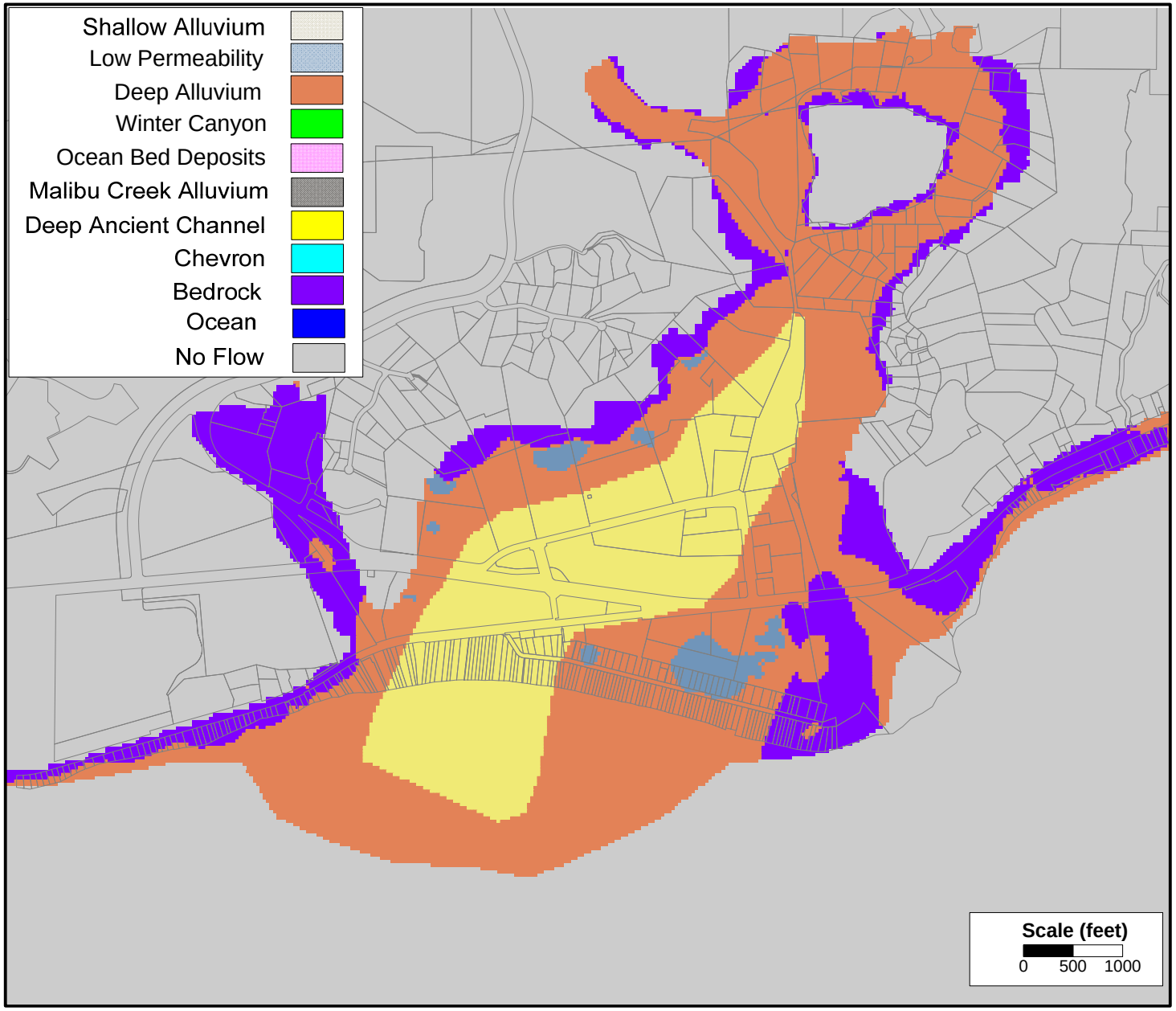


Figure 3.8 -- Map showing hydro stratigraphy zones in model layer 6.

McDonald Morrissey ASSOCIATES, Inc.

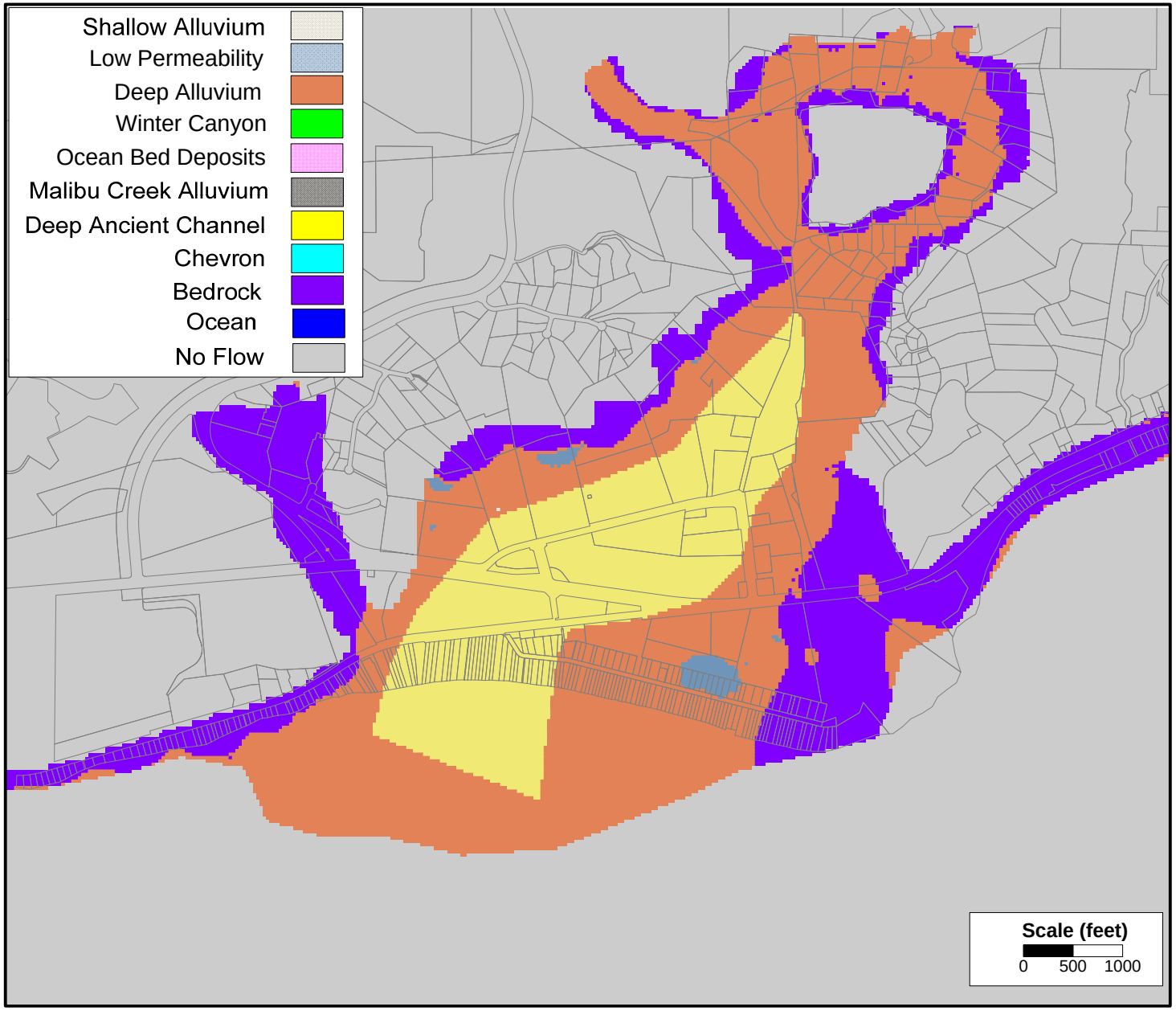


Figure 3.9 -- Map showing hydro stratigraphy zones in model layer 7.

McDonald Morrissey ASSOCIATES, Inc.

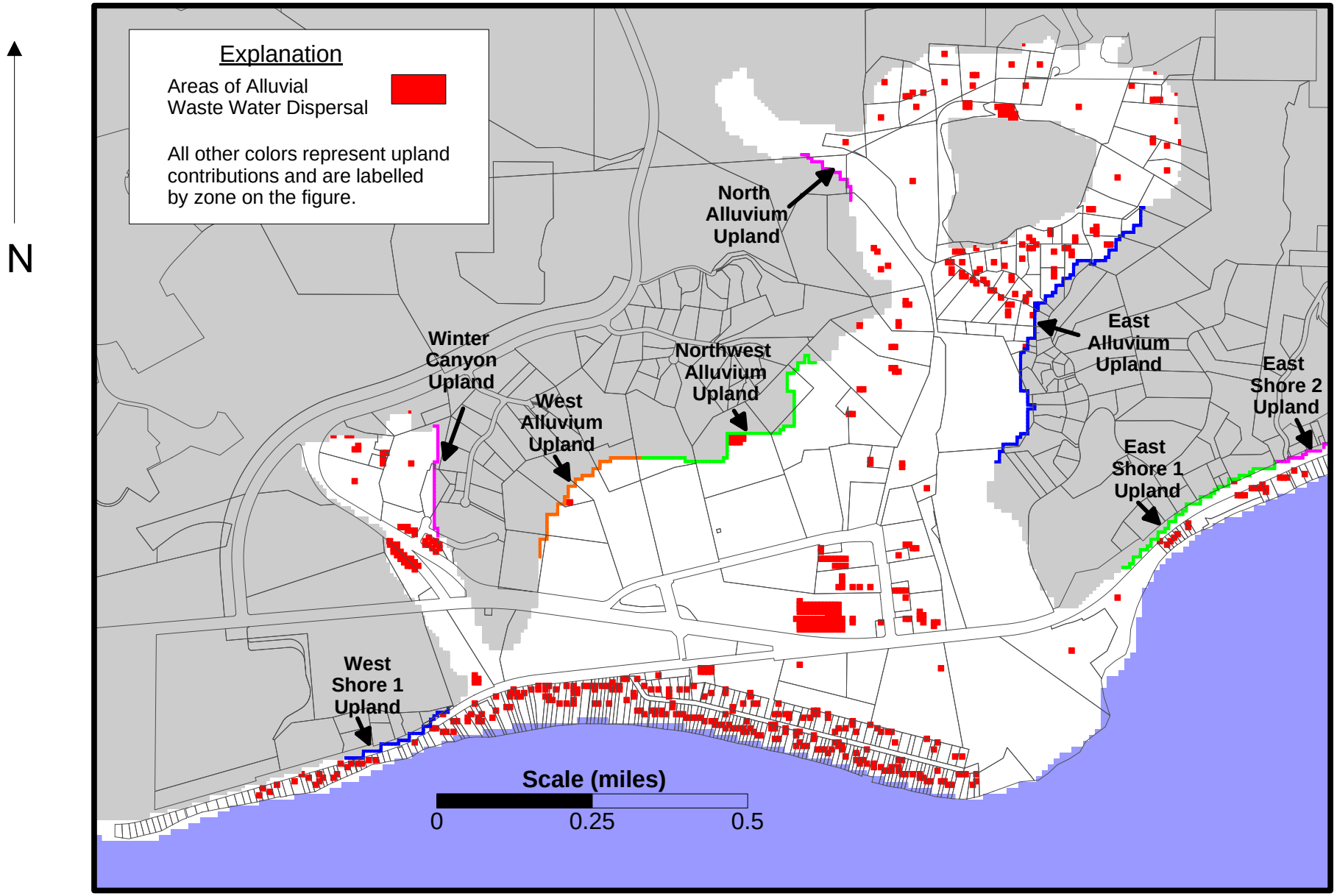


Figure 3.10 -- Map showing locations where subsurface waste water dispersal was simulated in the model using the WELL package in MODFLOW.

McDonald Morrissey ASSOCIATES, Inc.

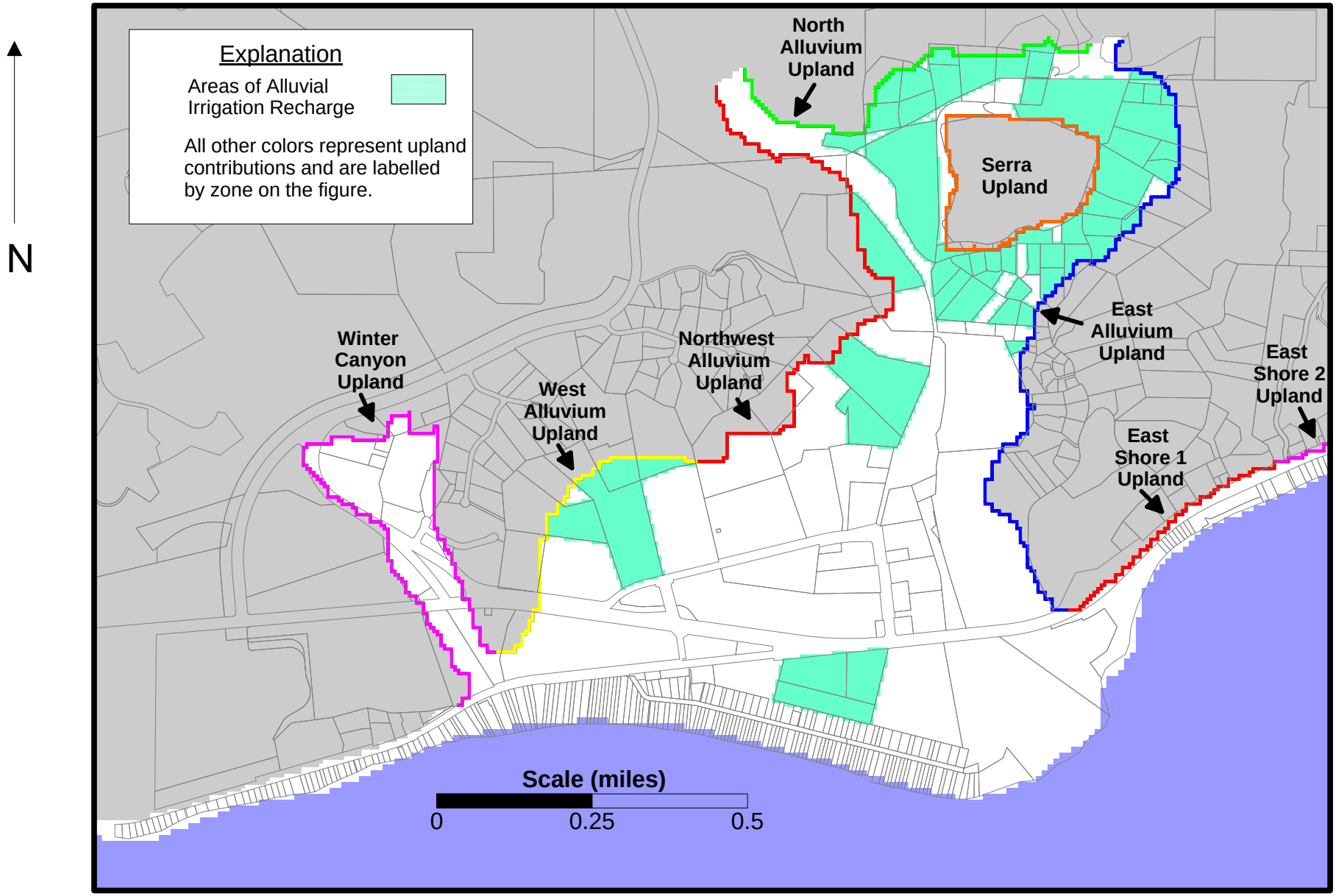


Figure 3.11 -- Map showing locations where recharge from excess irrigation was simulated in the model using the RIVER package in MODFLOW.

McDonald Morrissey ASSOCIATES, Inc.

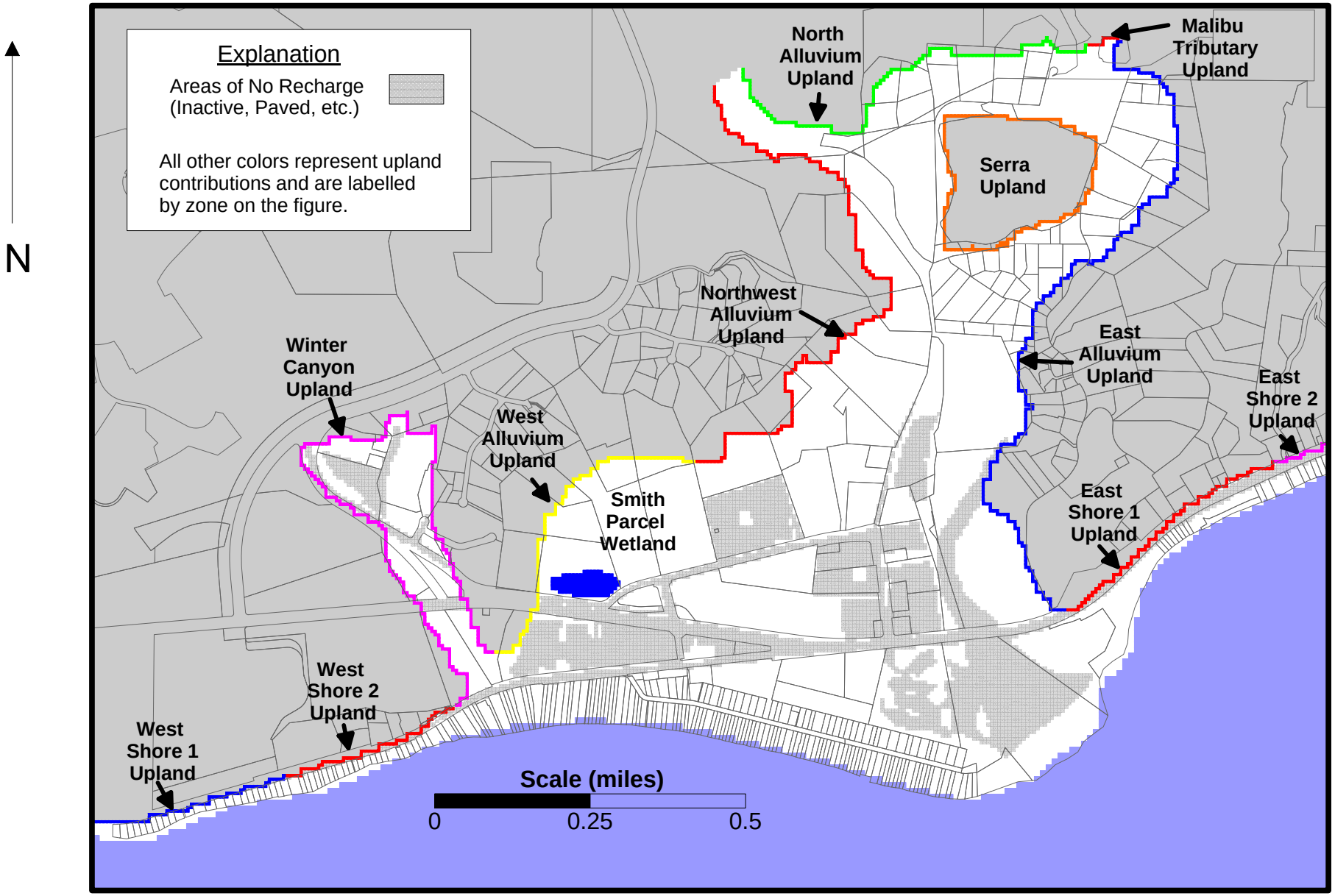


Figure 3.12 -- Map showing locations where recharge from infiltration of precipitation on the alluvial deposits and from runoff originating in upland areas was simulated in the model using the RECHARGE package in MODFLOW.

McDonald Morrissey ASSOCIATES, Inc.

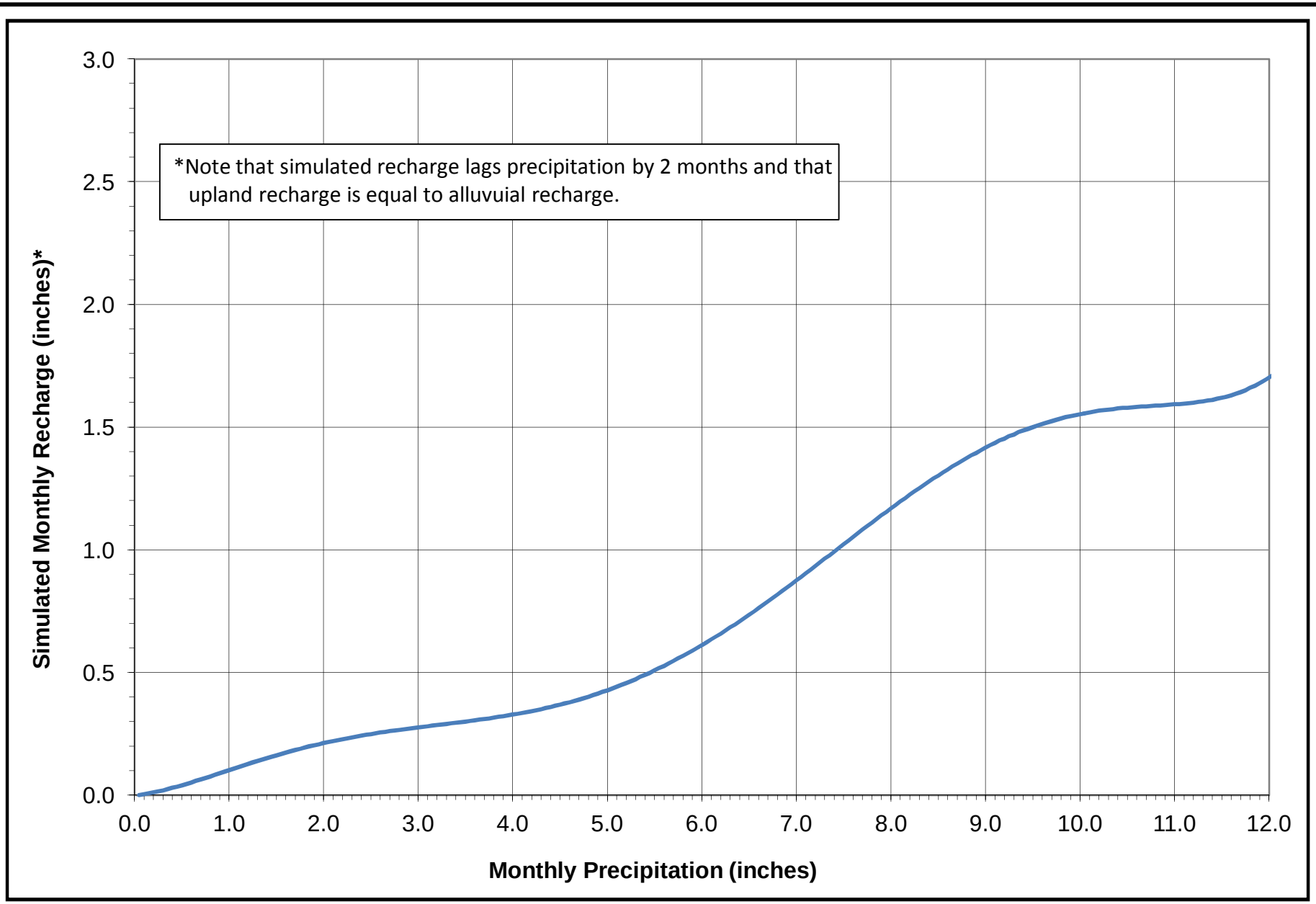


Figure 3.13. Graph showing simulated relationship between monthly precipitation and monthly recharge from infiltration of precipitation and upland runoff.

McDonald Morrissey ASSOCIATES, Inc.

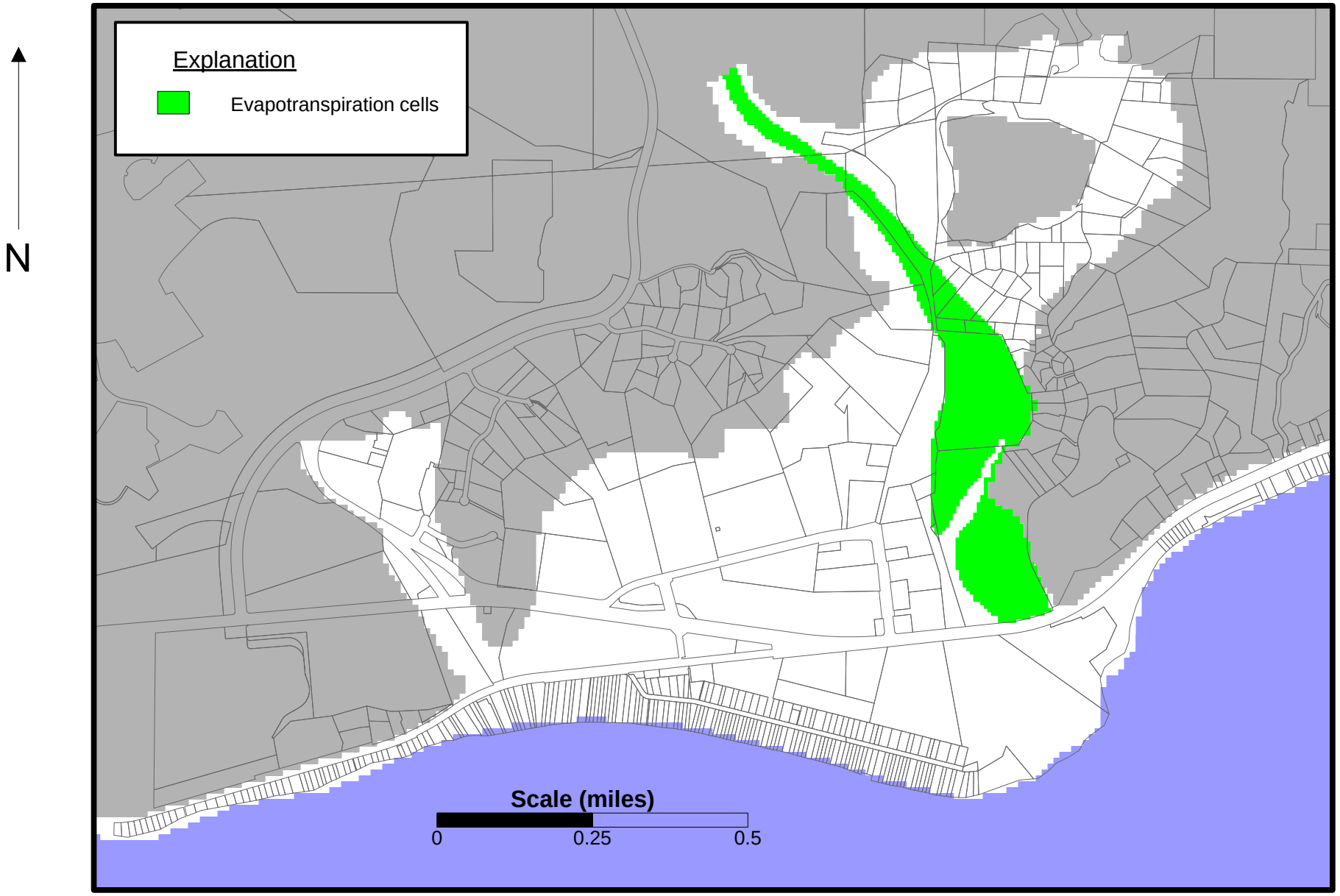
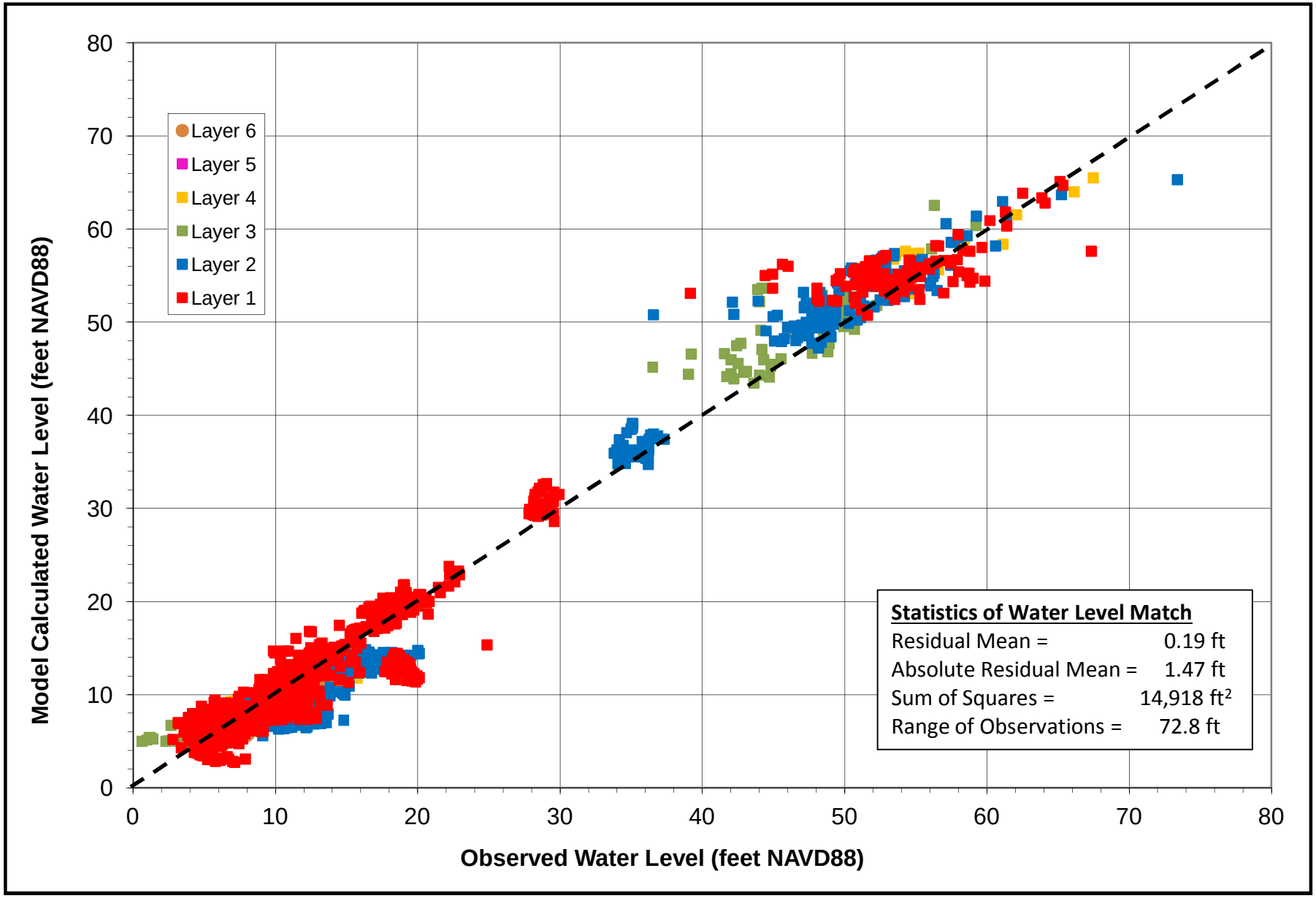


Figure 3.14 -- Map showing locations where groundwater evapotranspiration was simulated in the model with the ET package in MODFLOW.

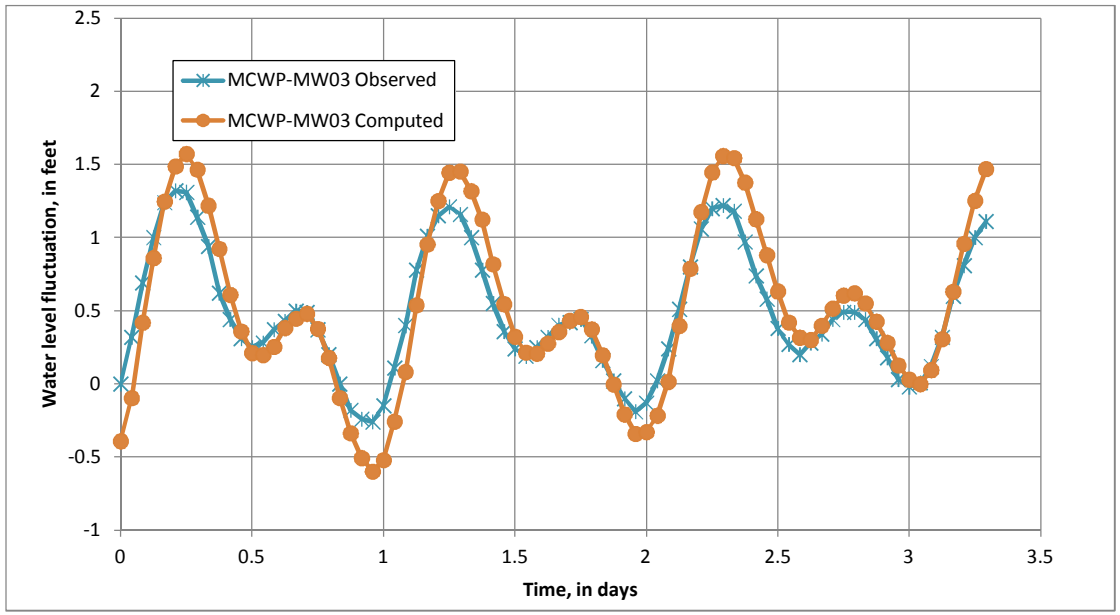
McDonald Morrissey ASSOCIATES, Inc.



Run: malibu_phase3_pest_13014

Figure 3.15 -- Scatter plot showing comparison of model calculated water levels with observed water levels.

McDonald Morrissey ASSOCIATES, Inc.



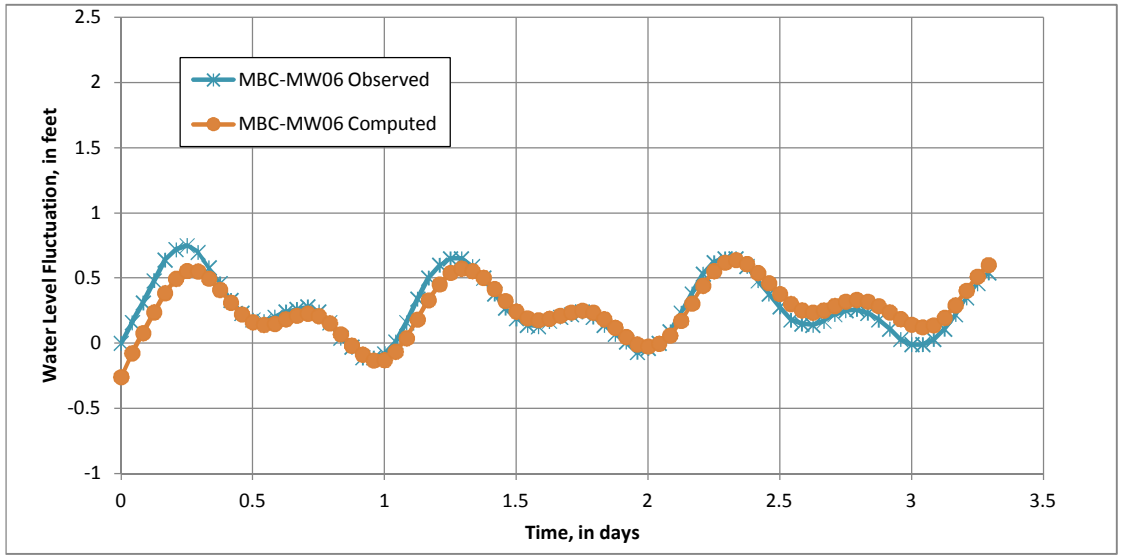
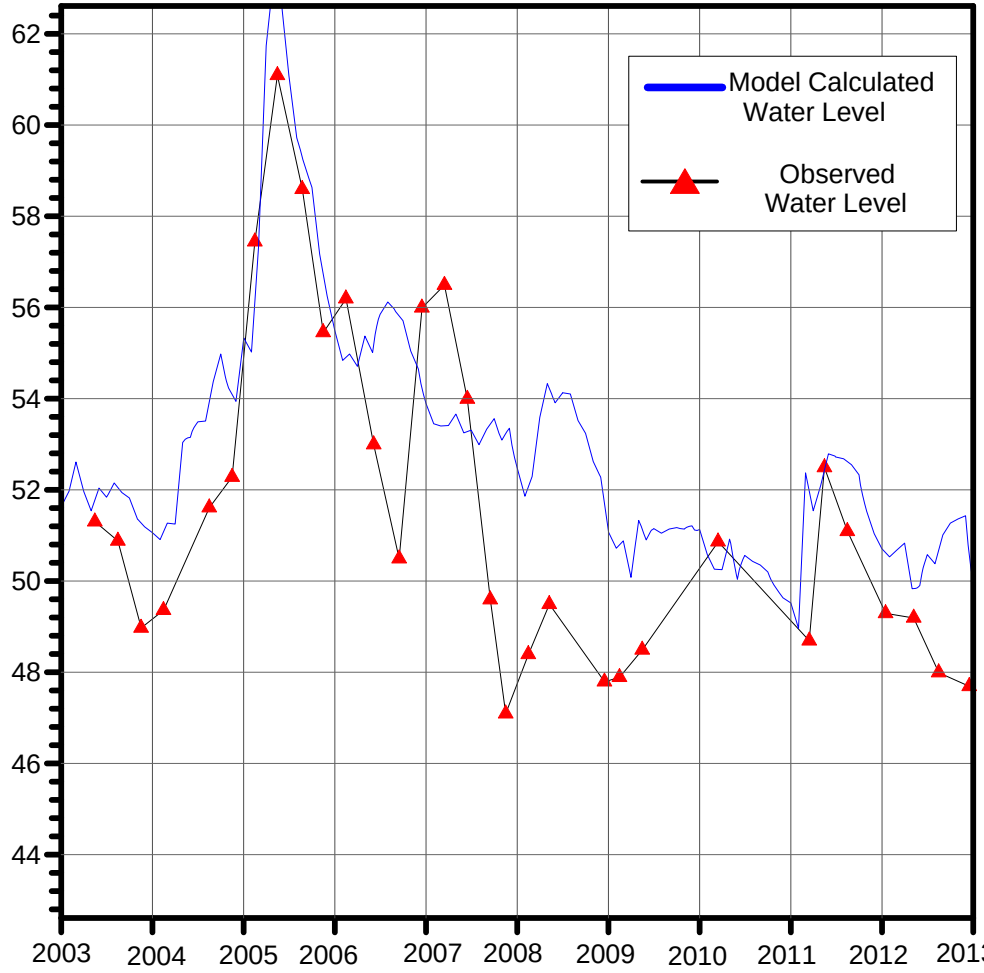


Figure 3.16 -- Graphs showing model calculated and observed tidal fluctuations at wells MCWP-MW03 and MBC-MW06.

Malibu Hydrograph

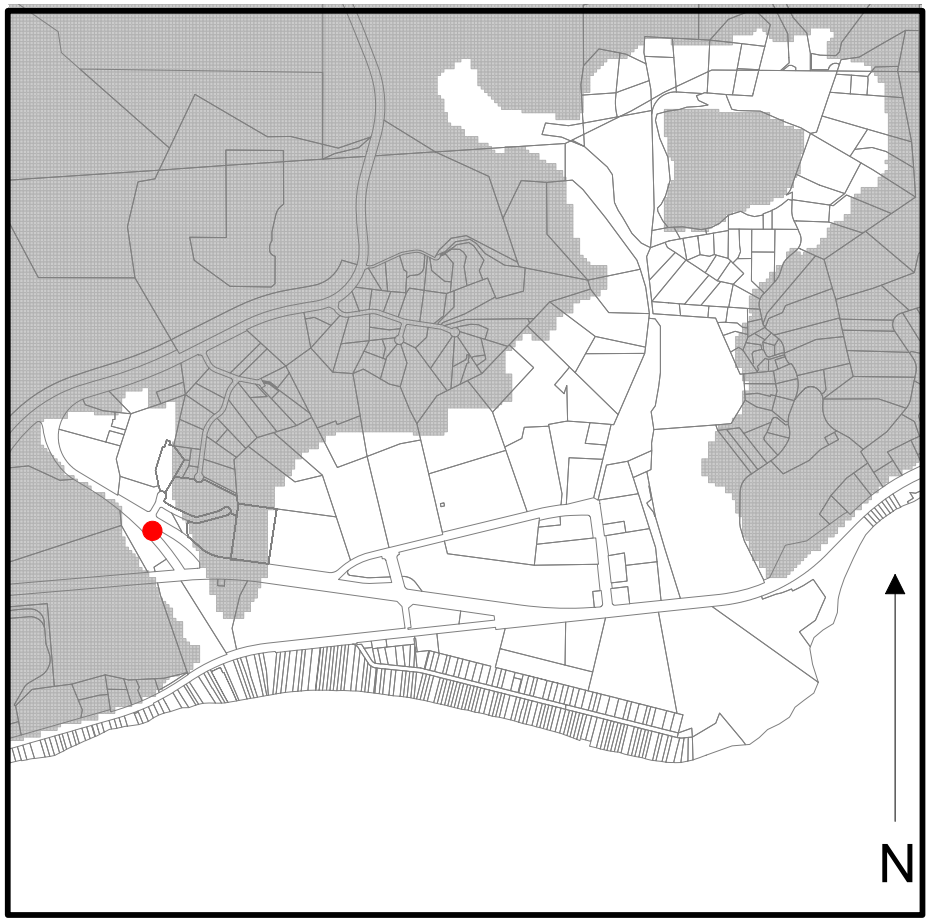
Water Level Elevation (ft msl NAVD88)



Number of Target Water Levels	31
Range of Elevation	47.09 to 61.09
Average Elevation	51.58

Well02_4458028020

Model Layer **2**



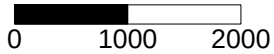


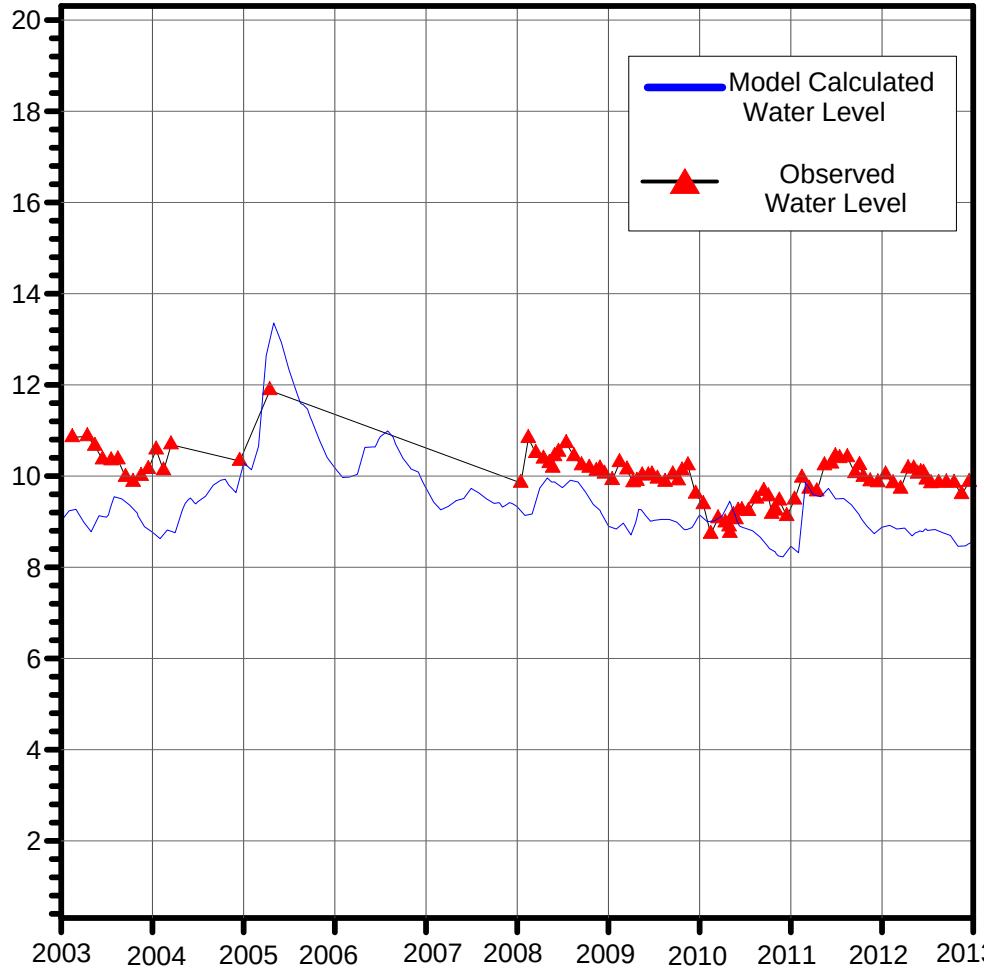
Figure 3.17a. Hydrograph showing model calculated and observed water levels at well Well02.

McDonald Morrissey ASSOCIATES, Inc.

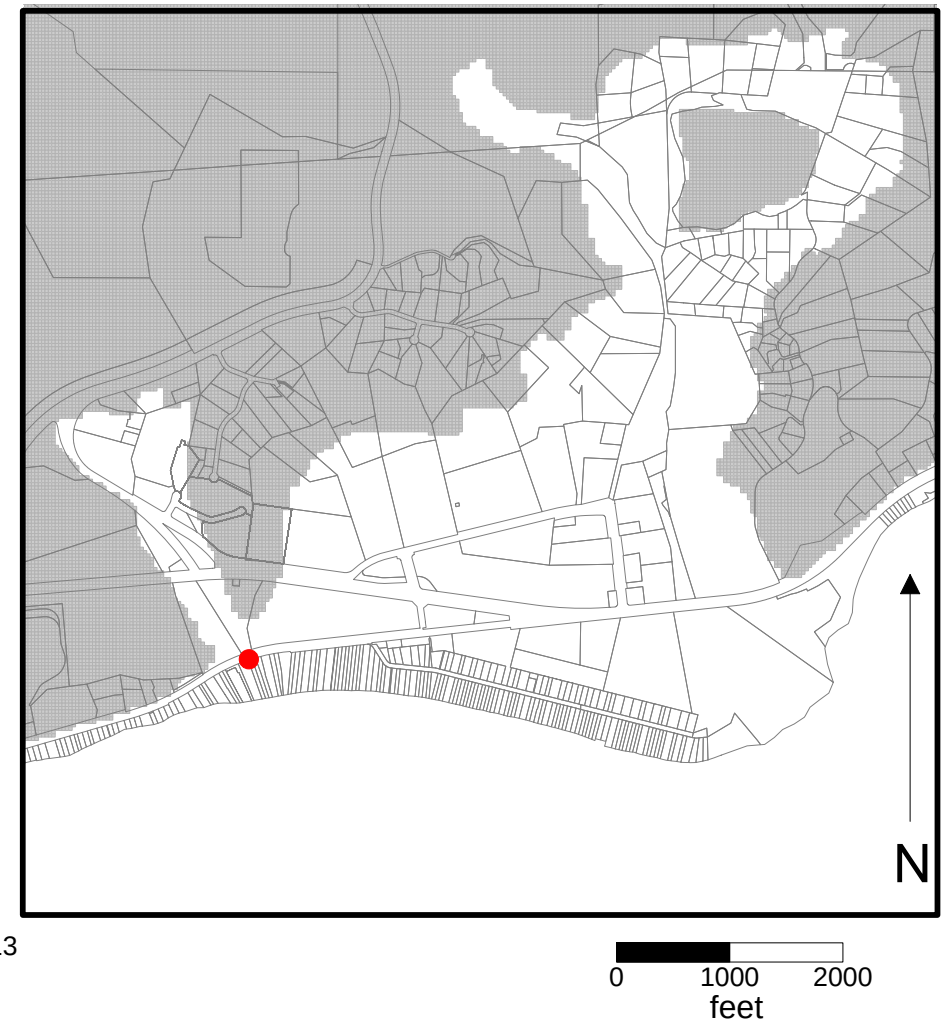
Malibu Hydrograph

SMBRP-11_4458007018

Water Level Elevation (ft msl NAVD88)



Model Layer **1**



Number of Target Water Levels	94
Range of Elevation	8.73 to 11.88
Average Elevation	9.95

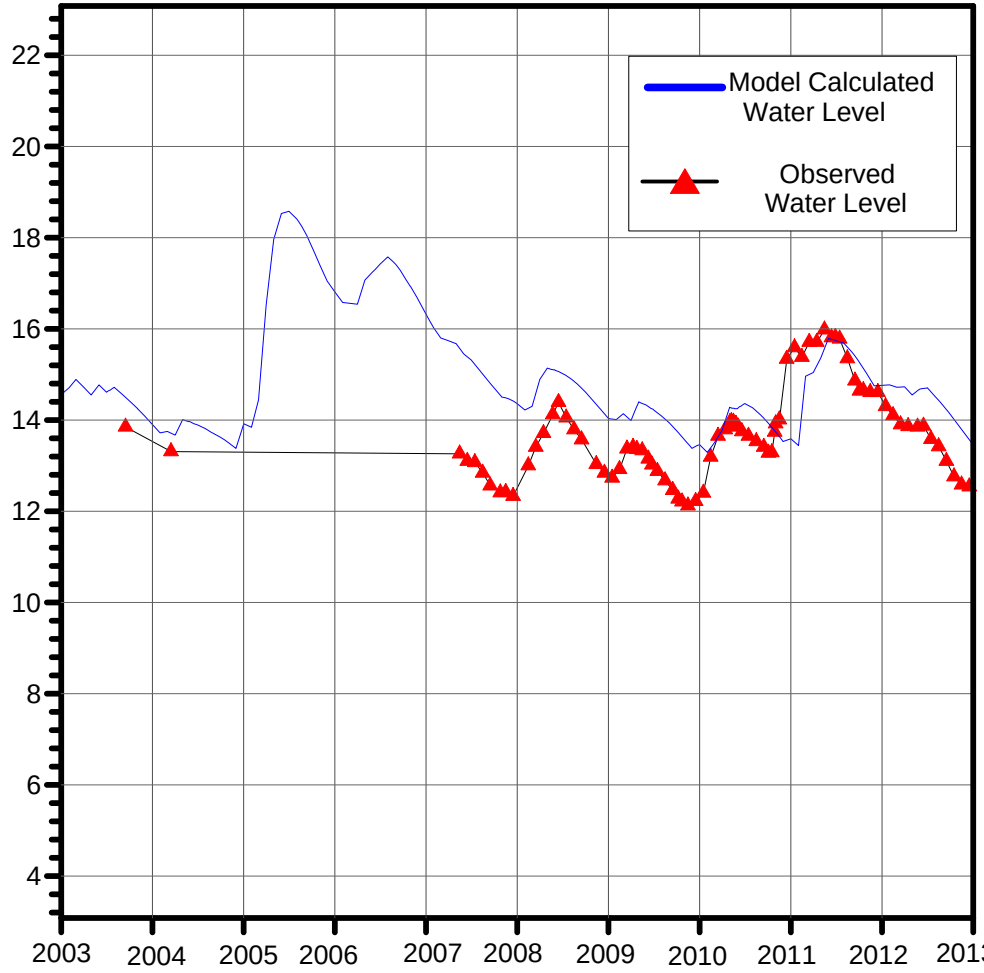
Figure 3.17b. Hydrograph showing model calculated and observed water levels at well SMBRP-11.

McDonald Morrissey ASSOCIATES, Inc.

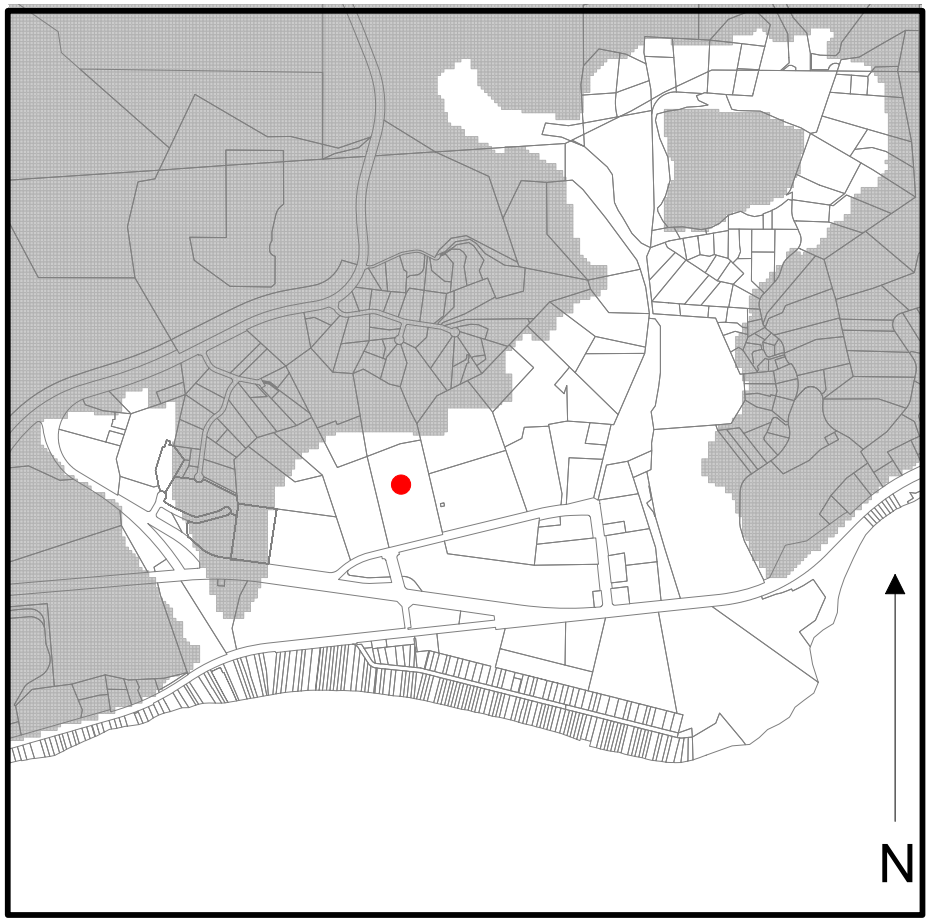
Malibu Hydrograph

MW-5_4458022011

Water Level Elevation (ft msl NAVD88)



Model Layer **1**



Number of Target Water Levels	81
Range of Elevation	12.12 to 15.98
Average Elevation	13.68

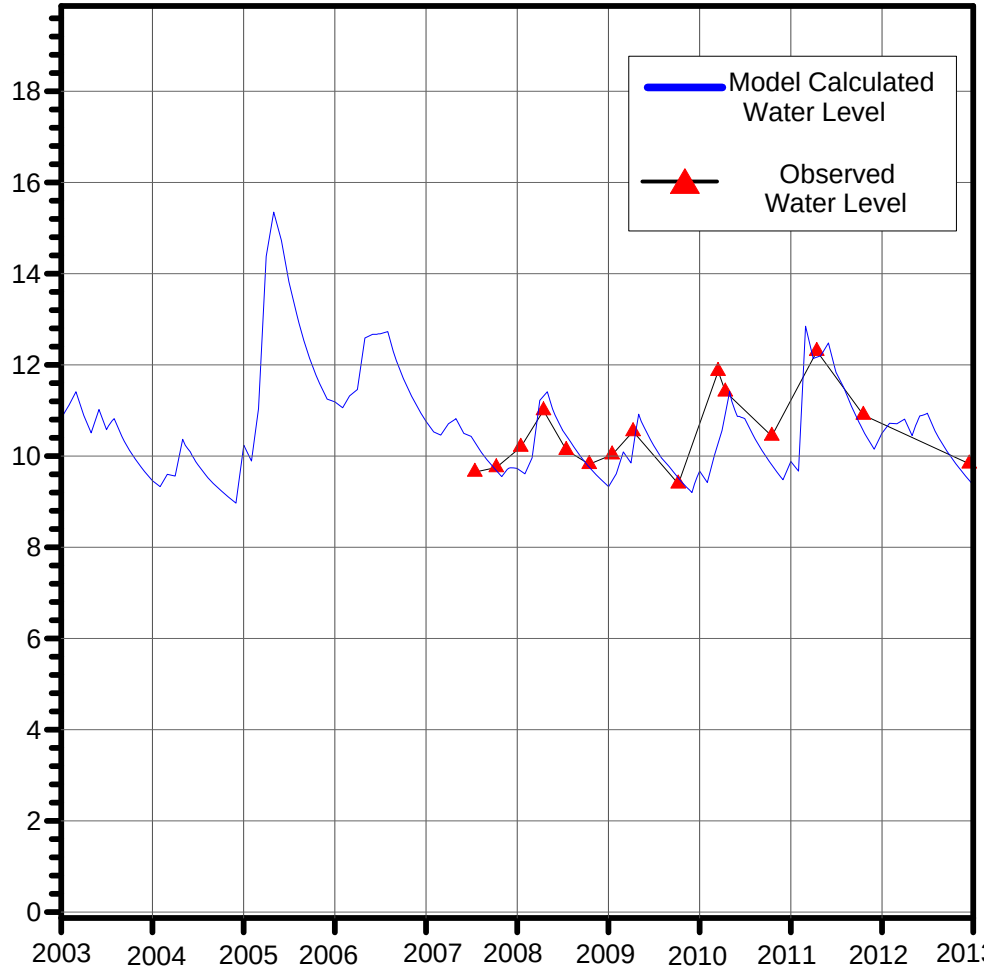
Figure 3.17c. Hydrograph showing model calculated and observed water levels at well MW-5.

McDonald Morrissey ASSOCIATES, Inc.

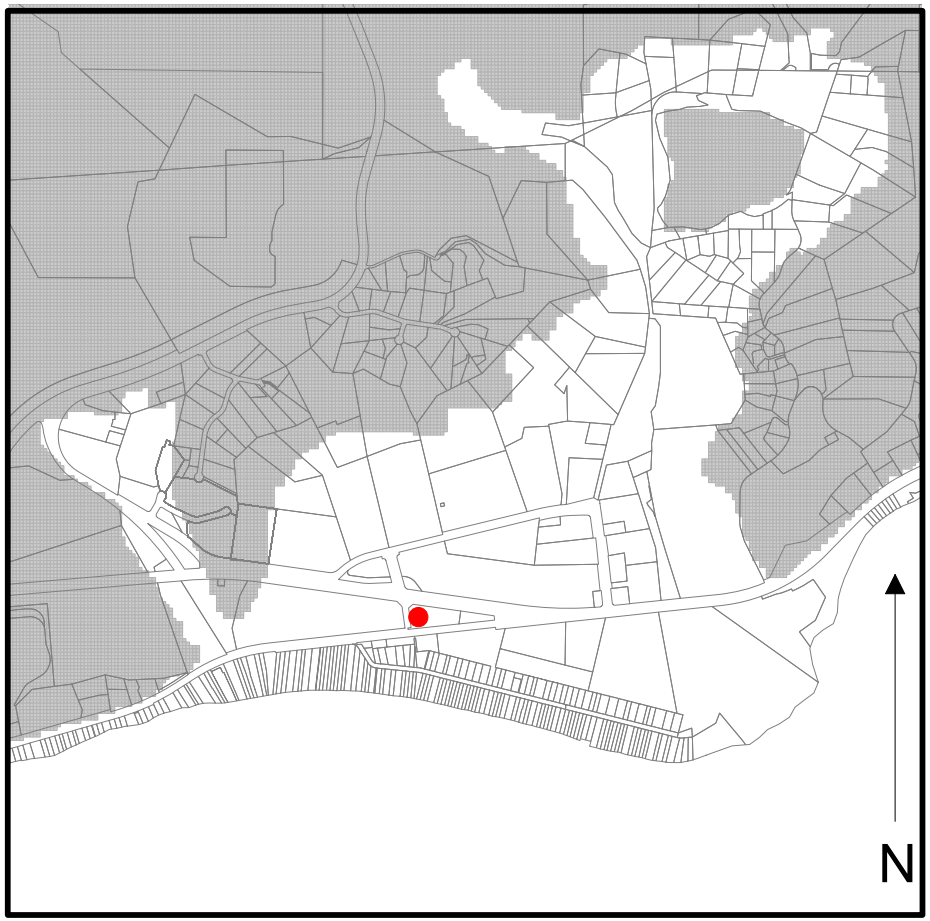
Malibu Hydrograph

W-4A_4458019006

Water Level Elevation (ft msl NAVD88)



Model Layer **1**



Number of Target Water Levels	15
Range of Elevation	9.39 to 12.30
Average Elevation	10.48

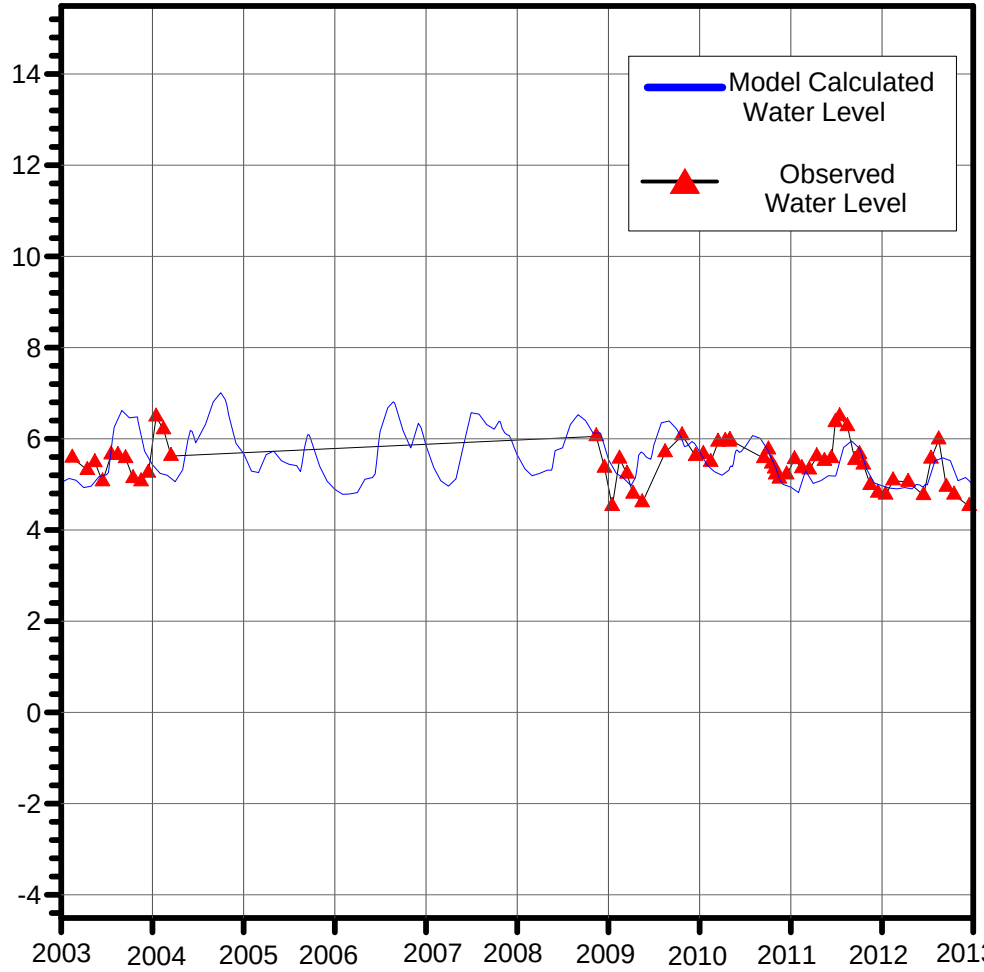
Figure 3.17d. Hydrograph showing model calculated and observed water levels at well W-4A.

McDonald Morrissey ASSOCIATES, Inc.

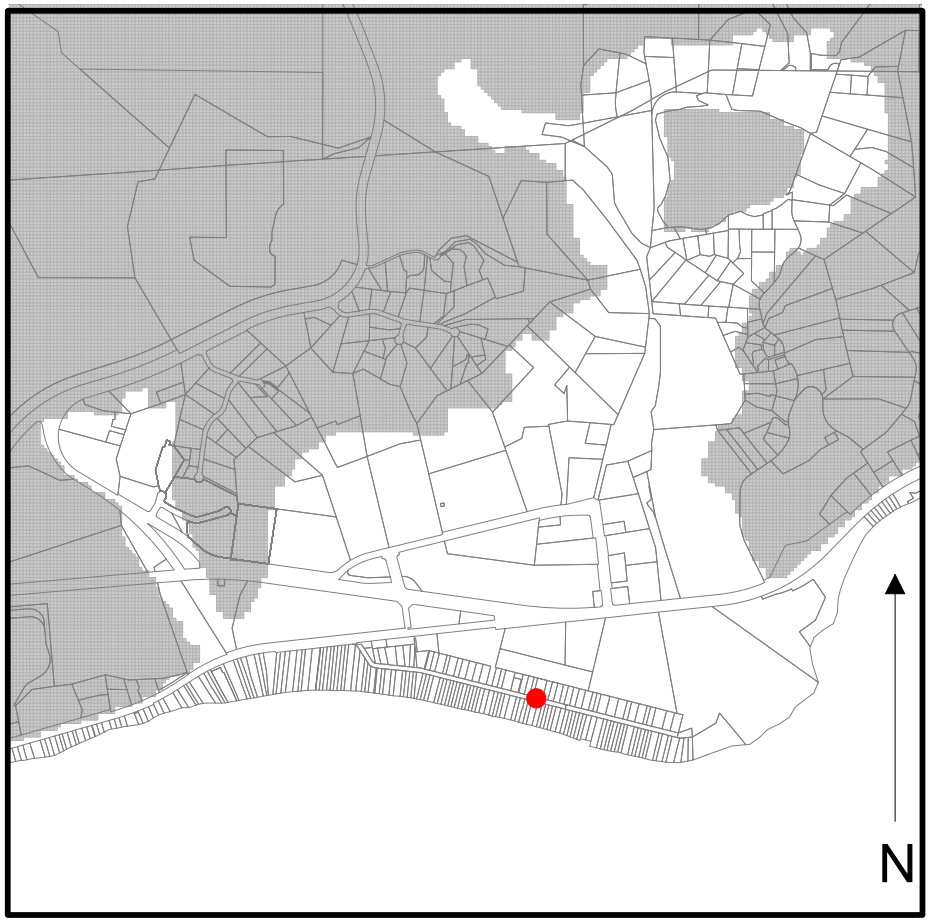
Malibu Hydrograph

SMBRP-13_4458001002

Water Level Elevation (ft msl NAVD88)



Model Layer **1**



Number of Target Water Levels	59
Range of Elevation	4.52 to 6.49
Average Elevation	5.46

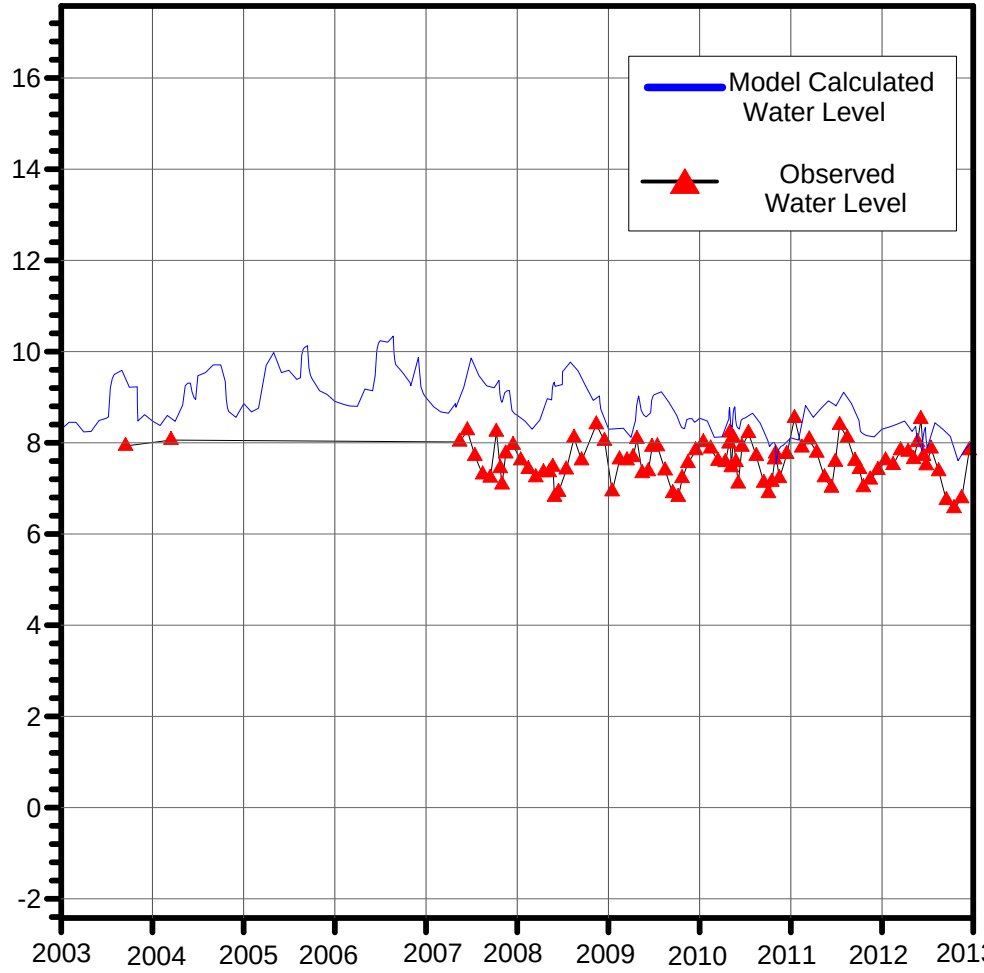
Figure 3.17e. Hydrograph showing model calculated and observed water levels at well SMBRP-13.

McDonald Morrissey ASSOCIATES, Inc.

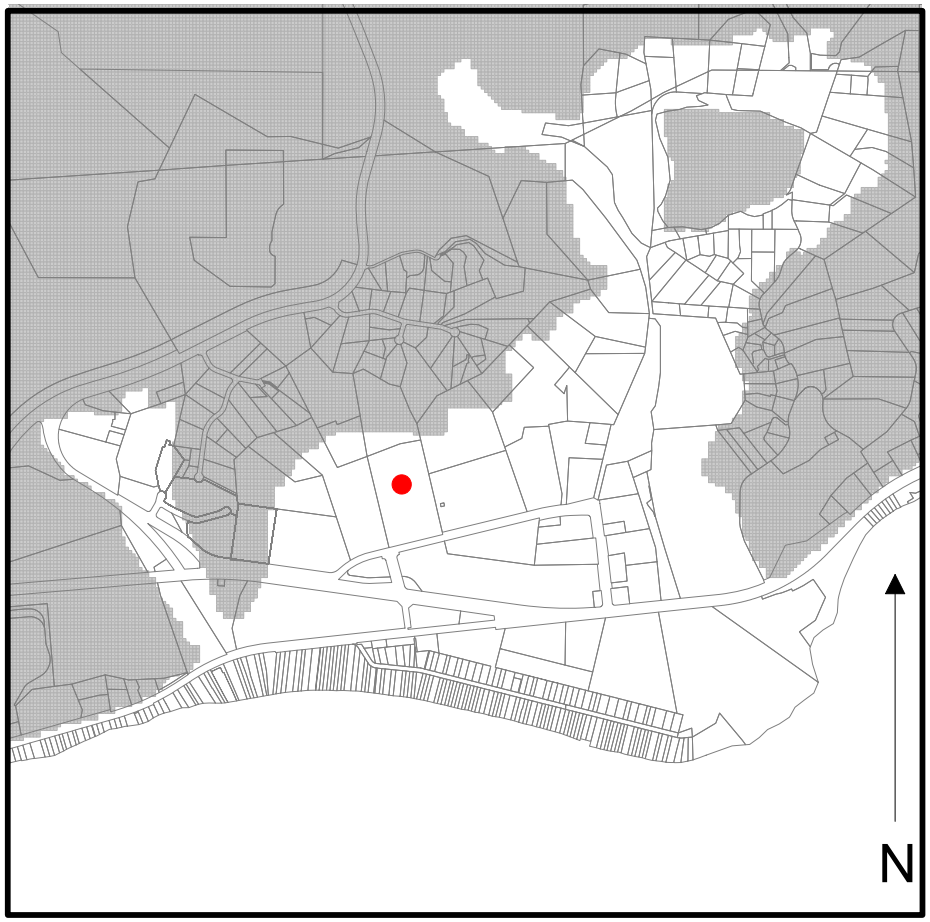
Malibu Hydrograph

MW-6_4458022011

Water Level Elevation (ft msl NAVD88)



Model Layer **4**



Number of Target Water Levels	89
Range of Elevation	6.56 to 8.54
Average Elevation	7.60

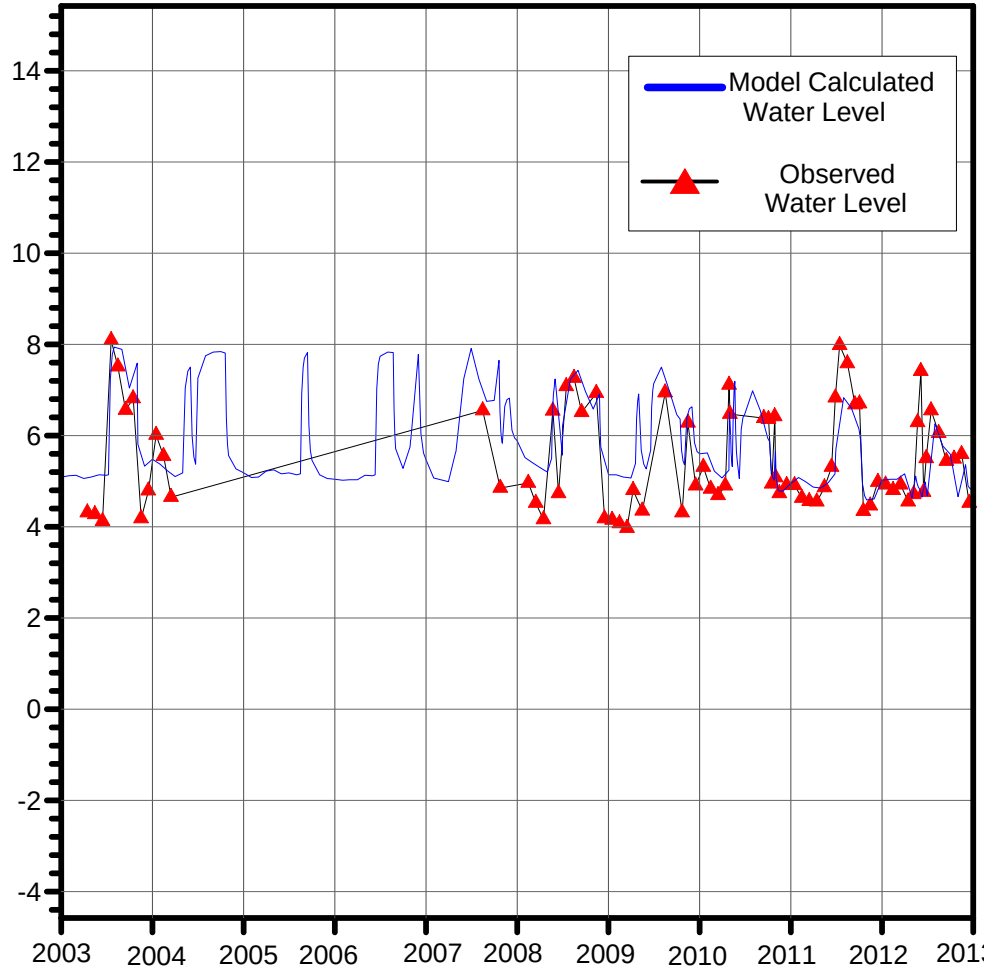
Figure 3.17f. Hydrograph showing model calculated and observed water levels at well MW-6.

McDonald Morrissey ASSOCIATES, Inc.

Malibu Hydrograph

P-9_4452011043

Water Level Elevation (ft msl NAVD88)



Model Layer **1**

Number of Target Water Levels	75
Range of Elevation	3.97 to 8.09
Average Elevation	5.48

Figure 3.17g. Hydrograph showing model calculated and observed water levels at well P-9.

McDonald Morrissey ASSOCIATES, Inc.

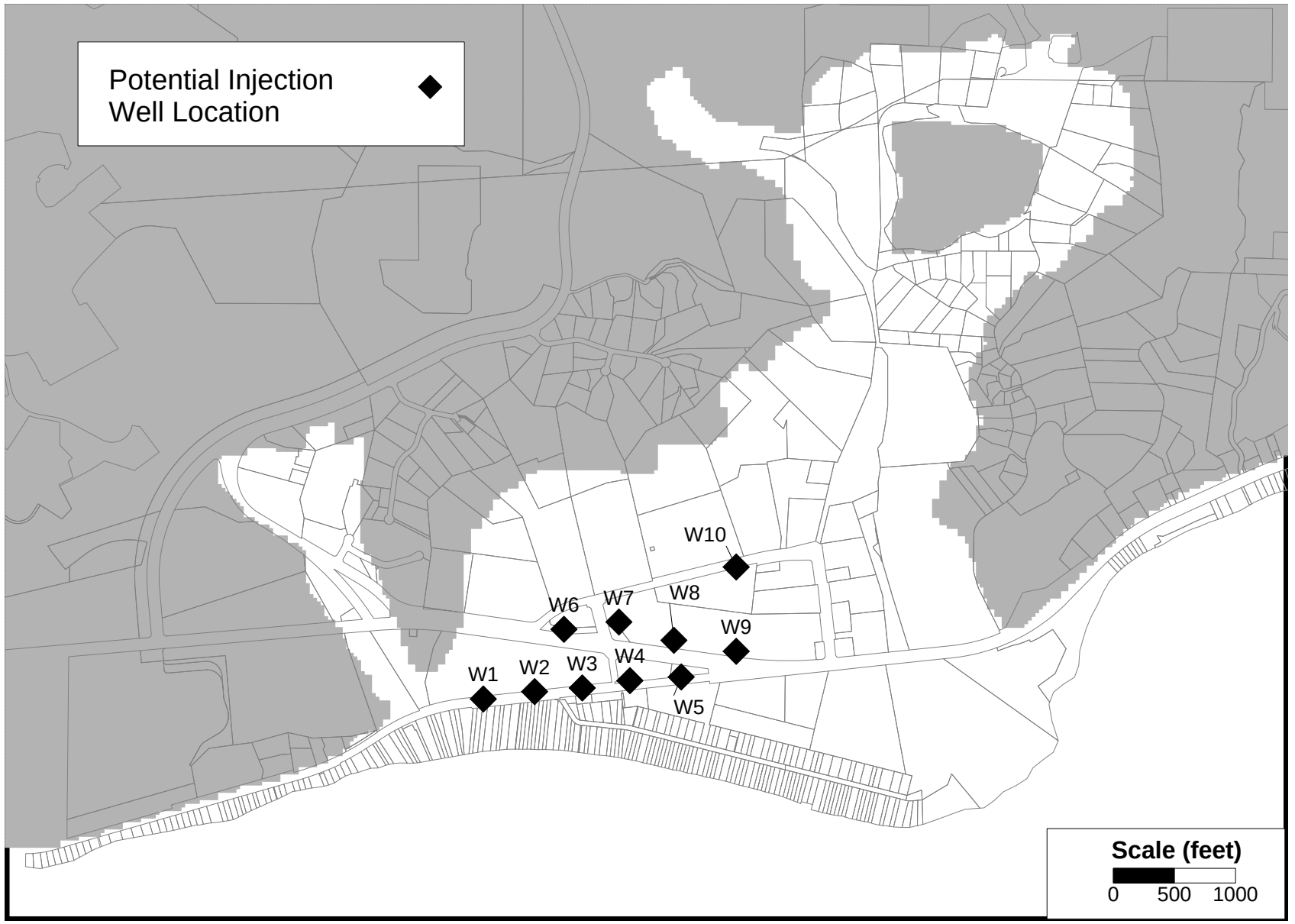


Figure 3.18 - Map showing location of potential injection wells used in the optimization process.

McDonald Morrissey ASSOCIATES, Inc.

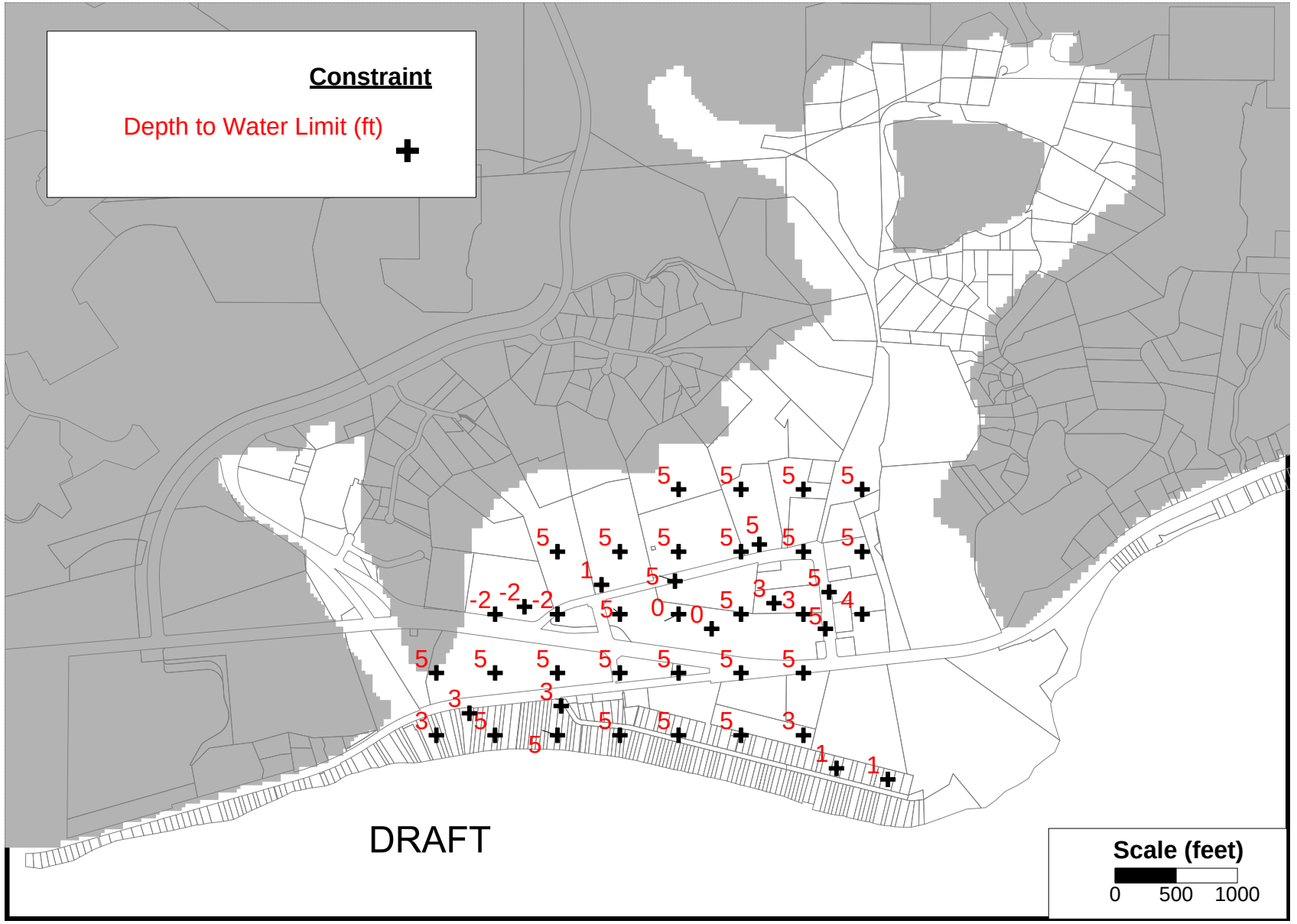


Figure 3.19 - Map showing location of groundwater level constraints and the assigned acceptable distance from land surface to groundwater.

McDonald Morrissey ASSOCIATES, Inc.

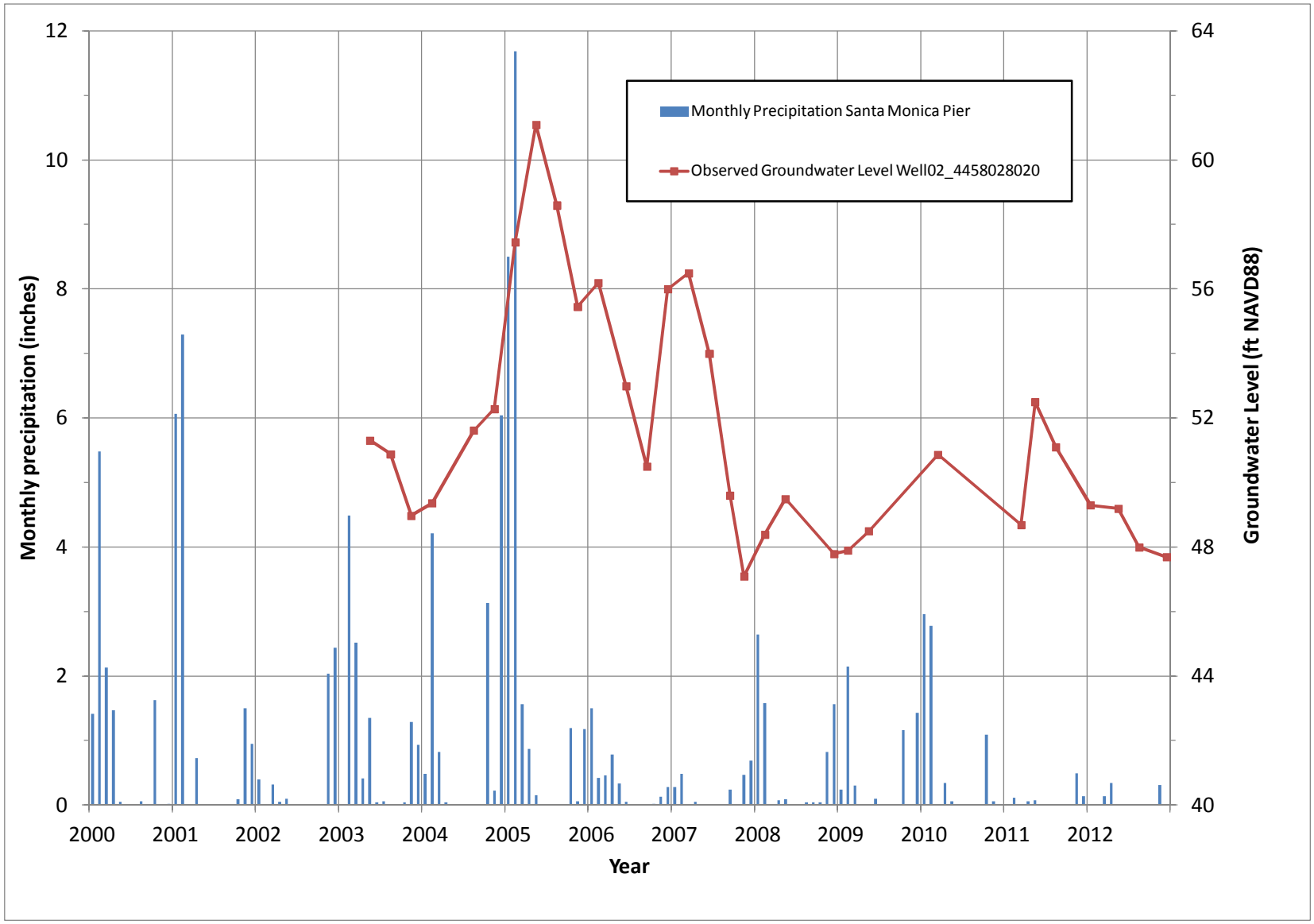


Figure 3.20 - Hydrograph showing groundwater levels from a well in Winter Canyon and monthly precipitation at Santa Monica Pier.

McDonald Morrissey Associates, Inc.

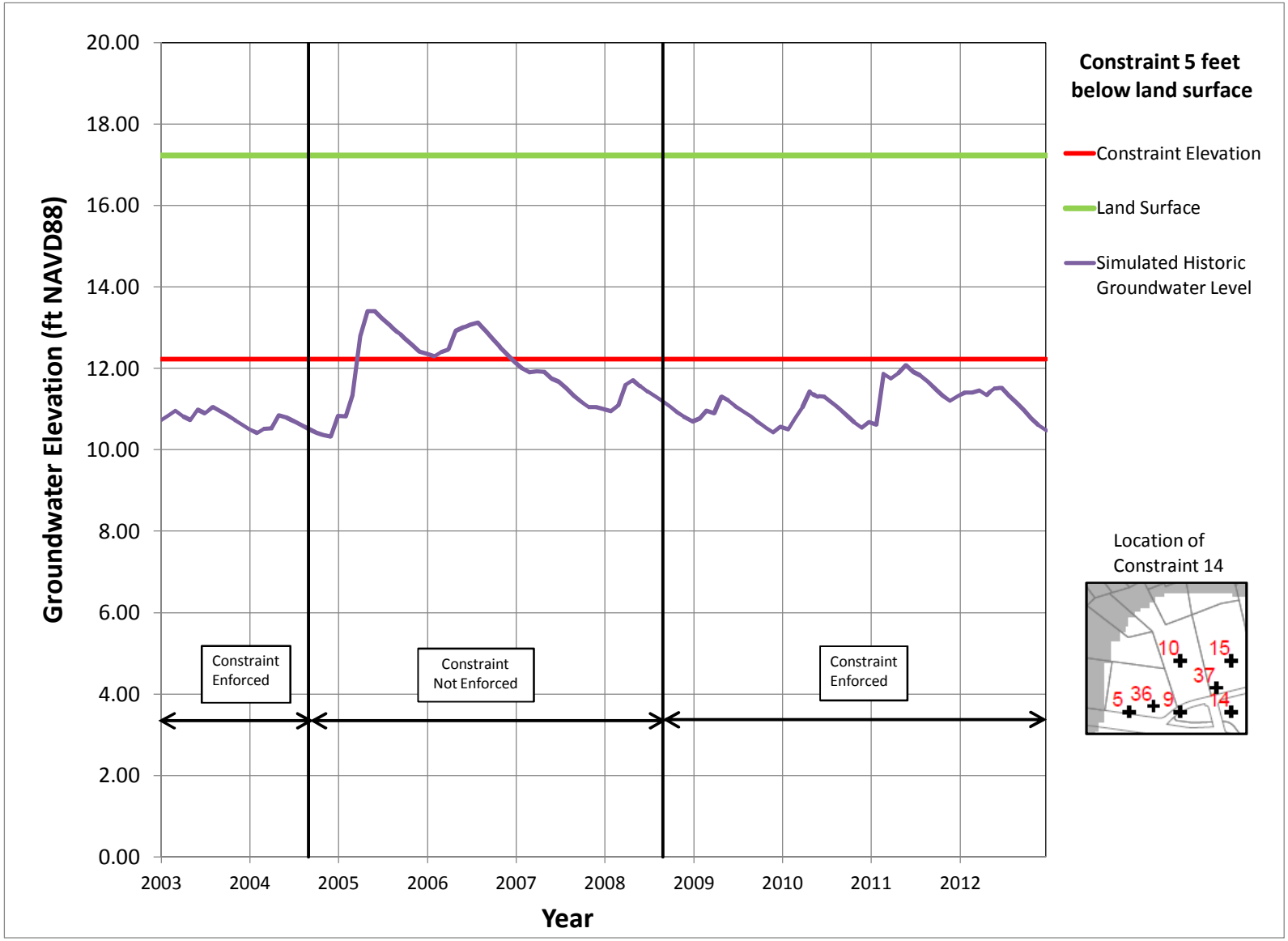


Figure 3.21 Hydrograph showing elevations of land surface, groundwater level constraint, and simulated historic groundwater levels at constraint 14.

McDonald Morrissey Associates, Inc.

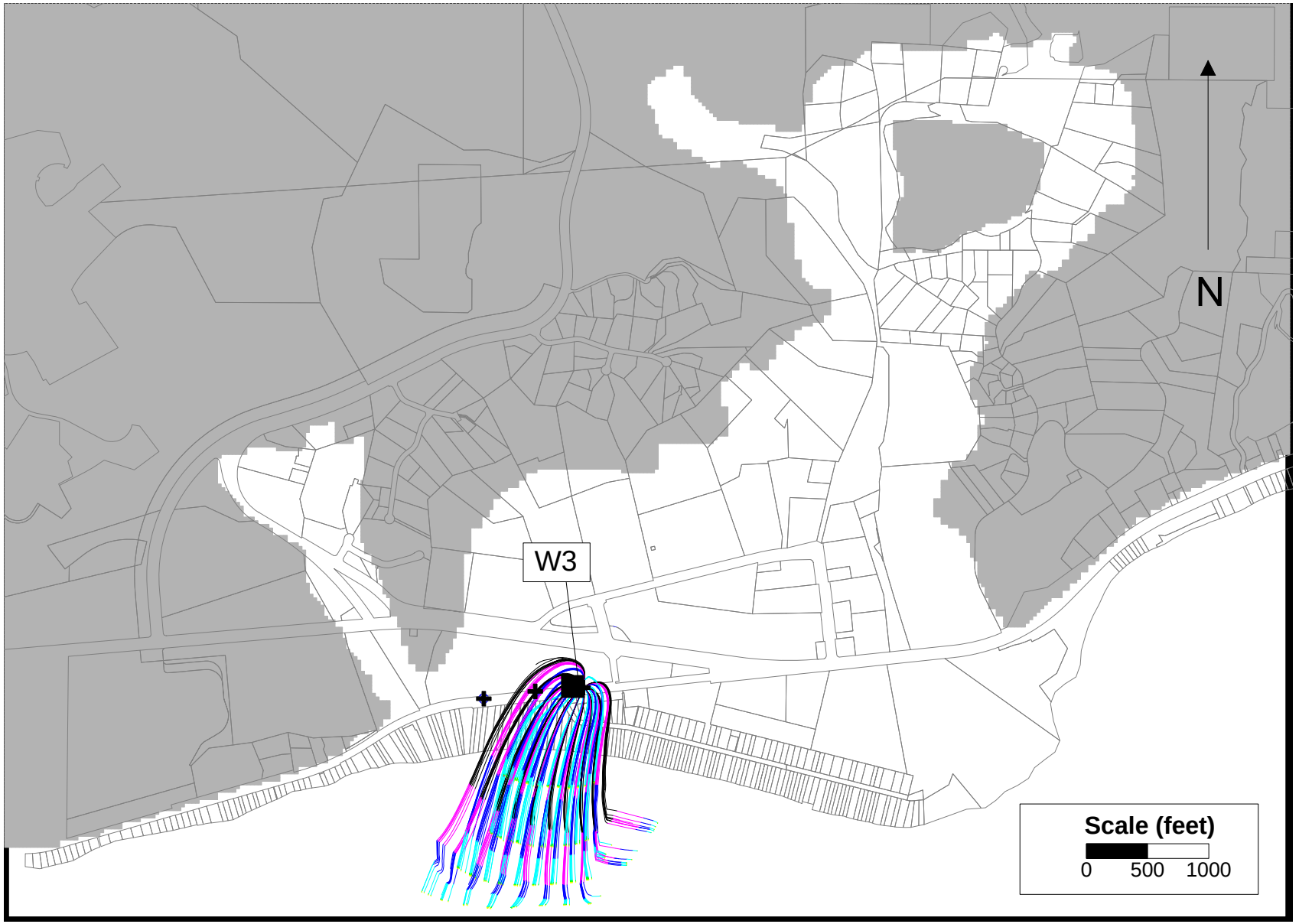


Figure 3.22 - Particle tracking from optimized injection sites representing Phase 1 conditions.

McDonald Morrissey ASSOCIATES, Inc.

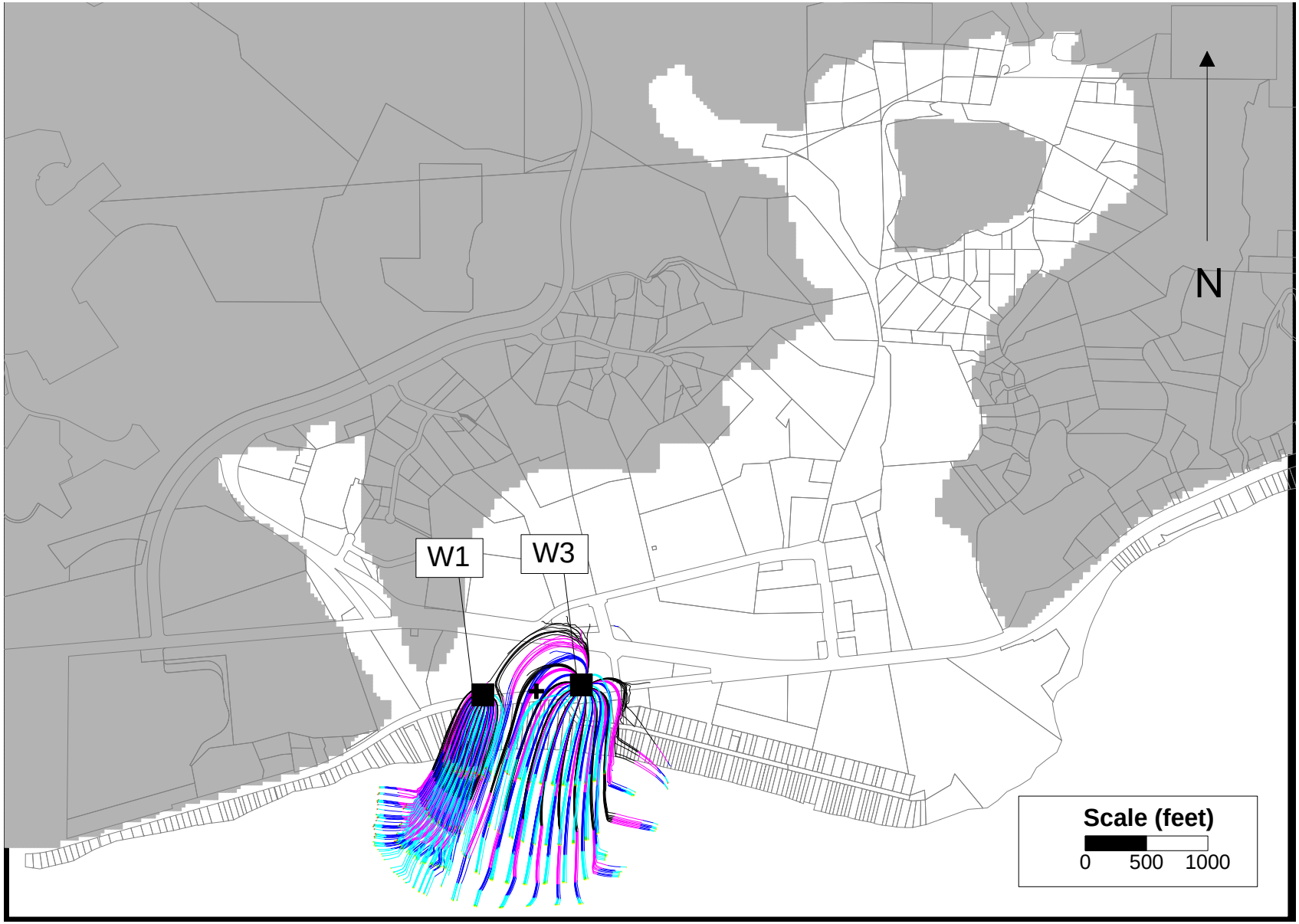


Figure 3.23 - Particle tracking from optimized injection sites representing Phase 2 conditions.

McDonald Morrissey ASSOCIATES, Inc.

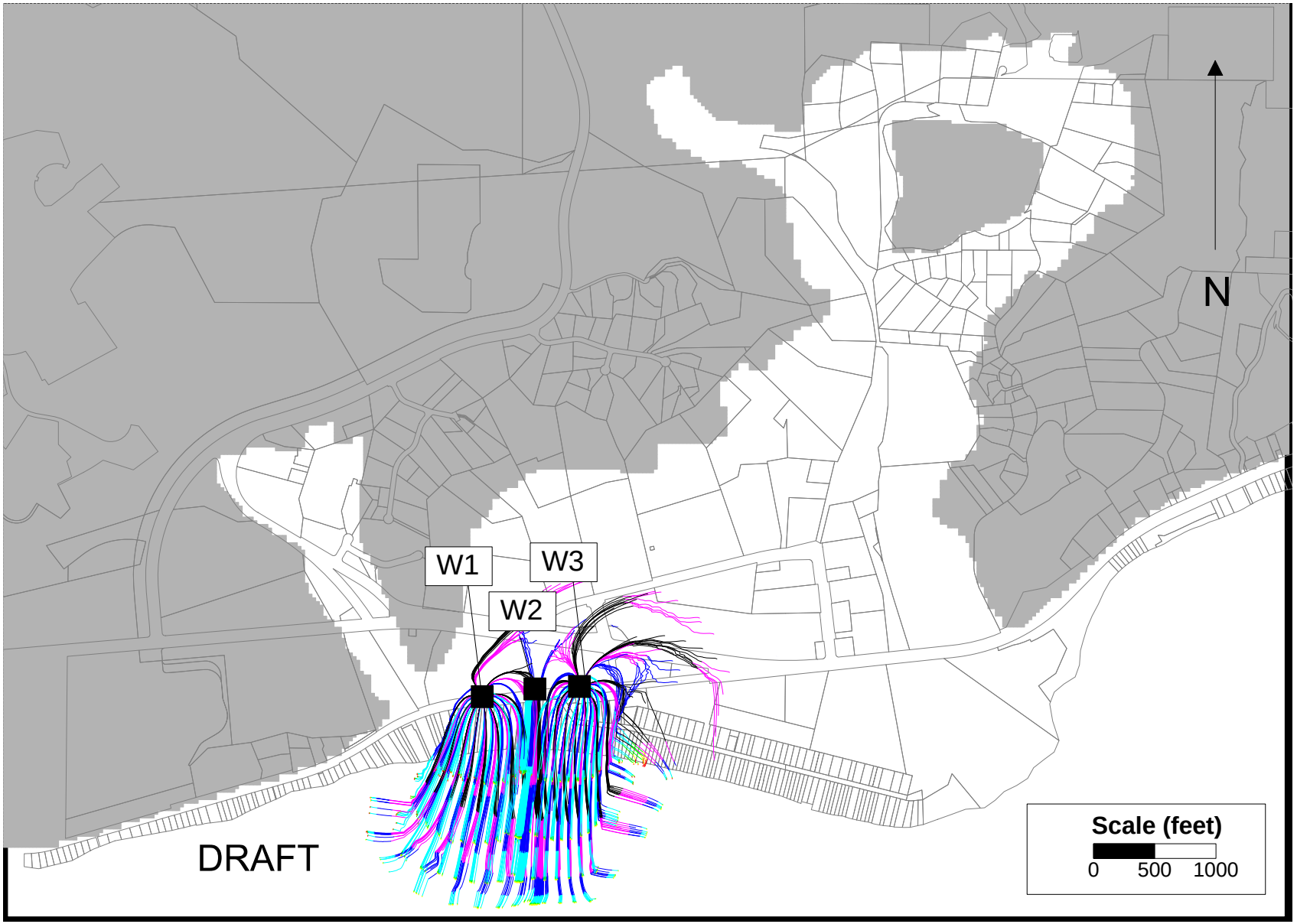


Figure 3.24 - Particle tracking from optimized injection sites representing Phase 3 conditions.

McDonald Morrissey ASSOCIATES, Inc.

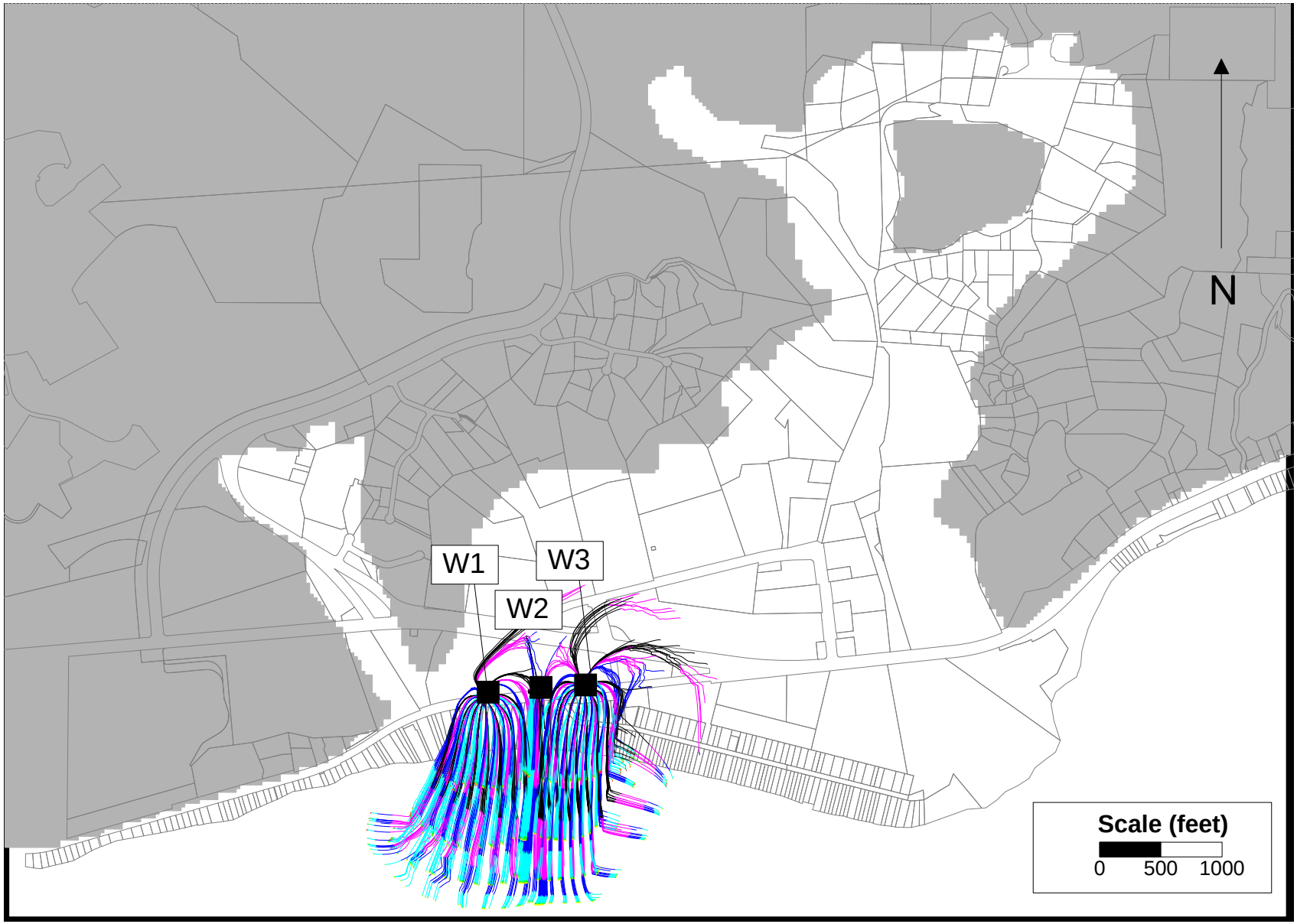


Figure 3.25 - Particle tracking from optimized injection sites representing Phase 3 conditions with a portion, 50,000 gallons per day, being injected into Winter Canyon.

McDonald Morrissey ASSOCIATES, Inc.

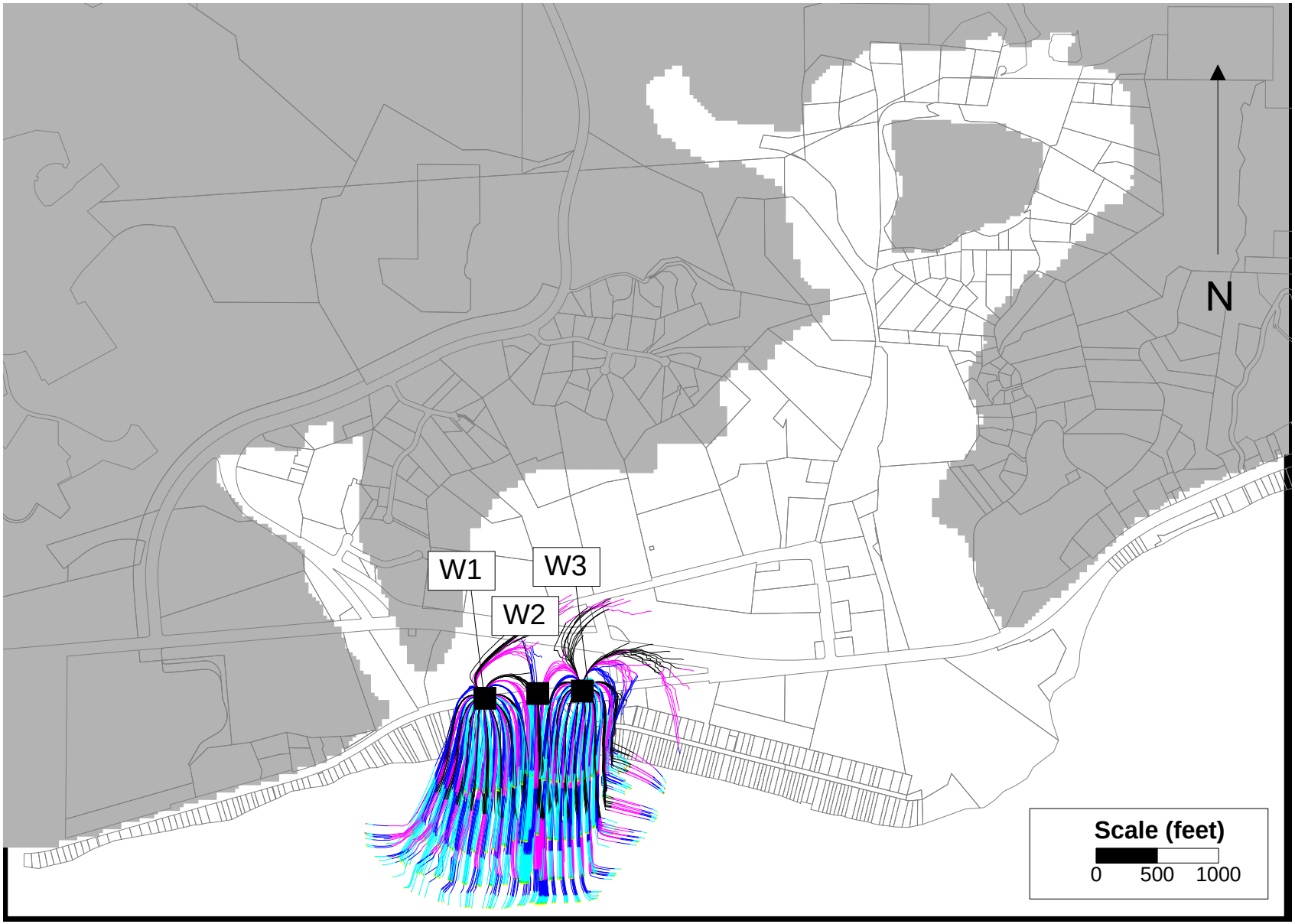


Figure 3.26 - Particle tracking from optimized injection sites representing Phase 3 conditions with a portion, 100,000 gallons per day, being injected into Winter Canyon.

McDonald Morrissey ASSOCIATES, Inc.

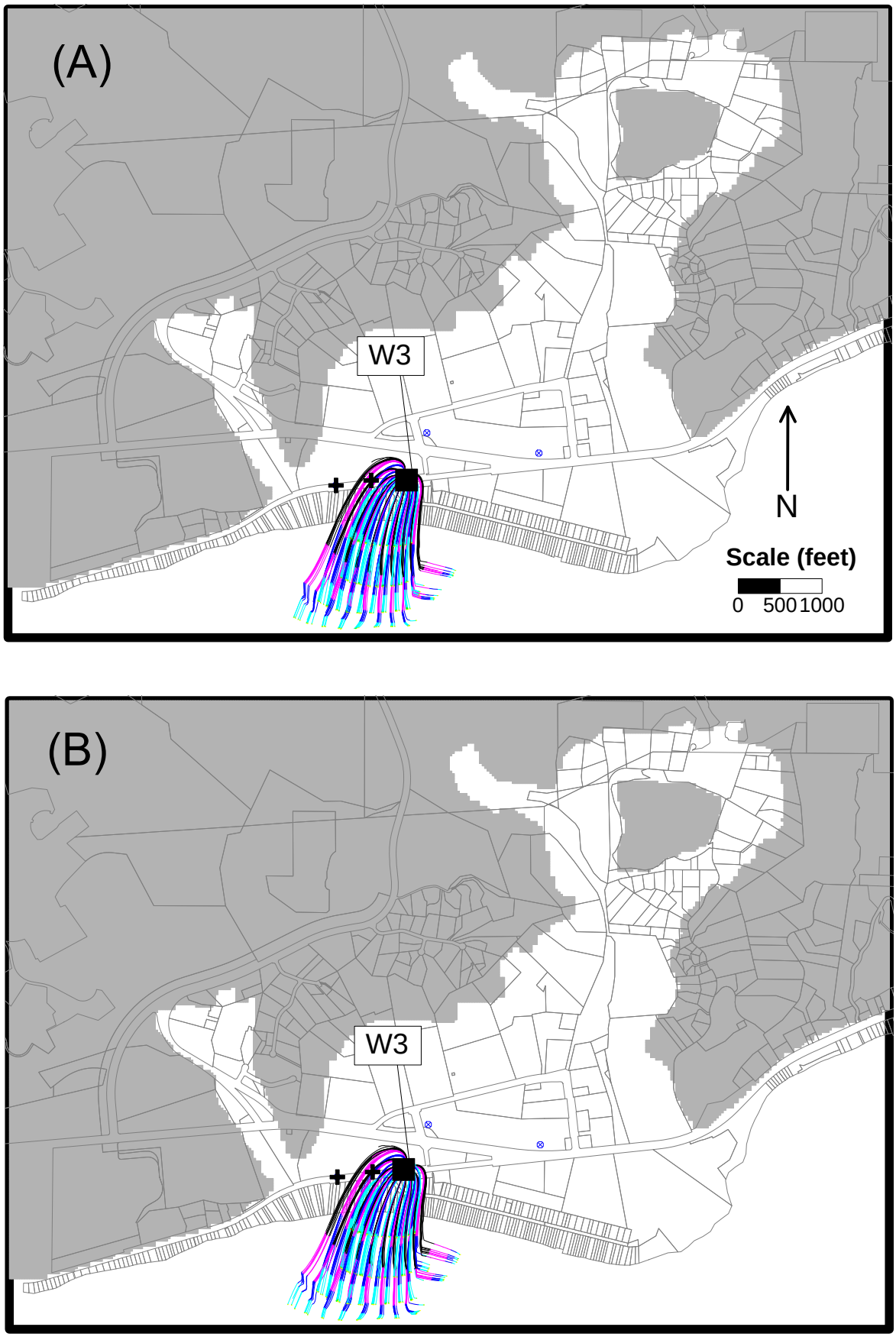


Figure 3.27 - Maps showing comparison between Phase 1 injection (311,135 g/d), for the base run (A) and the deep channel conductivity decreased by 10 percent (B).

McDonald Morrissey ASSOCIATES, Inc.

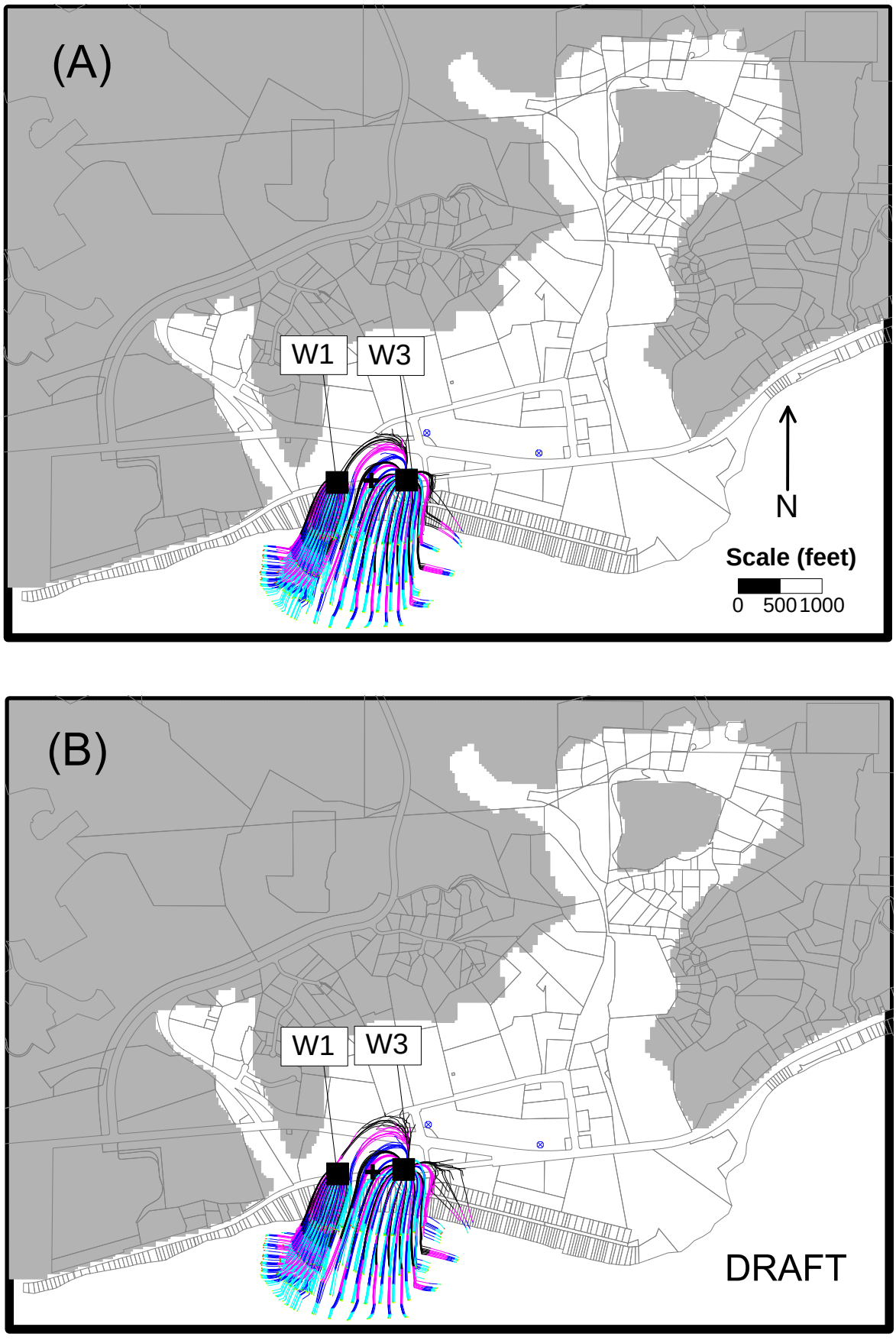


Figure 3.28 - Maps showing comparison between Phase 2 injection (497,642 g/d), for the base run (A) and the deep channel conductivity decreased by 10 percent (B).

McDonald Morrissey ASSOCIATES, Inc.

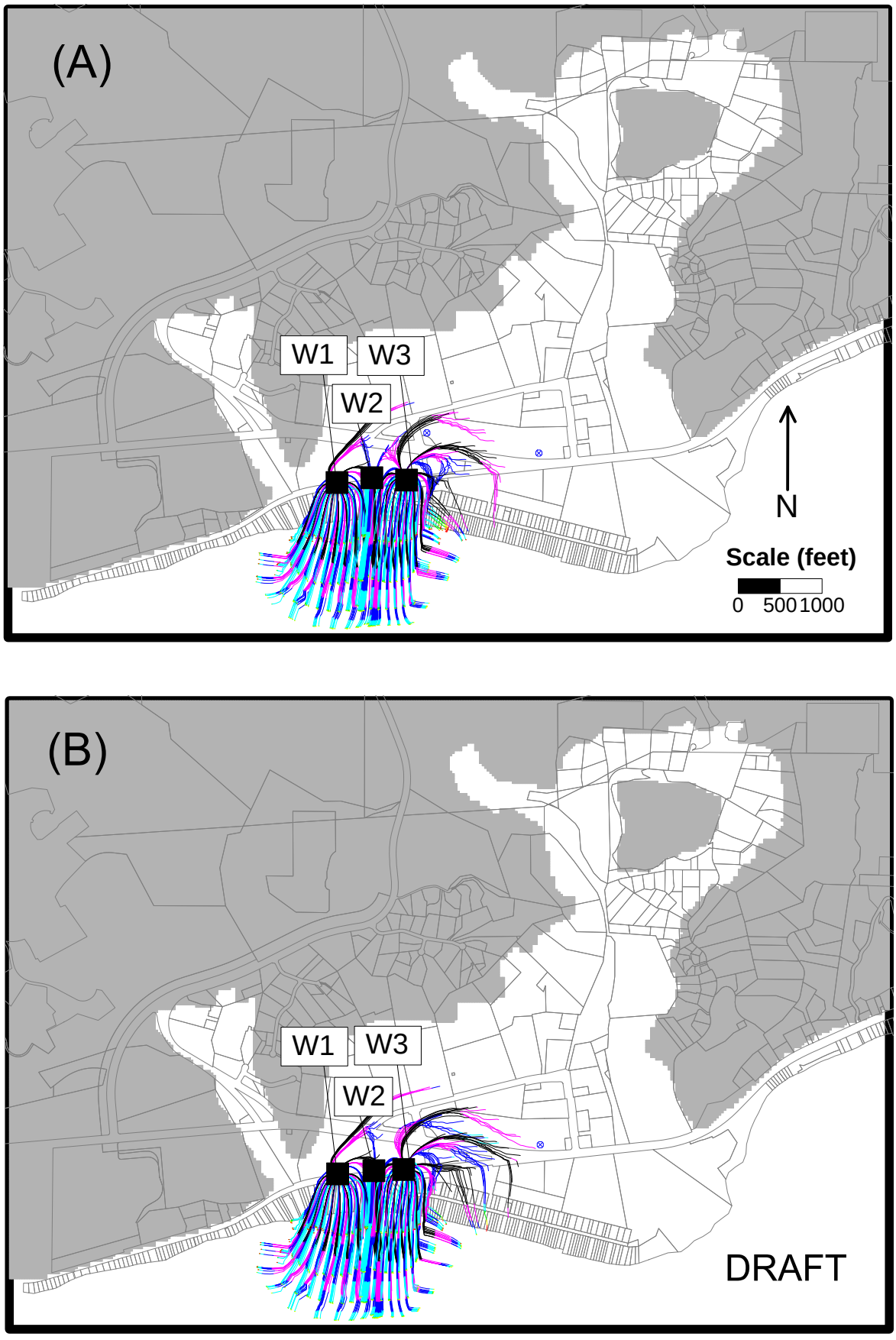


Figure 3.29 - Maps showing comparison between Phase 3 injection (611,655 g/d), for the base run (A) and the deep channel conductivity decreased by 10 percent (B).

McDonald Morrissey ASSOCIATES, Inc.

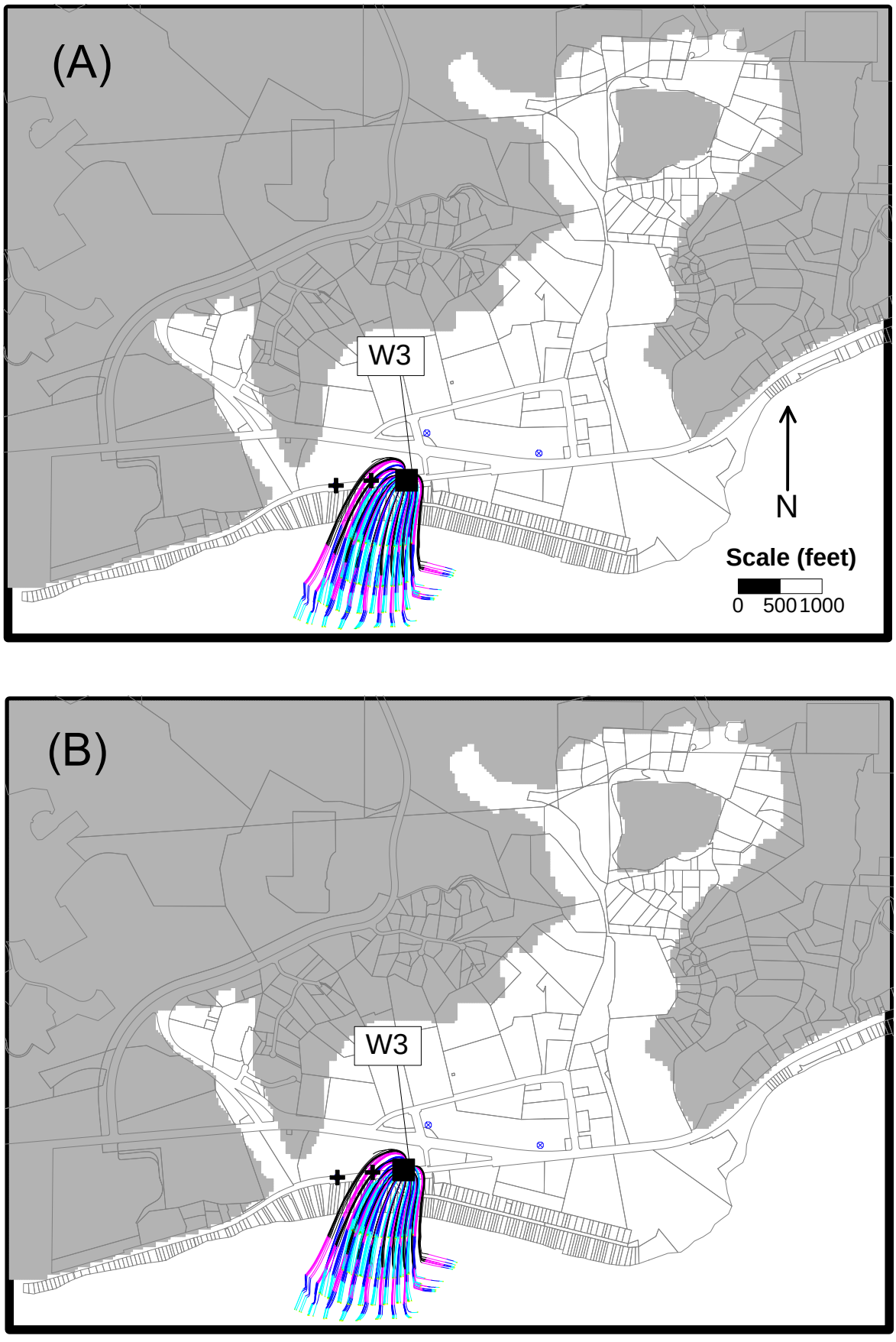
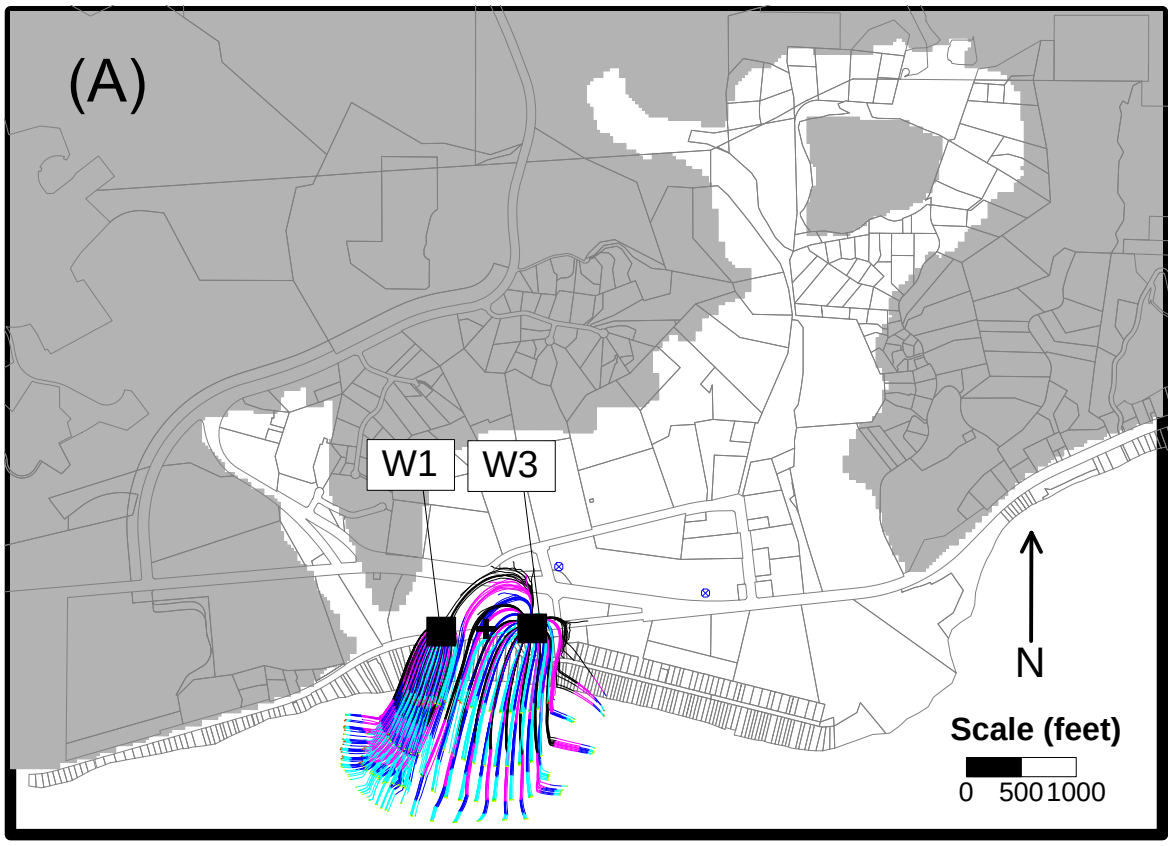


Figure 3.30 - Maps showing comparison between Phase 1 injection (311,135 g/d), for the base run (A) and the low permeability unit vertical conductivity increased by a factor of 2 (B).

McDonald Morrissey ASSOCIATES, Inc.



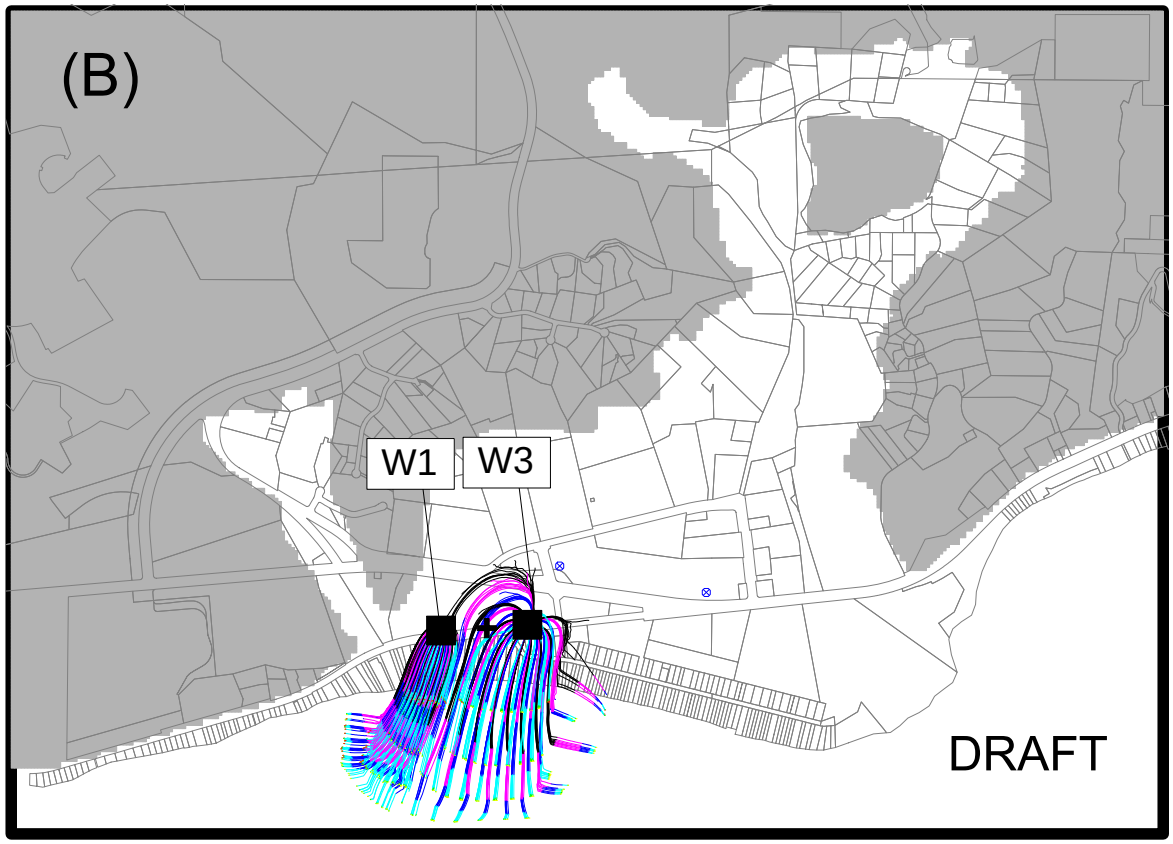


Figure 3.31 - Maps showing comparison between Phase 2 injection (497,642 g/d), for the base run (A) and the low permeability unit vertical conductivity increased by a factor of 2 (B).

McDonald Morrissey ASSOCIATES, Inc.

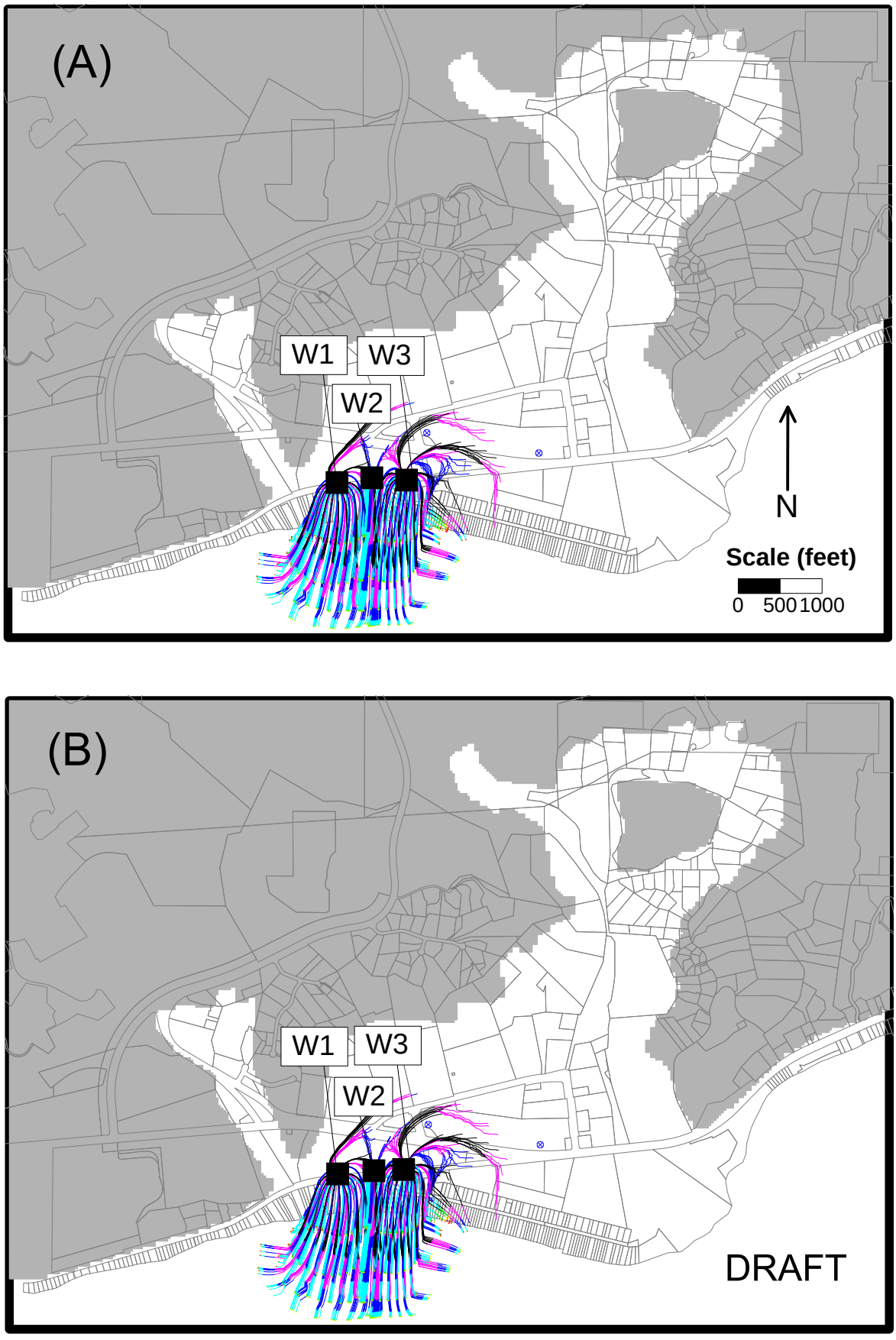


Figure 3.32 - Maps showing comparison between Phase 3 injection (611,655 g/d), for the base run (A) and the low permeability unit vertical conductivity increased by a factor of 2 (B).

McDonald Morrissey ASSOCIATES, Inc.

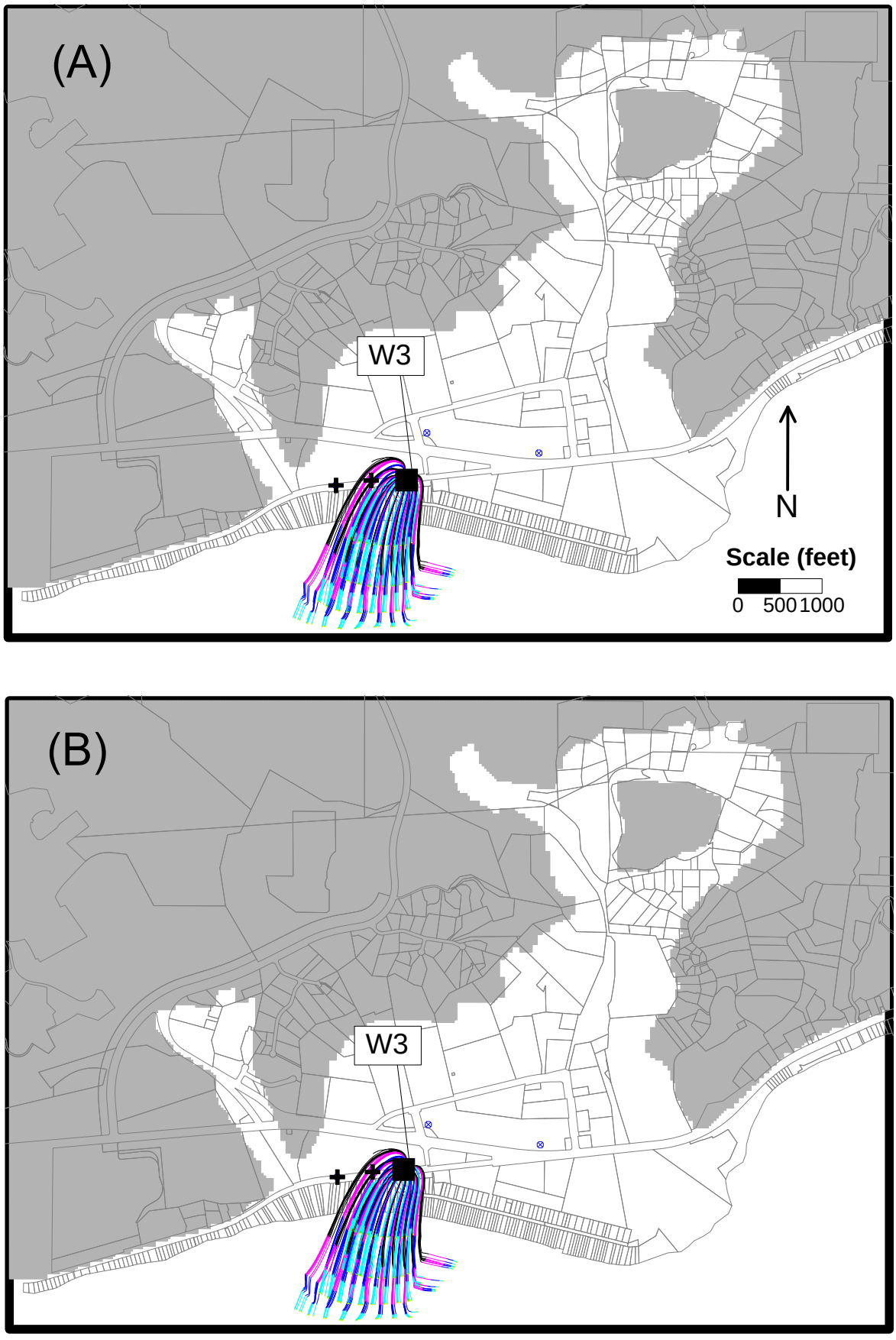
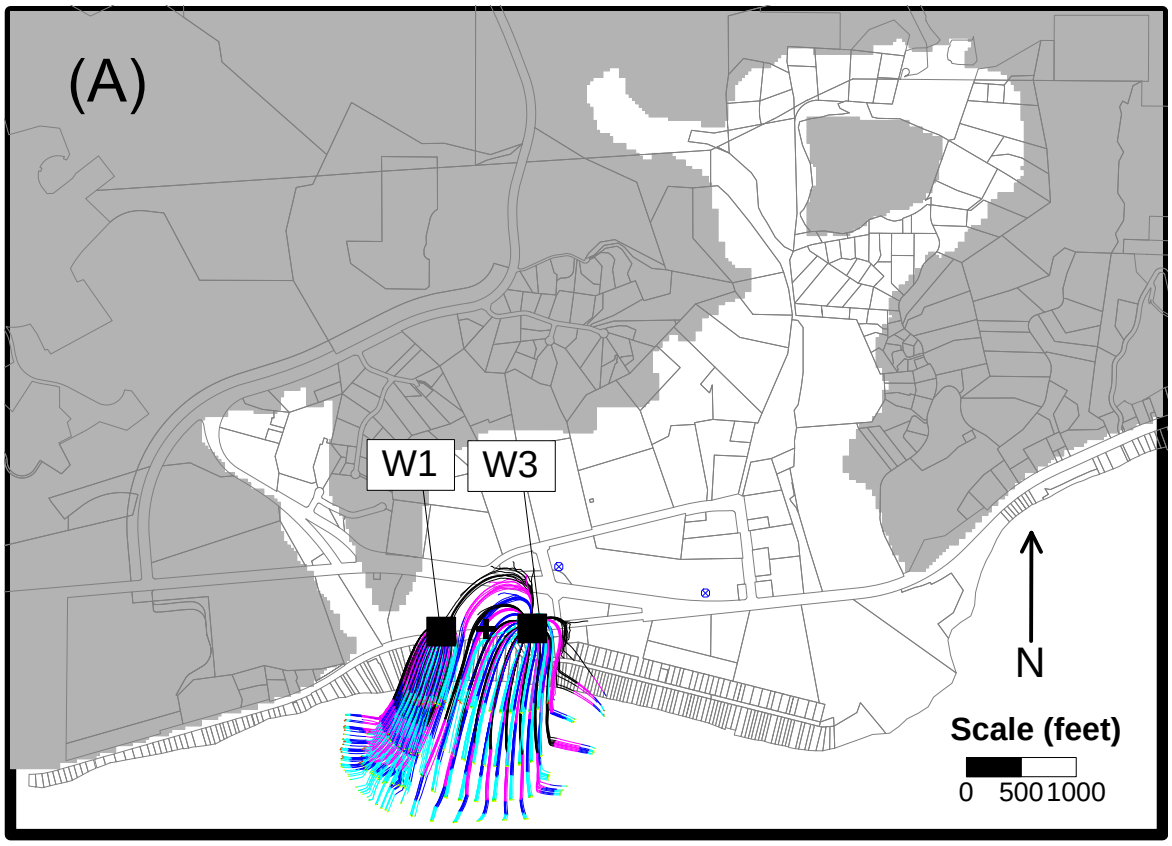


Figure 3.33 - Maps showing comparison between Phase 1 injection (311,135 g/d), for the base run (A) and increasing precipitation recharge by 10 percent (B).

McDonald Morrissey ASSOCIATES, Inc.



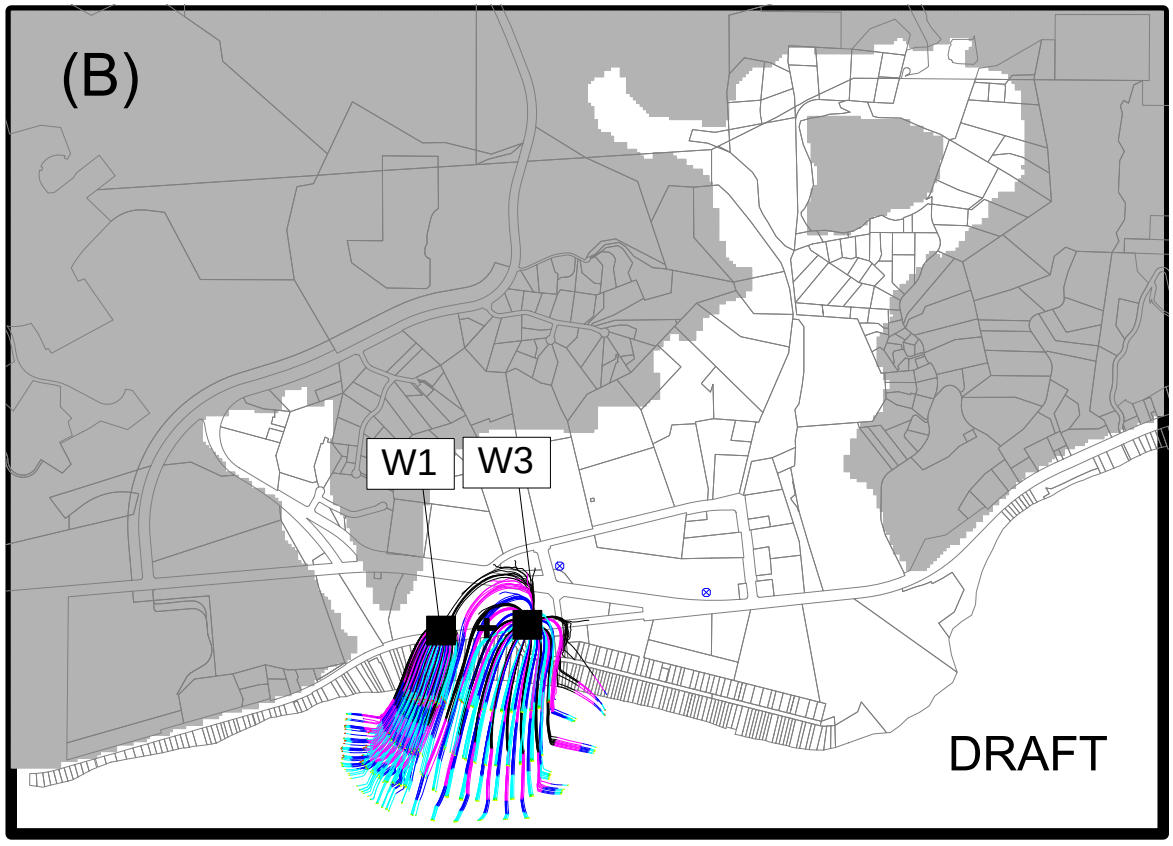
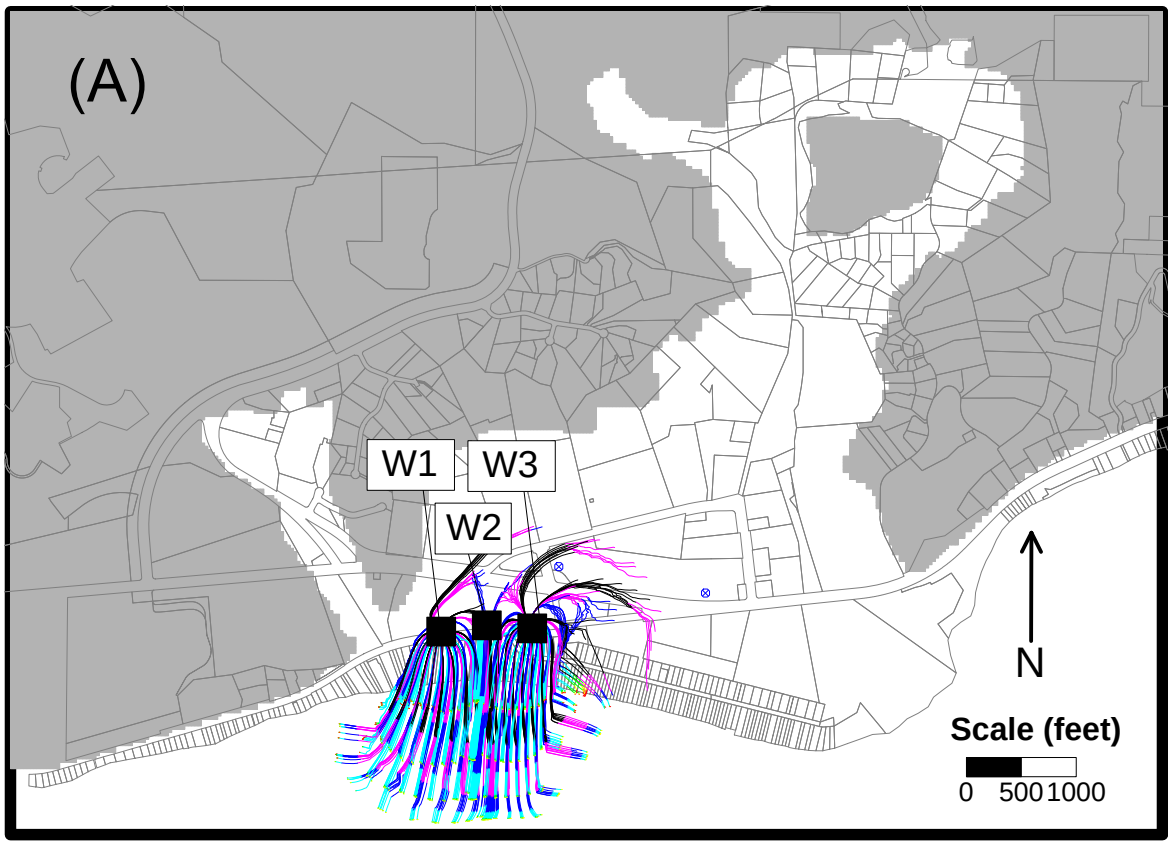


Figure 3.34 - Maps showing comparison between Phase 2 injection (497,642 g/d), for the base run (A) and increasing precipitation recharge by 10 percent (B).

McDonald Morrissey ASSOCIATES, Inc.



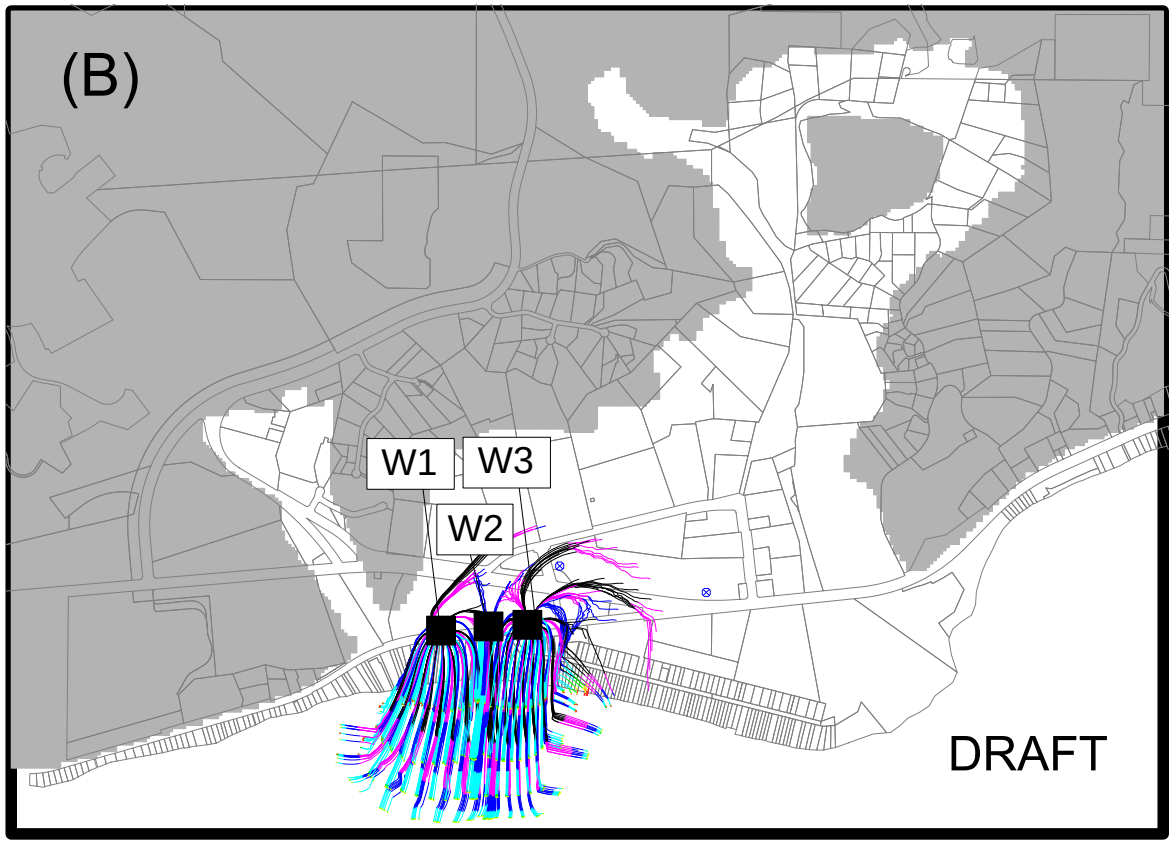


Figure 3.35 - Maps showing comparison between Phase 3 injection (611,655 g/d), for the base run (A) and increasing precipitation recharge by 10 percent (B).

McDonald Morrissey ASSOCIATES, Inc.