

Town of Palm Beach Water Supply Feasibility Study

Meeting
May 24, 2022

Overview

- Age Based Watermain Assessment
- Franchise Agreement and Critical Pipelines
- Water Treatment Methods
- In-Home Water Treatment
- Topics for Future Meetings

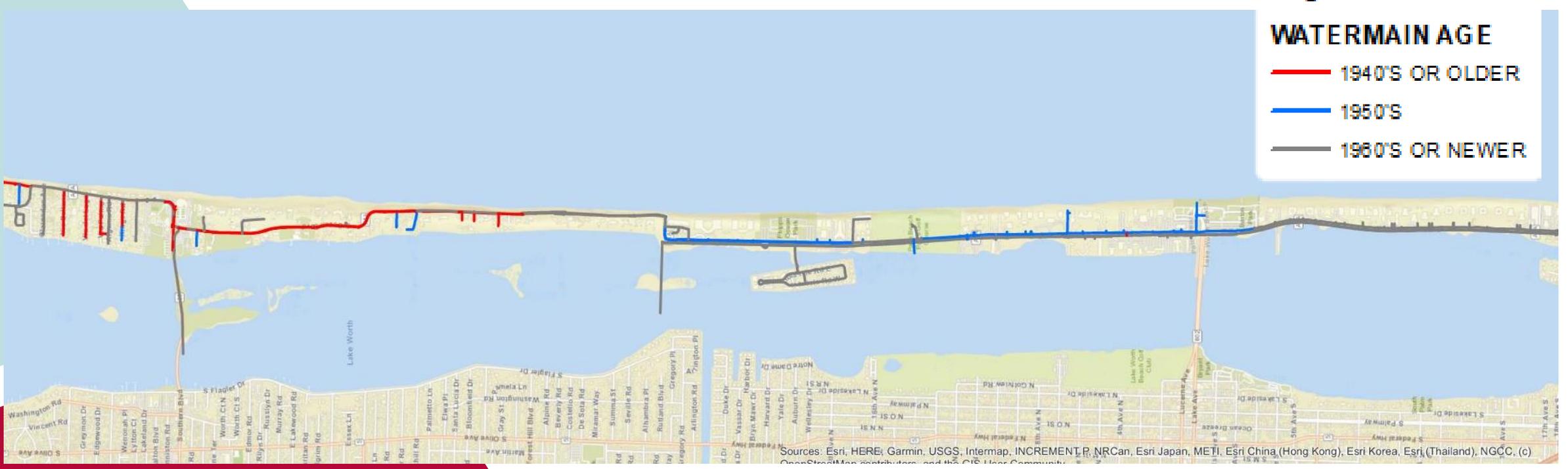
Age Based Watermain Assessment



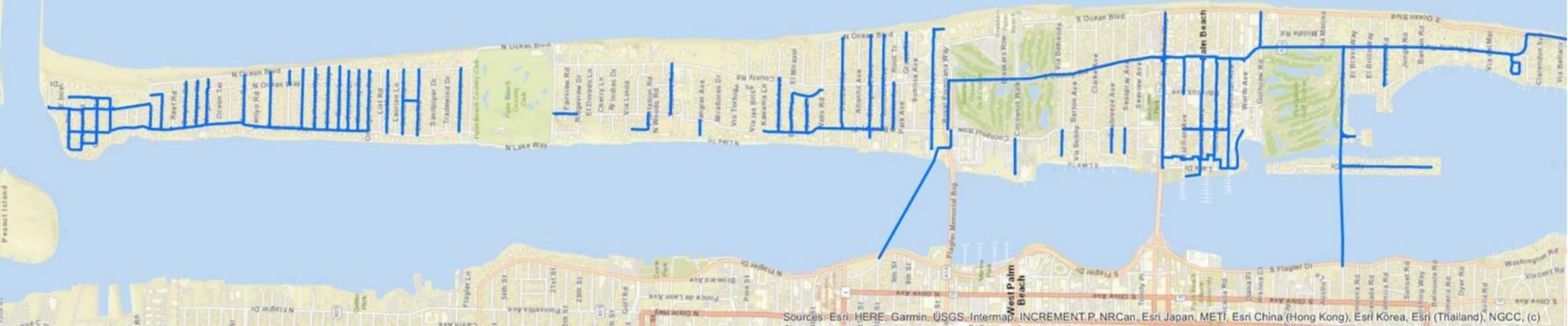
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WATERMAIN AGE

- 1940'S OR OLDER
- 1950'S
- 1960'S OR NEWER



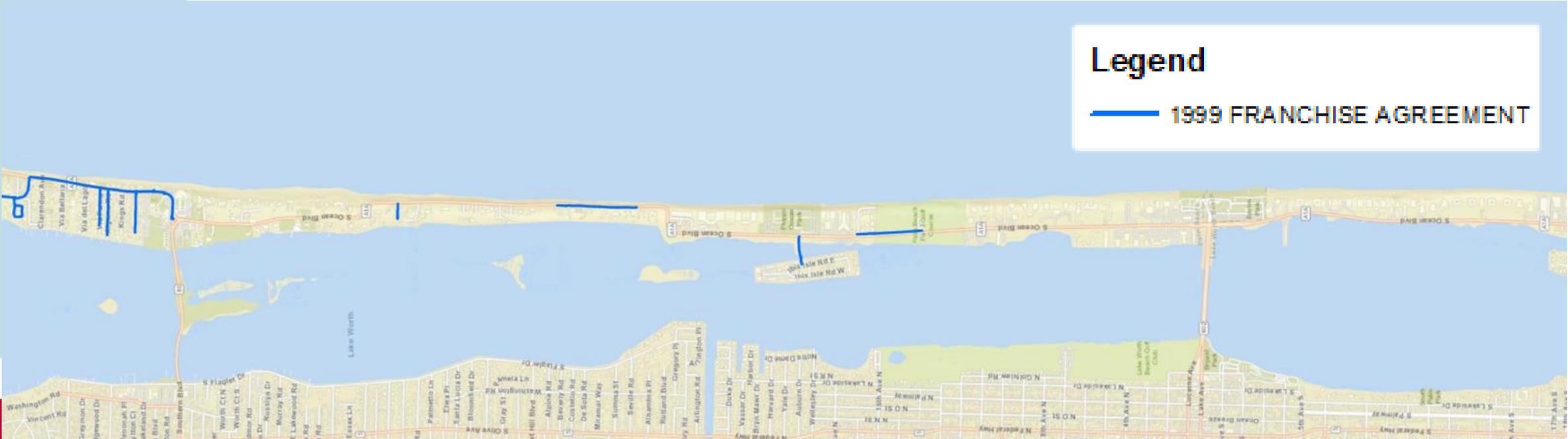
1999 Franchise Agreement



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)

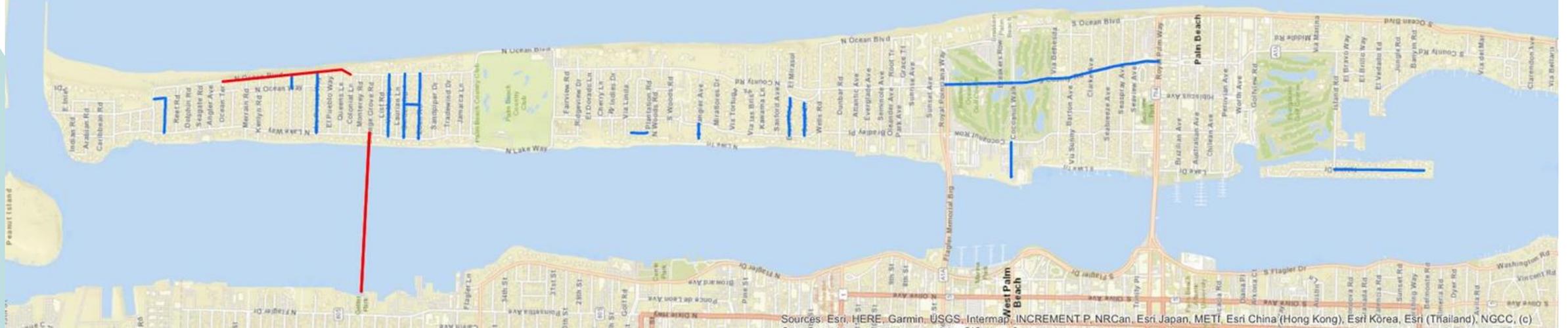
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— 1999 FRANCHISE AGREEMENT



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)

Remaining Watermains to be Replaced



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)

Legend

-  CRITICAL WATERMAIN
-  REMAINING FRANCHISE AGREEMENT



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)



Water Treatment Plant Methods

City of West Palm Beach

- Capacity: 47 MGD
- Source: Surface water
- Treatment: Conventional



PBCWUD WTP 8

- Capacity: 30 MGD
- Source: Surficial Aquifer (Shallow Groundwater)
- Treatment: Conventional and Anion Exchange



PBCWUD WTP 2

- Capacity: 16.4 MGD
- Source: Surficial Aquifer (Shallow Groundwater)
- Treatment: Conventional and MIEX Anion Exchange



PBCWUD WTP 3

- Capacity: 30 MGD
- Source: Surficial Aquifer (Shallow Groundwater)
- Treatment: Nanofiltration Membrane



PBCWUD WTP 9

- Capacity: 26.88 MGD
- Source: Surficial Aquifer (Shallow Groundwater)
- Treatment: Nanofiltration Membrane



Lake Worth Beach WTP

- Capacity: 17.4 MGD
- Source: Surficial Aquifer and Floridan Aquifer
- Treatment: Conventional and Brackish Water Reverse Osmosis



In-Home Water Treatment

- Point of Use Treatment
 - Cloth Filters
 - Ion Exchange Softeners
 - Ultraviolet (UV)
 - Carbon Filters
 - Membranes



In-Home Water Treatment- Single Fixture

- Limited to a single point of use or one faucet
- Cost
 - \$250-\$500
 - Installation = \$1,000
 - Maintenance = \$1,000 annually or greater



In-Home Water Treatment- Whole House

- Limited to drinking/bathing water only
- Cost
 - \$5,000
 - Installation Costs vary: \$10,000-\$25,000
 - Maintenance = \$5,000 annually or greater



Topics for Future Meetings

- Drought impacts for various water sources
- SFWMD Regulations - water use impacts to alternative sources.
- Utility formation