DRAINAGE DISTRICT 27

Dane County Drainage Board

WHAT ARE DRAINAGE DISTRICTS

A Drainage District's primary purpose is to create an alternative land use. This is accomplished through the management of surface water drainage. This is accomplished by developing appropriate waterways, designed to evacuate excess water from an area. Without these waterways, it would be highly unlikely that any development would occur (Marsh / Swamp).

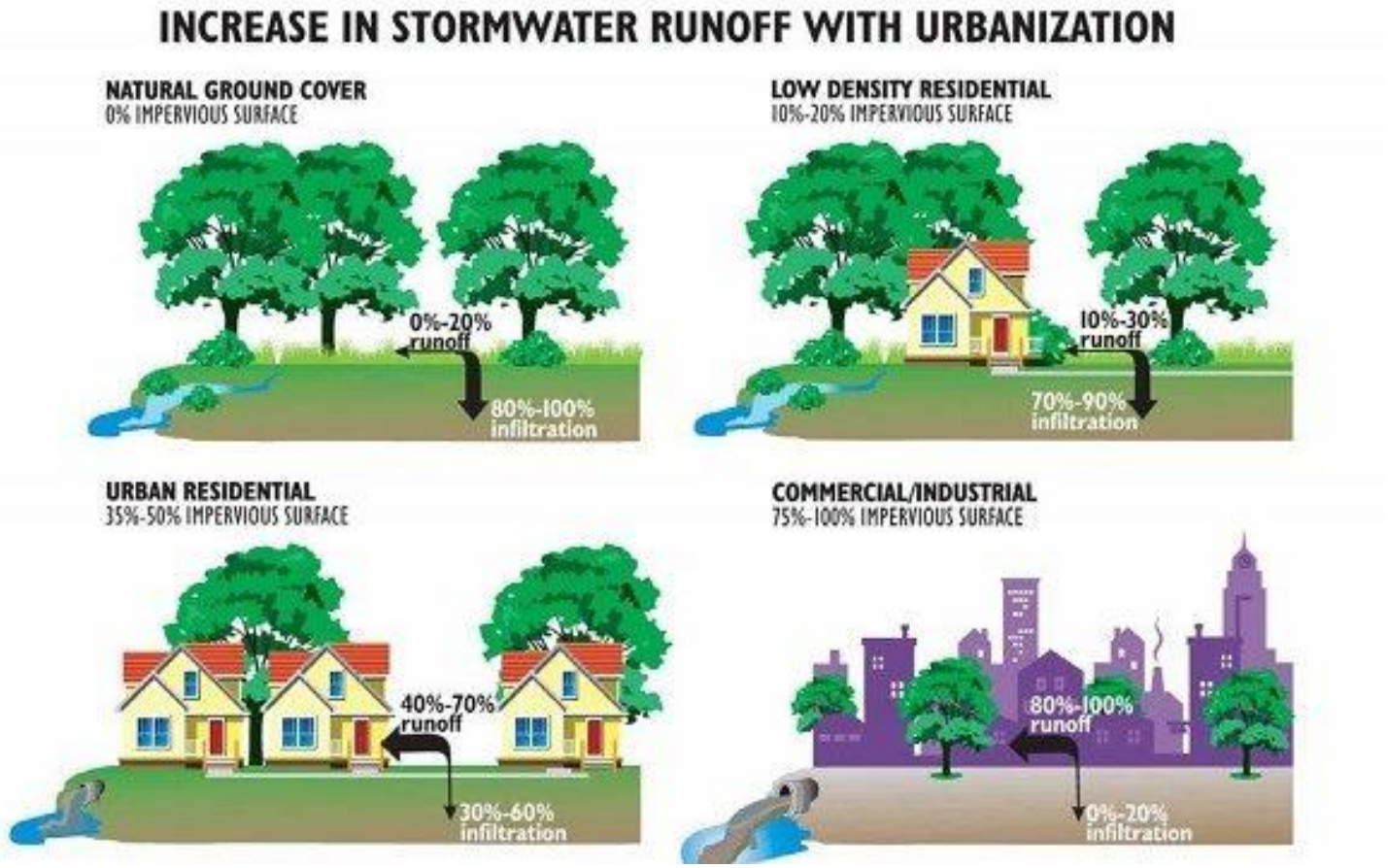
- Alternative Land Use (Primary)
  - Agricultural
  - Commercial
  - Manufacturing
  - Residential

} Primary Benefit is to create an alternative land use

HOW TO ACCOMPLISH ALTERNATIVE LAND USE

The creation of waterways designed to evacuate water from the area

IMPACT ON WATERWAYS BY LAND USE



Agriculture

- Up to 20% Runoff
- Increased nutrient runoff from fertilizer / Manure

Residential / Commercial

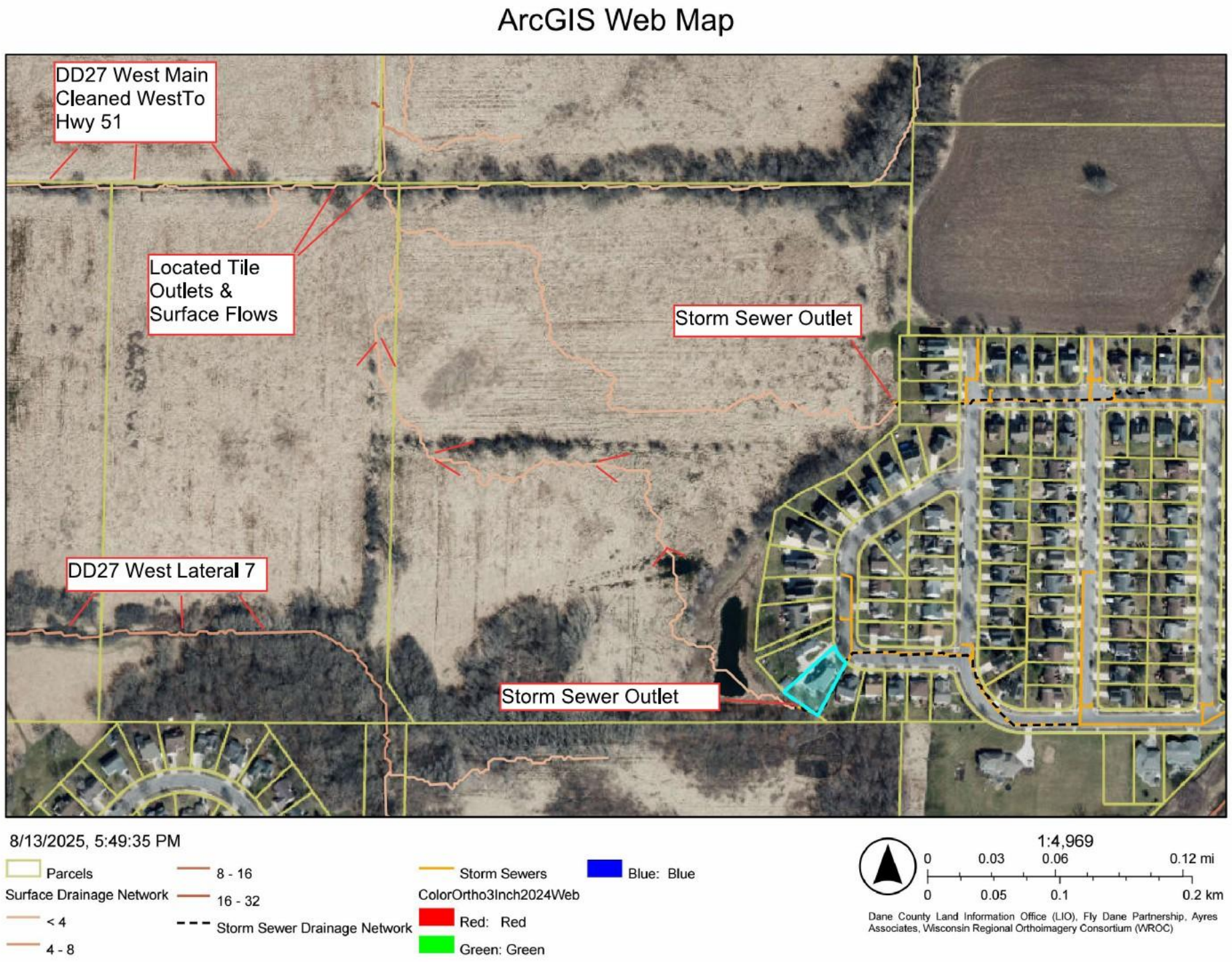
- Increase of impervious surfaces
  - 40% to 70% Runoff
  - Increase Flooding
  - Increase nutrient runoff (Fertilizer)

WHY NOT LEAVE IT TO THE INDIVIDUAL LAND OWNERS

RESPONSIBILITIES

The Drainage Board has a responsibility

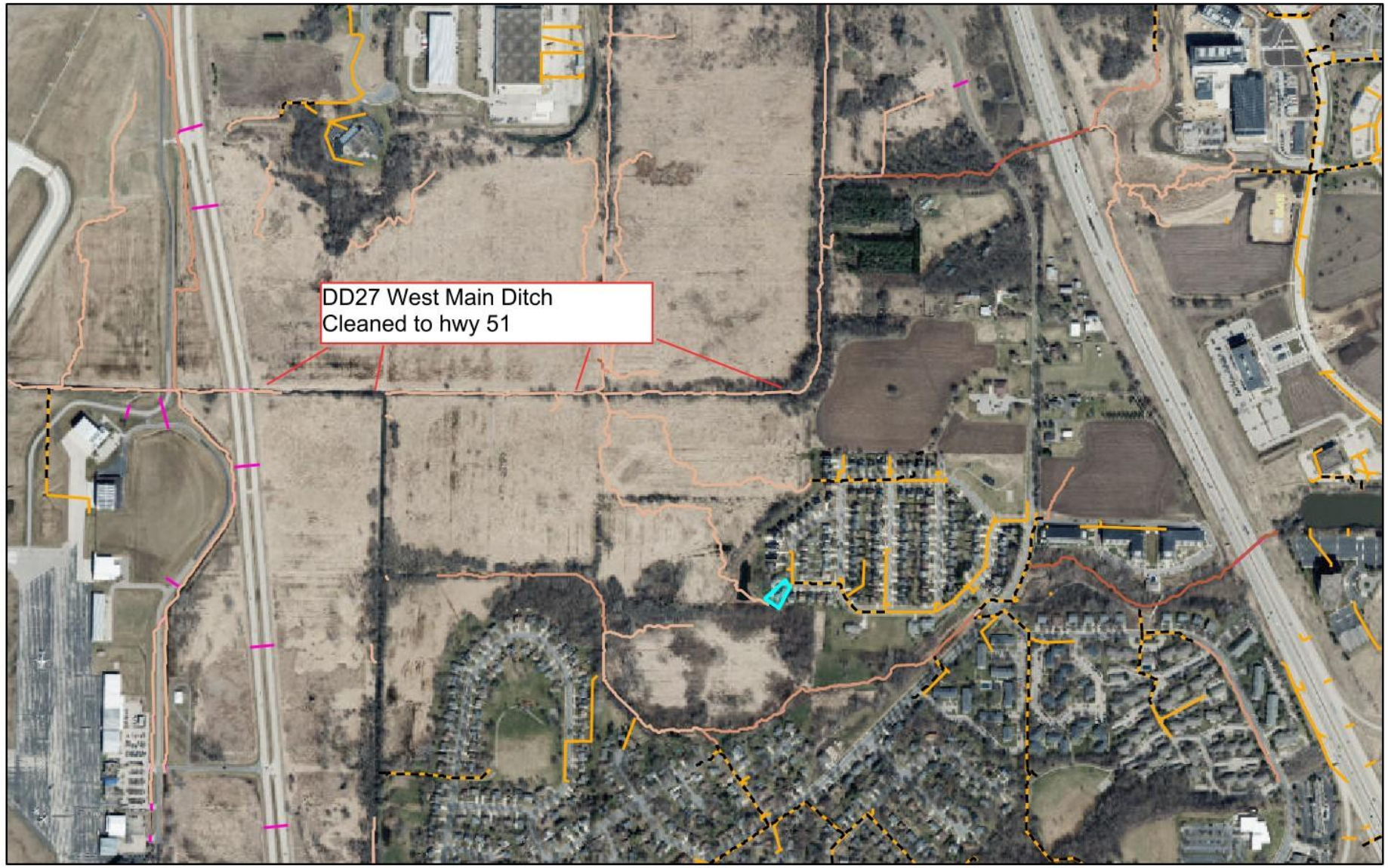
- Perform periodic inspections/maintenance / repair to ensure stormwater is exiting the area as designed for the whole district
- When it is determined that maintenance and repair work is required, an assessment is made to cover cost
    - Assessments are also made to cover the administrative expenses that a district has incurred.



Do Benefits Still Exist?

As seen in the image to the left, all storm water from the housing development makes its way directly into the Drainage District 27 waterway

ArcGIS Web Map



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Parcels

Surface Drainage Network

< 4

4 - 8

8 - 16

16 - 32

Storm Sewer Drainage Network

Culverts

Storm Sewers

ColorOrtho3Inch2024Web

Red: Red

Green: Green

Blue: Blue

1:13,804

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Dane County Land Information Office (LIO), Fly Dane Partnership, Ayres Associates, Wisconsin Regional Orthoimagery Consortium (WROC)

Retention Ponds

- Typically designed to capture average or less rainfall from a storm event. If the rain event is greater than average, retention ponds will overflow
- In the picture to the left, we can see clearly that the retention pond is still overflowing after a recent event

ASSESSMENTS

The Dane County Drainage Board worked with a University of Wisconsin Tenured Professor to develop the assessment model which has been in place for approximately 30 years. This is a combination of "Fixed" (Minimum) and "Soil/Water Assessment"

Fixed

- Commercial - $350
- Manufacturing $350
- Residential - $250

Soil / Water Assessment

- Agriculture – Formula
- Other – Formula
- Subject to $250 Minimum

LEGAL PRECEDENTS

COURT OF APPEALS
DECISION
DATED AND FILED

June 14, 2011

A. John Voelker
Acting Clerk of Court of Appeals

NOTICE

This opinion is subject to further editing. If published, the official version will appear in the bound volume of the Official Reports.

A party may file with the Supreme Court a petition to review an adverse decision by the Court of Appeals. *See* WIS. STAT. § 808.10 and RULE 809.62.

Appeal No. 2010AP2159 Cir. Ct. No. 2009CV1943

STATE OF WISCONSIN **IN COURT OF APPEALS**
DISTRICT III

VILLAGE OF LITTLE CHUTE,

PETITIONER-APPELLANT,

V.

OUTAGAMIE COUNTY DRAINAGE BOARD,

RESPONDENT-RESPONDENT.

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1. The courts have affirmed that if a parcel's stormwater enters into a Drainage District waterway, that parcel may be assessed
2. The courts have recognized that there is a difference between a storm sewer and a municipality charges fees to main that vs the assessments to maintain and repair a Drainage District
3. The courts have affirmed that an assessment process (Fixed and SW) such as employed by the Dane County Board is acceptable.
4. District 27 has been recognized as an 'Active' Drainage District by the State of Wisconsin (DATCP), Dane County and the City of Madison.

RESIDENTIAL / COMMERCIAL CONSIDERATION

Impervious Surfaces

- Increased runoff and flooding. Up to 70% of water will runoff compared to 20% for Ag Land. Water from roofs, driveway, streets and etc. does not infiltrate into the ground like it does for Ag Land.
- Water contamination (Motor Oil, lawn chemicals.
- Sedimentation and increased erosion away from the development

ASSEMENT MODEL

Parcel_No_txt	Owner	BillingStreetAddress	BillingCtyStZip	Municipality	Use_Code	Use_Code_Description
Xxx-xxx-xxx-xxx		2686 COUNTY HIGHWAY V	SUN PRAIRIE WI 53590	Town of Bristol	G1	Residential
Xxx-xxx-xxx-xxx		2146 BRISTOL RD	SUN PRAIRIE WI 53590	Town of Bristol	G4	Agriculture
Xxx-xxx-xxx-xxx		2146 BRISTOL RD	SUN PRAIRIE WI 53590	Town of Bristol	G4	Agriculture
Xxx-xxx-xxx-xxx		2643 COUNTY HIGHWAY V	SUN PRAIRIE WI 53590	Town of Bristol	G1	Residential
Xxx-xxx-xxx-xxx		7679 COUNTY HIGHWAY N	SUN PRAIRIE WI 53590	Town of Bristol	G2	Commercial
Xxx-xxx-xxx-xxx		W11007 RODNEY DR	LODI WI 53555	Town of Bristol	G4	Agriculture
Xxx-xxx-xxx-xxx		7653 COUNTY HIGHWAY N	SUN PRAIRIE WI 53590	Town of Bristol	G2	Commercial

UseCode	Classification	LandUseFactor	BaseLineBenefit
G1	Residential	Minimum (1)	1,000
G2	Commercial	Minimum (1)	1,000
G3	Manufacturing	Minimum (1)	1,000
G4	Agriculture	2	1,000
G5	Undeveloped	1.5	1,000
G5m	Agricultural Forest	1.5	1,000
G6	Productive Forest Lands	1.5	1,000
G7	Other	2	1,000

Step 1 – Data files arrive in an Excel format
Step 2 – Separate the data between ‘Fixed’ and ‘Soil & Water’ Method
Step 3 – Apply the fixed amounts appropriately to ‘G1’, ‘G2’, and ‘G3’.

The table to the left is a lookup table.

Parcel_Num_txt	Use_Codes	Use_Code_Classification	Total_Parcel_Acres	Acres_by_Percent	Soil Type
XXXX-XXX-8000-2	G4	Agriculture	40.2	0.44	Rockton silt loam, 2 to 6 percent slopes
XXXX-XXX-8000-2	G4	Agriculture	40.2	5.54	Sable silty clay loam, 0 to 2 percent slopes
XXXX-XXX-8000-2	G4	Agriculture	40.2	8.59	Elburn silt loam, 0 to 3 percent slopes
XXXX-XXX-8000-2	G4	Agriculture	40.2	0.12	Sable silty clay loam, 0 to 2 percent slopes
XXXX-XXX-8000-2	G4	Agriculture	40.2	18.90	Plano silt loam, till substratum, 2 to 6 percent slopes
XXXX-XXX-8000-2	G4	Agriculture	40.2	5.13	Plano silt loam, till substratum, 0 to 2 percent slopes
XXXX-XXX-8000-2	G4	Agriculture	40.2	1.48	Ringwood silt loam, 2 to 6 percent slopes

SoilName	DepthHighWater	WaterTableFactor	CropBuAC	YieldFactor
Adrian Muck	0-1	1	90	0.77
Alluvial Land Wet	0-1	1	120	0.77
Basco Silt Loam, 2 to 6 percent slopes, eroded	2-4	0.5	100	0.77
Basco Silt Loam, 6 to 12 percent slopes, eroded	2-4	0.5	90	0.77
Batavia Silt Loam, gravelly substratum 0-2% slopes	3-5	0.5	155	1
Batavia Silt Loam, gravelly substratum 2-6% slopes	>5	0	150	0.97
Batavia silt loam, gravelly substratum, 6 to 12 percent slopes, eroded	3-5	0.5	120	0.77

Each parcel which will be assessed using the Soil and Water method is broken down be soil types for that parcel

The base benefit factor is calculated as follows by soil type:

(Land Use Factor) x (Water Table Factor) x (Yield Factor) = Net Benefit by Soil Type

The final benefit units for a parcel is determined as follows:

(Net Benefit by Soil Type) x (Acres by soil type) x (LandUseFactor) = Total Benefit by Soil Type

Parcel_Num_txt (Saved)	Net_Factor	Net_Benefit_Unit
XXXX-XXX-8000-2	0	0.00
XXXX-XXX-8000-2	2	11081.05
XXXX-XXX-8000-2	1.41	12115.12
XXXX-XXX-8000-2	2	237.15
XXXX-XXX-8000-2	0	0.00
XXXX-XXX-8000-2	0	0.00
XXXX-XXX-8000-2	0	0.00
Total Benefit Unit		23,433.32

The total net benefit unit for this parcel is 23,433.32

This process is repeated for every parcel in the S&W method

All parcels following the S&W method is summed. This becomes the Total Benefit Units for this group.

Total Benefit Unit by Parcel / TOTAL BENEFIT UNIT = % of Assessment apportioned to Ag, Ag Forest and other subject also to a minimum.

Drainage District Assessment	$ 25,000.00
Residential	$ 5,750.00
Commercial	$ 4,550.00
Manufacturing	$ 350.00
Other	$ -
Agriculture	$ 14,350.00