



Georgia's  
**State Water Plan**

**Suwannee-Satilla  
Regional Water Planning Council Meeting  
September 30, 2020**

# Council Meeting Agenda



## Council Meeting Suwannee-Satilla Regional Water Council Agenda - September 30, 2020

### *Objectives:*

- 1) Receive updates from SRWMD and Suwannee River Partnership related to on-going work in the Suwannee River Basin
- 2) Receive updates on the ongoing Municipal, Energy, Industrial and Agricultural Water Demand Forecasts
- 3) Receive updates on Potential Seed Grant Projects

- 10:00 – 10:10 a.m. Welcome and Introductions  
Approve meeting minutes from October 30, 2019 Council Meeting  
Approve meeting agenda
- 10:10 – 10:40 a.m. Updates from Suwannee River Water Management District (Tom Mirti, SRWMD)
- 10:40 – 11:00 a.m. Updates from the Suwannee River Partnership (Kelly Aue, UF IFAS)
- 11:10 - 11:40 a.m. Updates on Technical Work supporting the 2020-2022 Regional Water Plan Update Cycle  
- Municipal Water Demand Forecast (Bill Davis, CDM Smith)  
- Energy Water Demand Forecast (Bill Davis, CDM Smith)  
- Industrial Water Demand Forecast (Bill Davis, CDM Smith)  
- Agriculture Water Demand Forecast (Bill Davis, CDM Smith)  
- Technical Committee Members Report Out
- 11:40 - 11:50 a.m. Seed Grant Updates (Shayne Wood, CDM Smith)
- 11:50 - 12:00 p.m. Discussion  
Next Steps / Public Comments / Local Elected Official Comments  
Wrap Up
- 12:00 p.m. Adjourn



# Council Business

# Council Meeting Overview

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- Welcome and Introductions
- Meeting Summary from October 30, 2019 Council Meeting in Valdosta, GA
- Approve meeting agenda



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Updates From Suwannee River Water Management  
District – Tom Mirti, SRWMD



# Updates from the Suwannee River Partnership – Kelly Aue, UF IFAS



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# Updates on Technical Work Supporting the 2020- 2022 Regional Water Plan Update Cycle



# Georgia's State Water Plan

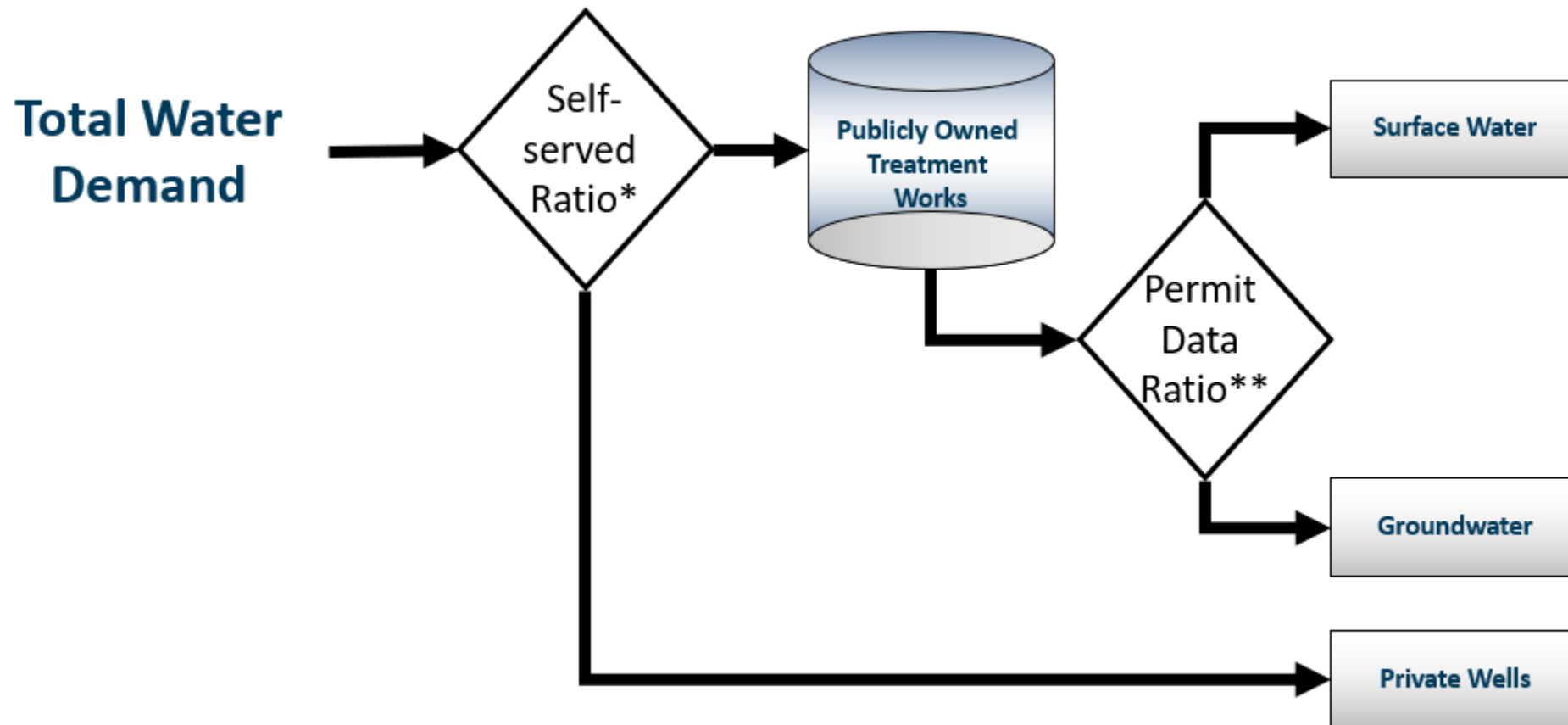
## Municipal Water Demand Forecast



# Municipal Water Demand Forecasting

- Municipal Forecasting Stakeholder Group
  - Includes one representative from each Council & the Metro Water District
  - Scott Downing represents Suwanee-Satilla Council
  - Stakeholder Meetings held on April 16 and June 3
    - Reviewed methodology and initial data collection
    - Reviewed draft forecast results
  - Next meeting to be held this fall (date TBD)
- Forecast being prepared by Black & Veatch team
- Information from Industrial forecasting efforts will inform this forecast (municipally-supplied industries)

# Municipal Water Demands



\*Based on previous USGS estimates

\*\*Based on existing GA EPD permit data

# Municipal Water Demands – Self Supplied

- County % population self-supplied water (groundwater wells)
  - The % self supplied will remain constant into the future, unless County-specific information is received.

County	2017 Plan Percent Population Self Supplied	Self Supplied Per Capita <sup>1</sup>	Updated Percent Population Self Supplied <sup>2</sup>
Atkinson	53%	100	47%
Bacon	67%	100	57%
Ben Hill	21%	100	26%
Berrien	55%	100	60%
Brantley	86%	100	87%
Brooks	57%	100	51%
Charlton	59%	100	47%
Clinch	53%	100	43%
Coffee	58%	100	50%
Cook	43%	100	48%
Echols	79%	100	78%
Irwin	63%	100	66%
Lanier	61%	100	60%
Lowndes	17%	100	21%
Pierce	72%	100	58%
Tift	28%	100	33%
Turner	34%	100	34%
Ware	15%	100	11%

<sup>1</sup> During the municipal ad hoc group meeting 2/25/10 it was decided that the group would rather use 100 GPCD for self supplied domestic water users.

<sup>2</sup> Ratios as shown in the Estimated Use of Water in Georgia for 2015 and Water Use Tends, 1985-2015 (USGS, 2019).

# Municipal Water Demands – Public Supply

- Data collection was focused on 2019 average annual water withdrawals (as reported to EPD)
- Municipal water use:
  - 2019 Groundwater use: 39.52 mgd
- Forecast (through 2060) is based on updated per capita use estimates and population projections
  - 2060 Forecasted Groundwater use: 39.58 mgd

# Municipal Water Demands – Per Capita

- Updated per capita demand values based on water audit submissions to EPD (forecasting team reviewing 2019 data)

Suwannee - Satilla Per Capita Water Demand (gpcd)

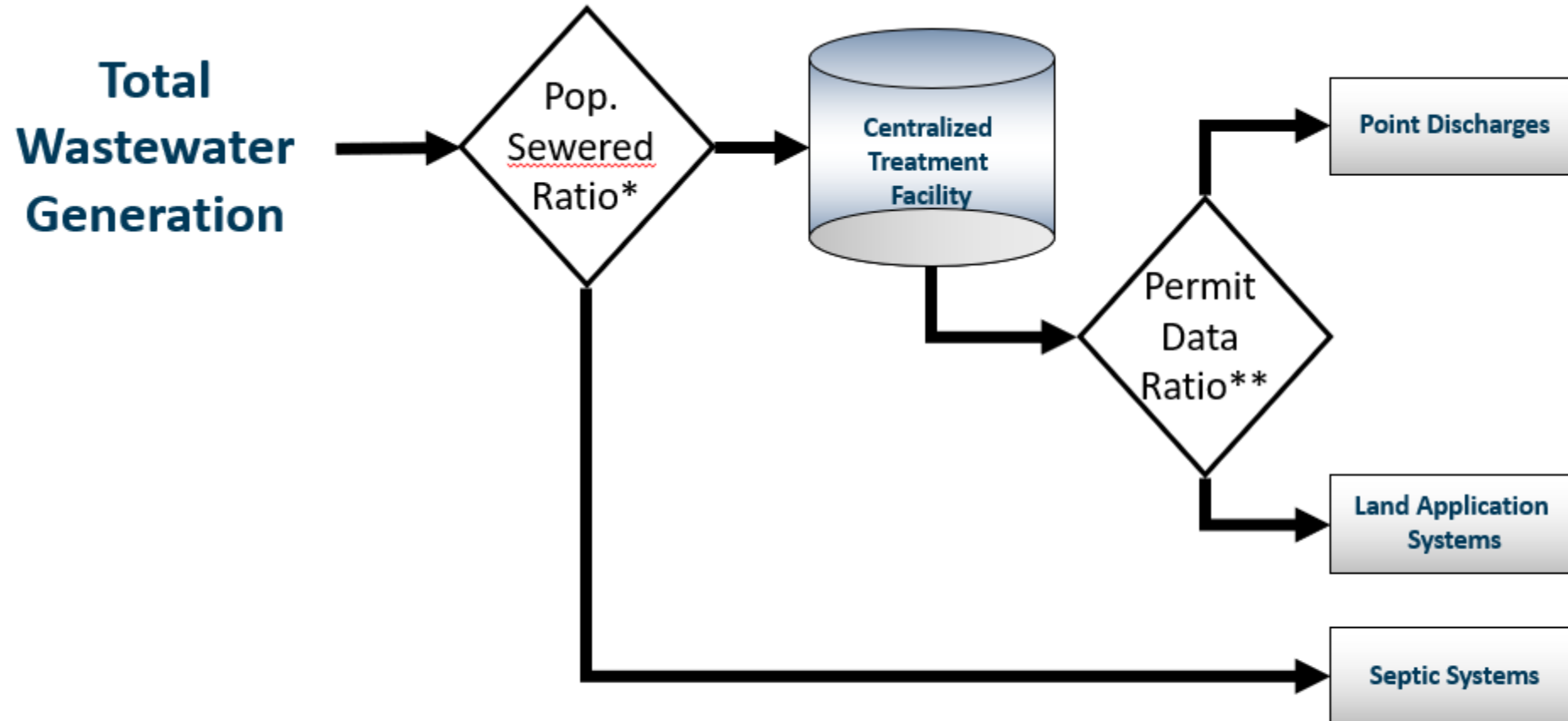
County	2011 Plan Per Capita Demand	2017 Plan Per Capita Demand	Updated Per Capita Demand <sup>1</sup>
Atkinson <sup>2</sup>	112	111	109
Bacon	170	177	141
Ben Hill	180	177	163
Berrien	131	128	128
Brantley <sup>2</sup>	93	96	115
Brooks	137	147	162
Charlton	123	128	115
Clinch	148	140	137
Coffee	153	139	217
Cook	142	131	147
Echols <sup>2</sup>	96	96	96
Irwin <sup>2</sup>	152	148	170
Lanier <sup>2</sup>	153	143	99
Lowndes	133	129	169
Pierce	127	131	73
Tift	156	153	179
Turner	140	140	160
Ware	114	109	103

NOTES:

<sup>1</sup> Weighted average per capita calculated using the available 2015-2018 Water Loss Audits.

<sup>2</sup> Per capita was calculated using the population stated in SDWIS and the recorded water demands.

# Municipal Wastewater Demands



\*Based on 1990 US Census Bureau data

\*\*Based on existing GA EPD permit data

# Municipal Wastewater – Septic

- County % population on septic systems
  - Will be held constant, unless specific input received
- Values shown in unshaded cells are from Georgia Dept. of Public Health data (through 2018)
- Values shown in shaded cells are from the 1990 Census housing characteristics for Georgia (used where DPH data was deemed inappropriate for use by forecasting team)

County	% Septic Users in 2020
Atkinson County	60%
Bacon County	85%
Ben Hill County	82%
Berrien County	78%
Brantley County	92%
Brooks County	68%
Charlton County	81%
Clinch County	74%
Coffee County	61%
Cook County	47%
Echols County	100%
Irwin County	89%
Lanier County	90%
Lowndes County	42%
Pierce County	66%
Tift County	39%
Turner County	73%
Ware County	74%

# Municipal Wastewater – Municipally Treated

- Data collection was focused on 2019 average annual wastewater discharges (as reported to EPD)
- Municipal wastewater flows in Suwanee-Satilla region:
  - Point source discharges: 35.42
  - mgd
  - Land application system (LAS): 5.89 mgd
- Wastewater Forecast (through 2060) is based on population projections
  - 2060 Forecasted Wastewater flow: 41.3 MGD





# Energy Water Demand Forecast

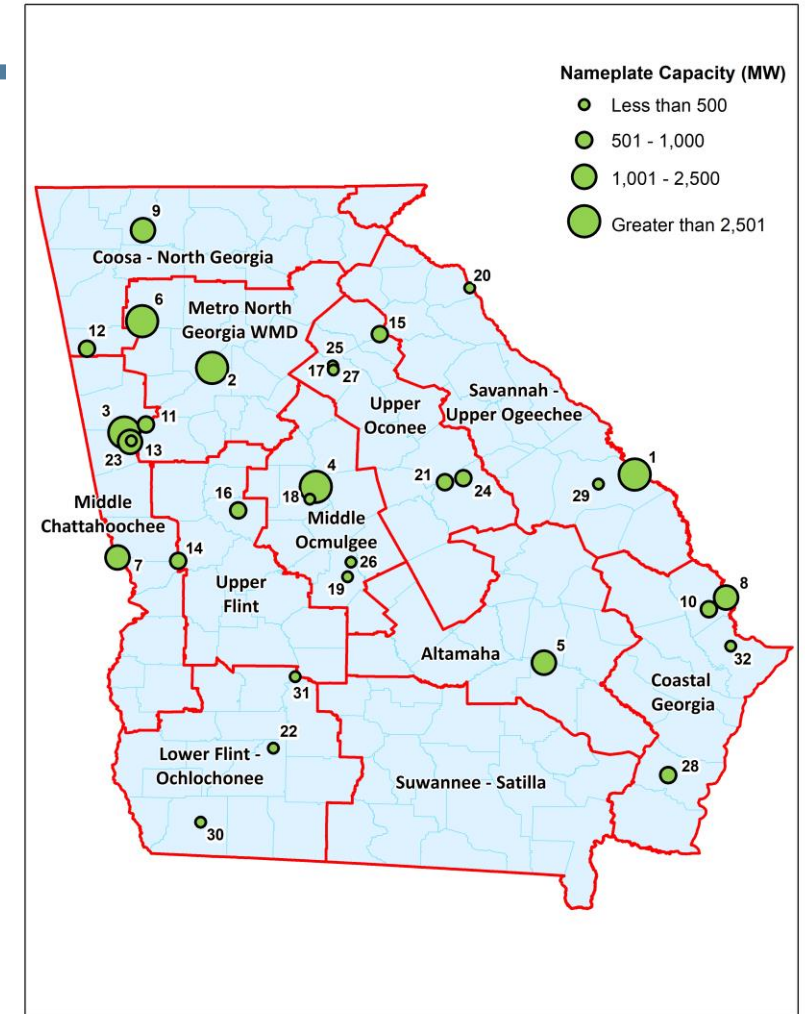
# Energy Water Demand Forecasting Stakeholder Group

Participating Representatives from:

- Georgia Power / Southern Company
- Municipal Electric Authority of Georgia (MEAG)
- Oglethorpe Power Corporation
- Dalton Utilities
- Georgia Public Service Commission
- Georgia Environmental Finance Authority

# Purpose of Energy Stakeholder Group

- Provide input on the methodology used to estimate future water demand for thermoelectric power generation
- Review and provide input on:
  - Available data
  - Updated list of thermoelectric facilities
  - Method for statewide energy generation estimate
  - Estimation of water withdrawal and consumption forecast by facility



# Energy Forecasting Methodology

- Each power facility has a unique water-to-power-to-production signature
- The need for power is estimated statewide
- The current statewide generating capacity by fuel-type is known and may be capable of meeting the projected statewide need.
- Statewide, each facility contributes a unique portion to the entire power portfolio and is allocated a portion of the future generation.
- The projected generation of each facility is used to estimate water withdrawal and consumption by location

# Where We Are in the Process

## EPD & Planning Contractor

- ✓ Refined estimate of statewide need for energy
- ✓ Estimated future generation by configuration type to meet future need
- ✓ Estimated need for additional capacity if necessary
- ✓ Estimated future withdrawal & consumption by location

## Stakeholders

- ✓ Provided feedback on materials presented at April 29th kickoff meeting
- ✓ Reviewed draft forecast technical memorandum (TM) from 7/28/20
- ✓ Participated in follow-up meeting on August 14<sup>th</sup> to discuss draft forecast and provided feedback
- ✓ We addressed stakeholder comments to finalize forecast TM



# Industrial Water Demand Forecast

# Introductory Kickoff Meeting held June 3, 2020

## Participating Industrial Stakeholders:

- Rayonier Performance Fibers
- Georgia Paper and Forest Products Association
- Irving Consumer Products
- Southwire
- Gerdau Steel
- Toyo Tire
- SAFT, Inc.
- BASF
- Covia
- Kamin
- Mohawk Industries
- Milliken and Company
- Packaging Corporation of America
- Georgia Pacific
- Georgia Poultry Federation
- Georgia Mining Association
- Georgia Chemistry Council
- Georgia Association of Manufacturers
- Georgia Department of Economic Development
- Office of Planning and Budget

# Industrial Water Demand Forecasting

- Industrial Forecasting Stakeholder Group
  - Initial stakeholder meeting held on June 3
  - Developed subgroups by major sectors to further inform data and methodology:
    - Poultry & Food Processing
    - Mining
    - Paper and Forest Products
    - Manufacturing
  - Includes several representatives that are also Council members (Brittany Hull represents Suwanee-Satilla Council)
- Expected completion of forecast by October



# Industrial Water Demand Forecast Sub-Groups

## Poultry & Food Processing

- Georgia Poultry Federation survey of membership with assistance from Georgia Tech Research Institute
- Draft summary report to EPD late September

## Mining

- Georgia Mining Association survey of membership
- Draft summary report to EPD late September

### Survey Questions:

- Average Water Use
- Water Sources
- Municipal Customer
- Average Discharge
- Receiving Bodies
- Municipal WW Customer
- Anticipated changes in next 5 – 10 years

# Industrial Water Demand Forecast Sub-Groups (*cont.*)

## **Paper & Forest Products**

- Representatives have discussed reasonable growth for industry
- Draft summary report submitted to subgroup members for review

## **Manufacturing**

- Georgia Association of Manufacturers survey of membership
- Representatives have discussed reasonable growth for industry
- Draft summary report to EPD late September

# Industrial Water Demand Forecast Coordination

## Coordination with Municipal Water Demand Forecast

- Sharing information with municipal forecast team where municipal water use is identified and greater than 0.20 MGD

## Georgia Department of Economic Development (GDED)

- Want to be sure water is not a limiting factor in attracting new businesses to regions
- Coordination with GDED on industry trends and available data to inform the forecast
- In the absence of specific information about the locations/amounts of water needs from new industries, each planning region may choose to run a management scenario during Resource Assessment process



# Agricultural Water Demand Forecast

# Water Demand Forecasting – Agricultural

- Georgia Water Planning & Policy Center at Albany State University, along with modeling support from UGA, will be updating this sector forecast
- Forecast includes irrigated land and other agricultural uses
  - Nurseries, animal operations, golf course irrigation
- Estimates of irrigation water use informed by estimates of wetted acreage and irrigation use
  - Wetted acreage informed by aerial surveys and site visits
  - Irrigation use informed by meters and crop types
- Forecasts informed by economic models that look at crop projections



# Technical Committee Reports



# Seed Grant Update – Shayne Wood, CDM Smith

# Upcoming Regional Water Plan Seed Grant Fiscal Year 2021 Grant Period

- Announcement released in July 2020
- Eligible recipients of Seed Grant funds can include local, regional and State government, regional commissions, resource conservation and development councils, local schools, State college and universities, and State agencies
- Must attend a pre-application meeting by **October 16, 2020**
- Applications must be postmarked by **October 31, 2020.**

<https://epd.georgia.gov/outreach/grants/regional-water-plan-seed-grant-funds>





# Public Comments/Local Elected Official Comments



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## Next Steps / Wrap Up

# Thank You!

Questions? Comments? Need  
More Information?

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