



# KC Water FY21-FY22 Capital Improvements Program

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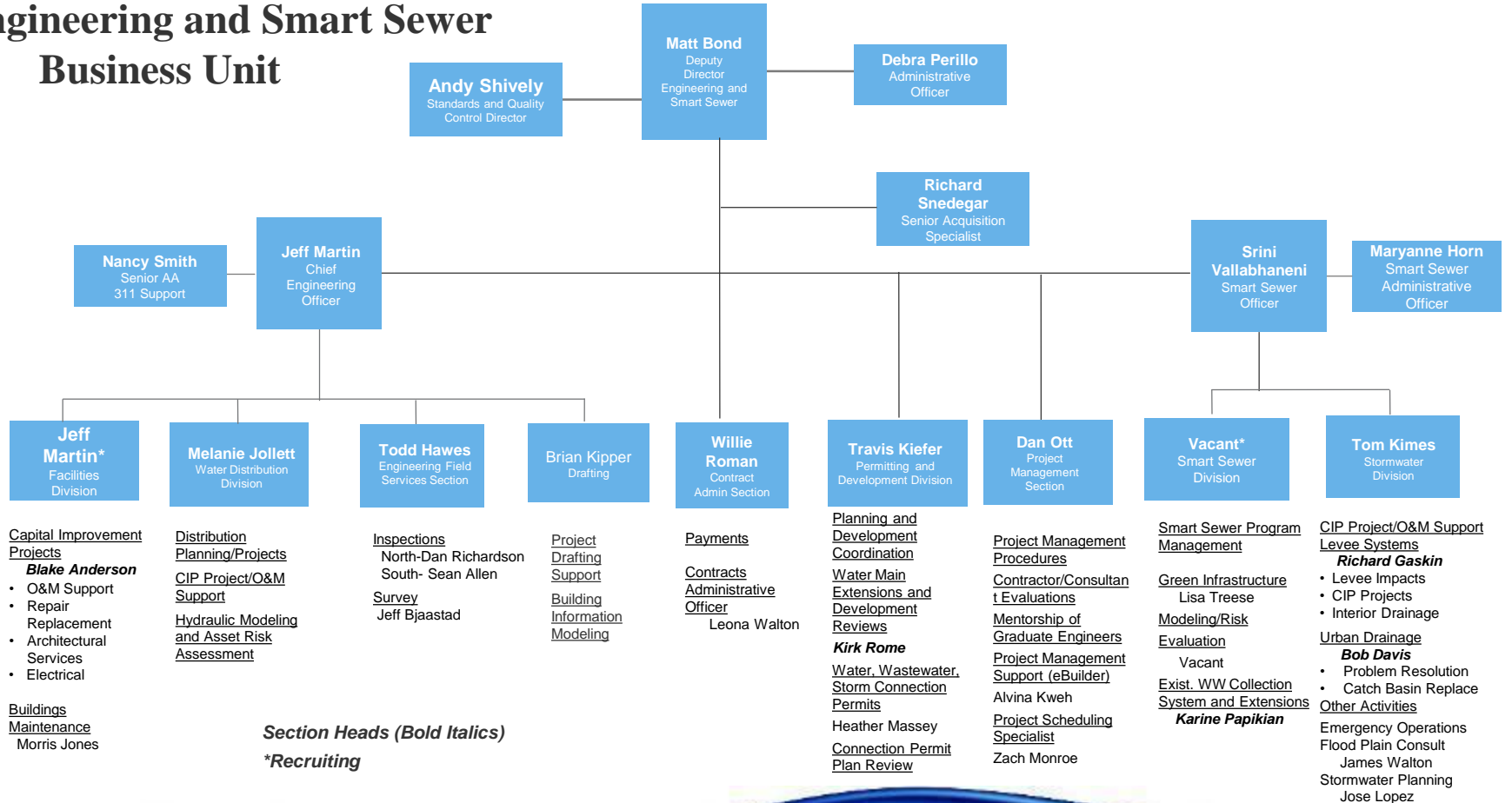


# Engineering and Smart Sewer Updates

- Smart Sewer program back to KC Water
- Expanded use of eBuilder for all Projects
- New Design Professional evaluation process this summer
- CIP Challenges—some project deferrals



# Engineering and Smart Sewer Business Unit

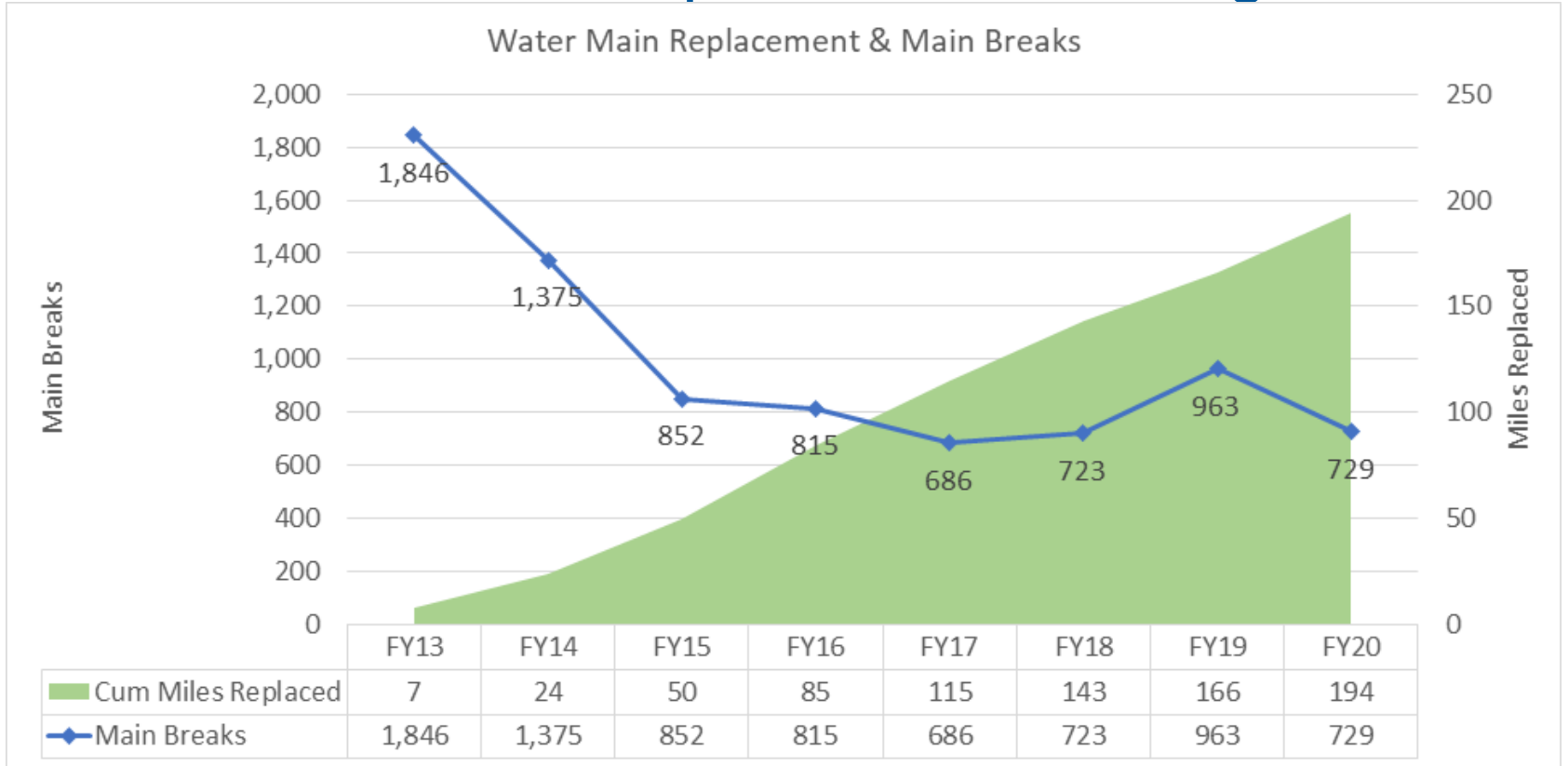


# Water Main Replacement Program

- Current year CIP includes:
  - 13 distribution main construction projects totaling \$21,000,000
  - 3 additional transmission/distribution main construction projects
    - \$16,000,000 total
    - 1 Design-Build (currently advertised)
  - 11 distribution main design projects totaling \$3,750,000
    - 4 SLBE-WSD EPS
  - 3 additional transmission/ distribution main design projects totaling \$1,400,000

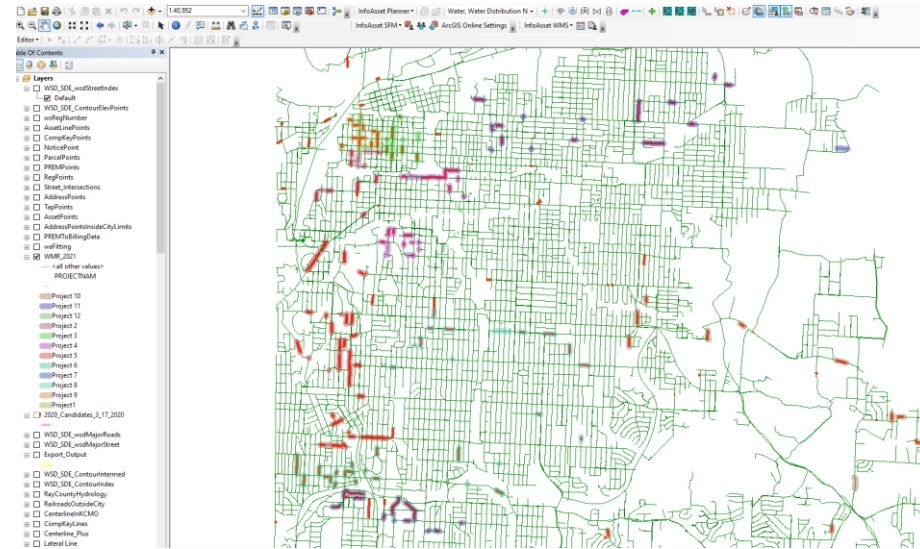


# Water Main Replacement Program



# Risk-Based Water Distribution System Modeling and Forecasting

- Design Professional Services
- Existing water distribution model
  - Development of “Digital Twin” model
  - Calibrated to July 2019/February 2020 operational controls
  - Future refinement will develop forecasting capabilities
- Implementation of Info Asset Planner (IAP)
  - Refining LOF/COF to calculate Total Risk
  - Developing model scenarios to expand Total Risk criteria for annual WMR Program
  - Model output to be used in IAP



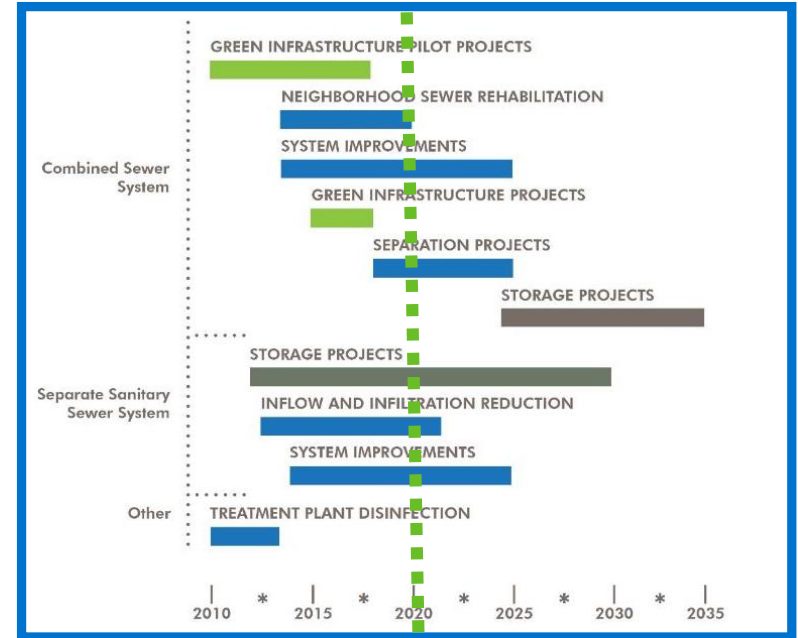
# Water Treatment Plant Modernization

- Secondary Basin Improvements Construction Project
  - Work in all 6 secondary basins
    - New launders, weirs and supports
    - New bridge walkways
    - New residuals collection equipment
    - Concrete repairs
    - Electrical and I&C improvements
- Designed to allow for future capacity expansion
- Additional phases to follow in the coming years



# Smart Sewer Program Projects

- Green infrastructure
- Sewer separation
- Infiltration and Inflow reduction
- Relief sewers
- Large diameter sewer inspection and rehabilitation





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