

Planning for Tax Ditch Maintenance



Division of Watershed Stewardship Drainage Program

The Drainage Program's mission is to provide effective environmentally balanced water management services that are sustainable to citizens of Delaware for the preservation of public health and safety.

Presented at the 2018 KCD Tax Ditch Managers Breakfast
February 13, 2018
Presented by: Brooks Cahall, Drainage Program Manager



YOU BENEFIT FROM

DRAINAGE IN DELAWARE

Agenda:

Duties of the Managers

Maintenance of the Tax Ditch

Operations and Maintenance Plan

Countywide View of Ditch Taxes

What should your warrant rate be?

Next Steps



Duties of the Managers

9 duties are listed in 7 Del.C. §4162

**How Many
Can you Name?**



Duties of the Managers

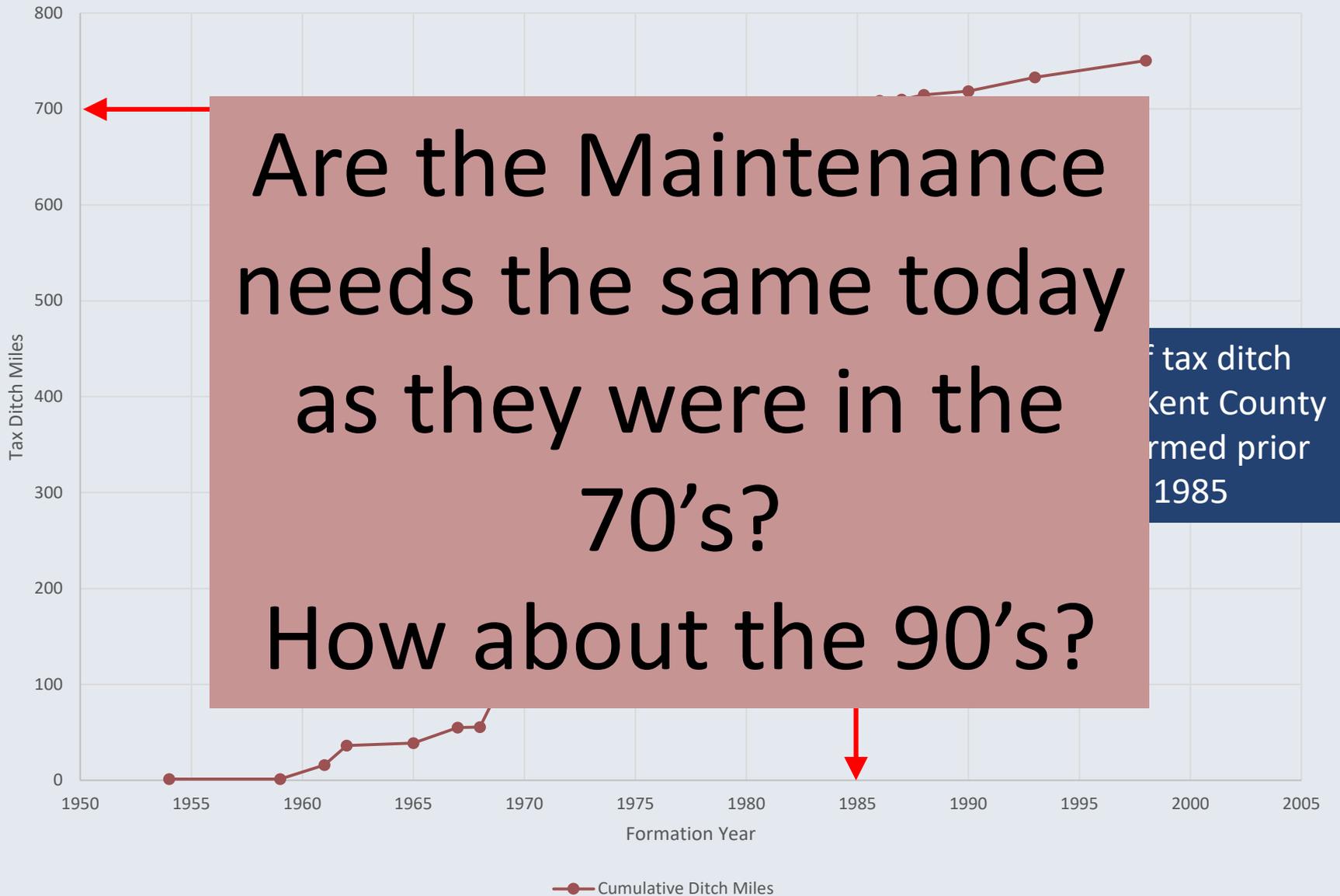
- (1) Determine from the taxables the desired **program of operations**;
- (2) Determine the **amount of taxes** to be levied to carry out such desired program;
- (3) Secure specific authority for **borrowing money**, in the name of the tax ditch, by a majority vote of the taxables present at a duly called meeting of the tax ditch;
- (4) At the first meeting, or within 30 days thereafter, prepare, with the assistance of the Division of Watershed Stewardship, **a comprehensive plan for carrying out the desired program**, which plan shall include provisions for levying taxes and for financing the program;
- (9) **Provide for adequate maintenance** of the tax ditch.

“Provide for Adequate Maintenance of the Tax Ditch”

- Merriam Webster defines Maintenance as:
“The upkeep of property or equipment”
- Ensuring the ditch is in working order so that the “benefits” are received without impact upstream or downstream
- **§4162 (1)** put the responsibility of determining what is needed on the taxables.



Tax Ditches are Aging Infrastructure



Traditional Tax Ditch Maintenance

- Dipouts
- Mowing
- Pipe Replacements



Modern Tax Ditch Maintenance also includes:

- Bank Stabilization
- Weed Wiper Bar
- Invasive Species
- Beavers

Often High Cost
and/or
High Effort



§4162 (1)

Program of Operations

“Determine from the taxables the desired program of operations;”

- We know that most tax ditch annual meetings are not well attended.
- What are you using to make maintenance decisions?

§4162 (4)

“A Comprehensive Plan...”

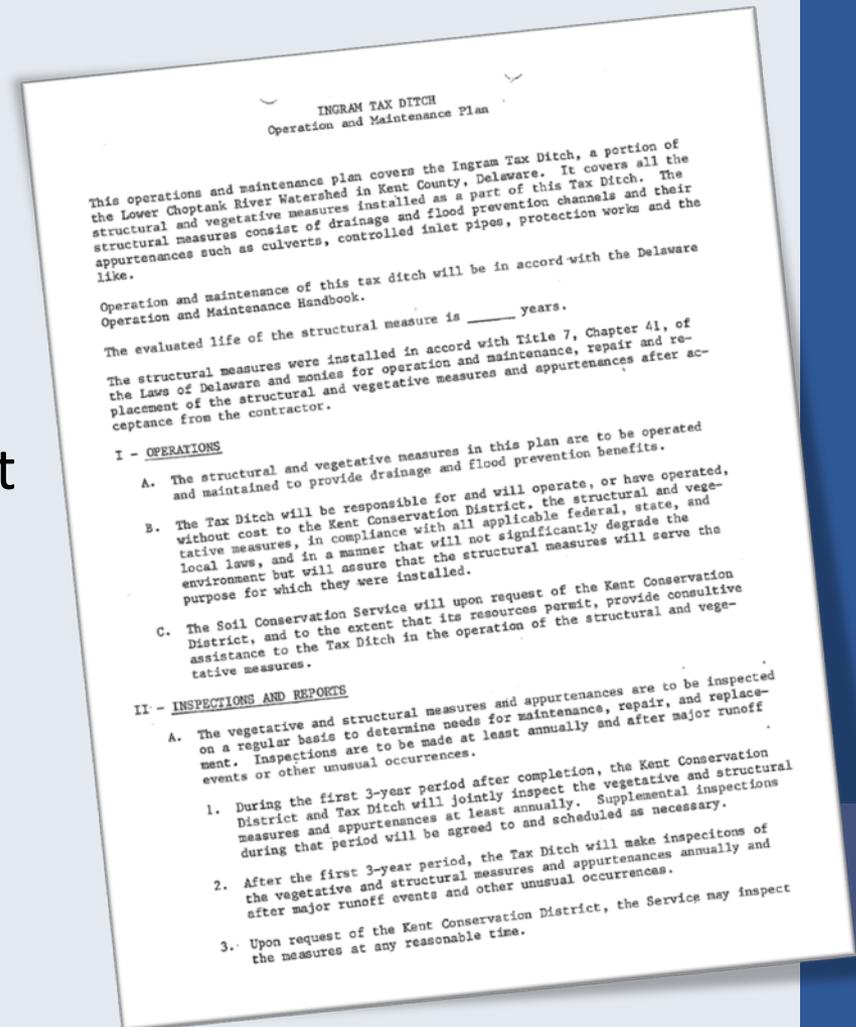
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§4162 (4)

“A Comprehensive Plan...”

Are You...

1. Still Using the Original Plan?
2. Wondering what I am talking about?
3. Ignoring it because it is out of date?
4. Using an updated plan to make warrant rate decisions?



Why is this important?

1. Although unheralded, the tax ditch system is a critical part of Delaware's Infrastructure that needs to be adequately maintained.
2. Maintenance needs are critically underfunded at the State, County, and local level.
3. To increase State & County funding we need to be able to accurately show:
 1. What the needs are.
 2. That Tax Ditch Organizations are doing their part.

Funding Tax Ditch Dipout

	Kent	Statewide
Tax Ditch (miles)	750	2000
Annual work dipout (ft.)	158,400	422,400
Annual Cost	\$792,000	\$2,112,000
50% Cost	\$396,000	\$1,056,000
Current Cost Share Funding	\$150,000	\$450,000
S&C deficit	\$246,000	\$606,000

Assumptions:

- Time between dipouts ranges from 20-30 years
- 25 year cycle would mean clean out 80 miles per year or 4% of ditch miles
- Average Cost is \$5 per ft

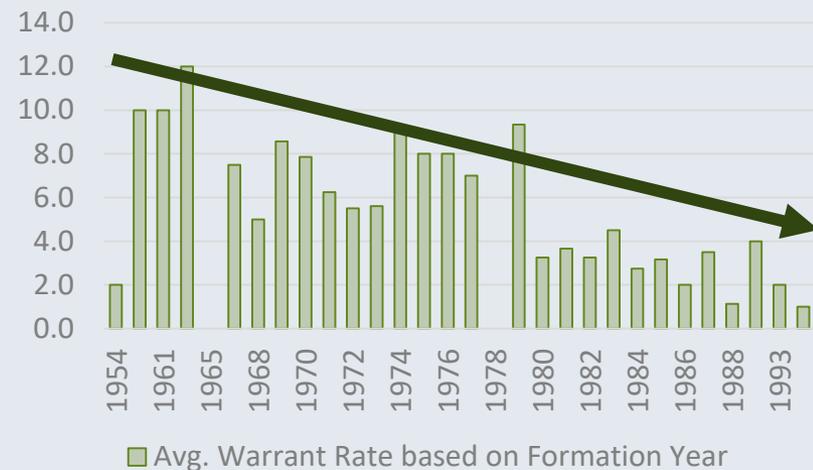
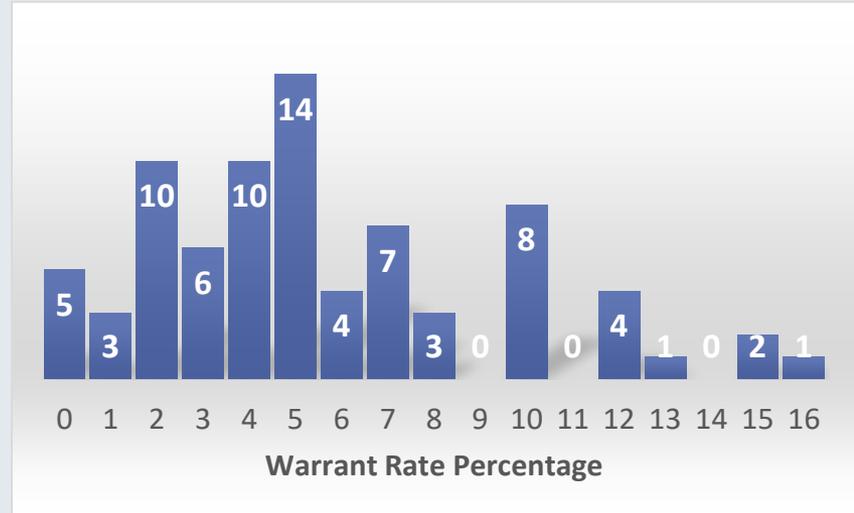
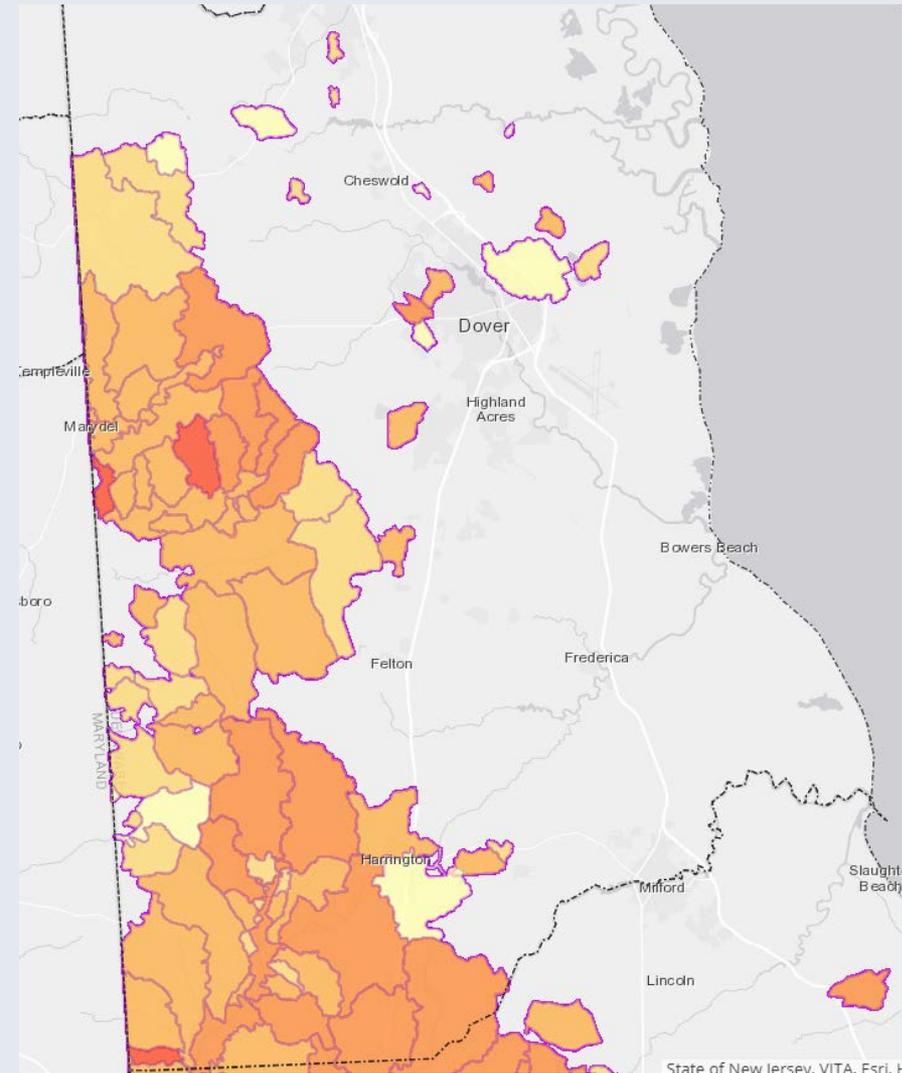
Do Tax Ditch Organizations have the other 50%?
Expected revenue for all Kent County Tax Ditches in 2017
was \$259,000.

Remember this doesn't include anything but dipout!

A Countywide Look at Ditch Taxes

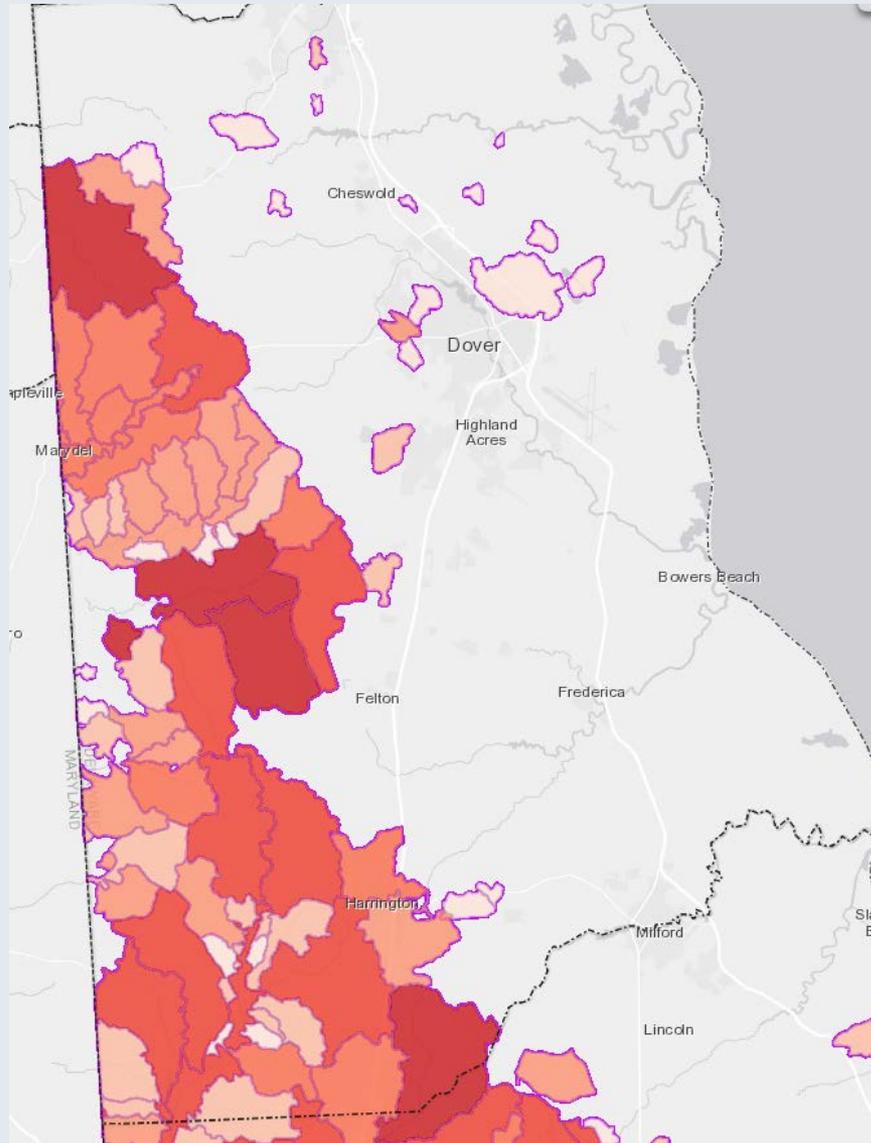
- The Drainage Program has started to look at ditch taxes from a large scale perspective using Geographic Information Systems (GIS)
- We will adding a link on our website so you can explore this information on your own.
 - <http://www.dnrec.delaware.gov/swc/pages/drainagetaxditchwatermgt.aspx>
 - Google “DNREC Drainage Program”
- It also take a look a look at ditch taxes by parcel which we don't have time to discuss today.
- A few disclaimers...
 - This information is only looking at max potential 2017 taxes assessed
 - Does not factor in tax ditch assets

Tax Ditch Warrant Rates

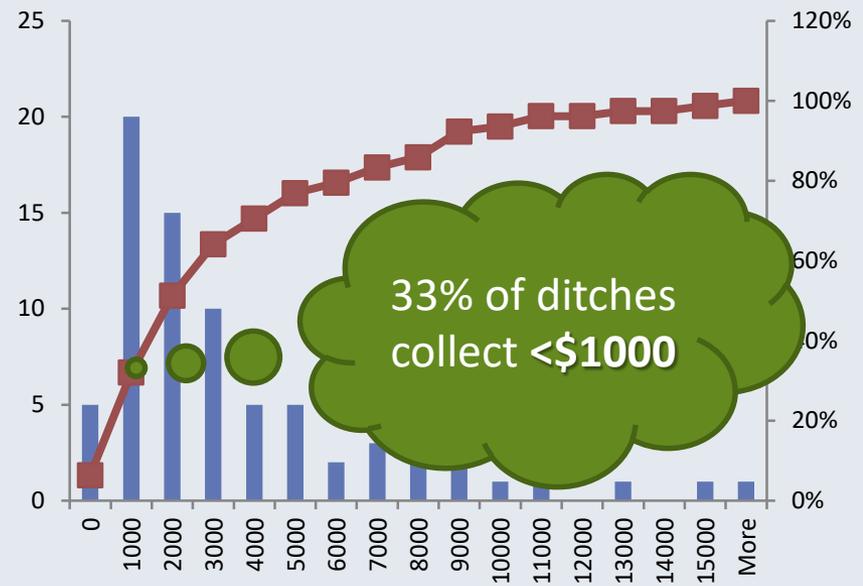


■ Avg. Warrant Rate based on Formation Year

2017 Expected Revenue

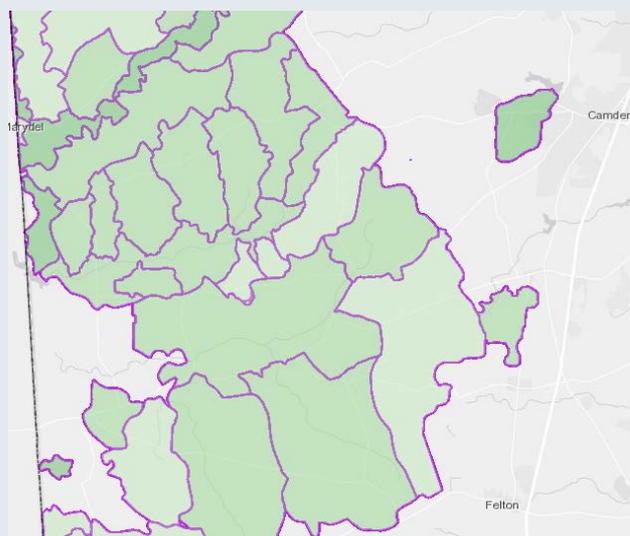
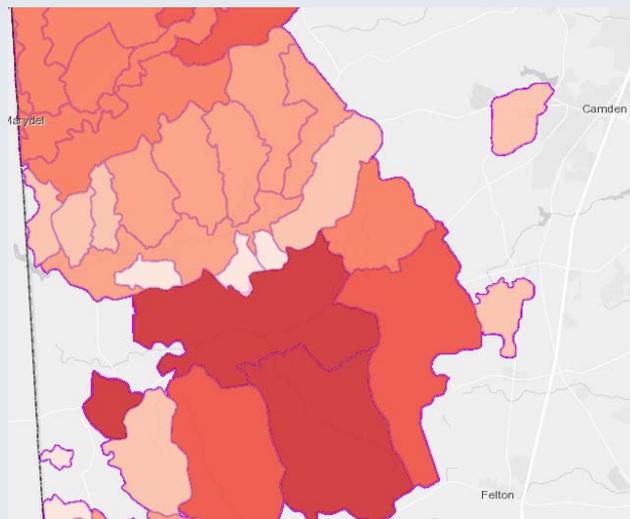
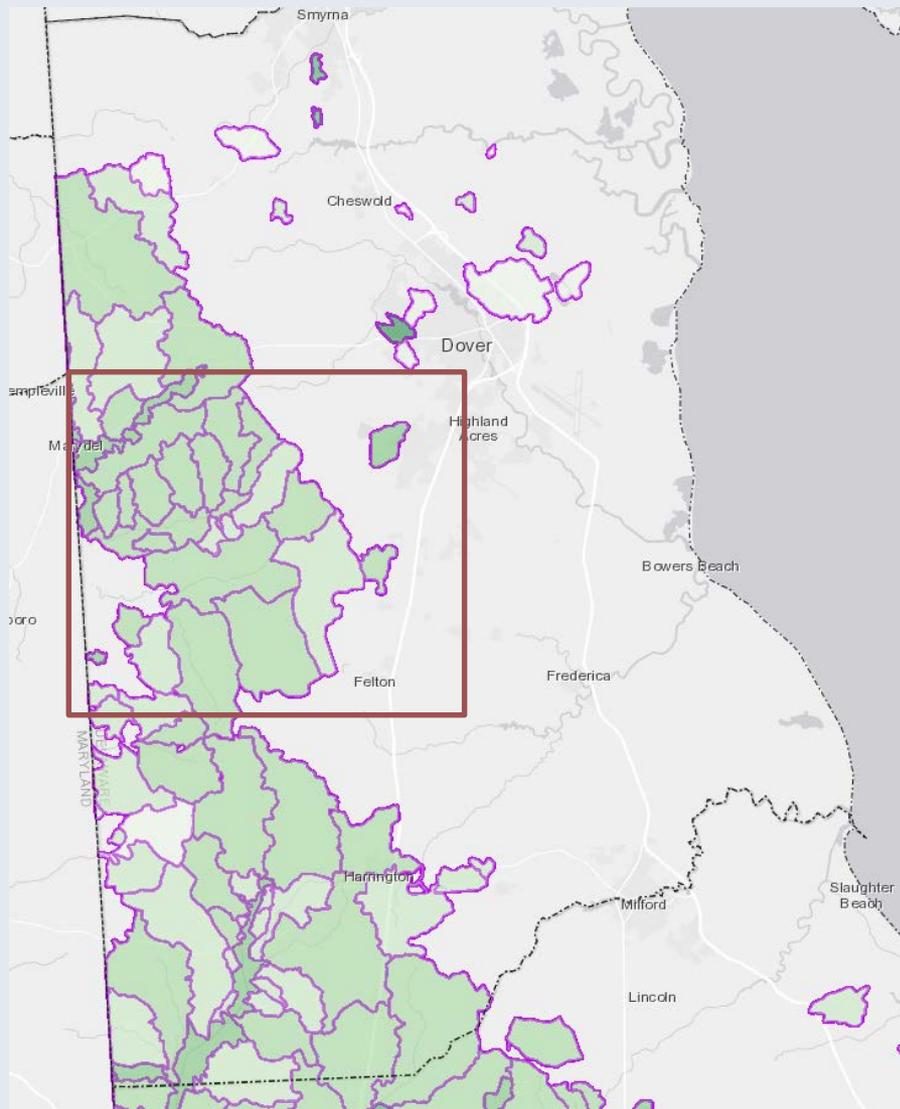


This map shows about what we would expect to see. The larger ditches generally collect the most taxes.

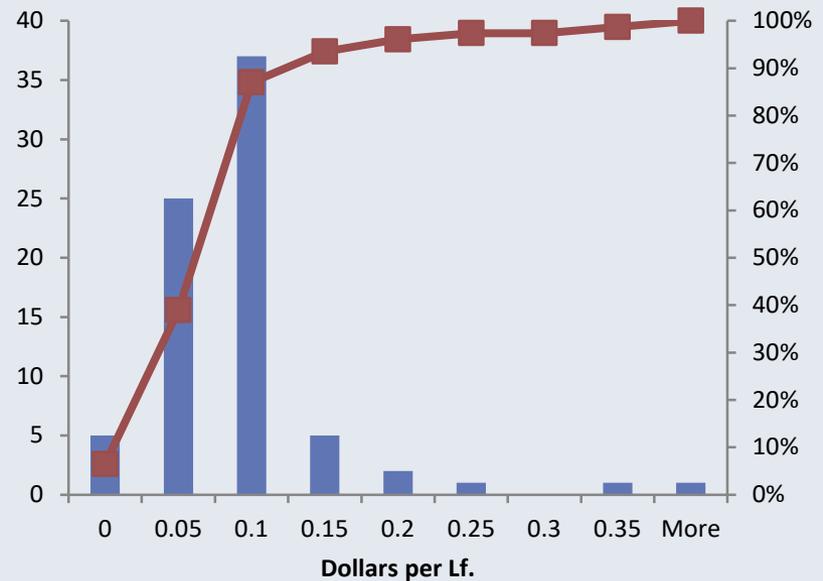
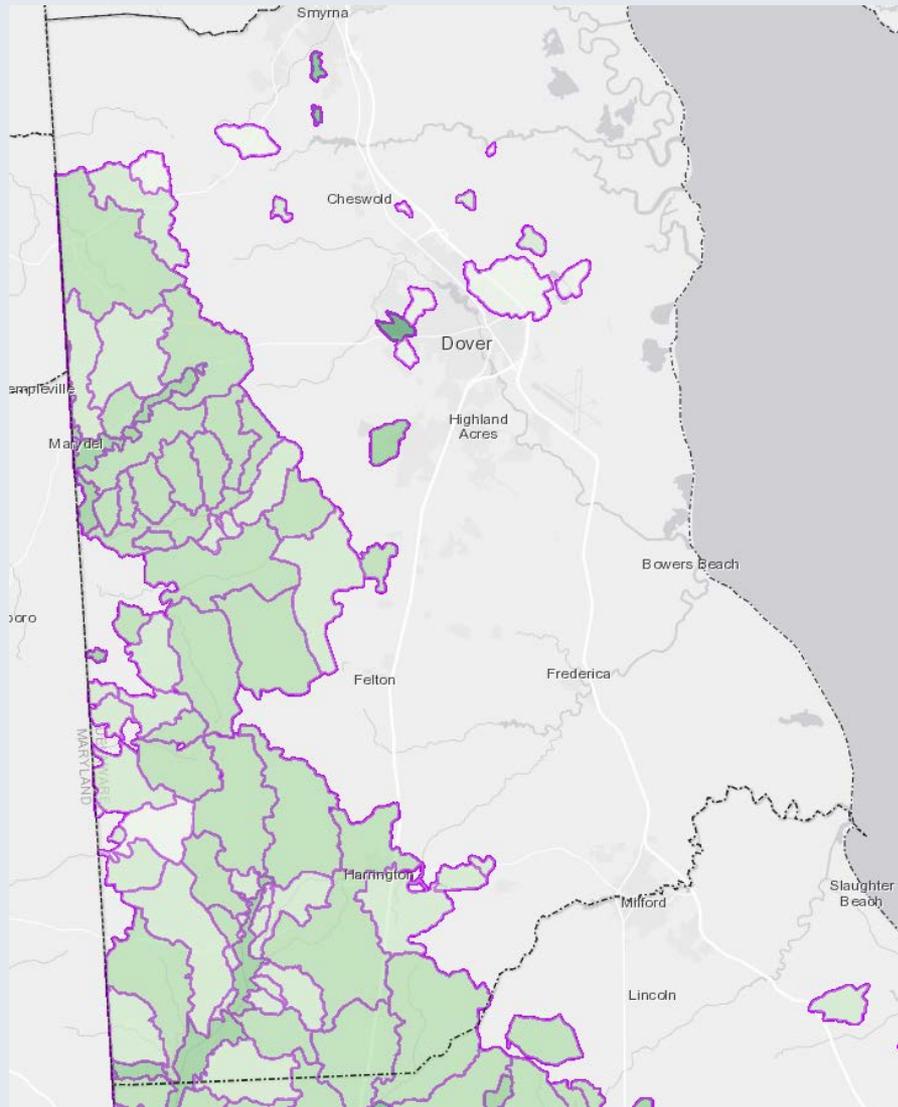


33% of ditches collect <\$1000

Revenue per Tax Ditch In. ft.



Revenue per Tax Ditch In. ft.



87% of Tax Ditches in Kent County collect less than \$0.10 per foot of tax ditch they are responsible for maintaining.

How much Tax should your Tax Ditch Collect?

- 4162 (2) Determine the amount of taxes to be levied to carry out such desired program.
- In the absence of an updated maintenance plan how much should you collect?



A Look at Annual TD Maintenance Costs

	Tax Ditch #1	Tax Ditch #2
Year Formed	1969	1984
Ditch Miles	17	28
2017 Assessment Base	\$ 79,911	\$ 246,977
Warrant Rate	10%	5%
Annual Taxes (max)	\$ 7,991	\$ 12,349
Ditch Length (feet)	89,760	147,840
Annual Dipout length (4%)	3,590	5,914
Total Cost @ \$5/ft	\$ 17,950	\$ 29,570
Tax Ditch Portion @ 50% Cost Share	\$ 8,975	\$ 14,785
Time to Mow @ 1500 ft/hr (hrs)	60	99
Total Cost @ \$150/hr	\$ 9,000	\$ 14,850
Cost Share @ \$100/mile	\$ 1,700	\$ 2,800
Tax Ditch Portion	\$ 7,300	\$12,050
Tax Ditch Costs Mowing every other year	\$ 3,650	\$ 6,025
Tax Ditch Annual Maintenance Costs	\$ 12,625	\$ 20,810
Tax Ditch Annual Maintenance Costs per foot	\$ 0.14	\$ 0.14
Annual Deficit	\$ (4,634)	\$ (8,461)
Break Even Warrant Rate	16%	8%

Recommendations

Considering Traditional Tax Ditch Maintenance **\$ 0.14** per linear foot of tax ditch we feel is a good target.

Other factors to think about:

- What are your tax ditch assets?
- Do you have other known maintenance issues?
- What is your mowing frequency?
- If you have a significant amount of wide ditches rate will need to be higher.
- Time Value of Money

Next Steps

The Drainage Program wants to continue to refine these numbers and determine the actual tax ditch needs.

- We are looking for a couple of Tax Ditch Organizations to develop example operation and maintenance plans for.
 - Plan would include:
 - Review or original O &M Plan
 - Determination of maintenance current needs
 - Opportunities for restoration
 - Financial analysis including
 - Recommendations
 - Contact Melissa Hubert or Brooks Cahall
- Start to think about how to move your ditch to the \$0.14 target.

Questions?



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