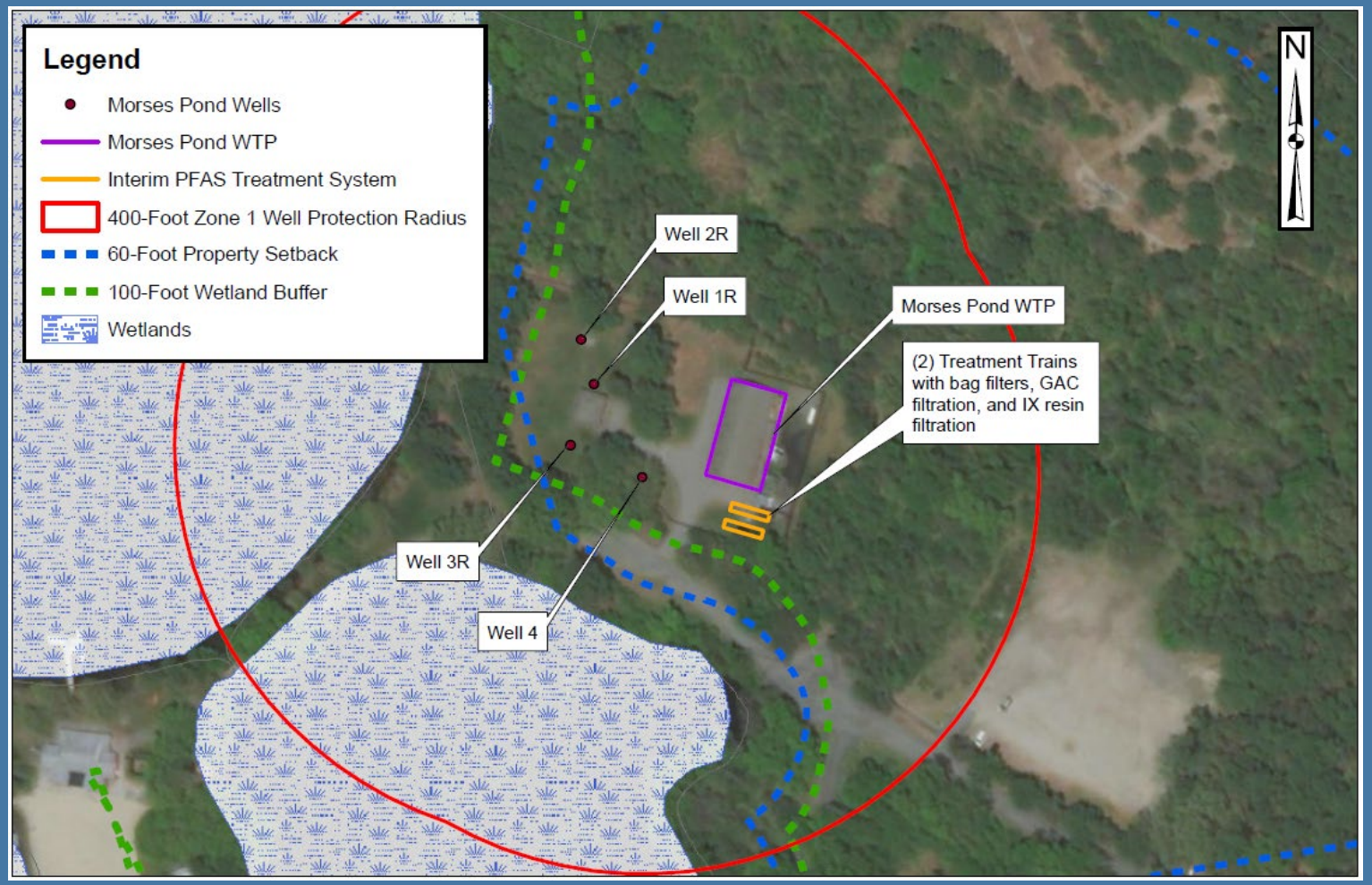
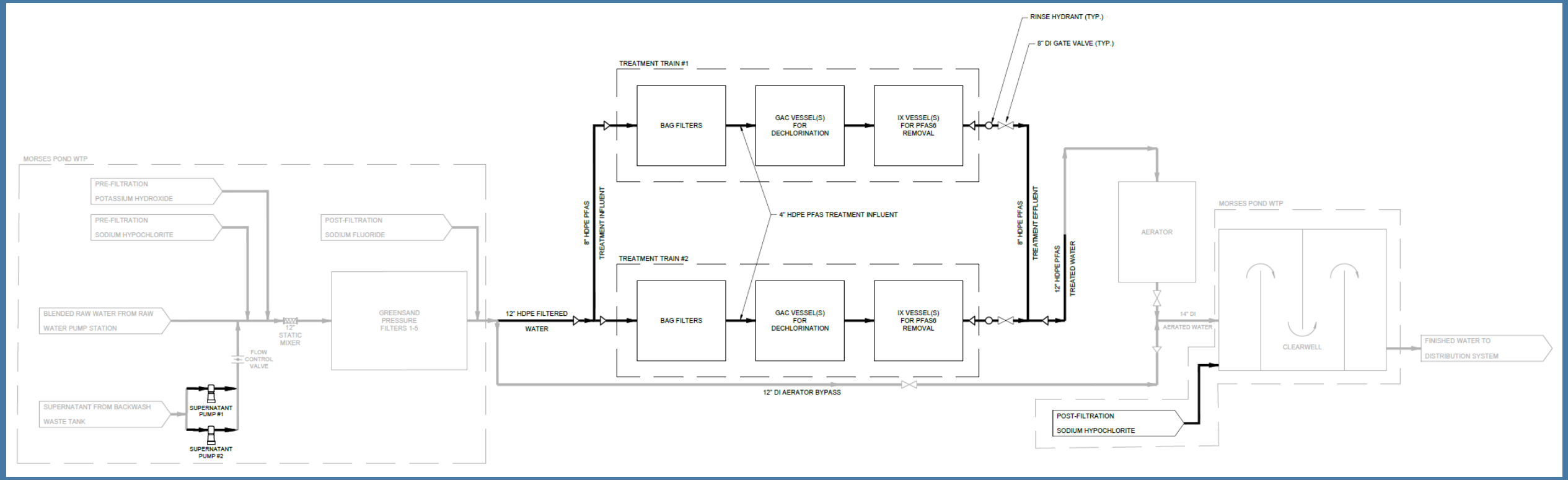
Morses Pond WTP Interim PFAS Treatment

- Existing treatment includes:
  - Potassium hydroxide and aeration for pH adjustment;
  - Sodium hypochlorite for oxidation and disinfection; and
  - GreensandPlus filtration for iron and manganese removal
- Interim PFAS treatment includes:
  - Bag filtration for solids capture;
  - Granular activated carbon filtration for dechlorination; and
  - Ion exchange filtration for PFAS6 removal.
- Treatment system capacity: 1.0 MGD
- Treatment objective: non-detect
- Estimated media life: 16 months
  - Model estimate. Actual media life may vary.

Morses Pond WTP Interim PFAS Treatment – Siting Plan



Morses Pond WTP Interim PFAS Treatment – Process Flow Diagram



Case Study | Well 4, Sharon, MA

- <u>April 2021:</u> tested all sources for PFAS6
  - Well 4 (1.0 MGD source): 73-125 ppt
- <u>June 2021:</u> activated emergency interim treatment
  - Ion exchange filtration for PFAS6 removal
  - Treatment system hydraulics reduced well capacity to 0.5 MGD
- <u>December 2021:</u> finished water PFAS6 **non-detect**
- <u>Next Steps</u>
  - Install booster pump in Spring 2022
  - Begin design for long-term treatment

Case Study | Mary Dunn & Airport Wells, Hyannis, MA

- All sources treated at Mary Dunn WTP
- UCMR3 Testing 2013-2014:
  - PFOS >100 ppt
  - 1,4 dioxane >100 ppt
- May 2016: 70 ppt (PFOA + PFOS) EPA Health Advisory Level Issued
- July 2015: Mary Dunn #1 & 2 GAC Activated
- July 2016: Mary Dunn #3 GAC Activated
- June 2020: Airport Wells GAC Activated

- June 2020 to now: finished water PFAS6 **non-detect**

MARY DUNN WELL #3

Case Study | Mary Dunn & Airport Wells, Hyannis, MA

MARY DUNN WELLS #1 & 2

AIRPORT WELLS