



# McKEAN COUNTY CONSERVATION DISTRICT

## McKean County Dirt, Gravel & Low Volume Road Program Projects

*Conserving Natural Resources for Our Future*



## Environmental impacts of road runoff

- direct abrasion with fish & other aquatic life
- increased turbidity
- sediment carries road salts, metals, etc
- changes channel composition
- loss of habitat
  - invertebrates
  - fish spawning
- increased nutrients and algae growth
- filling in and eutrophication of lakes & wetlands
- decreased Dissolved Oxygen



(Bernard, 2006; Bilby et al. 1989; Forman, R. T. T. and L. E. Alexander. 1998; Coe, 2006; Waters, 1995).



## Economic impacts of road runoff

- purchased material is washing away
- maintenance activity is required to fix erosion
- reduces life-cycle: surface needs to be replaced sooner
- washouts
- Money
- Time
- Public Safety



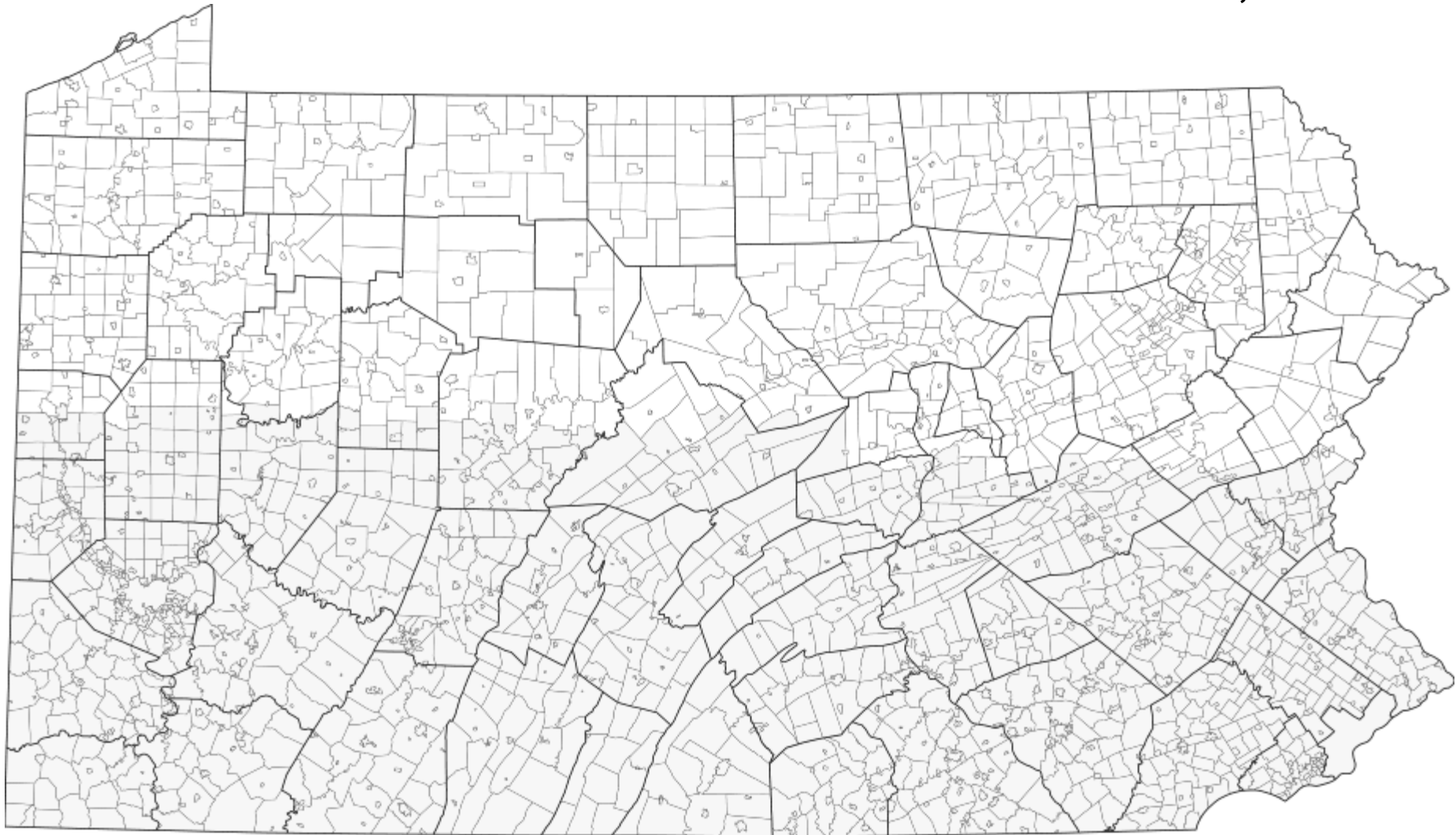


# PA DGLVR Program

# Program Structure

**70,000+ miles in 2,562 municipalities**

State DOT:	41,000 miles
Townships:	52,000 miles
Boroughs:	10,000 miles
Cities:	7,000 miles





# State: State Conservation Commission

- Administers statewide program.
- Allocates money to Conservation Districts.
- Develops statewide Program policy
- Quality Assurance Quality Control process.



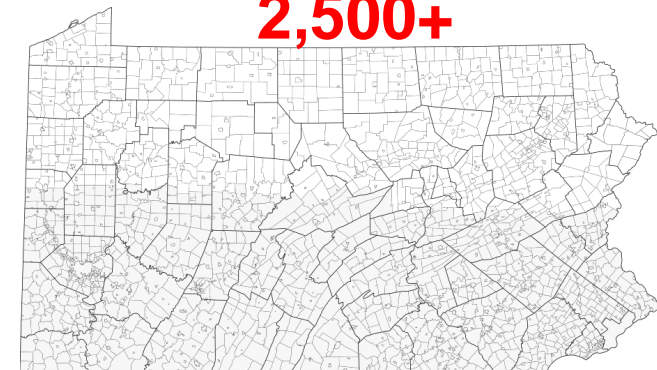
## County: Conservation Districts

**65 DG – 66 LV**



## Local: Townships(90%+)

**2,500+**





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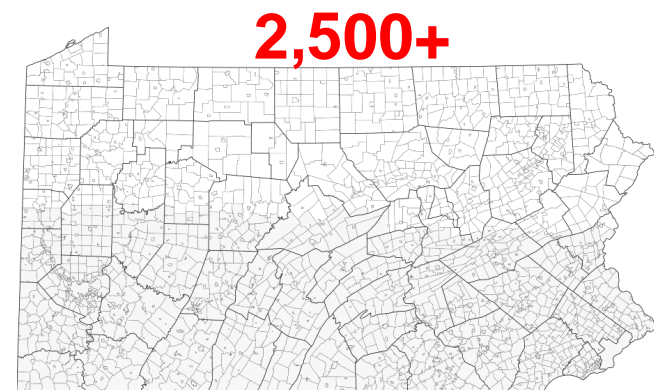


## County: Conservation Districts

- Administer Program at county level.
- Receive money based on roads & worksites.
- Work with applicants to develop work plans.
- Provide grants to successful applicants
- Conduct inspection after work is completed.
- Keep records and report to State annually.



## Local: Townships(90%+)





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A map of Pennsylvania showing its county boundaries. Overlaid on the top center of the map is the text "65 DG - 66 LV" in a large, bold, red font. The counties labeled on the map include: Erie, Warren, McKean, Potter, Tioga, Bradford, Susquehanna, Crawford, Forest, Elk, Cameron, Lycoming, Sullivan, Wyoming, Lackawanna, Wayne, Mercer, Venango, Clarion, Jefferson, Clearfield, Clinton, Union, Columbia, Luzerne, Monroe, Pike, Lawrence, Butler, Armstrong, Centre, Snyder, Northumberland, Carbon, Berks, Schuylkill, Chester, York, Adams, Franklin, Fulton, Bedford, Somerset, Fayette, Greene, Washington, Westmoreland, Allegheny, Beaver, and Bucks. The text "PHILADELPHIA" is partially visible at the bottom right corner.

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**2,500+**

- Boroughs, cities, and state agencies also eligible
- Must be “ESM Certified” within last 5 years.
- **Apply to Conservation District for funding.**
- Enter into contract with Conservation District.
- **Complete project work or hire sub-contractors.**





## Why PA Department of Agriculture and County Conservation Districts?

- Experience with soils, erosion control, water quality
- Local knowledge and connections
- Standalone Program to keep environmental focus





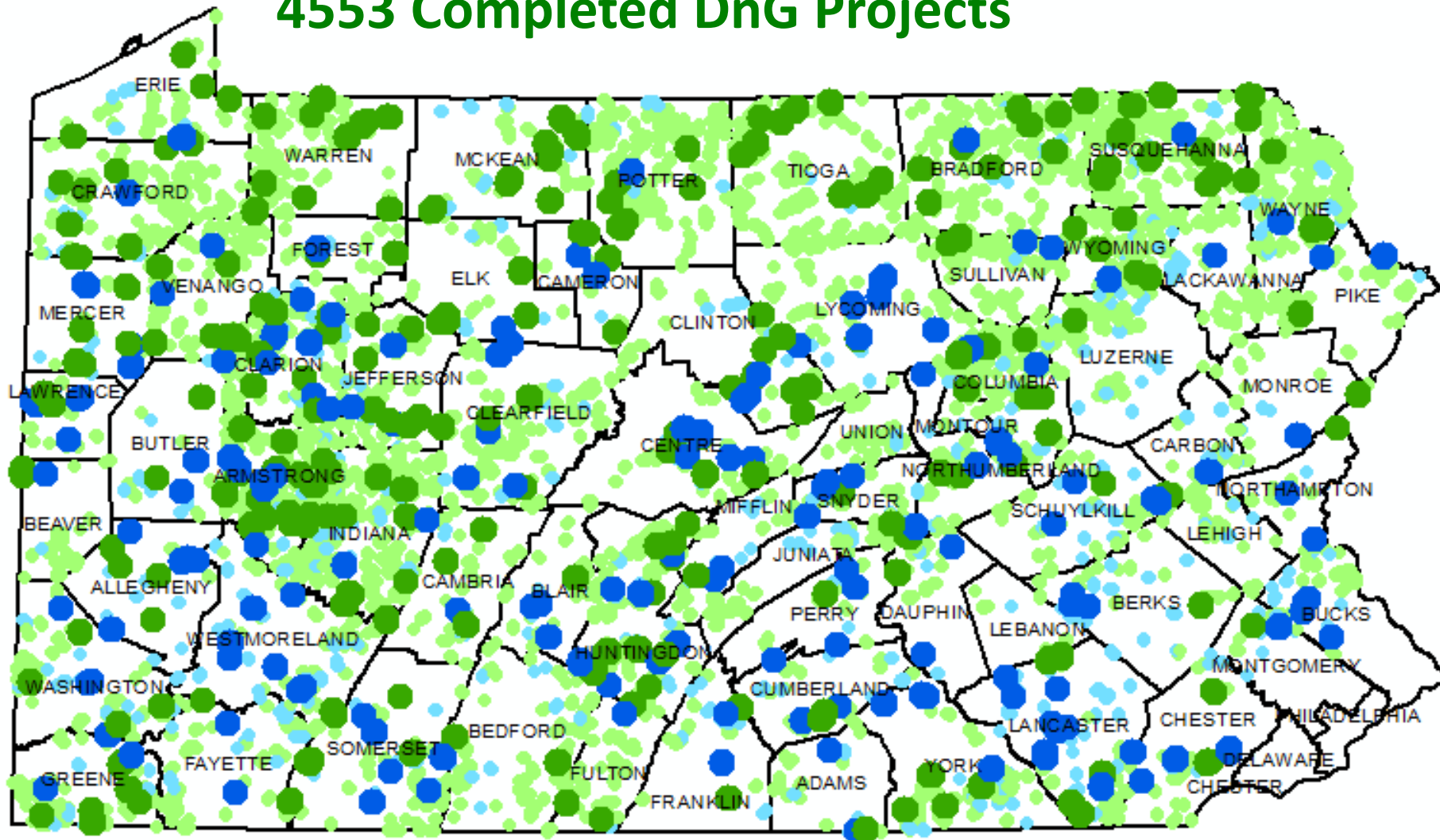
# Program Overview

# SCC/District Program

10/15/19

675 Completed LVR Projects

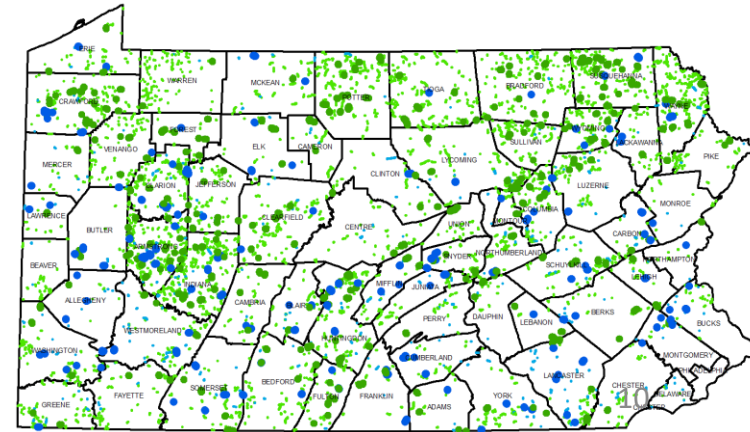
4553 Completed DnG Projects





## Program Spending, 1997 to 2019

- **\$141 Million+** spent on completed sites
- **\$52 Million+** in-kind on those projects
- **\$36 Million+** committed to active sites
- **Annual Allocation remains at:**
  - **\$20M:** municipal Dirt and Gravel
  - **\$8M:** municipal paved LVR
  - **\$7M:** DCNR Dirt and Gravel





**County:** McKean  
**Applicant:** Keating Township  
**Prj Type:** Dirt and Gravel  
**Rd Name:** Prospect Hollow

**D&G Funds:** \$13,300.59  
**In-Kind Funds:** \$4,918.00  
**Total Prj Value:** \$18,218.59  
**Status:** complete

**Brief Project Description:**

- *Severely entrenched road with a poor clay base*
- *Undersized stream crossing*
- *Add geotextile woven fabric*
- *Raise road profile 12" with crushed shale stone to achieve sheet flow in some areas*
- *Added 2 new crosspipes*
- *Replace stream crossings with larger bankfull pipe*





**Stream Crossing**

**Soft saturated  
clay road base**













**Crushed shale for fill material**

**FABRIC**









**Stream Crossing**



**County:** McKean  
**Applicant:** Foster Township  
**Prj Type:** Low Volume  
**Rd Name:** Hedgehog Lane

**LVR Funds:** \$72,912.50  
**In-Kind Funds:** \$23,313.00  
**Total Prj Value:** \$96,225.50  
**Status:** complete

### **Brief Project Description:**

- *Shift the road and abandon south failing lane*
- *Excavate and place existing asphalt and road base material from south lane over geo-fabric compacting in 8 inch lifts*
- *Replace 1 cross pipe*
- *Install elbows, and risers on all 3 cross pipes within project area*
- *Install french drain connect with 3 cross pipes*
- *Resurface new lane*





**Down Slope Side**



**Concrete fractures  
over 4ft deep**





Looking uphill of Hedgehog  
Lane showing the bore  
locations.





**Hedgehog Lane  
Foster Township**

**Over an inch drop  
for 300ft of road**

**Down Slope Side**









- ***20 of the 22 municipalities eligible***
- ***DGR Funds Spent Since 1997***
  - \$ \$1,075,169.12 on Projects
  - \$ \$135,869.01 on Administration
  - \$ \$100,925.63 on Education Efforts
- ***LVR Funds Spent Since 2014***
  - \$ \$245,053.08 on Projects
  - \$ \$3,919.44 on Administration
  - \$ \$10,653.20 on Education Efforts