

Home-Spun Asset Management System

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Our Presentation

- The Process

 - How did it begin?

 - What were the steps involved?

 - Who was involved?

- What are the challenges?

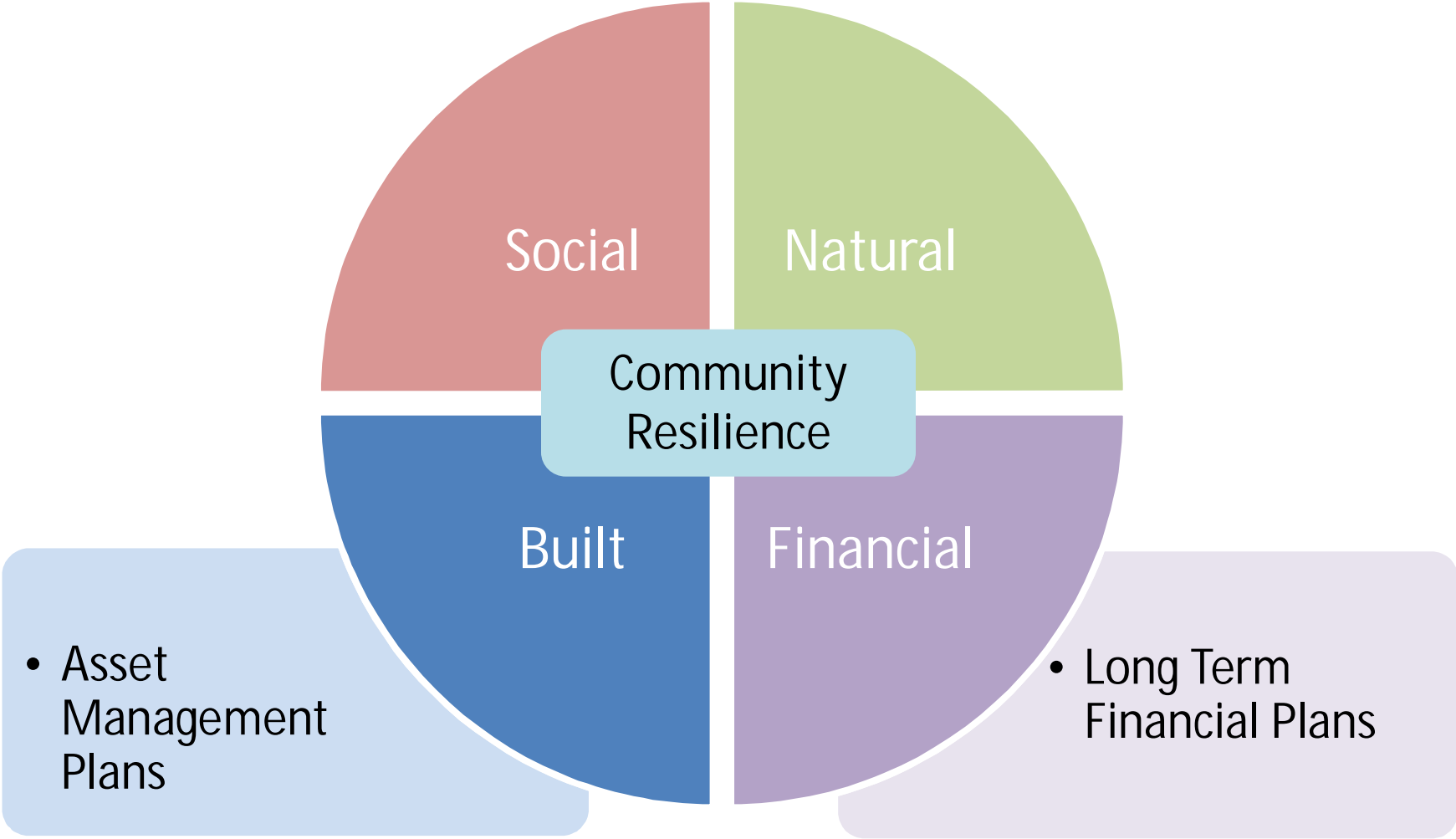
- What are the benefits?

- Where are we headed?

How did it begin?

- County of St. Paul completed their Tangible Capital Asset (TCA) Reporting
- The County identified a need to connect their TCA and infrastructure / financial planning together
- The County engaged Accurate Assessment to prepare their GIS database
- The County engaged Urban Systems to define the process

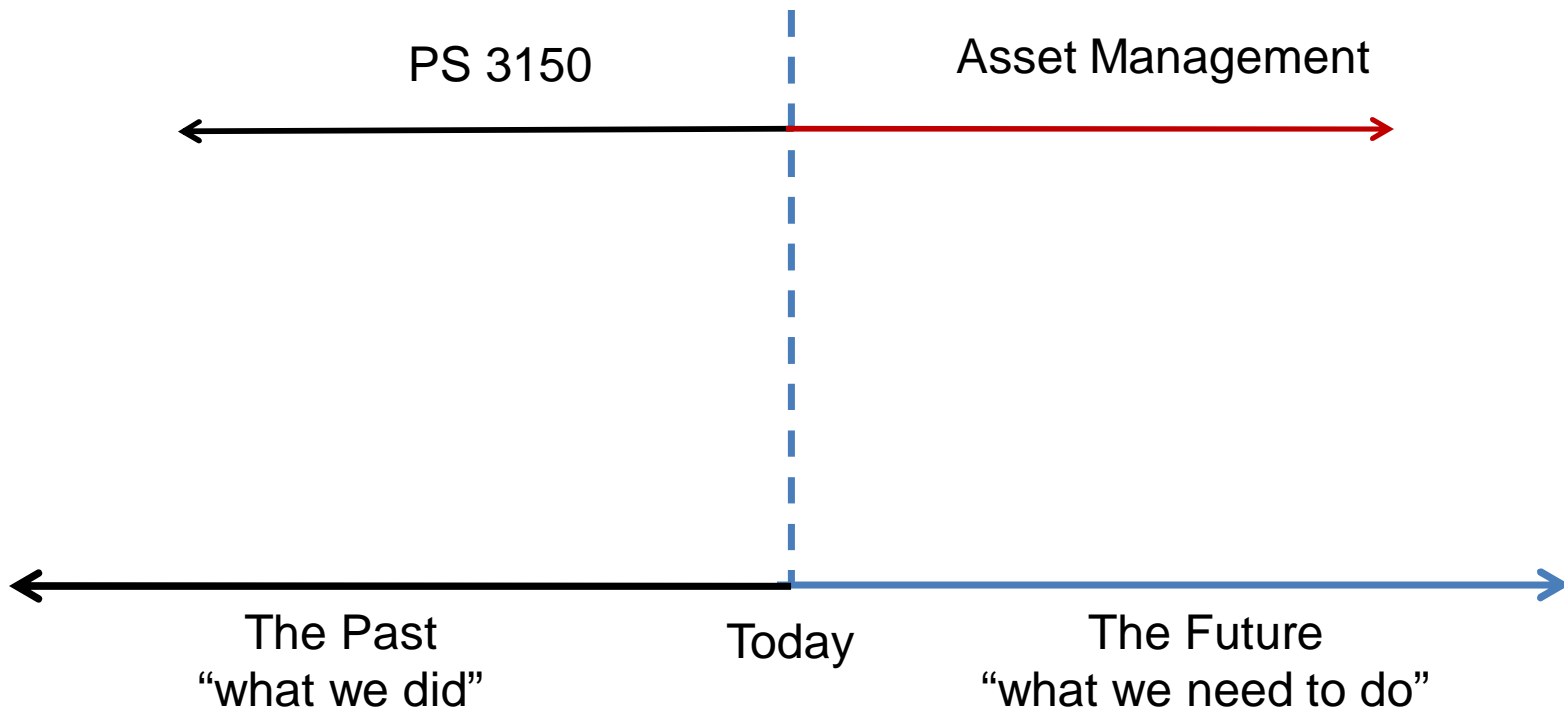
Community Resilience = Preparation + Reaction



Asset Management

A systematic way of making informed estimates about what the future will bring for your infrastructure and being proactive about preparing for it.

PS 3150 (TCA) vs. Asset Management



What were the steps involved?

PS 3150 (TCA Reporting)



Asset Management



Asset Management Plans

- Provides a view of estimated future needs
- Lots of variability in the maturity of asset management plans, and potentially lots of room for improvement

Asset Management Investment Plan - Tools?

- What do you own?
- What is it worth?
- What condition is it in?
- When do you need to rehabilitate/replace / repair it?

- What is the infrastructure deficit?
- What is the Average Annual Life Cycle Investment?
- What is the Sustainability Gap?

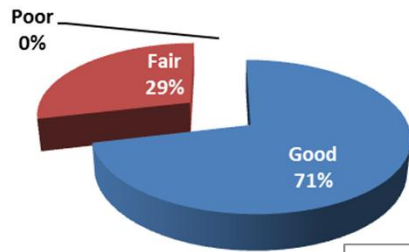
Asset Management Investment Plan

- Input Data
 - Develop the GIS database
 - Imported from GIS and TCA
- Level 2 Assessment
 - Detailed assessment and life cycle cost of each infrastructure
 - To be used by managers and utility operators
- Level 3 Summary
 - Summary of all infrastructure
 - To be used for financial planning and decision making

| Asset Category | Current Replacement Value | Loss in Value | Remaining Value | Expected Remaining Life | Investment Year (Current Dollars) | | | | | | 20 Year Total | 20 Year Average Annual Investment | Average Annual Life Cycle Investment (AALCI) | |
|--|---------------------------|---------------|-----------------|-------------------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|-----------------------------------|--|--------------|
| | | | | | Infrastructure Deficit (Backlog) | 2015 | 2016 | 2017 | 2018 | 2019 | | | | 2020 |
| Water System | | | | | | | | | | | | | | |
| Mains | \$2,719,000 | \$982,000 | \$1,737,000 | 64% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$36,000 | \$36,000 |
| Intakes/Water Supply/Wells | \$477,919,000 | \$174,274,000 | \$303,645,000 | 64% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$51,000,000 | \$11,948,000 | \$11,948,000 |
| Treatment | \$6,000,000 | \$2,133,000 | \$3,867,000 | 64% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$133,000 | \$133,000 |
| Appurtenances | \$10,000 | \$5,000 | \$5,000 | 50% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,000 | \$500 | \$300 |
| Sub-Total Water | \$486,648,000 | \$177,394,000 | \$309,254,000 | 64% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$51,010,000 | \$12,117,500 | \$12,117,300 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$12,117,300 | \$12,117,300 | \$12,117,300 | \$12,117,300 | \$12,117,300 | \$12,117,300 | - | - | - |
| Sanitary System | | | | | | | | | | | | | | |
| Gravity Mains | \$2,504,000 | \$1,060,000 | \$1,444,000 | 58% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$39,000 | \$39,000 |
| Lagoons & Lift Stations | \$233,000 | \$50,547 | \$182,453 | 78% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,215,000 | \$2,511,000 | \$1,116,000 |
| Appurtenances | \$0 | \$0 | \$0 | 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,000 | \$10,000 | \$500 | \$300 |
| Sub-total Sanitary | \$2,737,000 | \$1,110,547 | \$1,626,453 | 59% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$50,225,000 | \$2,550,500 | \$1,155,300 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$1,155,300 | \$1,155,300 | \$1,155,300 | \$1,155,300 | \$1,155,300 | \$1,155,300 | - | - | - |
| Roadway System | | | | | | | | | | | | | | |
| Roads | \$987,295,000 | \$636,187,000 | \$351,108,000 | 36% | \$276,055,000 | \$0 | \$0 | \$0 | \$14,606,000 | \$0 | \$0 | \$347,209,000 | \$18,501,000 | \$18,501,000 |
| Sidewalks | \$371,000 | \$102,000 | \$269,000 | 73% | \$20,000 | \$20,000 | \$0 | \$0 | \$0 | \$0 | \$65,000 | \$155,000 | \$12,000 | \$12,000 |
| Bridges | \$21,940,000 | \$14,713,000 | \$7,227,000 | 33% | \$855,000 | \$638,000 | \$0 | \$1,542,000 | \$184,000 | \$132,000 | \$207,000 | \$12,540,000 | \$627,000 | \$406,000 |
| Sub-total Roadway | \$1,009,606,000 | \$651,002,000 | \$358,604,000 | 36% | \$276,930,000 | \$658,000 | \$0 | \$1,542,000 | \$14,790,000 | \$132,000 | \$272,000 | \$359,904,000 | \$19,140,000 | \$18,919,000 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$18,919,000 | \$18,919,000 | \$18,919,000 | \$18,919,000 | \$18,919,000 | \$18,919,000 | - | - | - |
| Fleet | | | | | | | | | | | | | | |
| Fire Equipment & Trucks | \$2,368,000 | \$425,000 | \$1,943,000 | 82% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$18,000 | \$976,000 | \$96,000 | \$96,000 |
| Garbage Truck | \$480,000 | \$192,000 | \$288,000 | 60% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$240,000 | \$960,000 | \$48,000 | \$48,000 |
| Heavy Duty | \$2,219,000 | \$1,070,000 | \$1,149,000 | 52% | \$400,000 | \$150,000 | \$469,000 | \$450,000 | \$350,000 | \$400,000 | \$150,000 | \$4,738,000 | \$237,000 | \$222,000 |
| Light Duty | \$1,273,000 | \$727,000 | \$546,000 | 43% | \$335,000 | \$67,000 | \$134,000 | \$335,000 | \$235,000 | \$201,000 | \$34,000 | \$2,852,000 | \$143,000 | \$127,000 |
| Agricultural Equipment | \$233,000 | \$79,000 | \$154,000 | 66% | \$0 | \$7,000 | \$0 | \$123,000 | \$12,000 | \$68,000 | \$0 | \$458,000 | \$23,000 | \$23,000 |
| Heavy Equipment | \$26,210,000 | \$14,690,000 | \$11,520,000 | 44% | \$8,390,000 | \$700,000 | \$1,763,000 | \$0 | \$1,155,000 | \$2,370,000 | \$6,826,000 | \$43,888,000 | \$2,194,000 | \$2,092,000 |
| Other Equipment | \$500,000 | \$190,000 | \$310,000 | 62% | \$51,000 | \$18,000 | \$36,000 | \$34,000 | \$11,000 | \$0 | \$16,000 | \$671,000 | \$38,000 | \$38,000 |
| Sub-total Fleet | \$33,283,000 | \$17,373,000 | \$15,910,000 | 48% | \$9,176,000 | \$942,000 | \$2,402,000 | \$942,000 | \$1,763,000 | \$3,039,000 | \$7,284,000 | \$54,543,000 | \$2,779,000 | \$2,646,000 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$2,646,000 | \$2,646,000 | \$2,646,000 | \$2,646,000 | \$2,646,000 | \$2,646,000 | - | - | - |
| Parks | | | | | | | | | | | | | | |
| Playgrounds | \$150,000 | \$78,000 | \$72,000 | 48% | \$25,000 | \$0 | \$25,000 | \$25,000 | \$0 | \$25,000 | \$0 | \$175,000 | \$10,000 | \$10,000 |
| Spray Park | \$223,000 | \$9,000 | \$214,000 | 96% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$9,000 | \$9,000 |
| Sub-total Parks | \$373,000 | \$87,000 | \$286,000 | 77% | \$25,000 | \$0 | \$25,000 | \$25,000 | \$0 | \$25,000 | \$0 | \$175,000 | \$19,000 | \$19,000 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$19,000 | \$19,000 | \$19,000 | \$19,000 | \$19,000 | \$19,000 | - | - | - |
| Buildings & Facilities | | | | | | | | | | | | | | |
| Permanent Buildings | \$5,270,000 | \$1,766,000 | \$3,504,000 | 66% | \$0 | \$0 | \$0 | \$0 | \$0 | \$602,000 | \$0 | \$1,112,000 | \$105,000 | \$105,000 |
| Communication Tower | \$25,000 | \$7,000 | \$18,000 | 72% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,000 | \$1,000 |
| Waste Collection Site | \$11,000 | \$0 | \$11,000 | 100% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,000 | \$1,000 |
| Portable | \$12,000 | \$2,000 | \$10,000 | 83% | \$0 | \$0 | \$0 | \$0 | \$0 | \$12,000 | \$0 | \$24,000 | \$1,000 | \$1,000 |
| Parking Lots | \$179,000 | \$21,000 | \$158,000 | 88% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,000 | \$7,000 | \$7,000 |
| Sub-total Buildings & Facilities | \$5,497,000 | \$1,796,000 | \$3,701,000 | 67% | \$0 | \$0 | \$0 | \$0 | \$0 | \$614,000 | \$0 | \$1,140,000 | \$115,000 | \$115,000 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$115,000 | \$115,000 | \$115,000 | \$115,000 | \$115,000 | \$115,000 | - | - | - |
| Total Infrastructure Investment | | | | | | | | | | | | | | |
| | \$1,538,144,000 | \$848,762,547 | \$689,381,453 | 45% | \$286,131,000 | \$1,967,210 | \$2,794,210 | \$2,876,210 | \$16,920,210 | \$4,187,210 | \$7,933,210 | \$524,033,990 | \$37,072,850 | \$34,971,600 |
| Average Annual Life Cycle Investment (AALCI) | | | | | - | \$34,971,600 | \$34,971,600 | \$34,971,600 | \$34,971,600 | \$34,971,600 | \$34,971,600 | - | - | - |

Asset Management Investment Plan

Water System Condition - Mains



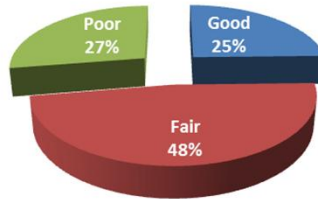
Sanitary System Condition - Mains



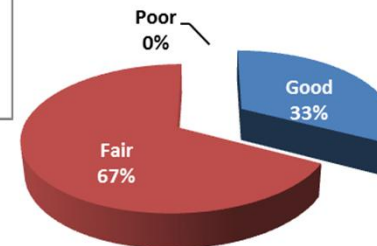
Roadway Condition



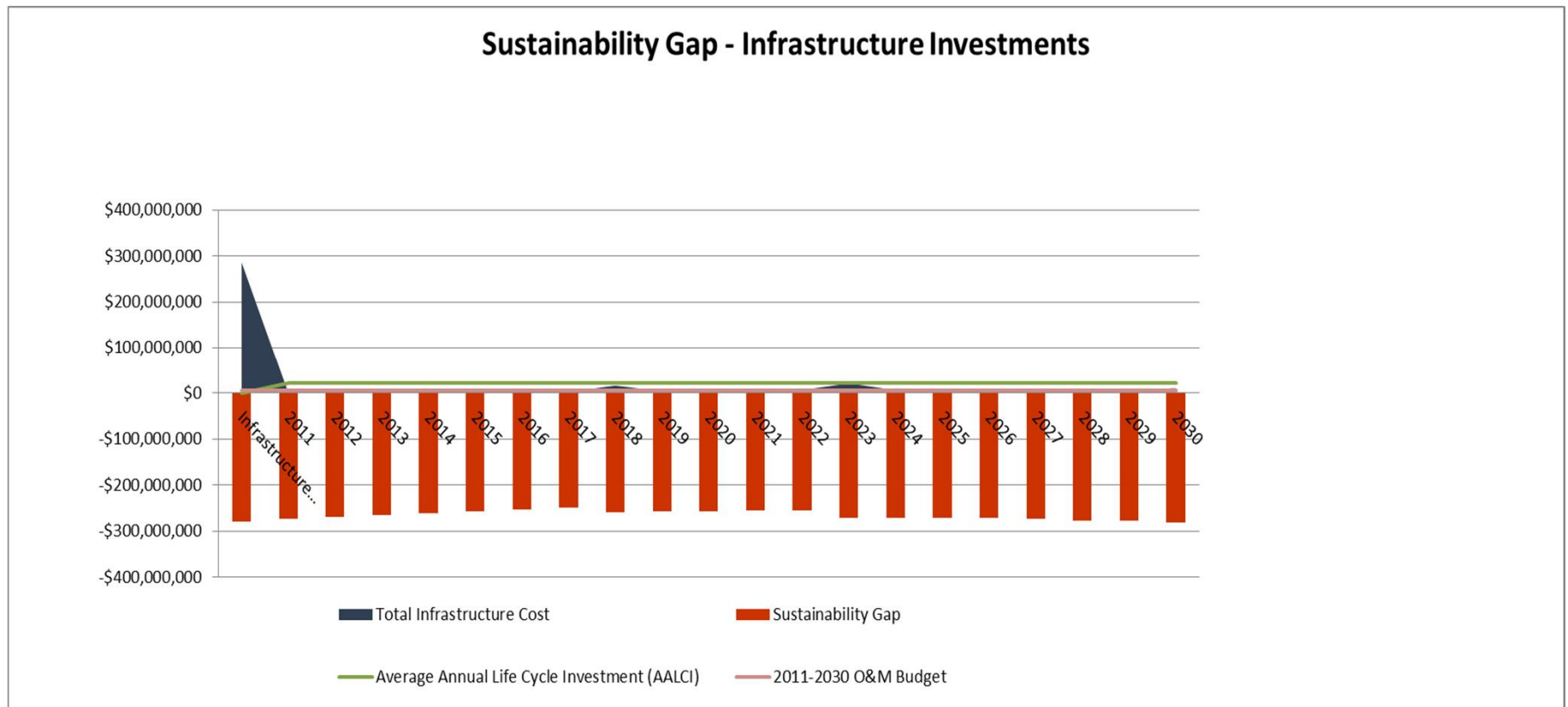
Fleet Condition



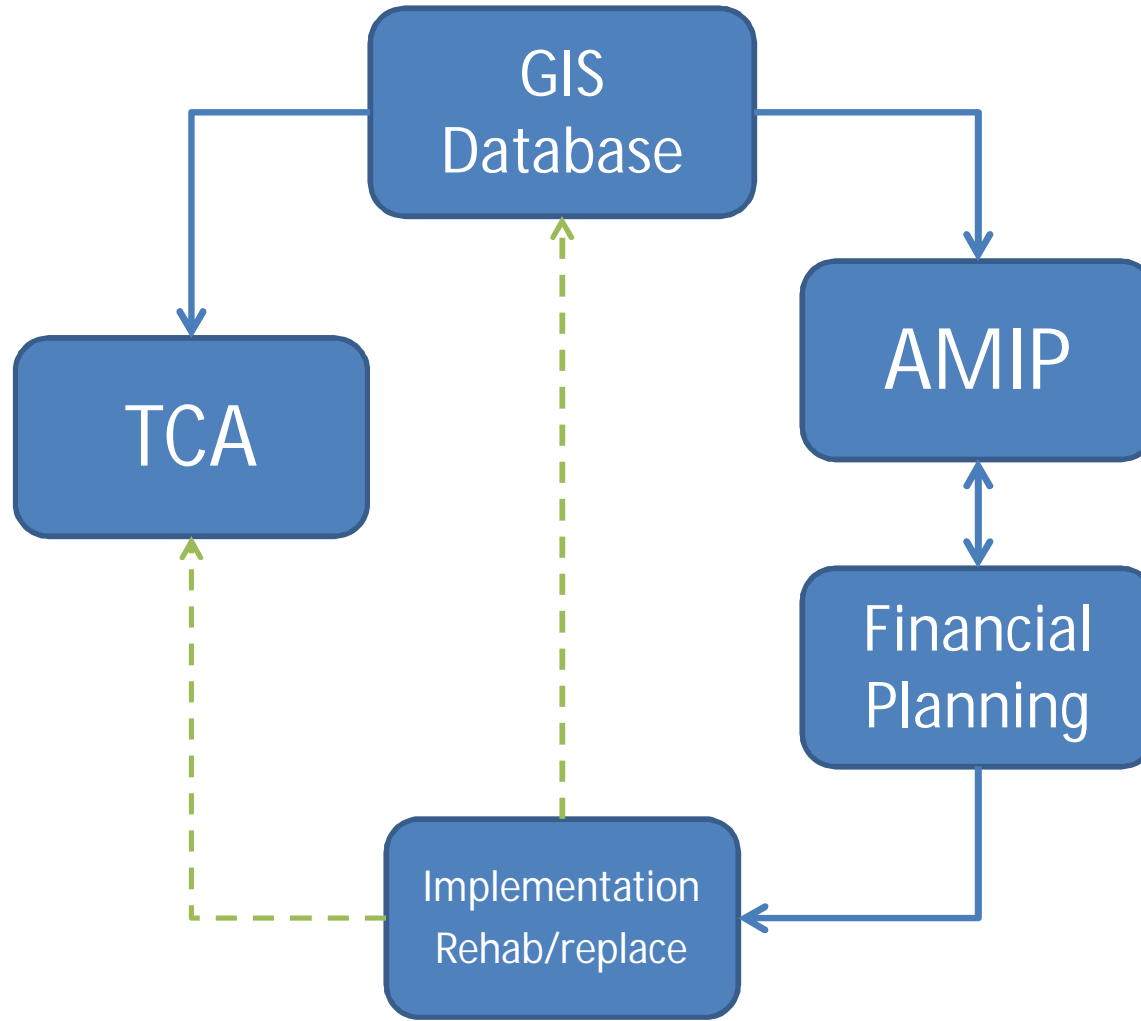
Building Condition



Asset Management Investment Plan



Managing the Process



Linking Needs and Affordability

Asset Management Plans



Long Term Financial Plans

Long Term Financial Planning

“Long-term financial planning is the process of aligning financial capacity with long-term service objectives.” (GFOA Long Term Financial Planning Best Practices)

Long term Service Objectives

- Maintain level of service?
- Increase level of service?
- Provide additional services?

And, adapt to what the future brings...

The County developed their Guiding Principles – it provided a framework for defining the “Level of Service”

AMIP

- Risk: what is acceptable?
- Level of service
- Prioritize improvements
- Evaluate future needs

LTFP

- Revenue generation
- Reduce costs
- Financial policies in place

Who was involved?

- County Manager, staff and Administration
 - Policy / Plans development
 - GIS and TCA preparation
- Council
 - Decision making
- Accurate Assessment
 - GIS Database management and development
- Urban Systems
 - AMIP development
 - Process design
 - Policy / Plans development

What are the challenges?

- Actual condition of assets are unknown (age and maturity)
- County's resources in developing and maintaining the plan is limited
 - Staff doing multiple jobs
 - No defined system in place
 - Lack of public awareness of cost of servicing
- Inadequate funding / huge Sustainability Gap
- Needs of the past aren't the needs of the future
 - Changing regulations
 - Changing weather patterns
 - Changing service expectations

What are the benefits?

- Awareness of cost of servicing and infrastructure investment at all level, i.e. council, management, staff and public
- Up-to-date GIS database
- AMIP is implementable - considers County's resources and limitations
- Preparation of a Road Classification Plan based on level of service to reduce cost
- Process of annual budgets pplanning based on LTFP

Where are we headed?

- County realizes AM planning is an on-going process
 - Update the database and AMIP as needed
- County is looking into acquiring a software to link AMIP, TCA and budgeting
- County is looking into developing/updating revenue tools (update utility rate structures, etc.)

Questions?