Minnesota Infrastructure Alliance

Welcome!

March 6, 2023

Today's Agenda

1. Introduction to the Minnesota Infrastructure Alliance
2. Presentations by infrastructure representatives
3. Q&A

Our asks:

- Sustainable state funding for infrastructure must be a priority
- Existing assets are a priority
- The State should work with local governments to identify needs

Who is the Minnesota Infrastructure Allaince?

Vision

Minnesota Infrastructure Alliance is a coalition of professional organizations striving to provide and maintain safe and sustainable infrastructure across Minnesota.

Goals and Audiences

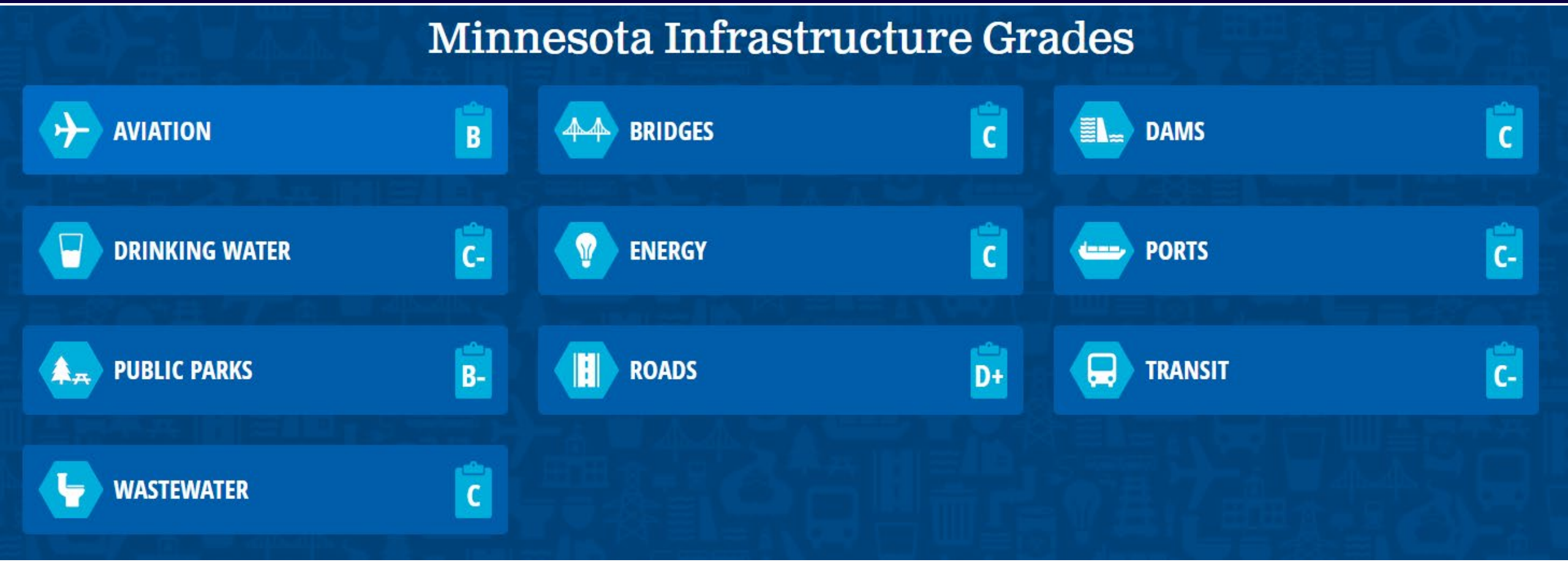
Increase public awareness

Enhance professional collaboration

Educate and Engage policy makers

MN 2050
Infrastructure planning, long term success

2022 MN ASCE Report Card



https://infrastructurereportcard.org/state-item/minnesota/

Local government representatives

- Mayor Dave Kleis, City of St. Cloud
- Brian Pogodzinski - Houston County
- Joe MacPherson - Anoka County
- Dan Schluender, City of Blaine
- Russ Matthys - City of Eagan

Thank you! Questions?

- Michelle Stockness – Barr Engineering, MN Infrastructure Alliance
- Mayor Dave Kleis, City of St. Cloud
- Brian Pogodzinski - Houston County
- Joe MacPherson - Anoka County
- Dan Schluender, City of Blaine
- Russ Matthys - City of Eagan

Association *of* Minnesota Counties

Road and Bridge Funding

House Capital Investing Committee
March 6, 2023

Minnesota County Engineers Association MCEA

AMC

- A voluntary association of Minnesota's 87 counties Since 1909
- The voice of county government in Minnesota
- An education, training, & research resource for counties and county officials

MCEA

- An association of the county highway engineers in the state of Minnesota. MCEA's membership includes county highway engineers from each of the 87 counties.
- MCEA is an affiliate of AMC

Association *of* Minnesota Counties

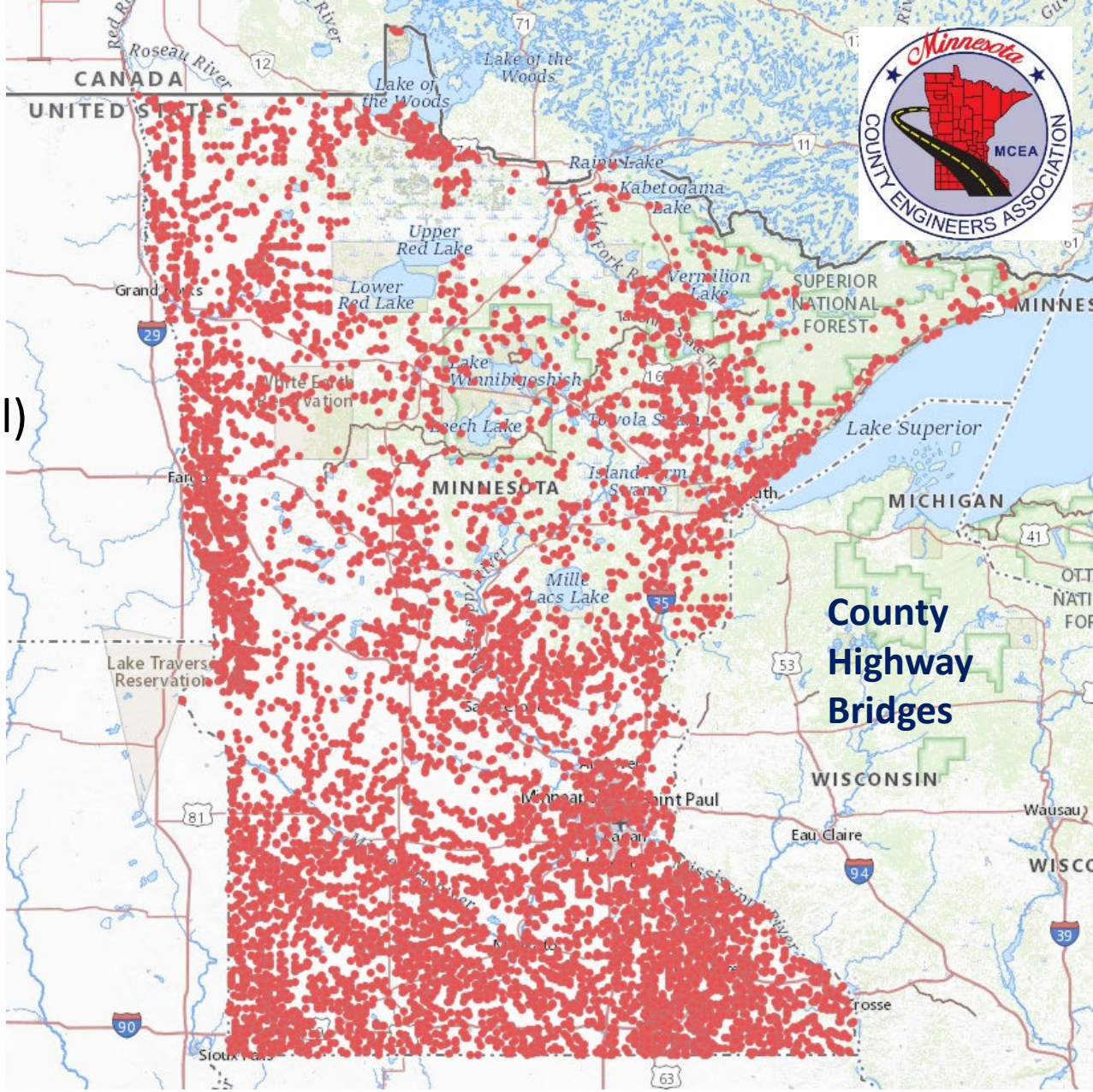
County Road and Bridges

44,526 Miles County Highways (31% of State Total)

- 30,671 County State Aid Highway (CSAH)
- 13,855 County Road (CR)

8,178 County Bridges (41% of State Total)

15,842 Local Bridges (80% of State Total)

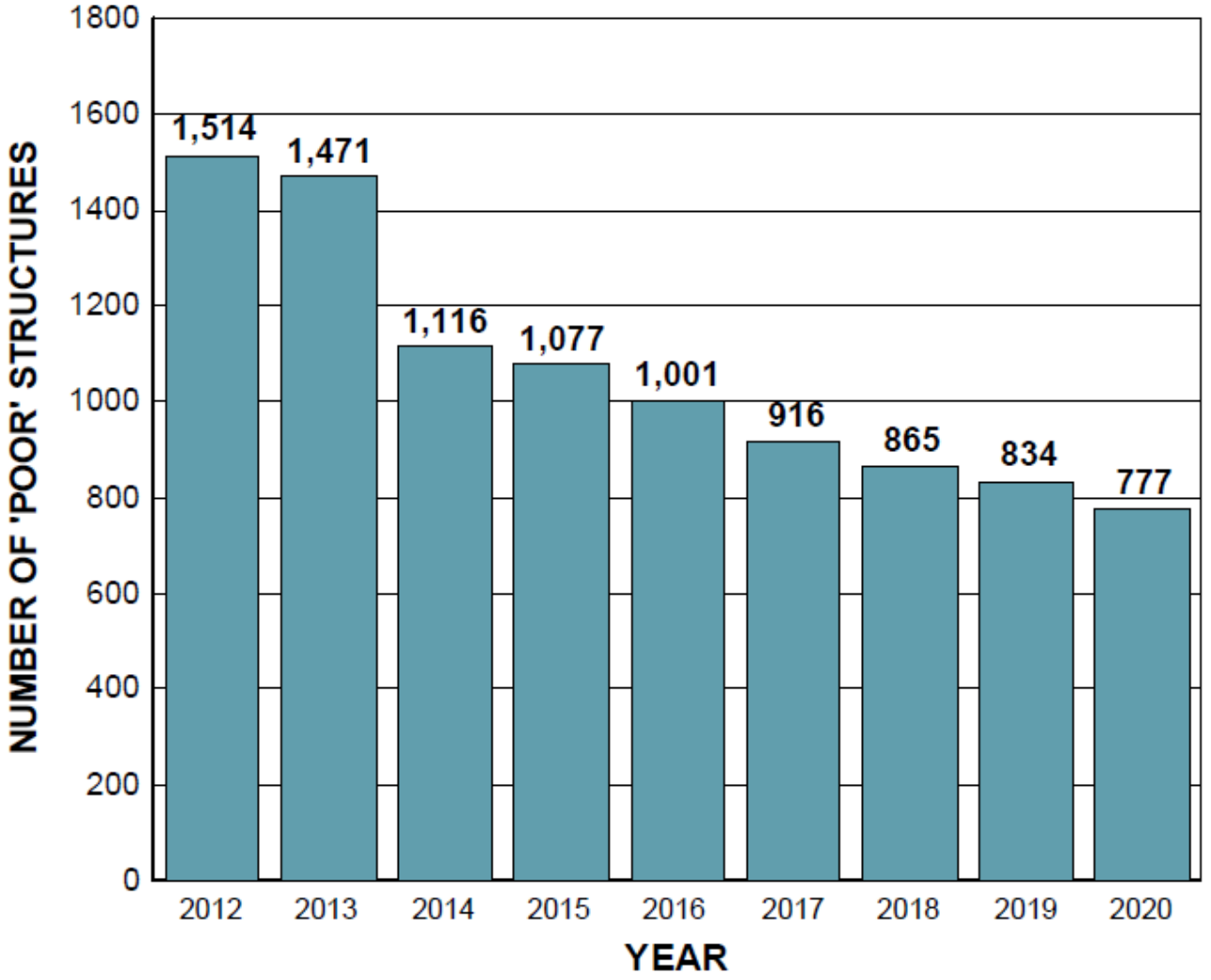


Traditional County Funding Sources

- Highway User Tax Distribution Fund (HUTDF) -> 29% of 95%
  - Fuel Tax, License Tab Fees, MVST, Sales Tax Auto Parts and Rentals, Misc.
- Wheelage Tax -> Up to $20/vehicle
- Local Option Sales Tax –> Up to ½ %
- Federal Funds -> Competitive through MPOs/ATPs -> IIJA
- State Bonding for Local Bridges (LBRP)
- State Bonding for Local Roads (LRIP)
- State Bonding for Local Road Wetland Replacement (LRWRP)
- County Levy
- County GO Bonds

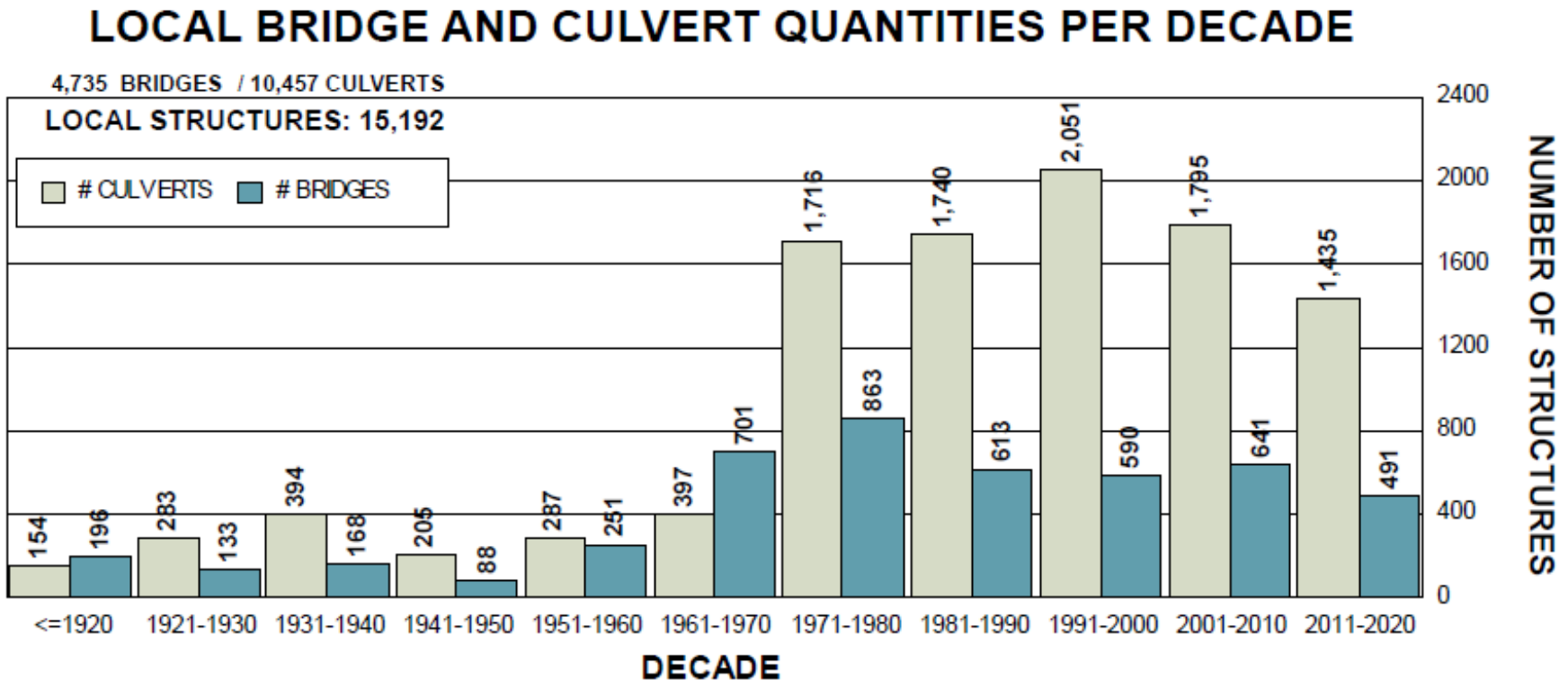
Local Bridge Replacement Program (LBRP)

- The number of bridges in ‘Poor’ condition across the state has improved over the last decade due to LBRP funds.
- One example is Houston County, which went from over 30% of their structures in ‘Poor’ condition in 2008 to 4% ‘Poor’ in 2023



Local Bridge Replacement Program (LBRP)

- 3,500 local structures that are over 50 years old
- An additional 2,500 are over 40 years old

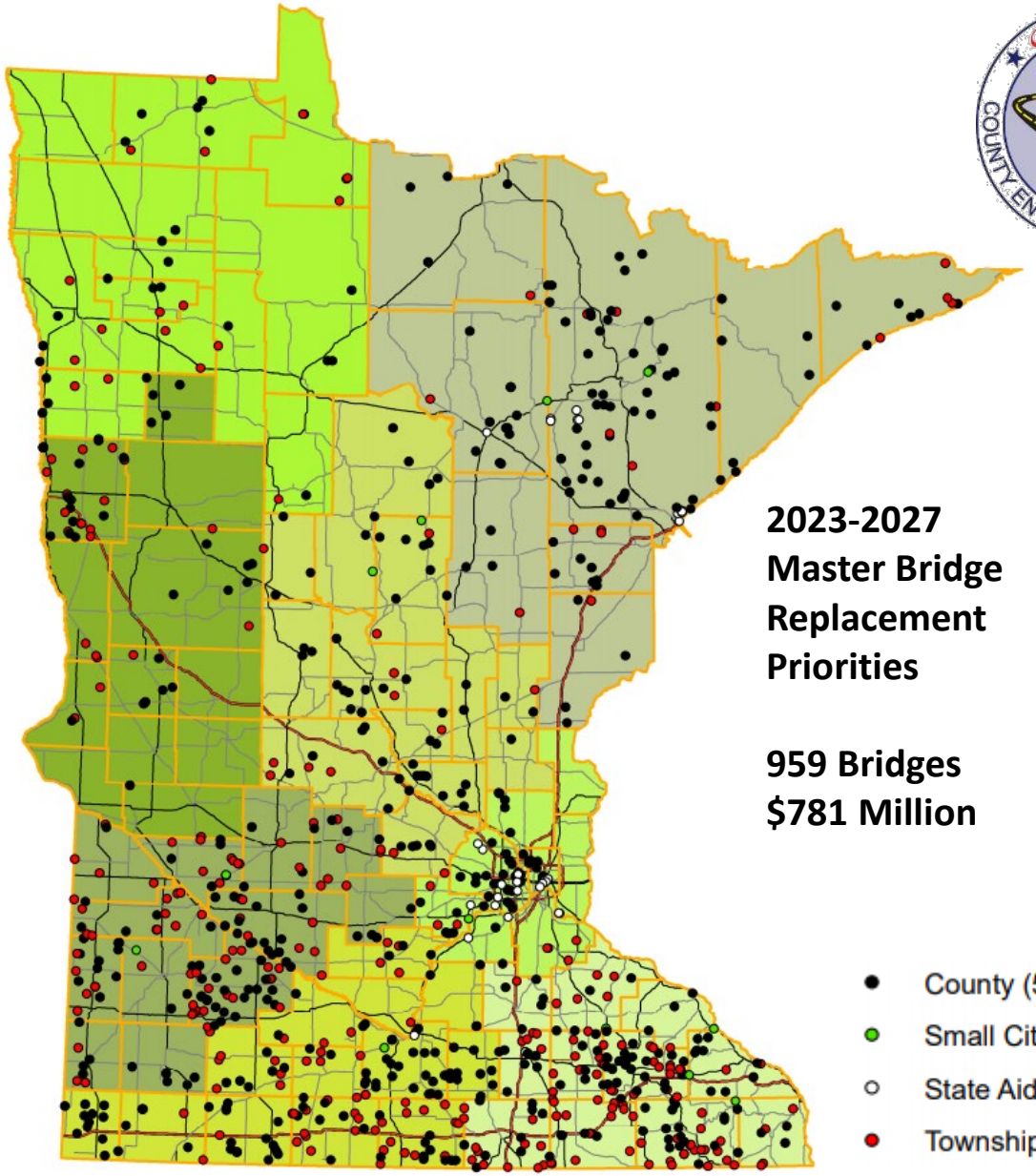


Local Bridge Replacement Program (LBRP)

The LBRP provides local agencies transportation funding for the reconstruction, rehabilitation and/or removal of bridges.

Master Bridge Priority List: a compilation of all eligible local bridge projects identified by local bridge owners as priority for replacement or rehabilitation within the next 5 years.

- 959 ($781M) on list, 586 ($462M) County
- **$289 M LBRP Needed**



Local Road Improvement Program (LRIP)

Grant program administered by Office of State Aid.

LRIP provides funding assistance to counties, cities, and townships for constructing or reconstructing local roads.

Projects are selected through a competitive solicitation process.

LRIP Advisory Committee provides recommendations as to which projects will be funded.

Awards are balanced by MnDOT District.

Year	Competitive LRIP		Earmarked LRIP	
	LRIP Funds (millions)	No. of Projects Funded	LRIP Funds (millions)	No. of Projects Funded
2014	$54.4	3	-	-
2015	$4.3	9	$9.3	3
2016	$0.0	n/a	-	-
2017*	$25.3	45	$90.6	11
2018*	$35.0	53	$75.4	16
2019	$0.0	n/a	-	-
2020*	$75.0	75	$109.9	23
2021*	$5.5	8	$30.9	10
2022	$0.0	n/a	-	-

*Competitive LRIP account is still open, so number of projects funded is subject to change

2020 Solicitation: 425 applicants requesting $344 Million.

Unfunded: $263.5 Million

Transportation Funding Needs

County Road and Bridge Needs
Estimated at $1.2 Billion Per Year

TFAC Report (2012)-Annual Funding Gap (Scenario 3):

- $450 Million CSAH
- $450 Million County Roads

CSAH Needs Study

2022 Construction Needs

- $20 Billion for 25 years (CSAH Only)
- Cost to replace system on 60-yr lifecycle.
- $800 Million per Year (+$360 M for County Rds)
- Available from HUTDF $422 Million, CSAH Only (60%)
- GAP $378 Million (CSAH) + ($250M for County Rds*)
- Assume $150 Million/Yr IIJA - > **Total Gap $478 Million/Yr**.

Recent inflation has grown this number

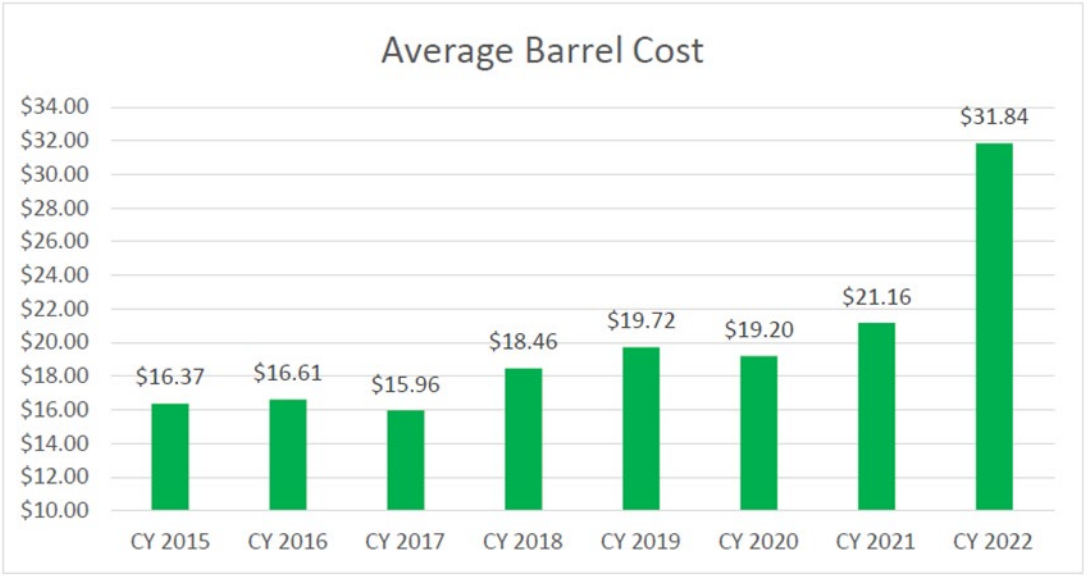
** Assumes County Roads get resurfaced only every 20yrs at $180k per mile. Paid with levy, wheelage tax, LOST*

Inflation Impact to Counties

- Bituminous Road Resurfacing (2-lane rural)
  - 36% increase in one year
  - $2.7 Million in HUTDF Funds go towards State-Aid Road Construction Allotment (Houston County)
    - At current price for road resurfacing -> Full Depth Reclamation and Paving on 7 miles per year
    - 200 miles paved system - > 29-year cycle
    - This does not include any additional funding needed for other improvements, such as:
      - Structural capacity for increased vehicle weights
      - Safety (Road widening, shoulder paving, flatten foreslopes, improving curves and intersections)
      - Improving drainage to protect the existing infrastructure from storm damage.

Inflation Impacts to Counties

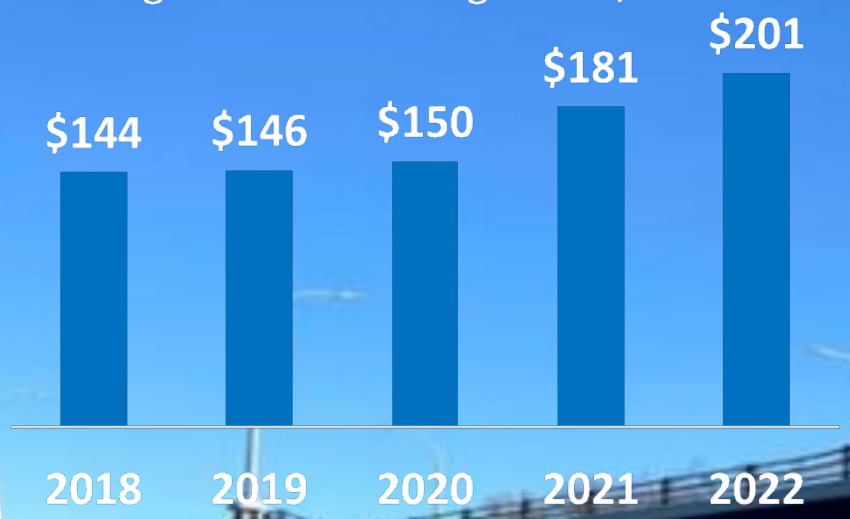
- Concrete Box Culverts
  - 50% increase in one year
  - Many old bridges are replaced with Concrete Box Culverts
  - 100 +/- installed each year



Avg Barrel Volume Cost: From MnDOT State Aid Bridge Office

Inflation Impacts to Counties

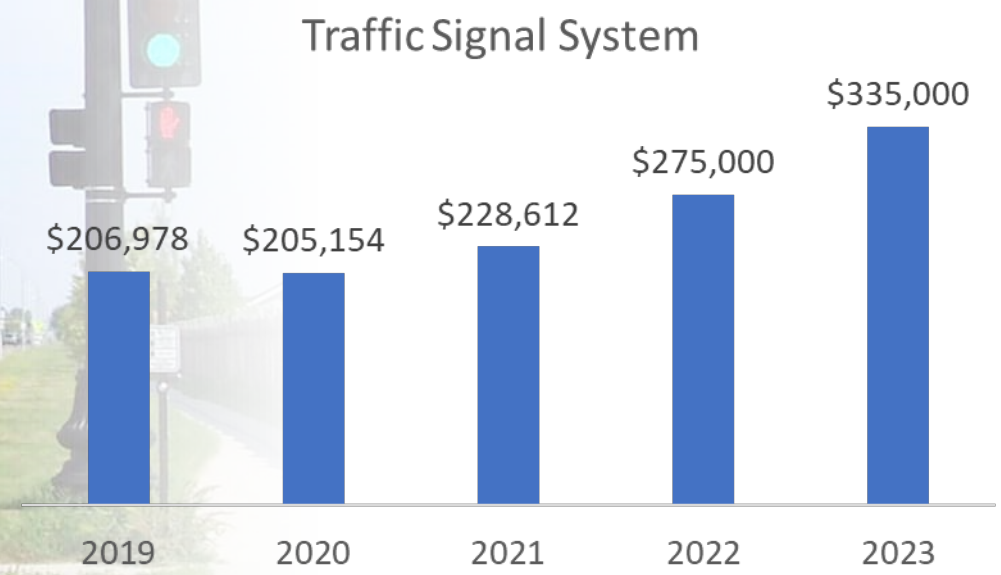
- Bridges
  - 25% Cost Increase in 2 years.
  - Locals build approximately 50 Bridges per year
  - 95% of County Bridges are Concrete
    - Prestressed Concrete Beams (PCB)
    - Cast-In-Place Concrete Slab (C-Slab)



Bridge 57526, CSAH8 over the Red Lake River, Thief River Falls, Pennington County

Inflation Impact to Counties

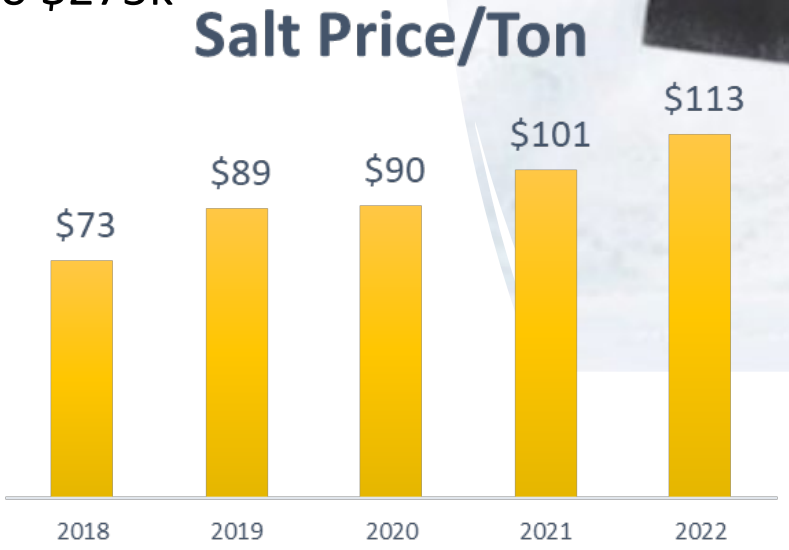
- Traffic Signal System
  - 31% Increase in 2 years.



Traffic Signal System Costs in Anoka County

Inflation Impact to Counties

- Equipment Up 25% from 2020
  - Tandem Snowplow $260k to $340k
  - Mid Size Wheel Loader $223k to $280k
  - Mid Size Excavator $232k to $275k
  - Skid Steer $54k to $74k
- Salt up 20% from 2020
  - $90/Ton to $113/Ton
  - Up 35% from 2018



Federal Funds IIJA

Roads, Bridges, Transit, Bike-Ped, Safety

- ~33% Increase from FAST-ACT
- Competitive Through ATPs/Met Council/MnDOT
- Metro -> $155 Million/Year
- GM -> $101 Million/Year
- Statewide -> $24 Million/Year

- **$30 Million+/-in Local Match** for County Road and Bridge Projects

FY2023 ATP & SALT STIP Targets

FY2023	ATP 1	ATP 2	ATP 3	ATP 4	ATP 6	ATP 7	ATP 8	Metro	Statewide	Total
ATP Managed STBGP	9,390,000	5,330,000	13,200,000	6,710,000	10,910,000	7,590,000	5,970,000	71,490,000		130,590,000
Other Adjustments								550,000		550,000
STBG (BROS)									6,200,000	6,200,000
STBG (On-Sys Bridge)**	570,000	330,000	810,000	410,000	670,000	460,000	360,000	4,360,000		7,970,000
BFP (Off-System)									11,510,000	11,510,000
Local NHS Pavement									4,200,000	4,200,000
TBI for Met Council	-	-	-	-	-	-	-	-		-
Local NHFP	-	-	1,250,000	-	1,100,000	-	-	-		2,350,000
STBGP-TA Setaside	1,870,000	1,060,000	2,630,000	1,340,000	2,180,000	1,510,000	1,190,000	14,260,000	2,220,000	28,260,000
Carbon Reduction (tbd)*	1,117,500	432,500	1,905,000	717,500	1,392,500	842,500	537,500	8,242,500		15,187,500
PROTECT (tbd)										-
HSIP (100% Oblig.)	2,120,000	1,010,000	4,390,000	1,720,000	2,900,000	1,780,000	1,420,000	14,310,000		29,650,000
Section 164 Penalty								4,800,000		4,800,000
CMAQ								31,590,000		31,590,000
Total	15,067,500	8,162,500	24,185,000	10,897,500	19,152,500	12,182,500	9,477,500	149,602,500	24,130,000	272,857,500

** Carbon Reduction Program distribution is for information purposes. The Climate Resiliency Workgroup reccommendatons have not been presented to TP&IC at this time.*

*** STBG (On-Sys Bridge) request to FHWA submitted on September 9, 2022*

Estimated Target (Final Targets in December 2022)

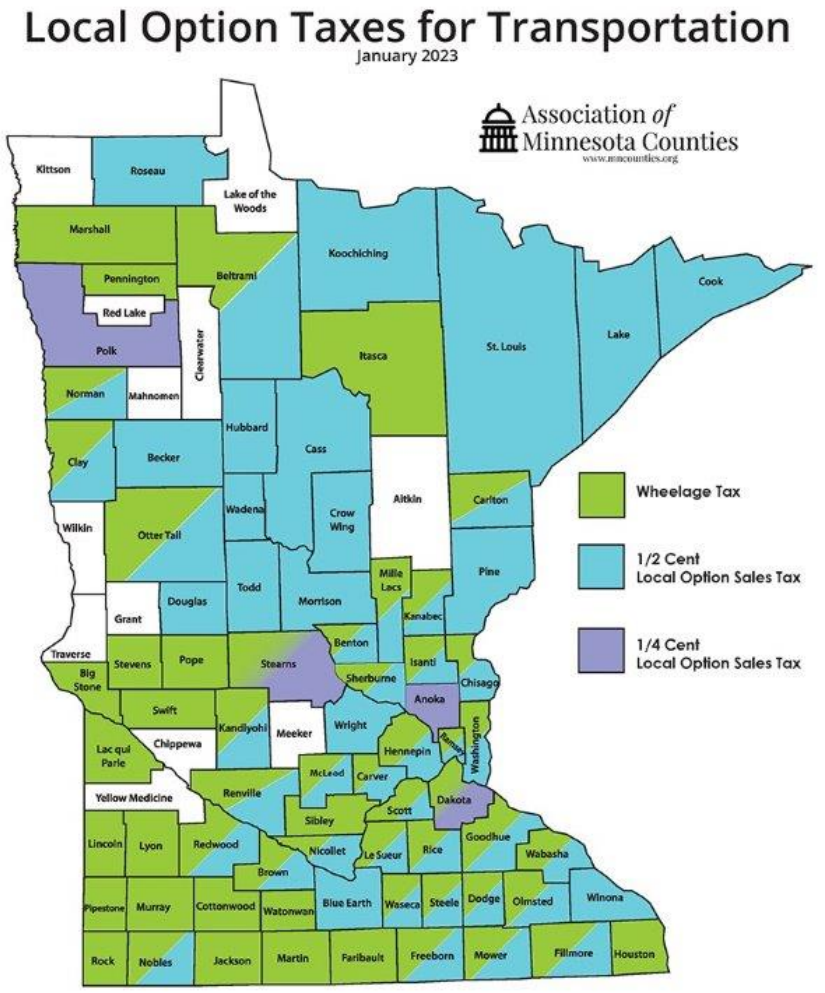
FY2024	ATP 1	ATP 2	ATP 3	ATP 4	ATP 6	ATP 7	ATP 8	Metro	Statewide	Total
ATP Managed STBGP	9,530,000	5,410,000	13,410,000	6,810,000	11,080,000	7,710,000	6,060,000	72,580,000		132,590,000
Other Adjustments										-
STBG (BROS)									6,200,000	6,200,000
STBG (On-Sys Bridge)	580,000	330,000	820,000	420,000	680,000	470,000	370,000	4,450,000		8,120,000
BFP (Off-System)									11,510,000	11,510,000
Local NHS Pavement									4,300,000	4,300,000
TBI for Met Council	-	-	-	-	-	-	-	733,000	-	733,000
Local NHFP	1,800,000	-	2,500,000	-	-	-	610,650	8,000,000	-	12,910,650
STBGP-TA Setaside	1,910,000	1,080,000	2,680,000	1,360,000	2,220,000	1,540,000	1,210,000	14,530,000	2,260,000	28,790,000
Carbon Reduction (tbd)*	1,127,500	442,500	1,955,000	727,500	1,412,500	852,500	547,500	8,342,500		15,407,500
PROTECT (tbd)										-
HSIP (100% Oblig.)	2,170,000	1,030,000	4,490,000	1,760,000	2,960,000	1,820,000	1,460,000	14,630,000		30,320,000
Section 164 Penalty								5,000,000		5,000,000
CMAQ								32,220,000		32,220,000
Total	17,117,500	8,292,500	25,855,000	11,077,500	18,352,500	12,392,500	10,258,150	160,485,500	24,270,000	288,101,150

Wheelage Tax & Local Option Sales Tax

Uses: Must be used on transportation projects

How Enacted: by County Board approval

75 counties have adopted either the Wheelage Tax, Local Option Sales Tax, or both



Transportation Funding Requests

- Increase Motor Fuel Tax, Registration Fees, MVST, Electric Vehicle Fees
- Dedicate 100% of Sales Tax on Auto Repair Parts to Transportation
- General Fund Appropriation to CSAH Fund for Revenue Loss and IIJA Local Match
- Bonding for Local Bridges (LBRP), Local Roads (LRIP)
- Bonding and Base Funding for Local Road Wetland Replacement Program (LRWRP)

Fuel Tax, License Fees, MVST, EV Fees

Increase Fuel Tax by 5c/G - > $160 Million ($32M/c)

- **CSAH Increase $44 Million**

Increase Tab Fees - > $175 Million in FY 24 (Gov. Proposal)

- **CSAH Increase $48 Million**

Increase MVST from 6.5% to 6.875% - > $30 Million in FY 24

- **CSAH Increase $8 Million**

Increase EV Fees ($75 to $150) or charge per KWH- > $3.3 Million?

- **CSAH Increase $1 Million**

New Retail Delivery Fee $0.40 to $0.50 per delivery -> $67-77 Million HUTDF

- **CSAH Increase $18 Million**

Sales Tax on Auto Repair Parts

Current law : $145.6 Million to HUTDF -> Approx. 45.5%

- $40 Million to CSAH

Request: All remaining revenue to Transportation - > +$174 Million (FY 23)

- 100% to HUTDF -> Increase of **$49.6 M to CSAH**

Alternative: New formula for all revenue -> $320 Million (FY 23)

- 45.5% to HUTDF (Same as current)
- 7% Small Cities -> $22.4M
- 7% Townships -> 22.4 M
- 25% Transit -> $80 M
- **10.25% CSAH -> $32.8 M**
- 5.25% MSAS - > $16.8 M

-> Trunk Highway Fund - no new money (current amount remains the same: $86M)

General Fund Appropriation to CSAH

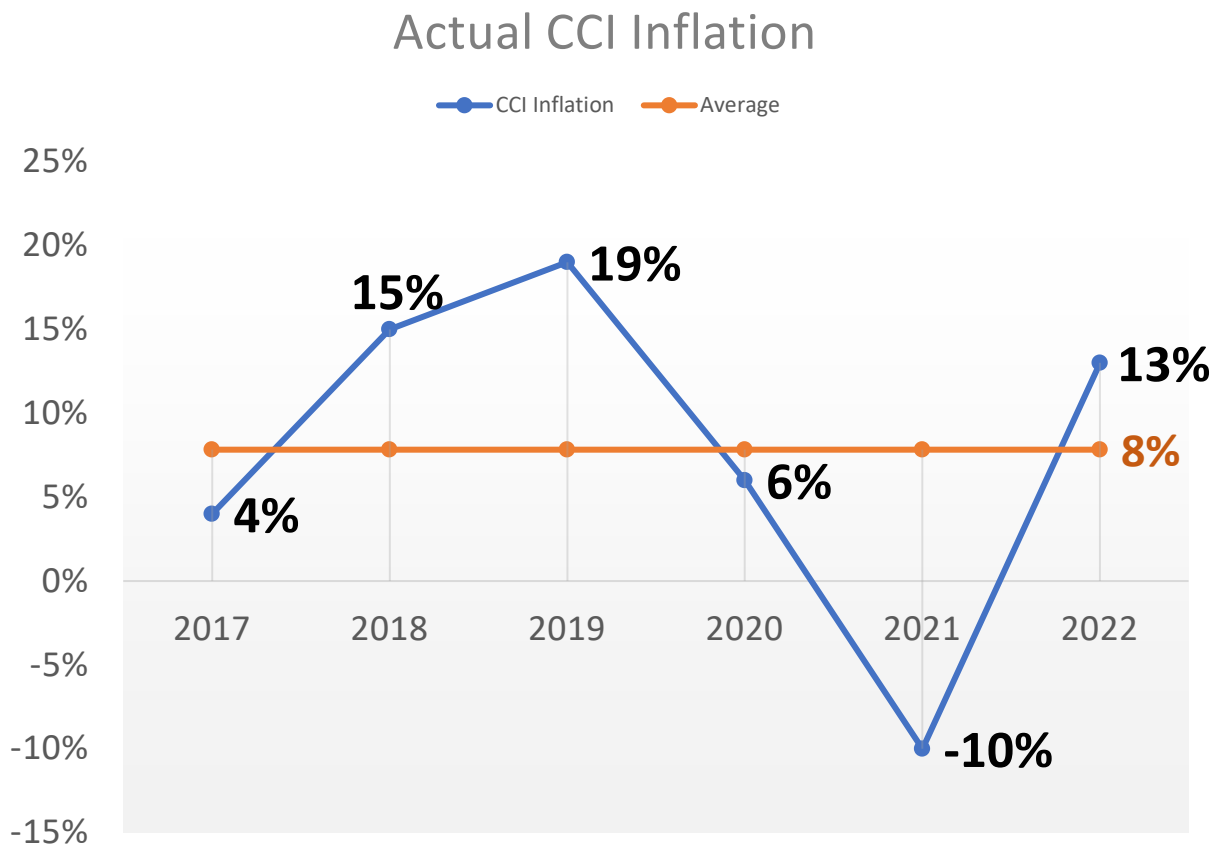
- 2022 CSAH Fund $703.6M
- 2023 CSAH Fund $686.1M

→ $17.5M less

Factor in inflation → $25.7M

- $1 in 2018 has $0.68 buying power in 2022

- CSAH Request $25.7 Million FY 23
- IIJA Local Match $30 Million/Yr. FY23-26



From MnDOT Construction Inflation Report Oct 2022

Base Funding for LRWRP

Annual General Fund Budget of $7 Million

Bonding

Local Bridge Replacement Program -> $200 Million

Local Road Improvement Program -> $200 Million

Local Road Wetland Replacement Program - > $17 Million

County Road and Bridge Funding Request Summary

- 20% minimum increase from sustainable user-based fees to CSAH fund - > $140 million per year
- One time GF appropriation to CSAH for revenue reduction, inflation - > $25.7 million
- GF appropriation for IIJA local match - > $30 million per year 2023-2026
- Local Bridge Replacement Program - > $200 million bonds
- Local Road Improvement Program - > $200 million bonds
- Local Road Wetland Replacement Program - > $17 million bonds + $7 million annual base funding.

Thank-you

THRIVE ON 65 COMMERCE + COMMUNITY

Minnesota State Highway 65 Improvements Project

Updated: 12/7/2022

BlaineMN Live | Work | Grow · Anoka County MINNESOTA · DEPARTMENT OF TRANSPORTATION

Project Information

The City of Blaine, Anoka County, and MnDOT are improving Trunk Highway (TH) 65 from 97th Ave. NE to 119TH Ave. NE in Blaine. **TH 65 is a vital link to the Twin Cities urban core for commuters, businesses, freight traffic, and visitors.**

The project is currently in the preliminary design phase. The team has selected a preferred alternative concept based on community input and is refining design details and evaluating environmental impacts. This design came from the final PEL Study for this corridor (see Section 2).

TH 65 will be converted to a freeway type highway with grade-separated interchanges (at 99th Ave., 105th Ave., 109th Ave., and 117th Ave./Cloud Dr. intersections). Existing local street/driveway connections to TH 65 will be rerouted using frontage and backage roads. This project will improve safety and travel time, and reduce crashes along TH 65.

Corridor-Wide Issues

Vehicle Safety: Fatal and severe injury crash rates on segments of Highway 65 are ***8 times higher*** than the state average.

Vehicle Congestion: Congestion may ***nearly double*** during peak hour travel times from ***24 minutes to 40 minutes*** from south of County Road 10 to Bunker Lake Blvd by 2045.

Walking/Biking: Highway 65 is difficult to travel on or cross for people walking and biking.

Project Benefits

- REDUCE CRASHES
- REDUCE HWY 65 TRAVEL TIME
- REDUCE CROSSING TIME *From 10 to 3 min.*
- IMPROVE BICYCLING & WALKING CONDITIONS

Section 2 – Project Finances (97th Ave to 119th Ave)

Total Cost: $163,000,000

An investment in Highway 65 is an investment in the region's goals to advance commerce and better connect people to places they need to go. ***We are seeking your support in funding these vital Highway 65 improvements*** that support regional growth now and into the future.

INVESTMENT REQUEST: **$130,000,000**

20.2% SECURED: $33,000,000

Section 2 – Preferred Alternative (97th Ave to 119th Ave)

99th Avenue Overpass and Other Improvements (97th Ave to 103rd Way)

INVESTMENT REQUEST: **$25M**

TOTAL COST: $43.5M

SECURED: $18.5M via

105/109th Avenue Overpass and Other Improvements (103rd Way to 113th Ave)

INVESTMENT REQUEST: **$75M**

TOTAL COST: $89M

SECURED: $14M via

117th Avenue Overpass and Other Improvements (113th Ave to 119th Ave)

INVESTMENT REQUEST: **$30M**

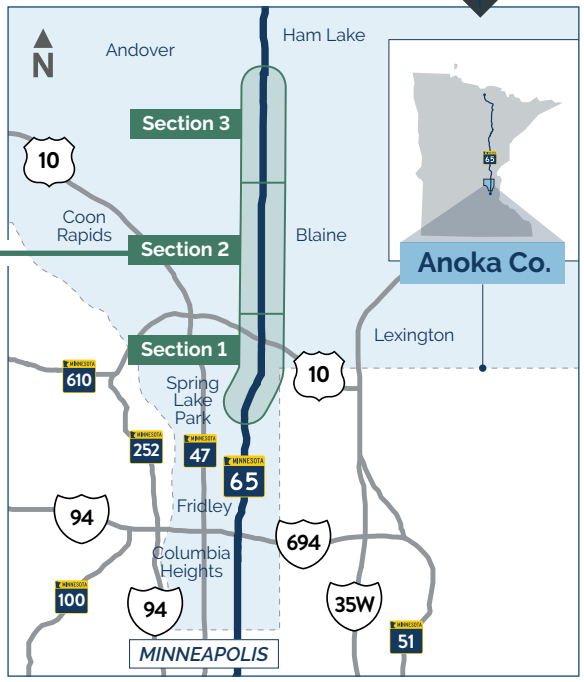
TOTAL COST: $30.5M

SECURED: $0.5M via

Section 2 length: 3.0 miles
Section 2 limits: 97th Ave–119th Ave
Anticipated construction: Summer 2025

FUNDING SOURCES AND TYPES — State Bonding · Local Road Improvement Program · Regional Solicitation

A **Planning and Environmental Linkages (PEL) Study**, completed in 2021, identified and developed three concepts for further analysis along Highway 65 between Spring Lake Park and Ham Lake.



Project Contacts

Jerry Auge, PE • Assistant Anoka County Engineer
(763) 324-3103 | jerry.auge@co.anoka.mn.us

Dan Schluender, PE • City of Blaine Engineer
(763) 785-6158 | dschluender@blainemn.gov

Melissa Barnes, PE • MnDOT North Area Manager
(612) 499-8729 | melissa.barnes@state.mn.us

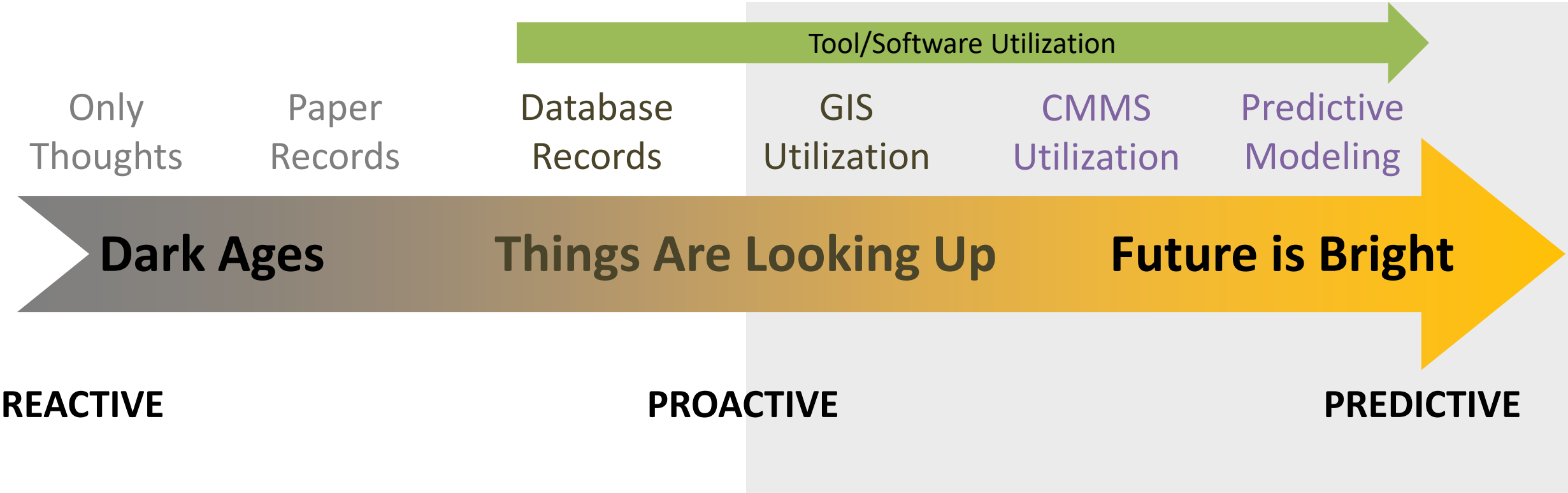
EAGAN

Municipal Infrastructure Needs Analysis

Presented by: Russ Matthys, PE, Public Works Director, City of Eagan

ASSET MANAGEMENT IS NOT NEW

Every Utility/Transportation Agency Practices Asset Management



1 Key Drivers for Study

- **How can we continue to maintain the current level of service to our residents/constituents in the future?**

- **Challenges**
  - Infrastructure is aging
  - Current R&R approach is spending down reserves
  - Future cost/investment needs will exceed currently planned funding
  - Increased precipitation causing an increase in infrastructure needs
  - Replacement costs are exceeding inflation rates

1 Goal of Study (Phase 1)

- **Primary:** Analyze long-term (50-years) infrastructure rehabilitation and replacement (R&R) needs to understand financial needs required to maintain our current level of service
  - System-wide and holistic analysis
  - Consider risk (consequences and likelihoods of failure)
  - Staffing and equipment considerations

- **Secondary:** Develop planning tools and models for on-going R&R needs analysis

BEGIN WITH THE END IN MIND

ASSET PRIORITIZATION PLANNING

ASSET B
Adequate Pressure
Adequate Fire Flow

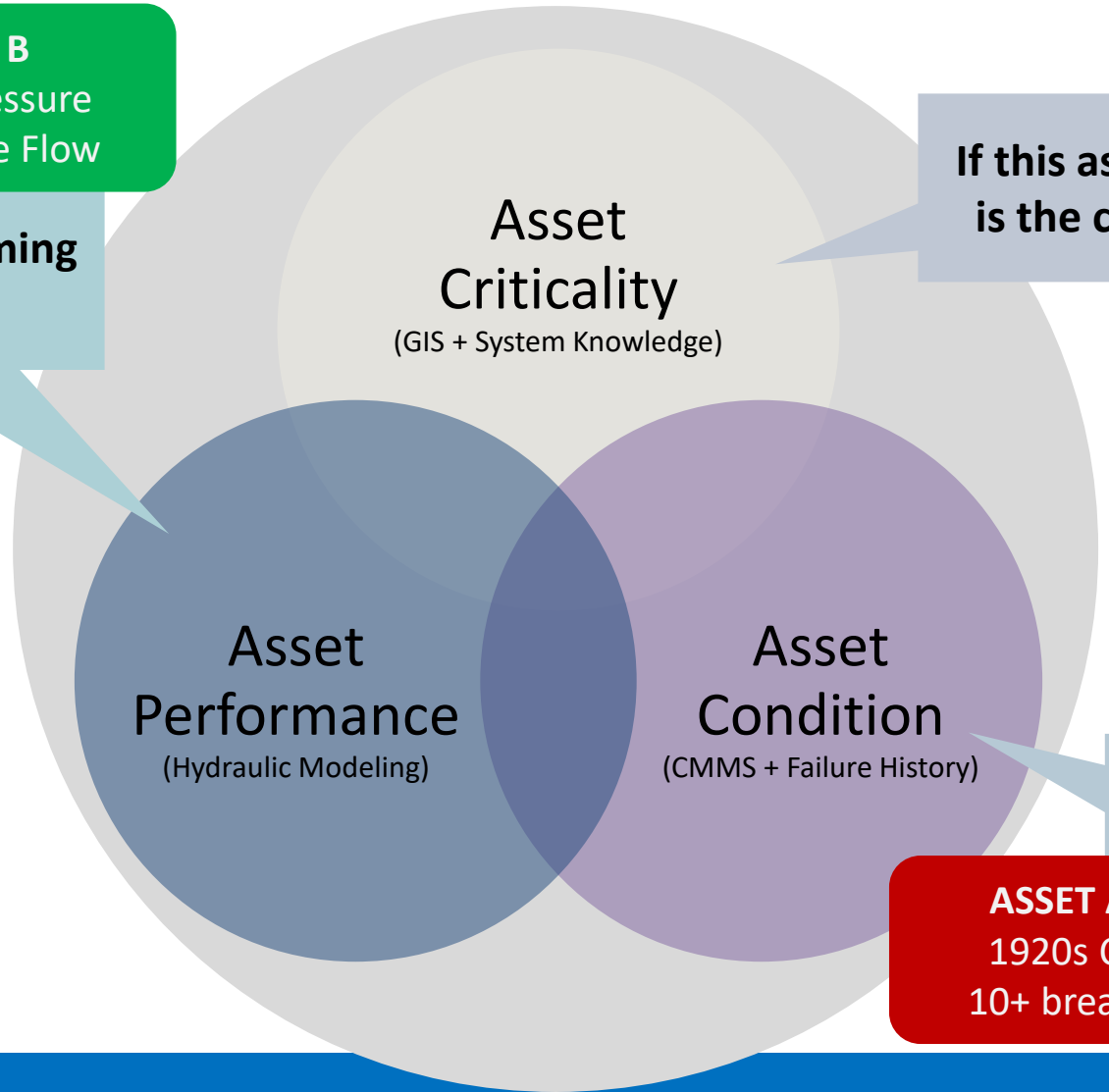
Is this asset performing as intended?

ASSET A
High Pressure
Inadequate Fire Flow

ASSET B
Provides Service to 4 Homes
0 Critical Facilities
Fully Redundant

If this asset fails, what is the consequence?

ASSET A
Provides Service to ½ the City
100+ Critical Facilities
Not Redundant



Imagine 5,000+ assets in one system type – **how can agencies comprehensively and effectively assess their infrastructure?**

ASSET B
2000s PVC
0 breaks

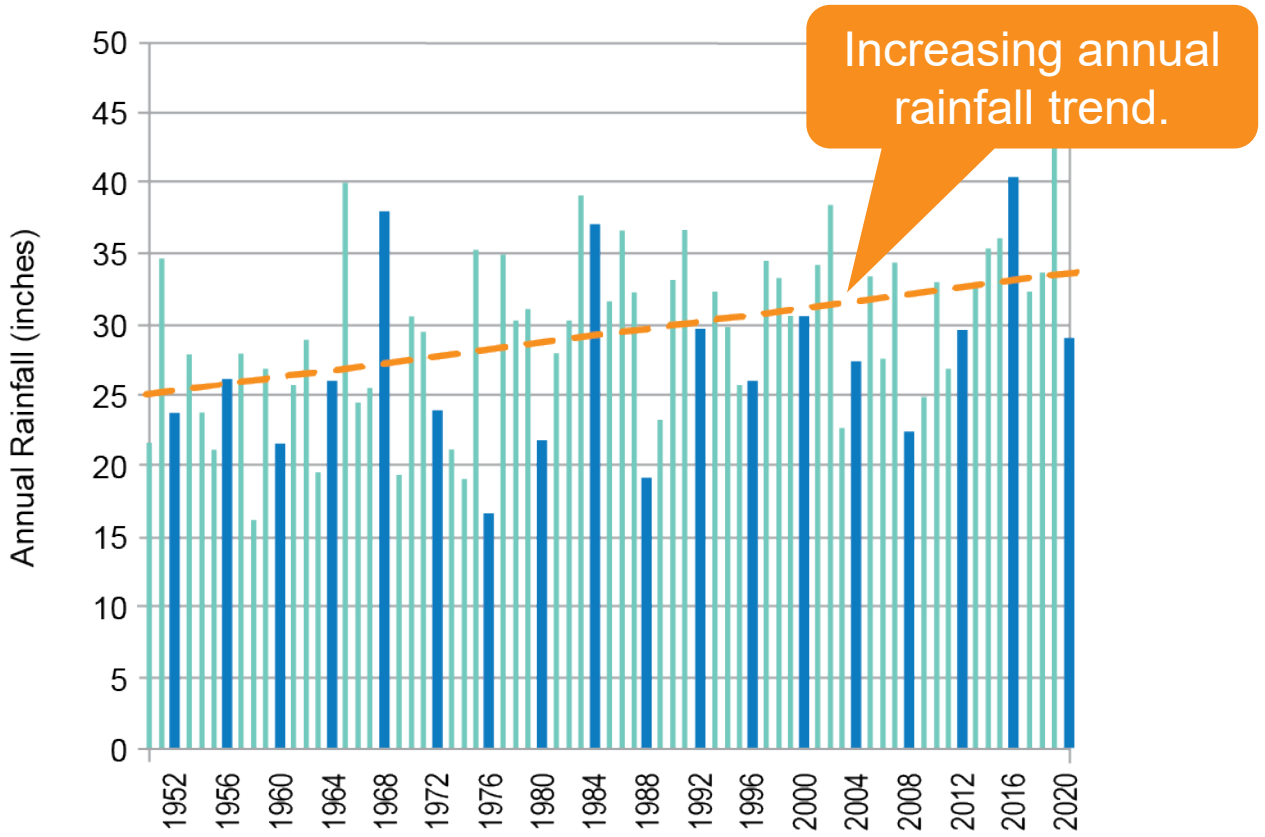
What's the condition of this asset?

ASSET A
1920s CI
10+ breaks

2 Stormwater & SWQ Utility Overview

- **Current Infrastructure Requiring R&R Planning:**
  - 21 lift stations
  - 234 miles of collection system
  - Numerous storage ponds and BMPs (for improving water quality)
  - Maintenance equipment including sweepers and weed harvesters
- **Key Issues:**
  - Increased rainfall by 25%
  - Evolving MS4 requirements (discharge permit)
  - Changing regulations

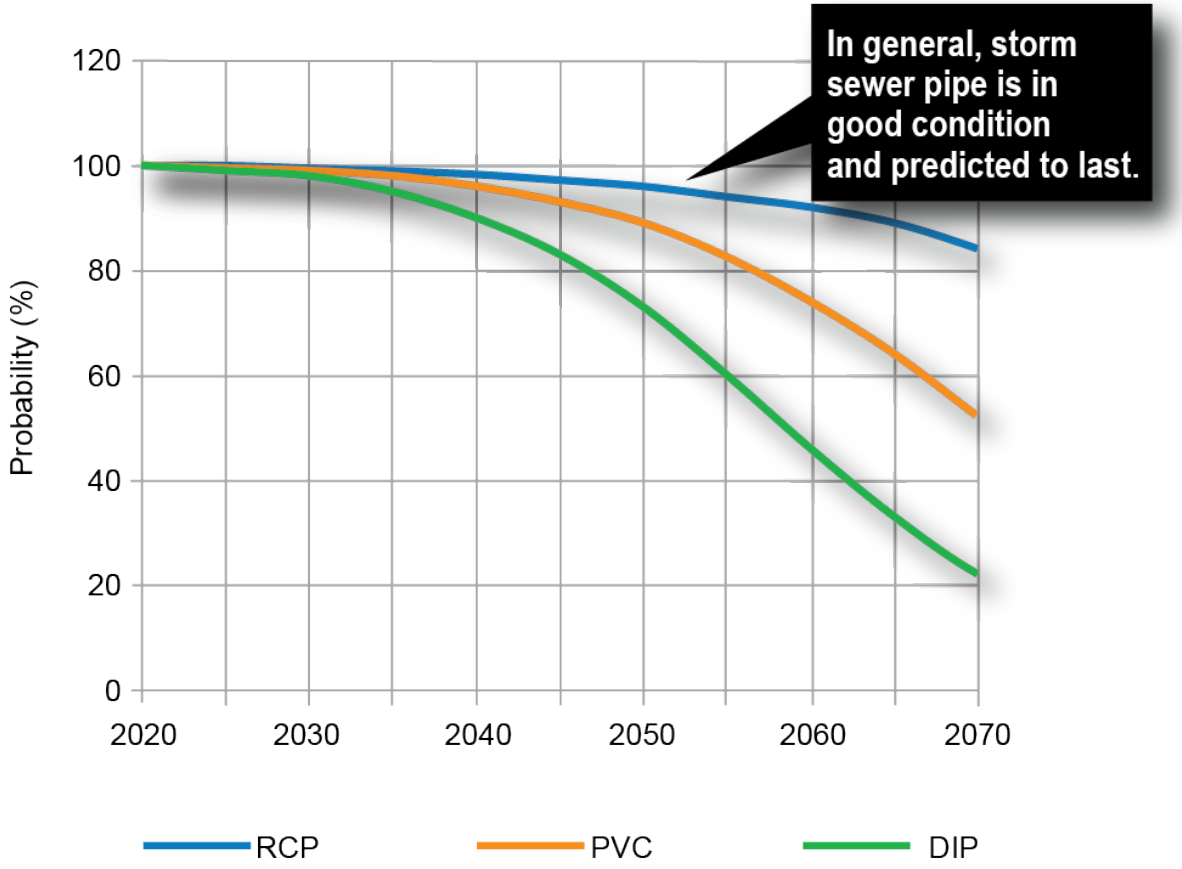
Annual Rainfall Trends
(Statewide for MN)



2 Stormwater R&R Plan (Part 1)

- **Plan for pipeline lining and replacement based on failure risk**
  - Failure probability based on material and age
  - Other key risk criteria include:
    - Service history
    - Pipeline performance
    - Pond performance
    - Flood risk to properties

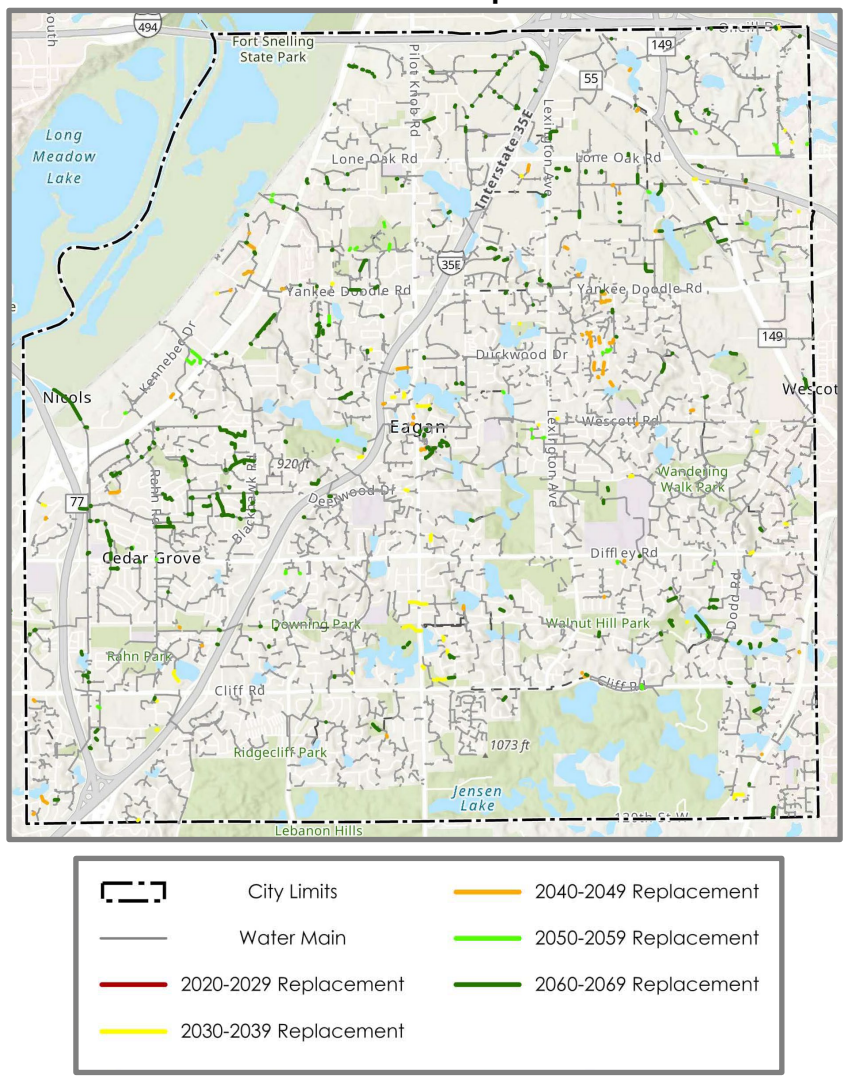
Pipeline Survival Probability



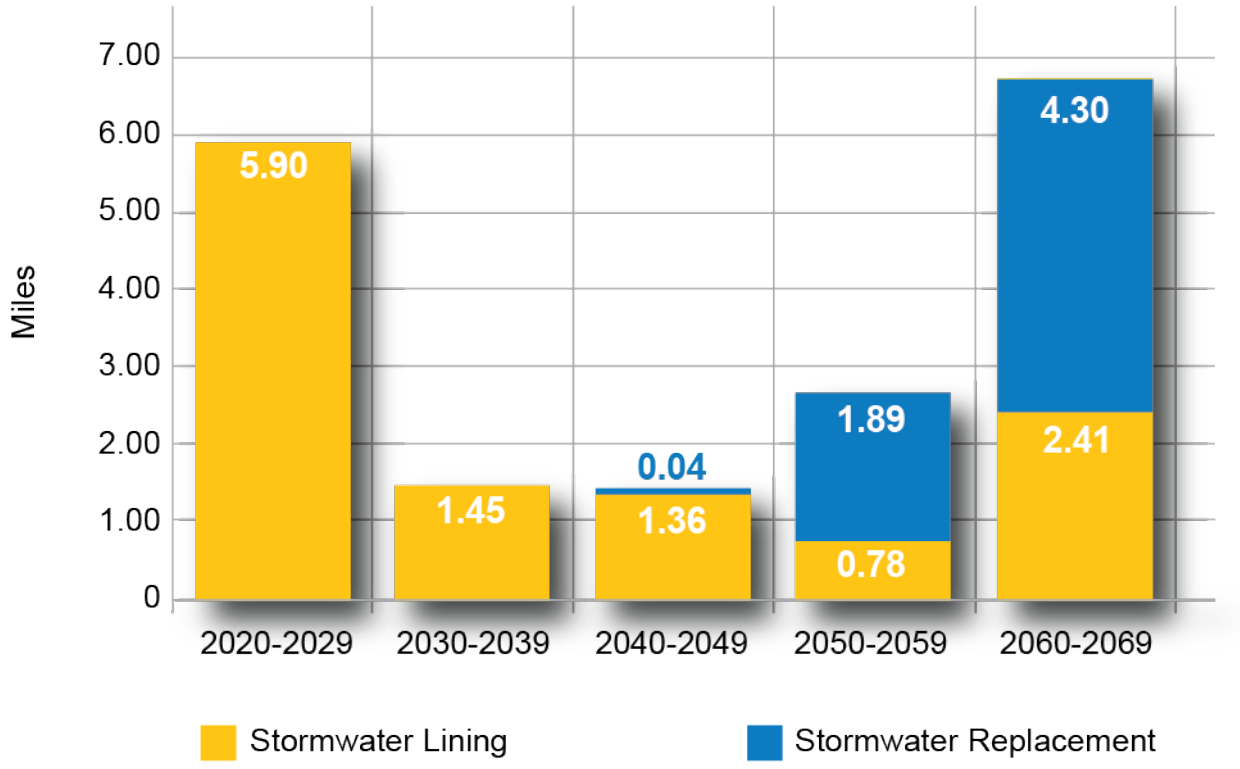
2 Stormwater R&R Plan (Part 1 cont.)

EAGAN

2020-2069 Stormwater Rehabilitation/Replacement

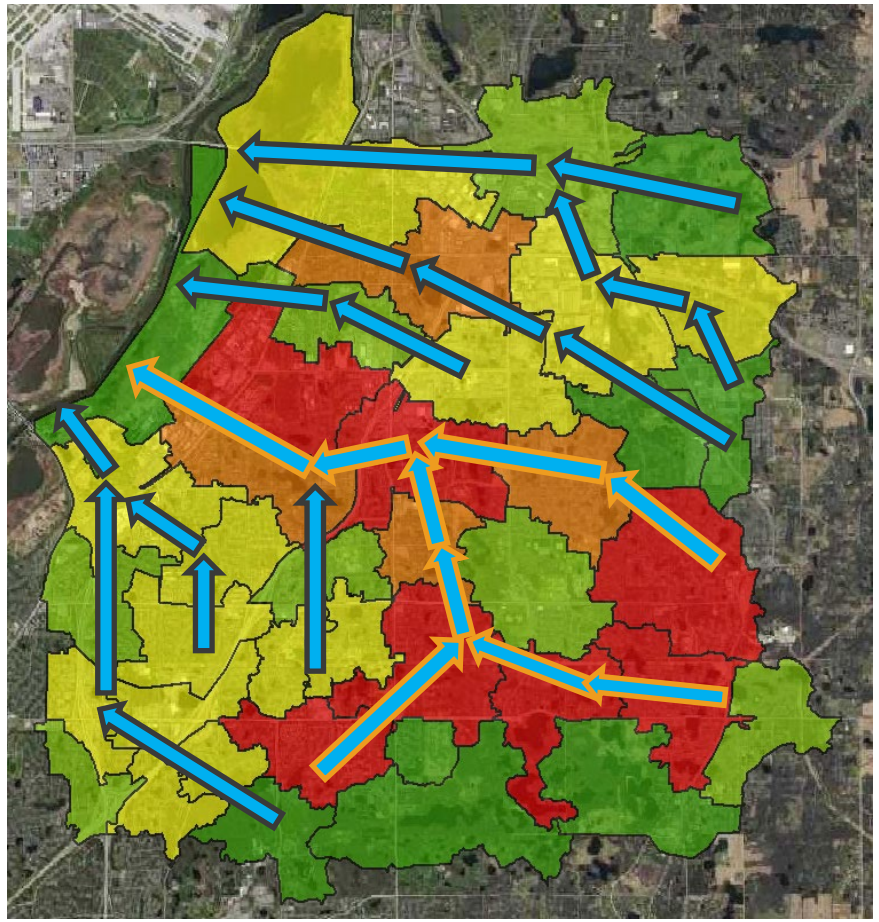


Pipeline Miles Replaced/Lined



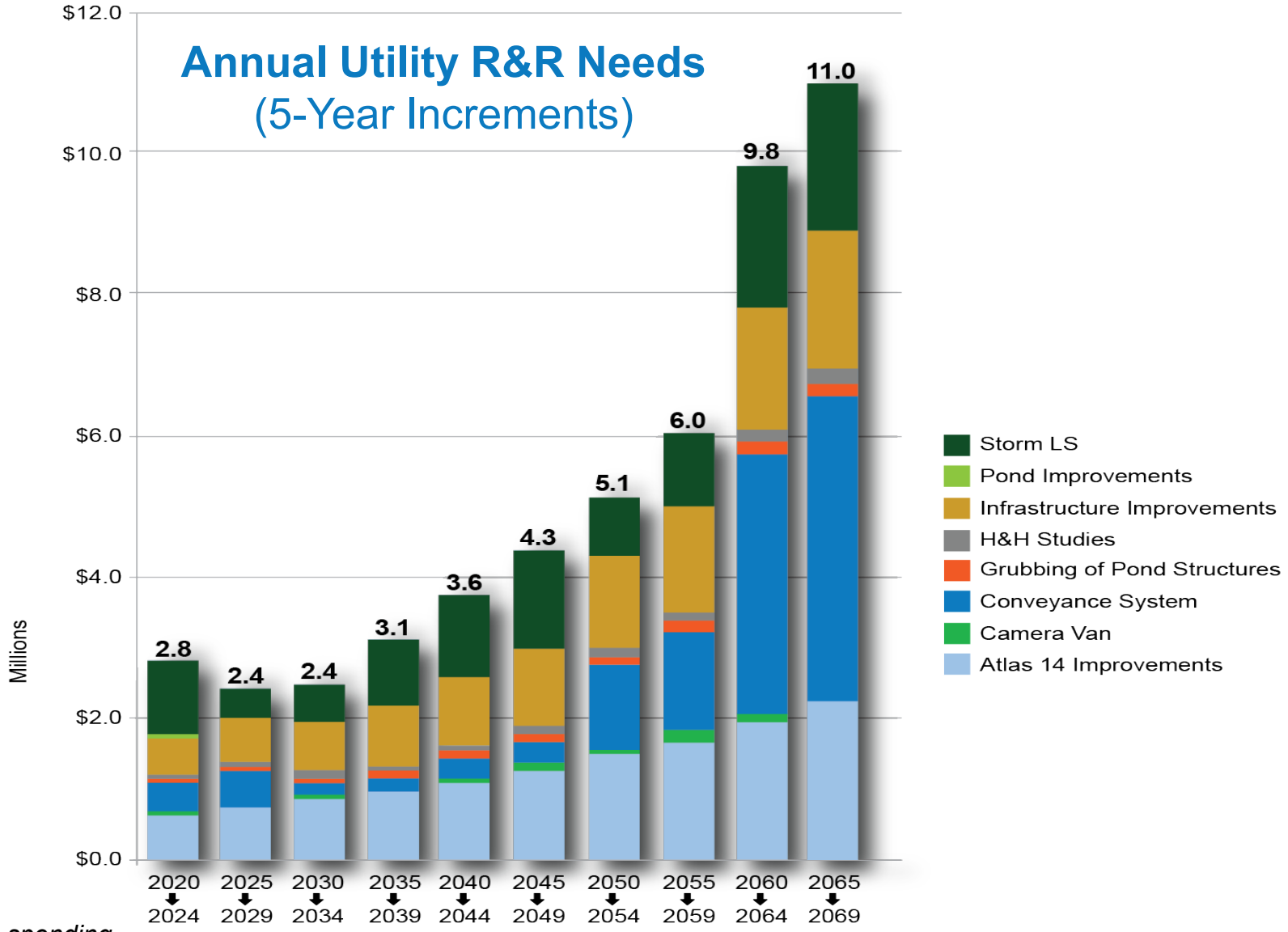
2 Stormwater R&R Plan (Part 3)

- **System risk analysis identified key corridor for planning future improvements (see highlighted arrows on map)**



2 Stormwater R&R Plan Summary

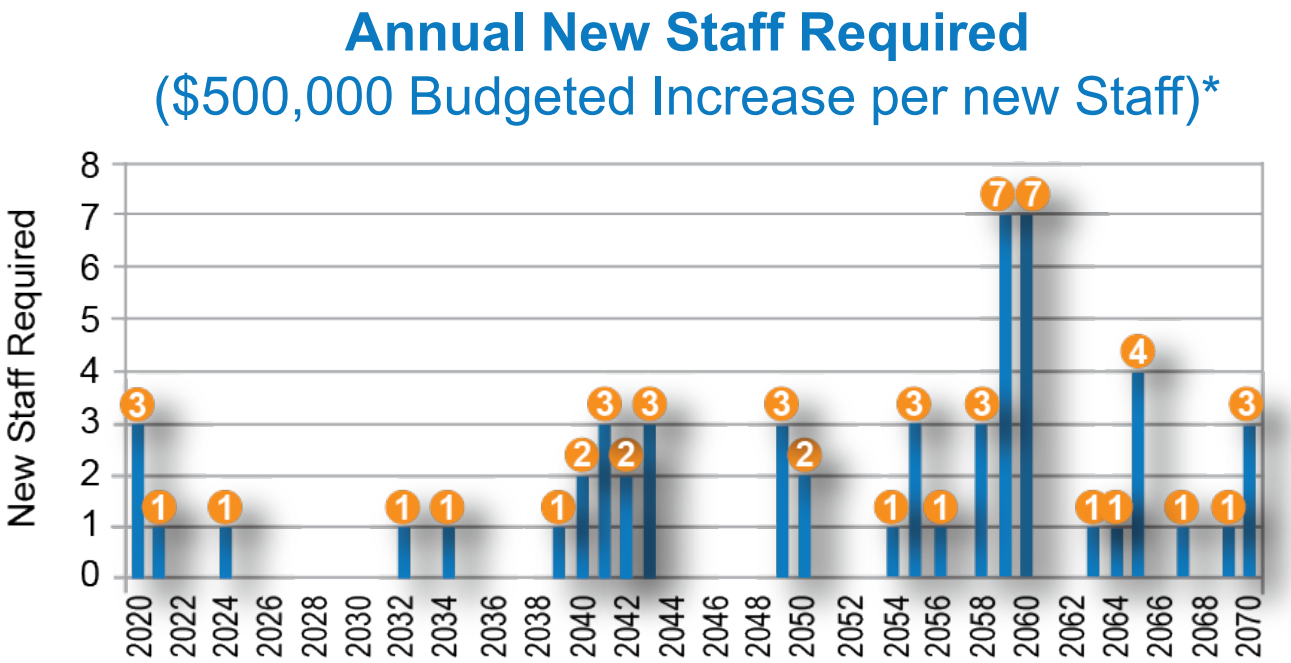
- **Generalized <u>Stormwater and SWQ</u> R&R needs increase*:**
  - Needs will increase by 50% over next 20-years (need to spend 1.5 times more)
  - 50-years out, needs increase 100% (need to spend 2.0 times more)



*Note: calculated as an increase from currently planned R&R spending

Financial charts include 3% annual inflation

2 Estimated Staffing Required to Meet Increased R&R Needs



- 3 to 5 new staff members recommend in next 5-years
- 1 dedicated staff member for storm sewer televising
- R&R plan includes equipment for new staff members

**Note: $500,000 is based on comparison of FTEs to public works / utility budgets for other communities within the Twin Cities Metro and comparison with other national benchmarks.*

Eagan Long-Term R&R Needs Analysis Case Study

Condition Assessment Based Planning

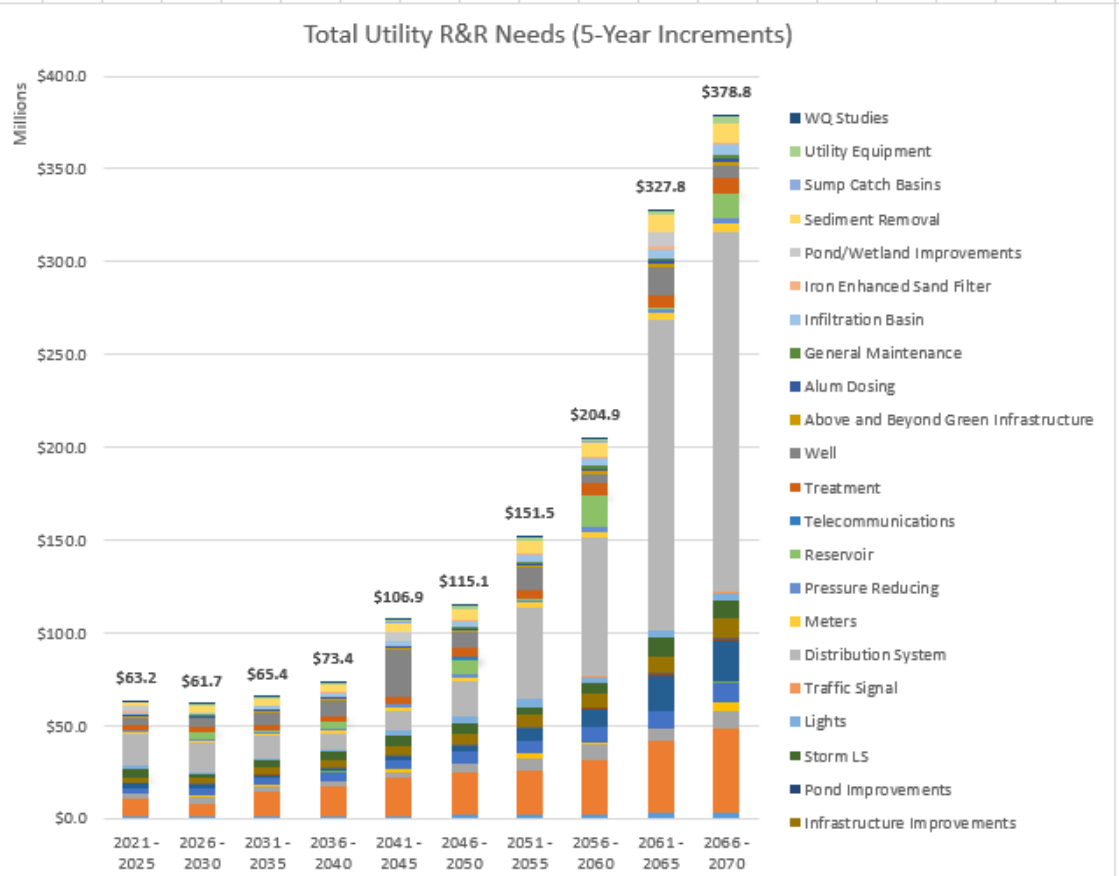
Utility R&R Needs

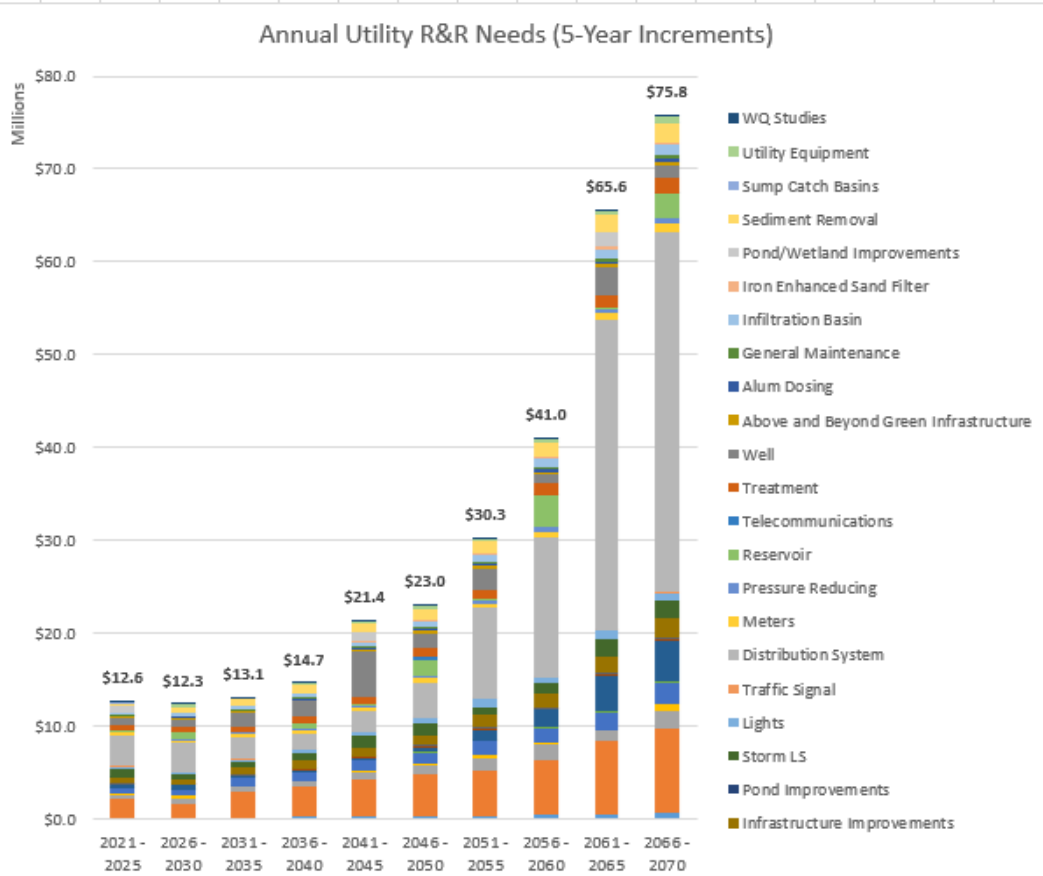
Utility

- Equipment
- Sanitary
- Storm
- Streetlights
- Water
- Water Quality

50-Year R&R Needs	
Equipment	
	$16,967,000
Sanitary	
	$289,906,000
Storm	
	$254,277,000
Streetlights	
	$29,193,000
Water	
	$798,082,000
Water Quality	
	$160,261,000
Total	
	$1,548,686,000

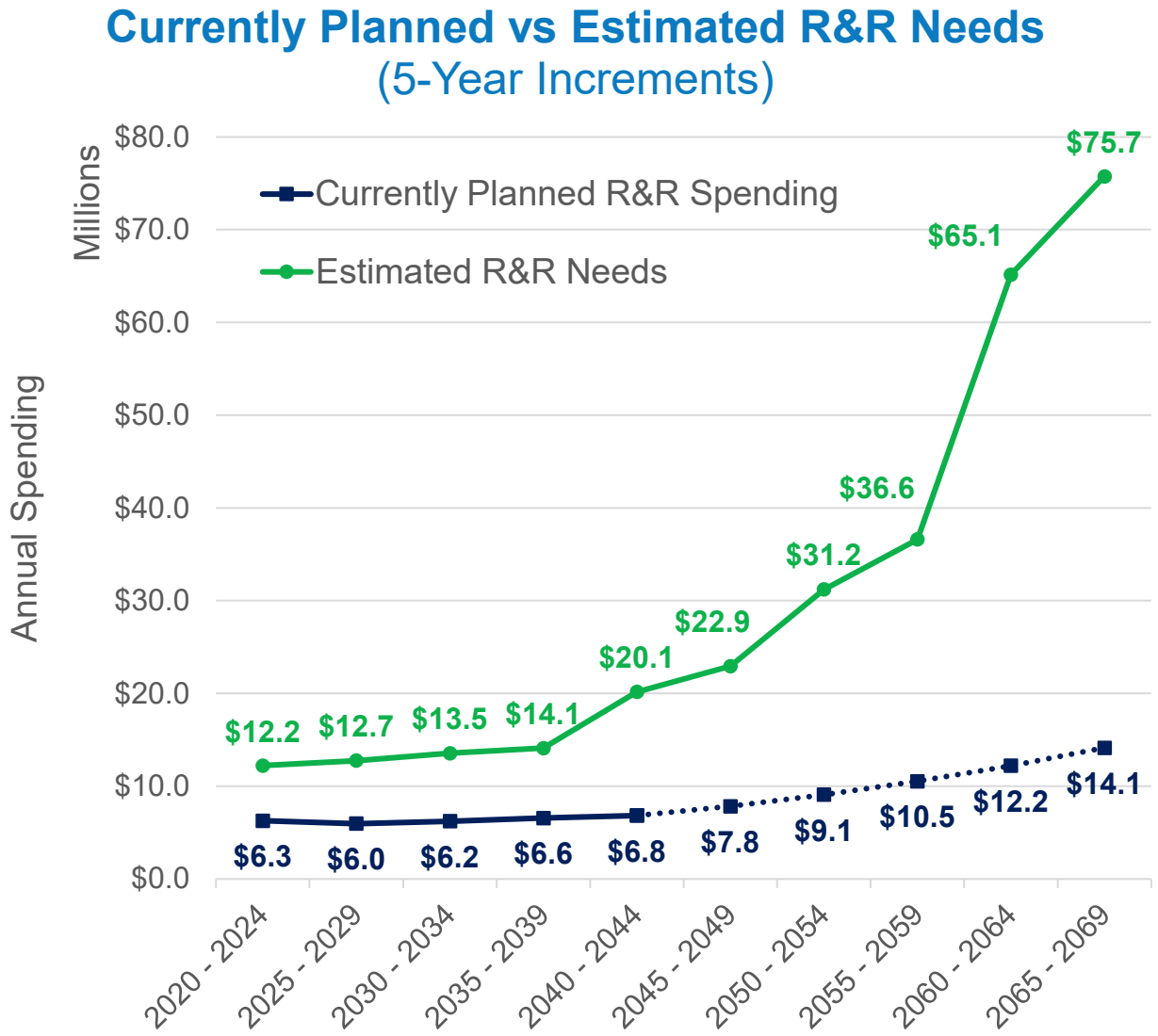
Note: model inflation = 3.00%





3 Overall Long-Term R&R Study Findings

- **95% increase in R&R needs in next 5-years** (planned funding)
- **Tripling of R&R needs by 2040**
- **By 2070, R&R needs x 5,** many assets near end of life (underground infrastructure)



Financial charts include 3% annual inflation

Questions?

rmatthys@cityofeagan.com

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