# Bullerman Drain Improvements



Maplewood Downs – Maplewood Terrace

Public Meeting June 4<sup>th</sup> , 2024



#### Meeting Agenda



- City Utilities Stormwater Program
- Neighborhood Drainage History
- Drainage Issues
- Proposed Solution
- Schedule
- Question and Answers
- Small Group Discussion/Detailed Drawing Review



## **History of Stormwater Utility**



- Stormwater Utility established 1991
- NPDES Permit Phase II implementation 2004







# What does the Stormwater Utility do?



- Every property contributes to runoff
- Property Protection
- Water Quality Protection











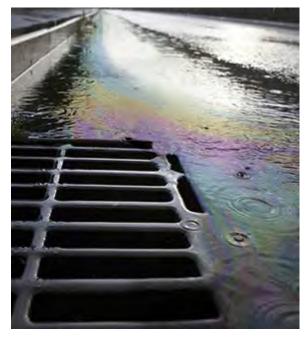
#### 2020 Stormwater System Size



- 691 miles of storm pipe
- 74 miles of major ditches
- 20,503 inlets
- 756 catch basins
- 10,489 storm manholes
- Detention facilities
- 92 sq. miles service area







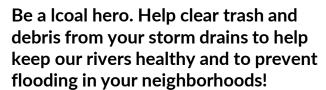


#### Clean Drains Fort Wayne 2025





#### **BE A STORM DRAINER!**



Register today and receive a FREE cleaning kit and t-shirts for you, family and friends!

ONLY RAIN IN THE DRAIN.

**CleanDrainsintheFort.org** 







#### CATCHING RAIN







Rain Gardens v

**Green Standards** 

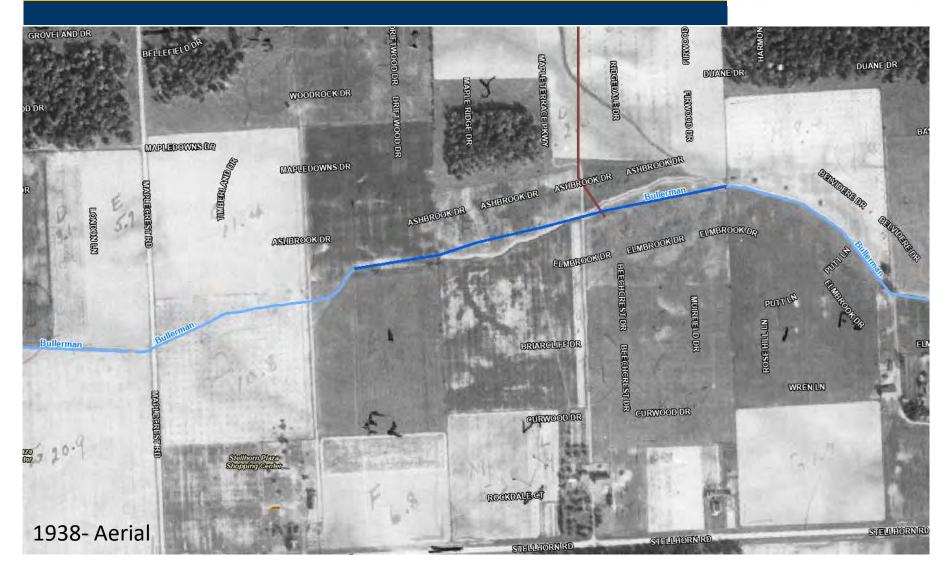
Homeowner Solutions >

#### CatchingRainFW.org

- -Build & register your rain garden
- -Rain Garden workshop classes
- -Learn stormwater management practices







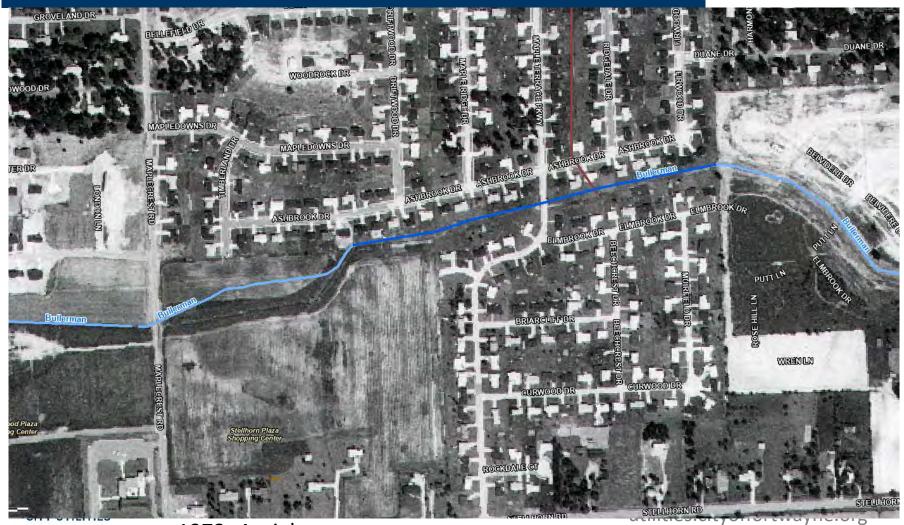












1972- Aerial





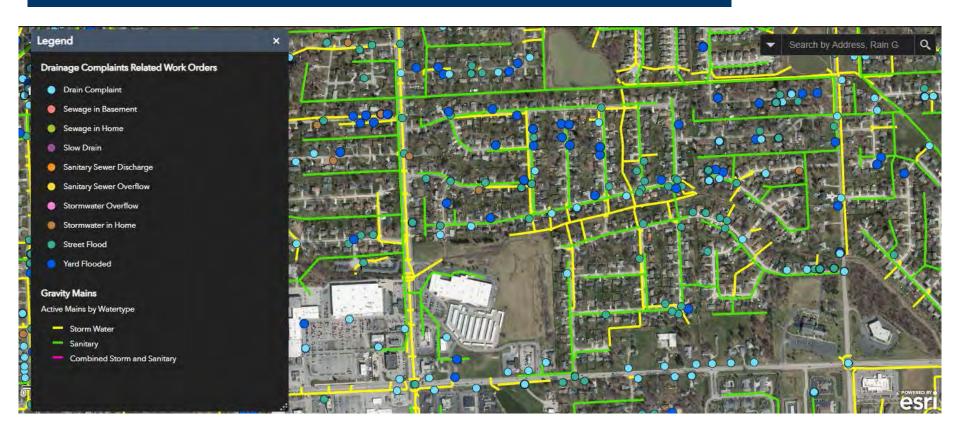
### Stormwater System Today





### **Drainage Complaints**







*Reminder* – Call 311 to report issues

## Drainage Issues



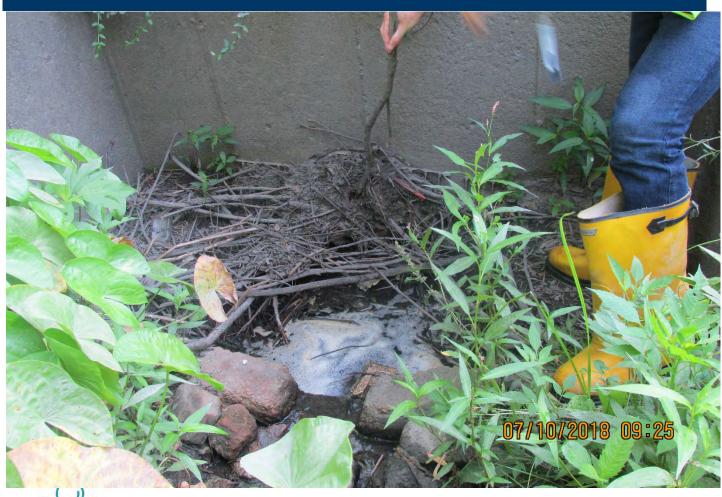






## Drainage Issues

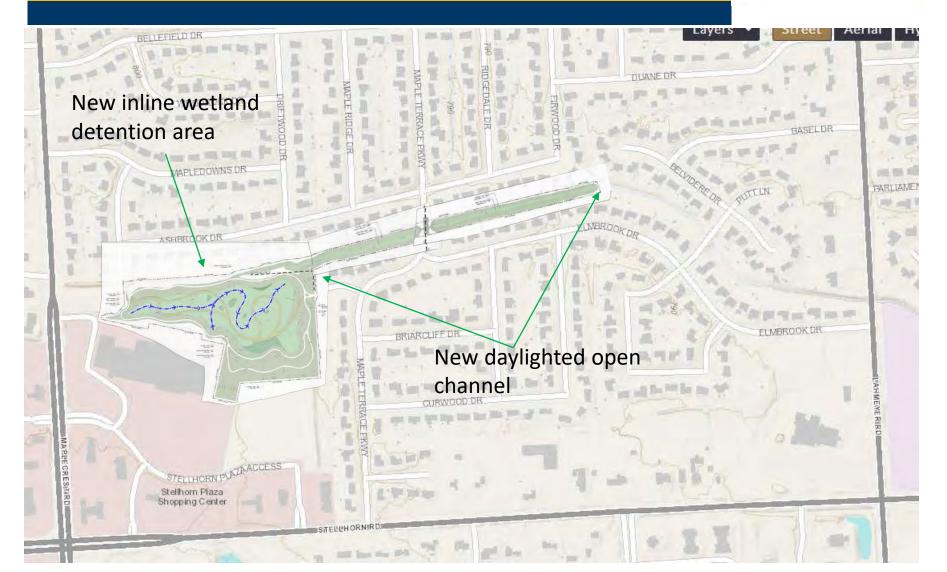






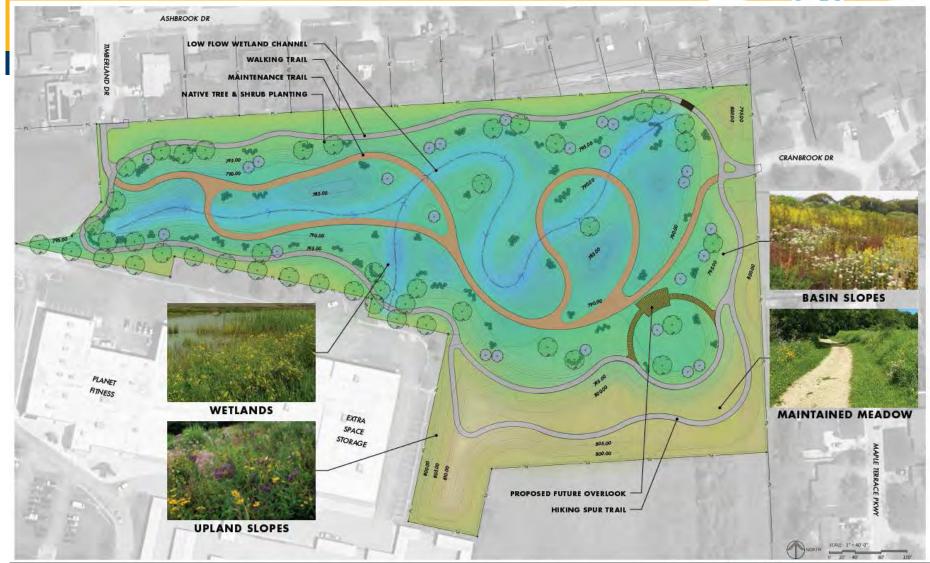
## **Proposed Solution**





#### In -Line Storage Wetland - Option A



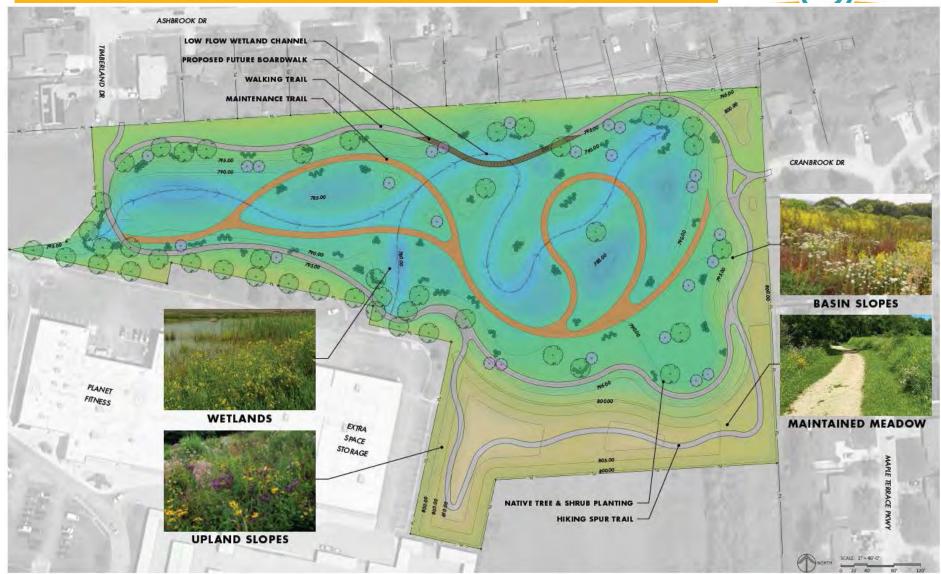






### In -Line Storage Wetland - Option B





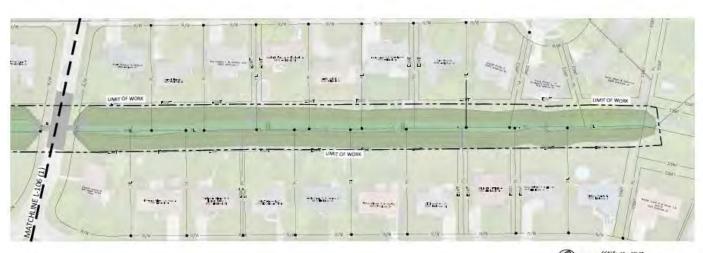




#### **Back Yard Work Limits**



DAYLIGHT CHANNEL WEST - SEEDING PLAN





SEEDING LEGEND

	LIMIT OF WORK			
	LOW FLOW CHANNEL	130		
	BASIC WETLAND SEED MIX			
	SHORE STABILIZATION SEED MIX			
	LIPLAND - SIDE SLOPE MIX			
XXXXXX	PLANT SPECIES CALLOUT & QUANTITY			

#### SEEDING NOTES:

- 1. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED WITHIN THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, ANSI Z-60.1.
- ANSI 2-60.1.
  ALL NEW PLANTS SHALL BE CONTAINER GROWN UNLESS.
  OTHERWISE NOTED ON THE PLANT LIST.
  THE GENERAL CONTRACTOR SHALL SUPPLY ALL NEW PLANT
  MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE
  PLANTING SHOWN ON THE DRAWINGS.
- ALL NEW PLANTS SHALL BE TAGGED AND APPROVED BY THE OWNER'S REPRESENTATIVE AT THE NURSERY PRIOR TO DIGGING OR DELIVERY TO THE SITE.
  THE GENERAL CONTRACTOR SHALL LOCATE AND VERIFY ALL
- EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER'S REPRESENTATIVE.
- NO TREES, SHRUBS, OR GROUNDCOVER SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING, TREES SHALL BEAR SHAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO PREVIOUS GRADE, SEE DECIDUOUS/EVERGREEN TREE PLANTING DETAIL.
  STAKE OR MARK LOCATION OF ALL PROPOSED PLANTING.
- FOR ADDROVAL BY THE OWNERS REDRESENTATIVE DRIVE. TO THE COMMENCEMENT OF PLANTING.
  ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY
- PROTECTED, PRUNED AND FERTILIZED PER THE SPECIFICATIONS.
  ALL LAWN AREAS DISTURBED BY CONSTRUCTION
- OPERATIONS INSIDE AND OUTSIDE THE LIMIT OF WORKSHALL RECEIVE FOUR INCHES (4") TOPSOIL AND SEED As SPECIFIED.
- 10. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, AND BRANCHING HABIT ONLY AS APPROVED BY OWNER'S REPRESENTATIVE.

  11. ALL AREAS TO BE SEEDED SHALL RECEIVE SOIL PREPARATION.
- AS SPECIFIED PRIOR TO SEEDING, UNLESS OTHERWISE NOTED ON PLAN.
- PREPARE ALL SHRUB BEDS WITH PLANTING SOIL TO A MINIMUM DEPTH OF 18" OR MATCHING THE DEPTH OF SOIL SHALL BE CONTINUOUS THROUGHOUT ENTIRE PLANT BED. SHRUB ROOT BALLS, WHICHEVER IS GREATER, PLANTING

DAYLIGHT CHANNEL EAST - SEEDING PLAN

#### **Back Yard Work Limits**





SYM8.	SOIL TYPE	STOCKPILED QUANTITY (CY)	EST. QUANTITY INSTALLED (CV)
	STOCKPILED WETLAND SOIL (SW)	965 CY	900 CY
	STOCKPILED TOPSOIL (ST)	3,572 CY	3,500 CY
111	STOCKPILED SUBSOIL (SS)	63,000 CY	25,000 CY
	STOCKPILED MAINTENANCE TRAIL SOIL (MT)		400 CY
	STOCKPILED DAYLIGHT CHANNEL SOILS (DC)	1,111 CY	1050 CY

#### PROPOSED SOILS NOTES:

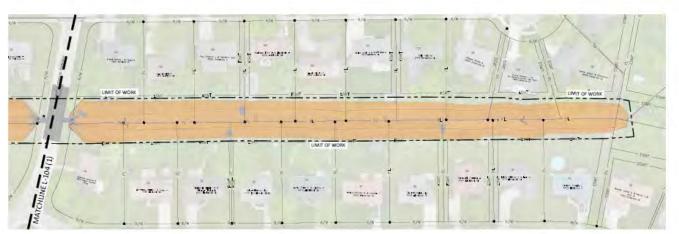
- PROPOSED SOILS PLAN ILLUSTRATES LOCATION FOR EACH TYPE OF STOCKPILED SOIL TO BE PLACED IN THE PROJECT
- AREA.

  STOCKNIED WETLAND SOIL (SW) SHALL BE PLACED AT 6"
  DPTH WITHIN BANKFULL LOCATIONS AND DEPRESSIONS
  SHOWN INTHE PLAN.

  STOCKNIED TOPSOIL (ST) SHALL BE PLACED AT 4" DEPTH
  ON BASIN PRIMITER SLOPES AS SHOWN.

  STOCKNIED SUBSOIL (SS) SHALL BE PLACED AT BERM
  LOCATIONS AS SHOWN, TRACE S
- PROPOSED SUBGRADE ELEVATION IS REACHED. COMPACT EACH LIFT PRIOR TO INSTALLING NEXT LIFT. BERM SUBGRADE ELEVATION SHALL BE 4" BELOW FINISHED

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DAYLIGHT CHANNEL EAST - PROPOSED SOILS PLAN 2) DATEN

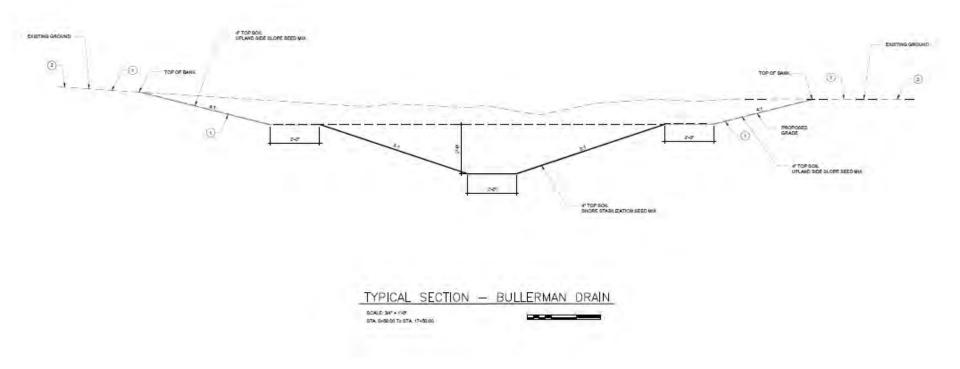
DAYLIGHT CHANNEL WEST - PROPOSED SOILS PLAN



SCALE: 1" - 40'-0"

#### Open Channel – Proposed Cross Section







# New Storm Outfalls from Neighborhood





Current example outfall from project area

Storm Outfalls from neighborhood drainage will look similar to this.





## **Example Construction Photos**





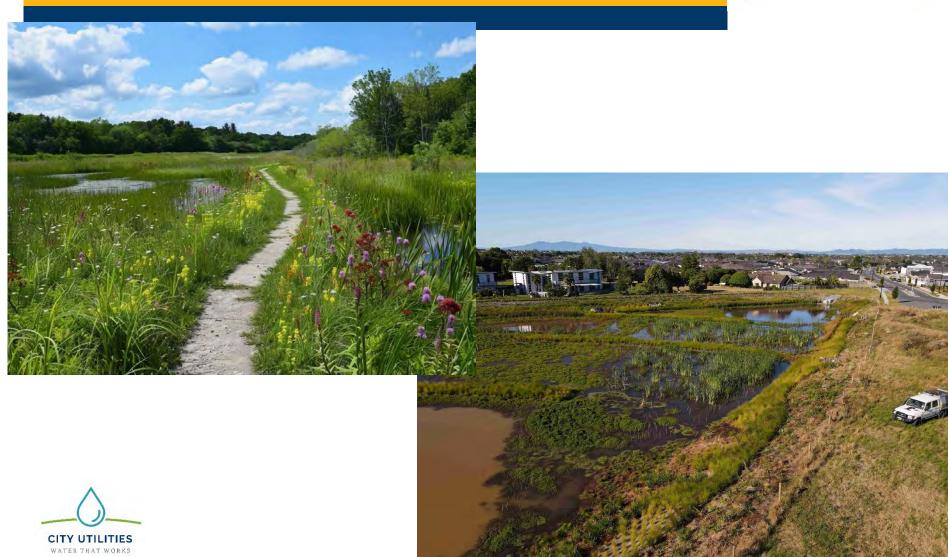






# Example Stormwater Wetland Pictures





# **Example Daylighted Channel**







ne.org

## **Example Stockpile Areas**



#### Lakeshore Park 'The Arch'

Knoxville, TN







## **Example Stockpile Areas**



#### Renaissance Park

Chattanooga, TN









#### Next Steps – Anticipated Schedule



- Complete Final Design, Permitting, and Utility Coordination
- Complete drain hydrologic modeling
- Drain Reconstruction hearing
- Anticipate bidding to start late summer/early fall

 Construction anticipated to start late fall and continue through Summer 2026

Project info will be on City Utilities Website (including this presentation after the meeting)

utilities.cityoffortwayne.org/bullerman





#### Questions



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