



Routine Maintenance Tips for Completed DGLVR Projects

Congratulations on your recently completed Dirt, Gravel, and Low-Volume Road (DGLVR) Project! The Environmentally Sensitive Maintenance (ESM) practices installed on your road are intended to reduce the time and money required for routine maintenance. Routine maintenance of DGLVR projects is the responsibility of the road owner and is not eligible for additional DGLVR funding, but the Huntingdon County Conservation District can help if you have questions about required maintenance. Here are some tips and additional resources about routine road maintenance:

1. Roadside Ditches

- a. Once a stable ditch is established, do not disturb it unless it becomes blocked or filled with excess sediment. Only clean ditches when necessary.
 - i. Leaf blowing is recommended to clean open, stable ditches.
- b. Maintain vegetation or rock-lining if present.
 - i. At least 70% uniform vegetative cover is recommended to prevent ditch erosion.
 1. Re-seed ditches after cleaning and as needed.
 2. Limit vegetation management to removing potentially hazardous trees, removing noxious weeds, daylighting the road, or improving sight distance where needed.
 - ii. Leaf blowing and manual removal of larger debris (ex: tree limbs, bank slides, etc.) is the recommended cleaning method for rock-lined ditches.



Leaf blowing is recommended to clean roadside ditches that are open and stable.

2. Cross pipes

- a. Smooth-bore plastic pipes are self-cleaning and recommended in most situations. Debris should wash through the smooth pipe during rain.
- b. If your cross pipes are clogging:
 - i. Make sure ditches are cleaned when needed (see above).
 - ii. Check for large debris stuck at the inlet and check for sediment build-up or obstructions at the outlet.
 - iii. Check for crushed pipes or joint failure.



Properly installed smooth-bore plastic pipes are self-cleaning.

Additional details are available in your Environmentally Sensitive Maintenance (ESM) Training Resources.

Electronic copies of the ESM Training books and details of upcoming ESM trainings are available online here:

<https://www.dirtandgravel.psu.edu/education-and-training/esm-course>



3. Unpaved Road Surface Maintenance

- a. Gravel road surfaces should be re-graded as needed to smooth the road for traffic and to reestablish effective cross-slope for drainage.
 - i. Road must be at proper moisture when grading and rolling (grade after rain or have a water truck present).
 - ii. Compact the road with a 10-ton vibratory roller.
- b. Make sure snowplows do not remove surface features such as crown, cross-slope, grade breaks, or broad-based dips.
 - i. Shoes on snowplows can help prevent gravel loss.
- c. Avoid the use of salt as part of winter maintenance.
 - i. Salt draws moisture to the road and will lengthen the unstable “mud season” in the spring.
- d. See Technical Bulletin for additional details:
 - i. Surface Maintenance:

https://www.dirtandgravel.psu.edu/sites/default/files/General%20Resources/Technical%20Bulletins/TB_Surface_Maintenance.pdf



“Wash boarding” is one sign that it is time to grade an unpaved road.

4. Driving Surface Aggregate (DSA)

- a. Do not pave or seal over DSA less than 1 year after DSA placement.
- b. Follow general unpaved road surface maintenance recommendations above.
 - i. Use carbide-tipped grader blades when reshaping DSA roads.
- c. See Technical Bulletins for additional details:

- i. DSA Technical Bulletin:
https://www.dirtandgravel.psu.edu/sites/default/files/General%20Resources/Technical%20Bulletins/TB_DSA.pdf
- ii. Carbide-Tipped Blades:
https://www.dirtandgravel.psu.edu/sites/default/files/General%20Resources/Technical%20Bulletins/TB_Carbide-Tipped_Blade.pdf



Carbide-tipped grader blades are recommended for grading DSA.

5. Paved Road Surface Maintenance

- a. Paved and chip-sealed roads require additional seal coats to maintain road integrity. Road owners should follow PennDOT specifications for sealed-road maintenance.
- b. Resources include:
 - i. PennDOT Municipal Services Representatives
 - ii. The Local Technical Assistance Program (LTAP): <https://gis.penndot.gov/LTAP/default.aspx>
 - iii. PennDOT Publications
 1. PUB 447: Approved Products for Lower Volume Local Roads:
<https://www.dot.state.pa.us/public/PubsForms/Publications/Pub%20447.pdf>
 2. PUB 408: Construction Specifications:
http://www.dot.state.pa.us/public/PubsForms/Publications/Pub_408/408_2020/408_2020_IE/408_2020_IE.pdf

This document was prepared by the Huntingdon County Conservation District with assistance from the Penn State Center for Dirt and Gravel Road Studies. The Huntingdon County DGLVR Program is funded by the State Conservation Commission.