

**Franklin County Conservation District**  
**Dirt, Gravel and Low Volume Road Maintenance Program**  
**Quality Assurance Board Policies**

**OBJECTIVES**

The objectives of the Franklin County Dirt, Gravel, and Low Volume Road Program Quality Assurance Board (QAB) are to provide the Franklin Conservation District Directors (FCCD) with information and recommendations to make informed decisions relating to the Dirt, Gravel and Low Volume Road Program, involve local individuals in the pollution prevention efforts of the program and ensure that the decision making process includes local environmental expertise. The QAB will also establish program requirements for funding, project priorities and review applications submitted for funding.

**QUALITY ASSURANCE BOARD COMPOSITION**

The QAB shall consist of 4 members: 1 non-voting chairman appointed by the conservation District Board of Directors, 1 member from the Pa. Fish and Boat Commission, 1 member from the Natural Resources Conservation Service, and 1 member from the Franklin County Conservation District. Each appointment to the QAB should be made in writing to the Franklin County Conservation District Board of Directors. An alternate may be appointed for any of the 3 voting members of the QAB and also should be submitted in writing to the Franklin County Conservation District Board of Directors.

**THE QUALITY ASSURANCE BOARD RULES OF CONDUCT**

The Chairman will be responsible for establishing the meeting agenda and running the proceedings. Voting members will establish policy for the program's operation and distribution of allocated funds consistent with the Dirt, Gravel and Low Volume Road Program Law 9106. The QAB will make recommendations to the Franklin County Conservation District Board of Directors. All actions of the QAB will require that a quorum of the voting members is present. The chairman will vote only in the event of a tie vote.

All QAB meetings will be conducted under the Sunshine Law and will meet on an as needed basis. Minutes will be recorded and kept on record and made available to the public according to the Franklin County Conservation District Right to Know Policy.

**CONFLICT OF INTEREST STATEMENT**

No District Director, Quality Assurance Board Member or District Employee shall, as a result of this program, be permitted to obtain financial benefits for themselves, their family or business interests with which they are associated.

## **EQUAL ACCESS TO FUNDING**

All County Municipalities and State Agencies that own and maintain public roads are eligible for funding through the Franklin County Dirt, Gravel, and Low Volume Road Program if they have at least one current employee or supervisor that has attended the 2 day Environmentally Sensitive Maintenance (ESM) training and have and maintain a current ESM certification.

## **APPLICATION FOR FUNDING**

The FCCD Dirt, Gravel, and Low Volume Road Program will use the application forms developed by the Center for Dirt and Gravel Roads. The application must be completely filled out or risk being returned and not ranked for the current application period.

Applications for funding will only be received during the announced open application period. There will be at least one open application period per year with other application periods opened up at the discretion of the QAB.

All applications will need to be signed by the project superintendent or local supervisor to be eligible for funding.

The application shall have a location map clearly showing the project site as well as the nearest streams or environmentally sensitive areas.

A project sketch shall be drawn on the application work plan at minimum. An engineered drawing on CAD is also acceptable but either will need to show all proposed work, project road length, design cross sections as needed, nearest intersections, and any other pertinent project information.

All applications must have the necessary permits included or a statement that they are in the process of being secured. **Absolutely no work shall begin and no funds will be advanced until all permits are obtained.**

All applications must have the project cost tables filled out completely with project costs broken down according to category. Project match is not required by the FCCD at this time, but it does increase the ranking score if it is included in the project cost tables (See Project Ranking Criteria).

## **PROJECT RANKING**

All projects will be ranked using the forms developed by the Franklin County QAB following the Center for Dirt and Gravel Roads guidelines.

## **APPLICATION RETENTION**

The FCCD will retain applications on file for 1 year from the date of submittal. If the QAB holds another application round within one year from the date of the last round, the applicant will be notified and given the opportunity to adjust project scope and cost. The application will then be ranked again with any other applications received.

## **DESIGNS AND PERMITTING**

No QAB member or Conservation District employee will develop any designs or permits for the program. All eligible entities are responsible for developing their own designs and applying for any permits necessary. Funding may be available to help with engineering and/or permitting costs associated with the project, but this must be included in the application and cannot be more than 10% of the project cost not counting these costs as part of that total.

## **INCENTIVE FOR TRAINING**

The FCCD Dirt, Gravel, and Low Volume Road Program will encourage local participation in the program by reimbursing municipalities expenses to send employees or supervisors to the required ESM training for certification. Eligible expenses include: mileage (paid at the current state rate), lodging expenses and meal expenses (excludes alcohol purchases). The reimbursement will be limited to 50% of these eligible expenses. Copies of all receipts must be submitted to the FCCD for verification. Prior approval from the FCCD QAB and/or Conservation District Board of Directors must be obtained before attending any program related training. The request must be made in writing to the FCCD at least 45 days before the training is to take place.

## **NON-POLLUTION STANDARDS**

Section 9106 (f)(7) of the PA Motor Vehicle Code requires QAB's to adopt standards that prohibit the use of materials that are harmful to the environment. The Statement of Policy 83.613 formalizes that requirement. In response, the QAB has adopted standards prohibiting the use of materials or practices which are harmful to the environment or do not meet the program's non pollution standard. These materials include, but are not limited to: noxious weeds, fugitive emissions, and dust control products which may pose a problem if they enter a watercourse. Compliance with all existing environmental regulations is a condition of purchase under the contracting agreement between the conservation district and the municipality. An environmentally suitable substitute for dust control, as determined by the State Conservation Commission, may qualify for payment. Approved products are available on the Pennsylvania Center for Dirt and Gravel Roads website.

## **ADDITIONAL POLICIES ATTACHED**

**Stream Crossing Structural Replacement**

**Driving Surface Aggregate (DSA)**

**Low Volume Road Specific Guidance**

**Traffic Counts for Low Volume Roads**

**Project Ranking Criteria**

## **7. ADDITIONAL PROGRAM POLICIES**

The purpose of this chapter is to address more complex Program policies that are not necessarily applicable to every project. This chapter contains policies and guidance on:

- 7.1: Stream Crossing Replacement
- 7.2: Driving Surface Aggregate
- 7.3: Full Depth Reclamation
- 7.4: Low-Volume Road Specific Guidance
- 7.5: Low-Volume Road Traffic Counts

### **7.1 Stream Crossing Structural Replacement (Bankfull) Policy**

This section applies to stream crossing replacements (not road drainage “crosspipes”) on **both Low-Volume funds and Dirt and Gravel roads.**

#### **7.1.1 Background**

The goal of this policy is to limit the replacement of stream crossing structures to those which are negatively impacting streams. The best quantification of stream impact is the size of the existing structure related to the bankfull width of the channel. A channel’s bankfull width is the width of flow at a “dominate channel forming flow stage” where sediment and bed material is moved most effectively through the stream system. Although it varies, bankfull is typically associated with a flow level between one and two year recurrence. Stream crossing structures that are significantly less than the channel’s bankfull width are typically associated with many problems including gravel deposition above the road and excessive stream scour and erosion below the road. The policy below limits paying for structural replacement on 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 be causing negative stream impacts, and are most likely to be sources of perpetual maintenance and road impacts to local municipalities (gravel bar removal, erosion, etc.). In addition, any new structures must have a width at least equal to the channel’s bankfull width. Bankfull structures have been shown to be both cost-effective over their lifetime and provide significant aquatic benefits. In addition, installing bankfull structures helps reduce annual maintenance costs, and can prevent road damage and road closures due to flooding.

#### **7.1.2 Replacement of Road/stream Crossing Structures**

The purpose of this policy is to determine eligibility for stream crossing structural replacement with Program funds. Environmentally Sensitive Maintenance practices applied to the surrounding stream crossing structure area (road, stream banks, ditches, headwalls, wingwalls, high water bypass etc.) are still eligible Program expenses around all stream crossings regardless of bankfull measurements. Within the limits described below, the final decision on funding structure replacement, along with the type of structure used (pipe, box, etc.), is at the discretion of local QABs. Individual QABs can enact stricter policies within their counties, for example requiring structures to be 50 percent bankfull instead of 75 percent to be eligible for replacement, or requiring new structures to be 1.2 times bankfull width. These qualifications for replacement with Program funds do not exempt projects from any permitting or engineering requirements. Engineers should be made aware of this policy early in the planning process, as stream crossing designed solely based on hydraulic capacity are typically smaller than a bankfull structure. Districts should hold an on-site

pre-design meeting with the applicant and their engineer prior to the structure design process and application development. Districts may develop local policies requiring pre-application or pre-design meetings.

Bankfull structures will not only accommodate the hydraulic capacity of the stream, but will allow for better stream function through the road in regards to bedload movement, sediment and debris transport, and aquatic organism passage. Stream crossing replacements can be funded as standalone projects, or as part of a larger Program project. The Program's "Stream Crossing Evaluation Form", along with guidelines on bankfull determination, can be found in Appendix E.

### **Stream Crossing Replacement Policy:**

**EXISTING stream crossing structures with an opening equal to or less than 13 square feet (equivalent to a 48" diameter round pipe):**

- **Are eligible to be replaced with Program funds.**
- **The NEW REPLACEMENT structure must (all four):**
  1. Have a structure width at least equal to bankfull width (100 percent ratio).
  2. Be properly aligned with the channel when possible.
  3. Consider additional floodplain connectivity when possible.
  4. Be designed and constructed to accommodate the passage of aquatic organisms through the structure.

**EXISTING stream crossing structures with an opening of more than 13 square feet (equivalent to a 48" diameter round pipe):**

- **In order to be eligible for replacement, EXISTING structures must (all three):**
  1. Have a structure to bankfull width ratio of 75 percent or less.
  2. Show signs of streambank erosion.
  3. Show signs of streambed erosion/aggradation.
- **The NEW REPLACEMENT structure must (all four):**
  1. Have a structure width at least equal to bankfull width (100 percent ratio).
  2. Be properly aligned with the channel when possible.
  3. Consider additional floodplain connectivity when possible.
  4. Be designed and constructed to accommodate the passage of aquatic organisms through the structure.

Round pipes over 36" in diameter are not permitted for use in DGLVR funded stream crossings. Oval or squash pipes are acceptable. This applies only to stream crossing replacements. Round crosspipes are standard and acceptable for road drainage.

Existing structures that do not meet the above criteria are not eligible for replacement (materials, equipment, or labor) with Program funds. This policy applies to replacement of structures and does not prohibit work adjacent to the structure.

### **Considerations for multiple pipes**

Stream crossings consisting of multiple "side-by-side" pipes are associated with a wide variety of problems including clogging and channel stability issues. Installation of multiple pipe structures is NOT permitted with Program funds (high-water or overflow pipes are permitted, but do not count towards bankfull capacity). In addition, existing stream crossings consisting of multiple pipes are eligible for replacement regardless of their relationship to the bankfull measurement, as long as they are replaced with a single opening structure of at least bankfull width. This policy applies to multiple pipes only, not multi-cell bridges.

### Policy Application to Small Streams

For Program purposes, the stream crossing policy applies to situations where streams, including intermittent channels, with identified bed and banks are flowing into the road or the uphill ditch. Contact the State Conservation Commission in questionable circumstances. In order for policy exceptions on “questionable stream” channels, Districts must obtain written approval from the Commission prior to contracting the project.

### Routine Maintenance

The Program has never paid for “routine or regular maintenance” such as simply grading roads. Similarly, regular maintenance of stream crossing structures is not eligible for funding. This includes work items such as culvert lining, extending undersized stream crossings, bridge deck repair, etc. that provide minimal environmental improvements.

## 7.2 Driving Surface Aggregate (DSA)

This section applies **primarily to Dirt and Gravel funds**, but DSA may have limited use under Low-Volume funds, such as the conversion of a paved road back to gravel. Technical details for DSA including placement and purchasing specifications are not included in this administrative manual. See the Center’s Aggregate Handbook for technical documentation.

*For D&G projects, surface aggregate is not a required part of a project. However, if surface aggregate is purchased with Program funds, Driving Surface Aggregate (DSA) must be used.*

### 7.2.1 DSA Overview

DSA is a crushed stone mixture developed by the Center in 2001 to be used as a wearing course for unpaved roads. DSA is designed to achieve maximum density compared to other aggregates in order to resist erosion and support traffic. DSA has a few key differences compared to traditional aggregates such as PennDOT 2A or 2RC:

- Well graded to include a range of rock sizes from 1.5” to “stone dust”.
- 10-15 percent of the material is composed of “rock fines” that bind the material together.
- Placement by motor paver is highly encouraged.
- Several other requirements including a maximum plasticity limit, a pH range, a minimum hardness specification, and optimum moisture requirements.

Driving surface aggregate meeting the Commission’s specification is the only approved road surface material that may be purchased (for D&G projects) with Program funds. The only exception to this is on road fill projects. Projects that involve an average thickness of one foot or more (including surface) of road fill material may utilize an alternative aggregate to cap the newly added road base.

### 7.2.2 Use of DSA

The Program goal is to improve water quality. DSA is designed to resist erosion and stand up to the forces of traffic. DSA has been proven to reduce sediment loads compared to traditional aggregates by as much as 90 percent, and reduce dust by as much as 75 percent. Since DSA was designed to resist erosion, it was originally intended to be placed on sections of road adjacent to streams where draining road runoff to the waterway is unavoidable. Over the years, DSA has evolved into a “standard practice” on projects in many districts, and is being overused. DSA is NOT a required

component of every Program project. The extent to which DSA is used on projects is at the discretion of individual Districts and QABs. When DSA is used as part of a project, it should be the very last phase of the project. DSA alone does not constitute a comprehensive Program project. All possible base and drainage improvements (new pipes, underdrain, road fill, French mattresses, etc.) must be completed first to reduce environmental impacts of the road and extend the longevity of the DSA. Avoid placing DSA on entrenched roads, or on roads where surface drainage issues are not resolved.

### **7.2.3 DSA Certification**

DSA must be placed in accordance with the DSA specification and certification found in the DSA Handbook at [www.dirtandgravelroads.org](http://www.dirtandgravelroads.org). A DSA certification is required for every project where DSA is used. The DSA certification does not apply to an entire quarry. The DSA certification applies only to a particular source or pile of DSA that is being purchased. Additional certifications are required if the quarry changes the DSA production process (for example switching to a different seam of stone). The DSA certification must be obtained by the grant recipient before aggregate is placed, and must be kept with project files.

### **7.2.4 DSA Quality Control**

DSA must be sampled and tested by an independent lab before it is delivered to a project site. Sampling can be done by district representatives following the guidelines in the Aggregate handbook. **DSA sampling, testing, and approval is “pile-specific”, not “quarry-specific”.** Testing must be done on the aggregate pile that is directly supplying the job. The costs of testing can be incorporated into project costs, or paid out of a district’s admin/education funds. Sampling can also be done by the Center’s “DSA Clearinghouse”.

The Center 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, it is recommended that they contact the Center when a potential DSA supplier is chosen, at least 30 days before placement.** Notification can be made utilizing the DSA Purchase Notification Form, provided in the Aggregate Handbook, or on the Center’s website. **If districts choose to sample their own DSA, they should share testing results with the Center** in order to provide a more comprehensive statewide database and avoid duplicate testing.

## **7.3 Full-Depth Reclamation (FDR)**

### **7.3.1 Program Eligibility:**

**FDR is an eligible expense in the Program, at the discretion of individual districts, for use on paved Low-Volume Road (LVR) projects. FDR is not an eligible expense on unpaved roads.** FDR shall not be funded on paved LVR roads with DGLVR Program funds unless all applicable drainage improvements and Environmentally Sensitive Maintenance practices have been employed, as road owners are hesitant to install drainage practices at a later point when it would disturb the new



road base. Shallow surface grinds for the purpose of road resurfacing are not considered FDR projects. FDR is a major rehabilitation technique in which the full depth (minimum 6") of the surface and predetermined portion of the underlying base is uniformly pulverized and blended to provide a stronger, homogeneous road base.

### **7.3.2 Alternatives to FDR**

FDR is an expensive process that may not be necessary everywhere it is proposed. When considering funding FDR projects, consider alternative base improvement techniques such as:

- **Imported fill:** Importing fill to raise the elevation of a road can be less expensive than FDR in some cases. Entrenched roads in particular will benefit from road fill to eliminate drainage issues while providing a sound road base.
- **French Mattress:** In some cases, road base instabilities are a direct result of spring and seeps coming up near or under the road. French mattresses provide excellent road base while insuring that wet areas around and under the road will not affect the road above.
- **Geo-synthetics:** The use of geo-synthetics such as geogrid can increase the structural strength and stability of the road base. Geogrid is an excellent solution to fix base problems and is cost effective on small projects.

### **7.3.3 Program FDR Requirements:**

If a district chooses to fund an FDR project, the following requirements apply:

- The Center must be made aware of the proposed FDR project before a contract is signed. A site visit from Commission or Center staff may be requested.
- FDR must follow specifications in PennDOT Publication 447 (Approved Products for Lower Volume Local Roads)
- The mix design for FDR projects must be determined by an independent third-party.
- FDR is a base stabilization technique and does not provide a final running surface. Consideration for asphalt, "tar and chip", or some other final running surface must be part of the planning for FDR projects.
- Any additives or binding agents used in chemical stabilization must be on the Program's "Approved Products" list, detailed on the Center's website.

## **7.4 Low-Volume Road Specific Guidance**

This section applies only to **Low-Volume funds**, not Dirt and Gravel funds. The previous guidance and policy in this manual also applies to LVR projects and funds. For the purposes of the LVR Program, a "paved" road is defined to include any road surfaced with asphalt, "tar and chip", "chip seal", bitumen, concrete, or other asphalt-like coating.

### **7.4.1 LVR Guiding Principals**

#### **7.4.1.1 Project Focus**

The focus of road projects in the LVR portion of the Program should be on similar ESM principles that have been used in the Program since its inception. Projects in the LVR Program must contain benefits to both the road systems (improved drainage, reduced surface, ditch and bank erosion, smoother surface, more durable surface, reduced maintenance costs, etc.) and the environmental systems (water quality, stream quality, reduced storm water flows, improved air quality, increased infiltration). The balance between road improvements and environment benefits should be considered in the local QAB/district project ranking criteria and funding decisions.

#### **7.4.1.2 Long Term Benefits**

Similar to Dirt and Gravel Projects, the focus of LVR projects should be on long-term road and environmental improvement projects.

- Routine maintenance of LVR or storm water systems such as cleaning inlets, street sweeping, crack sealing, etc. is not eligible for funding under this Program.
- Program funds should not be used to pay for deferred or neglected maintenance on drainage/storm water systems without road improvements.
- Program funds should not be used to fund any LVR issues that do not provide a long term benefit to the road and to the environment.

#### **7.4.1.3 Mistakes/design Errors**

Program funds should not be used to correct recent mistakes and or design errors on LVRs that are the responsibility of the original project engineer or construction firm. If recent (within its reasonable design lifespan) LVR construction projects contain design or construction flaws, correction of these problems should be the duty of the project's engineer or contractor of record, and LVR funds should not be allocated for these purposes.

#### **7.4.1.4 Project Eligibility**

In order to be eligible for LVR funding, a road must have an existing paved (including chip sealed) surface, and it must have a verified average daily traffic count of less than 500 vehicles per day (according to Commission guidance). For more information on traffic count guidance, see Section 7.5.

All projects must apply ESM principles and practices to address an environmental concern directly related to the road, make improvements to the road system, or to meet all other Program requirements (ie. permits or approvals). The project eligibility requirements in section 3.7 of this manual apply to Low-Volume Roads.

### **7.4.2 LVR Project Guidelines**

#### **7.4.2.1 Paying for Asphalt or Other Surfacing**

Resurfacing paved roads (sealing or paving) is not a primary focus of the LVR Program component. Resurfacing costs can be considered by a district as a component part of a larger ESM project. It is at the discretion of individual districts and QABs whether resurfacing costs (sealing or paving) will be funded through the Program, either on individual projects or as countywide policy. Before funding any resurfacing work on projects, the following ESM principles must be addressed:

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

#### **7.4.2.2 Surfacing Unpaved Roads**

It is not the intent of the Program to encourage the sealing or paving of existing dirt or gravel roads and converting them to sealed or paved low-volume roads. While eligible entities may choose to seal or pave a DGR project on their own at some future point in time, no Program funds should be utilized for the specific purpose of converting unpaved roads to paved or "tar and chip", unless otherwise approved by the Commission.

#### **7.4.2.3 Reclaiming Paved or Sealed Roads to Gravel**

The Program recognizes the value of converting a poorly constructed or poorly maintained paved low-volume road into a high quality gravel through full depth reclamation or other similar processes. Districts may utilize either dirt and gravel, or low-volume road program component funds for these purposes.

#### **7.4.3 LVRs in Urban Areas**

Many ESM principles and practices in use by the Program can be readily adapted to paved LVRs in a rural environments. LVR funding, however, is not limited to rural roads or rural environments. LVR projects in urban areas will require a new set of best management practices (BMPs) that will take some time to develop and disseminate through the Program. The level of focus in rural and urban environments will be at the discretion of districts and QABs.

In order to increase the knowledge base of potential urban LVR BMPS, district should contact the Center when planning to fund an urban LVR project that is outside of “traditional ESM practices”. This will give the Center opportunity to provide input to these urban projects prior to QAB approval, and will help the Center to increase the knowledge base of urban BMPs for statewide education purposes.

The LVR portion of the Program is not JUST a storm water program. Projects, especially in urban areas, need to strike a balance between environmental improvements and road improvements. It will be up to districts and QABs to determine the proper balance for projects in their counties.

#### **7.4.4 Safety Considerations**

The Commission recognizes the fact that many LVR component projects will have higher levels of daily traffic and higher levels of posted speed than projects on unpaved roads. Grant recipients are required to follow the same safety protocols as with all other road work (flaggers, signs, etc). The funding of any traffic control and safety components of a Program project is at the discretion of the district.

### **7.5 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 Commission and any local QAB policy. The Program’s “Traffic Count Validation form and Instructions” can be found in Appendix F.

- 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 Commission’s 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.

## **7.5.1 OPTION A: Validate with Existing Traffic Count Data or Extrapolation**

### **7.5.1.1 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.

### **7.5.1.2 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: <http://www.penndot.gov/ProjectAndPrograms/Planning/Maps/Pages/Traffic-Volume.aspx>
- Local Roads: PennDOT regional offices or County Planning Commissions.

## **7.5.2 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 must be conducted between March 1 and the week before Thanksgiving.
- It cannot be conducted on a holiday, or the day before or after a holiday.
- It must be conducted on a Tuesday, Wednesday, or Thursday
- It must be conducted for a minimum of two consecutive hours between 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.

### 7.5.2.1 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.  $24\text{hours (per day)} / 2\text{hours (per study)} = 12$

**$12 \times 25 = 300$  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.  $24\text{hours (per day)} / 2\text{hours (per study)} = 12$

**$12 \times 53 = 636$  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.

### 7.5.3 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 must be conducted between March 1 and the week before Thanksgiving.
- It cannot be conducted on a holiday, or the day before or after a holiday.
- It must be conducted between 12 AM Tuesday and 12 AM Friday.
- 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 to 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.)

### 7.5.4 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, or conducting a traffic count when access to a road segment is temporarily or partially restricted or reduced (i.e. detoured, weight, or size restricted, etc.) or conducting a traffic count in any other timeframe or manner that intentionally causes low average daily traffic counts.

## **Chapter 8**

### **Permits and Other Requirements**

## 8. PERMITS AND OTHER REQUIREMENTS

Program projects must comply with all federal state and local permit requirements. The Program has no specialized permits and projects are not exempt from any permit requirements. For specific questions regarding permitting, contact your local DEP regional staff or district.

Any required project permits must be obtained by the grant recipient before work can begin on the portion of the project related to the permit.

Permits are not required in order for an application to be submitted to the district. Any required permits must be obtained by the grant recipient before work can begin on the portion of the project related to the permit. The grant recipient is responsible for obtaining all necessary permits. The district is responsible for verifying all necessary permits have been obtained and retaining documentation with project files. Permit costs, and any engineering required cost for permits, is an allowable project expense at the discretion of the district as long as such costs are less than 10 percent of the total contract. The list below represents the most common permits required in road maintenance work, but is not all-inclusive.

### 8.1.1 National Pollutant Discharge Elimination System (NPDES)

The National Pollutant Discharge Elimination System (NPDES) is a program established under the Federal Clean Water Act (CWA) to control discharges from point sources. The program was originally established to focus on discharges from pipes but since 1990 has included requirements for storm water runoff. The specific statute is found in Section 402 of the CWA.

If a project is going outside the cross-section of the road and more than 1 acre of construction occurs, an NPDES permit is required.

Contact the local district for more information.

### 8.1.2 State Permits

A wide variety of permits may be required from multiple state agencies for various aspects of the Program. District staff are knowledgeable about which permits are necessary and are willing to help project grant recipients obtain those permits.

#### 8.1.2.1 Erosion and Sediment Control - 25 Pa Code Chapter 102.

An Erosion and Sediment Control plan (E&S plan) is a document that outlines erosion control measures to be employed during project implementation. An E&S plan is required for projects where more than 5,000 square feet of earth is disturbed, or in all cases in special protection watersheds..

An E&S control permit is required if a project will disturb more than 25 acres (inside and outside the road footprint combined).

For more details on Erosion and Sediment control, see: the Erosion and Sediment Pollution Control Manual (DEP Document 363-2134-008).

#### 8.1.2.2 Water Obstruction and Encroachments- 25 Pa Code Chapter 105

Chapter 105 deals with watercourses and wetlands. A watercourse is a channel for the conveyance of surface water with a defined bed and banks.

Chapter 105 permits are waived for water obstructions (culverts, fills, etc.) if the drainage area to watercourse is less than 100 acres. However the U.S. Army Corps of Engineers may be required to review and approve the project.

### **8.1.2.3 General Permits**

#### **8.1.2.3.1 GP-7**

General Permit-7 may be used for culverts and bridge replacement if the drainage area is less than 1 sq. mi.

For bridges and culverts that were constructed prior to 1979 and have a drainage area of less than 5 sq. mi the permit requirements are waived, as the bridge exists. If work has to be done to the structure a waiver of permit can be obtained from the regional DEP office.

All other projects will require a submittal of a joint permit to the regional DEP office. Township officials are encouraged to work with district staff so that all regulatory requirements are met.

#### **8.1.2.3.2 General Permit 11**

A (GP-11) is issued by the DEP and is for maintenance, testing, repair or replacement of water obstructions and encroachments. The GP-11 is not a replacement for an emergency permit and should be used for culverts bridges and other water obstructions but not dams. The grant recipient should contact the regional DEP office for the latest information and instructions. Other restrictions including Bog Turtles and PNDI may have to be considered..

#### **8.1.2.4 Pennsylvania Natural Diversity Inventory (PNDI)**

The Pennsylvania Natural Diversity Inventory (PNDI) identifies and describes the Commonwealth's rarest and most significant ecological resources. Data is collected and maintained using the format of the Nature Conservancy's Natural Heritage Program (NHP). The NHP is an international network for biological information. PNDI is Pennsylvania's NHP and the consistency of data and record keeping provides an opportunity to assess the status of an organism or ecosystem over a broad geographic area. The PNDI's geographic areas are not constrained by political boundaries or subdivisions. PNDI represents the most comprehensive and consistent baseline information available to analyze cause and effect for this indicator.

For more information on PNDI, go to: the Department of Conservation and Natural Resources at <http://www.naturalheritage.state.pa.us/>

#### **8.1.3 Pennsylvania One Call System, Inc.**

The One Call System is a single nonprofit communication clearinghouse established within the Commonwealth to provide a single toll free telephone number for contractors or designers or any other person planning to perform excavation work. The One Call System notifies the facility owner of the contractors' intent to perform excavation. After PA One Call is made, utility companies will visit the project site to mark any underground utilities such as power or gas lines to prevent damage. PA One Call will provide serial numbers to callers as proof they have met the requirement of the law. Districts should remind grant recipients, engineers, and contractors involved with Program projects of their notification requirements under the PA One Call law. PA One Call serial numbers must be retained with project files. For more information, see: <http://www.palcall.org> PA One Call: Call Before You Dig! 800-242-1776.

#### **8.1.4 Local Ordinances**

Counties and local municipalities are responsible for most planning and zoning ordinances. Municipal roadmasters should be aware of any ordinances or local limiting factors that may inhibit Program projects. The municipality should ensure that any projects are not in conflict with local ordinances.



**Franklin County Conservation District**  
**Dirt, Gravel and Low Volume Road Program**  
**Project Ranking Form**

**Section 1: Application Validation**

**Check One**

Does this road site negatively impact a stream, lake, wetland or other water body?      Yes\_\_\_\_ No\_\_\_\_

Is someone from the applying entity ESM certified within the past 5 years?      Yes\_\_\_\_ No\_\_\_\_

Has the applicant identified and agreed to obtain all necessary permits?      Yes\_\_\_\_ No\_\_\_\_

LVR Only: If the traffic count is known at this point, is it 500 vehicles per day or less?      Yes\_\_\_\_ No\_\_\_\_

Does the application contain bmp's to address water quality?      Yes\_\_\_\_ No\_\_\_\_

**\*If any of the above criteria are answered "No", the application is currently not eligible for funding.**

**Section 2: Application Ranking**

1. The proximity of the road or road section to a stream- **20 possible points** (cross pipes that discharge directly to a stream will be considered a direct discharge (20 points). The condition/stability of the channel will be considered in the vegetative buffer portion of the ranking.

Stream crossing to 50 feet from road= **20 points**

50 feet to 100 feet from road= **10 points**

Greater than 100 feet from the road= **0 points**

Score \_\_\_\_\_

Page 1 Subtotal \_\_\_\_\_

**2. Road condition: 25 possible points**

Good condition (DGR surface is stable with gravel and stone, LVR pavement is not cracked or very little, road base and ditches are intact) **10 points**

Fair condition (DGR surface is mixed stone, dirt and dust, LVR pavement is cracked and uneven, base is saturated, base is beginning to deteriorate, ditches are somewhat eroded) **20 points**

Poor condition (DGR surface is only dust/dirt, LVR pavement is damaged, base is failing and/or thoroughly saturated, road ditches are severely eroded) **25 points**

Score\_\_\_\_\_

**3. Watershed Quality (based on PA Code Water Quality Standards) - 30 possible points**

HQ-CWF= **30 points**

CWF=**24 points**

WWF=**18 points**

TSF=**12 points**

Score\_\_\_\_\_

**4. Matching Funds-% of the entity's matching funds/in kind services compared to the requested funds- 10 possible points**

Example: Match Amount \$5,000+ Requested Amount \$10,000= \$15,000 total cost

$\$5,000 \div \$15,000 \times 10 \text{ points} = 3.3$

Score\_\_\_\_\_

Page 2 Subtotal\_\_\_\_\_

5. **History/Cooperation/Ability to spend program funding-** The involvement of the entity in the process and/or their willingness to comply with the program standards and their ability to complete projects within program timelines. **10 possible points**

Score\_\_\_\_\_

**6. Permit Process- 15 possible points**

Permit not applied for= **0 points**

Permit applied for= **5 points**

Permit not required= **10 points**

Permit in hand= **15 points**

Score\_\_\_\_\_

Page 3 Subtotal\_\_\_\_\_

Page 1 Subtotal\_\_\_\_\_

Page 2 Subtotal\_\_\_\_\_

Page 3 Subtotal\_\_\_\_\_

**Total Application Score**\_\_\_\_\_

**Total points possible = 110**

\*Any tie scores between applications will result in preference given to the lower order stream application ie., a 1<sup>st</sup> order stream receives preference over a 2<sup>nd</sup> order stream etc. In the event a second tie breaker is necessary, preference will be given to the stream with the highest water quality classification. Finally, if a third tie breaker is needed, preference will be given to the application with the higher percentage of matching funds/in-kind services.

**Appendix E.**

**Grant Application, Work Plan & Instructions**

**Grant Application:** One-page application submitted by the road-owning entity to the Conservation District. This becomes "Attachment A" to the contract between the Conservation District and the Grant recipient.

**Work Plan:** Project sketch detailing proposed work. Can be on the back of the grant application. This becomes "Attachment B" to the contract between the Conservation District and the Grant recipient.

**Expenditures Sheets:** Two optional sheets, one for grant requested funds and one for in-kind contributions, that can be attached to the grant application if needed.

DIRT, GRAVEL AND LOW VOLUME ROAD MAINTENANCE  
GRANT APPLICATION

<b>District Use Only</b>		
Project Location: County _____		Project Location: Municipality _____
ESM Certified Person _____		Position _____ Certification Date _____
Work Site ID: _____		
Date Received: _____		
Official Name of Applying Agency _____		
Mailing Address _____		
Contact Person _____	Phone _____	Fax _____ E-Mail _____

Road Name / ID Number _____		Affected Stream or Tributary _____
Proposed Project Start Date _____	Proposed Project Completion Date _____	Existing Road Surface Type: <input type="checkbox"/> Unpaved <input type="checkbox"/> Paved
		Is project considered an emergency? <input type="checkbox"/> Yes <input type="checkbox"/> No

The applicant is required to identify and obtain all necessary permits before starting the project.

2. Identify the proposed work elements: ☐ Ditches Improved ☐ Ditch Outlets Added ☐ Off Right-of-Way Improvements  
☐ Road Banks Improved ☐ Road Base Improved ☐ Road Surface Stabilized  
☐ Stream Crossings Improved ☐ Storm Water Improvements ☐ Vegetative Management ☐ Other \_\_\_\_\_
3. The applicant is required to obtain the DSA Specification and Certification form prior to DSA placement.
4. Complete Attachment B "Project Work Plan" including a sketch of proposed project. Attach a locational map with the project highlighted.
5. Project cost estimate: (summarize costs here and attach detailed documentation if needed)

Grant Requested Funds			In-Kind Contributions		
Materials	Equipment	Labor	Materials	Equipment	Labor
See Attachment A1			See Attachment A2		

Amount Requested..... \$ \_\_\_\_\_  
In-Kind Contributions..... \$ \_\_\_\_\_  
Total Project Value..... \$ \_\_\_\_\_

Applicant Signature \_\_\_\_\_

Date \_\_\_\_\_

DIRT, GRAVEL AND LOW VOLUME ROAD MAINTENANCE  
PROJECT WORK PLAN

\_\_\_\_\_  
Applicant

\_\_\_\_\_  
Road Name / ID Numb

\_\_\_\_\_  
Date

**Instructions:**

- Draw a sketch of the proposed project that includes:
  - All Proposed Work (i.e., Cross Pipes, Stream Crossings, Other ESM Practices)
  - Project Road Length in Feet or Miles
  - Nearest Intersection and/or Reference Landmarks
  - Known Utilities
  - North Arrow
- Attach a copy of a locational map with the project highlighted
- Attach additional project details as necessary



Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.

Project Length = \_\_\_\_\_ feet / miles (circle one)

North Arrow

# DIRT, GRAVEL AND LOW VOLUME ROAD MAINTENANCE DETAILED ESTIMATED PROJECT EXPENDITURES GRANT REQUESTED FUNDS

**Use best estimates and complete as much info as possible.**

Materials			
Type	Unit Cost	Qty	Cost \$
Total Materials \$			

\* FEMA rates are only applicable where municipality-owned equipment is used otherwise use contracted rates

Equipment			
Type	Hours	FEMA* Rate/Hr	Cost \$
Total Equipment \$			

(materials + equipment + labor)

**Total Grant Requested: \$**

Labor			
Type	Rate/Hr	Hours	Cost \$
Total Labor \$			

\*Prevailing wage may apply to projects over \$25,000 when a contractor is involved.

Applicant

County

Road Name / ID Number

Date \_\_\_\_\_

Materials			
Type	Unit Cost	Qty	Cost \$
Total Materials \$			

Equipment			
Type	Hours	FEMA* Rate/Hr	Cost \$
Total Equipment \$			

Labor			
Type	Rate/Hr	Hours	Cost \$
Total Labor \$			

**Total In-Kind Contributions:** \$ \_\_\_\_\_ (materials + equipment + labor)

Date \_\_\_\_\_



SECTION 9106 OF THE PENNSYLVANIA VEHICLE CODE  
**DIRT, GRAVEL AND LOW VOLUME ROAD MAINTENANCE**  
**Grant Application/Project Work Plan Instructions**

The following instructions pertain to the Dirt, Gravel and Low Volume Maintenance Program **Grant Application** and **Project Work Plan** forms. These instructions are to act as a guide only. Note that all fields are required unless indicated otherwise.

**It is strongly recommended grant applicant and Conservation District representatives hold an on-site meeting to discuss a potential project plan before an application is submitted.**

## **Grant Application Instructions**

### **"District Use Only":**

- Applicant DOES NOT fill out any of the information within this box.

### **General Information:**

- **County** – The County the road project in question is within.
- **Municipality** – The Municipality (township, borough, or city) the road project in question is within.
- **ESM Certified Person** – List the person who will oversee the project who is currently ESM certified.
- **Position** – The current position of the ESM Certified Person.
- **Certification Date** – The date the ESM Certified Person completed their ESM training. Applicant may need to contact their Conservation District if the date is unknown. The person responsible for project design and oversight for applying entity must be ESM certified within last 5 years to be eligible for funding.
- **Official Name of Applying Agency** – The name of the agency who is applying for Dirt, Gravel and Low Volume Maintenance funding.
- **Mailing Address** – The mailing address of the applying agency. Include street address, state, and zip code.
- **Contact Person** – The official contact person of the applying agency.
- **Phone** – The phone number of the official contact person or the applying agency.
- **Fax** – The fax number of the official contact person or the applying agency. *Optional*
- **E-Mail** – The e-mail address of the official contact person or the applying agency. *Optional*

### **Affected Road Information:**

- **Road Name / ID Number** – The name and identification number of the road in question. List both if available.
- **Affected Stream or Tributary** – The name of the stream or tributary that the road project in question is currently affecting. If project affects a small unnamed tributary (UNT), list the first named stream downstream of the tributary, such as "UNT to Trout Run".
- **Proposed Project Start Date** – The proposed date that applicant expects the project to begin.
- **Proposed Project Completion Date** – The proposed date that applicant expects the project to be finished.
- **Existing Road Surface Type** – Check the appropriate CURRENT surface type of the road project in question. "tar & chip" or "chip sealed" roads are considered paved.
- **Is project considered an emergency** – Check if the project would be considered an emergency. For example, a road that is washed out and is unpassable due to a storm would be considered an emergency.

### **Additional Questions, Proposed Work Elements, and Cost Estimates:**

- 1) **Applicant is required to identify and obtain all necessary permits before starting the project:**
  - By signing the application, the applicant acknowledges they understand that they will be required to identify and obtain all required permits before starting the project. Applicant is not required to identify and obtain these permits prior to submitting the grant application.
- 2) **Identify the proposed work elements:** Check all that apply
  - **Ditches Improved** – Stabilizing ditches through elimination, vegetation, armoring, flow reduction, etc.
  - **Ditch Outlets Added** – Addition of drainage outlets such as pipes, turnouts, etc.
  - **Off Right-of-Way Improvements** – Improvements to access roads, lanes, etc. that affect the public roadway.
  - **Road Banks Improved** – Stabilizing of banks through reprofiling, armoring, vegetation, etc.

- **Road Base Improved** – Improvements to road base through material addition, milling, geo-synthetics, etc.
- **Road Surface Stabilized** – Improvements to the road surface through new material, stabilizers, etc.
- **Stream Crossings Improved** – Replacement or stabilization of road/stream crossings.
- **Storm Water Improvements** – Improvements to or disconnection of traditional storm water collection systems.
- **Vegetative Management** – Vegetation work such as tree thinning, selective thinning, seeding, etc.
- **Other** – List any other proposed work elements not covered by the above choices.

**3) Applicant is required to obtain the DSA Specification and Certification form Prior to DSA placement.**

- Applies to any projects using Driving Surface Aggregate (DSA).
- By signing the application, applicant acknowledges that they understand that they will be required to obtain the Specification and Certification from the aggregate supplier prior to aggregate placement.

**4) Complete Attachment B by drawing a sketch of the proposed project. Attach a copy of a locational map with the project highlighted:**

- This project sketch is part of the Project Work Plan that is addressed at the end of the Grant Application help.

**5) Project cost estimate:**

- **Applicant must provide estimates for both grant requested funds and in-kind services.**
  - **“Grant Requested Funds”**: summarizes the project costs that the applicant is requesting from the Program through the Conservation District.
  - **“In-Kind Contributions”**: summarizes the costs incurred by the applicant in project implementation where no reimbursement will be requested or made through the Program.
- **Cost estimates** – Cost estimates for simple projects may fit in the space provided on the Grant Application. Many projects, however, may require a separate worksheet. The optional “Detailed Estimated Project Expenditures” and “Detailed Estimated In-Kind Contributions” worksheets (Attachments A1 and A2) can be used to summarize cost details.
- **Grant Requested** – The project costs that the applicant is requesting from the Program through the Conservation District.
- **In-Kind Contributions** – The costs that will be borne by the applicant where no reimbursement will be requested or made through the Program.
- **Total Project Value** – Grant Requested + In-Kind Contributions. This is the total estimated cost of the project.

**Finalizing the Application:**

- **Applicant Signature** – The signature of the applicant.
- **Date** – The date the Grant Application was completed.

## **Project Work Plan Instructions**

**General Information:**

- **Applicant** – The entity applying for the grant.
- **Road Name / ID Number** – The name and identification number of the road in question. List both if available.
- **Date** – The date the project work plan was completed.
- **North Arrow** – Draw a locational north arrow that identifies where north is as related to the sketch.
- **Project Length** – Enter the length of the proposed work area (not necessarily entire road length). Then circle the appropriate unit of “feet” or “miles”. If the total proposed work length is less than 1 mile, then it is recommended to enter the work length in feet.

**Attach a copy of a locational map with the project highlighted:**

- Highlight or circle the project location on a map such as township map, topographic map, photocopied atlas map, GIS map, PennDOT map, etc. Do not include any project work items on the location map (they go on the workplan). The purpose of this map is to allow the project site to be easily found.

# **DETAILED ESTIMATED PROJECT EXPENDITURES WORKSHEETS**

## **INSTRUCTIONS**

### ***OPTIONAL - (attachments A1 and A2) - OPTIONAL***

Included with the Grant Application packet are two additional project expenditure worksheets. These two worksheets, Grant Requested Funds and In-Kind Contributions, are referred to in the Grant Application as Attachment A1 and Attachment A2, respectively. These are not required but are recommended if the applicant needs more space than what is provided in the Grant Application. Since they are nearly identical, general help is provided below.

- **Grant Requested Funds/In-Kind Contributions Worksheets:**
- **Materials** – List the type, unit cost, quantity, and total cost for each proposed material.
- **Equipment** – List the type, hours, FEMA Rate/Hour if applicable, and cost for each piece of equipment proposed. Note that FEMA rates are only applicable where township-owned equipment if used otherwise applicant should use contracted rates.
- **Labor** – List the rate, hours, and cost per type of laborer.
- **Total** – The total cost of materials, equipment, and labor.
- **Applicant** – The Grant Application applicant.
- **County** – The County the road project in question is within.
- **Municipality** – The Municipality (township, borough, or city) the road project in question is within.
- **Road Name / ID Number** – The name and identification number of the road in question. List both if available.
- **Date** – The date the project expenditures form was completed.