



# Public Works – CIP

Capital Improvement Plan

2019 Update

August 7, 2019

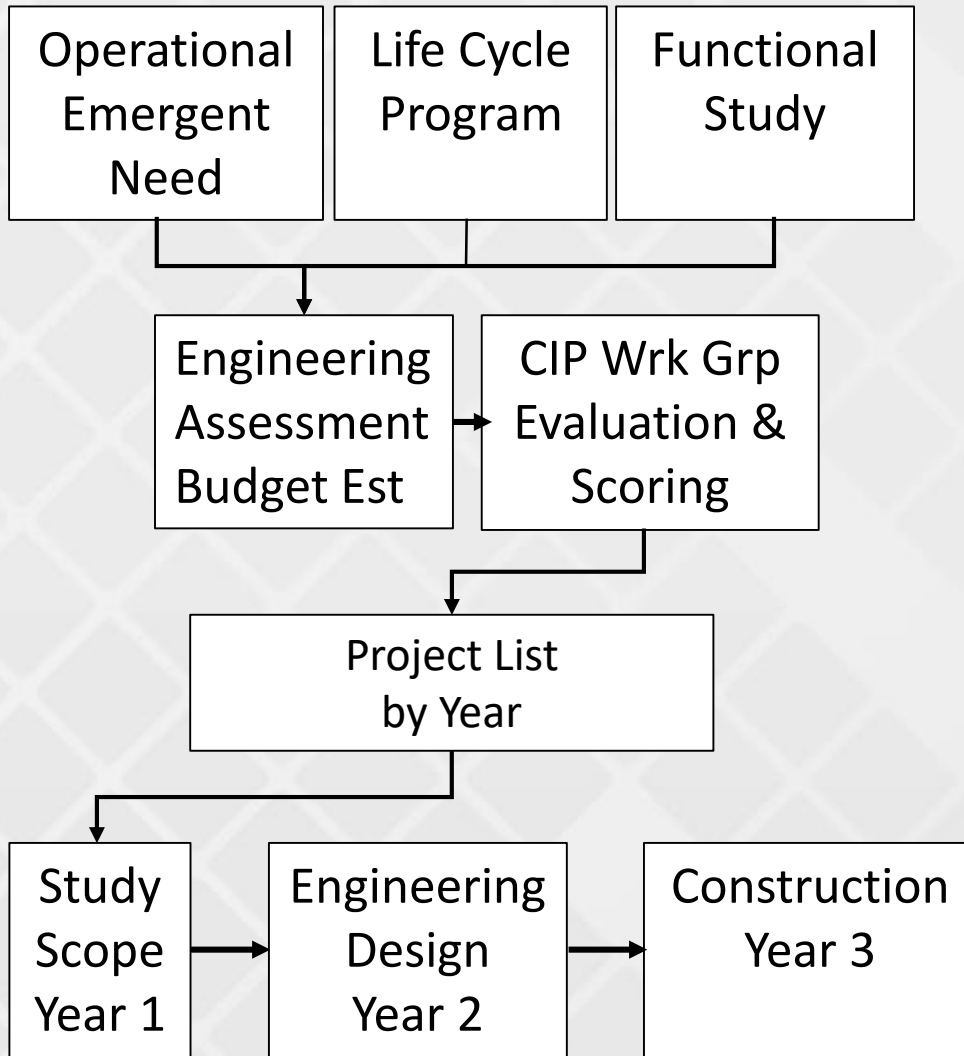
# Overview

---

- Plan development process
- Criteria and goals
- Investment strategy
- Next steps



# Plan Construct



# Overarching CIP **Priorities**

---

- Maximize life of existing infrastructure
  - Recapitalize existing capacity
  - Modernize to improve efficiency and reduce environmental impacts
- Meet regulatory requirements
- Meet tomorrow's capacity demands

# Project Selection

---

- Projects score based on:
  - Probability of failure or value of redundancy
  - Consequence of failure
  - Project Type (Preserve > Modernize > Expand)
  - Strategic initiative contribution
- Balance funding between investment categories
  - Highest priority projects per category to meet investment 5-year average goal
  - Remaining projects compete for left over funding

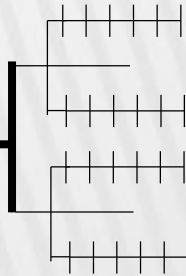
# Investment Categories

**Average Total**  
**\$9.2M**

**Water  
Production  
& Storage**  
**\$1.7M**

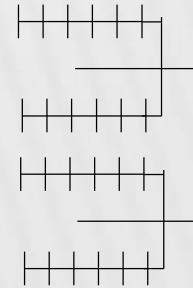


**Water  
Distribution**  
**\$2.7M**



**Happy  
Customer!**

**Sewage  
Collection  
System**  
**\$2.6M**



**Water  
Reclamation  
Plants**  
**\$1.3M**



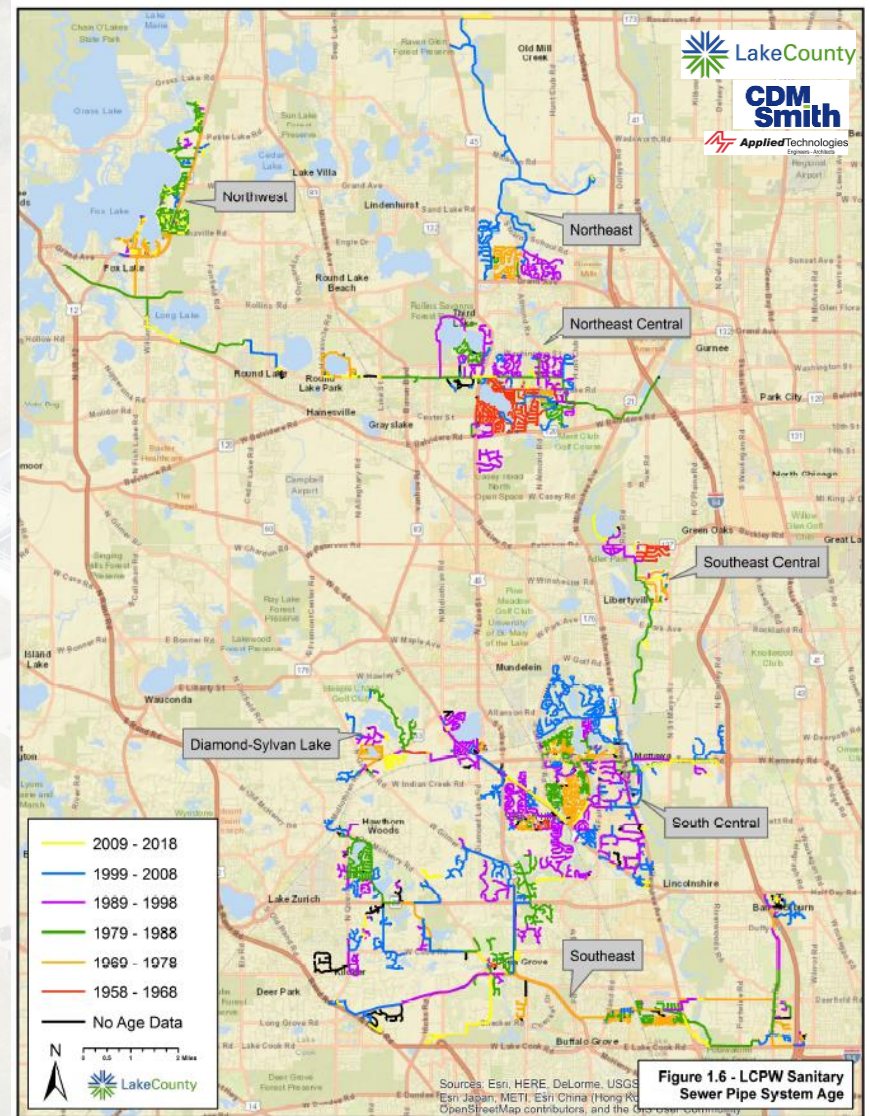
**Other Support Facilities & Equipment**

**\$0.9M**



# Functional Study - Example

- Buried Infrastructure
  - Water Main
  - Sanitary Sewer
- Evaluation of conditions
  - Existing Data Review
  - Interviews
- Risk Definition and Scoring
- Risk Rating
- Capital Improvement Program
- Recommendations



# Water Production & Storage

---

## Strategic Initiative

- 72 hour storage or backup source
- System age within useful life span

## Annual Investment

- \$1.7M
- Historic avg

# Water Distribution

---

## Strategic Initiative

- Replace 1% of system per year based on risk study master plan

## Annual Investment

- \$2.7M
- 2018 risk study



# Sewer Collection

## Strategic Initiative

- Replace 0.35% of system per year based on risk study master plan

## Annual Investment

- \$2.6M
- 2018 risk study

# Water Reclamation Plants

## Strategic Initiative

- Stay ahead of regulations
- System age within useful life span

## Annual Investment

- \$1.3M
- Historic avg\*

\* Excludes major plant upgrades

# Support Facilities & Equipment

## Strategic Initiative

- System age within useful life span

## Annual Investment

- \$0.9M
- Historic Avg

- Annual Fleet Recapitalization
- Annual Bldg Maint & Paving
- Levee Maintenance
- Fire Hydrant Replacement
- Generator Maintenance




# New Start Recap

Investment Category	Target 5 yr Avg	5 Yr Avg	FY2020	FY2021	FY2022	FY2023	FY2024
Water Production & Storage	\$1.7M	\$2.4M	\$1.5M	\$6.9M	\$0.9M	\$2.6M	\$0.1M
Water Distribution	\$2.7M	\$3.0M	\$0.8M	\$3.2M	\$2.8M	\$5.2M	\$2.9M
Waste Water Collection	\$2.6M	\$3.5M	\$4.5M	\$5.1M	\$2.4M	\$3.5M	\$2.3M
Water Reclamation	\$1.3M	\$0.4M	\$0.1M	\$0.2M	\$0.9M	TBD	TBD
Other	\$0.9M	\$2.2M	\$2.6M	\$2.8M	\$1.8M	\$1.8M	\$1.9M
<b>FY TOTAL (2019 Validation)</b>		\$11.3M	\$9.5M	\$18.1M	\$8.8M	\$13.1M	\$7.1M
<b>FY TOTAL (w/o Prior Yr)</b>		\$8.4M	\$7.0M	\$9.3M	\$8.0M	\$10.6M	\$7.1M

- Avg investment across 5 years is \$8.4M w/o prior year funded projects
- FY2021 spike is due to Vernon Hills Reservoir

# Next Steps

---

1. Align User rate to support program
  2. Build Capacity Tools
  3. Utilize Modeling and Capacity Analysis for project scope refinement
  4. Commission Facility Master Plan
- 
- The background of the slide is a faded photograph of a modern building with large windows. In the foreground, there is a paved walkway leading towards the building. To the right, an American flag flies on a tall pole. The overall scene is bright and clear, suggesting a professional and forward-looking environment.