

# DGLVR Webinar

## DGLVR Conservation District Allocations

2/6/2018

Starts at 10am



If you are reading this, then you are successfully seeing the webinar video. Webinar audio should be automatic through your computer, and options can be accessed in the “audio options” button on the bottom left. If you are having audio issues, or are in a location where listening via phone is preferable, audio is also available on the CDGRS conference line at: 866-823-7699.

For technical assistance, call: 814-865-5355



PennState

zoom

Q&A

**You** asked: 02:25 PM

Can you think of an example question?

**Steven Michael Bloser** answered: 02:25 PM

No, I can't!

Please input your question...

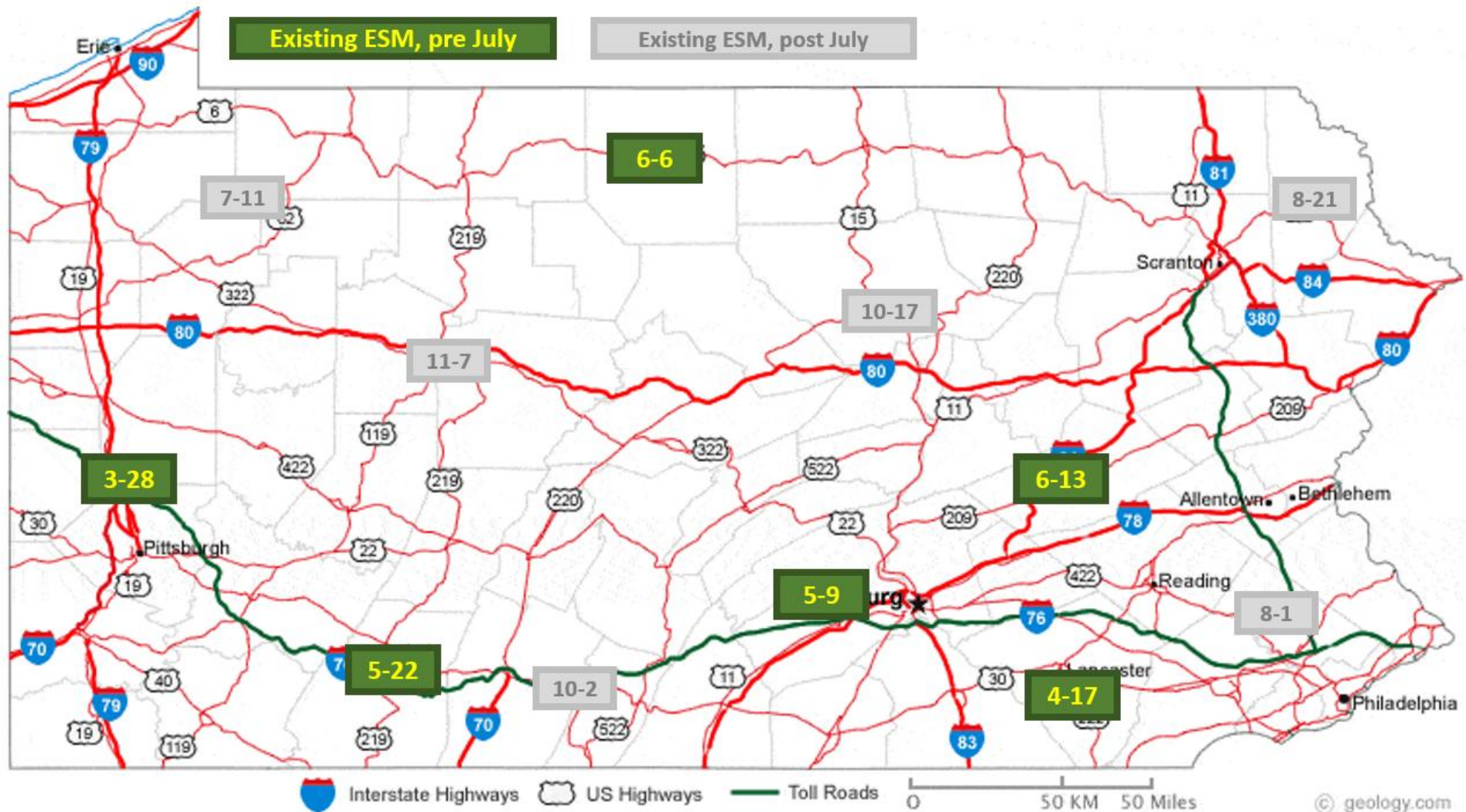
Send Anonymously

Send

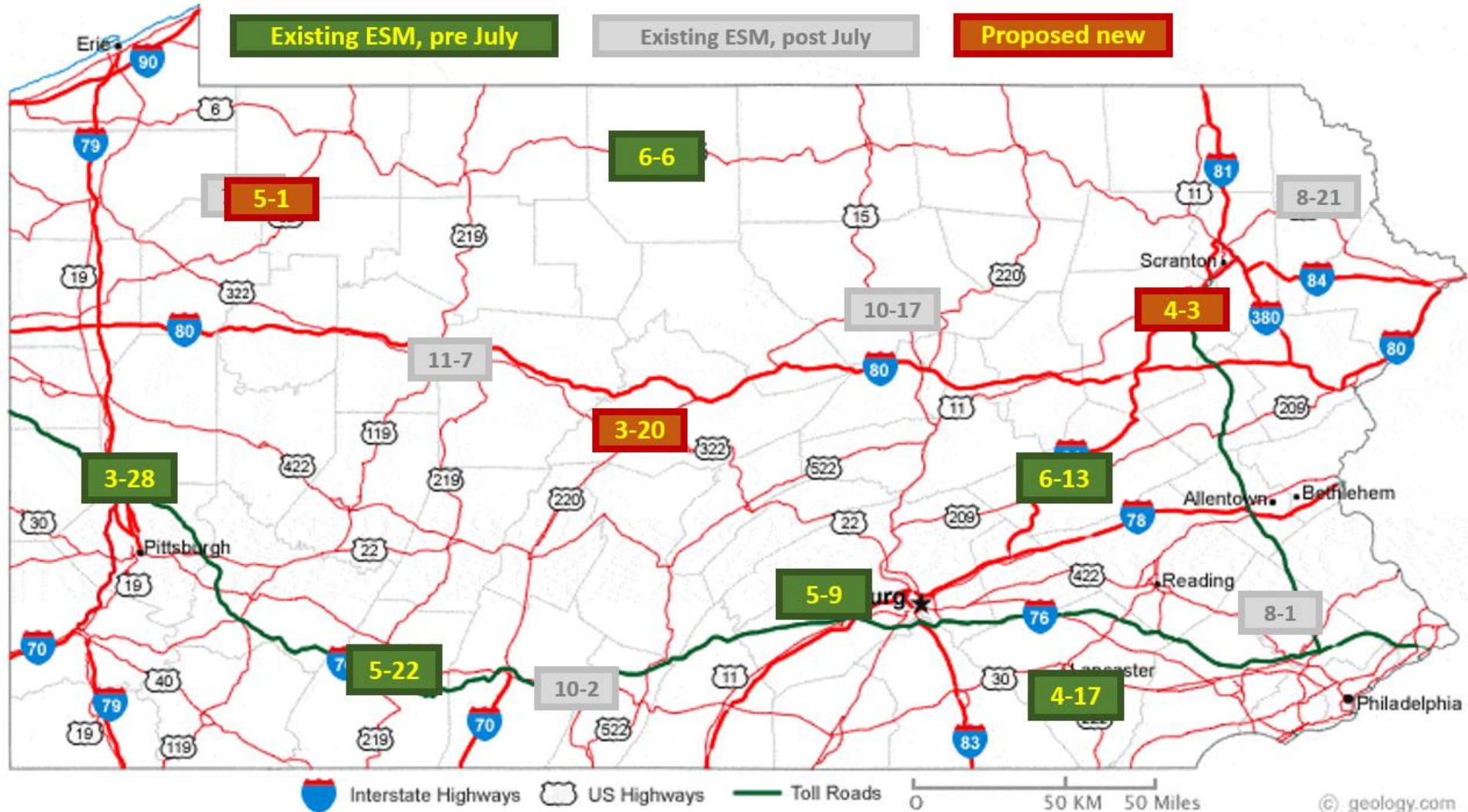
*Note you can ask a question anonymously*

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## Note Added and Moved ESM Trainings:



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## ESM Trainings:

3/28-29: Butler

4/3-4: Centre

4/10-11: Venango

4/17-18: Lancaster

5/1-2: Luzerne

5/9-10: Cumberland

5/22-23: Somerset

6/6-7: Potter

6/13-14: Schuylkill

~~7/11-12: Venango~~

8/1-2: Montgomery

8/21-22: Wayne

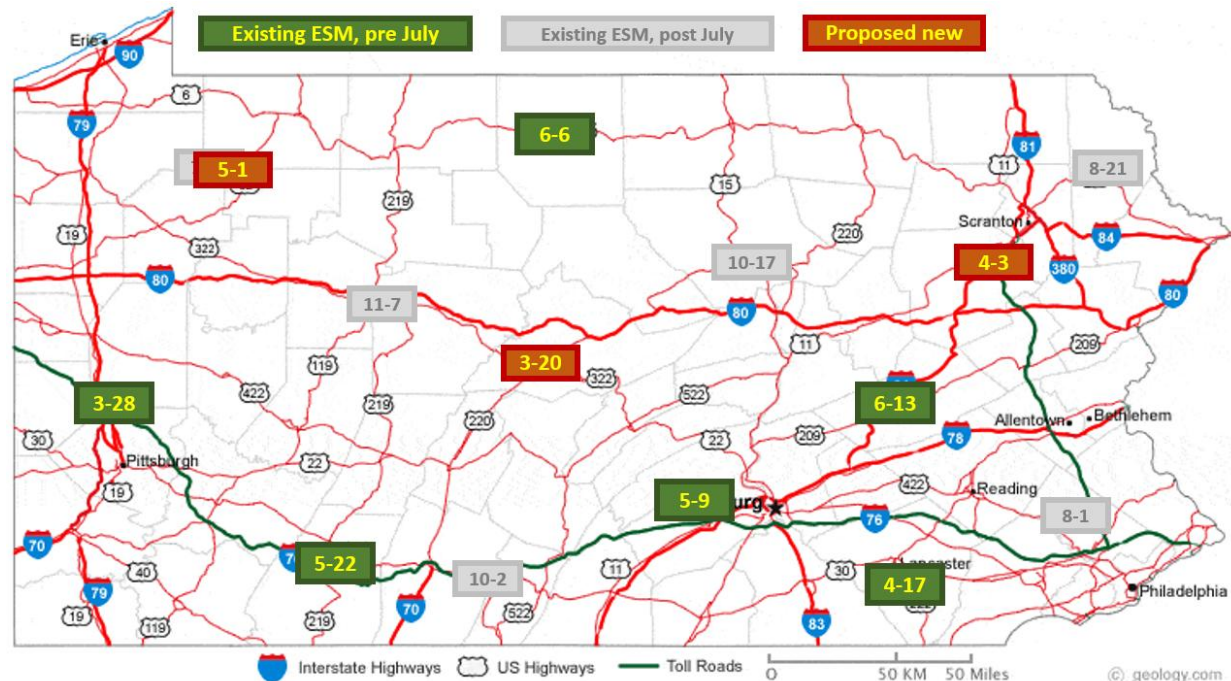
10/2-3: Bedford

10/17-18: Lycoming

11/7-8: Clearfield

Schedule is updated and  
registration is open for all  
courses at

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



## Purpose:

- Provide overview of how allocation formulas work
- Update on Changes for FY 2018-19 allocations
- Overview of impacts of those changes

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## Conservation District Allocations:

### Formula Driven Allocation Since 1997

- **1997:** protected watersheds and TU sites only
- **2000:** Statewide Assessments done. New formula developed (similar to current one)
- **2011-14:** Significant changes made to formula weighting: phased in over 3 years
- **2014:** Funding increase: Developed LVR formula, DnG formula kept the same, to be “re-evaluated” in three years

## Conservation District Allocations:

### Formula Driven Allocation Since 1997

- Policy and Planning Advisory Workgroup
  - ~20 member, including ~12 from a variety of Conservation Districts
- Met several times in 2017-18, even forming allocation sub-committee.
- All formula changes are recommended WITHOUT ever seeing individual CD allocations.



Details online:



**PennState**  
Center for Dirt and Gravel Road Studies

HOME PA PROGRAM RESOURCES GENERAL RESOURCES

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SCC Program Overview  
QA/QC

Conservation Districts  
LOW VOLUME ROADS

Program Resources  
ADVISORY WORKGROUPS

Blank Forms  
PRODUCTS

Reference Material  
DCNR BOF PROGRAM

Administrative Guidance Manual

Conservation District Allocations

QA/QC



**Dirt, Gravel, and Low Volume Road Program**  
FY 2018-19 Allocation Formula for Dirt and Gravel Road Allocations  
1/1/2018

SEE NOTE BELOW

$$\text{Worksites Factor } 50\% = \frac{\text{County Miles of Worksites}}{\text{State Miles of Worksites}} + X \frac{\text{County Miles of Unpaved Road within County}}{\text{State Miles of Unpaved Road within County}}$$

$$\text{Unpaved Road Factor } 45\% = \frac{\text{Miles of Unpaved Road in County}}{\text{State Miles of Unpaved Road within County}}$$

$$\text{Stone Cost Factor } 5\% = \frac{\text{Stone Cost in County (minus) - Minimum Stone Cost}}{\text{State Stone Cost (minus) - Minimum Stone Cost}}$$

**How D&G Allocation Formula Works:**  
"Worksites" are road segments that are causing stream impacts, and have been identified by the Pennsylvania Department of Environmental Protection (PA DEP) as being in Conservation Districts. Allocations are determined by creating an index value for each county based on the number of worksites and weighting. Each county's index value is then compared to the total index value for the state. A county whose index value is 2% of the state total index value receives a minimum allocation of \$100,000 and a maximum allocation of \$1,000,000.

**Dirt, Gravel, and Low Volume Road Program**  
FY 2018-19 Allocation Formula for Low Volume Road Allocations  
1/1/2018

$$\text{Miles Urban Road } > 500' \text{ to Stream } X 1 = A \text{ (urban, no stream)}$$

$$\text{Miles Urban Road } < 500' \text{ to Stream } X 3 = B \text{ (urban, stream)}$$

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$$\text{Miles of road near HQ/EV stream } X 1 = E \text{ (HQ/EV "bonus")}$$

$$\text{County Allocation} = \left( \frac{A + B + C + D + E \text{ for County}}{A + B + C + D + E \text{ for State}} \right) X \text{ Total to be distributed to Counties}$$

**How LVR Allocation Formula Works:**  
Each county receives...

## Conservation District Allocations:

- **Keeping the same Program funding split:**
  - \$20 Million Dirt and Gravel
  - \$8 Million Paved Low Volume
- **Keeping separation of DnG/LVR funds**

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Dirt and Gravel Allocations:



## DGLVR Law:

### **(C)Apportionment Criteria. The apportionment criteria shall:**

- (1) Be based on verified need to correct pollution problems related to the road.
- (2) Consider the total miles of dirt and gravel roads maintained by local municipalities or state agencies that are open to the public during any period of the year.
- (3) Consider total miles of dirt and gravel roads within watersheds protected as of November 1996 as exceptional value or high quality waters of this Commonwealth.
- (4) Consider allowances for the local cost of limestone aggregate.
- (5) Consider the commitments of grant applicants to comply with the non-pollution requirements established.

## Dirt and Gravel Allocations:

### Existing Formula

$$50\% \text{ IDENTIFIED WORKSITES} = \frac{\# \text{ Worksites in County}}{\# \text{ Worksites in State}} + \frac{\text{Miles Worksites in County}}{\text{Miles Worksites in State}}$$

$$45\% \text{ UNPAVED ROADS} = \text{Miles Unpaved Road in County} + \frac{1}{4} \text{ Miles Unpaved Road in HQ/EV Watersheds}$$

$$5\% \text{ LIMESTONE COST} = \frac{\$ \text{ Stone County} - \text{Min } \$ \text{ Stone in State}}{\text{Min } \$ \text{ Stone in State}}$$

\$100,000 minimum Allocation  
\$1,375,000 Maximum Allocation

## Dirt and Gravel Allocations:

### Allocation Formula Recommendations:


- No Changes to min (\$100K) or max (\$1.375M)
- No Changes to data used
- **Two changes proposed to allocation formula**

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## Dirt and Gravel Allocations: Allocation Formula Recommendation

**Proposed Change #1:** Change from protected watersheds to distance from protected streams.



$$50\% \text{ IDENTIFIED WORKSITES} = \frac{\# \text{ Worksites in County}}{\# \text{ Worksites in State}} + \frac{\text{Miles Worksites in County}}{\text{Miles Worksites in State}}$$

$$45\% \text{ UNPAVED ROADS} = \text{Miles Unpaved Road in County} + \frac{1}{4} \text{ Miles Unpaved Road within 1,000' of HQ/EV Stream}$$

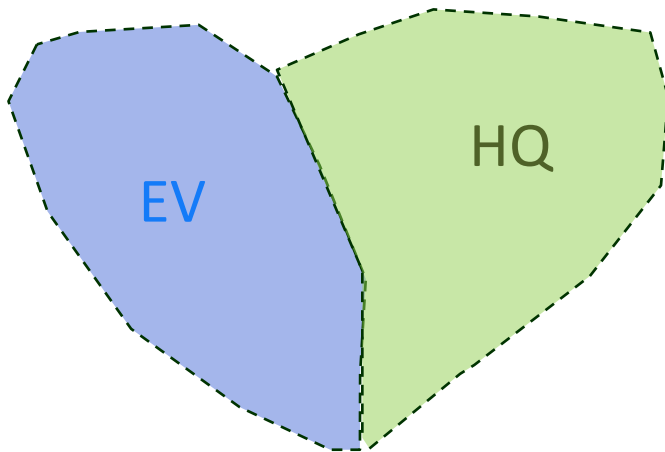
~~$\frac{1}{4} \text{ Miles Unpaved Road in HQ/EV Watersheds}$~~

$$5\% \text{ LIMESTONE COST} = \frac{\$ \text{ Stone County} - \text{Min } \$ \text{ Stone in State}}{\text{Min } \$ \text{ Stone in State}}$$

## Dirt and Gravel Allocations:

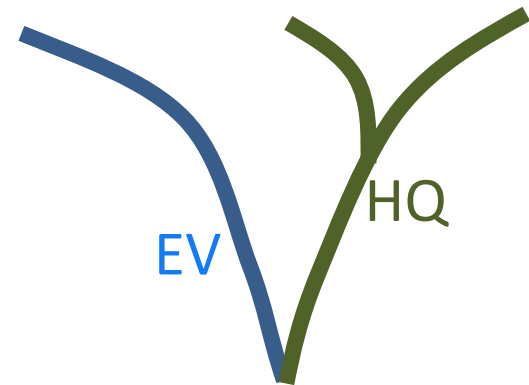
**Proposed Change #1:** Change from protected watersheds to distance from protected streams.

### Watersheds (Polygon)



- Old HQ/EV Watershed Layer currently used
- Layer has not been updated in ~10 years
- No current plans to update
- Difficult to update (designations not complete watersheds)

### Streams (Line)



- Updated regularly by DEP
- 1,000' buffer provided best approximation
- **Better data that will continue to be updated in future**

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## Dirt and Gravel Allocations:

**Proposed Change #1:** Change from protected watersheds to distance from protected streams.

### Options

- **Leave as is:** Data becomes more outdated every year
- **Change:** Propose to move focus from “Within HQ/EV Watershed” to “Within 1,000’ of HQ/EV Stream

# Dirt and Gravel Allocations:

## Allocation Formula

$$50\% \text{ IDENTIFIED WORKSITES} = \frac{\del{\# \text{ Worksites in County}}}{\del{\# \text{ Worksites in State}}} + \frac{\text{Miles Worksites in County}}{\text{Miles Worksites in State}}$$



$$45\% \text{ UNPAVED ROADS} = \frac{\text{Unpaved Road Miles in County}}{\text{Unpaved Road Miles in State}}$$

**Proposed Change #2: Eliminate the # of worksites from formula**

$$5\% \text{ LIMESTONE COST} = \frac{\$ \text{ Stone County} - \text{Min } \$ \text{ Stone in State}}{\text{Min } \$ \text{ Stone in State}}$$

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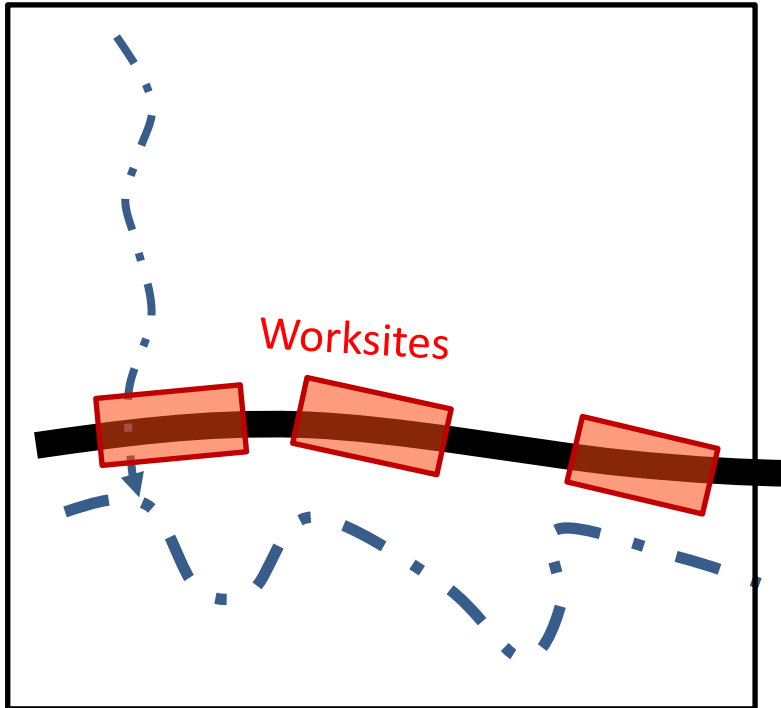
## Dirt and Gravel Allocations:

Why

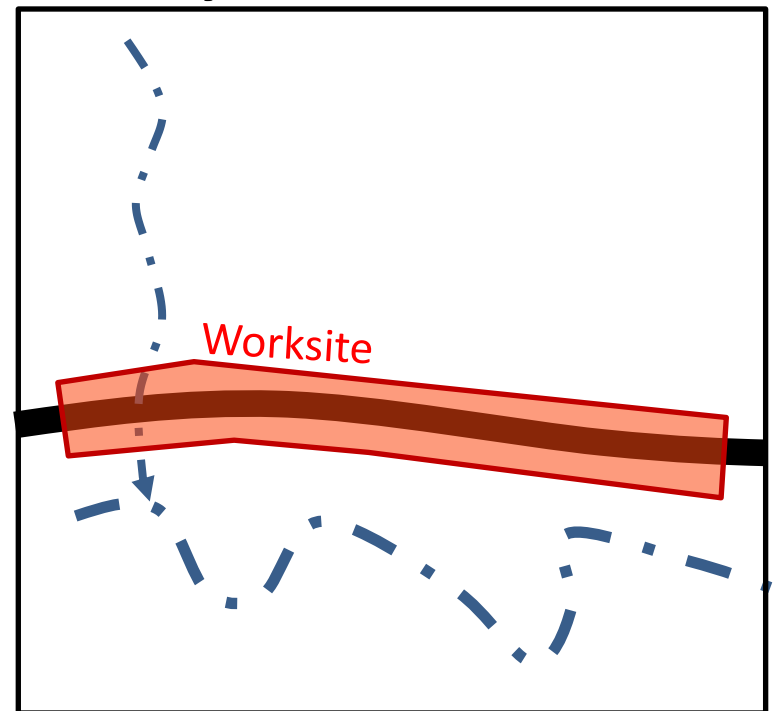
**Proposed Change #2:** Eliminate the # of worksites from formula

**Why were both # and miles considered anyway?**

**County A:** 3 sites, ½ mile



**County B:** 1 site, 1 mile



## Dirt and Gravel Allocations:

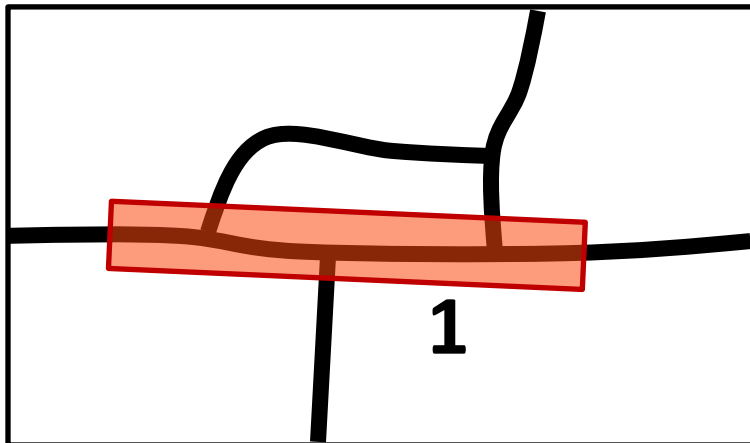
**Proposed Change #2:** Eliminate the # of worksites from formula

### Why

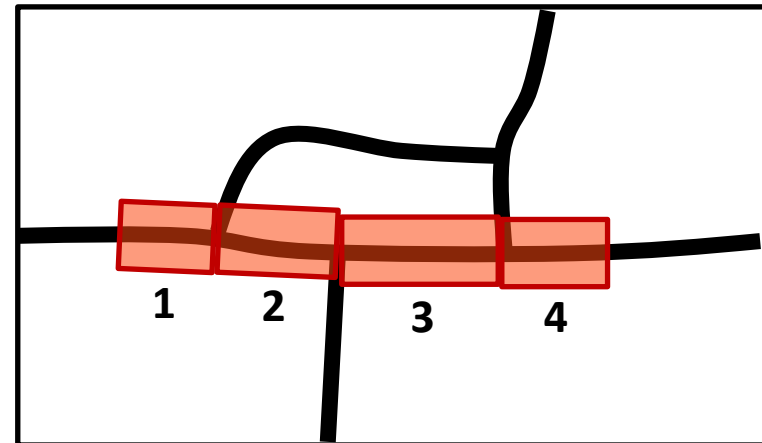
## Unanticipated side effects of moving to online GIS in 2015.

- New GIS defines nodes at each intersection, throwing site counts off
- Site Mileage remains unchanged

### Old GIS: Could be ONE site



### New GIS: Split into FOUR sites



*Note total site length is the same*

## Dirt and Gravel Allocations:

**Proposed Change #2:** Eliminate the # of worksites from formula

### Options

- **Leave as is:** Data becomes more outdated every year to avoid allocation changes.
- **Use new site numbers:** Major allocation swing as site numbers balloon inaccurately.
- **Proposed:** Remove “# of sites” from formula, worksites in formula will be based on length only.

**Recommend to phase this change in over 3 years**

# Dirt and Gravel Allocations:

## Allocation Formula

50% IDENTIFIED WORKSITES =  ~~$\frac{\# \text{ Worksites in County}}{\# \text{ Worksites in State}}$~~  +  $\frac{\text{Miles Worksites in County}}{\text{Miles Worksites in State}}$

45% UNPAVED ROADS = Miles Unpaved Road in County +  ~~$\frac{1}{4} \text{ Miles Unpaved Road in HQ/EV Watersheds}$~~  +  $\frac{1}{4} \text{ Miles Unpaved Road within 1,000' of HQ/EV Stream}$

5% LIMESTONE COST =  $\frac{\$ \text{ Stone County} - \text{Min } \$ \text{ Stone in State}}{\text{Min } \$ \text{ Stone in State}}$

**Proposed Change #2:** Eliminate the # of worksites from formula

**Proposed Change #1:** Change from protected watersheds to distance from protected streams.

## Dirt and Gravel Allocations:

### Impacts:

- **Please note when discussing likely allocation impacts:**
  - **Impacts are approximate:**
  - Assumed all counties eligible for allocation for comparison.
  - Will update base data in formulas with any changes done by CDs in 2017.

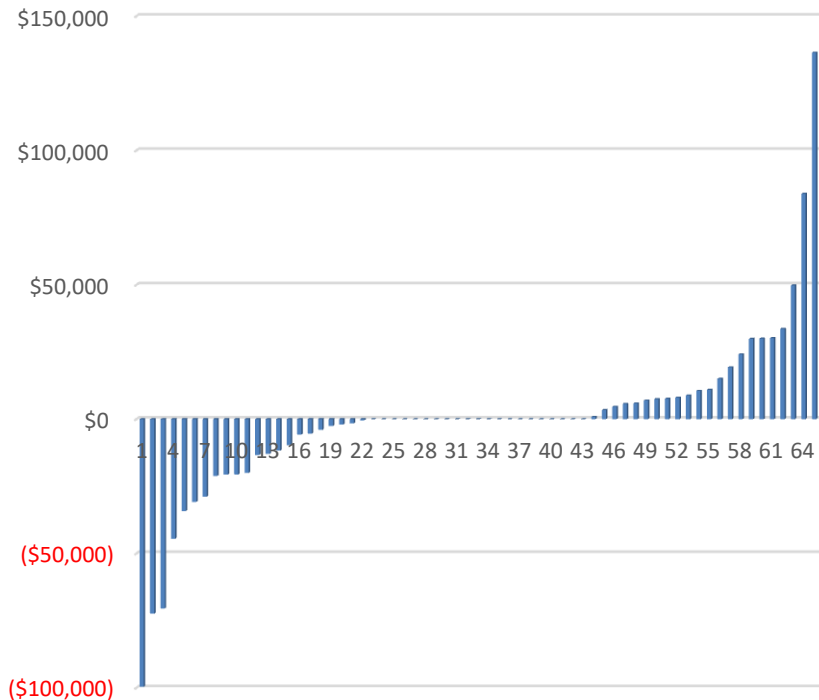
## Dirt and Gravel Allocations:

Considering both changes

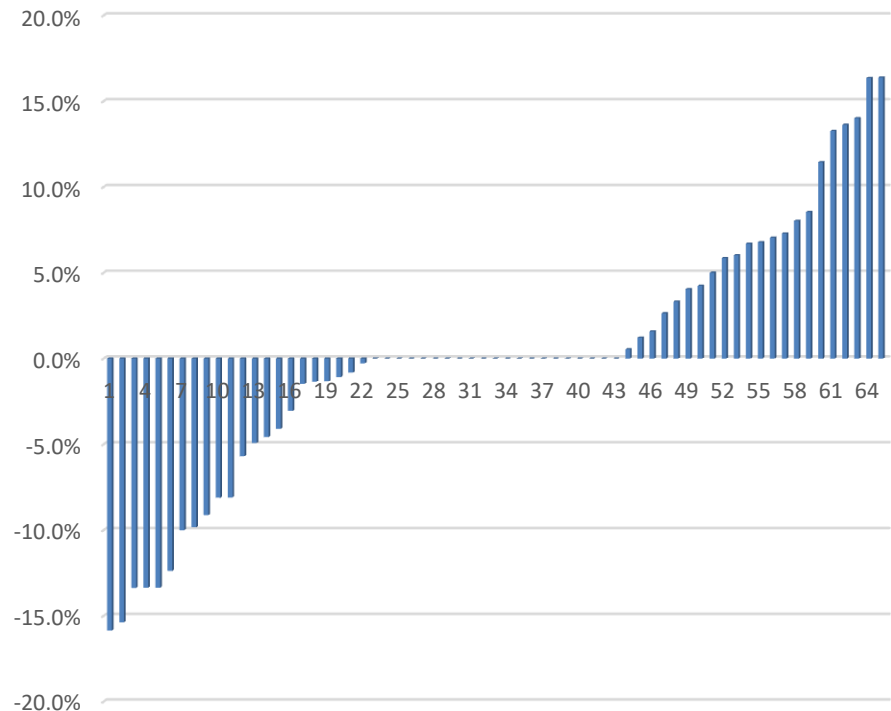
### Combined Impacts:

- 20 counties unchanged
- 23 counties decrease: greatest is ~ \$100,000 (13%) *16% is greatest percent decrease*
- 22 counties increase: greatest is ~ \$136,000 (16%) *16% is also highest percent increase*

Actual Changes from Both Changes



Percent Changes from Both Changes





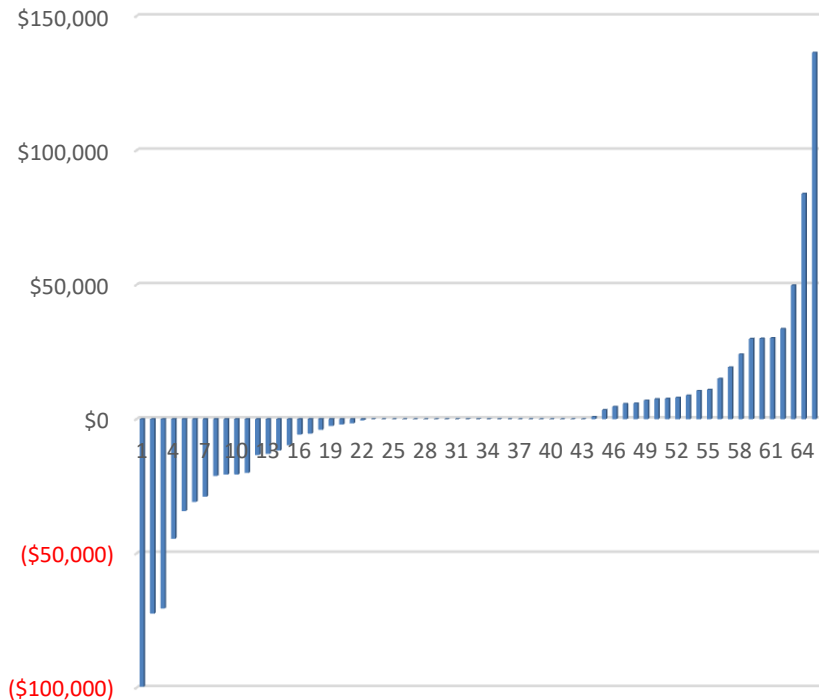
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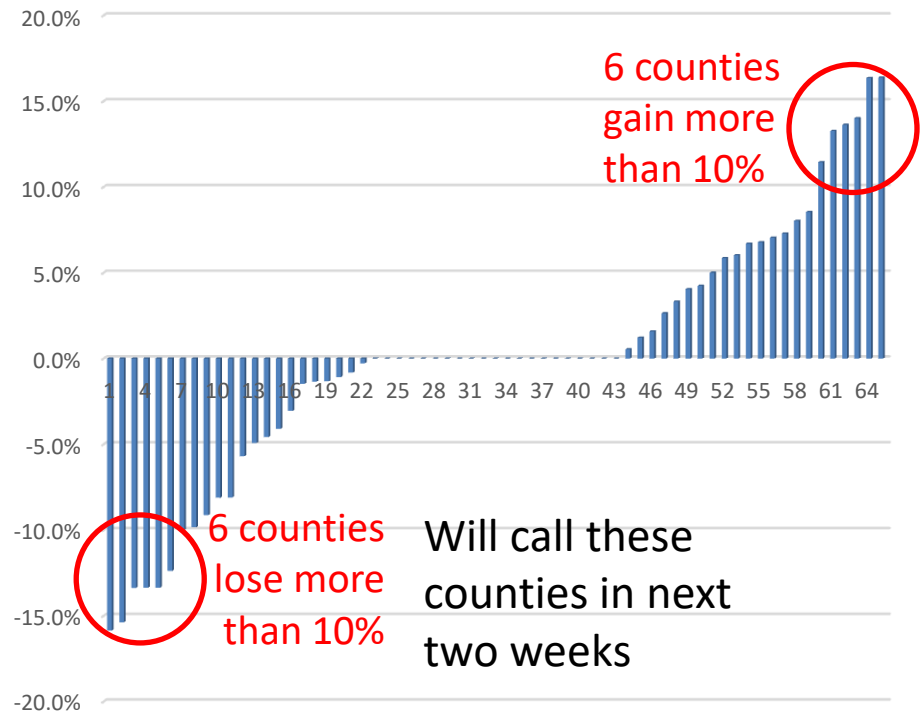
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Actual Changes from Both Changes



Percent Changes from Both Changes



## Dirt and Gravel Allocations:

### SCC Approved Jan 2018:

- Keep DGL/LVR split the same
- Keep minimum and maximum allocations the same
- **Make 2 changes to formula:**
  - Use protected streams instead of watersheds
  - Remove “# of sites” from formula
- **Implement for FY 18-19, but to facilitate transition, phase “# worksites” change in over 3 years starting in FY 18-19, fully implementing in FY 20-21**

**Dirt and Gravel Allocations:**

**Allocation Formula**

**3 year phase in:**  
 X 0.66 in FY 2018-19  
 X 0.33 in FY 2019-20  
 X 0.00 in FY 2020-21

50% IDENTIFIED WORKSITES =  $\left( \frac{\# \text{ Worksites in County}}{\# \text{ Worksites in State}} \right) + \frac{\text{Miles Worksites in County}}{\text{Miles Worksites in State}}$

45% UNPAVED ROADS = Miles Unpaved Road in County +  $\frac{1}{4}$  Miles Unpaved Road within 1,000' of HQ/EV Stream  
 ~~$\frac{1}{4}$  Miles Unpaved Road in HQ/EV Watersheds~~

5% LIMESTONE COST =  $\frac{\$ \text{ Stone County} - \text{Min } \$ \text{ Stone in State}}{\text{Min } \$ \text{ Stone in State}}$

**3 year phase in: if you are decreasing \$30,000**  
 - Should decrease \$10,000 in FY 2018-19  
 - Should decrease another \$10,000 in FY 2019-20  
 - Should decrease another \$10,000 in FY 2020-21

Low Volume Road Allocations:



## Low Volume Road Allocations:

### Allocation Formula Recommendations

- No Changes to min (\$40K) or max (\$550K)
- No Changes to data used (except keeping up to date if applicable)
- **Two changes proposed to allocation formula**

## Low Volume Road Allocations:

### Allocation Formula

Miles Urban Road > 500' to Stream **X 1** = A (urban, no stream)

Miles Urban Road < 500' to Stream **X 2** = B (urban, stream)

Miles Non-Urban Road > 500' to Stream **X 3** = C (non-urban, no stream)

Miles Non-Urban Road < 500' to Stream **X 4** = D (non-urban, stream)

$$\frac{A+B+C+D \text{ for County}}{A+B+C+D \text{ for State}} = \text{Percentage of Statewide LVR Allocation County Gets}$$

*Simplified example: if (A+B+C+D for county) = 1, and (A+B+C+D for state) = 100  
 $1/100 = 1\%$ .  $1\% \times \$8,000,000 = \$80,000$  county allocation*

## Low Volume Road Allocations:

### Allocation Formula

Miles Urban Road > 500' to Stream

**X 1** = A (urban, no stream)

Miles Urban Road < 500' to Stream

**X <sup>3</sup>~~2~~** = B (urban, stream)

Miles Non-Urban Road > 500' to Stream

**X 3** = C (non-urban, no stream)

Miles Non-Urban Road < 500' to Stream

**X 4** = D (non-urban, stream)

### Why increase weight of “urban near stream”:

- Address concerns from more urban counties
- Focus on proximity to stream
- Higher stream connectivity in urban areas

Proposed Change #1: increase weight of “urban near stream”

## Low Volume Road Allocations:

**Proposed Change #2:** include bonus weighting for roads near HQ/EV watersheds

### (C)Apportionment Criteria. The apportionment criteria shall:

- (1) Be based on verified need to correct pollution problems related to the road.
- (2) Consider the total miles of dirt and gravel roads maintained by local municipalities or state agencies that are open to the public during any period of the year.
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## Low Volume Road Allocations:

### Allocation Formula

Miles Urban Road > 500' to Stream

**X 1** = A (urban, no stream)

Miles Urban Road < 500' to Stream

**X ~~2~~ 3** = B (urban, stream)

Miles Non-Urban Road > 500' to Stream

**X 3** = C (non-urban, no stream)

Miles Non-U

**Proposed Change #2:** include  
bonus weighting for roads near  
HQ/EV watersheds

**X 4** = D (non-urban, stream)

**Road miles within 1,000' of HQ/EV streams X1 additional weight = E**

$$\frac{A+B+C+D+E \text{ for County}}{A+B+C+D+E \text{ for State}} = \text{Percentage of Statewide LVR Allocation County Gets}$$

*Simplified example: 1/100 = 1%. 1% X \$8,000,000 = \$80,000 county allocation*

## Low Volume Allocations:

### Impacts:

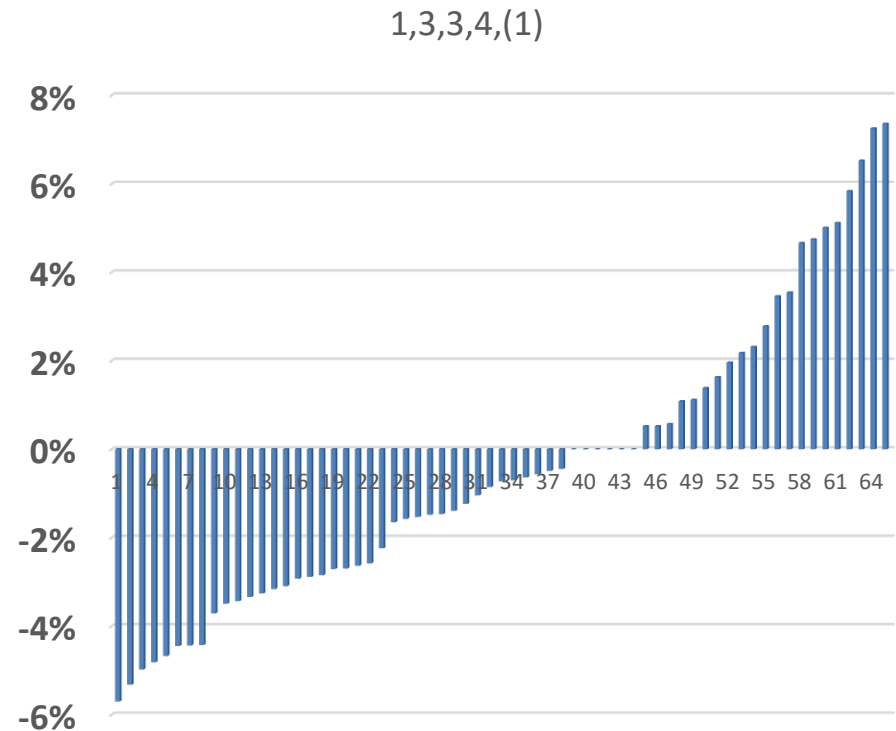
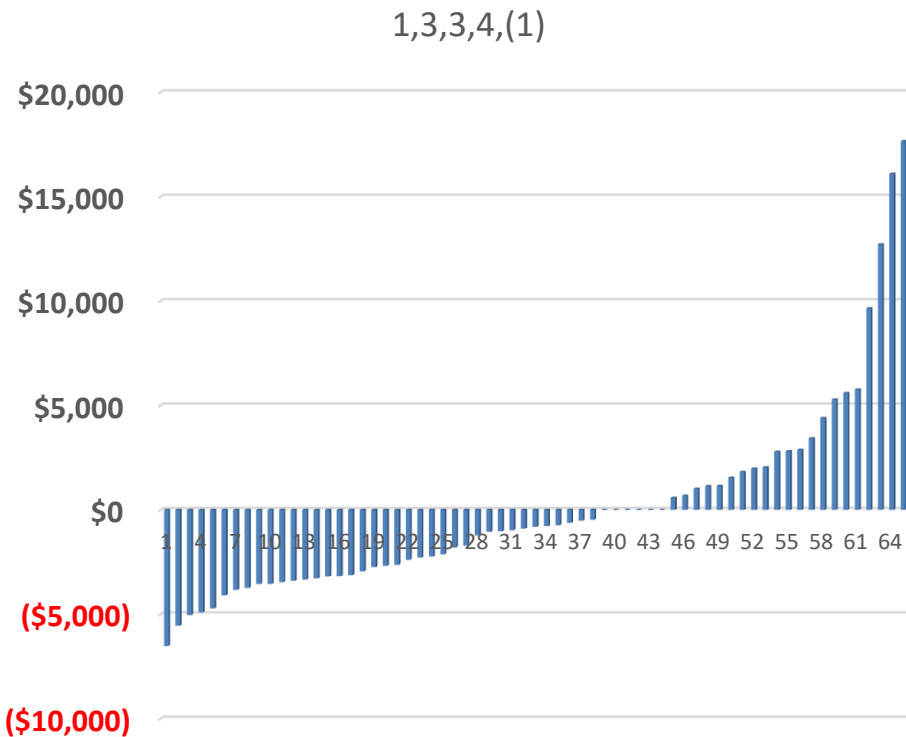
- Please note when discussing likely allocation impacts:
  - Impacts are approximate:
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  - Will update base data in formulas with any changes done by CDs in 2017.

## Low Volume Road Allocations:

Combined impact of both changes

### Combined Impacts:

- 6 counties unchanged
- 38 counties decrease: greatest is ~ \$6,500 or 5% *6% is greatest percent decrease*
- 21 counties increase: greatest is ~ \$17,600 or 7% *7% is also highest percent increase*

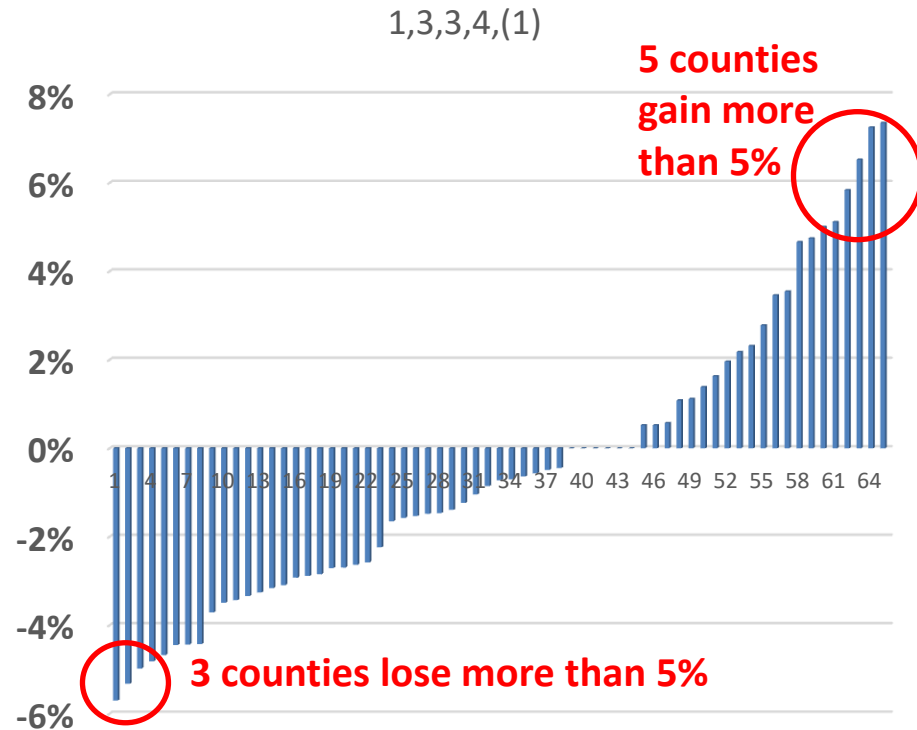
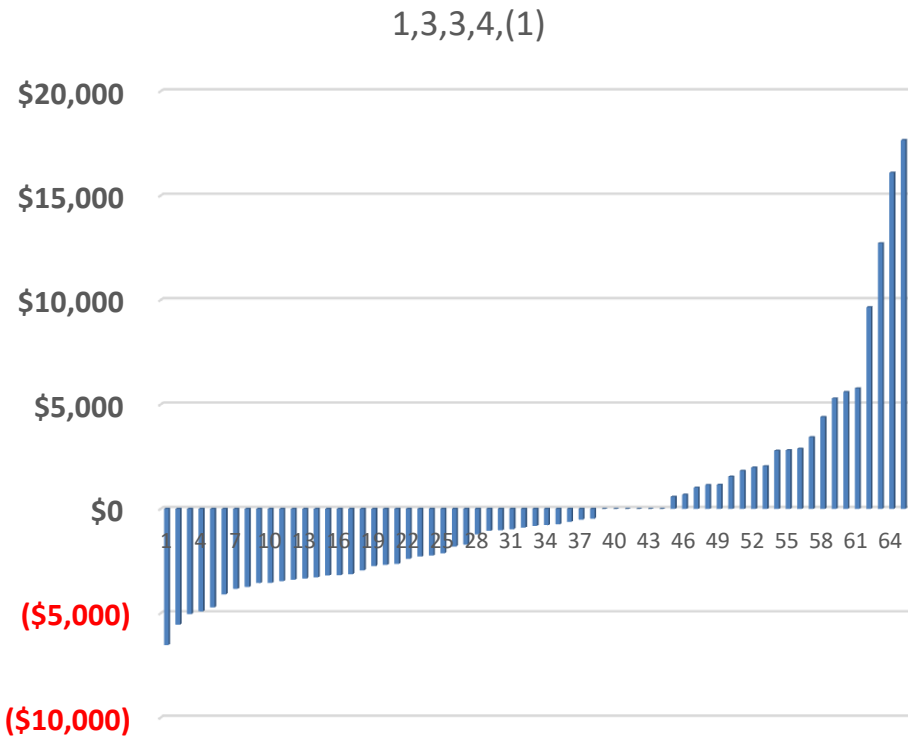


## Low Volume Road Allocations:

**Combined impact of both changes**

### Combined Impacts:

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## LVR Allocations:

### SCC Approved January 2018:

- Keep DGL/LVR split the same
- Keep minimum and maximum allocations the same
- **Make 2 changes to formula:**
  - Increase weight of “urban near stream” roads
  - Add bonus weight for roads near protected streams
- **Changes are not severe, fully implement in FY 2018-19.**

## What happens next?

- **Currently:** ~10 counties short on spending/committing
- **March/April:** Final committal deadline for eligibility
- **May:** Final CD allocations to SCC for approval
- **July:** Fingers crossed for PA budget
- **Aug/Sep:** CDs receive advance for FY 18-19 allocations.

[Details online:](#)



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FY 2018-19 Allocation Formula for Dirt and Gravel Road Allocations  
1/1/2018

SEE NOTE BELOW

$$\text{Worksites Factor } 50\% = \frac{\text{County Miles of Worksites}}{\text{State Miles of Worksites}} + X \frac{\text{County Stone Cost}}{\text{State Stone Cost}}$$

$$\text{Unpaved Road Factor } 45\% = \frac{\text{Miles of Unpaved Road in County}}{\text{Miles of Unpaved Road in State}}$$

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**How D&G Allocation Formula Works:**  
"Worksites" are road segments that are causing stream impacts, and have been identified by the Pennsylvania Department of Environmental Protection (PA DEP) in Conservation Districts. Allocations are determined by creating an index value for each county based on the number of worksites and weighting. Each county's index value is then compared to the total index value for the state. A county whose index value is 2% of the state total index value receives a minimum allocation of \$100,000 and a maximum allocation of \$1,000,000.

**Dirt, Gravel, and Low Volume Road Program**  
FY 2018-19 Allocation Formula for Low Volume Road Allocations  
1/1/2018

$$\begin{aligned} \text{Miles Urban Road } > 500' \text{ to Stream } & X 1 = A \text{ (urban, no stream)} \\ \text{Miles Urban Road } < 500' \text{ to Stream } & X 3 = B \text{ (urban, stream)} \\ \text{Miles Non-Urban Road } > 500' \text{ to Stream } & X 3 = C \text{ (non-urban, no stream)} \\ \text{Miles Non-Urban Road } < 500' \text{ to Stream } & X 4 = D \text{ (non-urban, stream)} \\ \text{Miles of road near HQ/EV stream } & X 1 = E \text{ (HQ/EV "bonus")} \end{aligned}$$

$$\text{County Allocation} = \left( \frac{A + B + C + D + E \text{ for County}}{A + B + C + D + E \text{ for State}} \right) X \text{ Total to be distributed to Counties}$$

**How LVR Allocation Formula Works:**  
Each county receives...

- February 13<sup>th</sup> **WEBINAR: 2017 Annual Summary Report Review**
- February 20<sup>th</sup> **PRJ SHARING: Westmoreland, Courtyard Marriott Monroeville**
- February 21<sup>st</sup> **PRJ SHARING: Clarion, Park Inn by Radisson Clarion**
- February 27<sup>th</sup> **PRJ SHARING: Lancaster, Lancaster CD Office**
- February 28<sup>th</sup> **PRJ SHARING: Luzerne, Woodlands Inn & Resort**
- March 6<sup>th</sup> **PRJ SHARING: Centre, CDGRS Office**
- March 7<sup>th</sup> **WEBINAR: GIS and Quarterly Reporting Update**
- March 27<sup>th</sup> **WEBINAR: Project Sharing Session Highlights**

*ESM Trainings begin in March: dates and locations available at:*  
<https://www.dirtandgravel.psu.edu/education-and-training/esm-course>

- April 3<sup>rd</sup> **WEBINAR: Taking better project photos (from workshop)**
- Summer TBD **Stream Crossing Trainings (4 regional)**
- July TBD **ESM Boot Camp for CDs (2 in State College)**

- TBD:**
- Admin Trainings
  - GIS Beginner Training
  - 4-5 Quarterly Report Trainings

**Annual Workshop**  
**Indiana, PA**  
**September 14-16**

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