ASSET MANAGEMENT IN SASKATCHEWAN

SUMA CONVENTION
JANUARY 30, 2012

VEMAX™
MANAGEMENT

OUTLINE

- Asset management background
- NAMS pilot projects
- Lessons learned

ASSET MANAGEMENT BACKGROUND

WHY ASSET MANAGEMENT

- Asset Management provides the information that supports good decision making
  - Full costs of providing existing services
  - Full costs of proposed infrastructure

DECISION MAKING

- Understanding costs of existing services
  - Operational costs ($/yr)
  - Full life cycle infrastructure costs ($/yr)

- Understanding importance of service to customers
  - When compared to the cost of providing

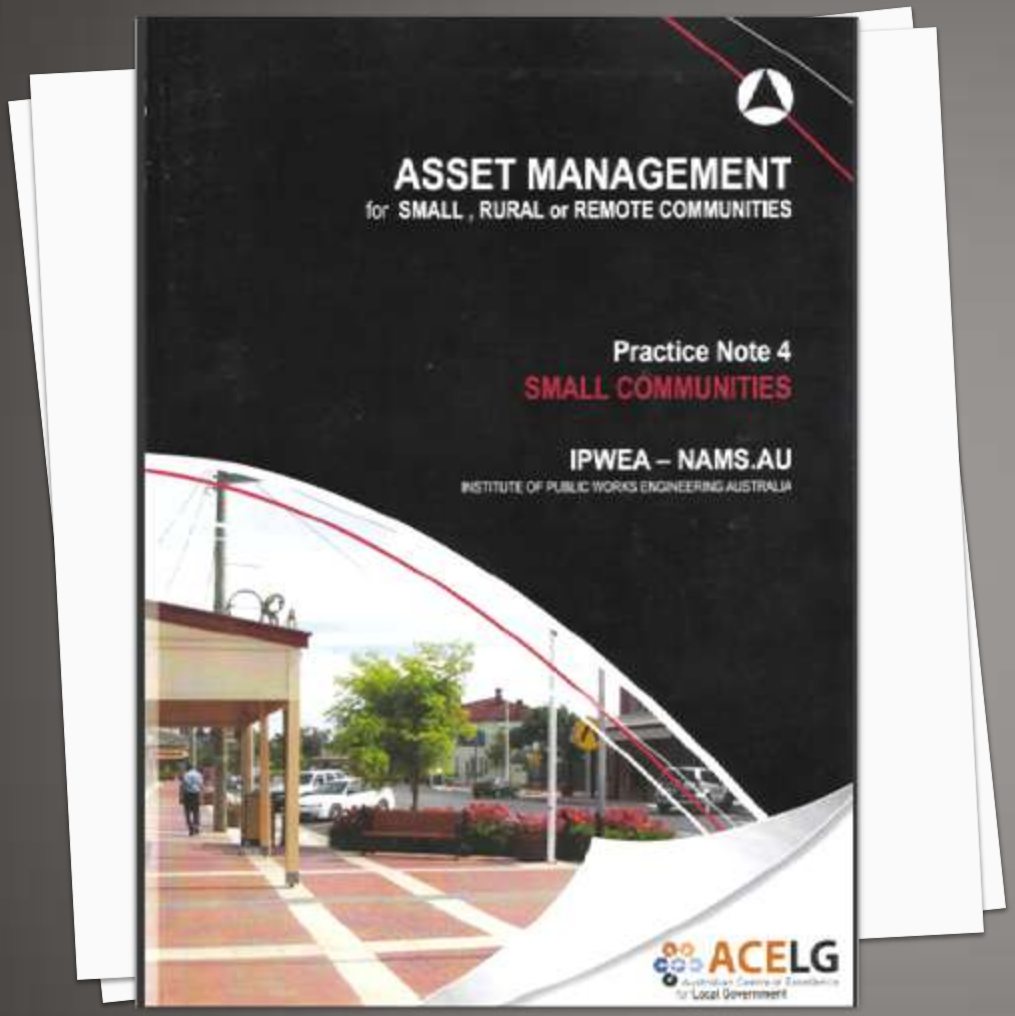
DECISION MAKING

- Understanding costs of proposed services / new assets
  - Operational costs ($/yr)
  - Full life cycle infrastructure costs ($/yr)
  - Long term affordability
  - Importance of service to customers

ASSET MANAGEMENT IN SASKATCHEWAN

CURRENT WORK

- NAMS Pilot projects 1 and 2
  - 10 communities participated to date


ASSET MANAGEMENT
for SMALL , RURAL or REMOTE COMMUNITIES
Practice Note 4
SMALL COMMUNITIES
IPWEA – NAMS.AU
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA
ACELG

NAMS PILOTS

PILOT FUNDING

- Municipal Rural Infrastructure Fund (MRIF)
- Participating Municipalities

Town of **Shellbrook**

WHAT IS NAMS

- A municipally driven approach to asset management and long term financial planning
- A program of training and support using a suite of tools and templates
  - based on excel and word

WHAT IS NAMS?

- NAMS = National Asset Management Strategy
- Developed by the IPWEA (Institute of Public Works Engineering Australia)
  - NAMS.PLUS
    - full fledged asset management
  - NAMS LITE
    - asset management for small, rural and remote communities
    - developed for communities with limited resources and or capacity
- Based on requirements outlined in the International Infrastructure Management Manual

WHY THE NAMS PILOT?

Google maps

WHY THE NAMS PILOT?

- Leveraging TCA information
  - MUST leverage existing information
    - Significant effort went into creating PS3150 Asset Registers
- Building asset management capacity
- Building education to forward asset management
- Did not want to reinvent the wheel
  - Many places around the world are more advanced with AM
  - Wanted to leverage the years of effort put into developing systems around the world

WHY THE NAMS PILOT?

- Recognized that many municipalities face capacity issues
  - Exploring alternatives for tools for small municipalities
  - NAMS has a version that was created for municipalities with limited capacity and resources

Google maps

THE NAMS PROCESS

THE NAMS PROCESS

- Characteristics of the overall NAMS process
  - Municipal driven
  - Keep it simple!
  - Use information readily available and improve with time (TCA)
  - Support throughout the development
    - Nicole, Steve, etc.
  - Review with participating municipalities

THE PROCESS

- The key elements of asset management are:
  - Levels of service
  - Future demand
  - Life cycle management
  - Asset management practices
  - Monitoring
  - Asset management improvement plan

PILOT TRAINING

- 3 day training workshop
- The underlying principles of AM were covered
- Tips for using the templates and tools provided
- A ‘crash course’ in AM
- Completion of first draft Asset Management Plan

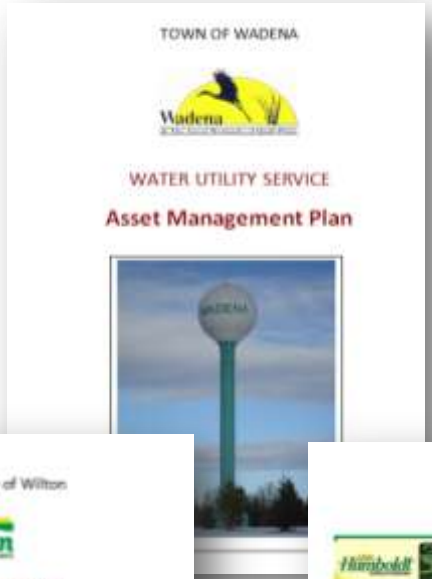
ASSET MANAGEMENT TRAINING

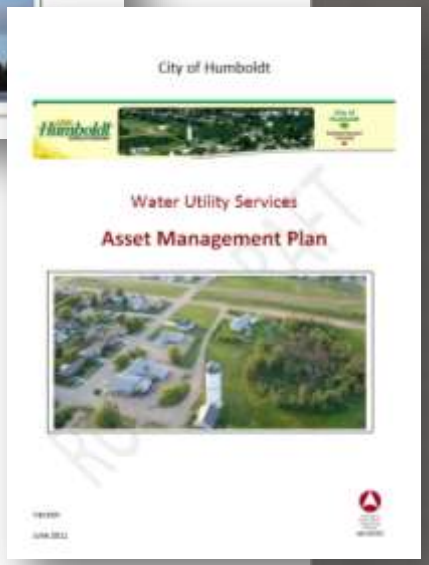
REVIEW OF THE PILOT

RESULTS OF THE PILOT

- Municipalities have completed multiple drafts of their first AM plans
- Many municipalities have already moved onto completing this work for other asset classes

ASSET MANAGEMENT PLANS



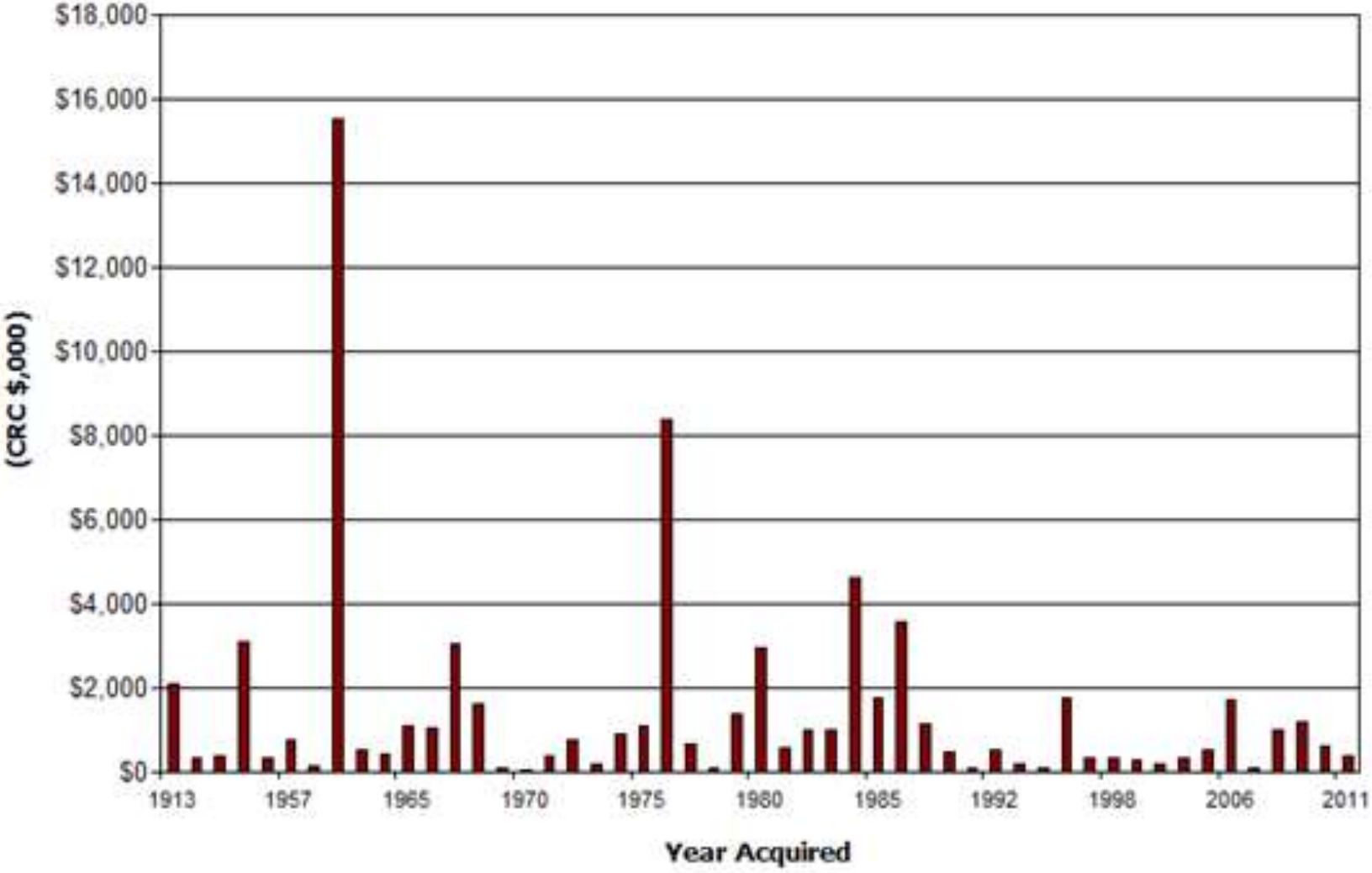


REVIEW OF THE PILOT

- Overall comments
  - Asset Management Pilot
    - Changed how municipalities thought about managing infrastructure
    - Brought to light issues that had not previously been considered (ie. Risk management)

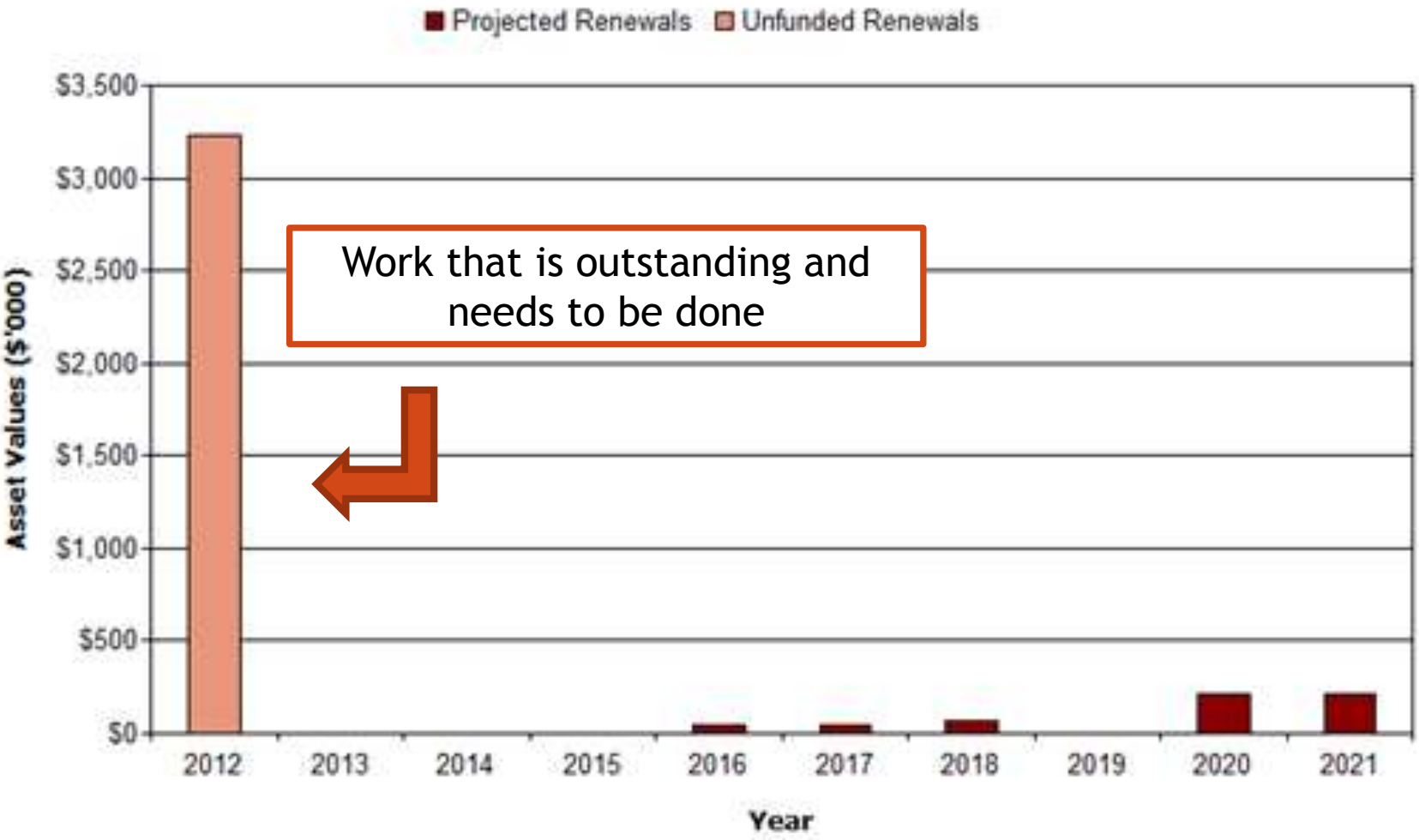
SAMPLE RESULTS

Humboldt - Age Profile (Water and Sewer Network)

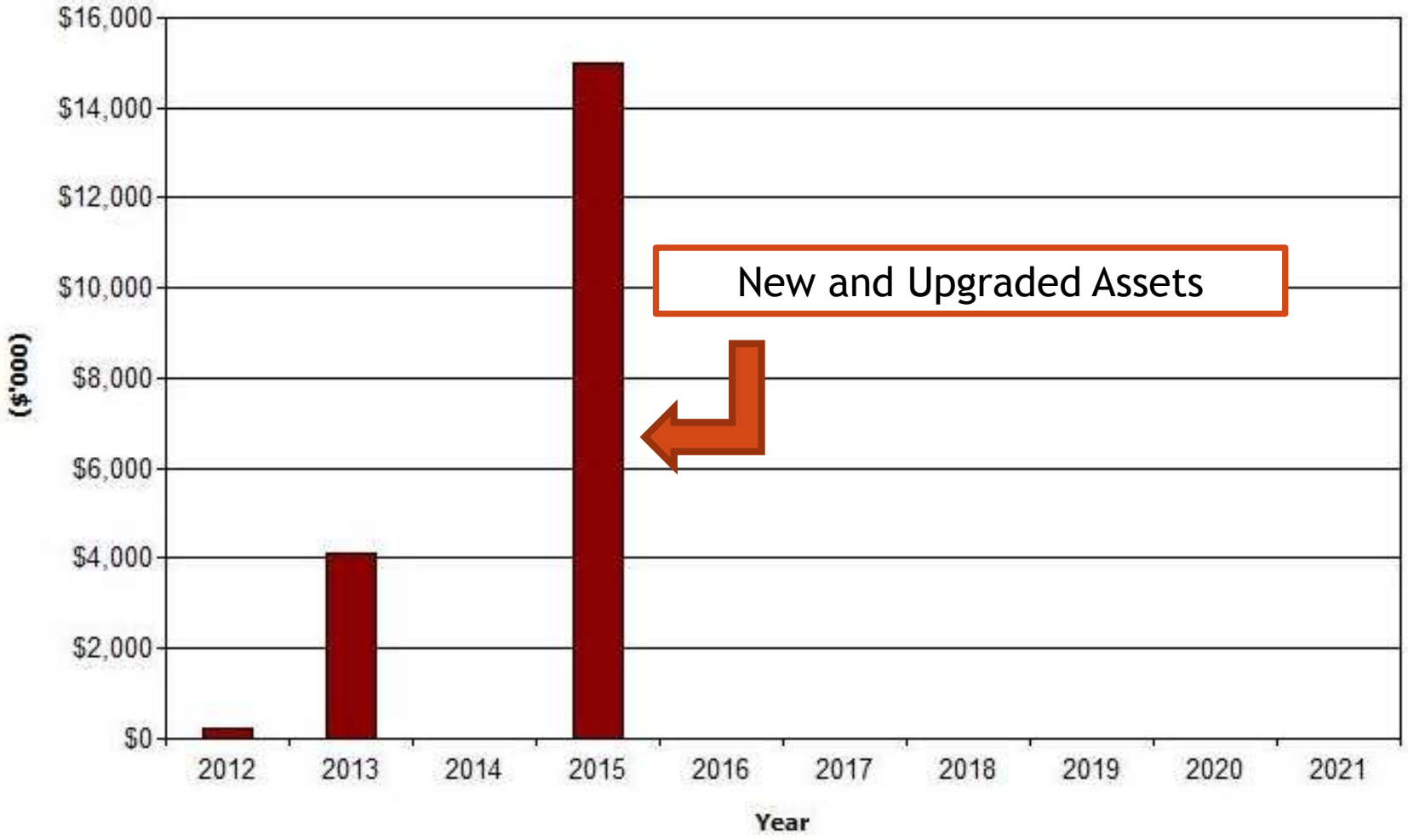


Humboldt - Fig3 Asset Condition Profile (Water and Sewer Network)

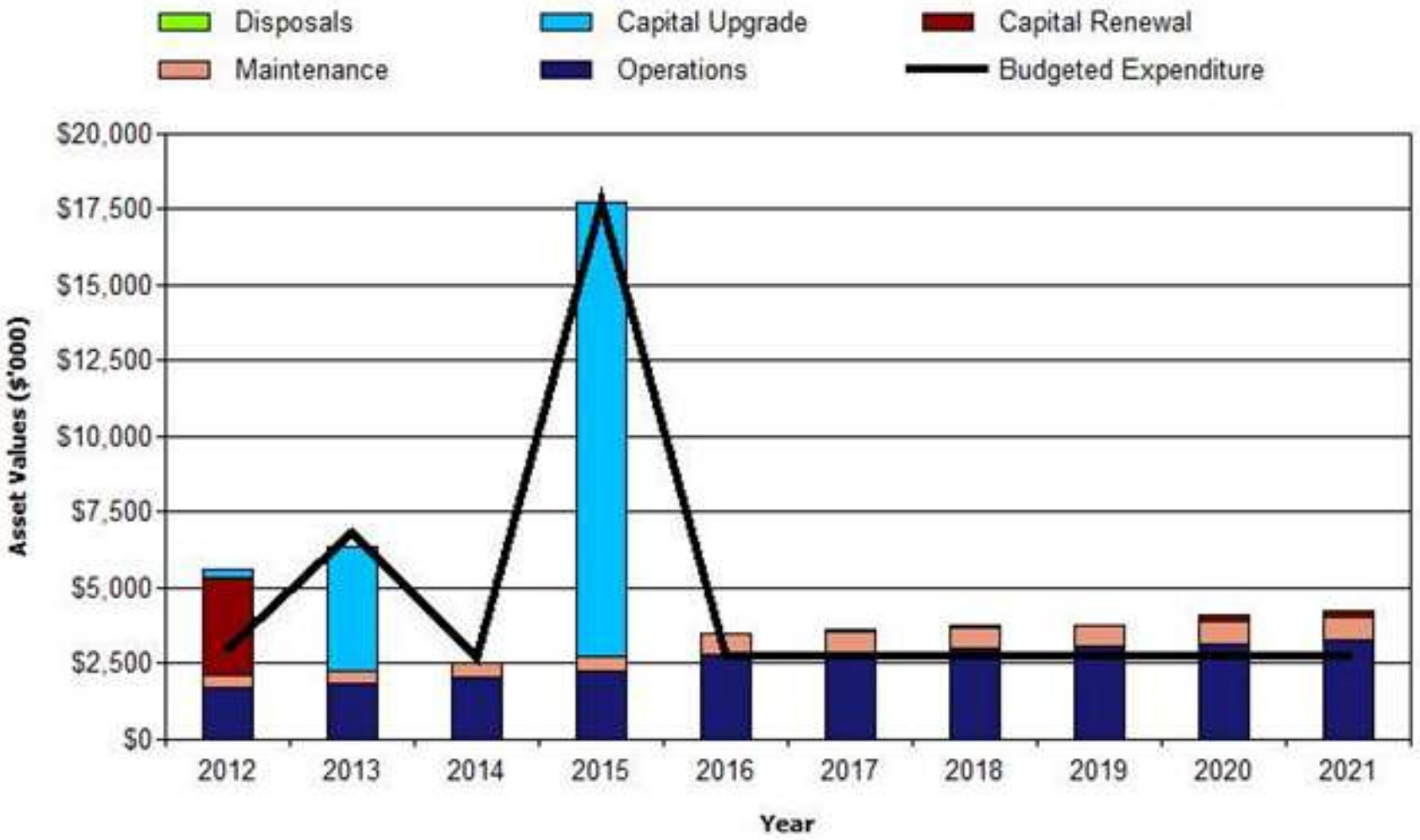
Humboldt - Projected Capital Renewal Expenditure (Water and Sewer Network)



Humboldt - Projected Capital Upgrade/New Expenditure (Water and Sewer Network)



Humboldt - Projected Operating and Capital Expenditure (Water and Sewer Network)



NAMS SAMPLE INFO

- The value of assets covered by this asset management plan is:

Current Replacement Cost	$33 million
Depreciable Amount	$33 million
Depreciated Replacement Cost	$17 million
Annual Depreciation Expense	$374,000

NAMS SAMPLE INFO

- Projected **10 year** cost to provide sample services are
  - Current maintenance level and upgrade
    - $36 million or $3.6 million per year
- Organizations estimated available funding for the **10 years**
  - $27.5 million or $2.75 million per year

Current Funding Shortfall of $850,000 M / year

LESSONS LEARNED

KEY LESSONS LEARNED

- There is valuable information available from the TCA project, this can be leveraged for asset management planning
- It is important that the organization as a whole is engaged, elected officials and staff need to see the value for the municipality to continue with asset management planning
- It is beneficial for the first cut asset management plan to be based on existing information, this ensures that resources are optimized

KEY LESSONS LEARNED

- The quality and capacity for asset management is not controlled by the community size
- Once the plans have been completed it is obvious to participants that this information is necessary for good decision making
- Whatever method for asset management is undertaken it is important the municipality “owns” the information and can customize it for their own needs

LESSONS LEARNED

- Municipalities who are using asset management planning in decision making advocate for the necessity of this type of information in making informed decisions

ASSET MANAGEMENT AT THE ELECTED LEVEL

- Long Term Municipal Planning:
  - Ability to identify when assets need to be replaced.
  - Enhance municipal sustainability.
  - Improved capital allocation to high priority areas
  - Improved abilities to handle community growth

ASSET MANAGEMENT AT THE ELECTED LEVEL

- Infrastructure communication:
  - Increased infrastructure communication to local, regional, provincial, and federal stakeholders.
  - Improved discussion at council level surrounding infrastructure needs.
  - Transparency surrounding the community's desired levels of service and resources required to provide it.

ASSET MANAGEMENT AT THE ELECTED LEVEL

- Infrastructure Investment:
  - Assists in optimizing municipal investment for all sorts of assets.
  - Better prepares municipalities to access future grant funding from senior level governments.
  - Allows council and citizens to understand the magnitude of investment involved in municipal infrastructure.

TOWN OF MACKLIN

TOWN OF MACKLIN

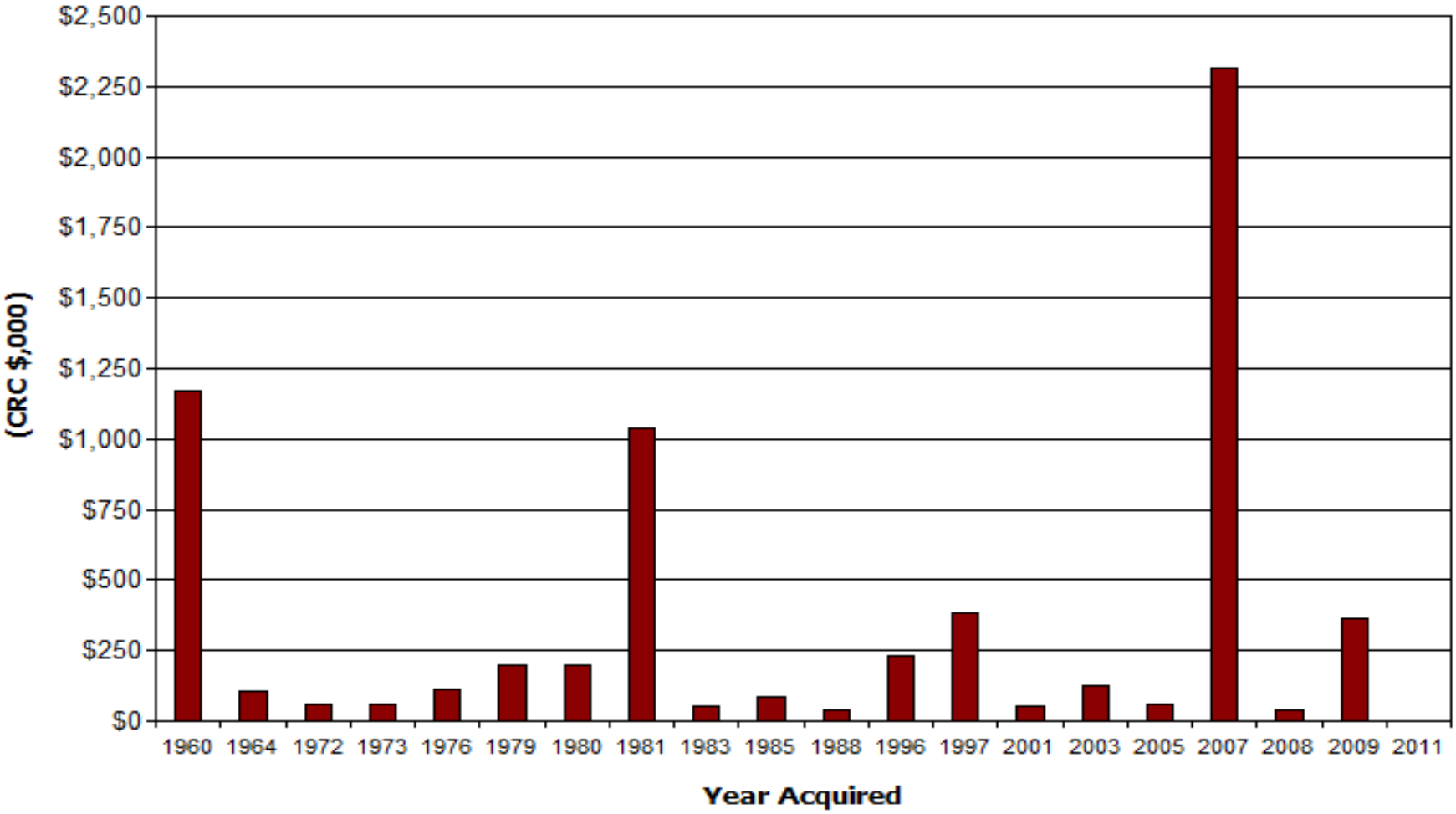
- Water & Sewer System $11.6 million
- Buildings $10.4 million

  (without jointly owned buildings)
- Equipment $1.3 million
- Streets ???

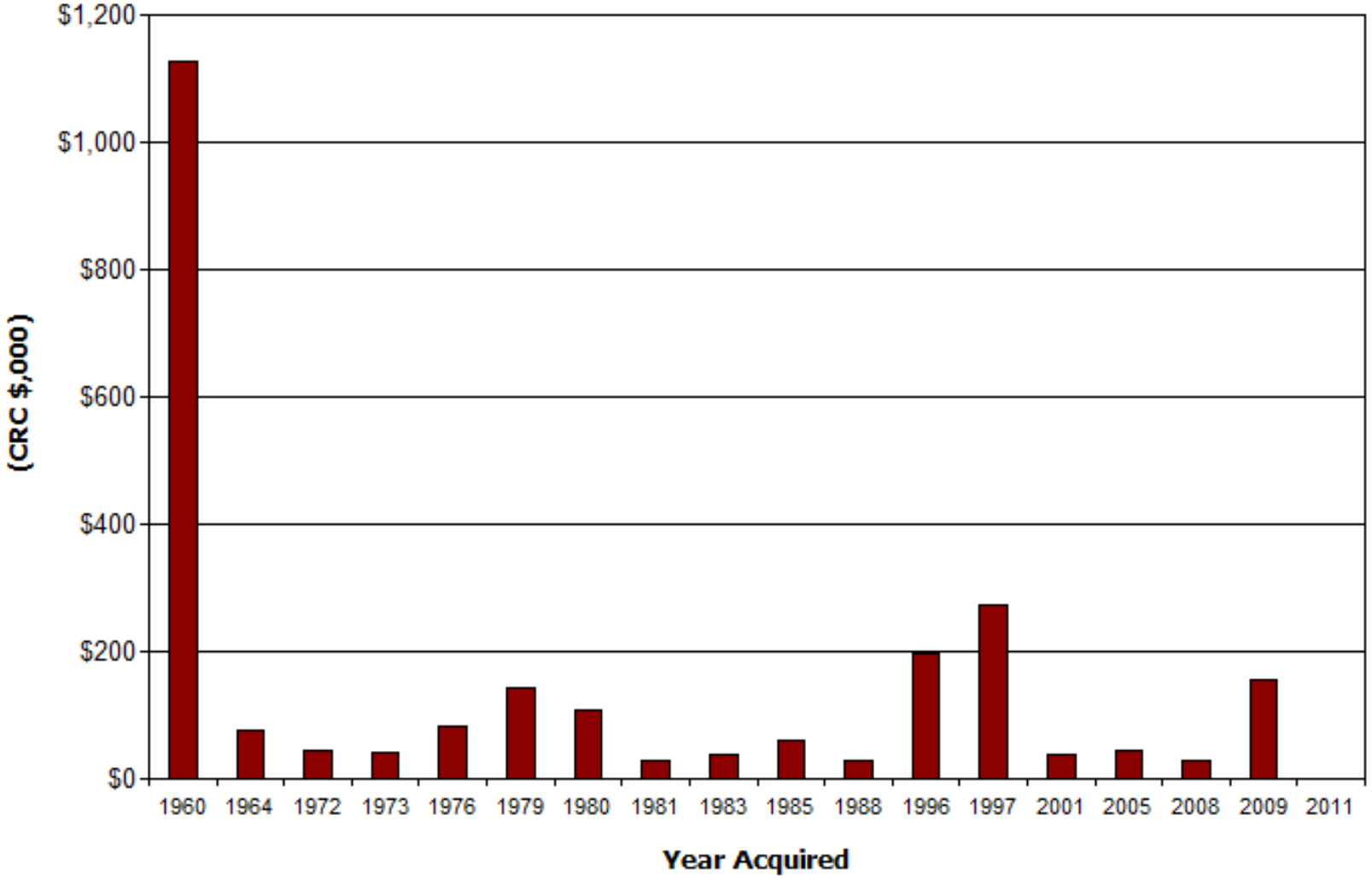
TOWN OF MACKLIN

- **The Water & Sewer Service**
- The network comprises:
- 10,000 meters of water & sewer mainline
- Treated Water Storage of 600,000 gallons
- Water Treatment Plant & supply wells
- Lagoon system capable of treating 350,000 m3 of annual effluent
- Water Treatment Plant constructed in 2007 Lagoon constructed in 2011
- These infrastructure assets have a replacement value of $11.6 million.

Macklin - Age Profile (Water)



Macklin - Age Profile (Sewer)



TOWN OF MACKLIN

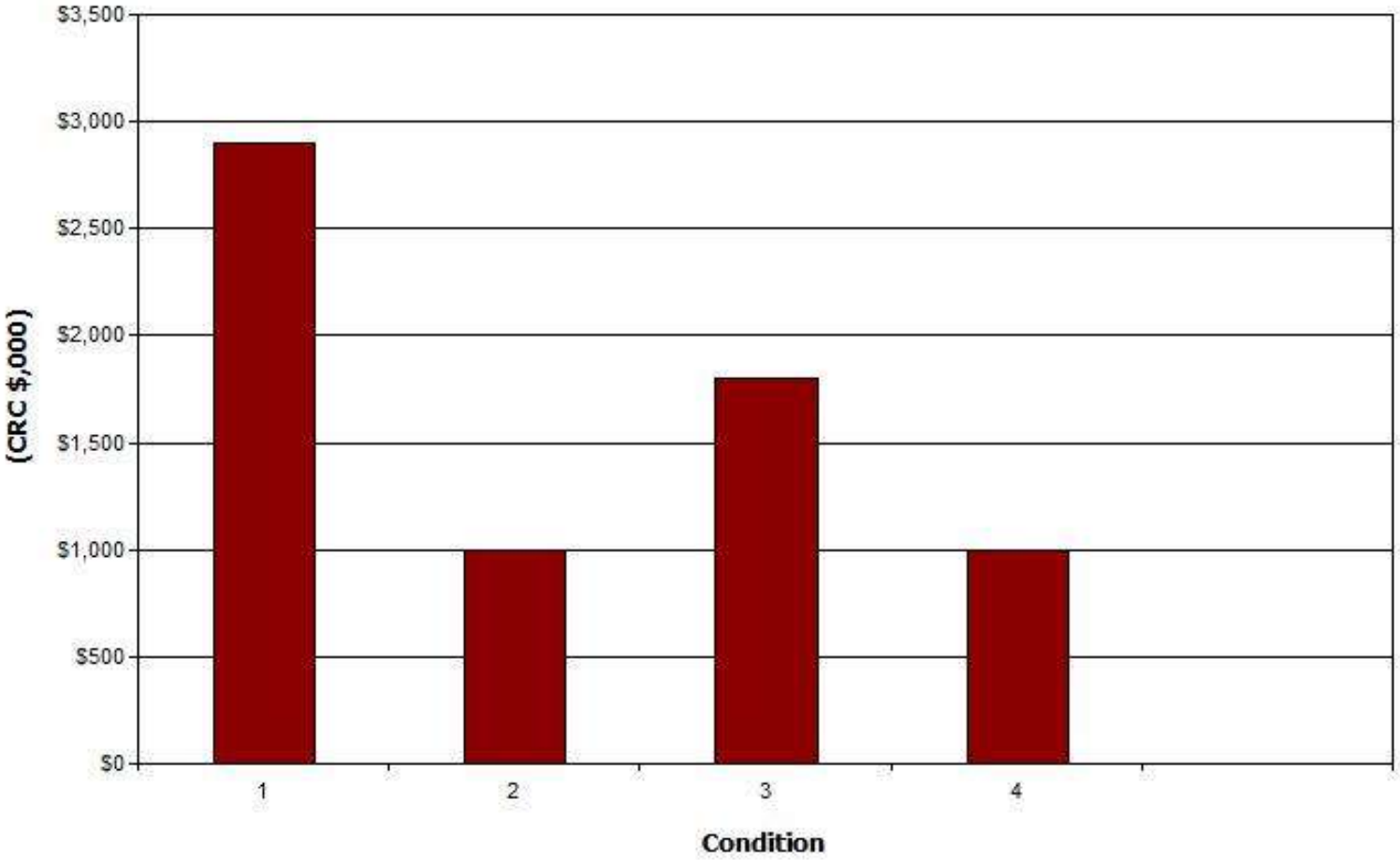
- **Initially the plan showed:**
- The water & sewer system is in good shape for the next twenty years
- Current rates were covering close to 100 % of operating and renewal costs
- $2.3 million of water and sewer lines would need replacement or renewal at the same time 2035

  (20+ years from now)
- Value of our system is continually expanding

TOWN OF MACKLIN

- **Revised plan shows:**
- Planned approach to line replacement and renewal
- Critical analysis allowed us to shorten expected life of problem areas
- Renewal program will begin in 2017 addressing problem areas
- Rates have been adjusted by 13.5% in 2011 (previously planned)
- Rates will be adjusted by a further 8.5% in 2012 to begin funding the system based on this asset plan
- We are currently providing a high quality system that has the capacity to address current and future initiatives with good planning

Macklin - Fig3 Asset Condition Profile (Water)



HOW HAS/WILL THE NAMS SYSTEM BEEN USED

- Critical analysis of our system
- Planned replacement or renewal of the system
- Articulate our expected level of service
- Analyse the true cost of expanding our assets
- Common language for Council, Administration and Staff
- Continuity

  - Less reactionary expenditures

  - Less budgetary fluctuation based on Council desires

  - Stability of direction in the event of Council or staff changes

ANTICIPATED CHALLENGES

- Aligning Community expectations with ability to fund
- Educating Staff & Council while keeping momentum
- Adopting a long term (20 year) financial plan that takes into account all asset categories & following it
- Infrastructure Grant Programs tend to be project specific and may not match our long term plan
- Completing a plan for all asset categories

  - may not be as easy to articulate or fund as they do not operate as separate utilities

  - Streets program has suffered due to funding being put into every other area

  - Can we afford it all?

WHAT ARE OUR CHALLENGES

- How do you entice people to continue planning forward?
- Maybe it is all about giving them some incentive?