

**TOWN OF PITTSBORO
BOARD OF COMMISSIONERS
UTILITIES WORKSESSION
SEPTEMBER 17, 2015
4:00 PM – 8:00 PM**

Mayor Terry called the meeting to order and asked that John Poteat give an update on the waterline break.

Mr. Poteat said they have been working on a major water line break since yesterday. He said about 1,000 feet of line blew out and there is about 6-7 breaks on one line. He stated the cost to get the line replaced as been estimated at about \$500,000. They are going to repair the breaks as they get to them. Highway 64 will be closed (traffic rerouted) until the line has been repaired.

ATTENDANCE

Members present: Mayor Bill Terry, Mayor Pro Tem Pamela Baldwin, Commissioner Jay Farrell, Michael Fiocco, Bett Wilson Foley and Beth Turner.

Other staff present: Manager Bryan Gruesbeck, Clerk Alice F. Lloyd, Attorney Paul S. Messick, Jr., Utilities Director John Poteat (had to leave after making a report on water line break), WWTP Operator Roscoe Farrell, III, WWTP Superintendent Randy Heard, WTP Superintendent Adam Pickett, Engineer Fred Royal, Finance Officer Nancy Emslie and Interim Planner Roger Waldon..

Manager Gruesbeck gave the overview and purpose of the meeting.

**WASTEWATER TREATMENT
(FRED ROYAL, CHARLES DAVIS (THE WOOTEN COMPANY), CARL SCHARFE
(THE WOOTEN COMPANY)**

Mr. Davis and Mr. Scharfe made the following power point presentation.

September 17, 2015 Council Workshop Meeting - Pittsboro PER

- A. *Overview*
 - 1. Project Introduction/History
 - 2. Location/Facilities (maps)
 - 3. Existing Treatment Plant Aerial (figure)
 - 3. Future Flow Projections (graph)
 - 4. Treatment capacity needed and permitted discharge
- B. *Treatment Options for Pittsboro and ETJ Area (No Chatham Park)*
 - 1. Option 1: Phased plant expansion.
 - 2. Option 2: Pump 2.0 mgd to Sanford and abandon existing WWTP
 - 3. Option 3: Build 2.0 mgd plant now.
- C. *Treatment Options for Pittsboro and ETJ Area and Chatham Park Combined*
 - 1. Option A: Refurbish existing plant, pump to Sanford, and future regional plant with Chatham Park.
 - 2. Option B: Expand Existing Plant and future regional plant with Chatham Park.
 - 3. Option C: Decommission Existing WWTP, pump to Sanford, and future regional plant with Chatham Park.
- D. *Cost and Non-Monetary Information*
 - 1. Pittsboro and ETJ Area
 - 2. Pittsboro and ETJ Area and Chatham Park Combined
- E. *Clean Water State Revolving Fund (CWSRF) Process*
 - 1. Administered by Department of Environment and Natural Resources (DENR)
 - 2. Application deadline is September 30th to DENR. Next application is end of March 2016.
 - 3. DENR scores and ranks projects
 - 4. By early December, DENR posts project ranking on website.
 - 5. By mid-January DENR final project selection and letter of intent to fund sent out.
 - 6. Application and intent to fund letter **do not obligate** Pittsboro to any debt.
 - 7. PER submitted and approved by DENR.
 - 8. LGC approves the debt to be taken on by Pittsboro.
 - 9. Plans and specs approved by DENR.
 - 10. DENR provides loan offer and Pittsboro accepts at that time.
 - 11. Typically 2% interest rate, 20-year loan.
 - 12. CWSRF has \$70M to loan out this round.

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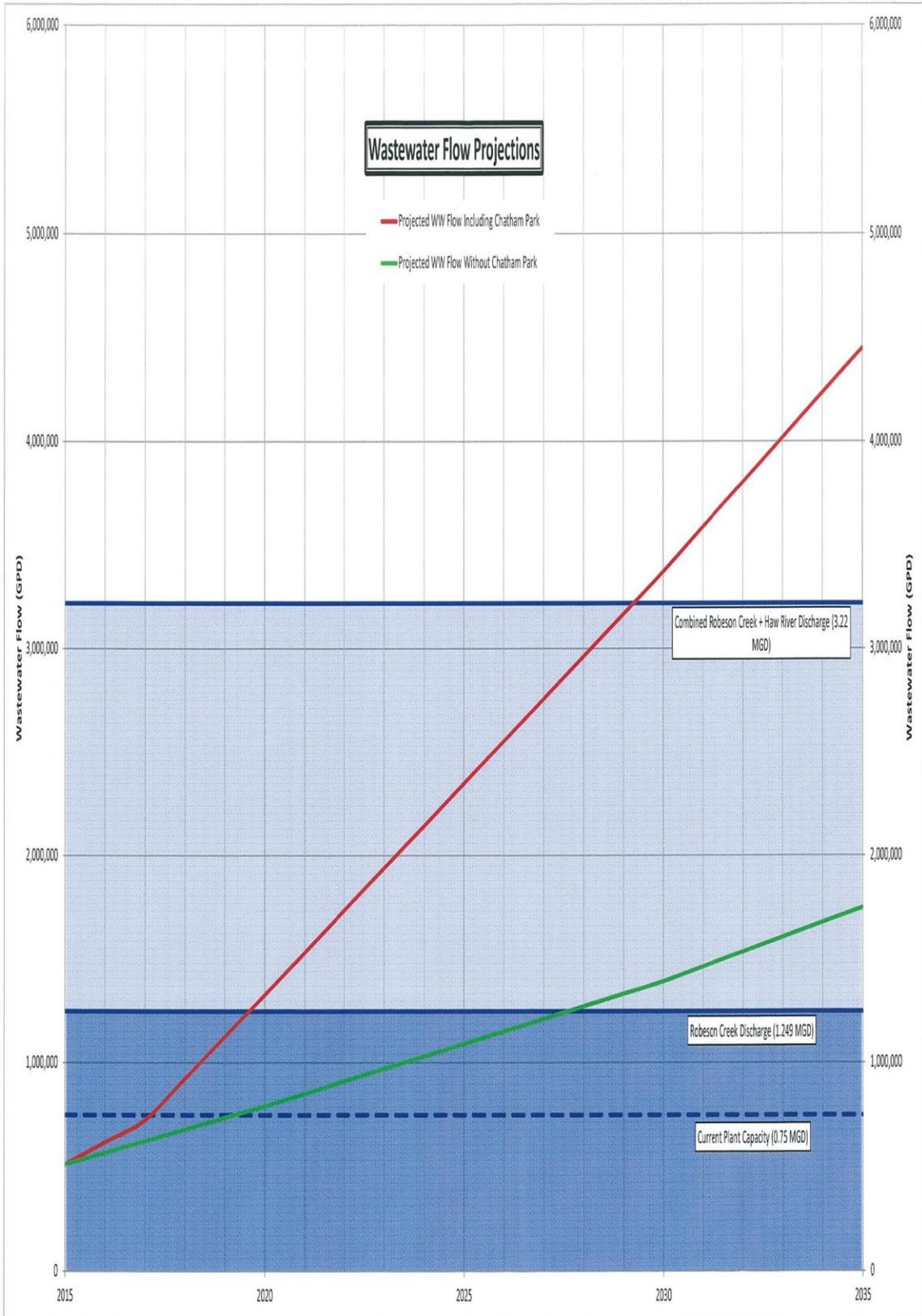


TOWN OF PITTSBORO EXISTING WWTP

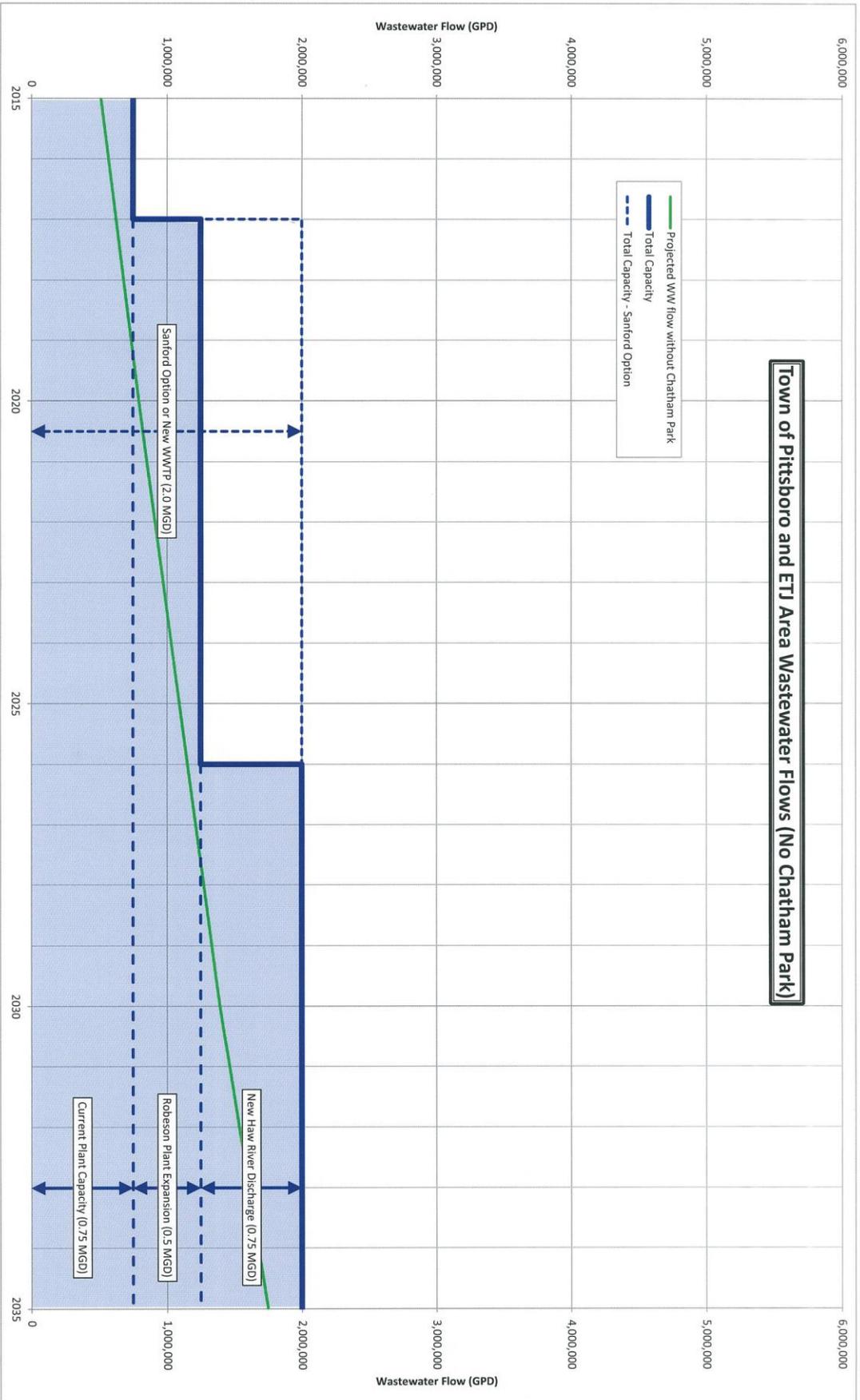
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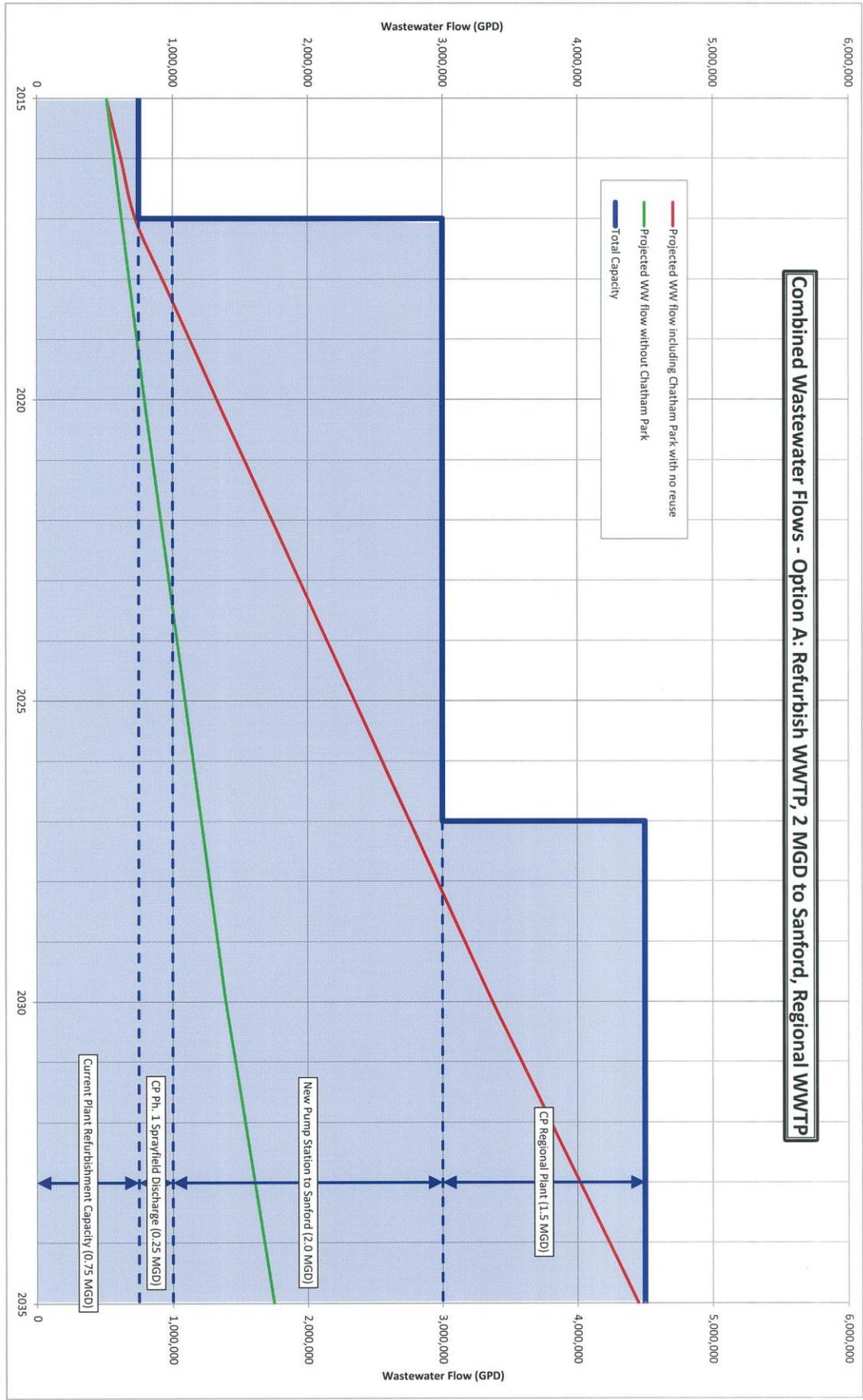
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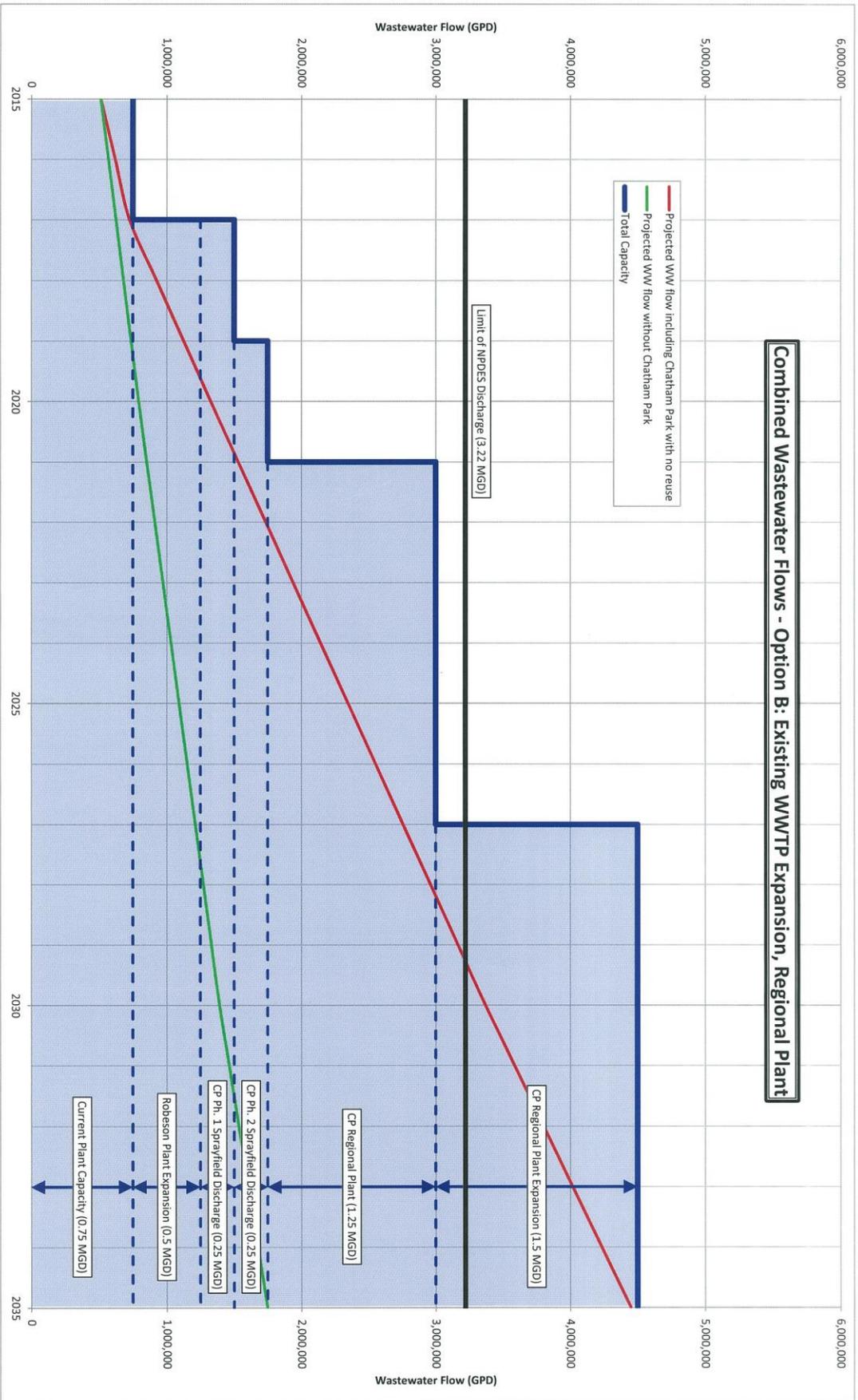
Town of Pittsboro and ETJ Area Wastewater Flows (No Chatham Park)



Combined Wastewater Flows - Option A: Refurbish WWTP, 2 MGD to Sanford, Regional WWTP



Combined Wastewater Flows - Option B: Existing WWTP Expansion, Regional Plant



Combined Wastewater Flows - Option C: 2 MGD to Sanford, Decommission Existing WWTP, Regional WWTP

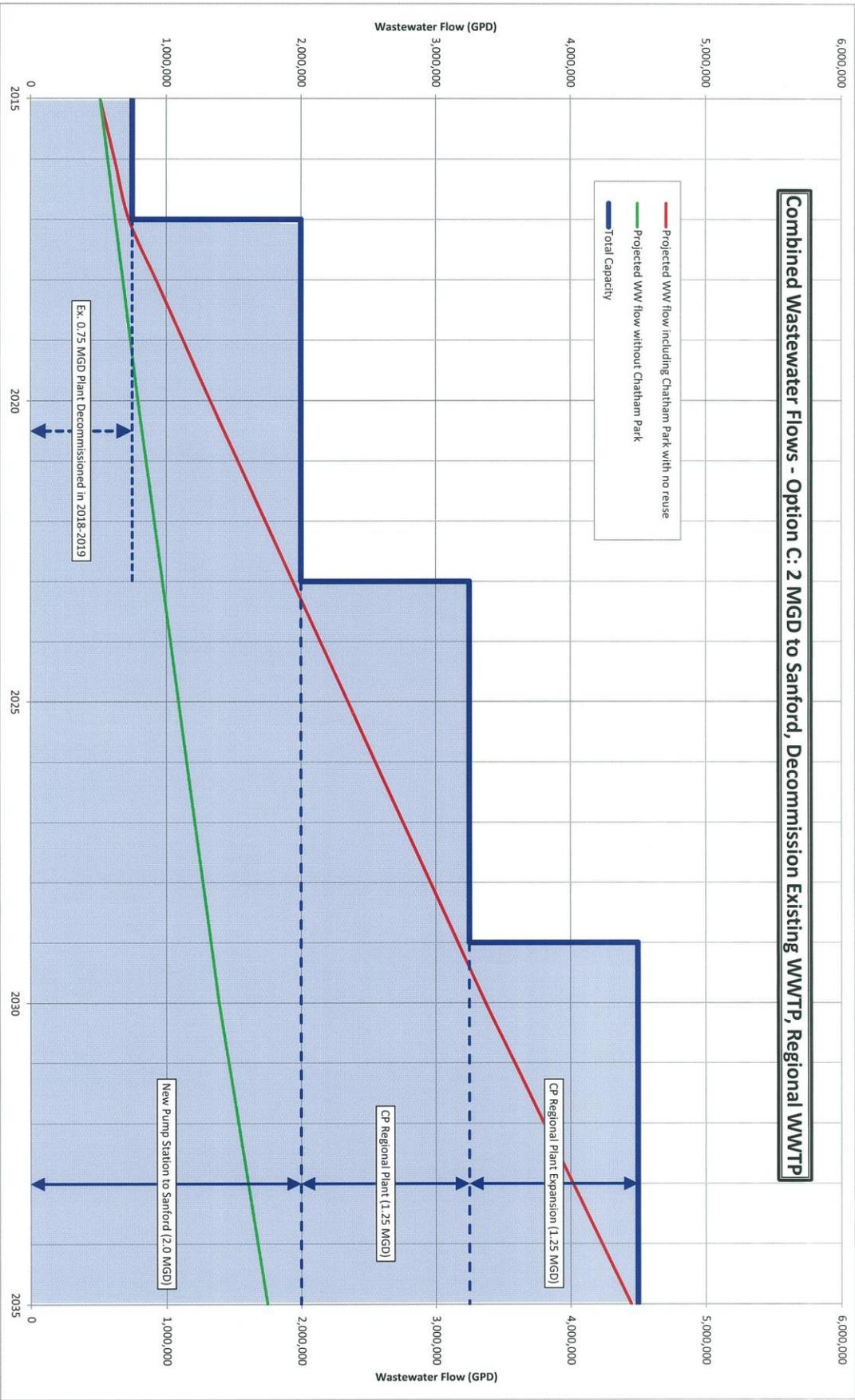


Table 1: Town of Pittsboro and ETJ Area (No Chatham Park Flow) Preliminary Cost Table								
Option	Initial Capital Cost Estimate ¹	Phase 2 Capital Cost Estimate	O&M Annual Estimate		Total Present Worth ²	Initial Construction \$/GAL ³	O&M \$/1,000 GAL	
			Year 1	Year 20			Year 1 ⁴	Year 20 ⁵
Option 1: Phased Expansion Phase 1 – 1.25 MGD Phase 2 – 0.75 MGD	\$ 15,890,000	\$ 8,880,000	\$ 944,000	\$ 1,221,000	\$ 37,214,000	\$ 12.71	\$ 3.45	\$ 1.67
Option 2: Pump to Sanford (2.0 MGD)	\$ 18,550,000	\$ 0	\$ 1,341,000	\$ 1,384,000	\$ 35,633,000	\$ 9.28	\$ 4.90	\$ 1.90
Option 3: Build 2.0 MGD Plant	\$ 21,520,000	\$ 5,660,000	\$ 857,000	\$ 1,289,000	\$ 36,740,000	\$ 10.76	\$ 3.13	\$ 1.77

- Notes: ¹ - Capital Costs are representative of initial construction and would be proposed SRF loan amount.
² - Total Present Worth indicates the current worth of each respective alternative's total project cost in 2015 dollars, including future construction and O&M.
³ - Value equals Initial Capital Cost divided by capacity provided = 1.25 MGD for Option 1, and 2.0 MGD for Options 2 and 3.
⁴ - Year 1 O&M divided by 0.75 MGD. Current WWTP O&M cost is \$3.29 per 1,000 gallons.
⁵ - Year 20 O&M divided by 2.0 MGD

Table 2: Pittsboro and ETJ Area and Chatham Park Combined Preliminary Cost Table								
Option	Initial Capital Cost Estimate ¹	Future Phases Capital Cost Estimate ²	O&M Annual Estimate		Total Present Worth ³	Initial Construction \$/GAL ⁴	O&M \$/1,000 GAL	
			Year 1	Year 20			Year 1 ⁵	Year 20 ⁶
Option A: Keep WWTP. Pump to Sanford, Regional WWTP	\$ 30,330,000	\$ 27,000,000	\$ 1,934,000	\$ 3,698,000	\$ 85,336,000	\$ 10.11	\$ 7.06	\$ 2.25
Option B: WWTP Expansion, Regional WWTP	\$ 24,090,000	\$ 58,000,000	\$ 1,355,000	\$ 2,808,000	\$ 97,757,000	\$ 16.06	\$ 4.95	\$ 1.71
Option C: Decommission WWTP. Pump to Sanford, Regional WWTP	\$ 18,550,000	\$ 45,000,000	\$ 1,401,000	\$ 2,789,000	\$ 80,307,000	\$ 9.28	\$ 5.12	\$ 1.70

- Notes: ¹ - Capital Costs are representative of initial construction and would be the proposed SRF loan amount.
² - Capital Cost of all future phases
³ - Total Present Worth indicates the current worth of each respective alternative's total project cost in 2015 dollars, including future construction and O&M
⁴ - Value equals Initial Capital Cost divided by capacity provided = 3.0 MGD for Option A, 1.5 MGD for Option B, and 2.0 MGD Option C
⁵ - Year 1 O&M divided by 0.75 MGD
⁶ - Year 20 O&M divided by 4.5 MGD



Table 3: Non-Monetary Advantages/Disadvantages Table

	Advantages	Disadvantages
Treat Town and ETJ Area Flows (No Chatham Park)	<ul style="list-style-type: none"> Excess NPDES capacity available Continue to serve 3M Pitsboro directly in control of costs and charges and operations. Can use innovative treatment to minimize footprint 	<ul style="list-style-type: none"> Need to purchase land Need to provide future treatment capacity and pump to the Haw in ~ 10 years. Flood plain issues More difficult construction on small site Multiple construction phases.
Pump to Sanford	<ul style="list-style-type: none"> Does not use NPDES discharge capacity. Minimal treatment. Less overall construction. No floodplain issue. Room available on-site for pump station. 	<ul style="list-style-type: none"> Not in charge of user and debt charges Need alternate method to supply 3M. Potential odor problems May be competing with Chatham Park to use 2.0 mgd capacity at Sanford Two river crossings (rock likely) will impact construction May need to operate EQ tanks dependent on Sanford peak flow restrictions.
CP Regional Treatment Plant	<ul style="list-style-type: none"> One joint discharge to the Haw – easier permitting. Share resources with Chatham Park to operate joint WWTP. Pitsboro and Chatham Park directly in control of costs and charges and operations. 	<ul style="list-style-type: none"> Need to determine debt service and O&M cost split with Chatham Park. Will Chatham Park full build-out projections be realized? Need to determine if plant will be privately operated or operated by the Town.
Decommission Existing WWTP	<ul style="list-style-type: none"> Stop treating wastewater for ~ 10 years. Avoid need to refurbish plant. 	<ul style="list-style-type: none"> Must serve 3M by other means Must keep renewing NPDES permit to allow for future discharge. Lose current plant asset value and potentially lose experienced operators. Limits flexibility in options for working jointly with Chatham Park.

WATER TREATMENT AND DISTRIBUTION

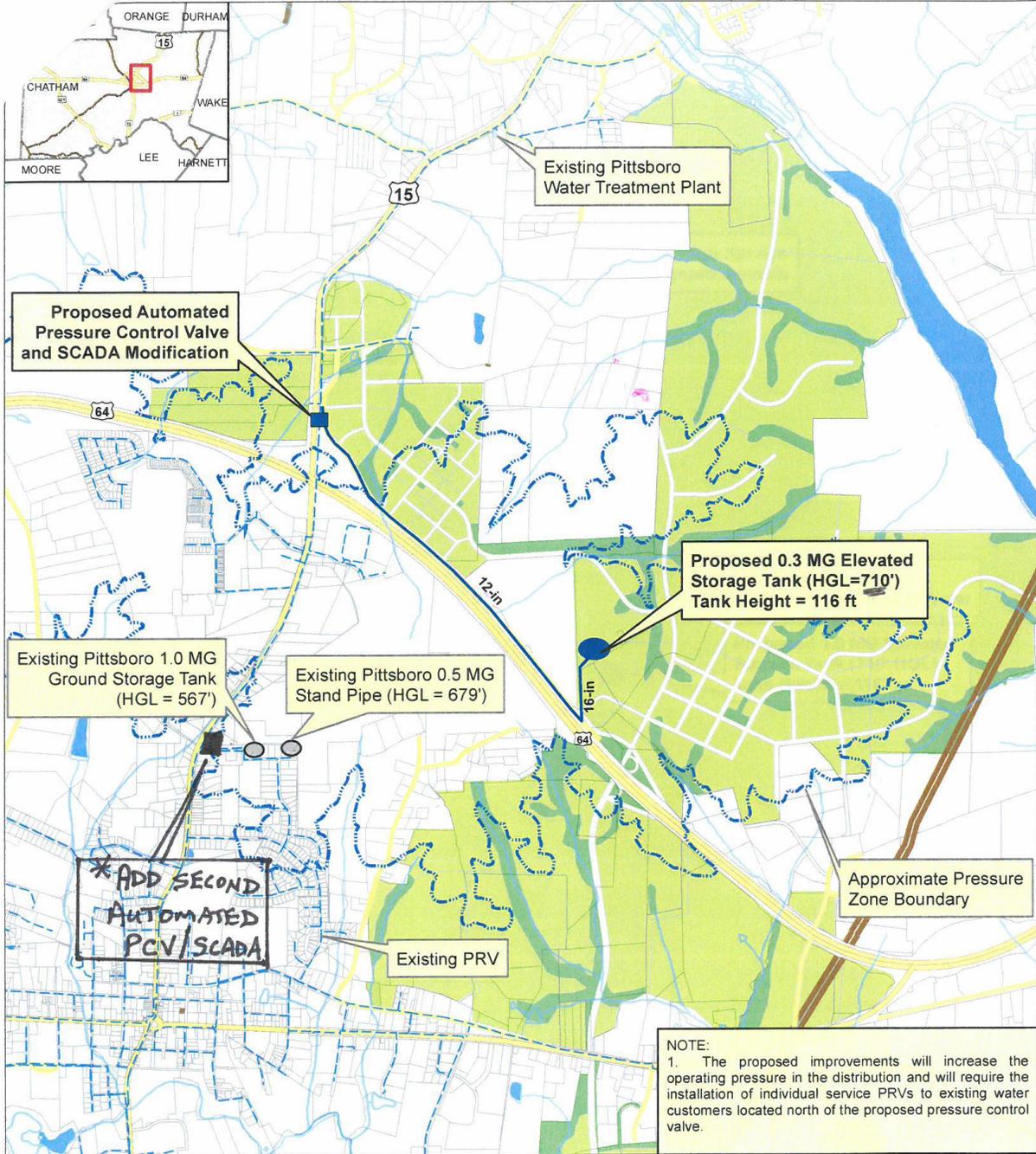
(Fred Royal, TOP; Tim Baldwin, McKim and Creed)

- A. Current Production Environment
 - i. Currently producing 0.3 MGD (300k gallons/day) of potable water
 - ii. Capable of producing 2.0 MGD at existing plant with minor improvements

- B. Future Production issues
 - i. The Town will need to produce more than 2.0 MGD before the Western Shore Intake/Jordan Lake Partnership is built. We will need to produce an additional 2.0 MGD by 2020 if the demand follows the curve.
 - ii. Increased potable water production can be accomplished by any one of the following: expanding the plant, buying needed capacity from another source (e.g., Durham, Chatham County) or building a new plant.
 - iii. Jordan Lake Partnership (JLP) update.

- C. Chatham Park Water System Improvements (Tank and Distribution Improvements) (Fred Royal, TOP; Tim Baldwin, McKim and Creed)
 - i. Board of Commissioners reviewed alternatives on March 9, 2015.
 - ii. Staff updated Town Board on July 27, 2015 for purpose of seeking approval to water system improvements to provide near-term service to Chatham Park and improve operating pressure throughout the distribution system.

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NOTE:
 1. The proposed improvements will increase the operating pressure in the distribution and will require the installation of individual service PRVs to existing water customers located north of the proposed pressure control valve.

*** STAFF RECOMMENDATION**

**Chatham Park
 Water System Improvements - PHASE I**

Chatham County, NC



ADJOURNMENT

After the presentations were made and discussions a motion was made by Commissioner Baldwin seconded by Commissioner Turner to adjourn at 7:25 p.m.

Vote Aye-5 Nay-0

William G. Terry, Mayor

ATTEST:

Alice F. Lloyd, CMC, NCCMC
Town Clerk

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