

**Helena Regulatory Office  
US Army Corps of Engineers**

**NATIONWIDE PERMIT 27 NOTIFICATION CHECKLIST**

This checklist provides assistance to applicants whose aquatic resource restoration projects in Montana are potentially authorized by **Nationwide Permit 27 for STREAM AND WETLAND RESTORATION ACTIVITIES**. **Inclusion of applicable items from the following informational checklist will expedite review of your project.**

- Provide a narrative description of the present baseline conditions for the stream, wetlands, and riparian areas. Provide appropriate wetland determination data forms. Identify stream type (ephemeral, intermittent, perennial), and stream order (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, etc). Identify the streambank composition. Photographic documentation taken by the applicant or applicant's agent at designated identifiable points (also to be used for future reference to compare/document post project monitoring and success) should be included in describing present-day, pre-project conditions. Provide locations and elevations of bench markers if used.
- Describe the existing (and historic, if known) channel planform upstream and downstream of the project area. If available, provide a geomorphologic analysis of historic channel conditions and an analysis of any changes in the channel and watershed. Include an analysis of probable effects of past changes on channel process and form. The level of detail in these analyses should commensurate with the scope of the proposed project. Is the proposed design based on a documented historic condition or on a reference reach? If yes, provide specific descriptive information of the historic conditions or reference reach and describe the applicability to the proposed project reach. Provide the location(s) for any/all reference reach(s).
- Identify the cause(s) of any existing impairments on the proposed project reach and describe how implementation will restore appropriate conditions. Provide rationale for any channel/wetland reconstruction or filling. Be advised that projects that enhance some functions at the expense of other functions may not qualify for Nationwide Permit 27.
- Provide a plan view drawing for the entire reach with beginning and ending station numbers, showing placement of all structures and proposed treatments. The plan view should also identify any sections of the reach that are to remain untreated. Identify structures, proposed treatments, and reaches to remain untreated, on an aerial photograph(s), if available. Aerial photograph(s) should show the existing conditions and the proposed design channel.

- Provide a detailed longitudinal profile of the existing and proposed design channels, showing station numbers, slopes, and elevations for all existing and proposed features (i.e. pools, riffles, grade control structures, vanes, weirs, culverts, bridges, flood prone areas, etc.)
- Include hydraulic and hydrologic evaluation(s) and assessments that preceded the design. Describe any flood flow alterations related to the proposed project.
- Identify the D50 and D84 of the streambed material for the existing condition and the desired D50 and D84 for the proposed project.
- Provide the rationale for installation of grade control, including structures such as vanes, weirs, and similar features. Identify the source(s) of sediment load(s). Generally, natural channel design principles consider that a channel should be reconstructed to an appropriate dimension, pattern, and profile, and should transport sediment and detritus through the constructed reach with minimal artificial structure installation.
- Provide typical drawings of all structures that are proposed within the reach. Include dimensions such as length, width, depth, surface area, depth below constructed bed, size of rock, angle of installation, and slope. Include relative elevation of the structure as compared to the channel bed, especially for cross-channel features.
- Identify the volume of rock or other fill needed for all proposed treatment features for the project. Quantify the amount that will be placed below the OHWM cumulatively and for each structure and/or treatment.
- Provide an estimation of the volume of material that would be excavated to create a new channel, and an estimate of the amount of fill to be placed in the existing channel, if any. Identify the amount and disposal location for any other projected excess materials generated by the project.
- Nationwide Permit 27 does not allow conversion of one type of aquatic resource to another type. For example, emergent wetlands cannot be converted to open water. Nationwide Permit 27 does allow the relocation of wetland resources to facilitate projects with a net gain in aquatic resource functions. To demonstrate compliance with this limitation, the applicant must delineate the amount and types of wetlands present pre-project, and compare that to a post-project projection of wetland types that will develop upon project completion. If there will be a net loss in wetland acreage, the applicant must demonstrate an overall net gain in aquatic resource functions through an approved functional assessment methodology to qualify for this nationwide permit. Note: The regulatory definition of a wetland includes an emergent vegetation component.

- Identify the specific locations where riparian or wetland sod and/or vegetation will be removed for use in project construction. If vegetation and/or sod will be removed from a wetland, describe specifically how the borrow site will be restored to ensure minimal adverse impact. If excess excavated material is to be placed in a wetland, identify the location, and quantify the amount of fill and the size of area to be filled.
- Describe Best Management Practices to be used in the project area to reduce/eliminate sediment from entering the stream or wetland. If utilized, describe how installation of temporary diversion structures, pumping operations, or other actions will be undertaken to reduce/eliminate turbidity downstream during construction.
- Identify any Threatened and Endangered Species that are or may be present in the project area. When applicable (i.e. Federally funded projects, Future Fisheries projects, etc.), provide documentation that the project has gone through Endangered Species Act consultation with the US Fish and Wildlife Service.
- Describe the baseline and anticipated post project habitat type(s). Identify target species, if any, the plan will favor.
- Describe or provide any land use management plan that landowners have agreed to, including plans for fencing, future use of the area, etc., and identify the area included in the management plan on the design plans or maps.
- Describe proposed establishment, restoration, or enhancement activities in riparian areas. Include a planting plan and methods, and identify species, size, numbers, types, and spacing. Describe any temporary irrigation plan, if one is required to establish the vegetation.
- Provide a monitoring plan. For stream restoration projects it is recommended that a representative reach be established that is 10 to 20 bankfull-widths long or the entire restored reach, whichever is less. Monitor lateral and vertical stability after the first bankfull event. The proposed monitoring plan should be designed to include as-built cross sections of constructed features. For projects with a wetland component, wetland delineations and functional assessments must be provided annually until the Corps confirms success. Describe any necessary or proposed maintenance activities.