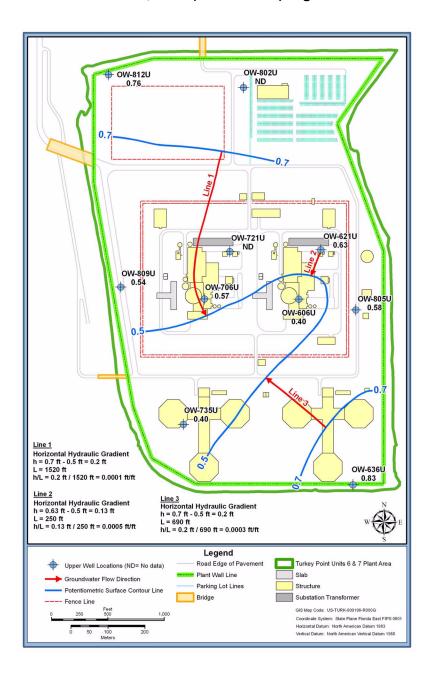
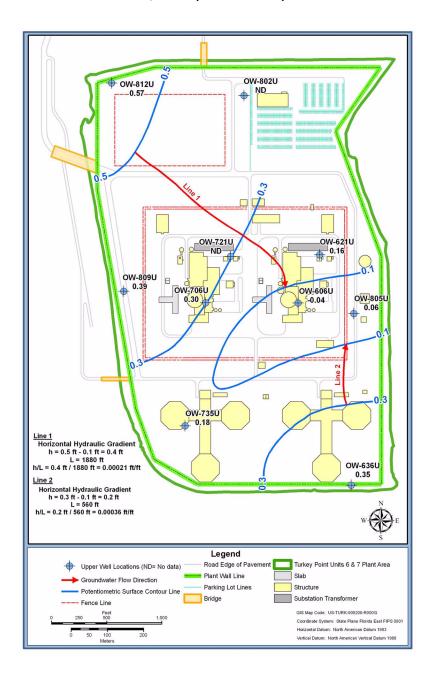
Figure 2.3-32 Biscayne Aquifer Potentiometric Surface Map, Upper Monitoring Interval, October 5, 2008 (Sheet 1 of 2) High Tide



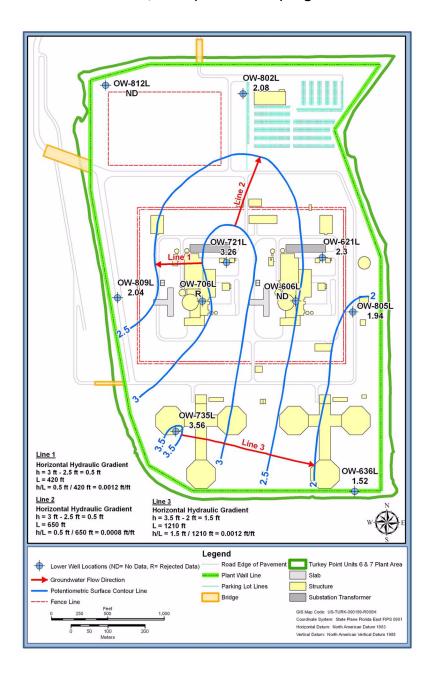
2.3-183 Revision 0

Figure 2.3-32 Biscayne Aquifer Potentiometric Surface Map, Upper Monitoring Interval, October 5, 2008 (Sheet 2 of 2) Low Tide



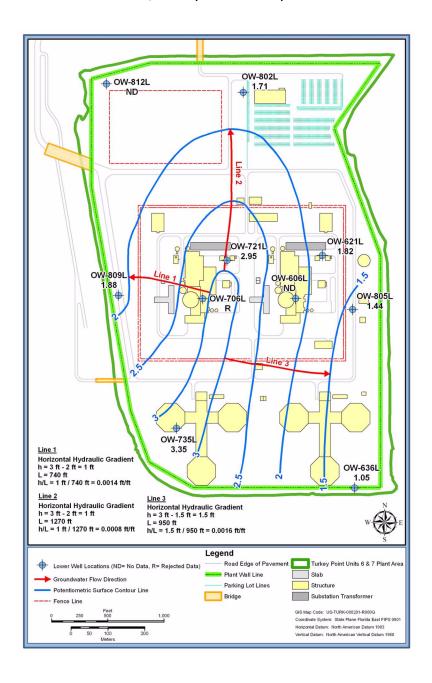
2.3-184 Revision 0

Figure 2.3-33 Biscayne Aquifer Potentiometric Surface Map, Lower Monitoring Interval, October 5, 2008 (Sheet 1 of 2) High Tide



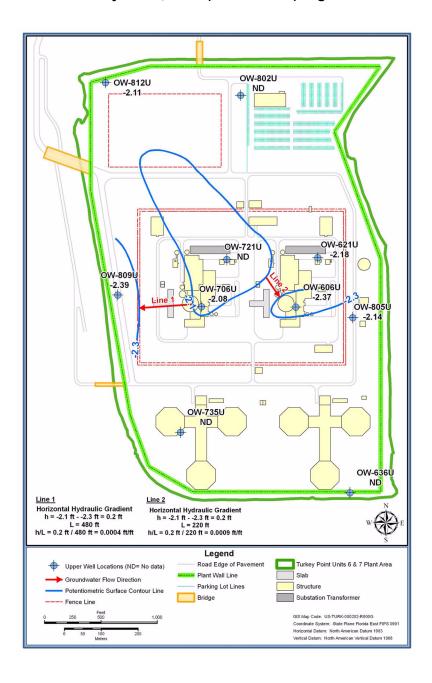
2.3-185 Revision 0

Figure 2.3-33 Biscayne Aquifer Potentiometric Surface Map, Lower Monitoring Interval, October 5, 2008 (Sheet 2 of 2) Low Tide



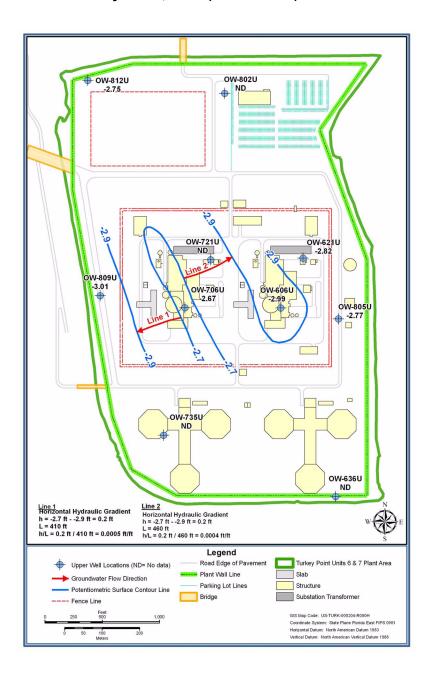
2.3-186 Revision 0

Figure 2.3-34 Biscayne Aquifer Potentiometric Surface Map, Upper Monitoring Interval, January 20-21, 2009 (Sheet 1 of 2) High Tide



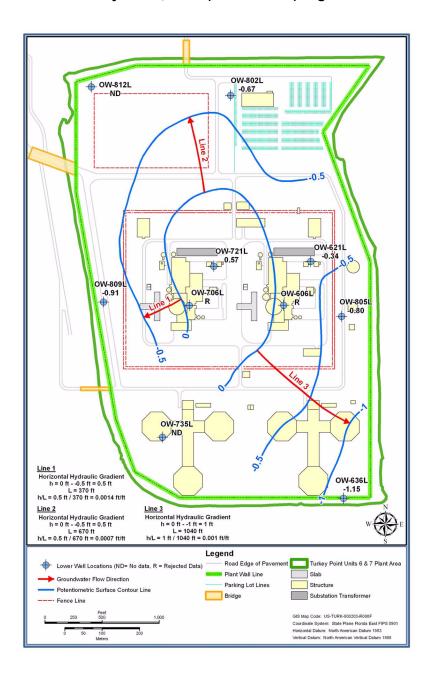
2.3-187 Revision 0

Figure 2.3-34 Biscayne Aquifer Potentiometric Surface Map, Upper Monitoring Interval, January 20-21, 2009 (Sheet 2 of 2) Low Tide



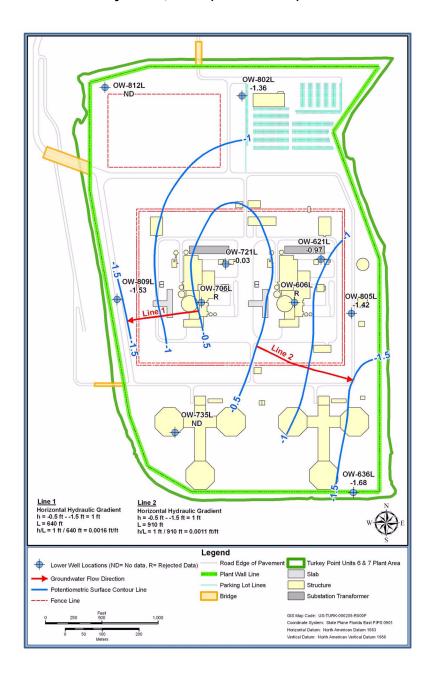
2.3-188 Revision 0

Figure 2.3-35 Biscayne Aquifer Potentiometric Surface Map, Lower Monitoring Interval, January 20-21, 2009 (Sheet 1 of 2) High Tide



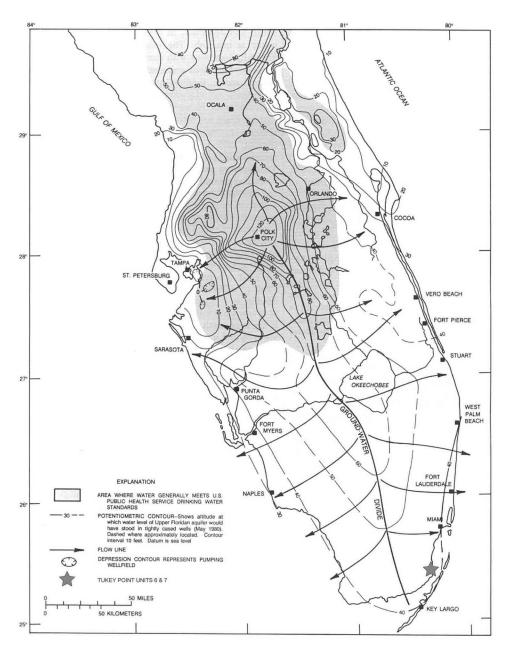
2.3-189 Revision 0

Figure 2.3-35 Biscayne Aquifer Potentiometric Surface Map, Lower Monitoring Interval, January 20-21, 2009 (Sheet 2 of 2) Low Tide



2.3-190 Revision 0

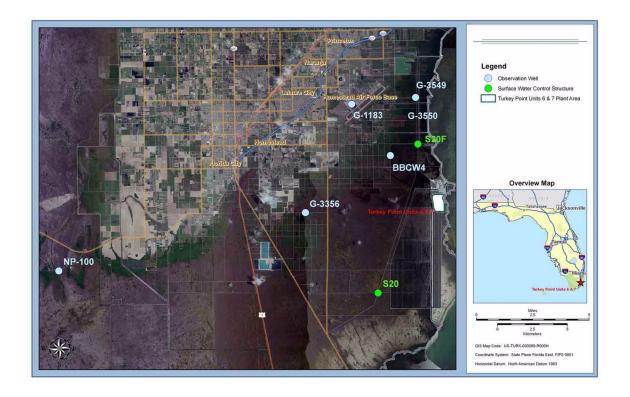
Figure 2.3-36 May 1980 Upper Floridan Aquifer Potentiometric Surface Map



Modified from Meyer 1989

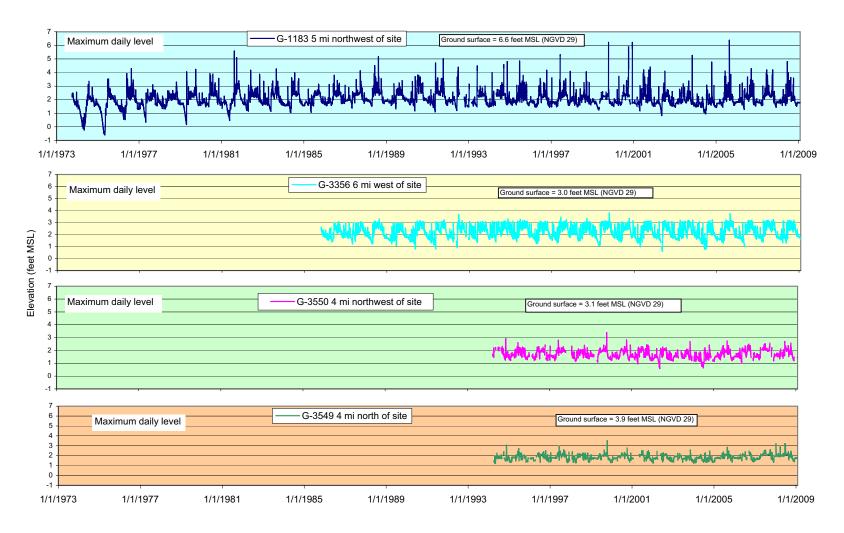
2.3-191 Revision 0

Figure 2.3-37 Observation Wells and Surface Water Monitoring Locations in the Vicinity of the Turkey Point Plant Property



2.3-192 Revision 0

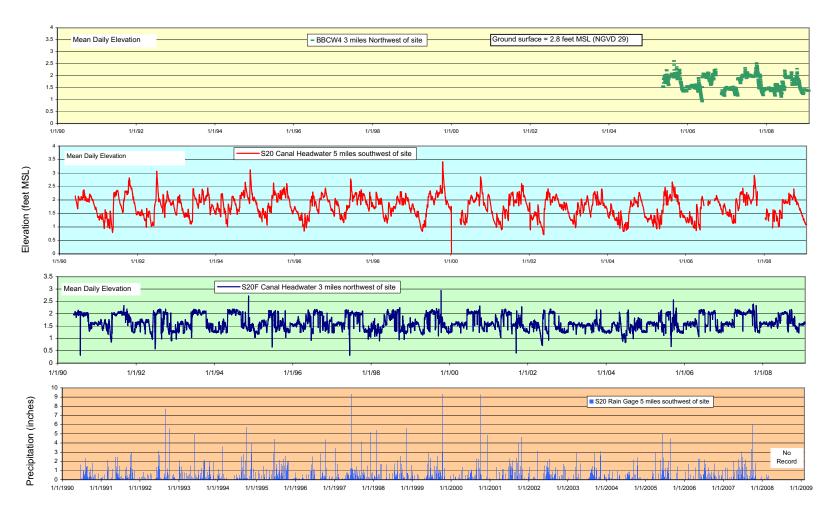
Figure 2.3-38 Hydrographs of U.S. Geological Survey Wells in the Biscayne Aquifer



Reference USGS 2009

2.3-193 Revision 0

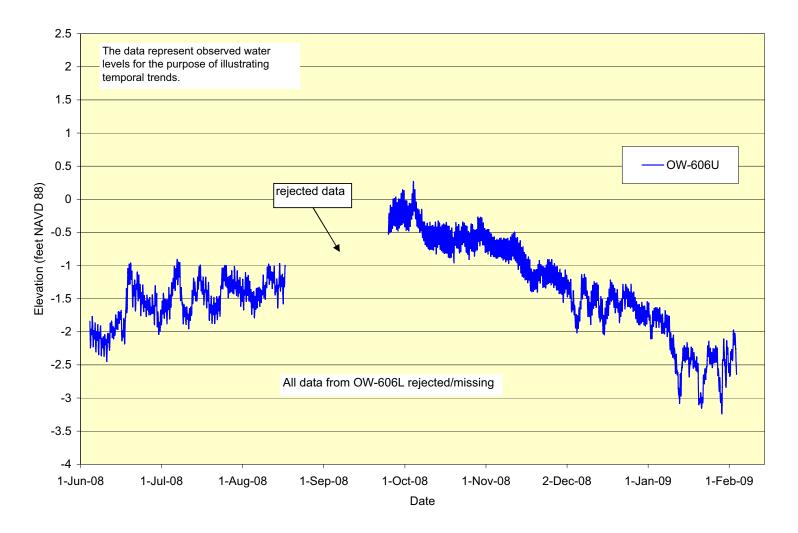
Figure 2.3-39 Hydrographs of South Florida Water Management District Well and Canal Levels and Precipitation



Reference SFWMD 2009

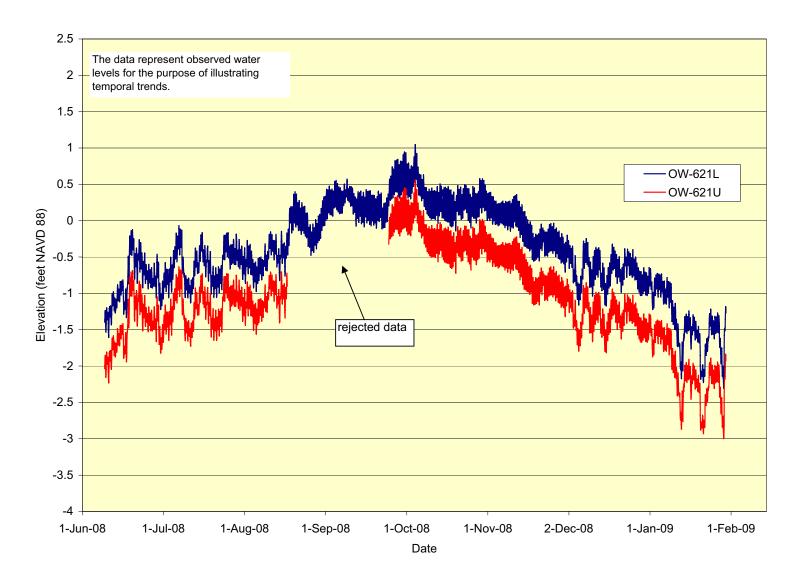
2.3-194 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 1 of 11)



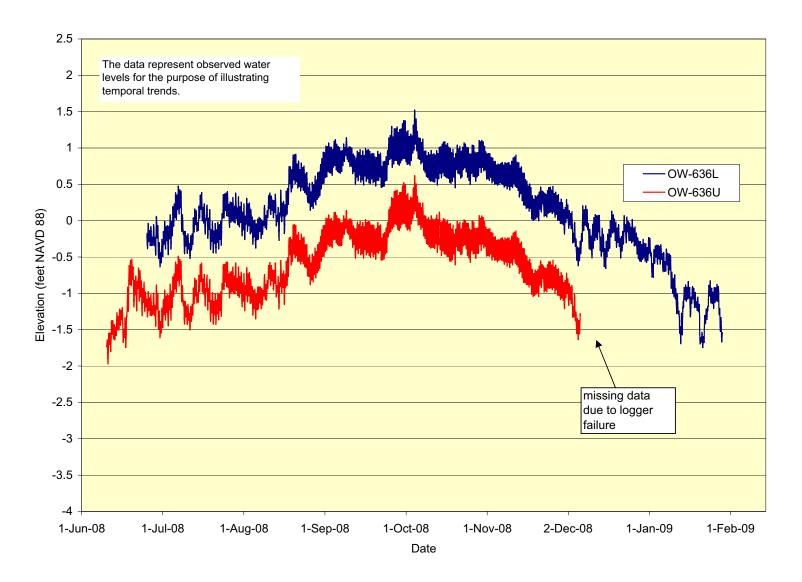
2.3-195 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 2 of 11)



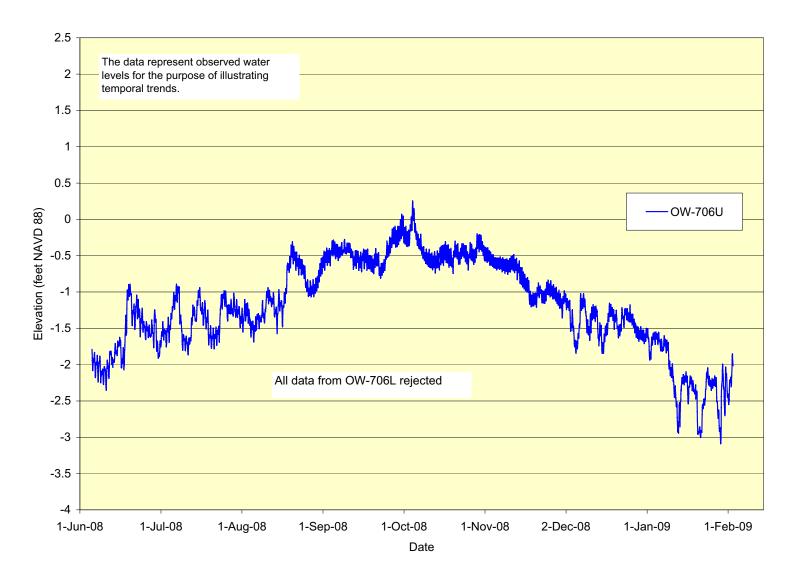
2.3-196 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 3 of 11)



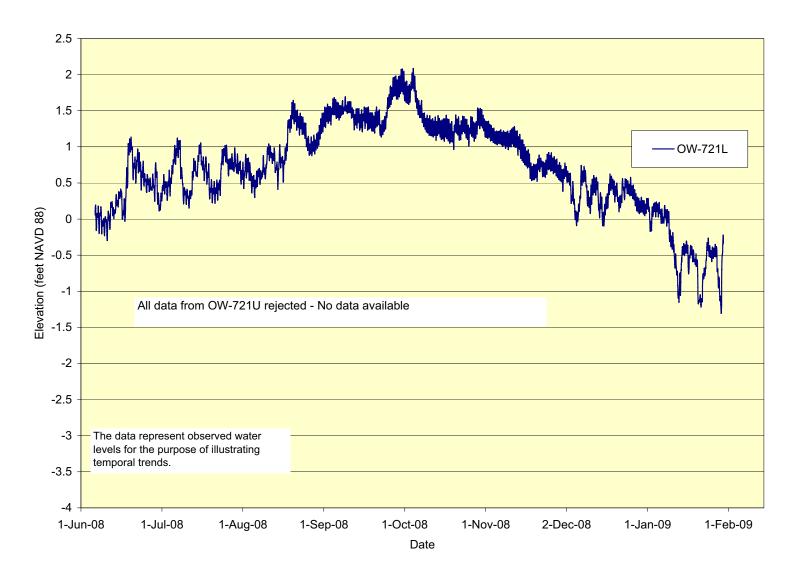
2.3-197 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 4 of 11)



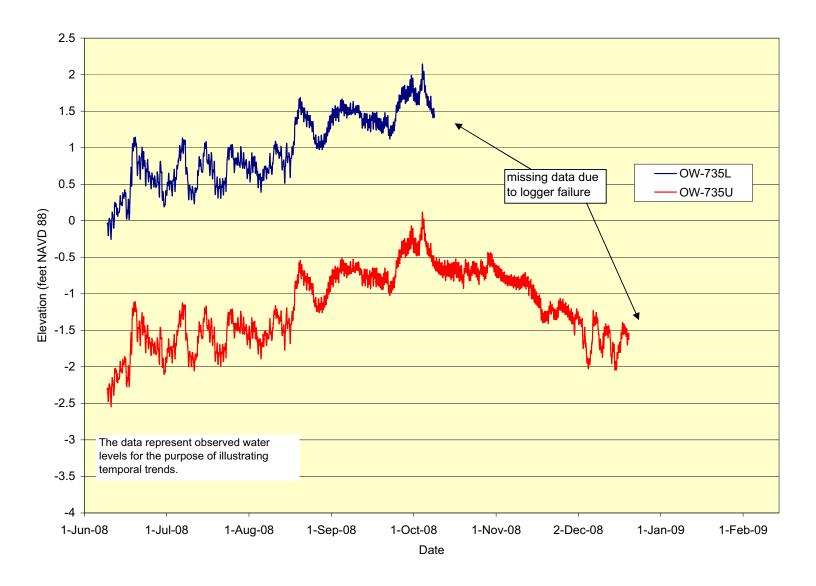
2.3-198 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 5 of 11)



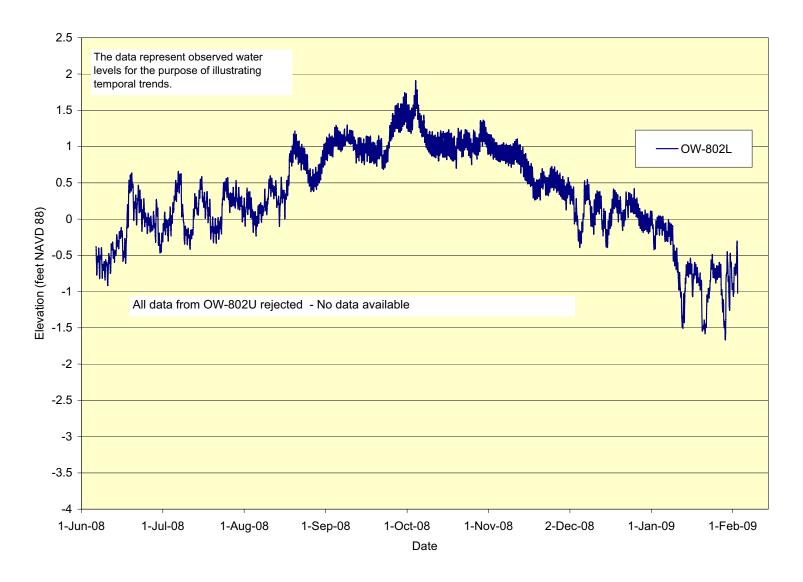
2.3-199 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 6 of 11)



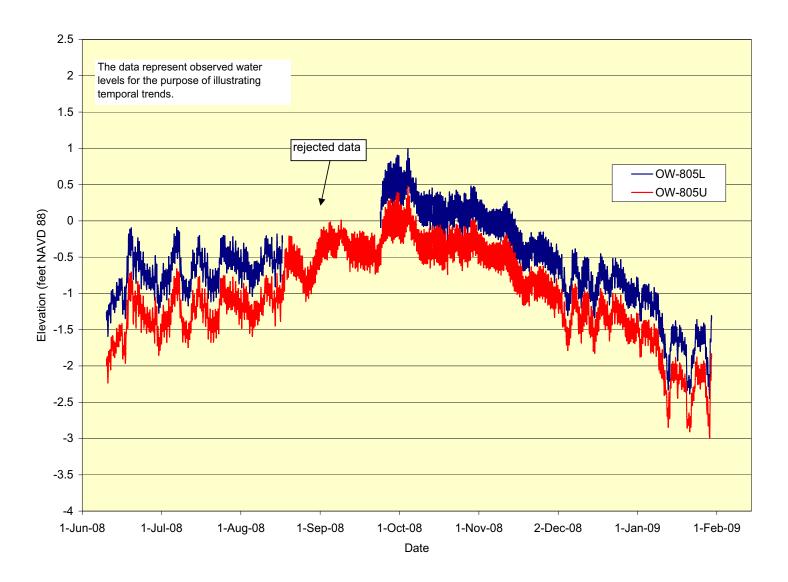
2.3-200 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 7 of 11)



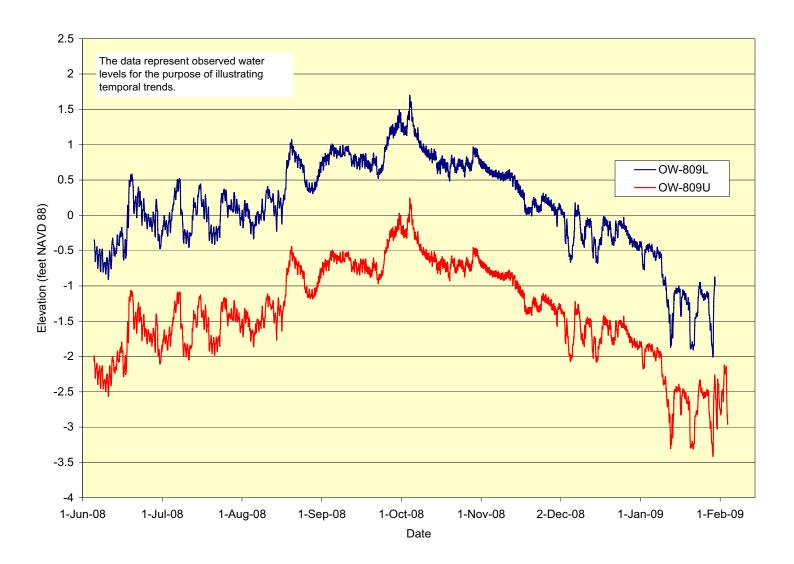
2.3-201 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 8 of 11)



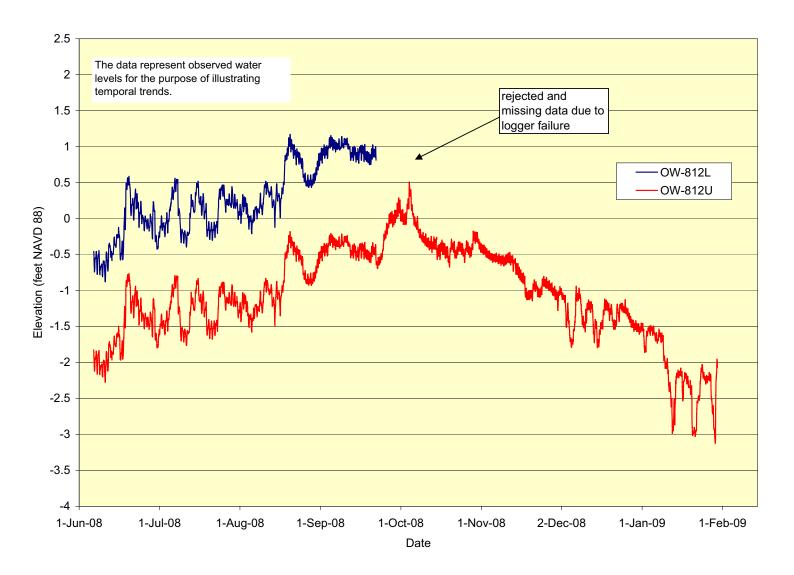
2.3-202 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 9 of 11)



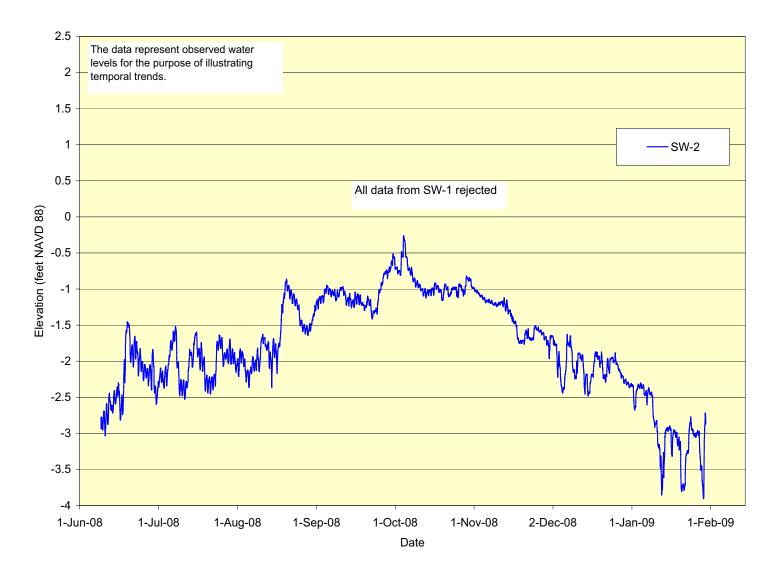
2.3-203 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 10 of 11)



2.3-204 Revision 0

Figure 2.3-40 Hydrographs of Units 6 & 7 Biscayne Aquifer Observation Wells (Sheet 11 of 11)



2.3-205 Revision 0

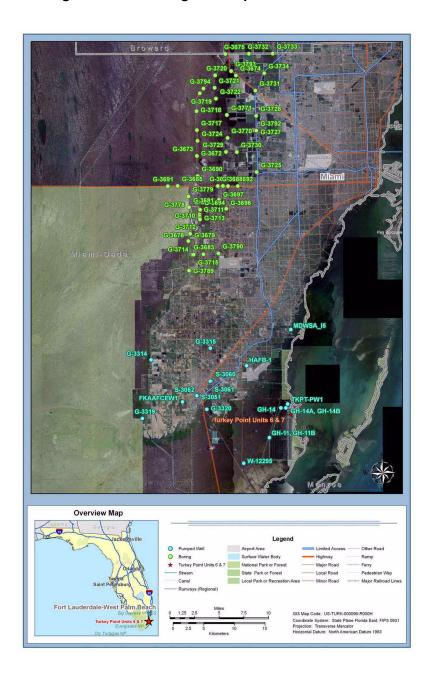
Figure 2.3-41 Hydrograph of US Geological Survey Well in the Upper Floridan Aquifer



Reference USGS 2008

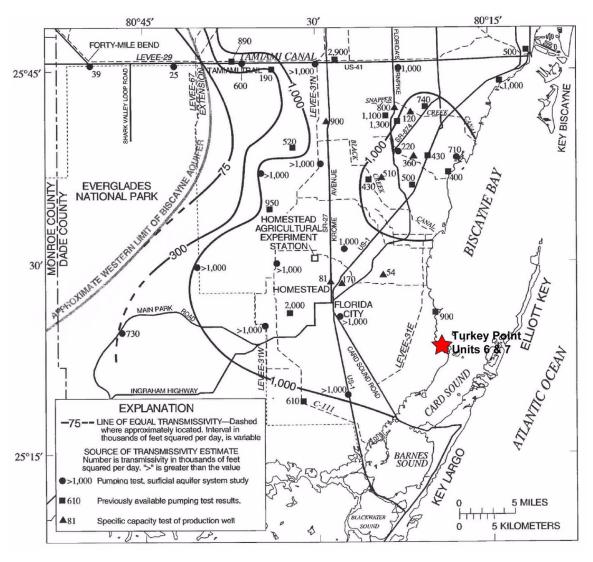
2.3-206 Revision 0

Figure 2.3-42 Regional Aquifer Test Locations



2.3-207 Revision 0

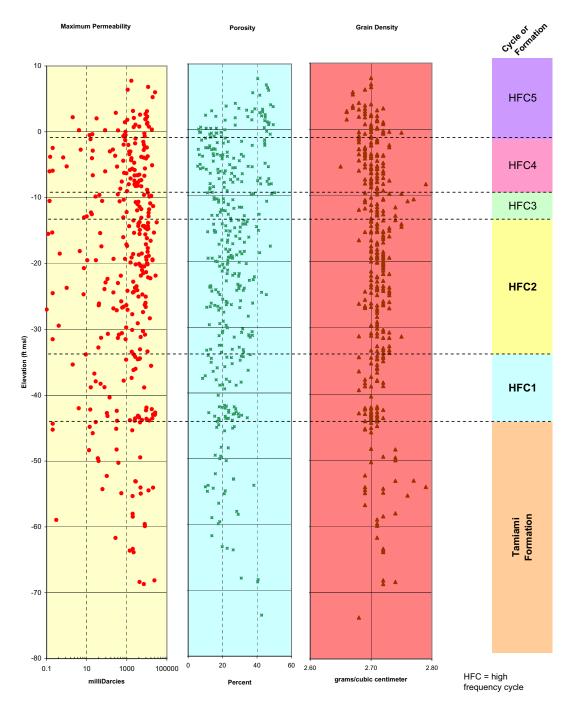
Figure 2.3-43 Biscayne Aquifer Regional Transmissivity



Modified from Merritt 1976

2.3-208 Revision 0

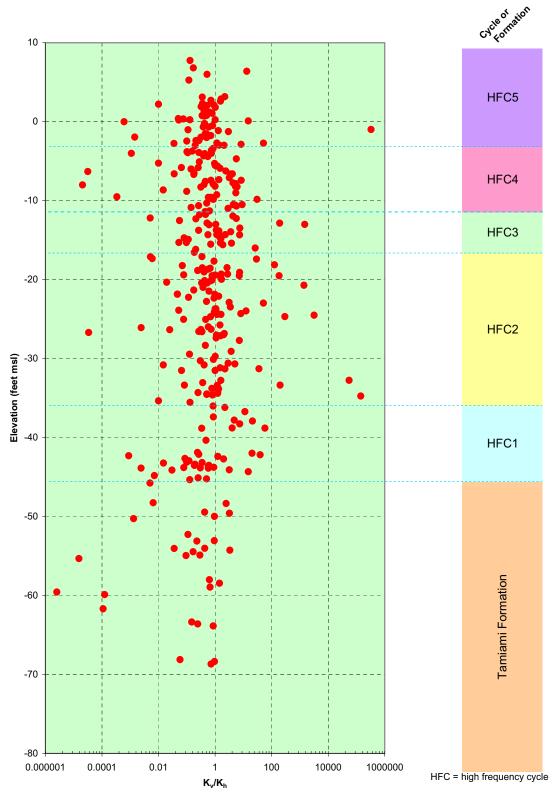
Figure 2.3-44 Formation Properties from Rock Core Testing



Data Source Table 2.3-18

2.3-209 Revision 0

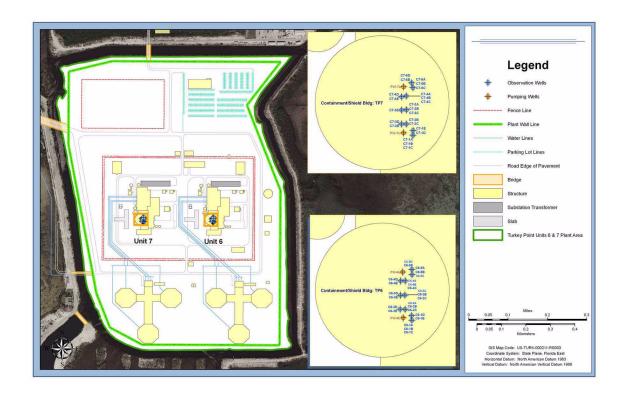
Figure 2.3-45 Vertical Anisotropy Ratio from Rock Core Testing



Data Source Table 2.3-18

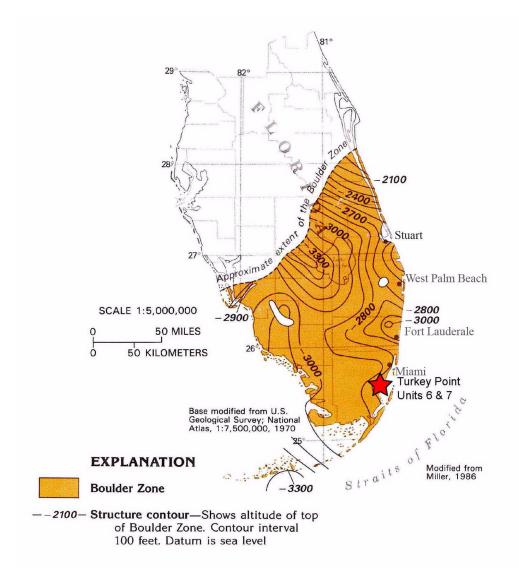
## Turkey Point Units 6 & 7 COL Application Part 3 — Environmental Report

Figure 2.3-46 Aquifer Pumping Test Location Plan



2.3-211 Revision 0

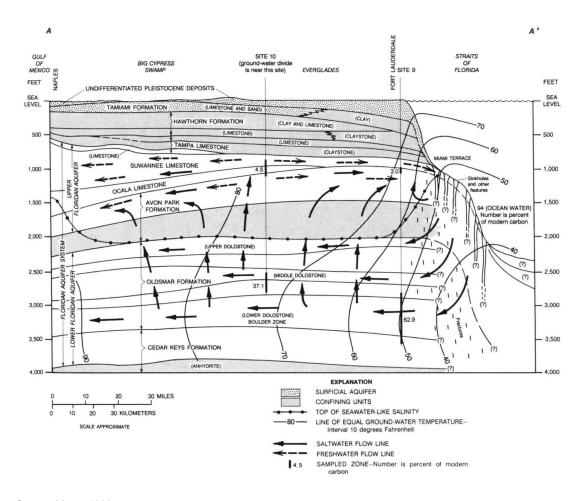
Figure 2.3-47 The Boulder Zone in Southern Florida



2.3-212 Revision 0

## Turkey Point Units 6 & 7 COL Application Part 3 — Environmental Report

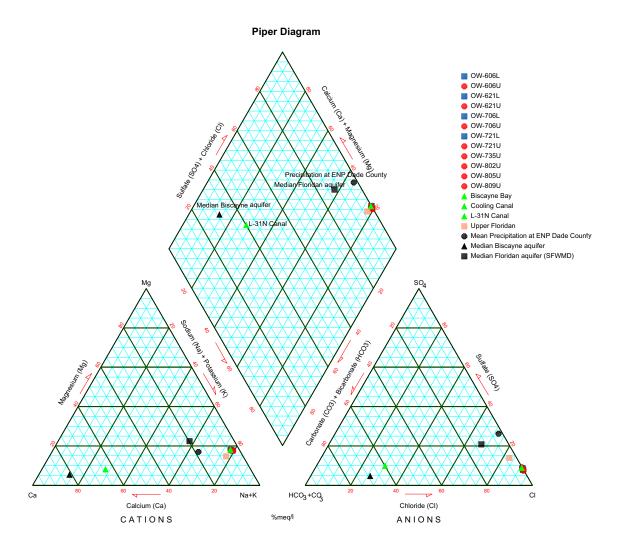
Figure 2.3-48 Generalized Hydrogeologic Section



Source: Meyer 1989

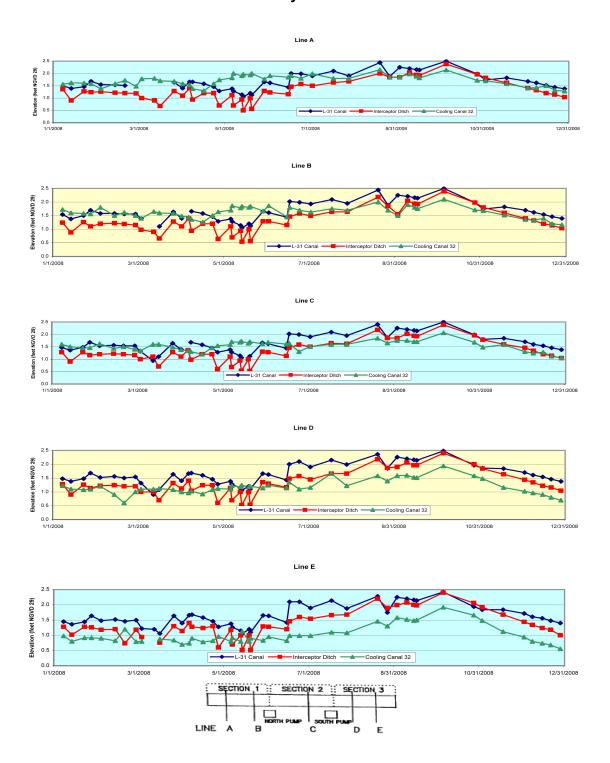
2.3-213 Revision 0

Figure 2.3-49 Piper Trilinear Diagram of Hydrogeochemical Samples



2.3-214 Revision 0

Figure 2.3-50 Hydrographs of L-31E Canal, Interceptor Ditch, and Industrial Wastewater Facility Canal 32



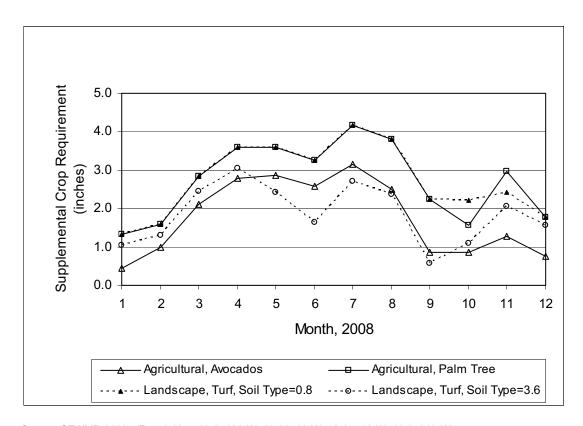
2.3-215 Revision 0

Figure 2.3-51 Location of Consumptive Surface Water Users within a 10-Mile Radius



2.3-216 Revision 0

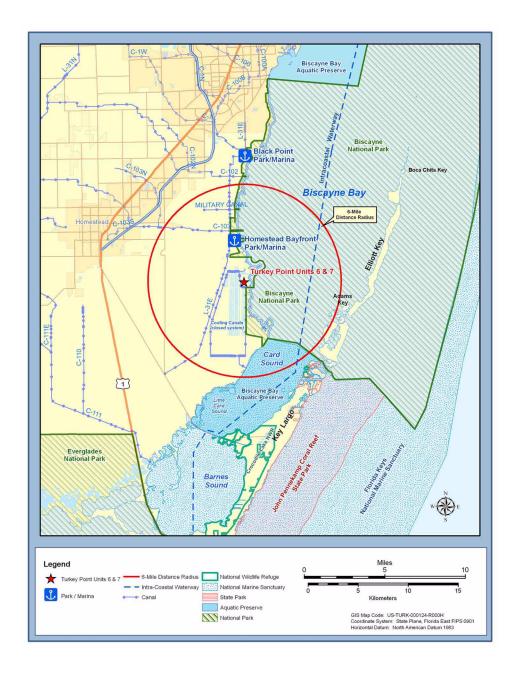
Figure 2.3-52 Estimated Monthly Surface Water Withdrawal for Agricultural and Landscape Irrigation



Source: SFWMD 2008c (Permit Nos. 13-04030-W, 13-03793-W, 13-04416-W, 13-04010-W)

2.3-217 Revision 0

Figure 2.3-53 Location of Nonconsumptive Surface Water Users within a 6-Mile Radius

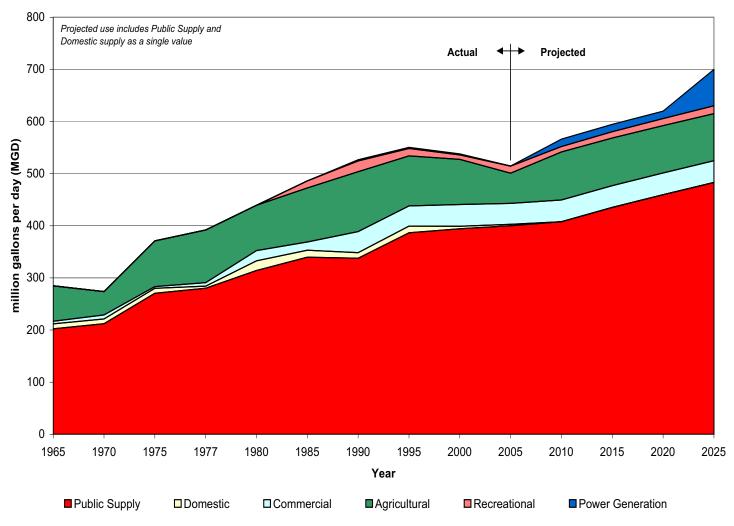


2.3-218 Revision 0

Figure 2.3-54 Not Used

2.3-219 Revision 0

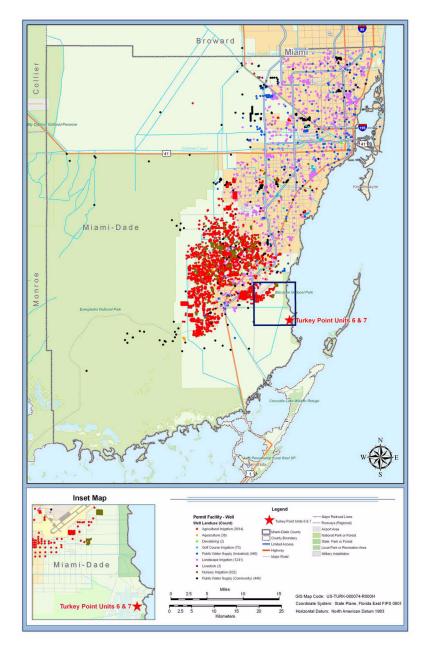
Figure 2.3-55 Withdrawals of Groundwater in Miami-Dade County



Sources: 1965-2000 Appendix 1 of Marella 2005 2005 Marella 2008 2010-2025 SFWMD 2006b

2.3-220 Revision 0

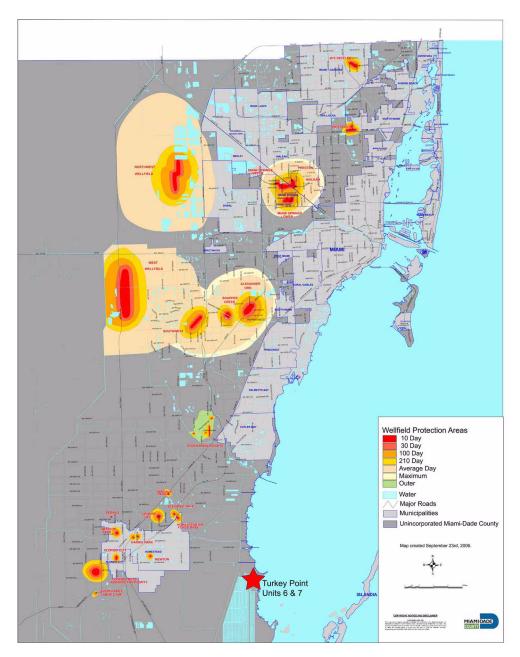
Figure 2.3-56 Permitted Freshwater Wells in Miami-Dade County



Data Source: SFWMD 2008a

2.3-221 Revision 0

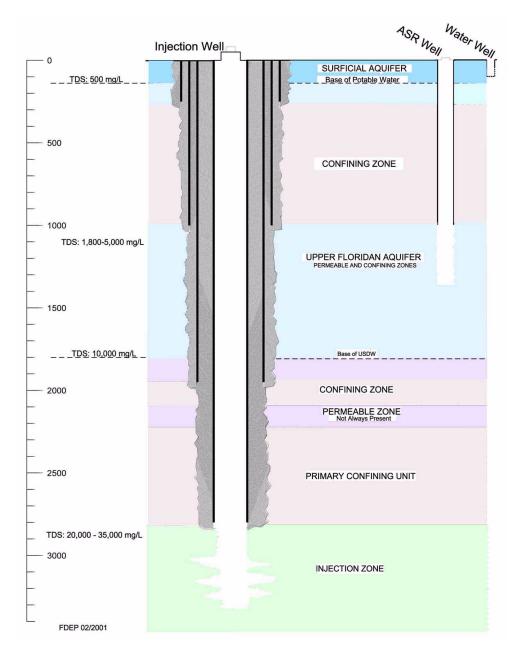
Figure 2.3-57 Miami-Dade County Wellfields and Wellfield Protection Area



Modified from FDEP 2008d

2.3-222 Revision 0

Figure 2.3-58 Typical Municipal Class I Injection Well, Aquifer Storage and Recovery Well, and Water Well in Southeast Florida



Source: FDEP 2008b

Note: The subsurface conditions and well completions shown in this figure may not represent the conditions beneath

Units 6 & 7. This figure is a generalized representation of these types of wells presented in the Underground Injection

Control Program website by the FDEP.

2.3-223 Revision 0

Figure 2.3-59 Class I Injection Wells

### **CLASS I INJECTION FACILITIES** Plugged Existina Type Municipal 1 Reverse Osmosis (RO) Concentrate V V Combined Municipal & Nonmunicipal Class I Facilities 48. Sunset Park 49. Kendale Lakes 50. Miami-Dade South District Reg. 1. Solutia (Monsanto) Sterling Fibers (Cytec) NW Pinellas County (exploratory) 50. Miami-Dade South District Reg. 51. Broward County - North District Reg. 52. Gasparilla Island RO 53. North Martin County 54. Seacoast Utilities 55. East Port 56. Melbourne-Grant Street 57. City of Sarasota (exploratory) 58. Pahoke 59. Belle Glade 60. Fort Mives Beach Clearwater East St. Petersburg NE 6. Albert Whitted 7. McKay Creek 8. South Cross Bayou St. Petersburg NW St. Petersburg SW 11. Kaiser 12. Manatee County SW 12. Manatee County SW 13. Atlantic Utilities 14. Miami-Dade North District Reg. 15. Knight's Trail Park RO (exploratory) 16. Venice Gardens RO 07. Englewood RO 18. Plantation RO (Sarasota CO.) 19. Gasparilla Island 60. Fort Myers Beach 61. Charlotte County West Port 62. Rockledge 63. Palm Beach Co. Southern Regional 64. Plantation East RO 64. Plantation East RO 65. Burnt Store 66. Boynton Beach RO 67. Plantation RO (Broward Co.) 68. Marco Island RO 20. North Port 20. North Port 21. North Fort Myers 22. Gulf Environmental Services 23. Sykes Creek (Merritt Island) 24. West Melbourne 69. North Collier County 70. Zemel Road Landfill 71. Hollywood 72. Sarasota County Center Road 25. Melbourne-D.B. Lee 26. Intercil (Harris Corporation) 50 100 73. Fort Pierce Utilities Auth. 27. Palm Bay (GDU-Port Malabar) 28. South Beaches 29. Ocean Spray (Hercules) 30. North Port St. Lucie 31. South Port St. Lucie 74. Miramar RO 75. Sanibel Island Miles 76. Miramar 77. Venice Gardens East 77. Vertice Garden's East 78. South Collier County 79. Sunrise Sawgrass RO 80. Port St. Lucie Western LTC WTP 81. Cooper City RO 82. Fort Myers RO 31. South Port St. Lucie 32. Stuart 33. Pratt & Whitney 34. Q.O. Chemicals 35. Encon 60. Palm Beach County RRF 71. East-Central Regional 83. Acme Improvement Dist. 90. Palm Beach Co. Sys. #3 40. Palm Beach Co. Sys. #3 40. Palm Beach Co. Sys. #3 40. Palm Beach Co. Sys. #3 41. Coral Sorinos Improvement 95. Tropical Farms 96. Wellington 97. North Miami Beach RO 98. Pine Island 99. Tropicana 100. Peele-Dixie WTP 101. Deerfield Beach West WTP 102. Three Oaks 83. Punta Gorda 84. Pompano Beach RO 85. Immokalee 86. South Collier County RO 87. Fort Pierce RO - Missing 87. Fort Pierce RO 88. Bonita Springs WRF 89. Port St. Lucie Westport 90. North Collier County WRF 91. Bonita Springs RO 92. Palm Bay RO 93. CPV Cana Power Plant 94. North Lee County WTP 40. Palm Beach Co. Sys. #9 41. Coral Springs Improvement Dist. 42. Margate 42. Margate 43. Sunrise 44. Sunrise 45. Plantation Utilities 46. G.T. Lohmeyer 47. Pembroke Pines (Century Village) FDEP 11/2003

Modified from FDEP 2008b

2.3-224 Revision 0

Figure 2.3-60 Aquifer Storage and Recovery Map

### AQUIFER STORAGE AND RECOVERY FACILITIES IN FLORIDA Facilities 1. Tampa-Rome Avenue 2. Tampa-Hillsborough River Hillsborough County NW Lake Manatee 5. Peace River 6. Corkscrew (Lee County) 7. Marco Lakes 8. Collier County 9. Cocoa-Claude H. Dval 72<sup>O</sup> 10. Corkscrew Links 11. Palm Bay 12. Taylor Creek (SFWMD) 13. West Palm Beach 14. Boynton Beach 15. Broward County 2A 16. CERP ASR Pilot-Caloosahatchee Reservoir 17. Miami-Dade Southwest Wellfield Raw Surface Water Partially Treated Ground Water 18. Miami-Dade West Wellfield Partially Treated Surface Water 19. South Walton Utility 20. Sunrise Springtree Reclaimed Water 21. Miami Beach 22. Palm Beach County System #3 Exploratory or Test Well 23. Punta Gorda 24. Fiveash 25. Manatee Southwest 26. Delray Beach 27. FKAA-Homestea 28. Englewood 29. San Carlos Estates 30. Kehl Canal 31. Fort Myers 32. North Reservoir (North Ft. Myers) 32. North Reservoir (North Pt. Myers) 33. Olga 34. St. Petersburg SW 35. CERP ASR Pilot-Western Hillsboro Basin (Site 1) 50 100 36. Sarasota-Central County 37. North Port-Myakkahatchee Creek 38. Lehigh Acres Miles MIIIES 60. Cape Coral Canal Pump Station (CPS)-NSTS 61. Cape Coral CPS-4 62. Cape Coral CPS-2 63. Markham Road (Exploratory) 64. Rockledge 65. South Cross Bayou 39. North Collier County - Pelican Bay 39. North Collier County - Pelican Bay 40. Hillsborough County-Cargiil Park 41. Hillsborough County-Big Bend 42. Bradenton - Treated 43. Bradenton - Bill Evers Reservoir 44. Pine Island 45. City of Sarasota Payne Park 46. Eastern Hillsboro Canal 47. CERP ASR Pilot-Lake Okeechobee-Kissimmee River Site 67. Palmetto 68. Sanford Turkey Point 69. Naples WWTP 48. CERP ASR Pilot-Lake Okeechobee-Port Myakka 49. CERP ASR Pilot-Lake Okeechobee-Moore Haven 70. Naples-Golden Gate Canal 71. Gordon River Water Quality Park 72. Daytona Beach Brennan WTP 50. Manatee County North Regional WWTP 51. Lake Tarpon 52. Island Water Association (Sanibel Island) 53. Cape Coral Everest WRF (Exploratory) 73. Cocoa Jerry Sellers WRF 74. Orange County Eastern WRF Sacrallia -FDEP 08/2007 75 Rotunda 54. Carica Road 55. Canaveral Port Authority 76. Cape Coral-Horseshoe Canal 77. Cape Coral-Hermosa Canal 78. Cape Coral-Gator Slough Weir 19 79. Volusia County-Empire Tract 56. Clearwater NE WWTP (Exploratory) 57. Tuscany Reserve 80. Deland Municipal Airport

Modified from FDEP 2008b

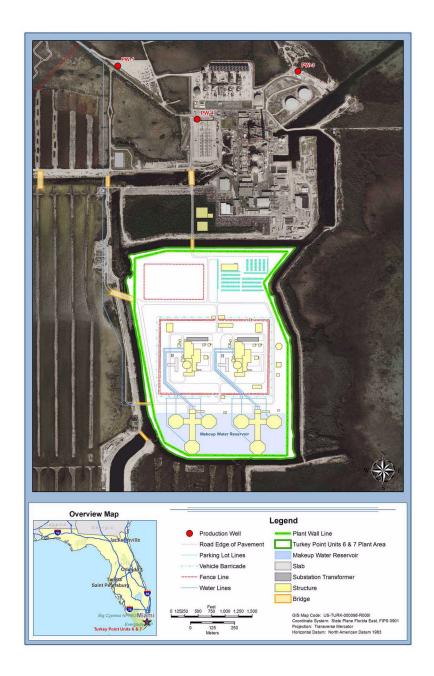
2.3-225 Revision 0

Figure 2.3-61 Industrial Wastewater Facility



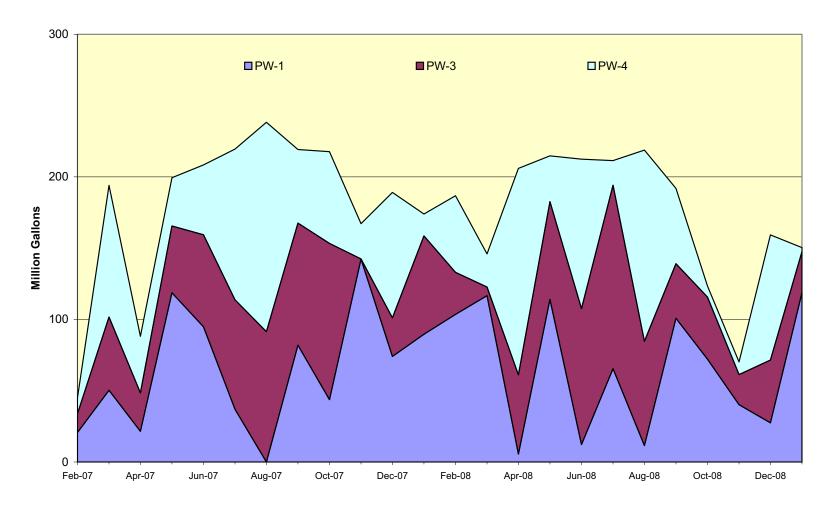
2.3-226 Revision 0

Figure 2.3-62 Upper Floridan Production Wells for Units 1, 2, 5



2.3-227 Revision 0

Figure 2.3-63 Units 1, 2, 5 Monthly Groundwater Use



2.3-228 Revision 0

Figure 2.3-64 Radial Collector Well Area



2.3-229 Revision 0

Figure 2.3-65 Not Used

2.3-230 Revision 0

Figure 2.3-66 Biscayne Bay Water Quality Monitoring Stations Near Turkey Point Plant Property



2.3-231 Revision 0

Figure 2.3-67 303(d)-Listed Impaired Water Located Near Turkey Point Plant Property



2.3-232 Revision 0

Figure 2.3-68 NPDES Dischargers Located Near Turkey Point Property



2.3-233 Revision 0