LEDYARD WPCA LOW PRESSURE SEWER LINE

Figure 1: Dry Well

Figure 2: Wet Well

Figure 3: Control Panels

Figure 4: Force Main Discharge

AGENDA

OVERVIEW

PLANT BUDGET

DEVELOPMENT

PHASE I – MULTI-TRAIL

PHASE III – GALLUP HILL

FUTURE PROJECTS

OVERVIEW

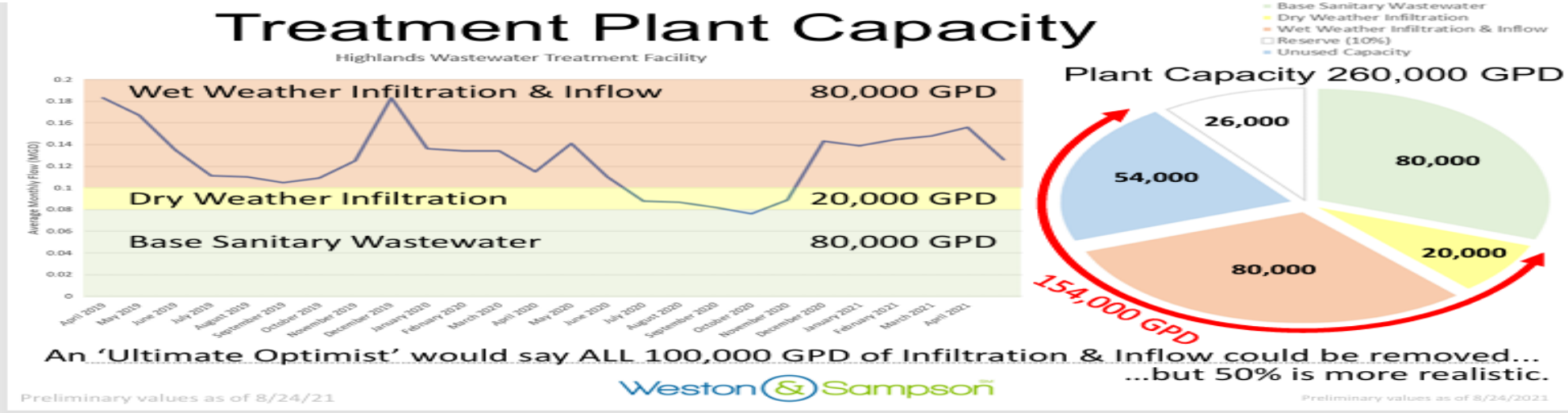
PLANT BUDGET

- Fixed cost – and a static customer base
- Proven increase capacity
- Recent Plant Upgrades – $1.3 million upgrade – screen plant, decanters, blowers, piping, pumps, thickener, controllers
- Opportunity – multi-trail / Development and ARPA funding
- Multiphase approach – low cost operational design for the town (LPS)

DEVELOPMENT

TYPICAL GRINDER PUMP SYSTEM

PRESENT PLANT CAPACITY



Treatment Plant Capacity

54,000 GPD	'Immediate' Treatment Plant Capacity
104,000 GPD	'Realist' Max Available Treatment Plant Capacity
154,000 GPD	'Ultimate Optimist' Treatment Plant Capacity

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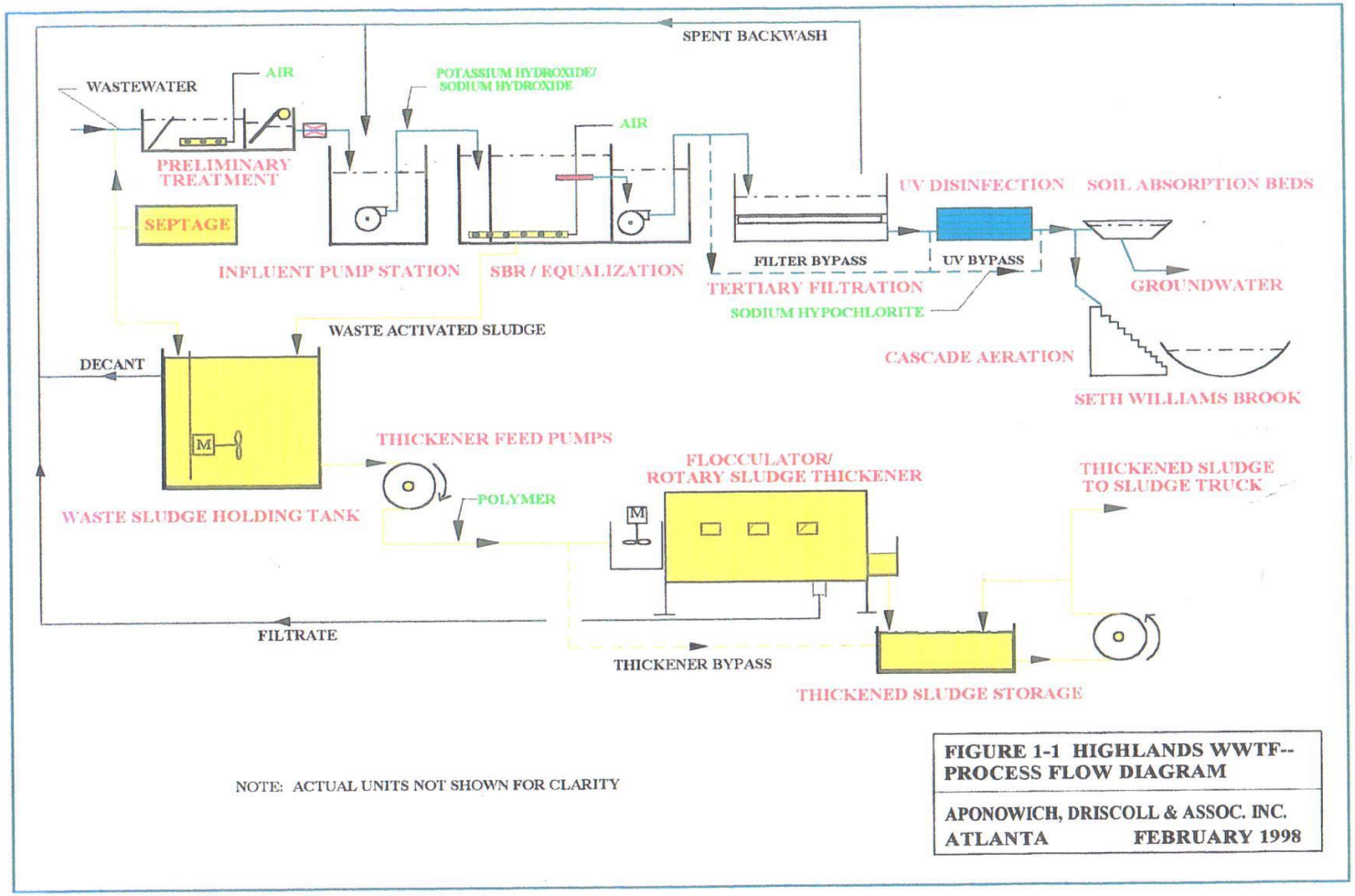
Preliminary values as of 8/24/2021

PLANT FLOW DIAGRAM



SEWER LINE PHASES

Multiphase – I, II, III

I – Trail from Ledyard Center to
the high school

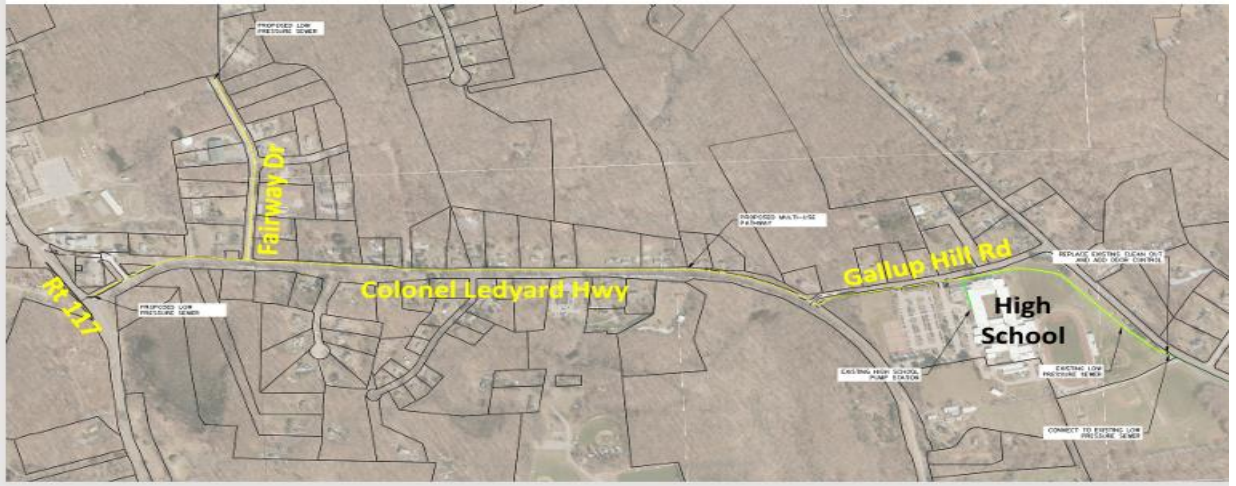
II – Developers Investment

III from the high school to Pennywise

PHASE I, II, III – MULTI-PURPOSE TRAIL

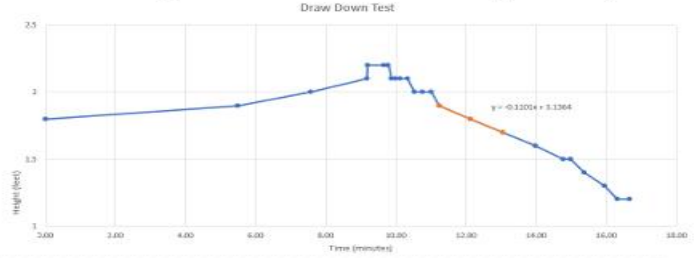
PHASE I – LEDYARD CENTER TO THE HIGH SCHOOL

Proposed Sewer Extension



High School Pump Station

- Results: 14 GPM @ 120 ft TDH (52 PSI)
- Short pump cycle vs. long discharge pipe
- Discharge pipe has limited scouring
- Increasing flow volume would improve system



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ORIGINAL PROPOSAL

Proposed Sewer Extension

Initial Phase	Town constructs Low Pressure Sewer (LPS) under multi use pathway
Center Phase	Developers extend LPS across parcels
Final Phase	Town replaces 3-inch LPS bottleneck along Gallup Hill Rd from High School to Pennywise Ln & reduce I/I at treatment plant
Future Build-Out	Developers extend LPS west of Route 117

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Proposed Sewer Extension

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PROPOSED SEWER EXTENSION

Proposed Sewer Extension

Initial Phase	$1,200,000 by Town
Center Phase	$ TBD by Private Developers
Final Phase	$950,000 by Town $ TBD I/I reduction by Town
Future Build-Out	$ TBD by Private Developers

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Preliminary values as of 8/24/2021

OPTIONS

Reduce Development Scenarios by 50%

		Estimated Flow (GPD) Center Phase	Future Build-Out
Parcel A			
	Residential	43,000	0
	Commercial	0	0
Parcel B			
	Residential	0	0
	Commercial	650	0
Parcel C			
	Residential	0	6,500
	Commercial	0	0
Parcel D			
	Residential	0	0
	Commercial	0	5,000
Parcel E			
	Residential	0	22,500
	Commercial	0	22,500
Parcel F			
	Residential	0	0
	Commercial	175	0
Parcel G			
	Residential	0	0
	Commercial	175	0
Miscellaneous Infilling		5,000	5,000
Total Estimated Flow per Phase		**49,000**	**61,500**
Total Estimated Flow		**110,500 GPD**	

Preliminary values as of 8/24/2021

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Proposed Sewer Extension

Flows must be less than capacity

54,000 GPD — 'Immediate' Treatment Plant Capacity

✓ **49,000 GPD** — Center Phase Estimated Wastewater Flows

154,000 GPD — 'Ultimate Optimist' Treatment Plant Capacity

✓ **110,500 GPD** — Future Build-Out Estimated Wastewater Flows

104,000 GPD — 'Realist' Max Available Treatment Plant Capacity

✗ **110,500 GPD** — Future Build-Out Estimated Wastewater Flows

Almost got it!

Weston & Sampson

PRESENT COMMITMENTS

- Habitat– 11,600 gallons/day
- 2 Colby Drive -


THANK YOU