to that company's state agency-approved Standard Erosion Control Plan to meet most of these requirements, though some form of supplemental information on project-specific elements may be required.

- **Erosion Control Methods and Materials**

The types of erosion control methods that will be used during project construction to protect disturbed areas. Include where applicable:

- ✓ Soil and slope stabilization.
- ✓ Seeding and mulching.
- ✓ Matting, tracking pads, silt fences, stockpile protection.
- ✓ Dewatering-related erosion control.
- ✓ Channel protection.
- ✓ Any other appropriate erosion control measures.
- ✓ Details and typical section drawings of all the erosion control methods utilized.

- **Erosion Control Measure Site Plan**

Include a site plan view and typical drawings illustrating:

- ✓ Construction site boundary.
- ✓ The location of all erosion control measures.
- ✓ Location of stockpiled soil.
- ✓ Vehicle and equipment access sites.
- ✓ Areas of disturbance.
- ✓ The drainage area configuration.
- ✓ Surface water diversion measures.
- ✓ Topography.
- ✓ Existing floodplains and wetlands.
- ✓ Location of trees and unique vegetation.

- **Sequence of Erosion Control Measures**

List and give a detailed description of the sequence of erosion control measures that will occur (i.e., placed, relocated, and replaced) during all phases of construction including:

- ✓ Clearing and grubbing.
- ✓ Material installation.
- ✓ Channel construction.
- ✓ Revegetation processes.
- ✓ Seeding and mulching/matting.

- **Off-site Diversion Methods**

- ✓ Identify off-site contributions of water affecting project construction sites.
- ✓ Methods of controlling off-site water contributions.
- ✓ Site plan indicating where the off-site water is originating from and locations of diversion measures on-site.

- **Provisions for Inspection and Maintenance**

Document the provisions for:

- ✓ The regular inspection of all erosion control efforts including the identity of who will perform the inspections, when the inspections would occur, and any special circumstances initiating an inspection.
- ✓ The regular maintenance of all erosion control efforts including the identity of who will be responsible for the maintenance and a list of potential corrective actions if the site is not maintained according the provisions.

DNR Guidance for Materials Management Plans

Describe materials management methodology. Applicants may opt to refer to the company's standard Materials Management Plan to meet most of these requirements, though some form of supplemental information on project-specific elements may be required. The following checklist serves as guidance in the completion of a Materials Management Plan. The Materials Management Plan should contain information on all of the following components, where applicable.

- **Access Point Locations**
 - ✓ List the locations that will be used to gain access to the work site.
 - ✓ Include a plan view of all access points.

- **Haul Routes**
 - ✓ Indicate how and where hauled materials will be routed, including inbound and outbound materials, clean fill materials, contaminated materials, and any other materials.
 - ✓ Alternate locations, if necessary.
 - ✓ Include a haul route diagram indicating haul route locations.

- **Stockpile Areas**
 - ✓ List and describe material to be stockpiled, the location where material will be stockpiled on-site, and the measures to be taken to protect stockpiled areas.
 - ✓ Provide a plan view diagram of stockpile area locations.

- **Equipment Staging Areas**
 - ✓ Identify where equipment will be stored on-site.
 - ✓ Include a plan view of equipment storage areas on-site.
 - ✓ Identify where spill control and kits will be stored on-site.

- **Field Screening Protocol for Contaminant Testing**

If contaminated materials (i.e., soil) are encountered on-site, specify:

 - ✓ The procedure for screening materials.
 - ✓ The location where materials be tested.
 - ✓ The protocols that will be followed.
 - ✓ Whether construction work will be impacted.

- **Contaminated Materials**

If contaminated materials are known to exist on-site, list and describe:

 - ✓ The type of contaminant(s) known to exist on-site.
 - ✓ The location of the contaminant(s).
 - ✓ The media in which the contaminant is located within (i.e., soil, water, etc.).
 - ✓ The estimated concentration of the contaminant(s).
 - ✓ The estimated volumes of the contaminant(s).

- **Excavation Methods**

List and describe:

- ✓ The materials that will be excavated.
- ✓ The location of the excavated materials.
- ✓ The way in which the materials will be excavated and removed.
- ✓ How the excavated materials will be exported from site.
- ✓ The location where excavated materials will be exported to.

- **Dewatering of Excavated Materials**

If free water is found present in excavated materials, list and describe:

- ✓ The methods that would be used to correct the situation (i.e., how will water be removed).
- ✓ Identify where these methods will take place on-site.

- **In-channel and Upland Excavated Materials**

- ✓ Estimate the total volume of dredged materials (cubic yards) that will be excavated from beds and banks of waterways and wetlands.
- ✓ Estimate the volume of upland materials (cubic yards) to be excavated from areas outside of waterway(s) and wetland(s).

- **Re-used In-Channel and Upland Excavated Materials**

- ✓ Estimate the total volume.
- ✓ Identify the location where dredged materials will be used on either project plans or provide off-site address, property owner, and site map (drawn to scale).
- ✓ Describe the purpose of dredged materials (i.e., grading, trench backfill, etc.).

- **Reuse of Upland Materials**

- ✓ Estimate the total volume.
- ✓ Identify the location where dredged materials will be used on either project plans or provide off-site address, property owner, and site map (drawn to scale).
- ✓ Describe the purpose of dredged materials (i.e., grading, trench backfill, etc.).

- **Off-site Disposal Plans for Contaminated Materials and Non-contaminated Materials**

- ✓ Estimate the cubic yards of dredged materials and the cubic yards of upland material that will be disposed.
- ✓ Detail disposal site information for both dredged materials and upland materials including material to be disposed, type of disposal site (such as disposal facility, landfill, etc.), disposal site name, disposal site location.

DNR Guidance for Dewatering Plans

Provide details for dewatering work areas, including excavation for structure foundations or poles. Applicants may opt to refer to the company's standard Dewatering Plan to meet most of these requirements, though some form of supplemental information on project-specific elements may be required. The following checklist serves as guidance in the completion of the Dewatering Plan. Consider the following items in the Dewatering Plan.

- **Dewatering/Diversion of Flow**
Provide detailed plans for the dewatering/diversion of flow/standing water removal. Include typical dewatering/diversion measure plans.
 - ✓ Provide specifications for the dewatering/diversion of flow/ standing water removal.
 - ✓ Specify the methods to be employed to dewater/divert flow/treat water, if applicable.
 - ✓ Detail the methods that will be employed
 - ✓ Specify where the methods will be employed.
 - ✓ Detail the proposed methods, capacities, and capabilities.

- **Downstream Impact Minimization**
List and describe methods of minimizing downstream impacts during high flow conditions.

- **Analysis of Possible System Overload Scenarios**
Provide the following information if the stream is overloaded.
 - ✓ Estimate the volume of system overload (i.e., what rainfall overloads the system).
 - ✓ Estimate frequency of system overload (i.e., how often will the system be overloaded)
 - ✓ Specify actions that would be taken if stream is overloaded.

- **Impacts of System Overload on Construction Activities and Water Quality**
If the system overloads, list and describe:
 - ✓ The anticipated number of lost work days.
 - ✓ The possible water quality impacts.
 - ✓ The methods that would be used to deter adverse changes in water quality.

- **Water Discharge Locations**
Provide the following:
 - ✓ Where water will be discharged.
 - ✓ How water will be discharged.
 - ✓ A site map indicating discharge locations.

- **Details of a Back-up System**
If a back-up system becomes necessary, indicate:
 - ✓ The type of back-up system that will be used (include backup and standby equipment/power supply)
 - ✓ The conditions when the system will be needed.
 - ✓ How the back-up system will operate.
 - ✓ Where the back-up system will be located.

- **High Flow Plan**

When flooding is likely to occur, list and describe the following:

- ✓ How the water will be removed from the site.
- ✓ Methods of water removal (e.g. pumping).
- ✓ Methods of minimizing water contamination (e.g. treatment methods).
- ✓ Protocols for evacuating materials from the flood conveyance channel including:
 - A list of materials that would require evacuation during high flow periods.
 - How the materials will be evacuated from the flood conveyance channel.
 - The location where the materials will be temporarily placed on-site.
 - How materials will be transported.
 - The methods for protecting the materials.
 - A site map indicating the location of temporary placement.
- ✓ Protocols for evacuating machinery from the flood conveyance channel including:
 - The type of machinery that would require evacuation during high flow periods.
 - How the machinery will be evacuated from the flood conveyance channel.
 - Where the machinery will be temporarily placed on-site.
 - A site map indicating possible locations of temporary machinery placement.

- **Contaminated Water**

List and describe what measures will be taken if contaminated water is found on site including:

- ✓ Methods of isolating the contaminated water.
- ✓ Methods of analyzing the contaminated water.
- ✓ Where the water will be tested.
- ✓ Methods of removing contaminated water from site.
- ✓ How the water will be treated and disposed.