Warren County Dirt, Gravel, and Low Volume Road Program Policies

September 15, 2026

This Packet contains the following policies:

- Equal Access to Funding Policy
- Conflict of interest Policy
- Non-Pollution Standards Policy
- QAB Rules of Contact Policy
- Training Incentives for Road Managers and Equipment Operators Policy
- Stream Crossing Structural Replacement Policy
- Driving Surface Aggregate (DSA Guidelines) Policy
- Project Ranking Criteria Policy
- Funding Criteria Policy
- Traffic Count Policy
- Low Volume Road Policy
- Warren County QAB Priority Rating Worksheet
- Excerpt from Dirt, Gravel, and Low Volume Road Administrative Manual, Chapter 7: Additional Program Policies, 7.1 Stream Crossing Structural Replacement Policy
- Excerpt from Dirt, Gravel, and Low Volume Road Administrative Manual, Chapter 7: Additional Program Policies, 7.2 Road Surfacing
- Excerpt from Dirt, Gravel, and Low Volume Road Administrative Manual, Chapter 7: Additional Program Policies, 7.4 Traffic Count Policy SCC approved 7/1/2026

For additional information please contact the Conservation District.

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Warren County Dirt, Gravel and Low Volume Road Program Policies

This policy replaces the Statement of Policy adopted by the Warren County Conservation District Board of Directors on 4/20/99 and 11/16/2004.

Equal Access to Funding: The following Equal Access to Funding statement was adopted by the QAB at its meeting on Friday, December 12, 2014, and by the Warren County Conservation District Board of Directors at its meeting on January 20, 2015: All county citizens, through their municipal representatives, shall have equal access to the funding provided through the Warren County Dirt, Gravel and Low Volume Road program. Decisions of funding allocation will be made on the basis of maximizing the reduction of pollution to county streams in a cost effective manner, and targeting the most ecologically sensitive streams first. No discrimination will be made concerning race, religion, gender, economic status or political standing of citizens affected by the improvements achieved through this program. All municipalities are eligible to submit project proposals which will be judged solely by a published set of criteria approved at a public meeting of the QAB. The QAB will be bound by the policies established by the State Conservation Commission for the administration of this program statewide.

Conflict of Interest: The following Conflict of Interest Policy Statement was adopted by the QAB at its meeting on December 12, 2014, and by the Warren County Conservation District Board of Directors at its meeting on January 20, 2015: No District Director, Quality Assurance Board member, or District Employee, shall, as a result of this program, be permitted to obtain financial benefits for himself, a member of his immediate family, or a business with which he is associated. This shall preclude the payment of normal salary and benefits to employees provided in their normal course of employment.

In addition, any QAB member, Conservation District Board Member, or staff member, will be excluded from voting on actions that might benefit a road or stream adjacent to his or her property or the property of relatives or businesses in which he or she has an interest. In the event of such a conflict, the QAB Chairman will vote in his or her stead (or simply be barred from voting, as determined at the meeting).

Non-Pollution Standards: The following Non-Pollution Standards Policy was adopted by the QAB at its meeting on December 12, 2014, and by the Warren County Conservation District Board of Directors at its meeting on January 20, 2015: The Warren County Conservation District DGR Program will not fund the use of any materials that are not approved by the Center for Dirt and Gravel Roads nor any practices that may be harmful to the environment. The use of any unapproved materials or practices used on a trial basis must be approved by the Center for Dirt and Gravel Roads prior to use.

QAB Rules of Conduct: The following QAB Rule of Conduct Policy was adopted by the QAB at its meeting on December 12, 2014, and by the Warren County Conservation District Board of Directors at its meeting on January 20, 2015: The meetings of the QAB will be conducted according to Roberts Rules of Order. The meeting dates of the QAB will be announced annually in a public announcement made by the Warren County Conservation District. Scheduled meetings may be canceled at the discretion of the QAB. The QAB will consist of one representative from the Fish and Boat Commission, NRCS, the Warren County Conservation District, and a non-voting Chairman appointed by the Warren County Conservation District.

Minutes of the QAB meeting will be available to the public. All recommendations of the QAB must be presented to the District Board for final approval.

Training Incentives for Road Managers and Equipment Operators: The following Training Incentives for Road Managers and Equipment Operators Policy Statement was adopted by the QAB at its meeting on December 12, 2014, and by the Warren County Conservation District Board of Directors at its meeting on January 20, 2015: The QAB may authorize an incentive payment for expenses incurred by road managers or equipment operators attending ESM Training or other DGR training events. Payment will be made upon receipt of invoices documenting expenses and proof of attendance at the event. Priority will be given to townships who currently do not have trained personnel. WCCD encourages more than one person to attend ESM training, municipalities may receive additional ranking points for having multiple staff ESM certified.

Stream Crossing Structural Replacement Policy: The attached Stream Crossing Structural Replacement Policy was adopted by the QAB at its meeting on September 11, 2026 and by the Warren County Conservation District Board of Directors at its meeting on September 15, 2026. The WCCD QAB and Board of Directors will not pay for more than $35,000 in engineering costs, even if it is competitively bid.

Road Surfacing Guidelines: At its meeting on September 11, 2026 the QAB adopted as policy the road surfacing guidelines set forth in the current Administrative Manual (see attached). These guidelines were then approved by the Warren County Conservation District at their meeting on September 15, 2026. In addition to the SCC's requirements for chip seal, the road must be a current or a recently completed drainage project to be eligible for funding.

Project Ranking Criteria: At its meeting on December 12, 2025 the QAB drafted criteria to prioritize funding proposals based on suggestions of the State Conservation Commission and the Center for Dirt and Gravel Roads for Stream Crossing and Drainage projects. Allowing for drainage and stream crossings to compete equally. These criteria were then approved by the Warren County Conservation District at their meeting on December 16, 2025. The Criteria will be reviewed and amended annually. (Written Criteria attached as a separate sheet.)

Funding Criteria Policy: The following Funding Criteria Policy was adopted by the QAB at its meeting on May 9, 2025, and by the Warren County Conservation District Board of Directors at its meeting on May 20, 2025: The District may fund up to one stream crossing project per year.

Traffic Count Policy: The attached Traffic Count Policy was adopted by the QAB at its meeting on September 11, 2026, and by the Warren County Conservation District Board of Directors at its meeting on September 15, 2026.

Low Volume Road Policy: The following Low Volume Road Policy was adopted by the QAB at its meeting on February 13, 2015, and by the Warren County Conservation District Board of Directors at its meeting on February 17, 2015: Due to high paving costs Low Volume Road projects will address Drainage and Base first. Repaving the surface is not guaranteed for funding.

Warren County Quality Assurance Board Priority Rating Worksheet

Dirt & Gravel Road Program

PROJECT # _____ TOWNSHIP_____

ROAD NAME_____ STREAM AFFECTED_____

Dirt, Gravel, and Low-Volume Road Grant Application Ranking

Select type of application	
	Unpaved (Dirt and Gravel)
	Paved (Low Volume Road)

SECTION 1: APPLICATION VALIDATION

	Circle Choice		
Does this road site negatively impact a stream, lake, wetland, or other water body?	YES	NO	
Will the proposed project reduce environmental impacts to a water body?	YES	NO	
Is someone from the applying entity "ESM Certified" within the past 5 year?	YES	NO	
Does the proposed application meet all SCC requirements (non-pollution, pipe size,etc.)	YES	NO	
Does the proposed application meet all policies adopted by the local County QAB?	YES	NO	
Has the applicant identified and agreed to obtain all necessary permits & Off-ROW permissions?	YES	NO	
LVR ONLY: If the traffic count is known at this point, is it 500 vehicles per day or less?	YES	NO	unavailable

(note traffic count is required before contract is signed)

If any of the questions above are answered "NO", the application is currently not eligible for funding.

SECTION 2: APPLICATION RANKING

SEVERITY OF PROBLEM

1. **"Modified" Worksite Assessment:**
   a. **Road Drainage to Stream:** _____ (15)

      None-**0** Slight-**5** Moderate-**10**
      Severe-**15**

   b. **Wet Site Conditions:** _____ (10)

      Dry-**0** Saturated Ditches-**3** Roadside Springs-**5**
      Flow in Ditches-**7** Saturated Base-**10**

   c. **Road Surface Condition** _____ (15)

      i. **LVR EVALUATION: Pavement Condition**

      Good-**0** Fair, some cracking-**5** Poor, cracking, unevenness-**7**
      Damaged-**10** Severely Damaged-**15**

      ii. **D&G EVALUATION:**

      Hard Gravel-**0** Mixed Stone-**5** Soft Stone-**7**
      Mixed stone/dirt/dust-**10** Severe Dust-**15**

   d. **Road Slope:** _____ (10)

      <5%-**0** 5-10%-**5** >10%-**10**

Project #:_____ Township:_____ Road Name:_____

e. **Road Shape (cross-slope/crown):** _____ (5)

Good-**0** Fair- **3** Poor-**5**

f. **Slope to Stream:** _____ (5)

<10%-**0** 10-30%-**3** >30%-**5**

g. **Distance to Stream:** _____ (5)

>100'-**0** 50'-100'-**3** <50'/crossing-**5**

h. **Outlet to Stream:** _____ (5)

None-**0** Near Stream-**3** Directly to Stream-**5**

i. **Outlet Stability (consider all outlets, pipes, ditches, etc.):** _____ (5)

Stable-**0** Moderate-**3** Unstable-**5**

j. **Bank/Ditch Stability:** _____ (10)

Stable-0 Moderate-**5** Unstable-**10**

k. **Bank Height:** _____ (10)

<3 feet- **3** 3 – 10 feet -**7** >10 feet -**10**

l. **Vegetative Ground Cover (consider ditch and banks):** _____ (5)

Stable (<30%)-**0** Partial (30-60%)-**3** Unstable (>60%) -**5**

m. **Length of Road Affecting Stream:** _____ (10)

<500 feet -**3** 500 -1000 feet-**7** >1000 feet -**10**

2. Classification of stream or waterbody impacted:

a. Water Quality of Affected Stream: _____ (25)

25 STREAM IS A SOURCE OF MUNICIPAL WATER SUPPLY
20 STREAM IS CLASSIFIED EXCEPTIONAL VALUE (EV)
15 STREAM IS CLASSIFIED HIGH QUALITY (HQ)
10 STREAM IS CLASSIFIED COLD WATER FISHERY (CWF)
5 STREAM IS CLASSIFIED WARM WATER FISHERY (WWF)

b. Trout Classification of affected stream: _____ (20)

20 STREAM IS LISTED AS VERIFIED WILD TROUT REPRODUCTION AREA
10 STREAM IS ON PFBC STOCKING LIST
0 STREAM IS NOT ON PFBC STOCKING LIST

Severity of Problem Subtotal:_____ (155)

Project #:_____ Township:_____ Road Name:_____

STREAM CROSSING: SEVERITY OF PROBLEM

1. **"Modified" Worksite Assessment:**

a. **Severity of Barrier (NAAC):** _____ (20)

None-**0** Insignificant-**4** Minor-**8** Moderate-**12**
Significant-**16** Severe-**20**

b. **Structure/Bankfull Ratio:** _____ (15)

100%-**0** <100%-**5** <75%-**10**
<50%-**15**

c. **Miles of Stream Reconnected:** _____ (15)

<0.5-**0** <0.75-**5** <1-**10**
>1-**15**

d. **Stream Bank Erosion (downstream):** _____ (10)

None-**0** Present-**5** Severe-**10**

e. **Stream Bank Erosion (upstream):** _____ (10)

None-**0** Present- **5** Severe-**10**

f. **Stream Bed Erosion (downstream):** _____ (20)

None-**0** Present-**10** Severe-**20**

g. **Stream Bed Deposition (upstream):** _____ (20)

None-**0** Present-**10** Severe-**20**

2. **Classification of stream or waterbody impacted:**

a. **Water Quality of Affected Stream:** _____ (25)

25 STREAM IS A SOURCE OF MUNICIPAL WATER SUPPLY
20 STREAM IS CLASSIFIED EXCEPTIONAL VALUE (EV)
15 STREAM IS CLASSIFIED HIGH QUALITY (HQ)
10 STREAM IS CLASSIFIED COLD WATER FISHERY (CWF)
5 STREAM IS CLASSIFIED WARM WATER FISHERY (WWF)

b. **Trout Classification of affected stream:** _____ (20)

20 STREAM IS LISTED AS VERIFIED WILD TROUT REPRODUCTION AREA
10 STREAM IS ON PFBC STOCKING LIST
0 STREAM IS NOT ON PFBC STOCKING LIST

Severity of Problem Subtotal:_____ (155)

Project #:_____ Township:_____ Road Name:_____

EFFECTIVENESS OF SOLUTION

3. **How well does the project fit the ESM guidelines?** _____ (75)

75	Above and beyond the common standards - best attempt at addressing drainage affecting stream
50	More than meets minimal guidelines but still could add practice(s) to address drainage affecting stream
25	Meets minimal guidelines

Effectiveness of Solution:_____ (75)

OTHER FACTORS

4. **In-Kind Contributions from Applicant:** _____ (15)

< 10%-**5** 10-25%-**10** > 25%-**15**

5. **Did applicant contact CD about this specific project before submitting application:** _____ (15)

No- **0** Discussed site details with CD-**10** Met w/CD on site-**15**

6. **Is applicant maintaining recently funded Program projects properly:** _____ (15)

No- **0** Recent projects still functional- **10** Yes (or first project)- **15**

7. **Is this application a continuation or enhancement of a previously funded and properly maintained project:** _____ (50)

The proposed project must fit all general program criteria. The District and/or Center staff must have reviewed and approved the site and project plans prior to the application submission.

No- **0** Yes- **50**

8. **How many municipal officials have attended ESM training?**

2 People- **5** >2 People- **10**

Other Factors Subtotal:_____ (105)

Point Summary:

Severity of Problem: _____ *(155 possible points)*

Effectiveness of Solution:_____ *(75 possible points)*

Other Factors: _____ *(105 possible points)*

TOTAL SCORE: _____ *(335 possible points)*

Ranking:_____

Quality Assurance Board Member Signatures

Date: _____

Conservation District:_____

Conservation District:_____

Natural Resource Conservation Service:_____

PA Fish & Boat Commission:_____

Stream Crossing Replacement Policy (Excerpt from 7.1 of DGLVR Administrative Manual)

7.1 Stream Crossing Structural Replacements

This section applies to stream crossing replacements (not road drainage "cross pipes") funded by the Dirt, Gravel, and Low Volume Road (DGLVR) Program. Refer to Chapter 1 of the DGLVR Stream Crossing Replacement Technical Manual for additional discussion of the background, purpose, and intended benefits of the policies detailed here.

7.1.1 Background

Replacement Structures: One of the DGLVR Program's major goals of stream crossing replacements is to ensure that structures that are funded by the DGLVR Program are designed and implemented properly to achieve stream continuity through the roadway. Stream continuity refers to the connectivity and continuation of typical streambed features (profile, slope, width, composition, grade controls, pools) along its length upstream, downstream, and through a road crossing structure. DGLVR projects often reconnect segments of stream that have been disconnected and vertically offset by an undersized road crossing. In cases where establishing continuity is not possible or feasible, the guidelines here seek to achieve channel stability and flood resiliency.

Existing Structure Eligibility for Replacement: Another major goal of DGLVR stream crossing replacements is to limit paying for replacement of stream crossing structures to locations that are negatively impacting streams and the aquatic environment. The best overall approximation of environmental impact from a crossing is the width of the existing structure opening related to the bankfull width of the channel. A channel's bankfull width is the width of flow at a "dominant channel forming flow stage" where sediment and bed material is moved most effectively through the stream system, typically associated with a one-to-two-year recurrence interval for Pennsylvania. Stream crossing structures that are significantly less than the channel's bankfull width are typically associated with many problems, including gravel deposition upstream of the road, excessive stream scour and erosion downstream of the road, flooding, and washouts. DGLVR site eligibility policy (detailed in section 7.1.2.1) limits paying for structural replacement on existing pipes over 4' in diameter to only those locations where the existing structure is less than 75 percent of the bankfull channel width. These structures are most likely to cause negative stream impacts and are most likely to be sources of perpetual maintenance and road impacts to road owners (gravel bar removal, erosion, etc.).

7.1.2 DGLVR Stream Crossing Replacement Policy

This section details the DGLVR Stream Crossing replacement policy for eligibility and additional responsibilities of the conservation district.

7.1.2.1 Policy for Stream Crossing Eligibility for Replacement

Eligibility criteria for replacing stream crossings, in whole or in part, with DGLVR funds:

- **Small Pipes:** Existing stream crossing structures with an opening width less than or equal to 48" are automatically eligible for replacement regardless of their relationship to the bankfull channel width, if they are replaced according to DGLVR Policy.
- **Multiple Pipes:** Existing stream crossings consisting of multiple (side-by-side) pipes are automatically eligible for replacement regardless of their relationship to the bankfull channel width, if they are replaced according to DGLVR Policy. This automatic eligibility applies to multiple pipes only, not multi-cell or multi-opening bridges.
- **All Other Structures:** For existing single-opening structures with an opening width over 48", only structures with a "structure opening width to bankfull channel width" ratio of 75% or less are eligible for replacement with DGLVR Program funds.
- **Previously Funded DGLVR Stream Crossings:** Projects previously installed using DGLVR funds can be replaced at the discretion of the conservation district. In such cases, a Level 1 crossing to the DGLVR Stream Crossing Design & Installation Standard (DGLVR Stream Crossing Standard) must be implemented.

Notes:

- When measuring the width of an existing structure, measure the most limiting width (for example: the narrowest pipe in a series of "necked-down" pipes, or the narrowest point perpendicular to the flow between abutments of a skewed bridge).
- Please contact the CDGRS or SCC in situations where bankfull cannot be accurately measured. This may occur in wetland situations, or where the channel has been severely impacted by manmade encroachments. Other methodologies may be applicable in these situations, such as the use of regional curves based on watershed size, to estimate a bankfull width.

7.1.2.2 Where the DGLVR Stream Crossing Policy Applies

For DGLVR Program purposes, the stream crossing policy outlined here applies to situations where streams, including intermittent channels, with defined bed and banks are flowing into the road or the uphill ditch. See section 7.1.3 for an explanation of several "levels" of design considerations and requirements for crossing replacement. Contact the SCC under questionable circumstances.

Routine maintenance of existing stream crossing structures (without replacement), such as culvert lining or bridge deck repairs, is not eligible for DGLVR funding.
In some cases, improvements such as the addition of headwalls can be funded on an existing stream crossing without crossing replacement. Such work on existing crossings is eligible on crossings where the existing opening is >75% of the bankfull width (not eligible for DGLVR replacement).

The policies and qualifications for replacement with DGLVR Program funds outlined here and in the DGLVR Stream Crossing Design & Installation Standard **do not exempt projects from any permitting or engineering requirements**.

7.1.2.3 Policy Limiting Engineering and Consulting Costs

Program funds can be used to cover stream crossing engineering, permitting, or similar consultant costs, following the policies contained in section 3.7.4.7.

7.1.2.4 Conservation District Education Requirements

At least one conservation district staff member must have completed the DGLVR Program's "Stream Crossing Replacement Certification Training" and received a certificate of completion before the QAB can recommend or the conservation district board can approve a contract for a project involving a stream crossing replacement. Recertification must be completed at a minimum once every three years to maintain certification. This training requirement does not apply to crossings that qualify for a "Level 3" replacement outlined in section 7.1.3.1.

7.1.2.5 Conservation District Requirements

- **SCC Notification:** Conservation districts are required to notify the State Conservation Commission (SCC) of proposed stream crossing replacements as soon as practical before a contract is signed. The notification should be submitted as soon as possible in the process, preferably before the long-pro survey, so any potential issues can be identified early in the process. The required online notification system is available by logging in to the Center for Dirt and Gravel Road Studies website.
- **Conservation districts are required to hold meetings including:**
    - **Pre-application:** Meeting, typically held with grant applicant before application submittal.
    - **Pre-design:** If an engineer is required by permitting or DGLVR Standard, then a pre-design meeting must be held. On-site meetings, typically held with grant applicant and project engineer, occurs after the grant applicant signs a contract with the conservation district for DGLVR funding and hires an engineer, and before design and permitting.
    - **Pre-construction:** On-site meeting, typically held with grant recipient, project engineer, and contractors (if applicable), prior to starting construction.
- **Conservation districts are required to attend a bid site showing (if held):** On-site meeting, typically held with the grant recipient, project engineer, and potential bidders/contractors, for project construction before bids are due. These meetings are highly recommended but at the discretion of the grant recipient.
- A "Stream Crossing Eligibility Determination" (Appendix G) must be completed by the conservation district and kept in the project file for all stream crossing replacements. This form requires measurement of the bankfull channel and existing structure to determine DGLVR Program eligibility for replacement.
- Stream crossing replacements nearly always extend outside the road right-of-way. Applicants are strongly encouraged to get verbal and/or written permission from landowners for off-right-of-way work before contracting. Before working outside the right-of-way, the grant recipient must obtain written permission from the landowner. A sample landowner agreement is provided on the

Center's Project Management/CD Financial Resources page. Districts and grant recipients can use their own landowner agreements if they are in a form and manner similar to the sample provided. Districts must keep a copy of the signed landowner consent form with the project file for any work performed off the right-of-way. If landowner permission is required to meet the DGLVR Stream Crossing Policy, but cannot be obtained, the project cannot be funded. Contact the SCC under questionable circumstances. This off-ROW policy is detailed in section 3.7.4.8.

- A site assessment including a longitudinal profile survey and channel cross sections must be completed by the conservation district or their designee for each Level 1 or Level 2 stream crossing prior to signing the contract. The longitudinal profile and cross sections must be completed in accordance with section IV. K of the DGLVR Stream Crossing Design and Installation Standard (Appendix F) and must be entered into the Program's Geomorphic Assessment online tool. If, later in the design process, the design engineer completes their own site assessment to support their project design, the conservation district staff is required to be on-site while the site assessment is being performed by the engineer and/or surveyor. The conservation district's role during the engineer's site assessment is to observe and assist with the longitudinal profile and cross sections and ensure that all important data points are obtained. The site assessment requirement does not apply to Level 3 stream crossing replacements.

- If a project is required to be designed by an engineer, the grant recipient or engineer must provide all permit applications, Site Assessment, and design plans and specifications (per DGLVR Stream Crossing Standard) to the conservation district. The conservation district must review the documents and provide confirmation to the grant recipient or engineer that these submitted documents comply with DGLVR policy and/or the Stream Crossing Standard before they are submitted (or resubmitted) for permit review. The purpose of this review is to verify consistency with DGLVR policies and/or the Stream Crossing Standard, not to review engineering calculations or permit completeness. "Consistency" and "deficiency" form letters for conservation district use can be found on the CDGRS website.

- If a project is required to be bid out for construction, the grant recipient or engineer must provide all draft bid packages to the conservation district. The conservation district must review the draft documents and provide confirmation to the grant recipient or engineer that those draft bid documents comply with DGLVR policy and/or the Stream Crossing Standard before they are provided to potential bidders. The purpose of this review is to verify consistency with DGLVR policies and/or the Stream Crossing Standard, not to review engineering calculations or bidding requirements. It is up to the grant recipient to comply with applicable bidding requirements. "Consistency" and "deficiency" form letters for conservation district use can be found on the CDGRS website.

- Conservation districts must be on-site regularly during construction to ensure that DGLVR Program policies and/or the Stream Crossing Standard are being met. At a minimum, the conservation district must be on site during the installation of "Critical Stages of Construction" as defined in the DGLVR Stream Crossing Standard.

- In situations where no current stream crossing exists and a new crossing is to be installed, DGLVR Program policy must still be followed. The conservation district must contact the SCC for eligibility guidance.
- Conservation districts must complete the "Project Lifecycle Checklist" (Appendix I) during the planning and implementation of stream crossing replacements, and the form must be kept in the project file. This requirement does not apply to Level 3 stream crossing replacements.

7.1.3 Stream Crossing Replacement Levels

Streams are dynamic systems which vary widely around the state. Reestablishing channel continuity and stability is the goal of DGLVR stream crossing replacements. Installing a Level 1 crossing to the DGLVR Stream Crossing Standard, defined below, is the optimal DGLVR Program approach to stream crossing replacements. In certain instances, it may not be feasible to complete a comprehensive stream continuity project using the DGLVR Stream Crossing Standard. The section below outlines three "Levels" of projects with different goals for the completed replacement. Regardless of the level used below, any applicable permit requirements from DEP or other sources must still be met.

7.1.3.1 Level 1: Build for Continuity Following the DGLVR Stream Crossing Standard

This level of stream crossing replacement is intended to provide the maximum level of continuity, stability, and flood resilience. Installing a Level 1 crossing to the DGLVR Stream Crossing Standard is the optimal DGLVR Program approach to stream crossing replacements.

Requirements for Level 1: Follow the DGLVR Stream Crossing Design and Installation Standard. The DGLVR Stream Crossing Standard and its attachments are available in Appendix F.

7.1.3.2 Level 2: Hybrid: Build for Stability, Flood Capacity, and a Level of Continuity

This level of stream crossing replacement is intended to provide flexibility in specific situations such as wetland crossings, crossings with other continuity limitations, or crossings where an element(s) of the DGLVR Stream Crossing Standard can't be met. Level 2 projects must include as many elements of the DGLVR Stream Crossing Standard as site conditions allow. District, CDGRS, and SCC staff should work together to determine the best hybrid approach for each site.

Eligibility for Level 2: SCC Approval: Since this is a dynamic hybrid approach, the district must contact the SCC for approval using the Level 2 Stream Crossing Replacement Justification – Request for SCC Approval Form in Appendix H and must retain the form in the project file. If approved, project-specific requirements will be provided by the SCC on the second page of the form.

Requirements for Level 2: Additional requirements for a Level 2 replacement will vary between each project. Some projects may be closer to a Level 1 project that implements a large portion of the DGLVR Stream Crossing Standard. Some projects may be closer to a Level 3 project focusing on stability with a few small additions. This level is designed to provide maximum flexibility based on site conditions while meeting as many aspects of the DGLVR Stream Crossing Standard as feasible. Work with the SCC and CDGRS to determine what fits each particular project best.

7.1.3.3 Level 3: Build for Stability and Flood Capacity

This level of stream crossing replacement is intended for small channels and channels where connectivity is impossible or impractical due to other site issues. Conservation districts are encouraged to implement a higher level of stream crossing replacement than this policy requires. For example, in some areas of the state, a very small stream that meets the criteria for a Level 3 replacement may provide vital habitat for trout or other important aquatic species. In this case, the district is encouraged to implement the project that is best for this high value resource.

Eligibility for Level 3: Small Watersheds: Stream channels with a bankfull measurement of 5 feet or less, and a drainage area of less than 65 acres. A Level 3 Stream Crossing Replacement Justification Form in Appendix H must be completed and retained in the project file.

Requirements for Level 3: The purpose of a Level 3 crossing is to ensure channel stability and flood capacity. At a minimum, this involves proper structure sizing, and some form of outlet scour protection and inlet grade control to avoid creating a head cut upstream. It is always beneficial to conduct a longitudinal profile to facilitate determining proper structure slope and other design factors to ensure a stable crossing. The minimum requirements of a Level 3 replacement are listed below, but districts are free to add additional site-specific requirements.

- New structures must be a single span a minimum width of 1 times or 100% of the bankfull channel width unless otherwise approved by the SCC.
- Ensure the stability of the channel upstream and downstream.
    - Upstream: Grade control(s) are required immediately (between one and two bankfull widths) upstream of the inlet of the new structure to prevent headcutting (headward erosion lowering channel elevation that moves upstream over time). These grade controls are typically installed at the existing streambed elevation. If a larger structure is installed in a channel with road height limitations, installing a larger structure below the existing streambed elevation without grade control(s) will likely cause a headcut.
    - Downstream: Outlet stabilization is required in the form of grade controls, bank armoring, and/or filling in scour holes. Any grade controls are typically installed at the existing streambed elevation. Pipes may need to be extended further off the road, and the erosion potential caused by any elevation drops must be considered.
- New structures must be properly aligned with the channel, unless this is not feasible due to permitting restrictions or other constructability constraints.
- Consider floodplain connectivity when necessary (e.g., high water by-pass, overflow pipes, etc.).
- Divert surface runoff and road drainage away from the stream and structure in a manner that prevents erosion and prevents discharges to the stream.

Road Surfacing Policy (Excerpt from 7.2 of DGLVR Administrative Manual)

7.2 Road Surfacing

Resurfacing roads is not a required component of DGLVR projects or a primary focus of the DGLVR Program. It is at the discretion of individual districts and QABs whether resurfacing costs will be funded through the Program, either on individual projects or as countywide policy.

When surfacing is part of a project, it should be the very last phase of the project. Road surfacing alone does not constitute a comprehensive Program project. Before funding any resurfacing work on projects, the following ESM principles must be addressed to reduce environmental impacts of the road and extend the longevity of the surface:

- Drainage issues
- Bank instability issues
- Other necessary and appropriate issues such as bank stability, road entrenchment, vegetation, etc.

7.2.1 Unbound Road Surfaces

Driving Surface Aggregate (DSA) meeting the SCC Standard and Specification (Appendix E) is the only approved unbound road surface material that may be purchased with Program funds except as provided in (section 7.2.1.2). Technical details for DSA including placement and purchasing specifications are not included in this administrative manual. See the CDGRS Aggregate Handbook for technical documentation.

7.2.1.1 Driving Surface Aggregate Sampling and Certification

A DSA certification is required for every project where DSA is used. DSA must be sampled and tested by an independent lab before it is delivered to a project site.

- Sampling can be done by the CDGRS "DSA Clearinghouse" at no cost to the district. Districts are encouraged to utilize the CDGRS DSA sampling services. Sampling can also be done by district representatives following the guidelines in the Aggregate handbook. If the district does its own sampling, the costs of testing can be incorporated into project costs or paid out of a district's admin/education funds.
    - **If the districts chooses to sample their own DSA, they must share testing results with the CDGRS** to provide a more comprehensive statewide database and avoid duplicate testing.
- Testing must be done on the aggregate pile that is supplying the entirety of the project.

- **DSA sampling, testing, and approval is "pile-specific", not "quarry-specific".** Additional certifications are required if the quarry changes the DSA production process (for example switching to a different seam of stone).

The CDGRS will act as a "DSA Clearinghouse" for DSA projects. The purpose of this DSA Clearinghouse is to ensure quality DSA purchase and placements for districts statewide by:

- Visiting and talking with quarries to ensure they understand the DSA requirements.
- Collecting samples and performing testing to ensure DSA meets all material requirements before delivery and placement.
- Keeping records of aggregate testing to avoid duplicating efforts.
- Establishing a central point of contact for quarries on DSA issues.
- Assistance with contractor coordination.
- On-site assistance during DSA placement.

If districts plan to use the DSA Clearinghouse, notify them at least 30 days before placement. It is recommended that districts contact the CDGRS as soon as the DSA supplier is chosen. Notification can be made by emailing the DSA Purchase Notification Form, provided in the Aggregate Handbook or on the CDGRS website, to DSATesting@psu.edu.

The SCC DSA Certification form must be obtained by the grant recipient before aggregate is placed (typically delivered with the first truck of DSA on site). The DSA pre-project testing results and certification must be kept with project files.

7.2.1.2 Exceptions to using DSA

The only exception to using DSA as a final unbound driving surface is on road fill projects. Road fill projects are defined as projects where the fill elevates the profile of entrenched roads (from bank to bank) to restore sheet flow and/or allow for installation of drainage features. Road fill projects must be capped with DSA, 2A, or an alternative aggregate at a minimum compacted depth of 4 inches. Shale or bank-run gravel may not be used as the final driving surface. This exception is not meant to replace DSA with fill. Asphalt or chip seal may also be used if the site meets the requirements in section 7.2.2.

In some cases, the road owner will be paving or sealing an unpaved road with non-Program funds as part of a DGLVR project. An alternate aggregate can be paid for with DGLVR funds to prepare the base for sealing or paving in this circumstance. Sealing/paving must be listed as an in-kind contribution on the grant application and completion report and must be completed before final grant payment. It is essential that conservation districts and grant applicants discuss this option early during project planning prior to contracting.

7.2.2 Sealed or Paved Road Surfaces

Asphalt and chip seal are the only paving or sealing materials approved for the use of Dirt, Gravel, and Low Volume Road Program funding and must conform to PennDOT Pub 408 or Pub 447. The use of petroleum solvent based "cutback asphalts" such as MC-30 and MC-70 are NOT allowed for use in the Program.

7.2.3 Surface Conversions

7.2.3.1 Converting an Unpaved Road to a Paved or Sealed Surface

Generally, program funds should not be utilized for the specific purpose of converting unpaved roads to paved or chip seal. However, there are certain circumstances where an unpaved road may be sealed due to traffic or environmental considerations. Conservation districts may fund the sealing of an unpaved road as part of a comprehensive drainage project without SCC approval under the following circumstances:

- **Aprons:** Areas where unpaved roads intersect paved or sealed roads are subject to additional wear and tear from vehicles starting, stopping, and turning. DGLVR funds can be used to place up to a 100-foot paved or sealed apron where an unpaved portion of the work site intersects a paved or sealed road.
- **Extreme Slope:** Some portions of roads are too steep for any non-sealed surface to withstand unraveling. In these cases, the surface needs to be sealed to withstand erosion and vehicle damage. Projects, or segments of projects, with an average 10% or greater grade may be converted to a sealed surface.
- **Traffic Count:** Over 250 cars per day as determined using a traffic count according to Program Policy.

Other circumstances may arise that warrant a surface conversion, such as when a road parallels a stream in close proximity and runoff to the stream is unavoidable. Contact the SCC for approval before sealing an unpaved road outside of the conditions defined above. Unpaved roads that are paved as part of a project may be reported as either DGR or LVR.

Asphalt and chip seal must conform to PennDOT Pub 408 or Pub 447. The use of petroleum solvent based "cutback asphalts" such as MC-30 and MC-70 are NOT allowed for use in the Program. After project completion, the ongoing maintenance of the surface is the responsibility of the road owner. Before converting unpaved roads to chip seal or asphalt, the district should discuss and evaluate the capability and financial capacity of the grant recipient to maintain the new sealed road surface.

7.2.3.2 Converting a Paved or Sealed Road to an Unpaved Surface

The Program recognizes the value of converting a poorly constructed or poorly maintained low volume road into a high-quality dirt and gravel road through full depth reclamation or other similar processes. Eligible unpaved road surface materials are described in section 7.2.2.

After project completion, the ongoing maintenance of the surface is the responsibility of the road owner. Before converting chip seal or paved roads to an unpaved surface, the district should discuss and

evaluate the capability and financial capacity of the grant recipient to maintain the new unpaved road surface.

Paved roads converted to unpaved may be reported as either a DGR or LVR project.

Traffic Count Policy (Excerpt from 7.4 of DGLVR Administrative Manual)

7.4 Traffic Counts for Low Volume Roads

Before a contract can be signed for a low volume road project, the applicant is responsible for validating that the road has 500 vehicles per day or less consistent with SCC and any local QAB policy. The Program's "Traffic Count Validation form and Instructions" can be found in Appendix D.

- Applicant is responsible for providing traffic counts before a contract can be signed.
- A traffic count is not required in order to submit an application, unless required by local QAB policy.
- The district is responsible for verifying that a count exists, and that the count meets the criteria established in state and local policy.
- Traffic counts are considered valid for a period of five years, provided there are no new significant changes in traffic flow volumes or patterns.
- Documentation of traffic counts using a signed "Traffic Count Validation Form" must be retained with project files according to the SCC record retention policy. Districts may opt to include the completed traffic count validation form as an attachment to the project contract.
- Districts may, at their discretion, use administrative and education funding to facilitate or support traffic counts for applicants. Districts should ensure that all potential applicants have equal access to any traffic count facilitation measures they may employ.
- Traffic counts only apply to a segment of road between intersections, not to an entire length of road. Application sites that include intersections may require multiple counts.
- Traffic counts should be done on the proposed project location, or on a road that ensures that traffic on the project location can be determined.
- If a road is temporarily closed to traffic, such as due to storm damage, reach out to the SCC to discuss how to obtain a traffic count.

7.4.1 OPTION A: Validate with Existing Traffic Count Data or Extrapolation

7.4.1.1 Use of Existing Data

Existing traffic counts can be used to verify road eligibility for LVR funding. Existing data must have been collected within the previous five years and conform to the Program's Level 2 count protocol at a minimum. "Estimated" traffic counts that exist for many municipal roads cannot be used.

7.4.1.2 Extrapolation of Existing Data

It is permissible to use existing data for roads with 500 vehicles per day or less to logically extrapolate to subsidiary roads. (For example, a spur road between two state roads where both state roads have less than 500 vehicles per day must also have less than 500.) This extrapolation of data can be used to verify that a road has 500 vehicles per day or less without performing a count. This extrapolation of traffic counts must prove the ADT on the road is 500 or less to be eligible for LVR funding. Potential sources of existing traffic count data include:

- State Roads: Traffic Volume Maps
- Local Roads: PennDOT regional offices or County Planning Commissions.

7.4.2 OPTION B: Validate with Level 1 Count: 2 Hour Count

An applicant may do a Level 1 count to determine the traffic count on a potential project site. This involves counting traffic for a two-hour period, either by hand tally, video recording, or an automated traffic counter. A Level 1 count of 500 vehicles per day or less will qualify the road for LVR funding. A Level 1 count must meet the following criteria:

- It cannot be conducted on a holiday, or the day before or after a holiday.
- It must be conducted on a weekday (Mon-Fri).
- It must be conducted for a minimum of two consecutive hours between 6:00 am and 9:00 am or 3:00 pm and 6:00 pm.
- Only the number of vehicle passes is counted, regardless of direction of travel or type of vehicle.
- The traffic count for the time period will be adjusted to a 24-hour period by simply multiplying the 2-hour count volume times twelve (12).
- Applicants may skip the Level 1 count and go straight to a Level 2 count if desired.
- Only licensed motor vehicles should be counted.

If a Level 1 count produces a count of 500 vehicles per day or less, the project on the road is considered eligible without a Level 2 count. If a Level 1 count produces a count of more than 500 vehicles per day, it does not disqualify the road but necessitates a Level 2 count because of its increased accuracy. The purpose of a Level 1 count is to provide a reasonably accurate traffic count with minimal time investment.

7.4.2.1 Level 1 Count Examples

Example 1: A traffic count for two consecutive hours between 4:00 pm and 6:00 pm produces a count of 25 vehicles. 24 hours (per day) / 2 hours (per study) = 12

12 x 25 =300 average daily count.
This worksite would be eligible (no Level 2 count needed).

Example 2: A traffic count for two consecutive hours between 3:30 pm and 5:30 pm produces a count of 53 vehicles. 24 hours (per day) / 2 hours (per study) = 12

12 x 53 = 636 average daily count.
This does not disqualify the road. It simply means that a more accurate Level 2 count is required if the applicant wants to continue to pursue Program funding.

7.4.3 OPTION C: Validate with Level 2 Count: 24-hour Automated Count

A Level 2 count involves the placement of an automated traffic counter on the road for a minimum period of 24 hours. Note that these are the minimum criteria for a count. More comprehensive or longer counts can be substituted as long as they meet the minimum requirements below for a "Level 2 count". A Level 2 count of 500 vehicles per day or less will qualify the road for LVR funding. Level 2 counts supersede Level 1 counts if there is a discrepancy. A Level 2 count must meet the following criteria:

- It cannot be conducted on a holiday, or the day before or after a holiday.
- It must be conducted on a weekday (Mon-Fri).
- It must be conducted for a minimum of 24 consecutive hours.
- Only the number of vehicle passes is counted, regardless of direction of travel or type of vehicle.

If a Level 2 count produces a count of 500 vehicles per day or less, the project on the road is considered eligible. If a Level 2 count produces a count of more than 500 vehicles per day, a project on that road is not eligible for LVR funding. 24-hour counts do not have be broken up by hour or any smaller time unit.

The criteria described in the Level 2 count represent a "minimum acceptable criteria". Counties may use or adopt more stringent traffic count requirements as long as it meets or exceeds the requirements here. (A more stringent requirement is a count that provides more statistically accurate data. For example: requiring Level 2 counts for all roads, requiring 48-hour counts, or requiring hourly totals on counts to provide information to PennDOT.)

7.4.4 Seasonal Activities and Special Circumstances

A traffic count survey cannot be conducted in a timeframe or manner that intentionally causes artificially low average daily traffic counts on a particular road segment. This includes conducting a traffic count:

- During summer recess for a school access road.
- When access to a road segment is temporarily or partially restricted or reduced (i.e. detoured, weight, or size restricted, etc.).
- During inclement weather such as snow or heavy rain, or when the road surface is impacted by snow or ice.
- In any other timeframe or manner that intentionally causes low average daily traffic counts.