Manchester Drive Site Wastewater Disposal Evaluation Update

- Completed Activities/Findings:
 - Wright Pierce Conducted Sites Soils and Hydrogeologic Studies and prepared Draft Applications to Maine DEP and Maine DHHS For Subsurface Wastewater Disposal System Permits
 - Town Staff Reviewed Draft Applications with Maine DEP, DHHS Staff and PWD in November
 - DEP Raised Concerns Regarding Potential Impact to Nearby Drainage Basin From Groundwater Mounding due to Wastewater Disposal at Manchester Drive site
 - Haley and Aldrich Conducted More Sophisticated Modeling to Further Assess Mounding Concerns (see attached maps)
 - H&A Modeling Shows Surface Breakout of Treated Wastewater onto Neighboring Properties
- Next Steps:
 - Consider Whether to Extend Option on Manchester Driver for 60-90 Days for further alternative solutions review.

EXHIBIT A



LEGEND

- CONSTANT HEAD BOUNDARY, HEAD = 288.0 FT NAVD88
- RIVER BOUNDARY SEBAGO LAKE BASIN, HEAD = 259.64 FT NAVD88
- RIVER BOUNDARY PRESUMPSCOT RIVER, HEAD = 249.0 FT NAVD88
- DRAIN BOUNDARY OBSERVED DISCHARGE AREA HEAD = 289.50 FT NAVD88
- DRIP IRRIGITATION AREA, AREA = 67,000 SQUARE FEET
- SIMULATED GROUNDWATER FLOW CONTOUR, 2 FT SPACING
- SIMULATED MODPATH PARTICLE TRACES
- ----- MODEL DOMAIN ACTIVE AREA

NOTES

1. GROUNDWATER FLOW CONTOURS REPRESENT STEADY- STATE MODEL CONDITIONS - NO INFILTRATION

2. MODPATH ARROW HEADS REPRESENT 100 DAY INTERVALS

3. AERIAL IMAGERY SOURCE: ESRI



1,200

600 SCALE IN FEET

ALDRICH

MANCHESTER DRIVE SITE WINDHAM, MAINE

GROUNDWATER MODEL SIMULATED GROUNDWATER FLOW

SCALE: AS SHOWN DECEMBER 2019 EXHIBIT B



LEGEND

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- DRIP IRRIGITATION AREA, AREA = 67,000 SQUARE FEET
- SIMULATED MODPATH PARTICLE TRACES
- ----- SIMULATED GROUNDWATER FLOW, 2 FT SPACING
- ----- MODEL DOMAIN ACTIVE AREA

NOTES

1. GROUNDWATER FLOW CONTOURS REPRESENT INFILTRATION FLOW MODEL SIMULATION RESULTS

2. RECHARGE BOUNDAY ASSIGNED VALUE OF 0.1995 FT/DAY AT DRIP IRRIGATION AREA TO REPRESENT 100,000 GPD INFILTRATION RATE

3. MODPATH ARROW HEADS REPRESENT 20 DAY INTERVALS

4. AERIAL IMAGERY SOURCE: ESRI



1,200

SCALE IN FEET

ALDRICH

MANCHESTER DRIVE SITE WINDHAM, MAINE

> GROUNDWATER MODEL INFILTRATION SCENARIO SIMULATED FLOW

SCALE: AS SHOWN DECEMBER 2019