



**COLLIER COUNTY
GROUND WATER QUALITY MONITORING
ANNUAL REPORT
FY10**

**Prepared by
Collier County Pollution
Control & Prevention Department**

**For
South Florida Water Management District
Agreement #OT061098-A01**

December 2011

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Summary Page:

The “Collier County Ground Water Quality Monitoring Annual FY10 Report” fulfills the contractual requirements of the South Florida Water Management District’s Local Government Agreement (Agreement #OT061098), between the South Florida Water Management District and Collier County. This report also meets the following Collier County Growth Management Plan requirement:

PUBLIC FACILITIES ELEMENT-Natural Groundwater Aquifer Recharge Sub-Element

Policy 3.3:

The County will annually assess its groundwater quality monitoring data to determine whether monitoring activities and County Ordinances require expansion, modification or reduction.

I have reviewed this report and approve this report for submittal.

A handwritten signature in black ink, appearing to read "Raymond Smith". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Raymond Smith, Director, Pollution Control & Prevention Department

I. Introduction

This report satisfies the requirements of Agreement #OT061098-A01 between the Collier County Pollution Control and Prevention Department and the South Florida Water Management District for the collection and analyses of ground water quality samples in Collier County.

II. Scope of Work

Sixty-seven ground water wells are monitored semi-annually; once during the wet season (August-October), and once during the dry season (February-April). These sites are listed in [Appendix A](#). An additional three, randomly selected, residential drinking water wells (Surficial aquifer) are also sampled semi-annually. See [Figure 1](#) and [Figure 2](#) for a map of the sampling station locations. All the samples collected are analyzed for the parameters listed in [Appendix B](#).

III. Program Activities

Purging and sampling of wells followed the Collier County Pollution Control & Prevention Department Field Sampling Quality Manual; Florida Department of Environmental Protection's (FDEP) Standard Operating Procedures (SOPs) [DEP-SOP-001/01FS 2200 Groundwater Sampling](#); and the SOPs referenced therein.

All chemical parameters for this project were analyzed by the Collier County Pollution Control Laboratory (CCPCL) or PACE Analytical, Inc., (PACE) laboratory. All laboratories held current National Environmental Laboratory Accreditation Program (NELAP) certification for all the parameters being analyzed for this project. Physical measurements of pH, dissolved oxygen, specific conductance, and temperature were obtained during well purging and stabilization using a Yellow Springs Instrument (YSI) 600XL multi-probe and flow-through cell. Field turbidity measurements were also obtained as part of the purge stabilization process using a HF Scientific MicroTPW portable field meter. However, the turbidity readings provided in the data reports are those obtained through laboratory analysis.

For the random well monitoring portion of the contract, wells were randomly selected from the county's well permit records. Letters of intent were sent to the property owners requesting their voluntary participation in the project. To be considered for sampling, each well was required to have a spigot at the well-head to prevent any potential sample contamination from the on-site treatment system. Samples were collected directly from the spigot. Copies of the laboratory results and explanation of the results were sent to the well owners.

IV. Problems Encountered

Please see [Appendix C](#) for the sampling and laboratory analytical status of each well.

The Collier County Ground Water Quality Monitoring Third Annual Report FY09 recommended that well C-00495 be further investigated to determine a possible source for the multiple heavy metals exceedances. Land use around the site is minimally impacted and there are no obvious sources of heavy metals that would contaminate the aquifer. In June 2011, a Very Intensive Study Area (VISA) was selected to determine possible sources of this contamination.

Conclusions from this VISA indicated that well C-00495 was constructed of black iron and was leaching metals (due to corrosion) into the samples. Since this well is no longer supported by the owner (United States Geological Survey); has collapsed (original well depth was 70 feet and has collapsed to 26 feet); and is made of a material that contaminates the samples, this well was taken out of the network in June 2011.

V. Data Validity

The data provided in this report have been checked for accuracy and completeness and the Collier County Pollution Control & Prevention Department attests to the validity of these results. All data qualifiers follow Florida Administrative Code 62-160.670(1)(h).

All CCPCPL and PACE data have been submitted using the ADaPT software and the quality control checks provided in the software were applied. Calibration logs for field instruments were reviewed and all associated data that were outside the quality control criteria were qualified using a “J” flag in the electronic data report.

VI. Exceedances

[Appendix D](#) provides a list of all results that were in exceedance of the Primary and Secondary Drinking Water Standards, Florida Administrative Code (FAC) Chapter 62-550. These standards were adopted and referenced as the state’s ground water quality standards by FAC Chapter 62-520. Copies of this report will be forwarded to the appropriate regulatory authorities including FDEP, FDACS and FDOH for further investigation of exceedances.

Figures 3 through 11 are graphical representations of the spatial extent and concentrations of those parameters that were in exceedance of state standards during FY10. Also provided in these figures are the adopted wellfield protection zones for FY10. These “wellfield risk management special treatment overlay zones” are determined by computer generated flow and solute transport models as

required by the Collier County Land Development Code—Chapter 3, Section 3.06.00. Each protection zone represents the potential time it would take a particle of water to move to the wellhead. Zones are broken down into a one, two, five and twenty year increments. These zones are provided to reference the proximity of exceedances to public supply wells.

A. Inorganics

1. Arsenic: All of the arsenic exceedances (>10 µg/l) occurred in the Water Table aquifer. All of these wells are FDEP permitted re-use monitoring wells that are used to monitor the ground water at facilities that receive re-use water from public wastewater reclamation facilities for irrigation purposes. However, none of the public wastewater reclamation facilities reported any exceedances of arsenic in the re-use water supplied to customers. [Figure 3](#) shows the arsenic exceedances for this fourth year reporting period.

There was investigation in 2004 and 2005 involving Collier County Pollution Control & Prevention, Collier County Water and Sewer District, Collier County Parks and Recreation, FDEP, Florida Department of Agriculture and Consumer Services (FDACS), City of Naples and the Collier County Department of Health to investigate the sources of high arsenic in the wells. Although arsenic occurs naturally as an elemental metal in the environment, the use of arsenic based herbicides, specifically MSMA (monosodium methanearsonate), came into question during the investigation as all of the wells with exceedances were located in managed turf areas and were treated with MSMA. There has not been an undisputable link between the use of arsenical based herbicides and the source of ground water contamination in these wells. However, FDEP, FDACS and the Environmental Protection Agency (EPA) investigated the use of these herbicides and their fate and transport in the environment. Based on that investigation, EPA has not renewed the registration of organic arsenical herbicides that contain MSMA (USEPA, 2006). EPA has established a timeline to phase-out the distribution and use of all organic arsenical herbicides by December 31, 2013. MSMA use on golf courses, sod farms and highway rights-of-way will be cancelled as of December 31, 2012 with use of existing stocks allowed until December 31, 2013 (<http://www.epa.gov/oppsrrd1/REDs/organic-arsenicals-amended.pdf>).

Ninety-eight percent of the arsenic violations occurred in parks or golf courses that are managed turf areas. However, the seasonal arsenic concentrations are decreasing over time. [Figure 12](#) and [Figure 13](#) show the wet season and dry season trends, respectively, in monthly arsenic concentrations in all wells located in golf courses. The wet season trend shows a declining trend with an R² value of 0.98, indicating a strong trend,

while the dry season trend shows a much weaker increasing trend with an R^2 value of only 0.13. This indicates possible seasonal effects on arsenic concentrations in shallow water table wells located in golf courses.

Well CCN11 continues to have the highest arsenic levels and is the only well located in a park. This well is located at Collier County Veterans Park near the maintenance facility in an area that receives stormwater runoff from a managed turf area. This facility stopped using arsenic based herbicides and no applications have occurred since May 2004. [Figure 14](#) and [Figure 15](#) show the wet season and dry season trends, respectively, in monthly arsenic concentrations in well CCN11. Contrary to the trends in the golf course wells, well CCN11 shows the stronger decreasing trend in the dry season and a weak decreasing trend in the wet season. Although both seasonal trends in well CCN11 have lower R^2 values (weaker trend), both seasons show a decreasing trend, perhaps because the facility has stopped applying arsenic based herbicides.

Iron: Most of the wells sampled in the Water Table aquifer were above the Primary Drinking Water Standard of 0.3 mg/l (300 μ g/l). Naturally occurring background concentrations of iron in the Water Table aquifer are typically higher than the Secondary Drinking Water standard. Iron is often associated with a rusty color, metallic taste and reddish staining, but is generally not considered a health hazard. Conventional water systems generally remove iron during the treatment cycle. [Figure 4](#) shows the iron exceedances for this fourth year reporting period.

2. Lead: Wells C-00977 (Lower Tamiami) and C-00984 (Water Table) both had an exceedance of the Primary Drinking Water Standard of 15 μ g/l again during this fourth year monitoring period. Well C-01003 (Lower Tamiami) located along U.S. 41 North had its first lead exceedance in four years of monitoring. The exceedance (30.58 ug/L) occurred during the wet season 2009, but was then back down in the dry season below the four year annual average (0.85 ug/L) for this well. This exceedance was also the highest reported level of lead in any well to date. [Figure 5](#) shows the lead exceedances for this fourth year reporting period.
3. Manganese: Manganese is a naturally occurring metal that is found in many types of rocks. It readily combines with other substances such as oxygen, sulfur, or chlorine, so it does not occur naturally in pure form. Manganese can also be combined with carbon to make organic manganese compounds. Common organic manganese compounds include pesticides, such as the fungicides; maneb or mancozeb which are contained in Sevin[®] and methylcyclopentadienyl manganese tricarbonyl (MMT), a fuel additive in some gasolines. ([ATSDR 2000](#)). Although manganese is an essential

nutrient to many living things, including humans, too much manganese in certain forms can cause health problems.

All of the wells that had manganese exceedances during the fourth year monitoring period have been in exceedance in the past. Ninety-four percent of the manganese exceedances, to date, have occurred in the Water Table aquifer. Overall average for Water Table aquifer wells is 778 ug/L, well above the 50 ug/l state standard. The wet season average (882 ug/L) is only slightly higher than the dry season average (712 ug/L), indicating very little seasonal effects on manganese levels. [Figure 6](#) shows the manganese exceedances for this fourth year reporting period.

4. **Nitrate and Nitrate-Nitrite:** Nitrate is a primary component of fertilizer and can enter the ground water through leaching from the surface. Nitrate is a component of total nitrate-nitrite (NOX) which is the sum of nitrate (NO₃) and nitrite (NO₂). The primary drinking water standard for nitrate and also total nitrate-nitrite is 10 mg/L. Nitrate in drinking water is of particular concern for infants who may consume it. High levels of nitrate can cause an illness called “blue baby syndrome”, also known as methemoglobinemia ([FDOH](#)). Well CCS2 had the only nitrate exceedance during FY10. This well has had exceedances in the past. [Figure 7](#) shows the nitrate exceedances for this fourth year reporting period.

Although there is no standard for ammonia and total kjeldahl nitrogen in drinking water, many of the shallow wells—especially those located in managed turf or agricultural areas—have high levels of these nitrogen species. These levels could significantly impact surface water during the dry season as ground water moves into the canals and other surface water impoundments. Ninety-five percent of the ammonia levels recorded in all wells during the fourth year were in exceedance of the State Class III Surface Water Standard listed in [FAC 62-302](#).

Table 1 provides the average ammonia, TKN, and NOX for each aquifer during FY10. Also provided for comparison is the countywide average of each constituent for all surface water samples collected during FY10. As noted from this table, the Water Table aquifer is highest in all three constituents. The Water Table aquifer is also significantly higher in each nitrogen species when compared to the average surface water concentrations. However, the far majority (43 percent) of the wells located in the Water Table aquifer are also surrounded by golf courses. This skews the average values of all water table wells. Table 2 provides the average nitrogen species in the water table wells by land use.

Table 1. Average nitrogen species in ground water and surface water during FY10

Aquifer	Ammonia (mg/L)	Nitrate-Nitrite (mg/L)	Total Kjeldahl Nitrogen (mg/L)
Water Table	1.721	0.541	2.749
Lower Tamiami	0.260	0.045	0.719
Sandstone	0.200	0.097	0.983
Mid-Hawthorn	0.336	0.007	0.765
Surface Water	0.095	0.075	0.892

Table 2. Average nitrogen species in the Water Table wells by land use

Land Use*	# of samples	Ammonia (mg/L)	Nitrate-Nitrite (mg/L)	Total Kjeldahl Nitrogen (mg/L)	
AGRICULTURE	6	0.286	0.052	0.944	
TRANSPORTATION, COMMUNICATION & UTILITIES	6	2.230	0.002	2.037	
UPLAND NONFORESTED	2	0.666	0.005	1.599	
URBAN AND BUILT UP	72	2.113	0.795	3.408	
Urban and Built Up	Commercial and Services	2	0.165	0.003	0.716
	Educational Facilities	2	0.656	0.002	0.700
	Fixed Single Family Units	15	2.040	0.023	2.728
	Golf Course	37	2.866	1.517	4.730
	Mobile Home Units	2	0.244	1.062	1.145
	Multiple Dwelling Units, High Rise	4	0.786	0.008	1.532
	Multiple Dwelling Units, Low Rise	6	1.094	0.012	1.216
	Parks and Zoos	2	0.716	0.002	4.453
Shopping Centers	2	0.267	0.173	1.005	
WETLANDS	18	0.489	0.056	1.080	

*Land Use based on the 2008 SFWMD Florida Land Use and Cover Classification System (FLUCCS)

5. Phosphorus:

Phosphorus, another plant nutrient, is also found in the Water Table aquifer in higher amounts than the surrounding surface waters (see **Table 3**). Currently, there are no state drinking water standards for phosphorus and no numeric state standards for phosphorus in surface waters. The current state surface water standard (FAC 62-302) for phosphorus is a narrative standard that states “*in no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.*” This narrative surface water standard applies to

nitrogen as well. In south Florida, this imbalance in natural populations is typically seen in the aquatic flora, specifically in the formation of algal blooms and overgrowth of aquatic vegetation.

In the surface freshwater systems in Collier County, phosphorus is the limiting nutrient—meaning nitrogen is typically more prevalent than phosphorus. Since plants need a ratio of nitrogen to phosphorus in order to sustain themselves, if there is an overabundance of nitrogen and no phosphorus, the plants will not grow. However, if phosphorus is readily available in the presence of nitrogen, plants (and algae) will thrive.

As with nitrogen above, the average total phosphorus levels found in the Water Table aquifer can be skewed because the majority (43 percent) of the wells are located in golf courses. **Table 4** provides the average total phosphorus species in the Water Table wells by land use.

Table 3. Average total phosphorus in ground water and surface water during FY10

Aquifer	Total Phosphorus (mg/L)
Water Table	0.217
Lower Tamiami	0.041
Sandstone	0.023
Mid-Hawthorn	0.022
Surface Water	0.073

Table 4. Average total phosphorus in the Water Table wells by land use

Land Use		Total Phosphorus (mg/L)
AGRICULTURE		0.249
TRANSPORTATION, COMMUNICATION & UTILITIES		0.321
UPLAND NONFORESTED		0.056
URBAN AND BUILT UP		0.259
Urban and Built Up	Commercial and Services	0.219
	Educational Facilities	0.321
	Fixed Single Family Units	0.042
	Golf Course	0.338
	Mobile Home Units	0.081
	Multiple Dwelling Units, High Rise	0.088
	Multiple Dwelling Units, Low Rise	0.255
	Parks and Zoos	0.797
	Shopping Centers	0.300
WETLANDS		0.026

**Land Use based on the 2008 SFWMD Florida Land Use and Cover Classification System (FLUCCS)*

6. Total Dissolved Solids (TDS): Many of the exceedances of the 500 mg/L Secondary Drinking Water Standard for TDS occurred in the Water Table monitor wells located on golf courses or near saltwater. The highest levels of TDS were found in the Mid-Hawthorn aquifer, which is known to be higher in chlorides. High TDS was also found in two of the three wells located in the Sandstone aquifer. A private potable well located at 470 35th Avenue NE had a marked increase in TDS between the June 2009 and November 2009 sampling events (342 mg/L to 4346 mg/L, respectively). This well is located in the Lower Tamiami aquifer and wells with similar depths surrounding this well did not show similar peaks during the same sampling periods. Based on the recorded specific conductivity in the well for these sampling events, it appears that the laboratory result of 4346 mg/L reported for the November 2009 sampling event may be in error. Wells C-01058, C-00977 and GGW-1D located in the Lower Tamiami aquifer also had exceedances for TDS. Wells C-01058 and C-00977 have historically exceeded the TDS standard; however, this was the first exceedance in well GGW-1D. [Figure 8](#) shows the TDS exceedances for this fourth year reporting period.

7. Sulfate: Three wells in the Mid-Hawthorn aquifer were above the Secondary Drinking Water Standard of 250 mg/l during FY10. The source of sulfate in this aquifer was found by [Sacks and Tihansky \(1996\)](#) to be from upwelling of dissolved gypsum from the Upper Floridan aquifer. Four wells in the Water Table aquifer were found to be above this standard during FY10. Other possible sources of sulfate in the Water Table aquifer include fertilizers, rain water, and cycling of sulfur in the soils. ([Bates, et. al, 2002](#)). Since sulfur is an important link to the methylation of mercury into toxic methylmercury ([Gilmour et al., 1992](#) and [Harvey et al., 2002](#)), the Pollution Control and Prevention Department will continue to monitor trends in the aquifer that are subject to anthropogenic sources of sulfur. [Figure 9](#) shows the sulfate exceedances for this fourth year reporting period.

B. Biological

1. Total and Fecal Coliform: The maximum contaminant level for total and fecal coliforms is zero. However, this standard is only applicable to the samples collected at the randomly selected residential wells as these are the only wells used as primary drinking water sources, and are sealed from outside contaminants. Many of the trend network monitoring wells are not sealed at the top and frogs and other wildlife have been found inside the well casings. In addition, the purge equipment used to sample the wells is not sterile.

Samples collected from the private drinking water systems are taken directly from the permanent pumps installed in the well head. One total coliform sample collected in November 2009 from 3461 Wilson Boulevard., Naples, Florida, showed one total coliform colony was present, but outside the ideal range for the analytical method that was used. However, there were no fecal coliforms present in the same sample. The residence was re-sampled in November 2011 and no fecal or total coliform was found.

VIII. Recommendations

- A.** Continued monitoring will occur as the SFWMD Contract #OT061098 has been extended for one additional monitoring year. This report will be updated annually.
- B.** Well C-00495 was removed from the Collier County Pollution Control and Prevention ground water trend network because the well bore hole has collapsed and the construction material is not suitable for testing ambient heavy metals in ground water. According to USGS, it is also no longer part of their ground water network. This well should be properly abandoned.
- C.** Pollution Control & Prevention is currently conducting a VISA on the wells located within the Coastal Ridge Wellfield protection zone where arsenic levels remain elevated. Trends in these wells are being examined to determine if the levels are increasing. The VISA already identified the continued storage and potential use of MSMA at some golf courses. If arsenic levels are found to be increasing, recommendations will be made to land use managers to voluntarily discontinue using MSMA before the required phase-out date to ensure further arsenic contamination or migration is minimized.
- D.** Exceedances of lead in wells C-00977 (Lower Tamiami), C-00984 (Water Table), and C-01003 (Lower Tamiami) will be investigated to determine potential sources.
- E.** All manganese exceedances will be further investigated to determine potential sources.
- F.** Nutrients in the Water Table aquifer should be further examined to determine sources and future best management practices. This is especially important relative to upcoming legislation on establishing numeric nutrient criteria; Impaired Waters and Total Maximum Daily Loads assessments; and development of the county's watershed management plans.
- G.** Although not monitored during FY10, organochlorine pesticides should be monitored every five years due to their persistence in the environment. These pesticides are no longer in use, so further contamination is unlikely, but monitoring is needed to detect changes to existing levels that may occur through soil disturbance and transport.

- H. Organophosphate, triamine, and carbamate pesticides tend to be more acutely toxic than organochlorine pesticides, but have less sustainability in the environment. New pesticides are developed and new uses for existing approved pesticides change frequently. Although monitoring of these types of pesticides did not occur in FY10, monitoring of these pesticides should be examined to determine an acceptable sampling frequency and, at a minimum, be monitored every five years.

IX. References

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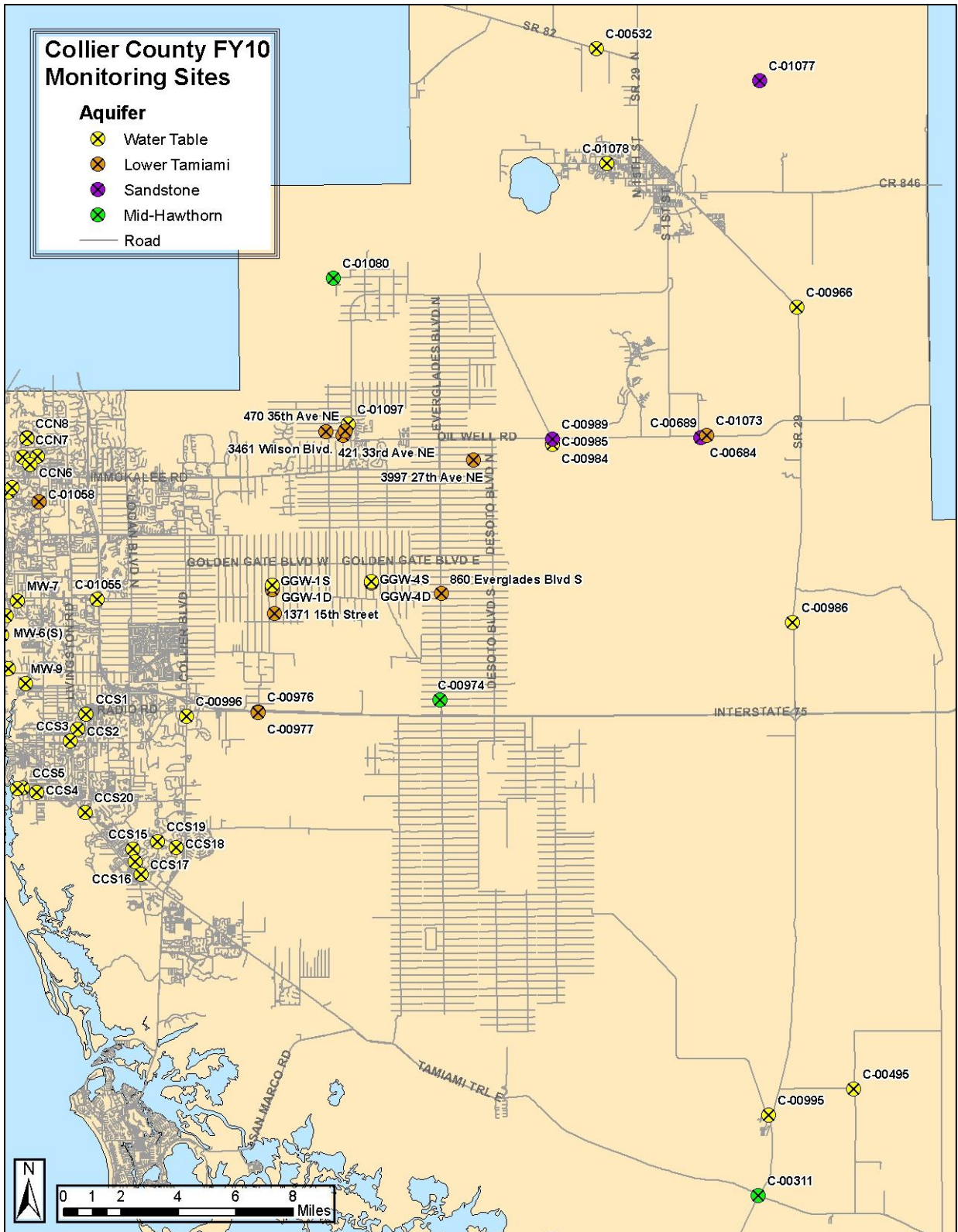


Figure 1. Monitoring Sites-Eastern Collier

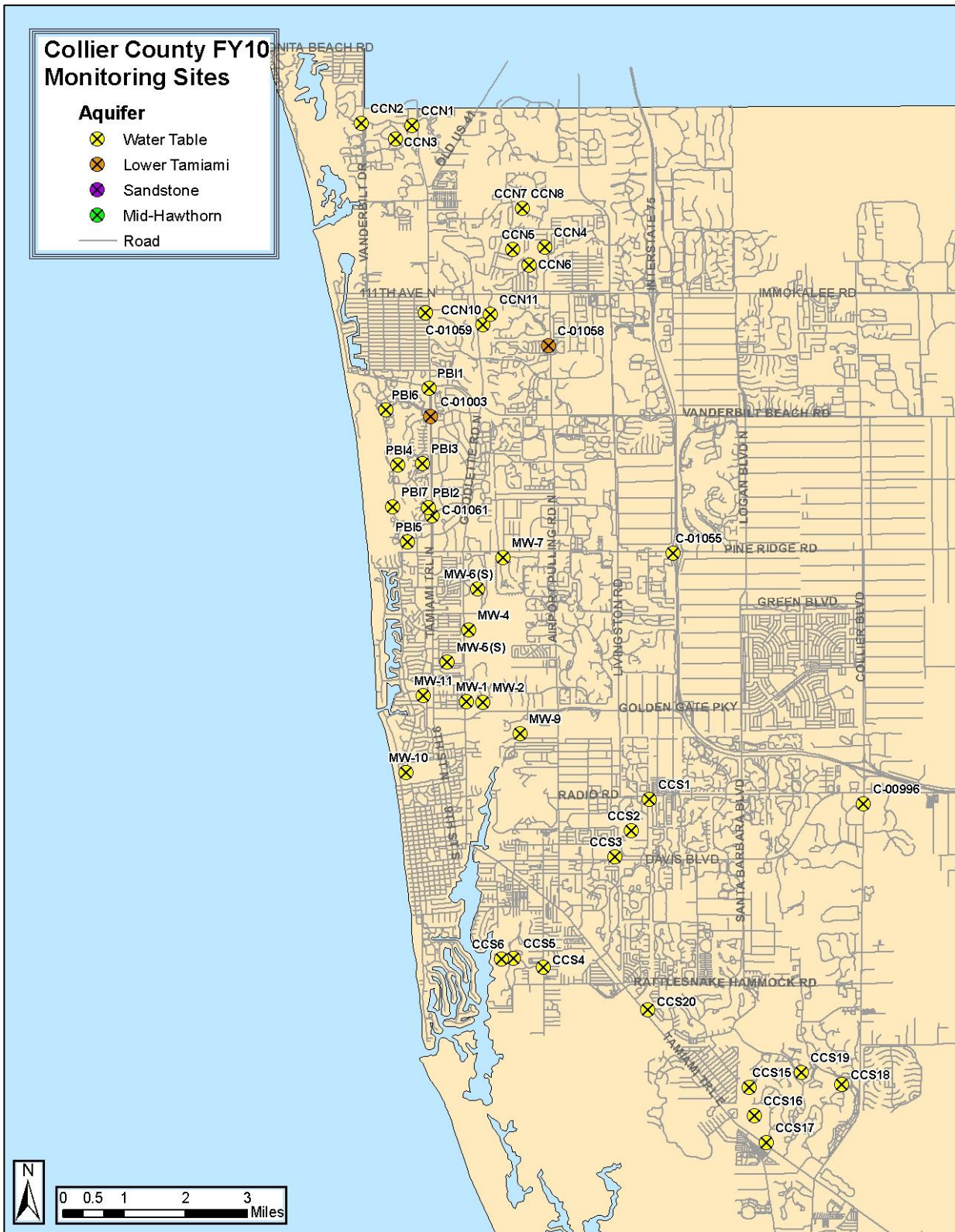


Figure 2. Monitoring Sites-Western Collier

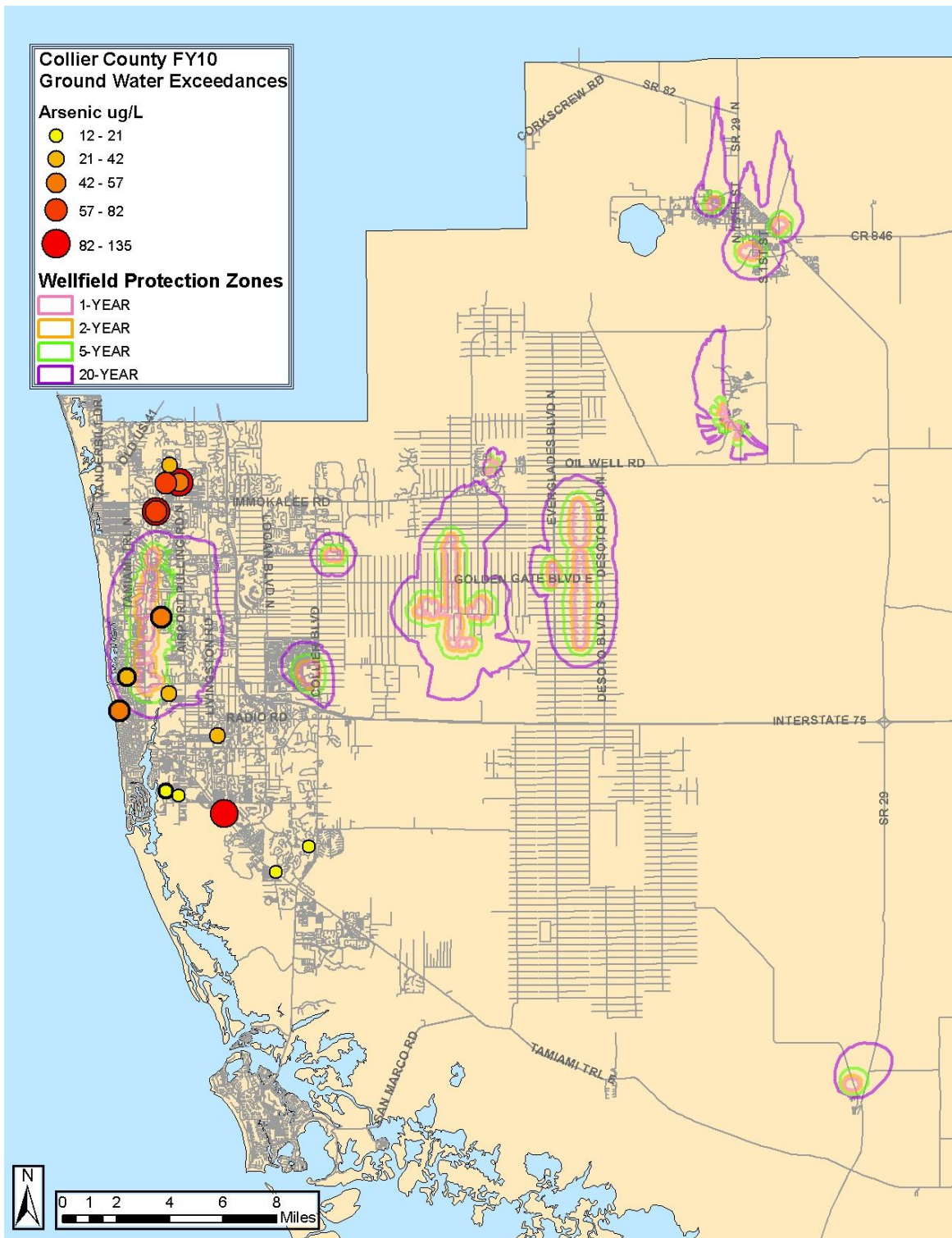


Figure 3. Arsenic exceedances in ground water during FY10

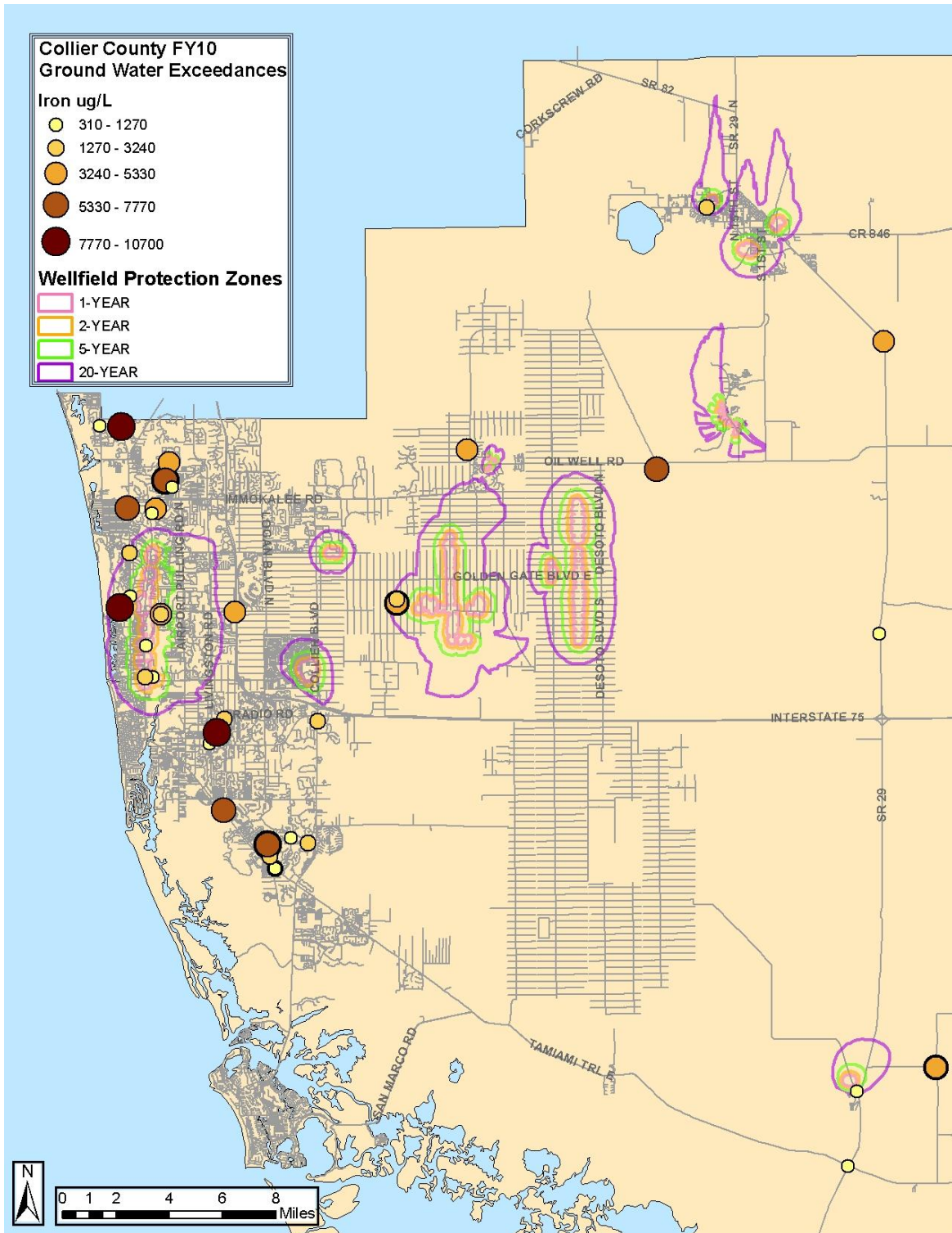


Figure 4. Iron exceedances in ground water during FY10

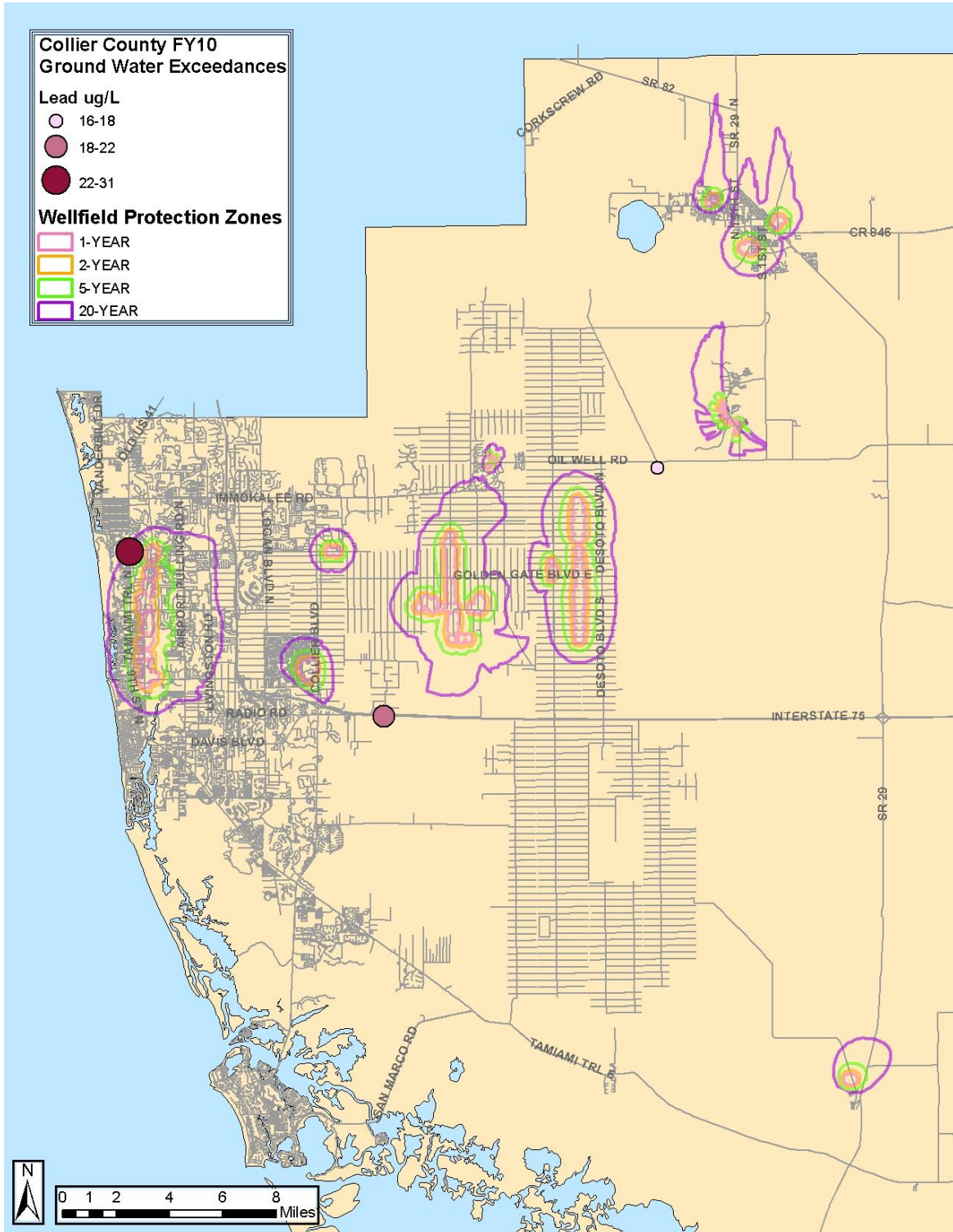


Figure 5. Lead exceedances in ground water during FY10

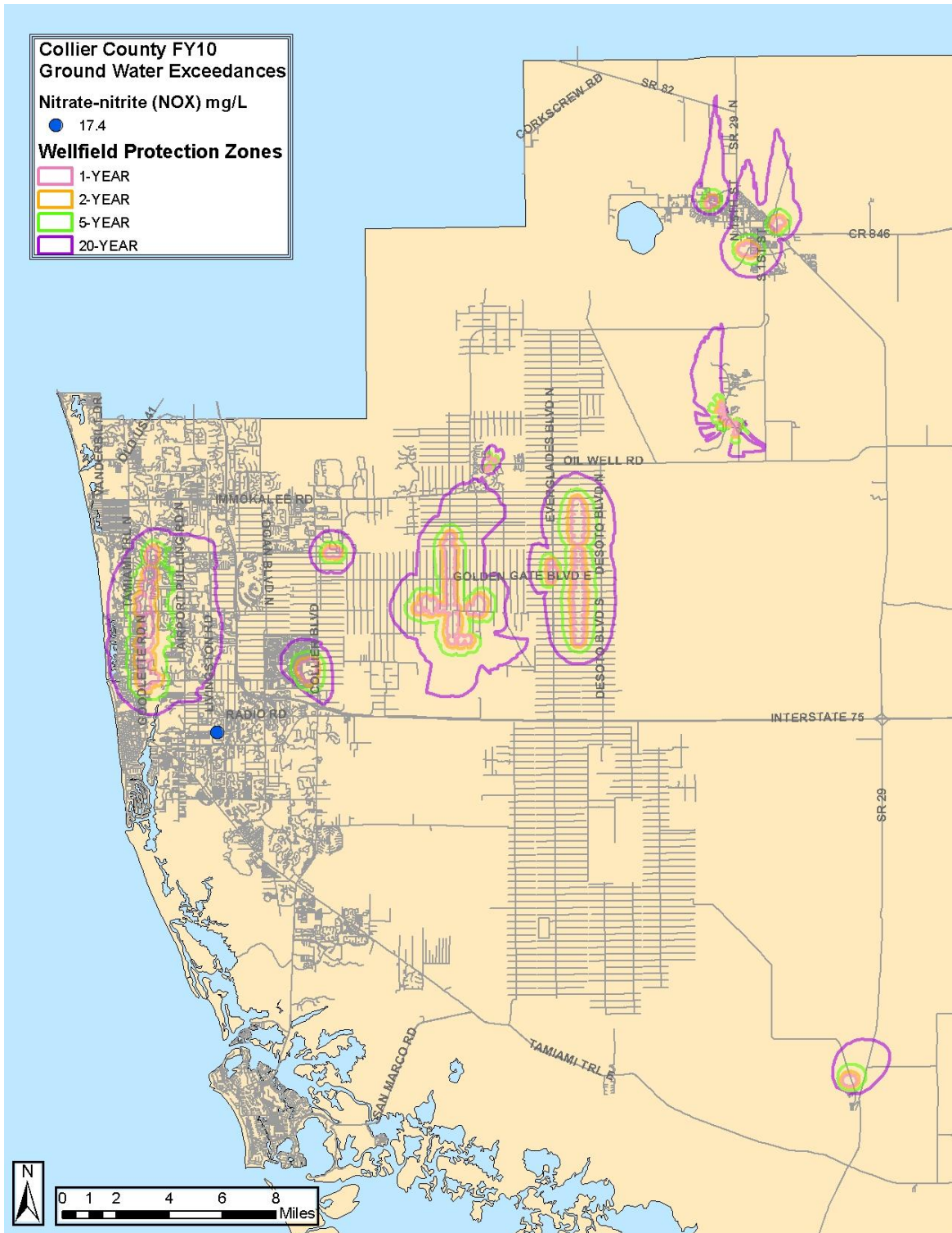


Figure 7. Nitrate-nitrite exceedances in ground water during FY10

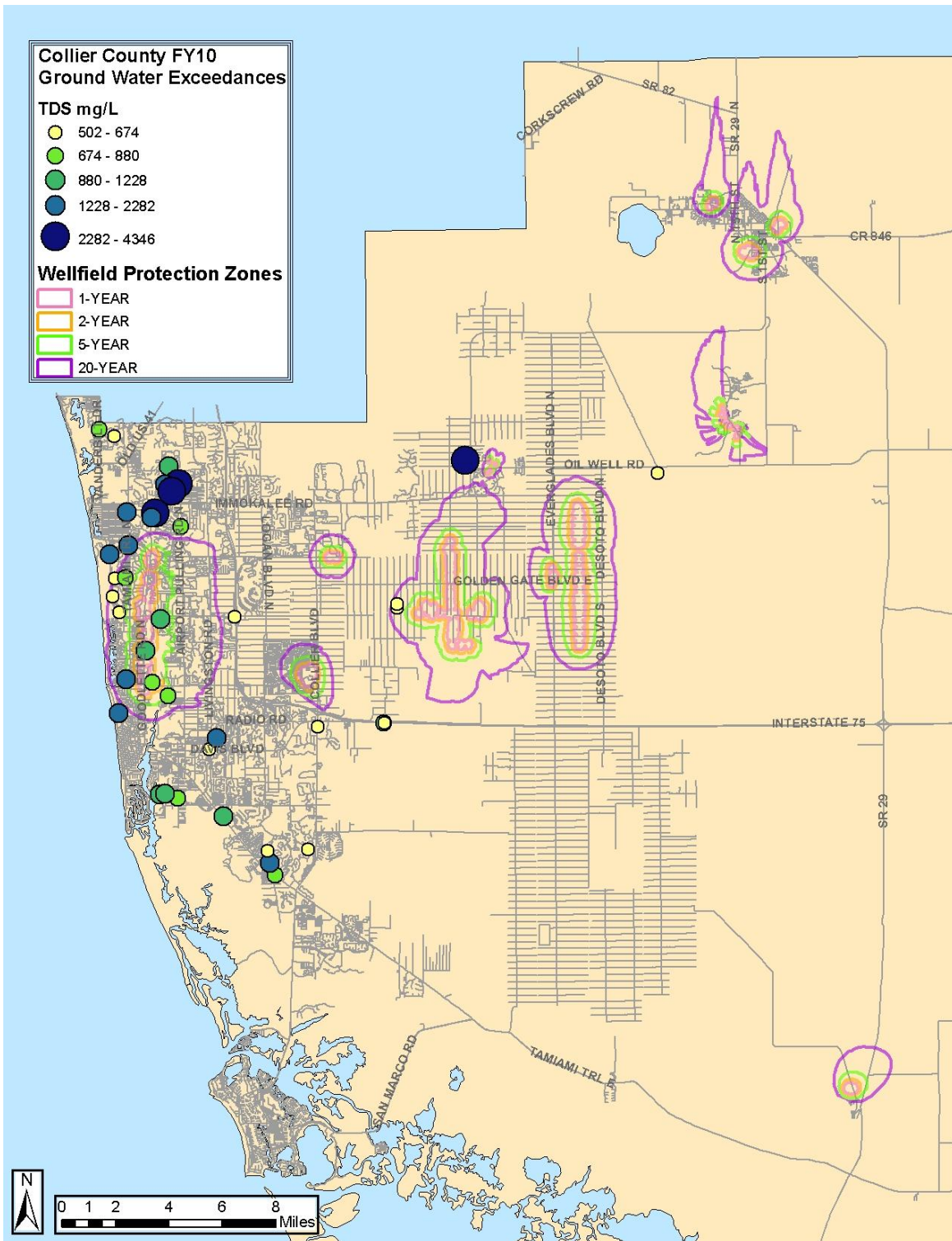


Figure 8. Total Dissolved Solids (TDS) exceedances in ground water during FY10

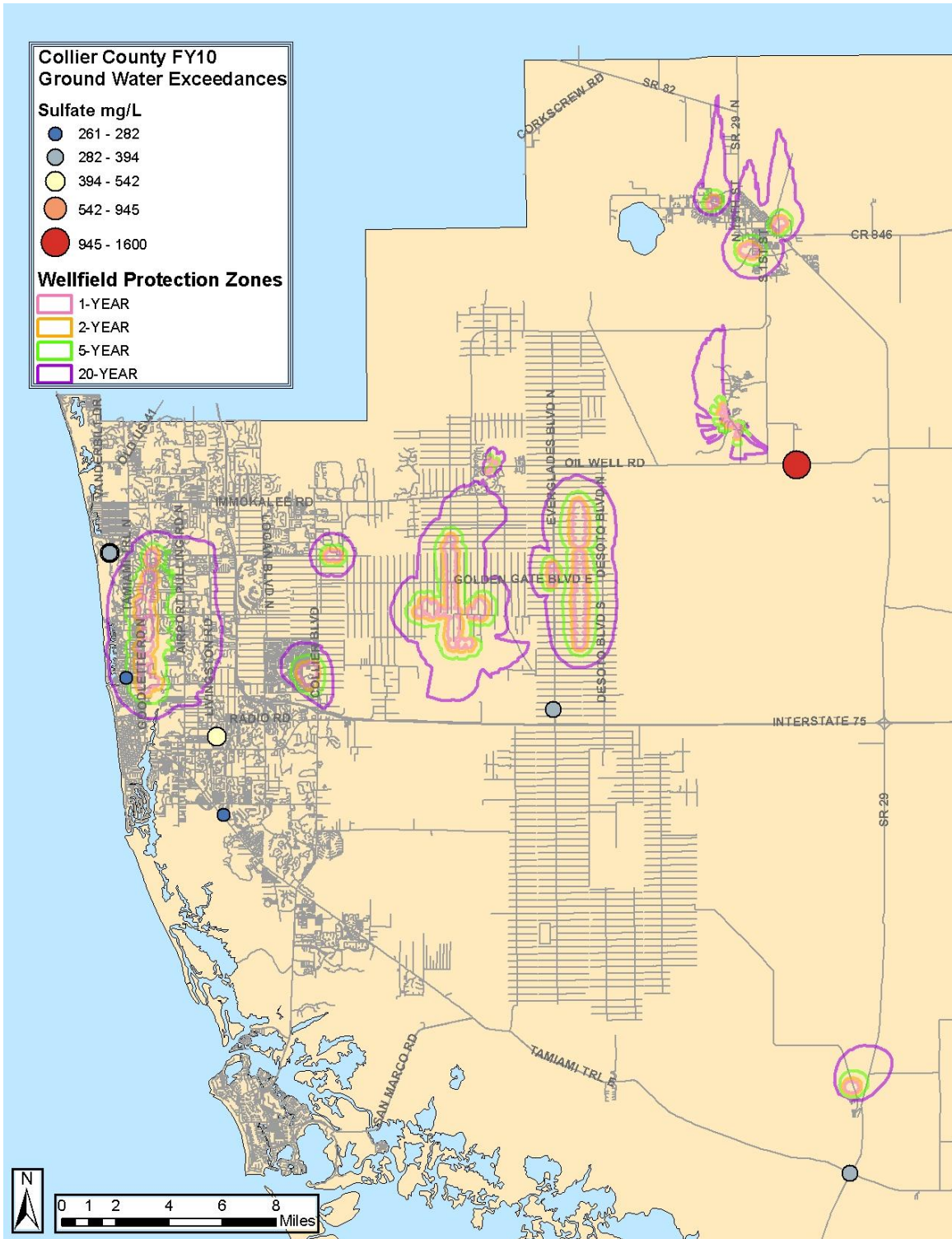


Figure 9. Sulfate exceedances in ground water during FY10

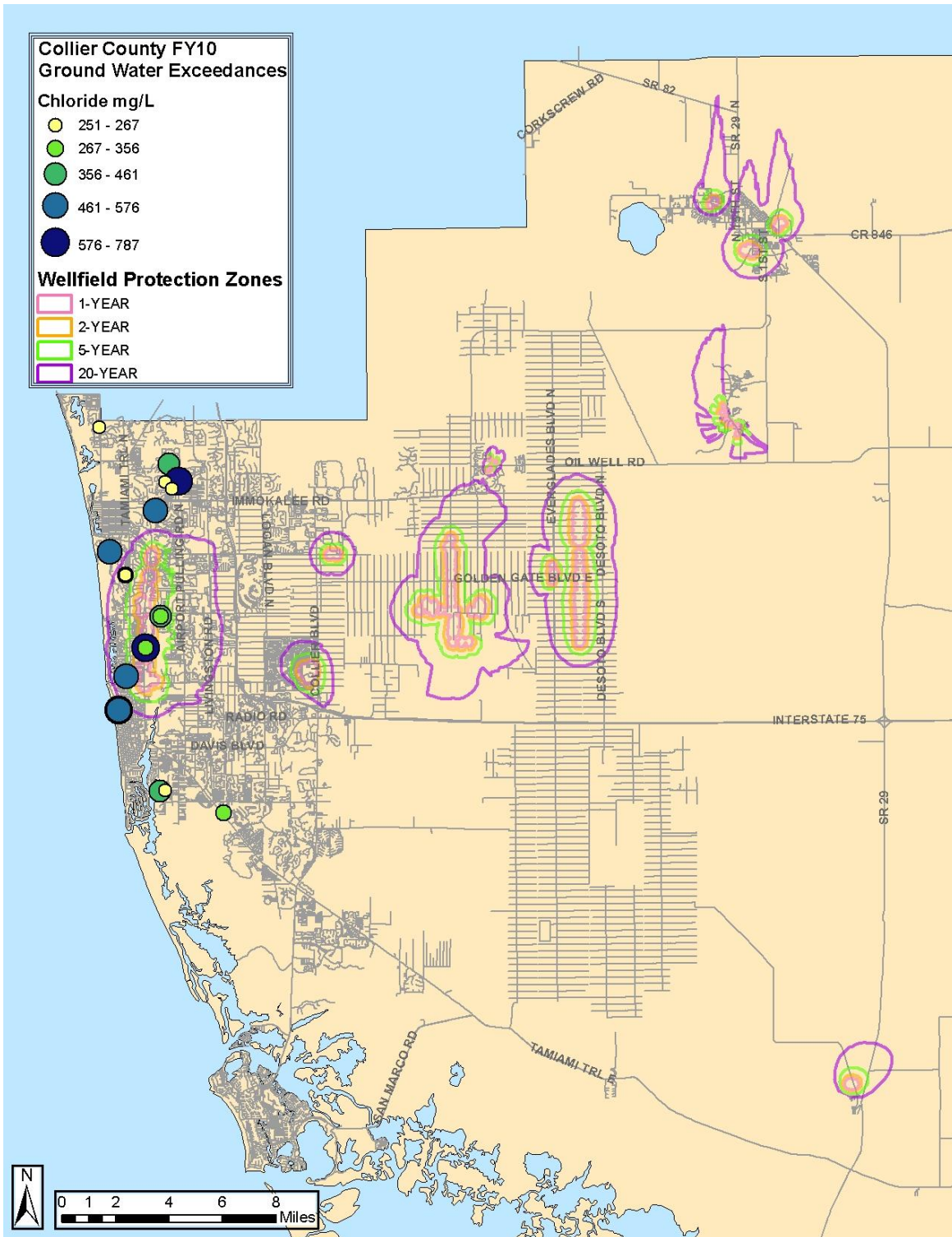


Figure 10. Chloride exceedances in ground water during FY10

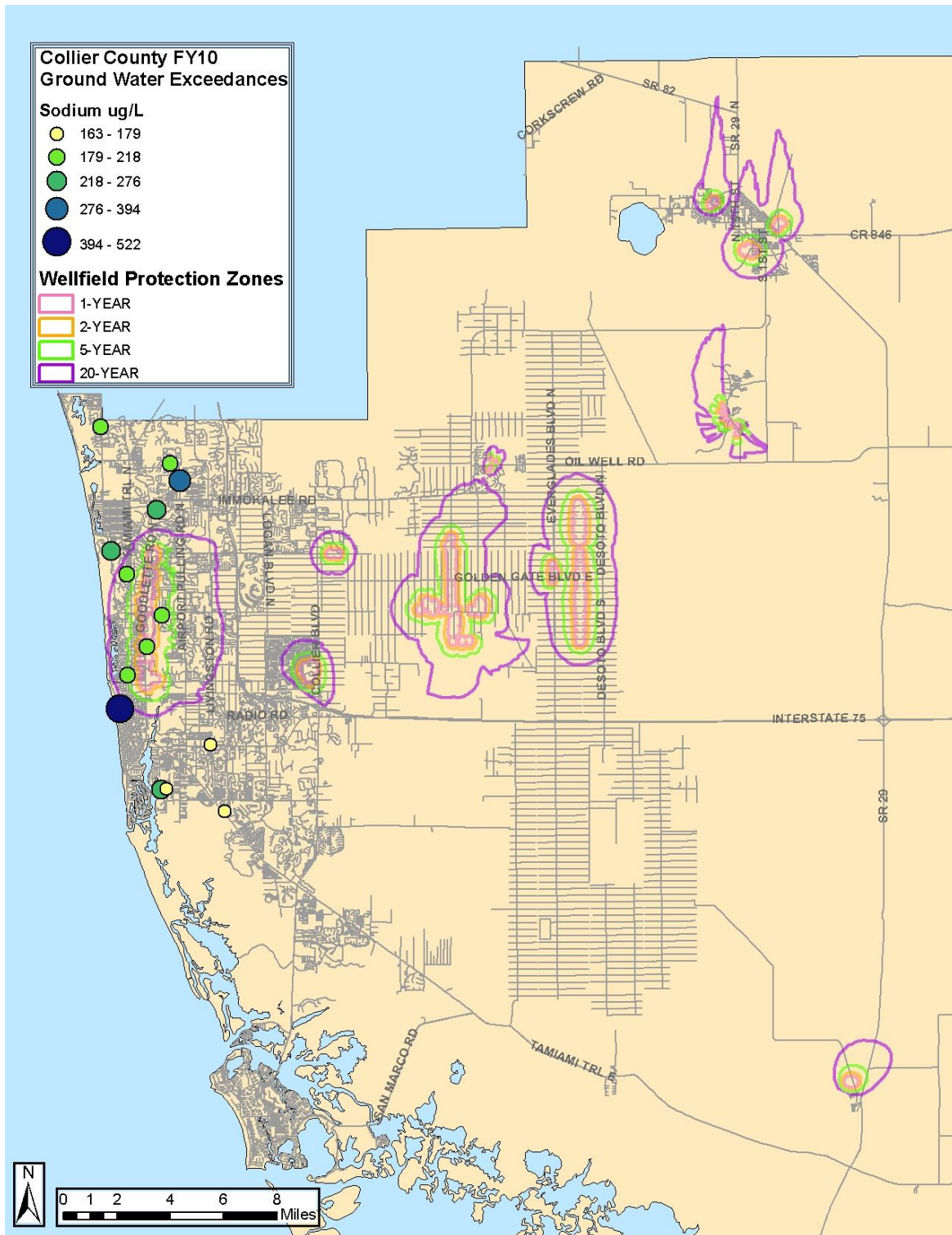


Figure 11. Sodium exceedances in ground water during FY10

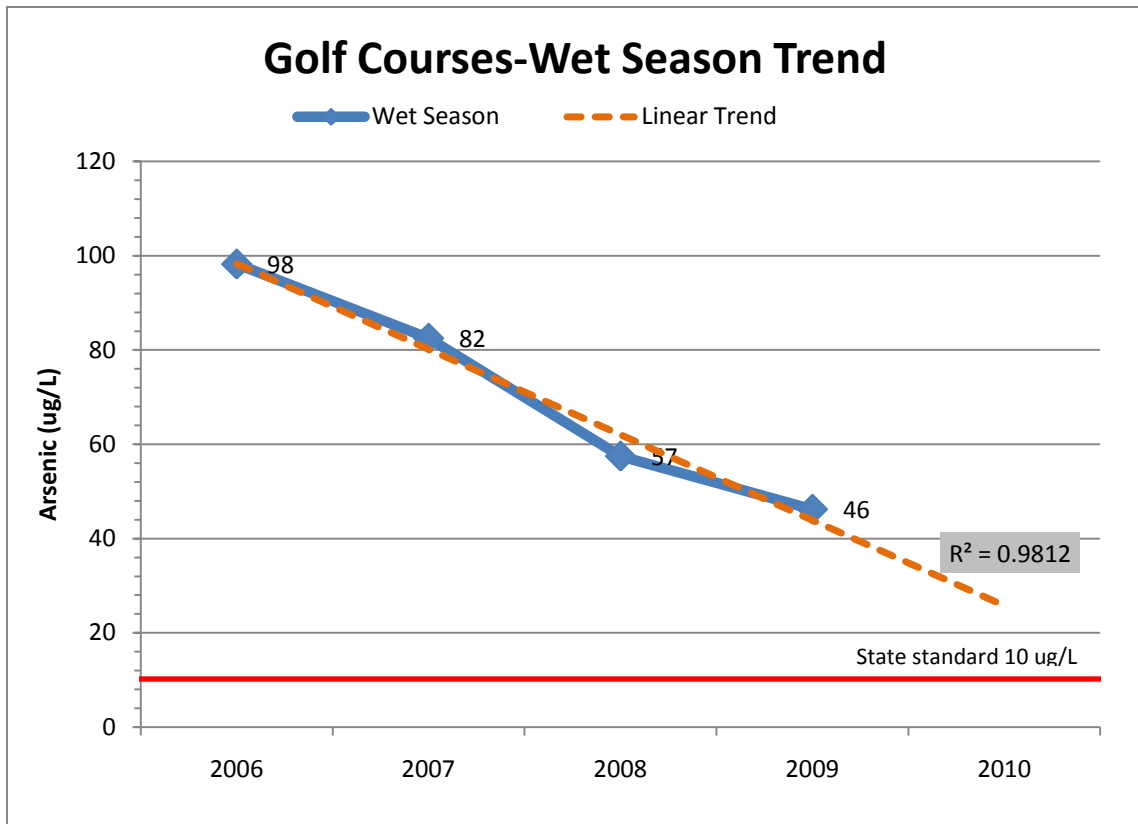


Figure 12. Average wet season arsenic trend in Water Table aquifer wells located in golf courses.

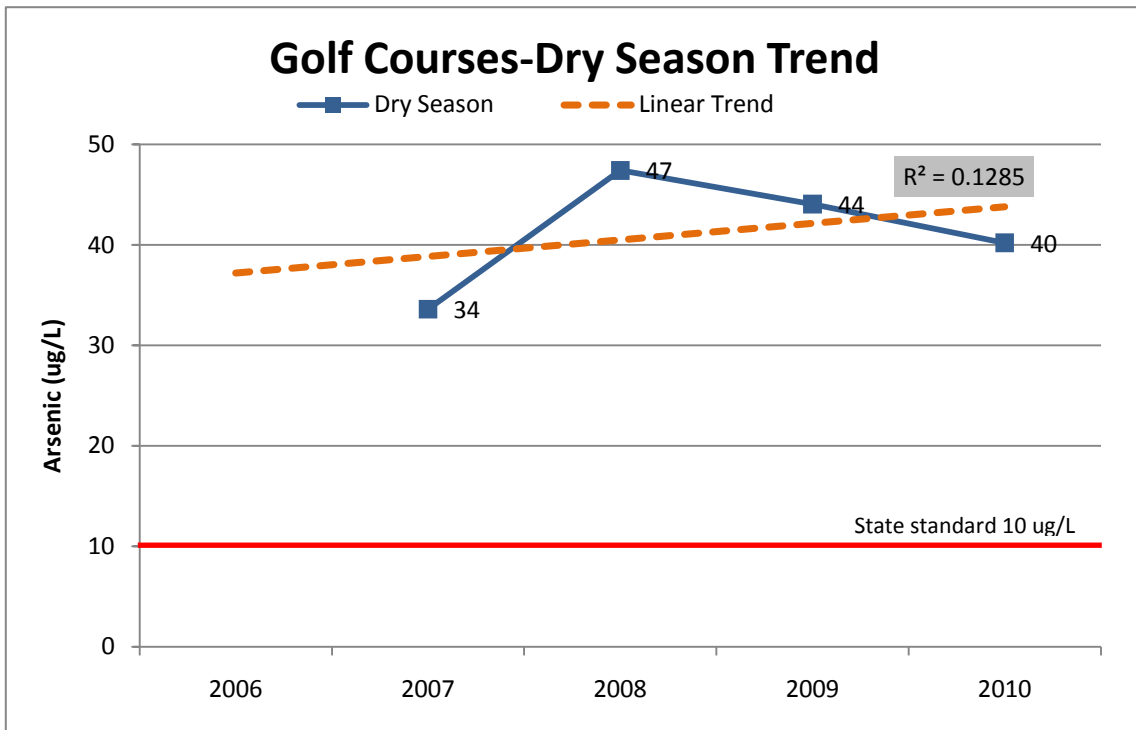


Figure 13. Average dry season arsenic trend in Water Table aquifer wells located in golf courses.

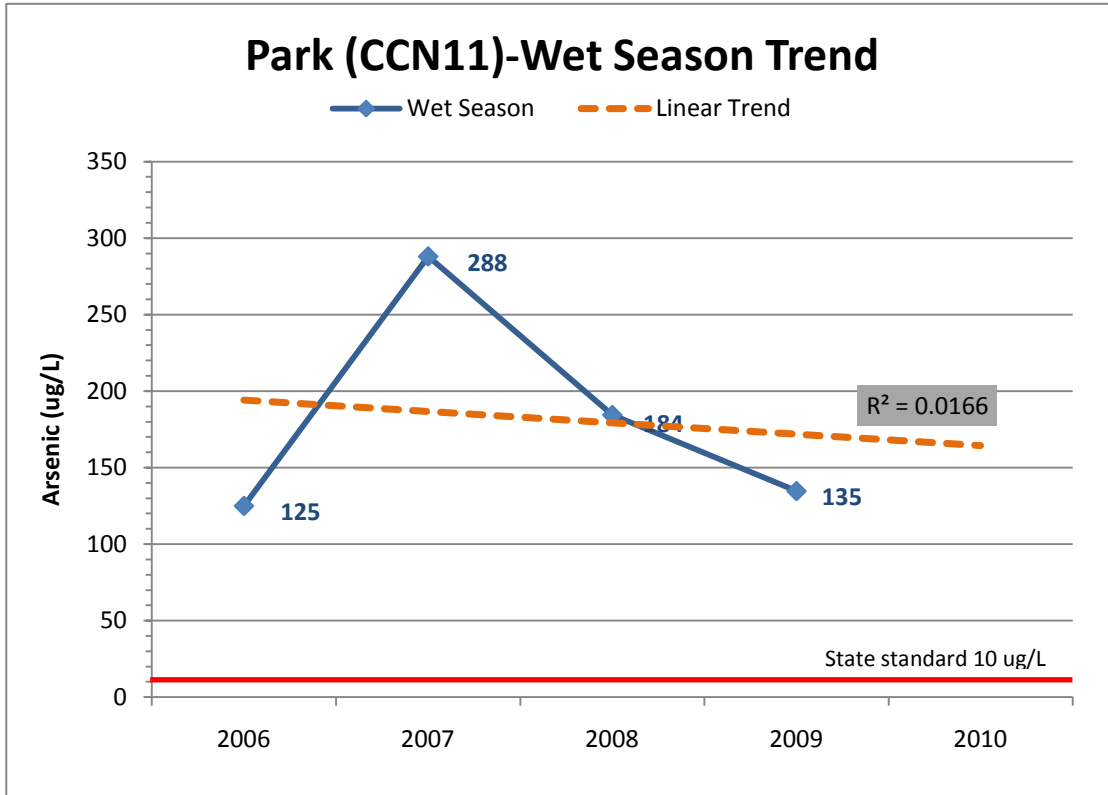


Figure 14. Average wet season arsenic trend in well CCN11.

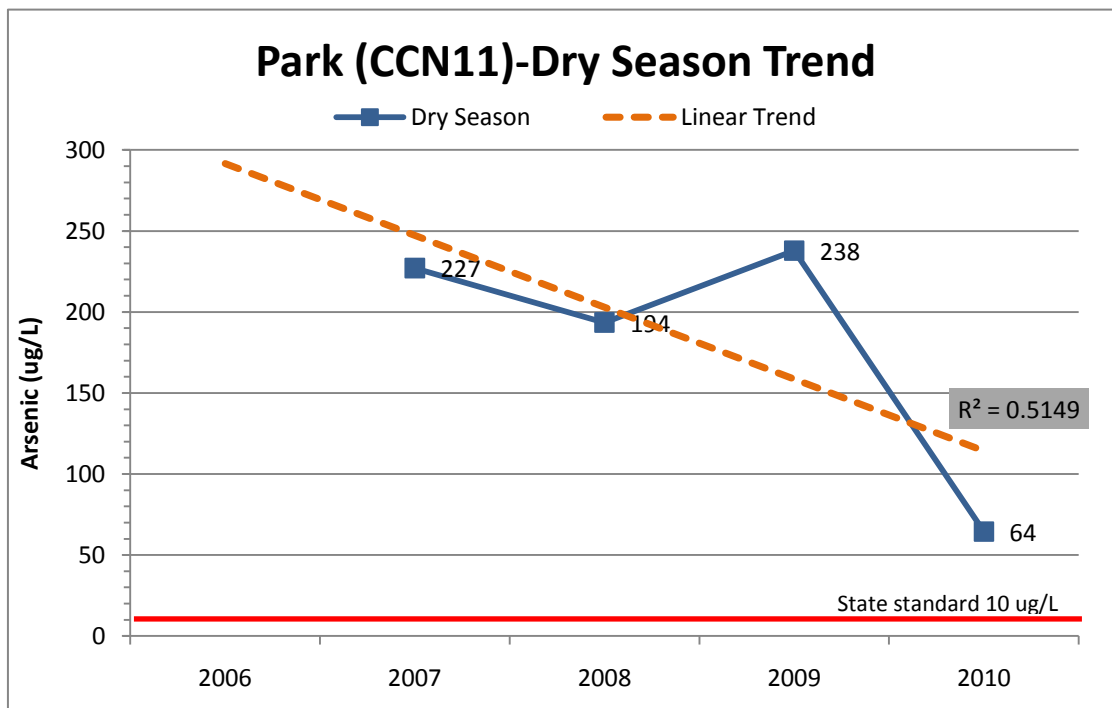


Figure 15. Average dry season arsenic trend in well CCN11.

APPENDIX A—STATION LIST

Well #	Aquifer	Latitude	Longitude
C-00311	Mid-Hawthorn	25.91056	-81.36500
C-00495	Water Table	25.96472	-81.31194
C-00532	Water Table	26.49111	-81.45806
C-00684	Mid-Hawthorn	26.29444	-81.39833
C-00689	Sandstone	26.29444	-81.39833
C-00966	Water Table	26.36056	-81.34472
C-00974	Mid-Hawthorn	26.16111	-81.54444
C-00976	Water Table	26.15444	-81.64639
C-00977	Lower Tamiami	26.15417	-81.64667
C-00984	Water Table	26.29056	-81.48194
C-00985	Lower Tamiami	26.29333	-81.48194
C-00986	Water Table	26.20083	-81.34667
C-00989	Sandstone	26.29333	-81.48194
C-00995	Water Table	25.95139	-81.35944
C-00996	Water Table	26.15222	-81.68667
C-01003	Lower Tamiami	26.24333	-81.80083
C-01055	Water Table	26.21128	-81.73711
C-01058	Lower Tamiami	26.26028	-81.77000
C-01059	Water Table	26.26778	-81.80250
C-01061	Water Table	26.21972	-81.80028
C-01073	Lower Tamiami	26.29540	-81.39528
C-01077	Sandstone	26.47528	-81.36611
C-01078	Water Table	26.43306	-81.45194
C-01080	Mid-Hawthorn	26.37444	-81.60528
C-01097	Water Table	26.30056	-81.59667
CCN1	Water Table	26.31223	-81.80630
CCN10	Water Table	26.26508	-81.78745
CCN11	Water Table	26.26758	-81.78540
CCN2	Water Table	26.31263	-81.81968
CCN3	Water Table	26.30903	-81.81068
CCN4	Water Table	26.28355	-81.77125
CCN5	Water Table	26.28295	-81.77970
CCN6	Water Table	26.27922	-81.77523
CCN7	Water Table	26.29268	-81.77723
CCN8	Water Table	26.29263	-81.77722
CCS1	Water Table	26.15300	-81.74293
CCS15	Water Table	26.08482	-81.71622
CCS16	Water Table	26.07822	-81.71490

APPENDIX A—STATION LIST

Well #	Aquifer	Latitude	Longitude
CCS17	Water Table	26.07178	-81.71172
CCS18	Water Table	26.08570	-81.69195
CCS19	Water Table	26.08853	-81.70257
CCS2	Water Table	26.14553	-81.74760
CCS20	Water Table	26.10322	-81.74302
CCS3	Water Table	26.13935	-81.75177
CCS4	Water Table	26.11302	-81.77055
CCS5	Water Table	26.11523	-81.77828
CCS6	Water Table	26.11492	-81.78137
GGW-1D	Lower Tamiami	26.21667	-81.63900
GGW-1S	Water Table	26.21889	-81.63900
GGW-4D	Lower Tamiami	26.22000	-81.58333
GGW-4S	Water Table	26.22083	-81.58333
MW-1	Water Table	26.17582	-81.79115
MW-10	Water Table	26.15898	-81.80683
MW-11	Water Table	26.17727	-81.80243
MW-2	Water Table	26.17575	-81.78667
MW-4	Water Table	26.19288	-81.79068
MW-5(S)	Water Table	26.18513	-81.79613
MW-6(S)	Water Table	26.20258	-81.78825
MW-7	Water Table	26.20997	-81.78177
MW-9	Water Table	26.16838	-81.77692
PBI1	Water Table	26.24997	-81.80142
PBI2	Water Table	26.22177	-81.80133
PBI3	Water Table	26.23207	-81.80295
PBI4	Water Table	26.23183	-81.80952
PBI5	Water Table	26.21350	-81.80672
PBI6	Water Table	26.24478	-81.81278
PBI7	Water Table	26.22183	-81.81072
3461 Wilson Blvd.	Lower Tamiami	26.29667	-81.60917
421 33rd Ave NE	Lower Tamiami	26.29479	-81.59947
470 35th Ave NE	Lower Tamiami	26.29705	-81.59814
1371 15th Street	Lower Tamiami	26.20440	-81.63761
860 Everglades Blvd S	Lower Tamiami	26.21507	-81.54379
3997 27th Ave NE	Lower Tamiami	26.28270	-81.52596

APPENDIX B
Parameter List

Parameter	Analytical Method	Minimum Method Detection Limit*	Frequency
Temperature	FDEP SOP FT1400	± 0.2 mg/L °C	Semi-annually
pH	FDEP SOP FT 1100	± 0.2 standard units	Semi-annually
Specific conductance	FDEP SOP FT1200	± 5% of the true value of the KCl standard	Semi-annually
Dissolved Oxygen	FDEP SOP FT1500	± 0.3 mg/L of saturation chart at	Semi-annually
Depth to water level	FDEP SOP FS2200	± 0.01 feet	Semi-annually
Alkalinity	SM18 2320 B	1.0 mg/L	Semi-annually
Ammonia	EPA 350.1	0.01 mg/L	Semi-annually
Arsenic	EPA 200.8 (As)	1.0 ug/L	Semi-annually
Barium	EPA 200.8 (Ba)	2.6 ug/L	Semi-annually
Bicarbonate Alkalinity	SM20 4500-CO2 D	2.0 mg/L	Semi-annually
Cadmium	EPA 200.8 (Cd)	0.1 ug/L	Semi-annually
Calcium	SM18 3111 B (Ca)	0.5 mg/L	Semi-annually
Chloride	SM18 4500-Cl - E	1.0 mg/L	Semi-annually
Chromium	EPA 200.8 (Cr)	2.0 ug/L	Semi-annually
Copper	EPA 200.8 (Cu)	1.0 ug/L	Semi-annually
Fecal coliform	SM18 9222 D (MF)	1 cfu/100ml	Semi-annually
Fluoride	SM18 4500-F C	0.05 mg/L	Semi-annually
Hardness- Calculated	SM18 2340 B	1.0 mg/L	Semi-annually
Iron	SM18 3111 B (Fe)	120 ug/L	Semi-annually
Lead	EPA 200.8 (Pb)	1.0 ug/L	Semi-annually
Magnesium	SM18 3111 B (Mg)	0.07 mg/L	Semi-annually
Manganese	EPA 200.8 (Mn)	0.2 mg/L	Semi-annually
Nickel	EPA 200.8 (Ni)	2.4 ug/L	Semi-annually
Nitrate	NOX-NO2	0.01 mg/L	Semi-annually
Nitrate/Nitrite (NOX)	EPA 353.2 (Nitrate-Nitrite (N))	0.01 mg/L	Semi-annually
Nitrite (N)	SM18 4500-NO2 B	0.002 mg/L	Semi-annually
Orthophosphate (P)	SM18 4500-P E (Orthophosphate)	0.004 mg/L	Semi-annually
Potassium	SM18 3111 B (K)	190 ug/L	Semi-annually
Selenium	EPA 200.8 (Se)	7.5 ug/L	Semi-annually
Silver	EPA 200.8 (Ag)	4.9 ug/L	Semi-annually
Sodium	SM18 3111 B (Na)	1.7 mg/L	Semi-annually
Strontium	EPA 6010 (Sr)	3.6 ug/L	Semi-annually
Sulfate	EPA 375.4	1.0 mg/L	Semi-annually
Sulfide	SM18 4500-S E	0.8 mg/L	Semi-annually
Total coliform	SM18 9222 B (MF)	1 cfu/100ml	Semi-annually
Total dissolved solids (TDS)	SM18 2540 C	2 mg/L	Semi-annually
Total Kjeldahl Nitrogen (TKN)	SM20 4500-Norg D	0.076 mg/L	Semi-annually
Total phosphorus	SM18 4500-P E (Phosphorus -Total)	0.004 mg/L	Semi-annually
Total suspended solids (TSS)	SM18 2540 D	2 mg/L	Semi-annually
Turbidity	SM18 2130 B	0.10 NTU	Semi-annually
Zinc	EPA 200.8 (Zn)	0.96 ug/L	Semi-annually

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
C-00311	Mid-Hawthorn	25.91056	-81.36500	10/26/2009 14:57	4/6/2010 13:34	Wet and dry season sampling and lab analysis complete. Fecal and total coliform were not analyzed for the 4/6/2010 sample.
C-00495	Water Table	25.96472	-81.31194	9/16/2009 11:14	4/12/2010 13:47	Wet and dry season sampling and lab analysis complete
C-00532	Water Table	26.49111	-81.45806	8/10/2009 14:05	4/5/2010 11:21	Wet and dry season sampling and lab analysis complete
C-00684	Mid-Hawthorn	26.29444	-81.39833	9/1/2009 13:51	3/23/2010 14:38	Wet and dry season sampling and lab analysis complete
C-00689	Sandstone	26.29444	-81.39833	9/2/2009 11:32	3/23/2010 12:15	Wet and dry season sampling and lab analysis complete
C-00966	Water Table	26.36056	-81.34472	10/8/2009 11:20	3/24/2010 15:06	Wet and dry season sampling and lab analysis complete
C-00974	Mid-Hawthorn	26.16111	-81.54444	10/28/2009 9:44	4/7/2010 13:21	Wet and dry season sampling and lab analysis complete
C-00976	Water Table	26.15444	-81.64639	10/27/2009 10:52	3/16/2010 13:32	Wet and dry season sampling and lab analysis complete
C-00977	Lower Tamiami	26.15417	-81.64667	10/12/2009 14:37	3/16/2010 11:49	Wet and dry season sampling and lab analysis complete
C-00984	Water Table	26.29056	-81.48194	10/19/2009 13:45	3/24/2010 12:02	Wet and dry season sampling and lab analysis complete
C-00985	Lower Tamiami	26.29333	-81.48194	10/19/2009 12:18	3/1/2010 11:37	Wet and dry season sampling and lab analysis complete
C-00986	Water Table	26.20083	-81.34667	10/8/2009 12:55	4/26/2010 12:13	Wet and dry season sampling and lab analysis complete

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
C-00989	Sandstone	26.29333	-81.48194	9/2/2009 14:02	2/24/2010 13:58	Wet and dry season sampling and lab analysis complete
C-00995	Water Table	25.95139	-81.35944	9/16/2009 12:40	4/12/2010 11:54	Wet and dry season sampling and lab analysis complete
C-00996	Water Table	26.15222	-81.68667	10/14/2009 14:04	4/27/2010 11:39	Wet and dry season sampling and lab analysis complete
C-01003	Lower Tamiami	26.24333	-81.80083	8/31/2009 10:58	2/17/2010 10:58	Wet and dry season sampling and lab analysis complete
C-01055	Water Table	26.21128	-81.73711	9/24/2009 10:33	2/16/2010 13:51	Wet and dry season sampling and lab analysis complete
C-01058	Lower Tamiami	26.26028	-81.77000	10/21/2009 11:42	2/16/2010 11:37	Wet and dry season sampling and lab analysis complete
C-01059	Water Table	26.26778	-81.80250	8/12/2009 14:11	2/10/2010 13:58	Wet and dry season sampling and lab analysis complete
C-01061	Water Table	26.21972	-81.80028	8/31/2009 13:31	2/4/2010 14:38	Wet and dry season sampling and lab analysis complete
C-01073	Lower Tamiami	26.29540	-81.39528	9/1/2009 11:24	3/24/2010 13:55	Wet and dry season sampling and lab analysis complete
C-01077	Sandstone	26.47528	-81.36611	9/28/2009 12:27	4/13/2010 13:26	Wet and dry season sampling and lab analysis complete
C-01078	Water Table	26.43306	-81.45194	10/26/2009 11:37	4/5/2010 14:07	Wet and dry season sampling and lab analysis complete
C-01080	Mid-Hawthorn	26.37444	-81.60528	9/10/2009 13:29	4/6/2010 12:46	Wet and dry season sampling and lab analysis complete
C-01097	Water Table	26.30056	-81.59667	9/17/2009 11:10	3/1/2010 13:40	Wet and dry season sampling and lab analysis complete

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
CCN1	Water Table	26.31223	-81.80630	8/12/2009 10:56	2/8/2010 11:20	Wet and dry season sampling and lab analysis complete. Iron was not analyzed for the 2/8/2010 sample.
CCN10	Water Table	26.26508	-81.78745	8/13/2009 10:40	2/11/2010 11:56	Wet and dry season sampling and lab analysis complete
CCN11	Water Table	26.26758	-81.78540	8/18/2009 11:47	2/9/2010 11:26	Wet and dry season sampling and lab analysis complete. Bicarbonate was not analyzed for the 8/18/2009 sample.
CCN2	Water Table	26.31263	-81.81968	8/12/2009 12:26	2/8/2010 13:36	Wet and dry season sampling and lab analysis complete. Iron was not analyzed for the 2/8/2010 sample.
CCN3	Water Table	26.30903	-81.81068	8/13/2009 11:56	2/8/2010 12:42	Wet and dry season sampling and lab analysis complete. Iron was not analyzed for the 2/8/2010 sample.
CCN4	Water Table	26.28355	-81.77125	9/21/2009 10:57	2/10/2010 11:02	Wet and dry season sampling and lab analysis complete
CCN5	Water Table	26.28295	-81.77970	9/21/2009 12:34	2/10/2010 12:11	Wet and dry season sampling and lab analysis complete. Bicarbonate was not analyzed for the 9/21/2009 sample.
CCN6	Water Table	26.27922	-81.77523	9/17/2009 13:36	2/11/2010 10:42	Wet and dry season sampling and lab analysis complete
CCN7	Water Table	26.29268	-81.77723	8/4/2009 13:12	2/4/2010 10:33	Wet and dry season sampling and lab analysis complete

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
CCN8	Water Table	26.29263	-81.77722	8/4/2009 14:36	2/4/2010 11:58	Wet and dry season sampling and lab analysis complete
CCS1	Water Table	26.15300	-81.74293	8/26/2009 15:12	2/16/2010 15:00	Wet and dry season sampling and lab analysis complete
CCS15	Water Table	26.08482	-81.71622	10/5/2009 14:49	3/3/2010 12:40	Wet and dry season sampling and lab analysis complete
CCS16	Water Table	26.07822	-81.71490	8/11/2009 14:50	2/9/2010 14:19	Wet and dry season sampling and lab analysis complete
CCS17	Water Table	26.07178	-81.71172	8/11/2009 13:26	2/3/2010 13:21	Wet and dry season sampling and lab analysis complete
CCS18	Water Table	26.08570	-81.69195	10/5/2009 13:08	3/16/2010 15:27	Wet and dry season sampling and lab analysis complete
CCS19	Water Table	26.08853	-81.70257	10/21/2009 13:59	4/26/2010 14:03	Wet and dry season sampling and lab analysis complete
CCS2	Water Table	26.14553	-81.74760	9/23/2009 14:11	4/14/2010 11:43	Wet and dry season sampling and lab analysis complete
CCS20	Water Table	26.10322	-81.74302	8/13/2009 13:46	2/3/2010 14:30	Wet and dry season sampling and lab analysis complete
CCS3	Water Table	26.13935	-81.75177	10/1/2009 14:23	4/14/2010 10:38	Wet and dry season sampling and lab analysis complete
CCS4	Water Table	26.11302	-81.77055	10/6/2009 10:24	2/23/2010 15:23	Wet and dry season sampling and lab analysis complete
CCS5	Water Table	26.11523	-81.77828	10/6/2009 13:07	4/21/2010 13:41	Wet and dry season sampling and lab analysis complete
CCS6	Water Table	26.11492	-81.78137	10/6/2009 11:24	4/21/2010 12:40	Wet and dry season sampling and lab analysis complete

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
GGW-1D	Lower Tamiami	26.21667	-81.63900	10/13/2009 12:35	4/19/2010 11:50	Wet and dry season sampling and lab analysis complete
GGW-1S	Water Table	26.21889	-81.63900	10/13/2009 14:07	4/19/2010 13:26	Wet and dry season sampling and lab analysis complete
GGW-4D	Lower Tamiami	26.22000	-81.58333	10/20/2009 11:31	4/20/2010 12:19	Wet and dry season sampling and lab analysis complete
GGW-4S	Water Table	26.22083	-81.58333	10/20/2009 13:08	4/20/2010 13:53	Wet and dry season sampling and lab analysis complete
MW-1	Water Table	26.17582	-81.79115	Not sampled	4/28/2010 11:22	Well was not accessible during the wet season sampling due to parking lot construction
MW-10	Water Table	26.15898	-81.80683	9/15/2009 13:59	2/25/2010 10:31	Wet and dry season sampling and lab analysis complete
MW-11	Water Table	26.17727	-81.80243	10/1/2009 10:44	2/25/2010 11:46	Wet and dry season sampling and lab analysis complete
MW-2	Water Table	26.17575	-81.78667	9/23/2009 10:43	3/4/2010 13:10	Wet and dry season sampling and lab analysis complete
MW-4	Water Table	26.19288	-81.79068	9/8/2009 15:05	3/30/2010 10:51	Wet and dry season sampling and lab analysis complete
MW-5(S)	Water Table	26.18513	-81.79613	10/5/2009 11:32	2/25/2010 13:22	Wet and dry season sampling and lab analysis complete
MW-6(S)	Water Table	26.20258	-81.78825	9/23/2009 12:14	3/30/2010 12:27	Wet and dry season sampling and lab analysis complete
MW-7	Water Table	26.20997	-81.78177	9/14/2009 14:20	4/15/2010 12:55	Wet and dry season sampling and lab analysis complete
MW-9	Water Table	26.16838	-81.77692	10/1/2009 13:14	4/15/2010 14:34	Wet and dry season sampling and lab analysis complete

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
PBI1	Water Table	26.24997	-81.80142	9/3/2009 12:55	2/11/2010 12:53	Wet and dry season sampling and lab analysis complete
PBI2	Water Table	26.22177	-81.80133	9/3/2009 11:45	2/23/2010 10:48	Wet and dry season sampling and lab analysis complete
PBI3	Water Table	26.23207	-81.80295	9/14/2009 12:27	4/15/2010 11:24	Wet and dry season sampling and lab analysis complete
PBI4	Water Table	26.23183	-81.80952	9/14/2009 11:07	3/4/2010 11:32	Wet and dry season sampling and lab analysis complete
PBI5	Water Table	26.21350	-81.80672	9/3/2009 10:39	3/4/2010 10:16	Wet and dry season sampling and lab analysis complete
PBI6	Water Table	26.24478	-81.81278	8/18/2009 10:19	2/17/2010 11:52	Wet and dry season sampling and lab analysis complete
PBI7	Water Table	26.22183	-81.81072	9/8/2009 12:59	2/23/2010 13:14	Wet and dry season sampling and lab analysis complete
3461 Wilson Blvd.	Lower Tamiami	26.29667	-81.60917	11/16/2009 10:36		Wet season sampling and lab analysis complete. Dry season sampling and lab analysis was completed in FY09.
421 33rd Ave NE	Lower Tamiami	26.29479	-81.59947	11/16/2009 12:12		Wet season sampling and lab analysis complete. Dry season sampling and lab analysis was completed in FY09.
470 35th Ave NE	Lower Tamiami	26.29705	-81.59814	11/16/2009 13:15		Wet season sampling and lab analysis complete. Dry season sampling and lab analysis was completed in FY09.

APPENDIX C—FY10 Monitoring Effort Summary

Well #	Aquifer	Latitude	Longitude	Wet Season 2009 Sampling Date	Dry Season 2010 Sampling Date	Comments
1371 15th Street	Lower Tamiami	26.20440	-81.63761		4/29/2010 10:15	Dry season sampling and lab analysis complete. Wet season sampling and lab analysis will be completed in FY11
860 Everglades Blvd S	Lower Tamiami	26.21507	-81.54379		4/29/2010 12:00	Dry season sampling and lab analysis complete. Wet season sampling and lab analysis will be completed in FY11
3997 27th Ave NE	Lower Tamiami	26.28270	-81.52596		4/29/2010 13:02	Dry season sampling and lab analysis complete. Wet season sampling and lab analysis will be completed in FY11

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
09081816-15	CCN11	Water Table	8/18/2009	Arsenic	134.7	ug/L		0.23	10	
10020916-10	CCN11	Water Table	2/9/2010	Arsenic	64.45	ug/L		0.23	10	
09092116-41	CCN4	Water Table	9/21/2009	Arsenic	111.7	ug/L		0.23	10	
10021016-12	CCN4	Water Table	2/10/2010	Arsenic	50.32	ug/L		0.23	10	
09092116-43	CCN5	Water Table	9/21/2009	Arsenic	67.66	ug/L		0.23	10	
10021016-13	CCN5	Water Table	2/10/2010	Arsenic	79.2	ug/L		0.23	10	
09080416-01	CCN7	Water Table	8/4/2009	Arsenic	39.01	ug/L		0.23	10	
10020416-03	CCN7	Water Table	2/4/2010	Arsenic	32.65	ug/L		0.23	10	
09081116-04	CCS17	Water Table	8/11/2009	Arsenic	12.41	ug/L		0.23	10	
09100530-54	CCS18	Water Table	10/5/2009	Arsenic	12.5	ug/L		0.23	10	
09092316-46	CCS2	Water Table	9/23/2009	Arsenic	28.74	ug/L		0.23	10	
10041416-62	CCS2	Water Table	4/14/2010	Arsenic	21.08	ug/L		0.23	10	
09081316-12	CCS20	Water Table	8/13/2009	Arsenic	56.6	ug/L		0.23	10	
10020316-02	CCS20	Water Table	2/3/2010	Arsenic	82.15	ug/L		0.23	10	
09100630-57	CCS4	Water Table	10/6/2009	Arsenic	19.51	ug/L		0.23	10	
10022316-27	CCS4	Water Table	2/23/2010	Arsenic	12.89	ug/L		0.23	10	
09100630-59	CCS5	Water Table	10/6/2009	Arsenic	22.96	ug/L		0.23	10	
10042116-73	CCS5	Water Table	4/21/2010	Arsenic	15.48	ug/L		0.23	10	
09091516-36	MW-10	Water Table	9/15/2009	Arsenic	68.78	ug/L		0.23	10	
10022516-30	MW-10	Water Table	2/25/2010	Arsenic	54.55	ug/L		0.23	10	
09100116-50	MW-11	Water Table	10/1/2009	Arsenic	55.06	ug/L		0.23	10	
10022516-31	MW-11	Water Table	2/25/2010	Arsenic	41.34	ug/L		0.23	10	
09091416-34	MW-7	Water Table	9/14/2009	Arsenic	64.14	ug/L		0.23	10	
10041516-65	MW-7	Water Table	4/15/2010	Arsenic	45.64	ug/L		0.23	10	
09100116-51	MW-9	Water Table	10/1/2009	Arsenic	41.4	ug/L		0.23	10	
10041516-66	MW-9	Water Table	4/15/2010	Arsenic	29.32	ug/L		0.23	10	

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
09102616-75	C-00311	Mid-Hawthorn	10/26/2009	Chloride	455	mg/L		4		250
10040630-54	C-00311	Mid-Hawthorn	4/6/2010	Chloride	525	mg/L		1		250
09102831-78	C-00974	Mid-Hawthorn	10/28/2009	Chloride	2480	mg/L		10		250
10040730-57	C-00974	Mid-Hawthorn	4/7/2010	Chloride	1839	mg/L		100		250
09092816-48	C-01077	Sandstone	9/28/2009	Chloride	647	mg/L		2		250
10041316-60	C-01077	Sandstone	4/13/2010	Chloride	299	mg/L		4		250
10020916-10	CCN11	Water Table	2/9/2010	Chloride	541	mg/L		4		250
10020816-09	CCN2	Water Table	2/8/2010	Chloride	251.3	mg/L		4		250
09092116-41	CCN4	Water Table	9/21/2009	Chloride	491	mg/L		4		250
10021016-12	CCN4	Water Table	2/10/2010	Chloride	787.9	mg/L		4		250
10021016-13	CCN5	Water Table	2/10/2010	Chloride	266.1	mg/L		4		250
10021116-16	CCN6	Water Table	2/11/2010	Chloride	267.1	mg/L		4		250
09080416-02	CCN8	Water Table	8/4/2009	Chloride	324	mg/L		2		250
10020416-04	CCN8	Water Table	2/4/2010	Chloride	432.1	mg/L		4		250
10020316-02	CCS20	Water Table	2/3/2010	Chloride	324.5	mg/L		4		250
09100630-59	CCS5	Water Table	10/6/2009	Chloride	265	mg/L		1		250
10042116-73	CCS5	Water Table	4/21/2010	Chloride	251	mg/L		4		250
09100630-58	CCS6	Water Table	10/6/2009	Chloride	402	mg/L		4		250
09091516-36	MW-10	Water Table	9/15/2009	Chloride	642	mg/L		4		250
10022516-30	MW-10	Water Table	2/25/2010	Chloride	576	mg/L		1		250
09100116-50	MW-11	Water Table	10/1/2009	Chloride	461	mg/L		4		250
10022516-31	MW-11	Water Table	2/25/2010	Chloride	496	mg/L		1		250
09090816-29	MW-4	Water Table	9/8/2009	Chloride	762	mg/L		1		250
10033016-50	MW-4	Water Table	3/30/2010	Chloride	320	mg/L		10		250
09091416-34	MW-7	Water Table	9/14/2009	Chloride	449	mg/L		4		250
10041516-65	MW-7	Water Table	4/15/2010	Chloride	356	mg/L		20		250
09091416-33	PBI3	Water Table	9/14/2009	Chloride	301	mg/L		1		250

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
10041516-64	PBI3	Water Table	4/15/2010	Chloride	254	mg/L		20		250
09081816-13	PBI6	Water Table	8/18/2009	Chloride	491	mg/L		2		250
09100116-50	MW-11	Water Table	10/01/2009	Coliform Fecal	1	cfu/100ml		1	0	
09100116-51	MW-9	Water Table	10/01/2009	Coliform Fecal	1	cfu/100ml		1	0	
09100116-52	CCS3	Water Table	10/01/2009	Coliform Fecal	15	cfu/100ml	B	1	0	
09100530-54	CCS18	Water Table	10/05/2009	Coliform Fecal	7	cfu/100ml	B	1	0	
09081816-15	CCN11	Water Table	08/18/2009	Coliform Total	5	cfu/100ml	B	1	0	
09083116-17	C-01003	Lower Tamiami	08/31/2009	Coliform Total	31	cfu/100ml		1	0	
09090816-29	MW-4	Water Table	09/08/2009	Coliform Total	75	cfu/100ml		1	0	
09100116-51	MW-9	Water Table	10/01/2009	Coliform Total	280	cfu/100ml	B	1	0	
09100116-52	CCS3	Water Table	10/01/2009	Coliform Total	70	cfu/100ml		1	0	
09100530-54	CCS18	Water Table	10/05/2009	Coliform Total	25	cfu/100ml		1	0	
09102116-73	CCS19	Water Table	10/21/2009	Coliform Total	1	cfu/100ml	B	1	0	
09111631-01	3461 Wilson Blvd N	Lower Tamiami	11/16/2009	Coliform Total	1	cfu/100ml	B	1	0	
10041916-67	GGW-1D	Lower Tamiami	04/19/2010	Coliform Total	16	cfu/100ml	B	1	0	

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
10041916-68	GGW-1S	Water Table	04/19/2010	Coliform Total	11	cfu/100ml	B	1	0	
09102616-75	C-00311	Mid-Hawthorn	10/26/2009	Iron	310	ug/L	I	100		300
09091616-37	C-00495	Water Table	9/16/2009	Iron	6400	ug/L		100		300
10041216-59	C-00495	Water Table	4/12/2010	Iron	4870	ug/L		20		300
09100816-60	C-00966	Water Table	10/8/2009	Iron	2380	ug/L		100		300
10032416-48	C-00966	Water Table	3/24/2010	Iron	5330	ug/L		20		300
09101916-68	C-00984	Water Table	10/19/2009	Iron	2730	ug/L		100		300
10032416-46	C-00984	Water Table	3/24/2010	Iron	7080	ug/L		20		300
10042616-74	C-00986	Water Table	4/26/2010	Iron	326	ug/L		20		300
10041216-58	C-00995	Water Table	4/12/2010	Iron	347	ug/L		20		300
09101416-66	C-00996	Water Table	10/14/2009	Iron	2270	ug/L		100		300
10042716-76	C-00996	Water Table	4/27/2010	Iron	2340	ug/L		20		300
09083116-17	C-01003	Lower Tamiami	8/31/2009	Iron	2420	ug/L		100		300
10021716-23	C-01003	Lower Tamiami	2/17/2010	Iron	2250	ug/L		20		300
09092416-47	C-01055	Water Table	9/24/2009	Iron	4530	ug/L		100		300
10021616-20	C-01055	Water Table	2/16/2010	Iron	4390	ug/L		20		300
09081216-09	C-01059	Water Table	8/12/2009	Iron	6360	ug/L		100		300
10021016-15	C-01059	Water Table	2/10/2010	Iron	6000	ug/L		20		300
09083116-18	C-01061	Water Table	8/31/2009	Iron	990	ug/L		100		300
10020416-05	C-01061	Water Table	2/4/2010	Iron	664	ug/L		20		300
09102616-74	C-01078	Water Table	10/26/2009	Iron	2080	ug/L		100		300
10040530-53	C-01078	Water Table	4/5/2010	Iron	1860	ug/L		20		300
09091716-39	C-01097	Water Table	9/17/2009	Iron	3860	ug/L		100		300
10030116-34	C-01097	Water Table	3/1/2010	Iron	3390	ug/L		20		300
09081216-06	CCN1	Water Table	8/12/2009	Iron	9020	ug/L		100		300
09081316-10	CCN10	Water Table	8/13/2009	Iron	1020	ug/L		100		300

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
10021116-17	CCN10	Water Table	2/11/2010	Iron	1170	ug/L		20		300
09081816-15	CCN11	Water Table	8/18/2009	Iron	1950	ug/L		100		300
10020916-10	CCN11	Water Table	2/9/2010	Iron	4050	ug/L		20		300
09081216-08	CCN2	Water Table	8/12/2009	Iron	340	ug/L	l	100		300
09092116-43	CCN5	Water Table	9/21/2009	Iron	9900	ug/L		200		300
10021016-13	CCN5	Water Table	2/10/2010	Iron	7770	ug/L		20		300
09091716-40	CCN6	Water Table	9/17/2009	Iron	420	ug/L	l	100		300
10021116-16	CCN6	Water Table	2/11/2010	Iron	539	ug/L		20		300
09080416-02	CCN8	Water Table	8/4/2009	Iron	4820	ug/L		100		300
10020416-04	CCN8	Water Table	2/4/2010	Iron	4730	ug/L		20		300
09082616-16	CCS1	Water Table	8/26/2009	Iron	880	ug/L		100		300
10021616-22	CCS1	Water Table	2/16/2010	Iron	2760	ug/L		20		300
09100530-55	CCS15	Water Table	10/5/2009	Iron	8400	ug/L		100		300
10030316-36	CCS15	Water Table	3/3/2010	Iron	6390	ug/L		20		300
09081116-05	CCS16	Water Table	8/11/2009	Iron	1590	ug/L		100		300
10020916-11	CCS16	Water Table	2/9/2010	Iron	1560	ug/L		20		300
09081116-04	CCS17	Water Table	8/11/2009	Iron	2080	ug/L		100		300
10020316-01	CCS17	Water Table	2/3/2010	Iron	1270	ug/L		20		300
09100530-54	CCS18	Water Table	10/5/2009	Iron	3240	ug/L		100		300
10031616-43	CCS18	Water Table	3/16/2010	Iron	3070	ug/L		20		300
09102116-73	CCS19	Water Table	10/21/2009	Iron	470	ug/L	l	100		300
09092316-46	CCS2	Water Table	9/23/2009	Iron	8900	ug/L		200		300
10041416-62	CCS2	Water Table	4/14/2010	Iron	9340	ug/L		20		300
09081316-12	CCS20	Water Table	8/13/2009	Iron	1080	ug/L		100		300
10020316-02	CCS20	Water Table	2/3/2010	Iron	6980	ug/L		20		300
09100116-52	CCS3	Water Table	10/1/2009	Iron	380	ug/L	l	100		300
10041416-61	CCS3	Water Table	4/14/2010	Iron	335	ug/L		20		300

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
09101316-64	GGW-1D	Lower Tamiami	10/13/2009	Iron	6660	ug/L		200		300
10041916-67	GGW-1D	Lower Tamiami	4/19/2010	Iron	3690	ug/L		20		300
09101316-65	GGW-1S	Water Table	10/13/2009	Iron	2640	ug/L		100		300
10041916-68	GGW-1S	Water Table	4/19/2010	Iron	1980	ug/L		20		300
10042816-78	MW-1	Water Table	4/28/2010	Iron	2360	ug/L		20		300
09092316-44	MW-2	Water Table	9/23/2009	Iron	370	ug/L	I	100		300
10030416-39	MW-2	Water Table	3/4/2010	Iron	886	ug/L		20		300
10033016-50	MW-4	Water Table	3/30/2010	Iron	823	ug/L		20		300
09091416-34	MW-7	Water Table	9/14/2009	Iron	3590	ug/L		100		300
10041516-65	MW-7	Water Table	4/15/2010	Iron	2480	ug/L		20		300
09090316-24	PBI5	Water Table	9/3/2009	Iron	4980	ug/L		100		300
10030416-37	PBI5	Water Table	3/4/2010	Iron	10700	ug/L		20		300
09102016-71	GGW-4S	Water Table	10/20/2009	Iron	1830	ug/L		100		300
10042016-71	GGW-4S	Water Table	4/20/2010	Iron	784	ug/L		20		300
10031616-40	C-00977	Lower Tamiami	3/16/2010	Lead	21.59	ug/L		0.06	15	
09101916-68	C-00984	Water Table	10/19/2009	Lead	17.68	ug/L		0.06	15	
09083116-17	C-01003	Lower Tamiami	8/31/2009	Lead	30.58	ug/L		0.06	15	
09091616-37	C-00495	Water Table	9/16/2009	Manganese	64.28	ug/L		0.12		50
09081216-06	CCN1	Water Table	8/12/2009	Manganese	326	ug/L		0.6		50
09081816-15	CCN11	Water Table	8/18/2009	Manganese	385	ug/L		0.6		50
10020916-10	CCN11	Water Table	2/9/2010	Manganese	705.9	ug/L		1.2		50
09092116-43	CCN5	Water Table	9/21/2009	Manganese	5693	ug/L		12		50
10021016-13	CCN5	Water Table	2/10/2010	Manganese	4900	ug/L		12		50
10020416-04	CCN8	Water Table	2/4/2010	Manganese	63.89	ug/L		0.12		50
09100530-55	CCS15	Water Table	10/5/2009	Manganese	158	ug/L		0.24		50
10030316-36	CCS15	Water Table	3/3/2010	Manganese	99.07	ug/L		0.12		50
09081116-04	CCS17	Water Table	8/11/2009	Manganese	51.28	ug/L		0.12		50

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Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
10020316-01	CCS17	Water Table	2/3/2010	Manganese	60.5	ug/L		0.12		50
09100530-54	CCS18	Water Table	10/5/2009	Manganese	60.76	ug/L		0.12		50
10031616-43	CCS18	Water Table	3/16/2010	Manganese	55.12	ug/L		0.12		50
09092316-46	CCS2	Water Table	9/23/2009	Manganese	1045	ug/L		1.2		50
10041416-62	CCS2	Water Table	4/14/2010	Manganese	843.8	ug/L		1.2		50
09081316-12	CCS20	Water Table	8/13/2009	Manganese	449	ug/L		0.6		50
10020316-02	CCS20	Water Table	2/3/2010	Manganese	1146	ug/L		2.4		50
09101316-65	GGW-1S	Water Table	10/13/2009	Manganese	61.92	ug/L		0.12		50
09092316-46	CCS2	Water Table	9/23/2009	Nitrate-Nitrite (N)	17.372	mg/L		0.8	10	
09111631-03	470 35th Ave NE	Lower Tamiami	11/16/2009	Residues-Filterable (TDS)	4346	mg/L		2		500
09102616-75	C-00311	Mid-Hawthorn	10/26/2009	Residues-Filterable (TDS)	1246	mg/L		2		500
10040630-54	C-00311	Mid-Hawthorn	4/6/2010	Residues-Filterable (TDS)	1317	mg/L		2		500
09090116-20	C-00684	Mid-Hawthorn	9/1/2009	Residues-Filterable (TDS)	2416	mg/L		2		500
10032316-45	C-00684	Mid-Hawthorn	3/23/2010	Residues-Filterable (TDS)	2457	mg/L		2		500
09102831-78	C-00974	Mid-Hawthorn	10/28/2009	Residues-Filterable (TDS)	4248	mg/L		2		500
10040730-57	C-00974	Mid-Hawthorn	4/7/2010	Residues-	4520	mg/L		2		500

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Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
				Filterable (TDS)						
10031616-41	C-00976	Water Table	3/16/2010	Residues-Filterable (TDS)	540	mg/L		2		500
09101216-62	C-00977	Lower Tamiami	10/12/2009	Residues-Filterable (TDS)	652	mg/L		2		500
10031616-40	C-00977	Lower Tamiami	3/16/2010	Residues-Filterable (TDS)	727	mg/L		2		500
10032416-46	C-00984	Water Table	3/24/2010	Residues-Filterable (TDS)	507	mg/L		2		500
09090216-23	C-00989	Sandstone	9/2/2009	Residues-Filterable (TDS)	790	mg/L		2		500
10022416-29	C-00989	Sandstone	2/24/2010	Residues-Filterable (TDS)	860	mg/L		2		500
10042716-76	C-00996	Water Table	4/27/2010	Residues-Filterable (TDS)	595	mg/L		2		500
09092416-47	C-01055	Water Table	9/24/2009	Residues-Filterable (TDS)	622	mg/L		2		500
10021616-20	C-01055	Water Table	2/16/2010	Residues-Filterable (TDS)	575	mg/L		2		500

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
09102116-72	C-01058	Lower Tamiami	10/21/2009	Residues-Filterable (TDS)	776	mg/L		2		500
10021616-19	C-01058	Lower Tamiami	2/16/2010	Residues-Filterable (TDS)	699	mg/L		2		500
10021016-15	C-01059	Water Table	2/10/2010	Residues-Filterable (TDS)	1948	mg/L		2		500
09092816-48	C-01077	Sandstone	9/28/2009	Residues-Filterable (TDS)	882	mg/L		2		500
09081316-10	CCN10	Water Table	8/13/2009	Residues-Filterable (TDS)	636	mg/L		2		500
10021116-17	CCN10	Water Table	2/11/2010	Residues-Filterable (TDS)	1491	mg/L		2		500
09081816-15	CCN11	Water Table	8/18/2009	Residues-Filterable (TDS)	986	mg/L		2		500
10020916-10	CCN11	Water Table	2/9/2010	Residues-Filterable (TDS)	3353	mg/L		2		500
09081216-08	CCN2	Water Table	8/12/2009	Residues-Filterable (TDS)	612	mg/L		2		500
10020816-09	CCN2	Water Table	2/8/2010	Residues-Filterable	724	mg/L		2		500

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Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
				(TDS)						
09081316-11	CCN3	Water Table	8/13/2009	Residues-Filterable (TDS)	548	mg/L		2		500
10020816-08	CCN3	Water Table	2/8/2010	Residues-Filterable (TDS)	568	mg/L		2		500
09092116-41	CCN4	Water Table	9/21/2009	Residues-Filterable (TDS)	1380	mg/L		2		500
10021016-12	CCN4	Water Table	2/10/2010	Residues-Filterable (TDS)	4188	mg/L		2		500
09092116-43	CCN5	Water Table	9/21/2009	Residues-Filterable (TDS)	1020	mg/L		2		500
10021016-13	CCN5	Water Table	2/10/2010	Residues-Filterable (TDS)	2282	mg/L		2		500
09091716-40	CCN6	Water Table	9/17/2009	Residues-Filterable (TDS)	824	mg/L		2		500
10021116-16	CCN6	Water Table	2/11/2010	Residues-Filterable (TDS)	3453	mg/L		2		500
09080416-02	CCN8	Water Table	8/4/2009	Residues-Filterable (TDS)	1028	mg/L		2		500
10020416-04	CCN8	Water Table	2/4/2010	Residues-	1136	mg/L		2		500

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Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
				Filterable (TDS)						
09100530-55	CCS15	Water Table	10/5/2009	Residues-Filterable (TDS)	588	mg/L		2		500
10030316-36	CCS15	Water Table	3/3/2010	Residues-Filterable (TDS)	674	mg/L		2		500
09081116-05	CCS16	Water Table	8/11/2009	Residues-Filterable (TDS)	624	mg/L		2		500
10020916-11	CCS16	Water Table	2/9/2010	Residues-Filterable (TDS)	1506	mg/L		2		500
10020316-01	CCS17	Water Table	2/3/2010	Residues-Filterable (TDS)	740	mg/L	J	2		500
10031616-43	CCS18	Water Table	3/16/2010	Residues-Filterable (TDS)	583	mg/L		2		500
09092316-46	CCS2	Water Table	9/23/2009	Residues-Filterable (TDS)	1712	mg/L		2		500
10041416-62	CCS2	Water Table	4/14/2010	Residues-Filterable (TDS)	1522	mg/L		2		500
09081316-12	CCS20	Water Table	8/13/2009	Residues-Filterable (TDS)	880	mg/L		2		500

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Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
10020316-02	CCS20	Water Table	2/3/2010	Residues-Filterable (TDS)	1154	mg/L		2		500
09100116-52	CCS3	Water Table	10/1/2009	Residues-Filterable (TDS)	670	mg/L		2		500
10041416-61	CCS3	Water Table	4/14/2010	Residues-Filterable (TDS)	617	mg/L		2		500
09100630-57	CCS4	Water Table	10/6/2009	Residues-Filterable (TDS)	650	mg/L		2		500
10022316-27	CCS4	Water Table	2/23/2010	Residues-Filterable (TDS)	793	mg/L		2		500
09100630-59	CCS5	Water Table	10/6/2009	Residues-Filterable (TDS)	1006	mg/L		2		500
10042116-73	CCS5	Water Table	4/21/2010	Residues-Filterable (TDS)	1021	mg/L		2		500
09100630-58	CCS6	Water Table	10/6/2009	Residues-Filterable (TDS)	1576	mg/L		2		500
10042116-72	CCS6	Water Table	4/21/2010	Residues-Filterable (TDS)	1117	mg/L		2		500
09101316-64	GGW-1D	Lower Tamiami	10/13/2009	Residues-Filterable	536	mg/L		2		500

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Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
				(TDS)						
09101316-65	GGW-1S	Water Table	10/13/2009	Residues-Filterable (TDS)	550	mg/L		2		500
10041916-68	GGW-1S	Water Table	4/19/2010	Residues-Filterable (TDS)	508	mg/L		2		500
09091516-36	MW-10	Water Table	9/15/2009	Residues-Filterable (TDS)	1726	mg/L		2		500
10022516-30	MW-10	Water Table	2/25/2010	Residues-Filterable (TDS)	1538	mg/L		2		500
09100116-50	MW-11	Water Table	10/1/2009	Residues-Filterable (TDS)	1356	mg/L		2		500
10022516-31	MW-11	Water Table	2/25/2010	Residues-Filterable (TDS)	1452	mg/L		2		500
09092316-44	MW-2	Water Table	9/23/2009	Residues-Filterable (TDS)	748	mg/L		2		500
09090816-29	MW-4	Water Table	9/8/2009	Residues-Filterable (TDS)	1102	mg/L		2		500
10033016-50	MW-4	Water Table	3/30/2010	Residues-Filterable (TDS)	1051	mg/L		2		500
09091416-34	MW-7	Water Table	9/14/2009	Residues-	1228	mg/L		2		500

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
				Filterable (TDS)						
10041516-65	MW-7	Water Table	4/15/2010	Residues-Filterable (TDS)	1058	mg/L		2		500
09100116-51	MW-9	Water Table	10/1/2009	Residues-Filterable (TDS)	854	mg/L		2		500
10041516-66	MW-9	Water Table	4/15/2010	Residues-Filterable (TDS)	753	mg/L		2		500
10021116-18	PBI1	Water Table	2/11/2010	Residues-Filterable (TDS)	1724	mg/L		2		500
09091416-33	PBI3	Water Table	9/14/2009	Residues-Filterable (TDS)	780	mg/L		2		500
10041516-64	PBI3	Water Table	4/15/2010	Residues-Filterable (TDS)	790	mg/L		2		500
09091416-31	PBI4	Water Table	9/14/2009	Residues-Filterable (TDS)	502	mg/L		2		500
09091416-32	PBI4	Water Table	9/14/2009	Residues-Filterable (TDS)	504	mg/L		2		500
10030416-38	PBI4	Water Table	3/4/2010	Residues-Filterable (TDS)	580	mg/L		2		500

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
09090316-24	PBI5	Water Table	9/3/2009	Residues-Filterable (TDS)	670	mg/L		2		500
10030416-37	PBI5	Water Table	3/4/2010	Residues-Filterable (TDS)	670	mg/L		2		500
09081816-13	PBI6	Water Table	8/18/2009	Residues-Filterable (TDS)	1472	mg/L		2		500
10021716-24	PBI6	Water Table	2/17/2010	Residues-Filterable (TDS)	1467	mg/L		2		500
09090816-27	PBI7	Water Table	9/8/2009	Residues-Filterable (TDS)	606	mg/L		2		500
10022316-26	PBI7	Water Table	2/23/2010	Residues-Filterable (TDS)	625	mg/L		2		500
09102616-75	C-00311	Mid-Hawthorn	10/26/2009	Sodium	573	mg/L	I	170	160	
09090116-20	C-00684	Mid-Hawthorn	9/1/2009	Sodium	350	mg/L		1.7	160	
09102831-78	C-00974	Mid-Hawthorn	10/28/2009	Sodium	1400	mg/L		170	160	
09090216-23	C-00989	Sandstone	9/2/2009	Sodium	242	mg/L		1.7	160	
09081816-15	CCN11	Water Table	8/18/2009	Sodium	228	mg/L		1.7	160	
09081216-08	CCN2	Water Table	8/12/2009	Sodium	192	mg/L	I	68	160	
09092116-41	CCN4	Water Table	9/21/2009	Sodium	394	mg/L	J	1.7	160	
09080416-02	CCN8	Water Table	8/4/2009	Sodium	202	mg/L		1.7	160	
09081316-12	CCS20	Water Table	8/13/2009	Sodium	172.8	mg/L	I	68	160	
09100116-52	CCS3	Water Table	10/1/2009	Sodium	162.4	mg/L	I	68	160	
09100630-59	CCS5	Water Table	10/6/2009	Sodium	179.2	mg/L	I	68	160	

APPENDIX D--FY 10 EXCEEDANCES

Client Sample ID	Station ID	Aquifer	Date Collected	Analyte Name	Result	Result Units	Lab Qualifiers (FAC 62-160)	Detection Limit	FAC 62-550 Primary Drinking Water Standard	FAC 62-550 Secondary Drinking Water Standard
09100630-58	CCS6	Water Table	10/6/2009	Sodium	242	mg/L	I	68	160	
09091516-36	MW-10	Water Table	9/15/2009	Sodium	522	mg/L		1.7	160	
09100116-50	MW-11	Water Table	10/1/2009	Sodium	187.2	mg/L	I	68	160	
09090816-29	MW-4	Water Table	9/8/2009	Sodium	196.8	mg/L	I	68	160	
09091416-34	MW-7	Water Table	9/14/2009	Sodium	218	mg/L		1.7	160	
09091416-33	PBI3	Water Table	9/14/2009	Sodium	212	mg/L		1.7	160	
09081816-13	PBI6	Water Table	8/18/2009	Sodium	276	mg/L		1.7	160	
09102616-75	C-00311	Mid-Hawthorn	10/26/2009	Sulfate	380	mg/L		20		250
09090116-20	C-00684	Mid-Hawthorn	9/1/2009	Sulfate	945	mg/L		50		250
10032316-45	C-00684	Mid-Hawthorn	3/23/2010	Sulfate	1600	mg/L		100		250
10040730-57	C-00974	Mid-Hawthorn	4/7/2010	Sulfate	394	mg/L		10		250
09092316-46	CCS2	Water Table	9/23/2009	Sulfate	542	mg/L		20		250
10041416-62	CCS2	Water Table	4/14/2010	Sulfate	452	mg/L		20		250
09081316-12	CCS20	Water Table	8/13/2009	Sulfate	282	mg/L		20		250
10020316-02	CCS20	Water Table	2/3/2010	Sulfate	261	mg/L		1		250
10022516-31	MW-11	Water Table	2/25/2010	Sulfate	267	mg/L		10		250
09081816-13	PBI6	Water Table	8/18/2009	Sulfate	465	mg/L		50		250
10021716-24	PBI6	Water Table	2/17/2010	Sulfate	322	mg/L		20		250