

# 2019 Annual Summary Report

## Pennsylvania Dirt, Gravel, and Low Volume Road Maintenance Program

**Before**

**Editorial Note:** The printed version will be a trifold printed on 25.5" x 11" paper folded to 8.5" x 11" format. The online version is arranged into single 8.5" x 11" pages format for ease of viewing.

**After**

**INSIDE:** a look back at the first 5-years since Program funding increase

**June 2020**

*Photo:* Jackson Road, located in the City of St Marys in Elk County, was a frequently rutted and potholed road that was being eroded by the adjacent stream and served as a constant source of sediment. Competent fill material was used to elevate the road and shift it away from the stream, providing room for streambank stabilization and a buffer between the road and stream. Driving Surface Aggregate was then placed to establish the final road surface. This project included a \$62,000 DGLVR grant and \$52,000 of in-kind contribution from the applicant.





# What is the DGLVR Program?

Pennsylvania's Dirt, Gravel, and Low-Volume Road Maintenance Program provides education, technical assistance, and grant funding to local public-road-owning entities throughout the state. The program was expanded in 2014 to dedicate \$20 million to unpaved roads and \$8 million to paved low volume roads (LVRs) traveled by fewer than 500 vehicles per day. The program's goal is to implement Environmentally Sensitive Maintenance Practices aimed at reducing the environmental impacts of public roads, while reducing long-term maintenance costs. The PA State Conservation Commission (SCC) administers the program at the state level, and allocates funding to conservation districts in 65 counties throughout Pennsylvania. Owners of public roads apply for grants to their conservation district, and work with them to complete projects. The Penn State Center for Dirt and Gravel Road Studies provides education, outreach, and technical assistance for the program. More information is available at:

[www.dirtandgravelroads.org](http://www.dirtandgravelroads.org).

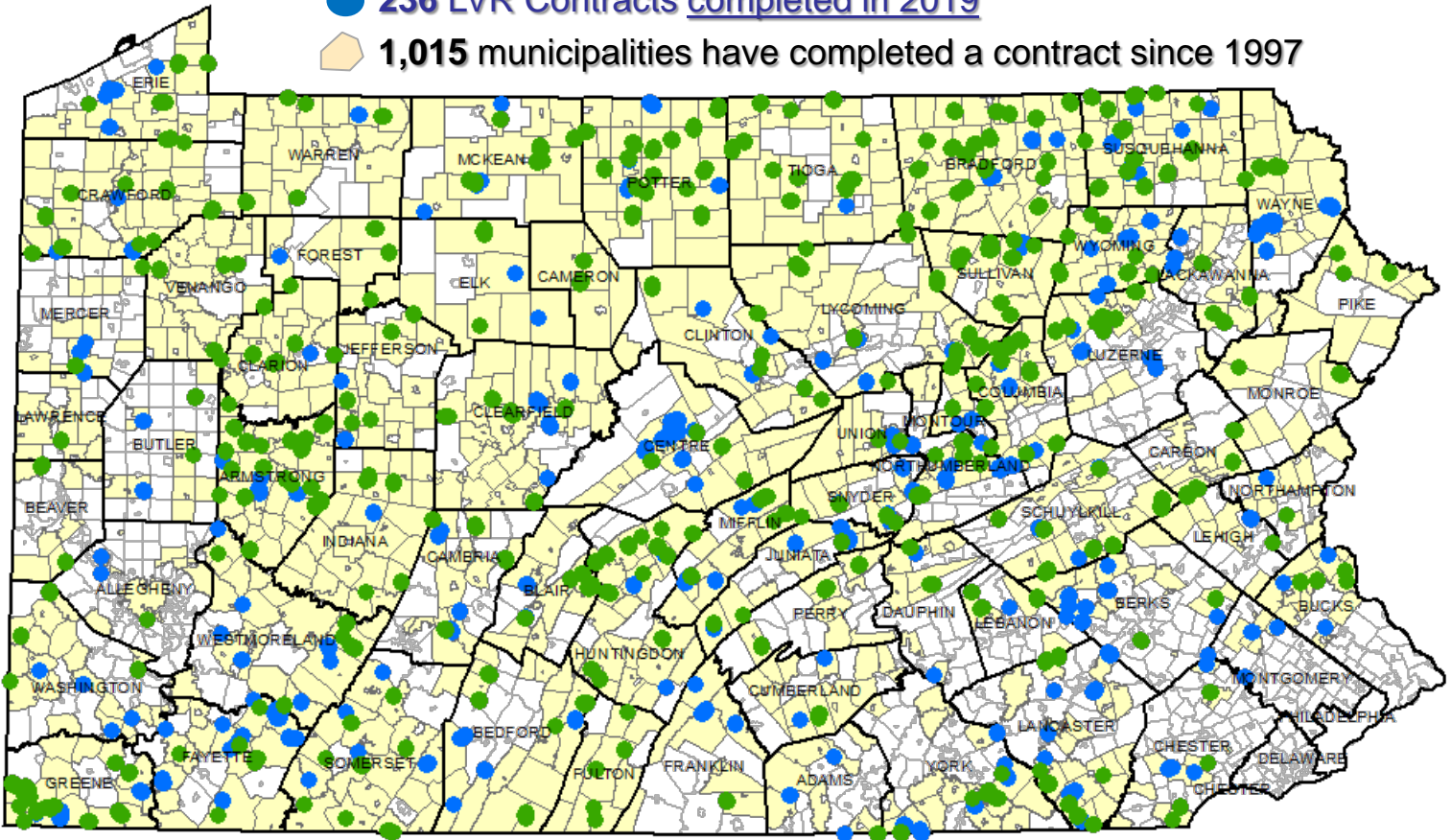
## 2019 Summary

2019 was an extremely busy year for the Program, with 633 contracts completed, \$32.2 million spent in grant funding, and \$11.3 million contributed in-kind; all of which are all-time Program records. An additional \$23.6 million was encumbered to active contracts as of March 2020. Conservation Districts continue to use an online Geographic Information System to track and report on all projects and spending using a quarterly reporting system that was implemented in 2018.

Much of the focus in 2019 continued to be on stream crossing replacements. Since the Program funding increase in 2014, the number of stream crossing replacements funded by the DGLVR Program has increased dramatically. The program has established policies to ensure that funding is focused on environmental issues related to undersized crossings, and that new crossings are designed to accommodate aquatic organism passage.

### 2019 Program Status Map

- **397 Dirt and Gravel Contracts completed in 2019**
- **236 LVR Contracts completed in 2019**
- **1,015 municipalities have completed a contract since 1997**

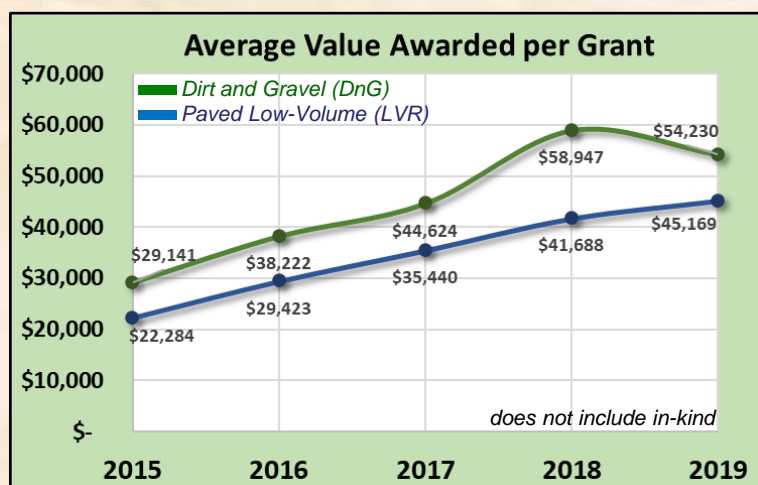
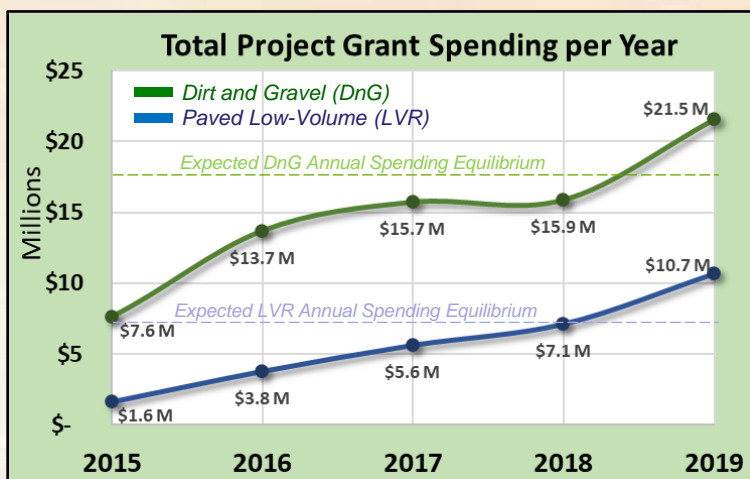


Map showing unpaved roads in red, overlaid with identified pollution sites in yellow.

In 2015, the DGLVR Program received a funding increase from \$4 Million to \$28 Million annually, along with the additional focus on Paved Low Volume Roads, as part of the Act 89 transportation bill. The data on this page summarizes trends for the years 2015 through 2019, the first five years of increased program funding.

## Project Spending

2015 marked the first year of increased funding for the DGLVR Program, and the first year funding was available for Paved Low Volume Roads. Some time was needed for Conservation Districts to adjust to the new funding, but project spending has increased rapidly. In addition to the \$103 million depicted in the graph to the right for “completed” projects, an additional \$23.6 million was encumbered to active contracts as of March 2020.

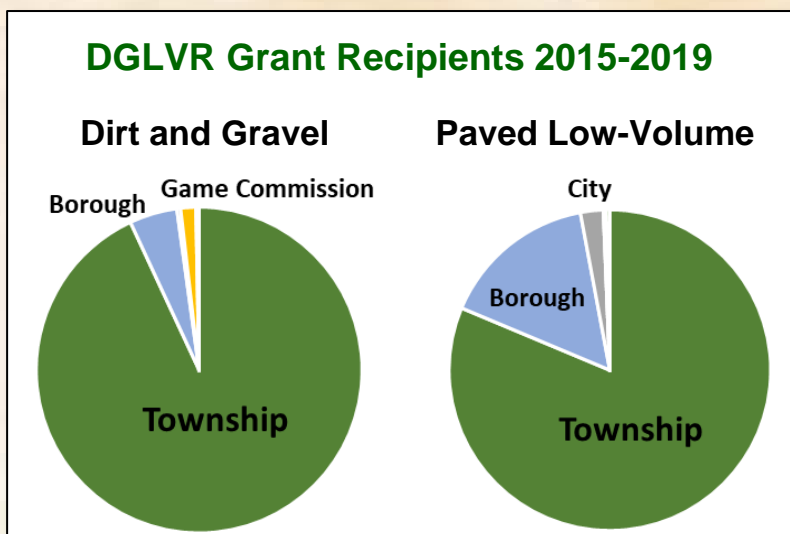


## Grant Amounts

Since the funding increase in 2015, the average grant awarded has roughly doubled for both DnG and LVR Projects. Prior to 2015, the average contract value was below \$20,000 as many Districts were funding small or even partial projects. Over the past 5 years, funded projects have grown in both size and complexity. Districts can now fund more comprehensive and/or longer road improvement projects. These projects have also evolved to include more complex and expensive practices such as road fill and stream crossing replacements.

## Grant Recipients

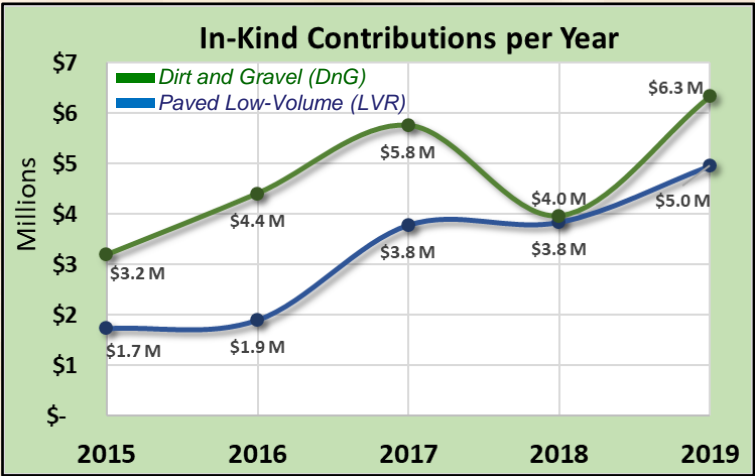
Grant funding is restricted to publicly owned roads that are open to public travel. Townships are the most common grant recipient in the Program, accounting for about 90% of grants awarded the last 5 years, both in number and total dollars. Boroughs and cities have become more active in the paved Low Volume Roads portion of the Program. Other public entities that have completed projects include: PennDOT, PA Fish and Boat Commission, and County organizations.



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## In-Kind Contributions

“In-kind” refers to goods and services supplied for a project that are not reimbursed by the project grant. While not required statewide, the DGLVR Program tracks in-kind contributions to projects. The majority of in-kind contributions come in the form of equipment and labor that is supplied by grant recipients. In-kind contributions have been increasing over the past 5 years, with a record \$11.3 million contributed in 2019 alone. For each \$1 in grant funding put on the ground, the DGLVR Program has averaged \$0.56 of in-kind contributions over the past 5 years (\$0.47 per dollar in 2019).



# \$32.1 million of road work completed annually with \$28 million allocation

### At the State Level

**\$28,000,000** Annual DGLVR Appropriation to State Conservation Commission (SCC)  
 -\$560,000 2% to SCC for statewide administration  
**\$27,440,000** 98% of funds allocated by SCC

### At the County Level

**\$27,440,000** Allocated Annually to Conservation Districts (CDs)  
 -\$1,372,000 Funds Penn State for education, outreach, and technical assistance statewide (5%)  
**\$26,068,000** Funds distributed to CDs based on allocation formula (93% of total funds)  
 -\$1,897,000\*Spent for administration at District level, 7.3% of CD allocation, limited to 10%  
 -\$851,000\*Spent for education at District level, 3.3% of CD allocation, limited to 10%  
**\$23,320,000\*** Spent directly on public roads through grant process (83% of total funds)  
**+\$8,739,000\*** Average annual in-kind contribution from grant recipients  
**\$32,059,000** Spent directly on public roads, with in-kind

*\*figures represent annual average based on 2016-19 data*

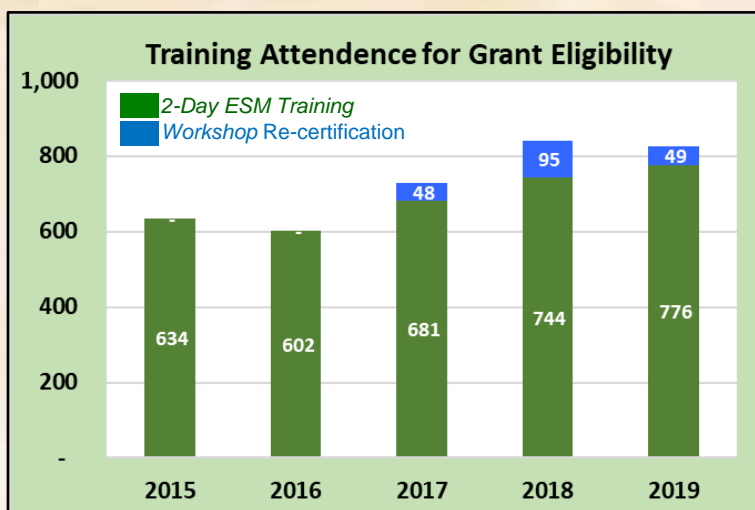
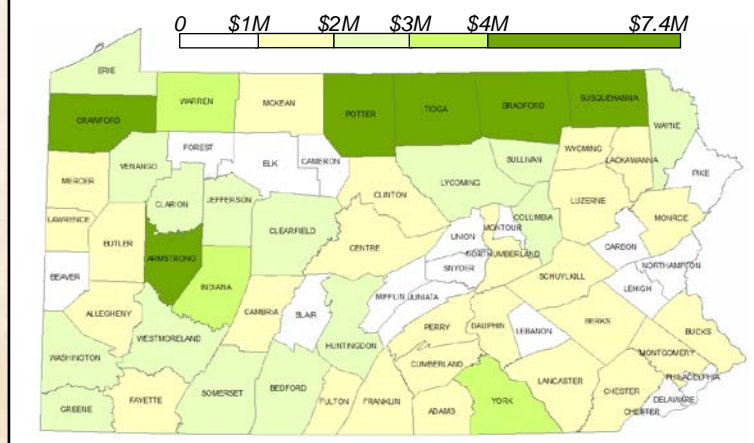


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## CD Allocations

The State Conservation Commission allocates funding to County Conservation Districts using formulas that quantify the amount of potential work to be done in each County. The distribution of the \$130 million allocation to Districts since 2015 is illustrated to the right. Collectively, districts average \$2.7 million in administrative and education spending annually with the remainder of their allocation going to fund project work through grants.

### Total DGLVR Allocations, 2015-2019



## Grant Eligibility Certifications

Potential grant applicants are required to be certified in Environmentally Sensitive Maintenance (ESM) practices in order to be eligible to apply to the Program for funding. The primary method to become certified is to attend a two-day ESM classroom training put on by the PSU Center for Dirt and Gravel Road Studies. Over 3,400 people have attended one of the 64 sessions of this course held since 2015. These ESM certifications last for 5 years. Beginning in 2017, previously certified entities could extend their certification by attending the Program's Annual Workshop held each fall.

## Other Training Events

- **Technical Assistance:** Meetings held with District and applicants in the field for project planning, oversight, or other assistance: **Over 1,000 site visits conducted since 2015**
- **Quality Assurance Quality Control Visits:** 1-3 day visits to evaluate how an individual county is administering the DGLVR Program: **114 held since 2015**
- **Administrative Training:** 1-day training for Districts on DGLVR Program Administration: **Many large sessions held, and new technicians often receive one-on-one training**
- **Workshops:** Annual conference with concurrent classes and multiple field trips: **5 sessions held throughout Pennsylvania with over 800 total attendees since 2015**
- **Webinars:** Topic-specific webinars directed at Conservation Districts, recorded and posted online: 57 webinars have been held since 2015
- **Boot Camps:** Three-day training for Conservation Districts that includes construction and surveying basics, a road diagnostic, and active construction: **5 sessions held starting in 2018, 3 construction boot-camps, and 2 stream crossing replacement boot camps.**



# Road Practice Spotlight

The DGLVR Program implements a wide variety of “Environmentally Sensitive Maintenance” practices to make road and environmental improvements. Below is a summary of some of the commonly used practices:



## Adding Drainage Culverts (Crosspipes):

**Why:** The most basic tool used in the program to break up surface runoff volumes, reduce erosion, and encourage infiltration.

**2019:** over 850 existing pipes replaced and 1,000 new pipes installed

**2015-2019:**

- Over 3,000 existing pipes replaced *and* 4,000 new pipes installed
- **That totals 40 miles of pipe end-to-end since 2015!**



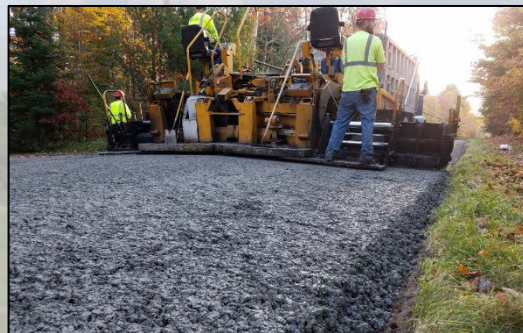
## Road Fill

**Why:** Roads become “entrenched” over years of traffic, maintenance, and erosion, trapping drainage and act like streams. Filling the road is often the best long term drainage solution.

**2019 Stats:** over 600,000 tons of road fill added

**2015-2019:**

- Over 2,000,000 tons of road fill added
- **That equals a football field, covered 700’ deep since 2015!**



## Driving Surface Aggregate (DSA):

**Why:** DSA is designed for maximum compaction to resist erosion and degradation. DSA has been shown to lengthen maintenance cycles and reduce dust and sediment runoff from unpaved roads.

**2019 Stats:** Over 175,000 tons of DSA placed

**2015-2019:**

- Over 900,000 tons of DSA placed
- **That is a road 18’ wide and over 250 miles long since 2015!**



## Stream Crossing Replacements

**Why:** The program targets for replacement undersized stream culverts and bridges causing environmental problems. New structures are designed to accommodate better stream function, reduce maintenance costs, and allow aquatic organism passage.

**2019 Stats:** 120 Stream Crossing Structures Replaced

**2015-2019:**

- Over 350 Stream Crossing Structures Replaced



This document was prepared jointly by the PA State Conservation Commission and the PSU Center for Dirt and Gravel Road Studies. Figures are based on GIS data supplied by Conservation Districts in January 2019. For more information, visit [www.dirtandgravelroads.org](http://www.dirtandgravelroads.org).