

7.3 Low-Volume Road Specific Guidance

This section applies only to **Low Volume funds**, not Dirt and Gravel 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.

7.3.1 LVR Guiding Principals

7.3.1.1 Project Focus

The focus of road projects in the Low Volume Road (LVR) portion of the Program should be on similar Environmentally Sensitive Maintenance principles that have been used in the Dirt and Gravel Road Program since its inception. Projects in the LVR Program must contain benefits to both the road systems (improved drainage, reduced surface, ditch & 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.

7.3.1.2 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.

7.3.1.3 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 it’s 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.

7.3.1.4 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 7.4.

All projects must apply ESM principles and practices approved by the Program in order 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).

7.3.2 LVR Project Guidelines

7.3.2.1 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 conservation district as a component

part of a larger ESM project. It is at the discretion of individual conservation 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 must be properly addressed.
- Base instability issues must be properly addressed.
- Other necessary and appropriate issues such as bank stability, road entrenchment, vegetation, etc. must be properly addressed.

7.3.3 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”.

7.3.3.1 Reclaiming Paved or Sealed Roads to D&G

The Program recognizes the value of converting a poorly constructed or poorly maintained LV road into a high quality DGR through full depth reclamation or other similar processes. Conservation districts may utilize either LVR or D&G low volume Program component funds for these purposes.

7.3.4 LVRs in Urban Areas

Many ESM principles and practices in use by the Dirt and Gravel Road Program can be readily adapted to paved LVRs in a rural environments. Since the LVR Program is new, districts are strongly encouraged to work from what they know and understand (traditional DGRP projects/concepts) towards LVR projects /concepts that they are less familiar with. LVR funding, however, is not limited to rural roads or rural environments. LVR Projects in urban areas will require a new set of 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 local conservation districts and QABs.

In order to increase the knowledge base of potential urban LVR BMPS, district should contact the Center for Dirt and Gravel Roads 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 local Districts and QABs to determine the proper balance for projects in their counties.

7.3.5 Miscellaneous

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. Project applicants 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 county conservation district.

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 Commission and any local QAB policy.

- 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 conservation 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 5 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.
- Conservation districts may, at their discretion, use administrative and education funding to facilitate or support traffic counts for applicants. Districts should insure 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 insures that traffic on the project location can be determined.

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 5 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:
<http://www.dot.state.pa.us/Internet/bureaus/pdplanres.nsf/infoBPRTrafficInfoTrafficVolumeMap>
- 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 traffic count of 500 vehicles per day or less will qualify the road for LVR funding. A Level 1 traffic 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 Traffic Count produces a count of 500 vehicles per day or less, the project on the road is considered eligible without a Level 2 Traffic Count. If a Level 1 Traffic Count produces a count of more than 500 vehicles per day, it does not disqualify the road, but necessitates a Level 2 Traffic 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. $24\text{hours (per day)} / 2\text{hours (per study)} = 12$

$12 \times 25 = 300$ 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.

7.4.3 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 traffic 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 traffic 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 Traffic Count produces a count of 500 vehicles per day or less, the project on the road is considered eligible. If a Level 2 Traffic 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 traffic 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, 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.

The Program’s Traffic Count Verification Form can be found in Appendix L.