

# Challenges of Infrastructure Buildout

Jacques Annandale, P.E.  
Grants & Capital Assets Manager



# Overview

- Utility Background
- Current Infrastructure Conditions
- Development Challenges
- Solutions



# Utility Background

- AWWU is one organization made of two utilities
  - Anchorage Water Utility – AWU
  - Anchorage Sewer Utility – ASU
- Primary Regulators
  - Regulatory Commission of Alaska (RCA)
  - Alaska Department of Environmental Conservation (ADEC)
  - Environmental Protection Agency (EPA)



# Current Infrastructure Conditions

- **Customer**
  - Infrastructure in use (service & mains).
- **Benefited but not Customer**
  - Infrastructure fronts property but not in use (service not complete).
- **Not Benefited**
  - No infrastructure fronting property.



# Current Infrastructure Conditions

## Properties in AWU Service Area

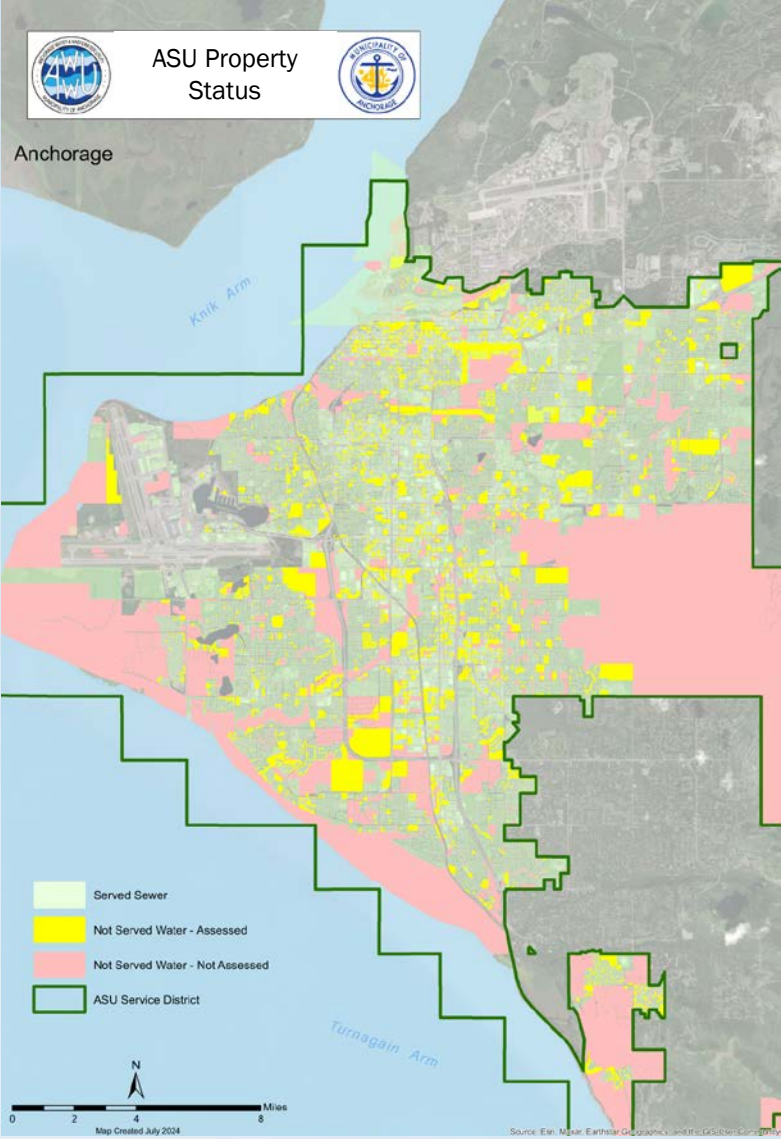
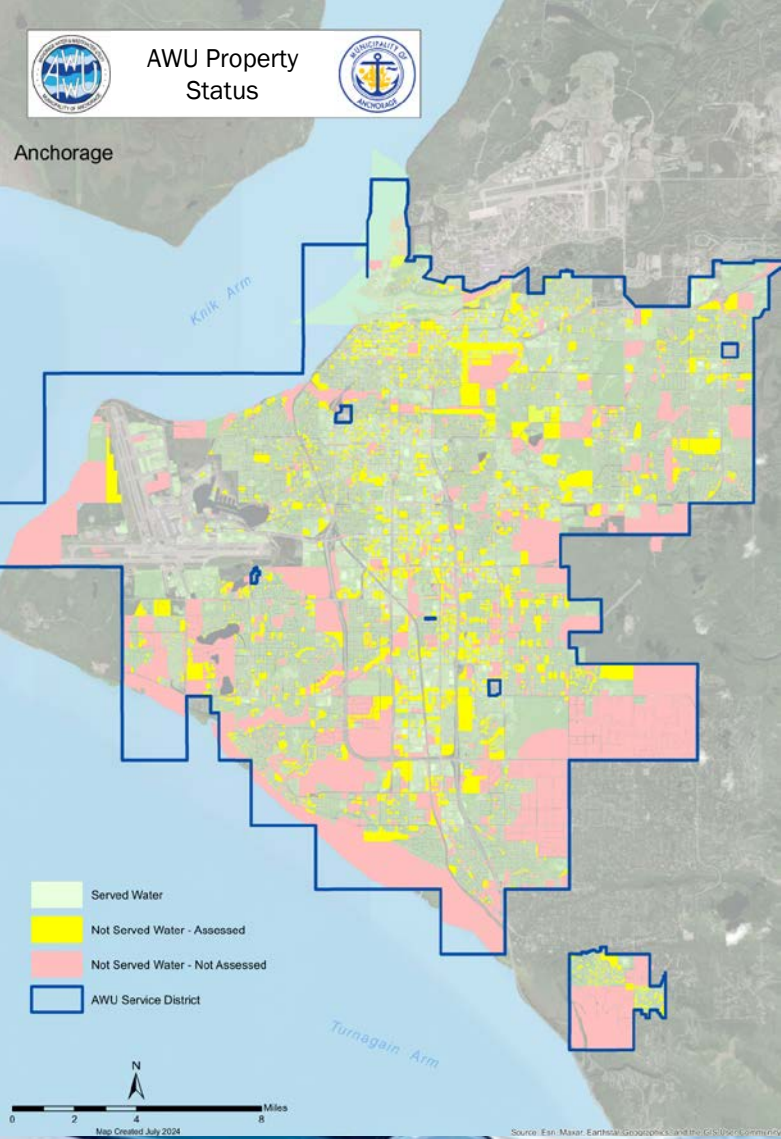
Customers	80%
Benefited but not Customers	6%
Not Benefited	14%

## Properties in ASU Service Area

Customers	80%
Benefited but not Customers	6%
Not Benefited	14%



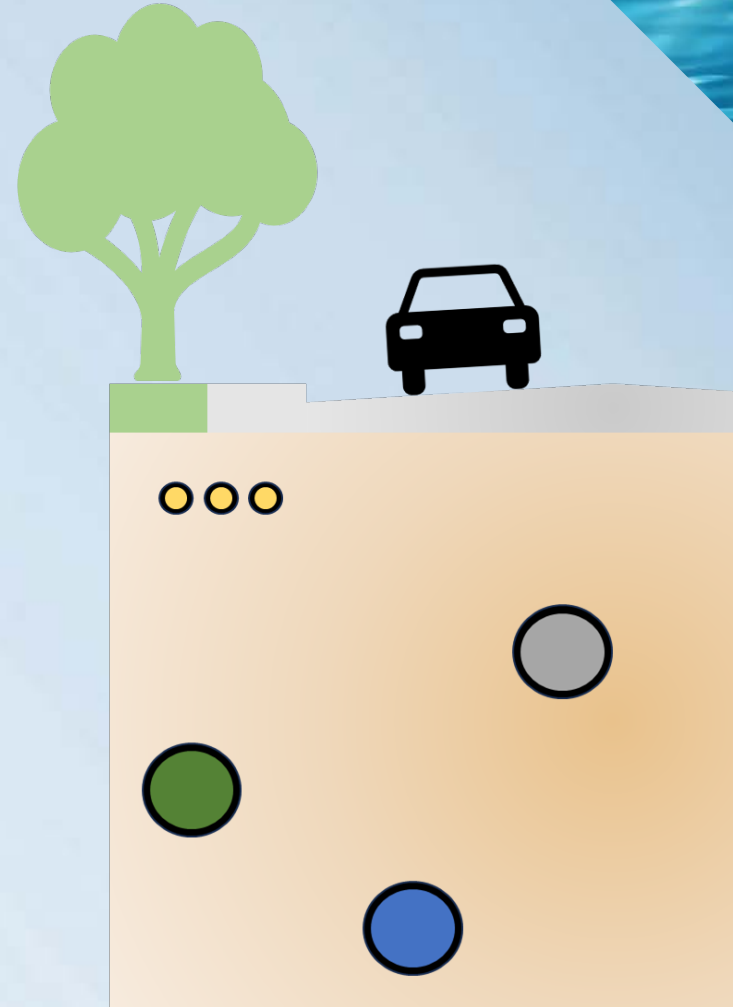
# Current Infrastructure Conditions



# Offsite Development Costs

- Offsite Development Costs

- Road
- Electric | Gas | Telecom ●●●
- Drainage ●
- Sewer ●
- Water ●



# Historical Expansion Programs

- Improvement Districts
  - Community voted
  - Financial responsibility on community
- Private Developers
  - Market driven
  - Financial responsibility on developer
    - Private Development
    - Private System





# Development Challenges

- Current programs are cost prohibitive resulting in:
  - Limited land for development
  - Barriers to attract and start businesses
  - Stagnant economic development



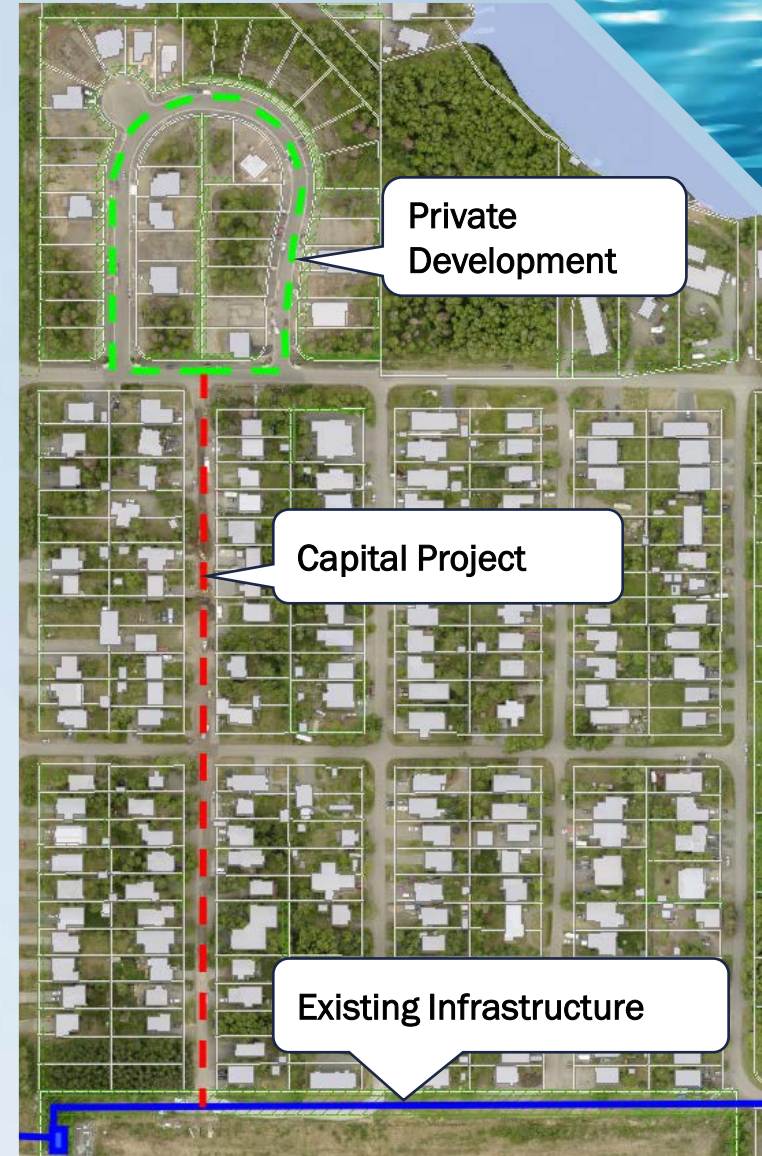
# In Response to the Challenges

- Infrastructure Coordination Agreements (ICA)
  - Flexible Development Contracts
  - Similar to Public Private Partnerships (P3)
- Federal Grant Funding Opportunities
  - Congressional Directed Spending
  - Competitive Grant Opportunities
- Hybrid Private Development & Private System Projects



# Sandhill Reserve ICA

- Feasibility
  - Project Economy of Scale
  - Public Health & Safety Needs
- Scope
  - Private Development Project
  - AWWU Capital Project
- Successes
  - Improved Health & Safety
  - Increased Housing Supply
  - Increased Utility Rate Payer Base
  - Increased Property Values



# Federal Funding Opportunities

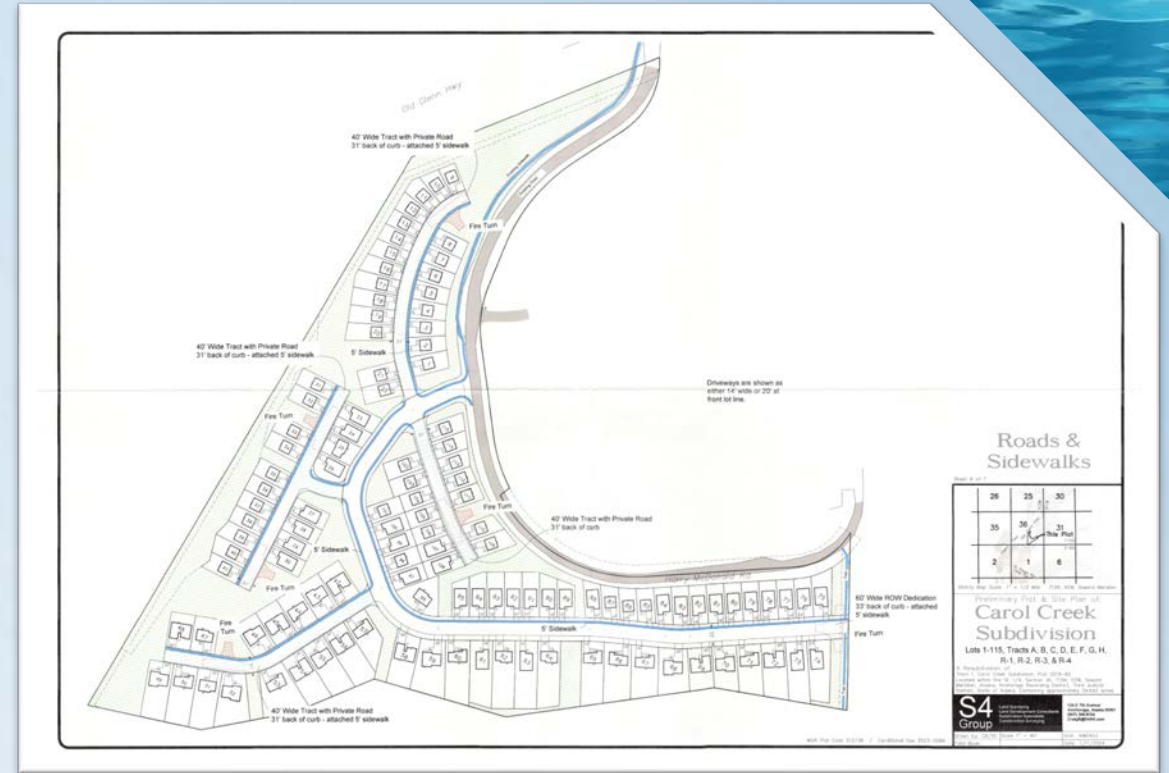
## Infrastructure Investment Success

Holtan Hills Regional Sewer Access Project	\$3,125,000	\$3,125,000	Funded - FY23
Powder Reserve Regional Sewer Access	\$5,625,000	\$8,750,000	Funded - FY23
Regional Landfill Leachate Treatment Facility	\$16,250,000	\$25,000,000	Funded - FY23
Ruane Road Culvert Replacement	\$2,500,000	\$27,500,000	Funded - FY23
Snowy Court Resiliency Water Pipeline	\$375,000	\$27,875,000	Funded - FY24
Eldon Subdivision Regional Fire Protection Water Pipeline	\$1,497,000	\$29,372,000	Funded - FY24
Regional Emergency Water Fill Stations	\$2,200,000	\$31,572,000	Funded - FY24
Terraces Subdivision Fire Protection Improvements	\$4,700,000	\$36,272,000	Funded - FY24
Sand Lake Public Water Access	\$6,625,000	\$42,897,000	Funded - FY24
Tanaina Hills Subdivision Public Water Access	\$4,287,367	\$47,184,367	Request - FY25
Girdwood Well Production Upgrades	\$3,750,000	\$50,934,367	Request - FY25
River's Edge, Eldon, and Patricia Subdivisions Sewer Access	\$3,625,000	\$54,559,367	Request - FY25
Romig Utility Contaminated Well Replacement	\$6,250,000	\$60,809,367	Request - FY25
Municipality of Anchorage Public Sewer Access	\$3,750,000	\$64,559,367	Request - FY25
King Street Emergency Equipment Warm Storage Facility	\$47,000,000	\$111,559,367	Application Submitted



# Hybrid Projects: Carol Creek Development

- AWWU Private Development (public mains) on private streets with optimized easement design
- Allowed for higher density
- Minimized public liability
- Maintained high design standards & service



Jacques Annandale, P.E.

*Grants & Capital Assets Manager*

*Jacques.Annandale@awwu.biz*

907.903.3594

