



April 20, 2020

Karl Brown
Executive Secretary
Pennsylvania State Conservation Commission
2301 North Cameron Street
Harrisburg, PA 17110

RE: Authorization of General Permit No. 11 (GP-11) for Bridge and Culvert Replacement Projects Receiving Dirt, Gravel & Low Volume Road (DGLVR) Program Assistance

Dear Mr. Brown:

I am pleased to inform you that we have provided clarification to the DEP offices regarding the use of GP-11 for culvert and bridge replacements that include stream and culvert realignments, changes to approach grades, and sediment deposition removal and scour repair. Based on our meetings and understanding of the DGLVR Program's environmentally sensitive and structural stability standards, we believe this effort will provide efficiency and consistency with DEP's review of these projects.

Specifically, changes in the skew of bridges and culverts can be authorized under GP-11 in conjunction with associated stream realignments immediately upstream and downstream of the structure. The change in skew and associated incidental stream realignment associated with the change in skew, may be authorized in circumstances where:

1. The culvert or bridge skew changes maintain or re-establish stream flow patterns consistent with the natural regime upstream and downstream of the road or bridge/culvert.
2. The proposed structures maintain either the inlet or outlet at the same location as the existing structure, or the location of both the inlet and outlet change but the proposed structure rotates on a horizontal axis of the existing structure, or the proposed structure is immediately adjacent to the existing structure.
3. Stream realignments associated with the new structure are incidental and are generally limited to 50 feet upstream and downstream of the structure. DEP may consider realignments a limited distance beyond 50 feet in special circumstances, but any realignments must still be incidental and necessary to support the structure.

Consistent with your program's environmentally sensitive design requirements, the clarification to DEP offices is that the skew changes must maintain or re-establish stream flow

patterns consistent with natural regime upstream and downstream of the bridge or culvert, and that the conditions of GP-11 must still be met.

Also, changes in roadway approach grades and overtopping characteristics can be authorized by GP-11, provided that the changes do not result in significant risk to public safety, structural stability and/or the environment. No additional information will be required if it is obvious that the proposed change to the approach grades and overtopping characteristics do not result in significant risk. (e.g. by observation, a substantial increase in the hydraulic conveyance of the structure may obviously compensate for an increase in the approach grade elevation needed to accommodate the larger structure). When the proposed changes to the approach grades and overtopping characteristics are not obviously insignificant, a sufficiently detailed Hydrology and Hydraulic analysis is acceptable documentation to show that the proposed changes do not result in a significant risk.

Finally, GP-11 can authorize stream realignments associated with a bridge or culvert replacement where an additional watercourse parallels the roadway toe of slope and has a confluence with the primary watercourse of the bridge or culvert crossing. In these cases where a change in the bridge or culvert skew or overall “footprint” of the new structure and approach roadway necessitates a channel realignment of the parallel watercourse, GP-11 can be authorized as long as the watercourse realignment is as close to the existing watercourse location as possible.

Further, with collaboration with your staff, we have also developed a list of expected items which would normally be necessary for review of the DGLVR Program’s bankfull culvert and Aquatic Organism Passage (AOP) structure replacements. We believe that the list below is generally consistent with the expectations and requirements of the DGLVR Program and that the list can aid in more complete GP-11 registrations and improve time frames for processing applications for registration.

The following list depicts specific items that should be included with most GP-11 registrations for the DGLVR Program utilizing bankfull width AOP Design:

1. A description of the proposed work, existing structure, and purpose of proposed structure changes and any minor channel realignments.
2. A scaled plan showing the existing and proposed structures including any proposed channel realignments.
3. Scaled cross section(s) of the existing and proposed culvert structures depicting dimensions of the existing and proposed waterway opening, and the existing and proposed depth of fill and roadway elevations in the approaches and over the existing and proposed structures.
4. Scaled cross sections of streams in any areas of proposed minor stream realignments.
5. Photographs of proposed stream realignments depicting areas of proposed work, channel and geomorphic conditions, eroded banks, deposition, etc.

6. Scaled drawings for any proposed grade control structures in and/or upstream and downstream of the proposed structure, if applicable.
7. Scaled cross sections of any reference reach data (upstream or downstream of proposed work) collected to determine bankfull characteristics or reference reach information, if applicable.
8. Scaled profiles of the existing and proposed culvert structures and a stream channel section extending sufficiently up and down stream to show proposed minor channel realignments, if applicable. When possible, it is recommended the length of the realigned channel be comparable to the length of the existing channel. However, where the project is correcting a sharp bend in the stream, the realigned channel will likely have a shorter length than the existing channel and is therefore still permissible.
9. Details on the proposed stream bed material.
10. If applicable, a hydraulic analysis demonstrating that the changes in the approach grades or overtopping characteristics will not increase the risk of flooding.
11. A P.E. Seal and certification provided on the hydrologic and hydraulic report and on plans and specifications for proposed structures on public roads.

It is important that the plans, profiles, cross sections, description, and other information contain sufficient details and plans depicting the existing and proposed conditions, stream bed, stream banks, bankfull elevation, low flow channel and overall geomorphic conditions and other details as appropriate for DEP to review, consistent with the proposed activities.

Thank you for your assistance in this effort. Please share the contents of this letter with the County Conservation District (CCD) staff responsible for the DGLVR Program. If the CCD staff have any questions concerning a specific proposed GP-11 registration, please have them contact the appropriate DEP Regional Office. If you have questions concerning this letter, please contact me by telephone at 717.772.5951 or by e-mail at roadams@pa.gov.

Sincerely,



Roger P. Adams, P.E.
Director
Bureau Waterways Engineering and Wetlands