WATER MANAGEMENT REVIEW CHECKLIST

Project Name:
Carver County Public Works (CCPW)
Project #:
Project Manager:

Carver County Water Management Organization (CCWMO)
Project #:

Signature:
Date:

CONTENT

- ☐ Permit Selection & Schedule
- ☐ Application Submittal (Erosion Control Permit)
- ☐ Application Submittal (Storm Water Permit)
- ☐ Proposed Geometric Layout
- ☐ Existing Topographic & Hydraulic Layout
- ☐ Proposed Hydraulic Layout
- ☐ Stand Alone Documents
- ☐ 60% Final Design Plans
- ☐ 95% Final Design Plans

Permit Selection:

Review Carver County Water Resource Management Ordinance

153.11 REVIEW PROCESS
Link: [638844734048270000]
Location: Carver County Water Management Organization > Permits > Application

Check permit type relevant to the project:

☐ Erosion Control Permit
☐ Stormwater Permit
☐ Stream Crossings Permit
☐ Maintenance Permit

Note: If a Stormwater Permit is required, an Erosion Control Permit is not required.

Schedule:

☐ Pre-application meeting
Held as early as possible in the process. Typically, submittal of a concept plan for review initiates this process.
Date of Meeting:
File Location of Meeting Notes:

☐ Application submittal
A permit application which includes all required exhibits described in § 153.40 shall be submitted to the WMO.
See section "Application Submittal" for detailed needs.
Note: Preliminary designs should be sent with this application, all exhibits may not be possible to send before easement acquisition process begins.
Date of Submittal:
File Location of Submittal:

☐ Application review and determination of completeness
Determination regarding the completeness of an application within ten business days.

☐ Approval
Date that Approval Letter Received:
File Location of Approval Letter:

☐ Provide the Carver County Soil and Water Conservation District with Construction Schedule.

Application Submittal (Erosion Control Permit)

- ☐ **Download form from:**
  Link: 638681466782530000
  Location:
  Carver County Water Management Organization > Permits > Application

- ☐ Save to project folder & complete the form

- ☐ Compile relevant documents for Erosion Control Permit under § 153.42.
  See the following sections of this checklist for documents and details needed for this permit type.
  - ☐ Proposed Geometric Layout
  - ☐ Existing Topographic & Hydraulic Layout
  - ☐ Stand Alone Documents
  - ☐ 60% Final Design Plans
  - ☐ 95% Final Design Plans

  Note: Additional information as relevant and necessary to evaluate an application may be required. Requests for additional information shall be submitted in writing to the responsible party and shall specify requirements for submittal to the county.

Application Submittal (Stormwater Permit)

☐ **Download form from:**

Link: 638681466782530000

Location:

Carver County Water Management Organization > Permits > Application

☐ Save to project folder & complete the form

☐ Compile relevant documents for Erosion Control Permit under § 153.42.

☐ Compile relevant documents for Stormwater Permit under § 153.43.
See the following sections of this checklist for documents and details needed for this permit type.

- ☐ Proposed Geometric Layout
- ☐ Existing Topographic & Hydraulic Layout
- ☐ Proposed Hydraulic Layout
- ☐ Stand Alone Documents
- ☐ 60% Final Design Plans
- ☐ 95% Final Design Plans

Notes:

1. *Additional information as relevant and necessary to evaluate an application may be required. Requests for additional information shall be submitted in writing to the responsible party and shall specify requirements for submittal to the county.*

2. *At county discretion, less information may be required to constitute a complete application.*

- ☐ **Download form from:**
  Link: 638681466782530000
  Location:
  Carver County Water Management Organization > Permits > Application

- ☐ Save to project folder & complete the form

- ☐ Compile relevant documents for Erosion Control Permit under § 153.42.

- ☐ Compile relevant documents for Stream Crossing Permit under § 153.44.
  See the following sections of this checklist for documents and details needed for this permit type.
    - ☐ Proposed Geometric Layout
    - ☐ Existing Topographic & Hydraulic Layout
    - ☐ Proposed Hydraulic Layout
    - ☐ Stand Alone Documents
    - ☐ 60% Final Design Plans
    - ☐ 95% Final Design Plans

Notes:

1. *Additional information as relevant and necessary to evaluate an application may be required. Requests for additional information shall be submitted in writing to the responsible party and shall specify requirements for submittal to the county.*

2. *At county discretion, less information may be required to constitute a complete application.*

Application Submittal (Maintenance Permit)

- ☐ **Download form from:**
  Link: 638681466787130000
  Location:
  Carver County Water Management Organization > Maintenance notification form > Maintenance notification form

- ☐ Save to project folder & complete the form

- ☐ Submit Maintenance notification form to CCWMO 10 business days prior to the start of the project

- ☐ Sketches, maps, drawings, and plans relating to the proposed project.

- ☐ Certain submittal items per §153.42 Erosion Control Permit may be required

Notes:

1. *Additional information as relevant and necessary to evaluate an application may be required. Requests for additional information shall be submitted in writing to the responsible party and shall specify requirements for submittal to the county.*

Proposed Geometric Layout

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
☐	☐	☐	☐	Property Lines
☐	☐	☐	☐	Geographic Features
☐	☐	☐	☐	Existing Vegetation
☐	☐	☐	☐	Preliminary Construction Limits

Existing Topographic & Hydraulic Layout

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
☐	☐	☐		2-foot contours - Minimum of 100 feet beyond the site boundary.
☐	☐	☐		Invert elevations of existing storm sewer (and overtopping for culverts) - Minimum of 100 feet beyond the site boundary or closest downstream structure (even if 1,000' downstream)
☐	☐	☐		Spot elevations of conveyance system from drainage discharge points to the nearest receiving water body. - Minimum of 100 feet beyond the site boundary.
☐	☐	☐		10-foot contours subwatersheds upstream and downstream of project site. *Note: Where topography in the region is characteristically flat or hydrologic flow path is undetermined, 2-foot contours may be required.*
	☐			Existing sub-watershed boundaries
	☐			Upstream and downstream hydrologic flow paths
	☐			All on-site water features
	☐			Drainage patterns
	☐			Flow directions
	☐			Floodplain
	☐			Shoreland
	☐			Location and amount of existing impervious areas
	☐			Existing stormwater facility information. - Location - Alignment - Elevation
	☐			Existing normal high water level and emergency overflow elevations for the site

Proposed Hydraulic Layout

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
	☐	☐		2-foot contours - Minimum of 100 feet beyond the site boundary.
	☐	☐		Invert elevations of proposed storm sewer (and overtopping for culverts) - Minimum of 100 feet beyond the site boundary.
	☐	☐		Spot elevations of conveyance system from drainage discharge points to the nearest receiving water body. - Minimum of 100 feet beyond the site boundary.
	☐	☐		10-foot contours subwatersheds upstream and downstream of project site. *Note: Where topography in the region is characteristically flat or hydrologic flow path is undetermined, 2-foot contours may be required.*
	☐			Proposed sub-watershed boundaries
	☐			Upstream and downstream hydrologic flow paths
	☐			All on-site water features
	☐			Drainage patterns
	☐			Flow directions
	☐			Floodplain
	☐			Shoreland
	☐			Location and amount of existing and proposed impervious areas
	☐			Existing and proposed stormwater facility information. - Location - Alignment - Elevation
	☐			Call outs or a table showing: - Storm sewer outlet and culvert - Diameter – Existing and Proposed - Material – Existing and Proposed - Peak flow rates using Atlas 14 precipitation depths and storm distributions for the o 2-year rainfall event o 10-year, 24-hour storm event o 100-year, 24-hour storm event o 100-year, 10-day snowmelt event For existing and proposed conditions. *Note: CCWMO may require a back to back 100 year storm analysis*

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
	☐			Call Outs Stating Existing and Proposed: - Normal high-water level - High-water level - Emergency overflow elevations for the site
		☐		Project Description: Provide the following for proposed and, if applicable, existing structure - Dimensions - Invert elevation(s) - Location(s)
		☐		Provide locations and elevations of existing structures, pipes, or other constructed features upstream and downstream of the site, which have the potential to be impacted by proposed changes in the 2-, 10-, and 100-year hydraulic profile of the waterbody (up to 1,500 feet from site or more).
		☐		Channel Bottom Information: - Information regarding the existing and proposed channel bottom materials. - If rip-rap must be used, an explanation of the need should be provided.
		☐		For projects in the FEMA floodway or 100-year floodplain: (a) Quantity of fill within the 100-year floodplain; (b) Existing and proposed 100-year floodplain storage volumes to document that there is no net change to floodplain storage. If fill will be added, a note signed by a professional engineer documenting that the change in storage has no significant impact on the flood elevation. Figure showing the extent of the designated floodway and 100-year flood plain.
		☐		Profile showing existing structures and 100- year flow elevation for existing and proposed conditions. *Note: Flow elevation in the 2 and 10-year storm events may also be required.*

<table>
<tr><th colspan="4">Required for Permit</th><th rowspan="2">Items & Details to Include:</th></tr>
<tr><th>Erosion Control</th><th>Stormwater</th><th>Stream Crossing</th><th>Maintenance</th></tr>
<tr><td>☐</td><td>☐</td><td></td><td></td><td>Wetland transition setbacks design computations / calculations</td></tr>
<tr><td>☐</td><td>☐</td><td></td><td></td><td>Wetland Conservation Act (WCA) documentation of evidence of permits and process (as needed)</td></tr>
<tr><td></td><td>☐</td><td></td><td></td><td>Hydrologic calculations for:
- Events to review:
o 2-year event
o 10-year, 24-hour rainfall event
o 100-year, 24-hour rainfall event
o 100-year, 10-day snowmelt event
- Items to Evaluate:
o Run off volume
▪ Curve numbers used to calculate runoff shall be based on TR 55, Second Edition, June 1986, Table 2 2a with the following changes:
a. Cover type “open space” will be based on the amount of topsoil as well as grass cover. Less than six inches of topsoil equals poor condition; and more than six inches of topsoil equals good condition;
b. Curve numbers used for cover types “urban districts” and “residential districts” assume at least six inches of topsoil and six inches of non-compacted subsoil soil based on the standards in § 153.62 Topsoil management.
o Velocities
o Peak flow rates</td></tr>
<tr><td></td><td>☐</td><td></td><td></td><td>All hydrologic, hydraulic and water quality computations completed to design the proposed facilities</td></tr>
<tr><td></td><td>☐</td><td></td><td></td><td>For sites requiring existing detention; Calculations showing the 2-year storm discharge reduced by 50% of existing conditions to demonstrate compliance with extended detention requirement</td></tr>
<tr><td></td><td>☐</td><td></td><td></td><td>Operation and Maintenance Plan
- Identify all BMPs constructed
- Description of inspection and maintenance activities
- Timeline of inspection and maintenance activities
- Contact information for the parties responsible for inspection and maintenance
- Signatures of parties responsible for inspection and maintenance</td></tr>
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Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
☐	☐			Plat - Monumentation. Plans for sites with buffers including wetland and shoreland setbacks, and sites with dedicated upland preserve areas must include monumentation locations and notes per § 153.64.
☐	☐	☐		Construction Schedule: A construction schedule which will include approximate dates for the following: (a) Completion of installation of perimeter erosion and sediment controls; (b) Completion of required seeding and mulching activities; (c) Completion of land-disturbing activities and putting into place measures for final soil stabilization and re-vegetation; (d) When the site will be permanently stabilized and re-vegetated (e) When all temporary erosion and sediment controls will be removed from the site.
		☐		Dewatering Plan: - Plan indicating several options for dewatering or by-passing, depending on site conditions at the time of construction. - Once the contractor has selected a stream diversion option, the SWCD must be notified so that the plan can be reviewed and approved
		☐		Risk assessment form
		☐		Inundation maps showing existing structures and 100- year flow elevation for existing and proposed conditions. Note: Flow elevation in the 2 and 10-year storm events may also be required.
		☐		Cross sectional flow area at 100-year flow elevation for existing and proposed conditions. For sites with low-lying land, or structures, pipes, or other constructed features at elevations that are at risk of being affected by changes in the 2- and 10-year hydraulic profile, the cross-sectional flow area at the 2- and 10-year flow elevations will also be required.
		☐		Changes to water surface elevations between no-bridge, existing, and proposed conditions. This information should be provided for a range of river stations and should encompass, at a minimum, the point upstream and downstream of the structure at which the project results in no change in water surface elevation.

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
		☐		For projects on public waters, provide a copy of the permit package submitted to the DNR. Additional information as relevant and necessary to evaluate an application may be required. Requests for additional information shall be submitted in writing to the responsible party and shall specify requirements for submittal to the county.

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:
☐	☐	☐		Earthwork Tabulation & Summary - Quantity of soil or earth material to be removed, placed, stored or otherwise moved on site - Quantity of topsoil needed to restore six inches in all pervious areas
☐	☐	☐		Tabulations - Pervious area in square feet or acres (shown as seed mix areas) - Seed mixes or other vegetation types
☐	☐	☐		Soils and Construction Notes - Note that vegetation must be established to 90% coverage with 100% coverage in areas with concentrated flow. - 6-Inch Topsoil Note - Note regarding the topsoil standard stating "Topsoil must meet the Carver County topsoil standard or an approved site-specific topsoil standard. If topsoil does not meet the standard, it must be amended or topsoil meeting the standard must be imported to the site." - Note that subsoil must be de-compacted to a depth of six inches prior to placement of topsoil - Location(s) where topsoil is to be reapplied - Location of stockpile(s), if existing topsoil is to be stockpiled on site - Method of topsoil testing.
☐	☐	☐		Topography Plans - Existing Conditions - Limits (Proposed area of disturbance) - Delineated Wetland Boundaries
☐	☐	☐		Removal Plans - Existing Conditions - Limits (Proposed area of disturbance) - Delineated Wetland Boundaries - Areas of Clearing and Grubbing
☐	☐	☐		Construction Plans - Final Conditions - Limits (Proposed area of disturbance) - Delineated Wetland Boundaries

Required for Permit				
Erosion Control	Stormwater	Stream Crossing	Maintenance	Items & Details to Include:

☐	☐	☐		Erosion Control and Turf Establishment Plans
				- Locations and descriptions of
				    o Proposed runoff control
				    o Erosion prevention
				    o Sediment control
				    o Temporary and permanent soil stabilization measures
				- Boundaries of wetland setbacks
				- Limits (Proposed area of disturbance)
				- Delineated Wetland Boundaries

95% Final Design Plans

Required for Permit				Items & Details to Include:
Erosion Control	Stormwater	Stream Crossing	Maintenance	
☐	☐	☐		Earthwork Tabulation & Summary (60% Plans) - Quantity of soil or earth material moved
☐	☐	☐		Tabulations (60% Plans) - Pervious area in square feet or acres (shown as seed mix areas) - Seed mixes or other vegetation types
☐	☐	☐		Soils and Construction Notes (60% Plans) - Note that vegetation must be established to 90% coverage with 100% coverage in areas with concentrated flow. - 6-Inch Topsoil Note - Note regarding the topsoil standard stating "topsoil must meet the Carver County topsoil standard or an approved site-specific topsoil standard. If topsoil does not meet the standard, it must be amended or topsoil meeting the standard must be imported to the site." - Note that subsoil must be de-compacted to a depth of six inches prior to placement of topsoil - Location(s) where topsoil is to be reapplied - Quantity of topsoil needed to restore six inches in all pervious areas - Location of stockpile(s), if existing topsoil is to be stockpiled on site - Method of topsoil testing.
☐	☐	☐		Topography Plans (60% Plans) - Existing Conditions - Limits (Proposed area of disturbance) - Delineated Wetland Boundaries
☐	☐	☐		Construction Plans (60% Plans) - Final Conditions - Limits (Proposed area of disturbance) - Delineated Wetland Boundaries

☐	☐	☐		Erosion Control and Turf Establishment Plans (60% Plans)
				- Locations and descriptions of
				  ○ Proposed runoff control
				  ○ Erosion prevention
				  ○ Sediment control
				  ○ Temporary and permanent soil stabilization measures
				- Boundaries of wetland setbacks
				- Limits (Proposed area of disturbance)
				- Delineated Wetland Boundaries

Required for Permit				Items & Details to Include:
Erosion Control	Stormwater	Stream Crossing	Maintenance	
☐	☐	☐		Water Resources Notes / SWPPP (95% Plans) - Stormwater Pollution Prevention Plan (SWPPP) developed for the site to meet National Pollution Discharge Elimination System/State Disposal System (NPDES/SDS) Phase II requirements shall be submitted as part of the applications. - A sequence of land alteration activity and corresponding implementation of erosion control practices, monitoring, maintenance and removal of erosion and sediment control measures; and permanent site stabilization measures.
☐	☐			Special Provisions (95% Plans) - Specifications for all proposed facilities