

**GENTEX OPTICS**

**DUDLEY LANDFILL**

**UNDEVELOPED**

**LEGEND:**

- GROUNDWATER MONITORING WELL
- SURFACE WATER SAMPLE LOCATION
- APPROXIMATE RESIDENTIAL DRINKING WATER WELL LOCATION
- PROPERTY BOUNDARY
- WATER LINE
- 500' RADIUS FOR FALL 2023 RESIDENTIAL SAMPLING
- SITE BOUNDARY / LANDFILL LIMIT OF WASTE
- PROPERTY ADDRESS NUMBER
- JULY 2023 RESIDENTIAL SAMPLING LOCATION (SEE PFAS CONCENTRATION KEY)
- 90.8 NG/L JULY 2023 PFAS CONCENTRATION
- 180 FEET TOTAL DEPTH OF RESIDENTIAL WELL
- LANDFILL GROUNDWATER FLOW DIRECTION BASED ON MONITORING EVENTS SINCE 2020

**NOTES:**

- LANDFILL GROUNDWATER MONITORING WELL LOCATIONS ARE BASED ON GPS DATA COLLECTED BY W&S ON 12/30/2020. RESIDENTIAL WELL LOCATIONS ARE BASED ON SEWAGE SYSTEM AS-BUILT DRAWINGS AND/OR GPS COORDINATES PROVIDED BY THE DUDLEY BOARD OF HEALTH.
- PFAS = PER- AND POLYFLUOROALKYL SUBSTANCES.
- SIX COMPOUNDS ARE SUMMED TO CALCULATE THE PFAS CONCENTRATION: PERFLUOROHXANOIC ACID (PFHxA), PERFLUOROCTANOIC ACID (PFoA), PERFLUORONONANOIC ACID (PFnA), PERFLURODECANOIC ACID (PFDA), AND PERFLUROCTANESULFONIC ACID (PFOS).
- NG/L = NANOGRAMS PER LITER
- RESIDENTIAL DRINKING WATER WELLS WERE SAMPLED BETWEEN JULY 17, 2023 AND JULY 31, 2023.
- LANDFILL GROUNDWATER MONITORING WELLS AND SURFACE WATER WERE SAMPLED ON JUNE 28, 2023.
- WATER LINE LOCATION IS APPROXIMATE AND FOR DEPICTION PURPOSED ONLY. LOCATION WAS PROVIDED BY THE TOWN OF DUDLEY BOARD OF HEALTH.

**PFAS CONCENTRATION KEY**

- PFAS NOT DETECTED
- PFAS DETECTED < 20 NG/L
- PFAS DETECTED ≥ 20 NG/L
- NO SAMPLE (NS) COLLECTED
- ADDITIONAL SAMPLE LOCATION FALL 2023

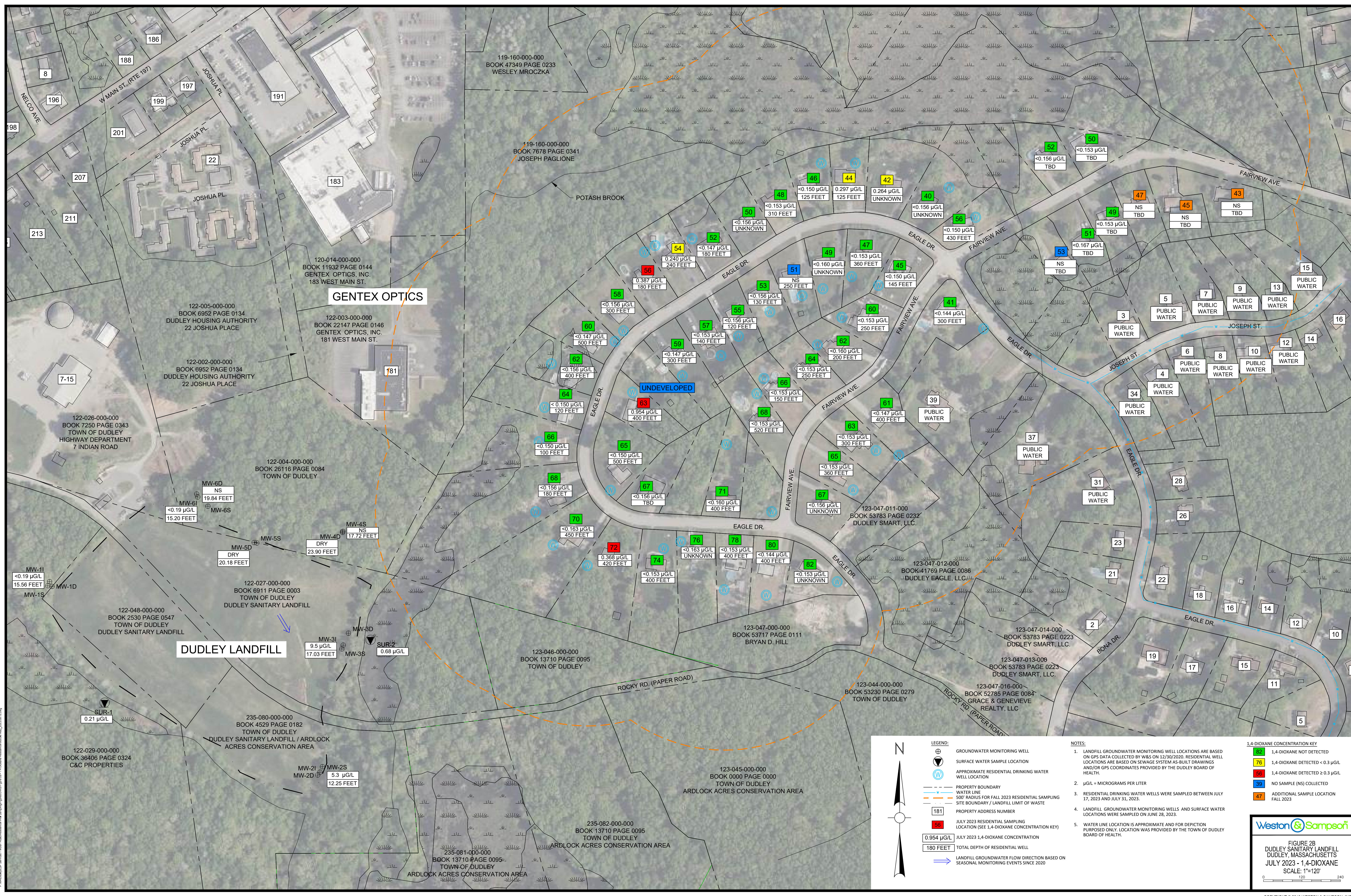
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**FIGURE 2A**  
**DUDLEY SANITARY LANDFILL**  
**DUDLEY, MASSACHUSETTS**  
**JULY 2023 - PFAS**  
**SCALE: 1"=120'**

0 120 240

Rev: 17 Date: 06/12/2019

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- GROUNDWATER MONITORING WELL
- SURFACE WATER SAMPLE LOCATION
- APPROXIMATE RESIDENTIAL DRINKING WATER WELL LOCATION
- PROPERTY BOUNDARY
- WATER LINE
- 500' RADIUS FOR FALL 2023 RESIDENTIAL SAMPLING
- SITE BOUNDARY / LANDFILL LIMIT OF WASTE
- PROPERTY ADDRESS NUMBER
- JULY 2023 RESIDENTIAL SAMPLING LOCATION (SEE 1,4-DIOXANE CONCENTRATION KEY)
- TOTAL DEPTH OF RESIDENTIAL WELL
- LANDFILL GROUNDWATER FLOW DIRECTION BASED ON SEASONAL MONITORING EVENTS SINCE 2020

- NOTES:**
- LANDFILL GROUNDWATER MONITORING WELL LOCATIONS ARE BASED ON GPS DATA COLLECTED BY W&S ON 12/30/2020. RESIDENTIAL WELL LOCATIONS ARE BASED ON SEWAGE SYSTEM AS-BUILT DRAWINGS AND/OR GPS COORDINATES PROVIDED BY THE DUDLEY BOARD OF HEALTH.
  - RESIDENTIAL DRINKING WATER WELLS WERE SAMPLED BETWEEN JULY 17, 2023 AND JULY 31, 2023.
  - LANDFILL GROUNDWATER MONITORING WELLS AND SURFACE WATER LOCATIONS WERE SAMPLED ON JUNE 28, 2023.
  - WATER LINE LOCATION IS APPROXIMATE AND FOR DEPICTION PURPOSES ONLY. LOCATION WAS PROVIDED BY THE TOWN OF DUDLEY BOARD OF HEALTH.

**1,4-DIOXANE CONCENTRATION KEY**

	1,4-DIOXANE NOT DETECTED
	1,4-DIOXANE DETECTED < 0.3 µg/L
	1,4-DIOXANE DETECTED ≥ 0.3 µg/L
	NO SAMPLE (NS) COLLECTED
	ADDITIONAL SAMPLE LOCATION FALL 2023

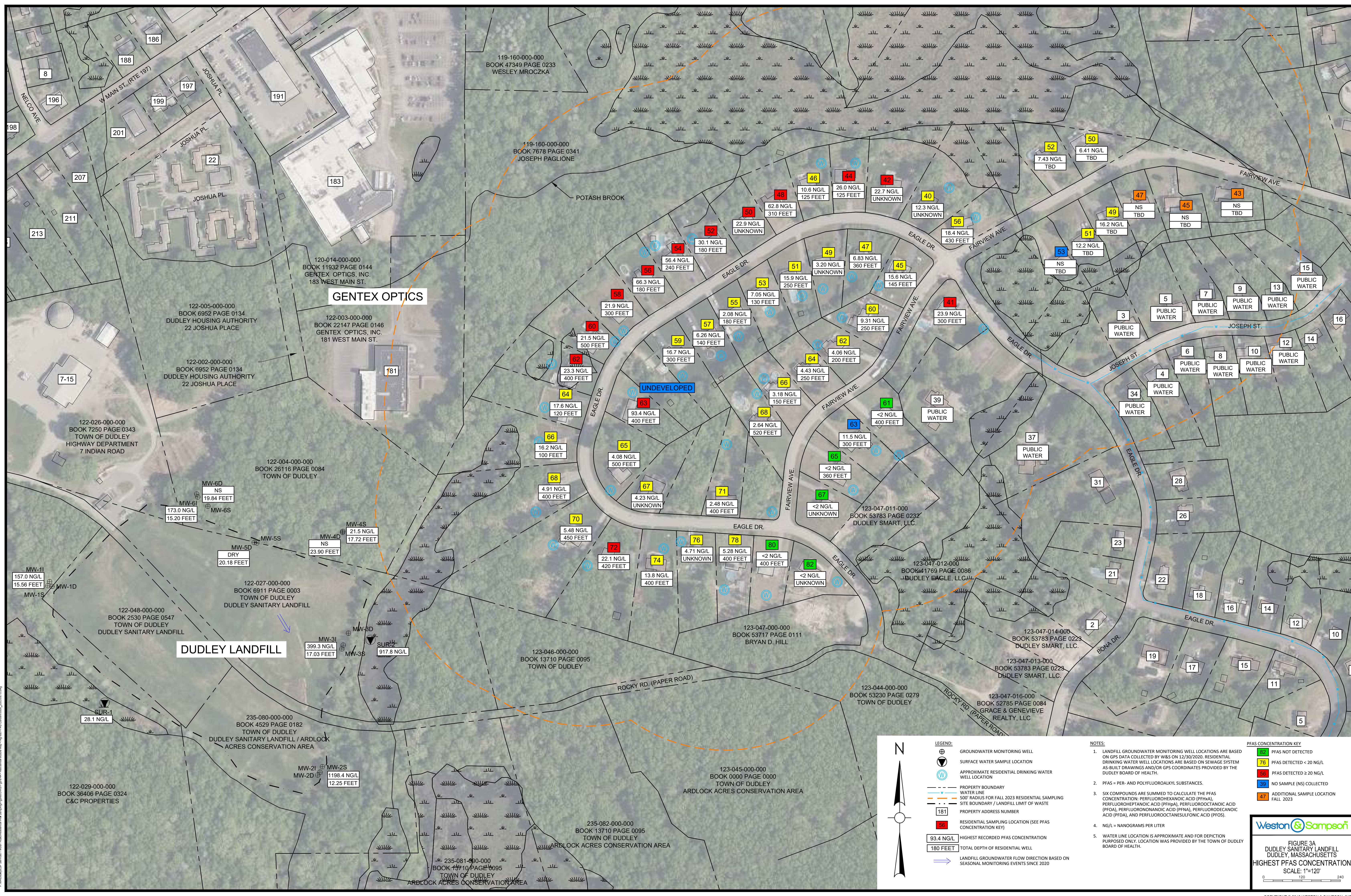
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**FIGURE 2B**  
**DUDLEY SANITARY LANDFILL**  
**DUDLEY, MASSACHUSETTS**  
**JULY 2023 - 1,4-DIOXANE**  
**SCALE: 1"=120'**

0 120 240

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**LEGEND:**

- GROUNDWATER MONITORING WELL
- SURFACE WATER SAMPLE LOCATION
- APPROXIMATE RESIDENTIAL DRINKING WATER WELL LOCATION
- PROPERTY BOUNDARY
- WATER LINE
- 500' RADIUS FOR FALL 2023 RESIDENTIAL SAMPLING
- SITE BOUNDARY / LANDFILL LIMIT OF WASTE
- PROPERTY ADDRESS NUMBER
- RESIDENTIAL SAMPLING LOCATION (SEE PFAS CONCENTRATION KEY)
- HIGHEST RECORDED PFAS CONCENTRATION
- TOTAL DEPTH OF RESIDENTIAL WELL
- LANDFILL GROUNDWATER FLOW DIRECTION BASED ON SEASONAL MONITORING EVENTS SINCE 2020

- NOTES:**
- LANDFILL GROUNDWATER MONITORING WELL LOCATIONS ARE BASED ON GPS DATA COLLECTED BY W&S ON 12/30/2020. RESIDENTIAL DRINKING WATER WELL LOCATIONS ARE BASED ON SEWAGE SYSTEM AS-BUILT DRAWINGS AND/OR GPS COORDINATES PROVIDED BY THE DUDLEY BOARD OF HEALTH.
  - PFAS = PER- AND POLYFLUOROALKYL SUBSTANCES.
  - SIX COMPOUNDS ARE SUMMED TO CALCULATE THE PFAS CONCENTRATION: PERFLUOROHEXANOIC ACID (PFHxA), PERFLUOROHEPTANOIC ACID (PFHpA), PERFLUOROHEXANOIC ACID (PFDA), PERFLUORONONANOIC ACID (PFNA), PERFLUORODECANOIC ACID (PFDA), AND PERFLUOROOCTANESULFONIC ACID (PFOS).
  - NG/L = NANOGRAMS PER LITER
  - WATER LINE LOCATION IS APPROXIMATE AND FOR DEPICTION PURPOSES ONLY. LOCATION WAS PROVIDED BY THE TOWN OF DUDLEY BOARD OF HEALTH.

**PFAS CONCENTRATION KEY**

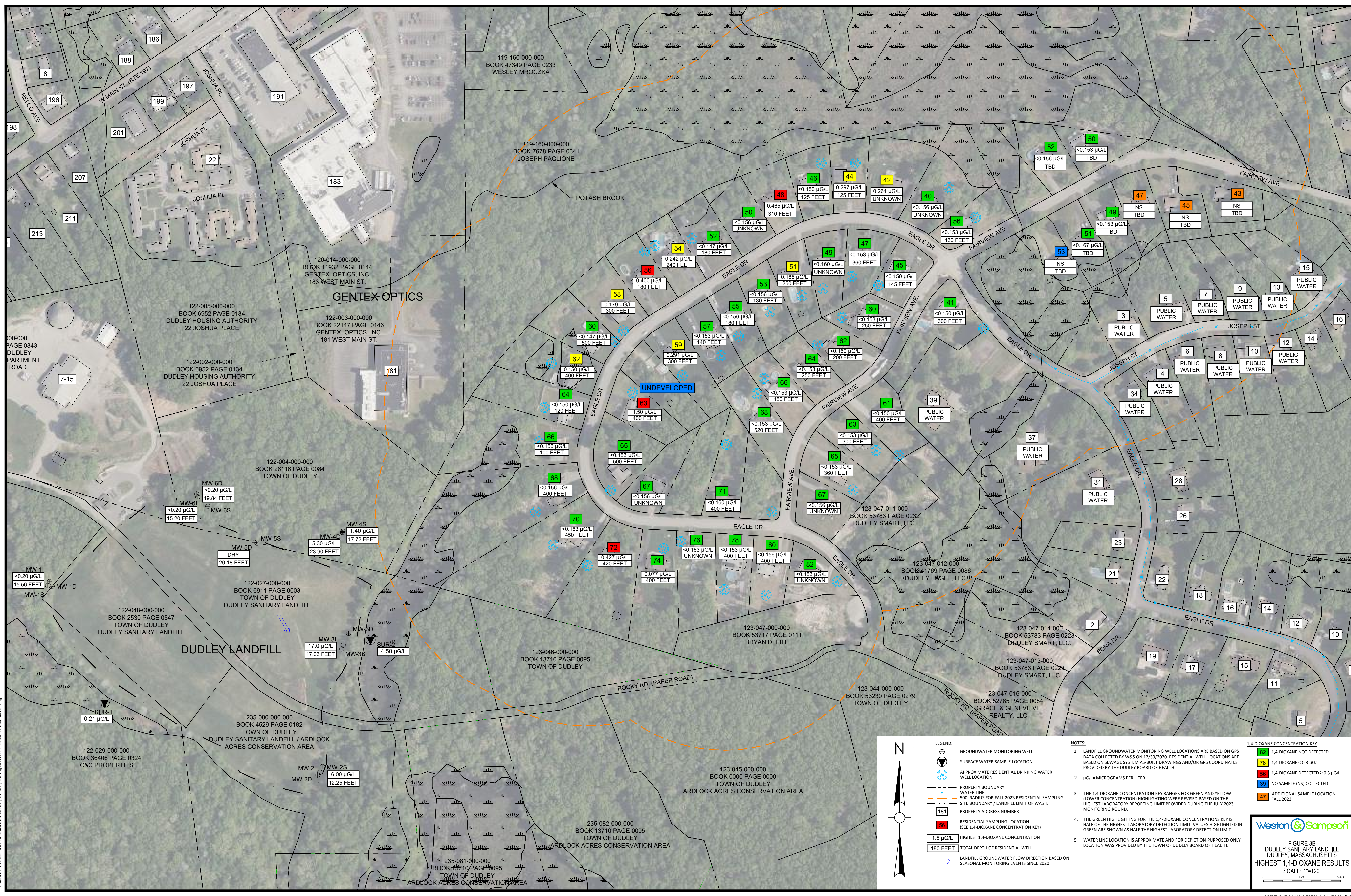
- PFAS NOT DETECTED
- PFAS DETECTED < 20 NG/L
- PFAS DETECTED ≥ 20 NG/L
- NO SAMPLE (NS) COLLECTED
- ADDITIONAL SAMPLE LOCATION FALL 2023

**FIGURE 3A**  
**DUDLEY SANITARY LANDFILL**  
**DUDLEY, MASSACHUSETTS**  
**HIGHEST PFAS CONCENTRATION**  
**SCALE: 1"=120'**

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- APPROXIMATE RESIDENTIAL DRINKING WATER WELL LOCATION
- PROPERTY BOUNDARY
- WATER LINE
- 500' RADIUS FOR FALL 2023 RESIDENTIAL SAMPLING
- SITE BOUNDARY / LANDFILL LIMIT OF WASTE
- PROPERTY ADDRESS NUMBER
- RESIDENTIAL SAMPLING LOCATION (SEE 1,4-DIOXANE CONCENTRATION KEY)
- HIGHEST 1,4-DIOXANE CONCENTRATION
- TOTAL DEPTH OF RESIDENTIAL WELL
- LANDFILL GROUNDWATER FLOW DIRECTION BASED ON SEASONAL MONITORING EVENTS SINCE 2020

**NOTES:**

- LANDFILL GROUNDWATER MONITORING WELL LOCATIONS ARE BASED ON GPS DATA COLLECTED BY W&S ON 12/30/2020. RESIDENTIAL WELL LOCATIONS ARE BASED ON SEWAGE SYSTEM AS-BUILT DRAWINGS AND/OR GPS COORDINATES PROVIDED BY THE DUDLEY BOARD OF HEALTH.
- $\mu\text{g/L}$  = MICROGRAMS PER LITER
- THE 1,4-DIOXANE CONCENTRATION KEY RANGES FOR GREEN AND YELLOW (LOWER CONCENTRATION) HIGHLIGHTING WERE REVISED BASED ON THE HIGHEST LABORATORY REPORTING LIMIT PROVIDED DURING THE JULY 2023 MONITORING ROUND.
- THE GREEN HIGHLIGHTING FOR THE 1,4-DIOXANE CONCENTRATIONS KEY IS HALF OF THE HIGHEST LABORATORY DETECTION LIMIT. VALUES HIGHLIGHTED IN GREEN ARE SHOWN AS HALF THE HIGHEST LABORATORY DETECTION LIMIT.
- WATER LINE LOCATION IS APPROXIMATE AND FOR DEPICTION PURPOSE ONLY. LOCATION WAS PROVIDED BY THE TOWN OF DUDLEY BOARD OF HEALTH.

**1,4-DIOXANE CONCENTRATION KEY**

	1,4-DIOXANE NOT DETECTED
	1,4-DIOXANE <math>< 0.3 \mu\text{g/L}</math>
	1,4-DIOXANE DETECTED $\geq 0.3 \mu\text{g/L}$
	NO SAMPLE (NS) COLLECTED
	ADDITIONAL SAMPLE LOCATION FALL 2023

**FIGURE 3B**  
**DUDLEY SANITARY LANDFILL**  
**DUDLEY, MASSACHUSETTS**  
**HIGHEST 1,4-DIOXANE RESULTS**  
 SCALE: 1"=120'