# Canals in South Florida: A Technical Support Document

## Appendix D

## Summaries of Macroinvertebrate Studies

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**Canal Science Inventory**

**Overview and Preliminary Analysis**

**FDEP Bioassessment Program – Stream Macroinvertebrate Data**

**John Maxted**

**January 5, 2010**

The Florida Department of Environmental Protection (FDEP) established its current Bioassessment Program for stream macroinvertebrates in the early 1990s[1]. Standard protocols have been developed for sample collection, processing, and reporting macroinvertebrate data. The database includes a total of 2313 unique sites, some sampled annually for trends, and including 53 minimally disturbed reference sites covering most of the state down to Lake Okeechobee. The state has been divided into 13 ecoregions with similar climatic and physiographic (topography, geology) characteristics using U.S. Environmental Protection Agency (USEPA) methods (Omernik 1987) (**Figure D-1**). The reference site data were used to lump ecoregions into 3 bioregions with similar macroinvertebrate communities (Fore et al. 2007) (**Figure D-1**). Quality thresholds for 10 macroinvertebrate metrics and the combined Stream Condition Index (SCI) have been established by the FDEP. SCI thresholds have not been developed for the Everglades bioregion in the extreme southern portion of the state (south of Lake Okeechobee) due to the lack of reference stream sites in this area dominated by wetlands and canals.

Since 1993, FDEP has sampled 156 canal sites in the southern portion of the peninsula bioregion and within the Everglades bioregions (**Figure D-2**). Although there are no SCI thresholds for the Everglades bioregion, the data are useful for quantifying living resource condition. Other studies have documented macroinvertebrate communities in canals of South Florida using these protocols (Snyder et al. 1998, FDEP 2001, DeBusk and Grace 2009a, DeBusk and Grace 2009b). This document includes two analyses: (1) overview of the FDEP data on 156 canals in South Florida, and (2) assessment of the southernmost stream reference sites for development of thresholds for low gradient streams and canals.

<u>Canals in South Florida</u>

Macroinvertebrate, habitat, and water quality data have been collected for 156 canal sites since 1993 (**Figure D-2**). The sites were identified using the following criteria:

- area south of latitude 81° 18” N (approximately Orlando), including the southern portion of the peninsula bioregion and the entire Everglades bioregion
- engineered channels (natural channels not included)
- knowledge of the site and/or “canal” in the site nickname
- at least one macroinvertebrate sample

[1] http://www.dep.state.fl.us/water/bioassess/currproj.htm#Streams

There were 140 canals located in the peninsula bioregion and 16 canals in the Everglades bioregion (**Table D-1**). Macroinvertebrate metrics included 10 used to calculate SCI scores: number of total taxa, number of Ephemeroptera taxa, number of Trichoptera taxa, percent filterers, number of long-lived taxa, number of clinger taxa, percent dominant taxa, percent Tanytarsini taxa, number of sensitive taxa, and percent very tolerant individuals. The database also included three additional metrics (number of Chironomidae taxa, percent Diptera taxa, percent EPT (Ephemeroptera, Plecoptera and Trichoptera] taxa) and the name of the dominant taxon. Habitat data were collected at 93 sites with macroinvertebrate data. There were 14 habitat metrics used to calculate the habitat scores: channelization, substrate availability, substrate diversity, habitat smothering, velocity, bank stability (L+R), riparian zone vegetation (L+R), and riparian zone width (L+R). Water quality data were collected at 42 sites with macroinvertebrate data. Water quality parameters included physicochemical measures at most sites (temperature, DO, conductivity, pH, velocity), nutrients at most sites ($NO_3/NO_2$, TKN, $NH_3$, TOTN, OrthoP, TOTP), primary production measures at most sites (chlorophyll *a*, phaeophytin *a*, algal growth potential), and other measures at a small number of sites (e.g., metals, coliforms, sulfate, turbidity, color, TSS, salinity, hardness).

**Table D-1. Number of sites and metrics where macroinvertebrate, habitat, and water quality data have been collected in canals by FDEP.**

| Measure | # Metrics | # Sites by Bioregion: Peninsula | Everglades |
|---|---|---|---|
| macroinvertebrate | 14 | 140 | 16 |
| habitat | 14 | 95 | 2 |
| macroinvertebrate + habitat | 28 | 93 | 2 |
| water quality * | 60 | 40 | 2 |

*not all WQ parameters reported at all sites

The 156 canal sites across South Florida had a diverse community of macroinvertebrates with a mean total richness of 24.2 (+/- 9.1) taxa, mean Chironomidae richness of 8.2 (+/- 4.8) taxa, and mean EPT richness of 2.1 (+/- 1.7) taxa (**Figure D-3**). There was little difference in mean richness metrics between the two bioregions indicating that canal biota were not affected by their geographic location (**Figure D-3**). The macroinvertebrate community appeared to be affected by habitat quality with a weak but significant correlation between the FDEP SCI and habitat score. Correlations were higher ($r^2 = 0.34$; $n = 22$) using the 1992 SCI and lower ($r^2 = 0.05$; $n = 18$) using the 2007 SCI (**Figure D-4**). Correlations were very weak between richness metrics and habitat quality with $r^2$ values < 0.10 (**Figure D-5**). Further analysis of these data and additional metrics is under development.

Reference Sites in South Florida

Two analyses were completed using data available from FDEP reference stream sites sampled from 1992 through 2006. First, metric values were compared between the eastern (zone 1) and western (zone 2) portions of the peninsula bioregion to assess regional differences within the bioregion. These two zones represent different ecoregions and thus have different physiographic characteristics that may affect the macroinvertebrate community. Only sites in the southern portion of this bioregion were assessed to minimize the effect of latitude and associated climatic effects (**Figure D-6**). The North Fork of the Loxahatchee River (site NFRLOXREF) was identified as an additional reference site suitable for this analysis. Second, the data were plotted over time to identify trends and define inter-annual variability; most sites had one sample per year over the 14-year period of record. There was no change in sample collection or processing methods during this period. Only metrics were assessed for trends; SCI scores were not included because SCI metrics and scoring thresholds have changed over this period.

Mean total richness values were similar between zone 1 and zone 2 (**Figure D-7**, bottom panel) indicating that conditions were similar across this bioregion for this metric. This was not surprising for this broad metric because there are numerous species with a broad range of pollution tolerances. In contrast, mean EPT richness values were different between zones, with zone 1 having fewer EPT taxa (**Figure D-7**, top panel). These differences are likely due to the steeper gradients, higher velocities, and higher dissolved oxygen conditions in zone 2 streams. Most EPT taxa are sensitive to velocity and organic pollution and are the foundation for most stream assessment programs around the world. Variability as measured by standard deviation (+/1 SD) was high for both metrics at all sites (**Figure D-7**).

Downward trends for total richness (**Figure D-8**) and EPT richness (**Figure D-9**) were found at most sites. These trends may be due to climatic conditions rather than anthropogenic stressors because it occurred at several sites over a large geographic area. Hurricanes from 2004 through 2006 may have dropped metric scores due to flushing and scouring. Extremely high flows carry high sediment loads and can move bed material and woody debris that dislodges invertebrates. Many of these perceived trends also had weak regressions ($r^2$ values < 0.15) indicating that they may be due to the high variability in metric values noted above.

These results confirm that that further work is needed before applying SCI quality thresholds to South Florida canals, as indicated by the differences between reference sites within the southern portion of the peninsula bioregion. Further investigation of the effects of gradient and velocity may help to identify biological conditions applicable to canals. Reference sites within the Everglades bioregion are also needed.

Summary Conclusions

- Canals had a diverse community of macroinvertebrates as indicated using three richness metrics. Additional analysis of other metrics is underway.
  - mean total richness 24.2 (+/- 9.1) taxa; n = 156
  - mean Chironomidae richness 8.2 (+/- 4.8) taxa; n = 156
  - mean EPT richness 2.1 (+/- 1.7) taxa; n = 156
- The macroinvertebrate communities in canals were typical of lotic systems with lower gradients, deeper channels, and lower velocities compared to natural streams.
- For canal sites, there were no differences in mean richness metrics between the Everglades and peninsula bioregions, indicating that canal biota were similar across this large geographic area and two bioregions.
- Habitat quality appeared to be an important stressor in canals although variability was high making regressions weak.
- There were inadequate data to assess the effect of water quality on the macroinvertebrate communities in canals because only grab samples were taken on the day of macroinvertebrate sampling.
- For reference stream sites, there were no differences in total richness between sites in the eastern and western zones of the peninsula bioregion. There were substantial differences in EPT richness between the two zones, and they should be investigated further before applying the SCI metrics and thresholds to canals. The differences may be due to differences in gradient, depth and velocity.
- There were downward trends in most metric values at most reference stream sites over a 14-year period (1992-2006), indicating that the trends may be due to climatic events that exerted effects over a large geographic area. The variability in macroinvertebrate metric values at reference sites help explain the variability observed at all stream and canal sites in southern Florida.
- Additional research is needed to select sensitive metrics and quality threshold applicable to low gradient streams and canals within the peninsula and Everglades bioregions.

Acknowledgements

This report was prepared in support of the District's Canal Science Inventory project. The data were collected, processed, and managed by the FDEP Bioassessment Program. Russ Frydenborg provided overall project coordination with FDEP, and Joy Jackson and Elizabeth Miller compiled the data on canals. Rick Householder with the District prepared Figure 2.

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DeBusk, T. and K. Grace. 2009a. Relationships between water column nutrients and macroinvertebrate assemblages in the Reedy Creek Drainage Basin, Central Florida. Prepared by DB Environmental, Inc. and Azurea, Inc., Rockledge FL, July 21, 2009, 49 pp.

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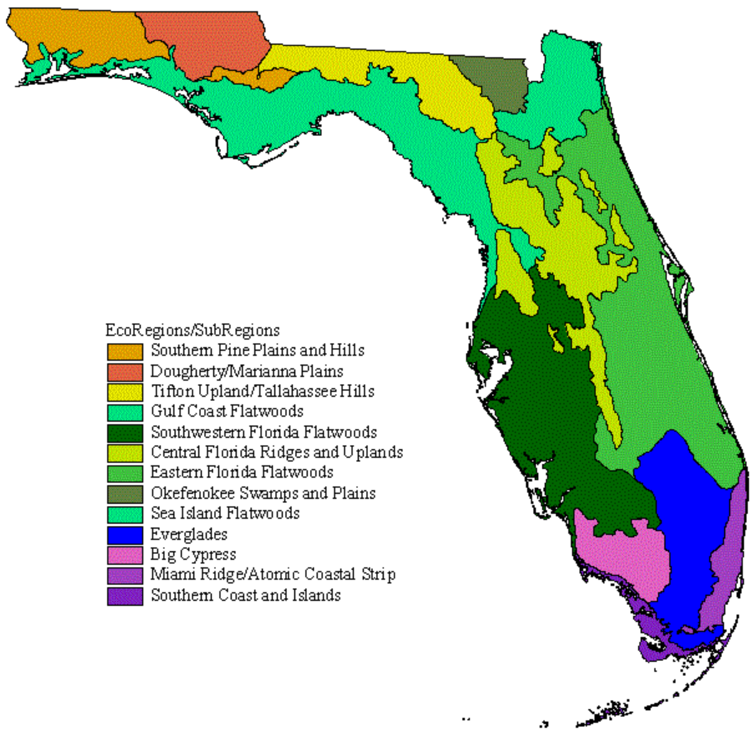


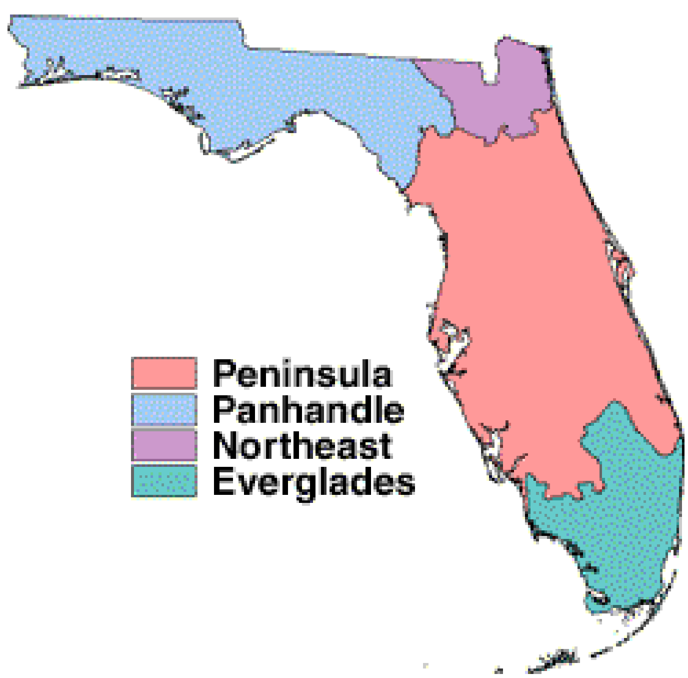


**Figure D-1. Ecoregions (top) and bioregions (bottom) in Florida (FDEP).**

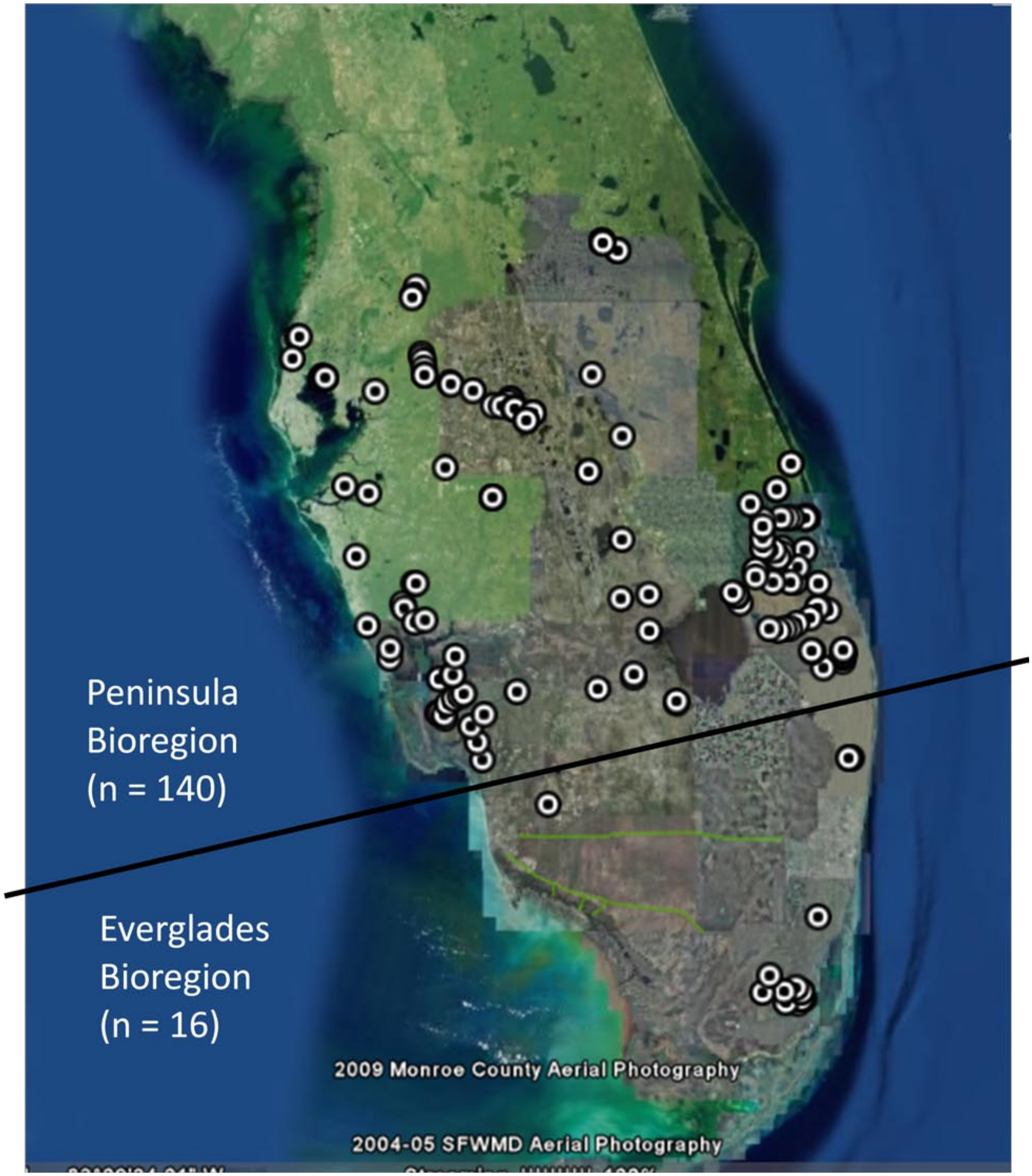


**Figure D-2. Canal sites in two bioregions sampled for macroinvertebrates by FDEP.**

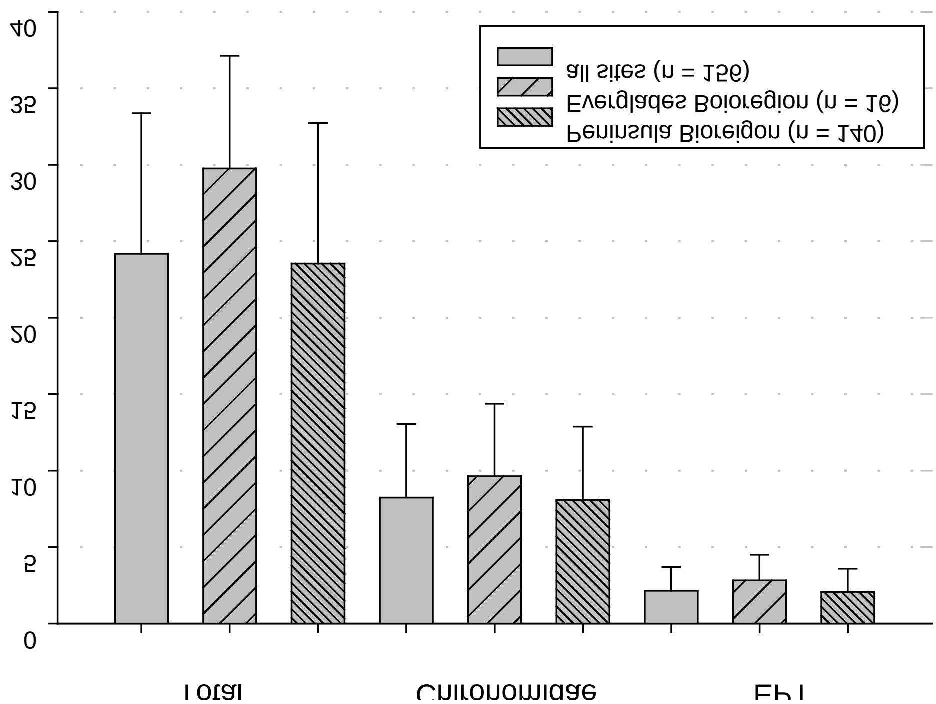


**Figure D-3. Comparison of mean values (+/- 1 standard deviation) for 3 macroinvertebrate richness metrics between canal sites in the peninsula and Everglades bioregions, and for all canal sites combined.**

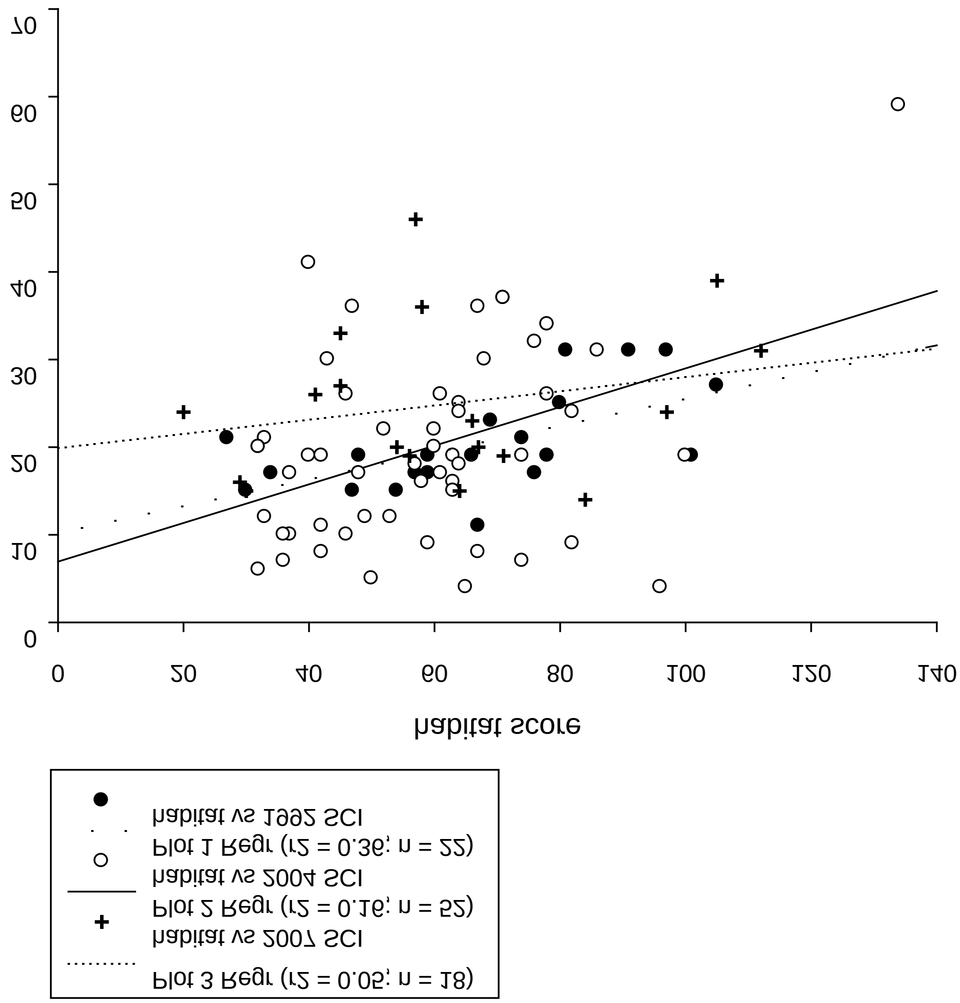


**Figure D-4. Relationship between the macroinvertebrate community, as measured by the FDEP Stream Condtion Index (SCI), and habitat quality in South Florida canal sites; separate regressions provided using the 1992, 2004, and 2007 versions of the index.**

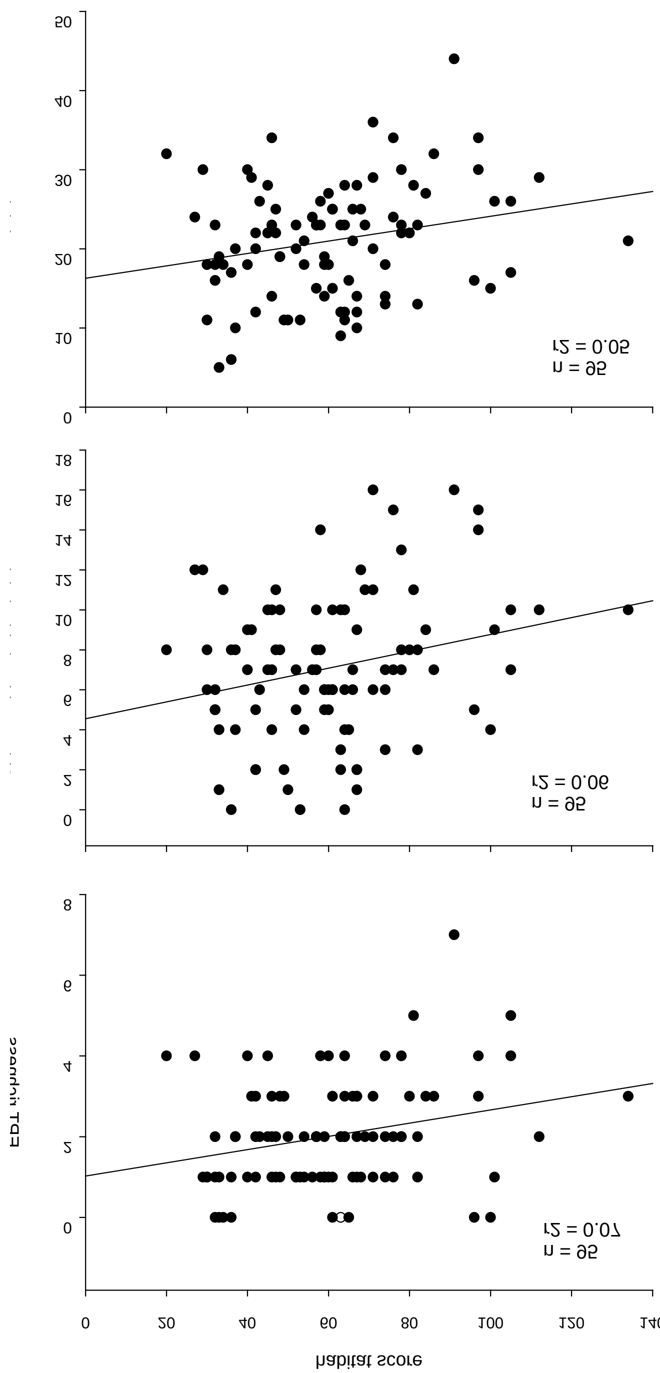

**Figure D-5. Relationship between three macroinvertebrate richness metrics and habitat quality in South Florida canal sites.**

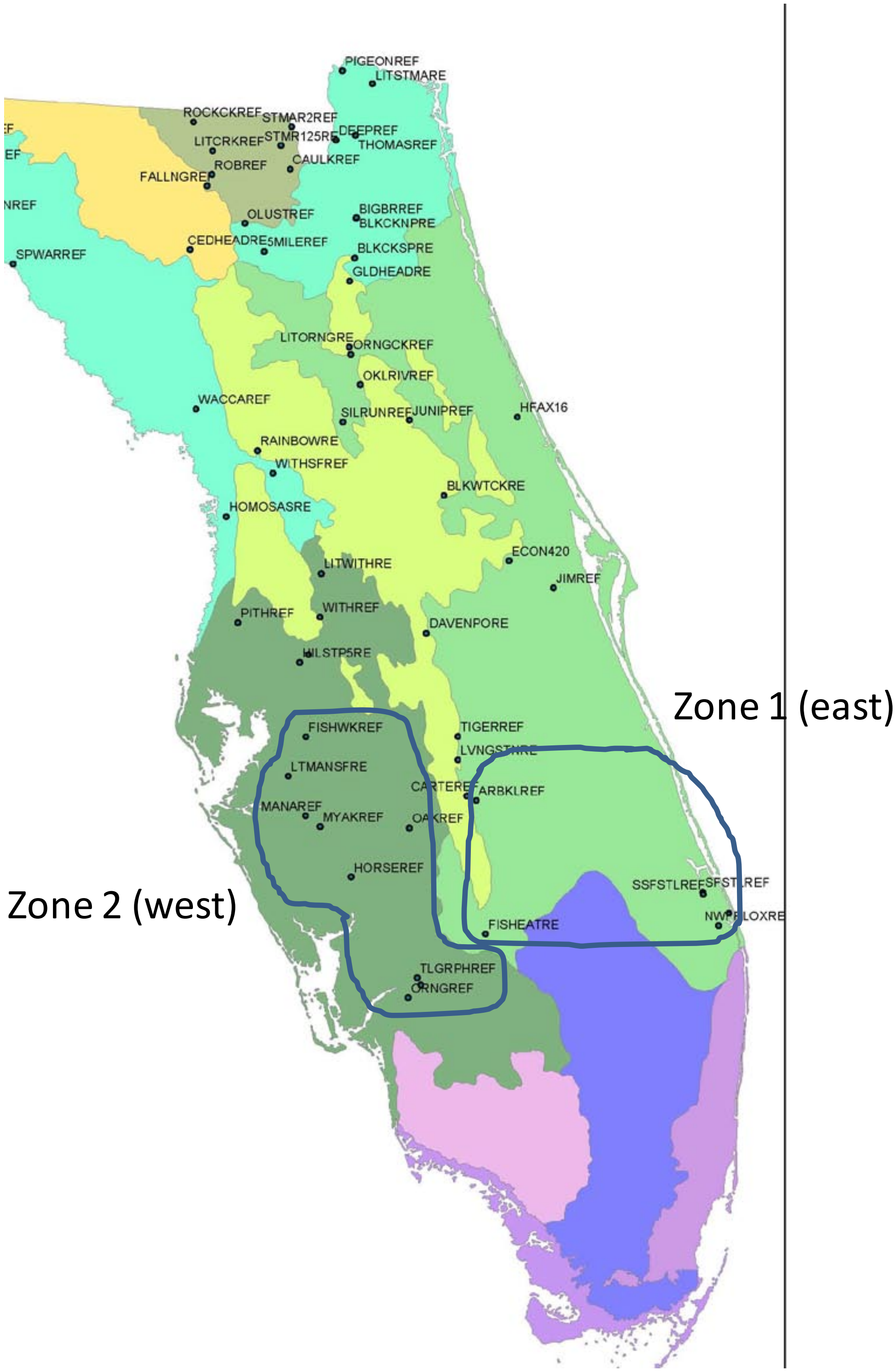


**Figure D-6. FDEP reference sites used to develop the Stream Condition Index showing ecoregions (colors); the three ecoregions for the peninsula bioregion shown in light, medium, and dark green. Zone 1 and zone 2 selected to assess differences in macroinvertebrates within the bioregion. SCI thresholds have not been developed for the region south of Lake Okeechobee (blue and purples) due to the lack of reference sites.**

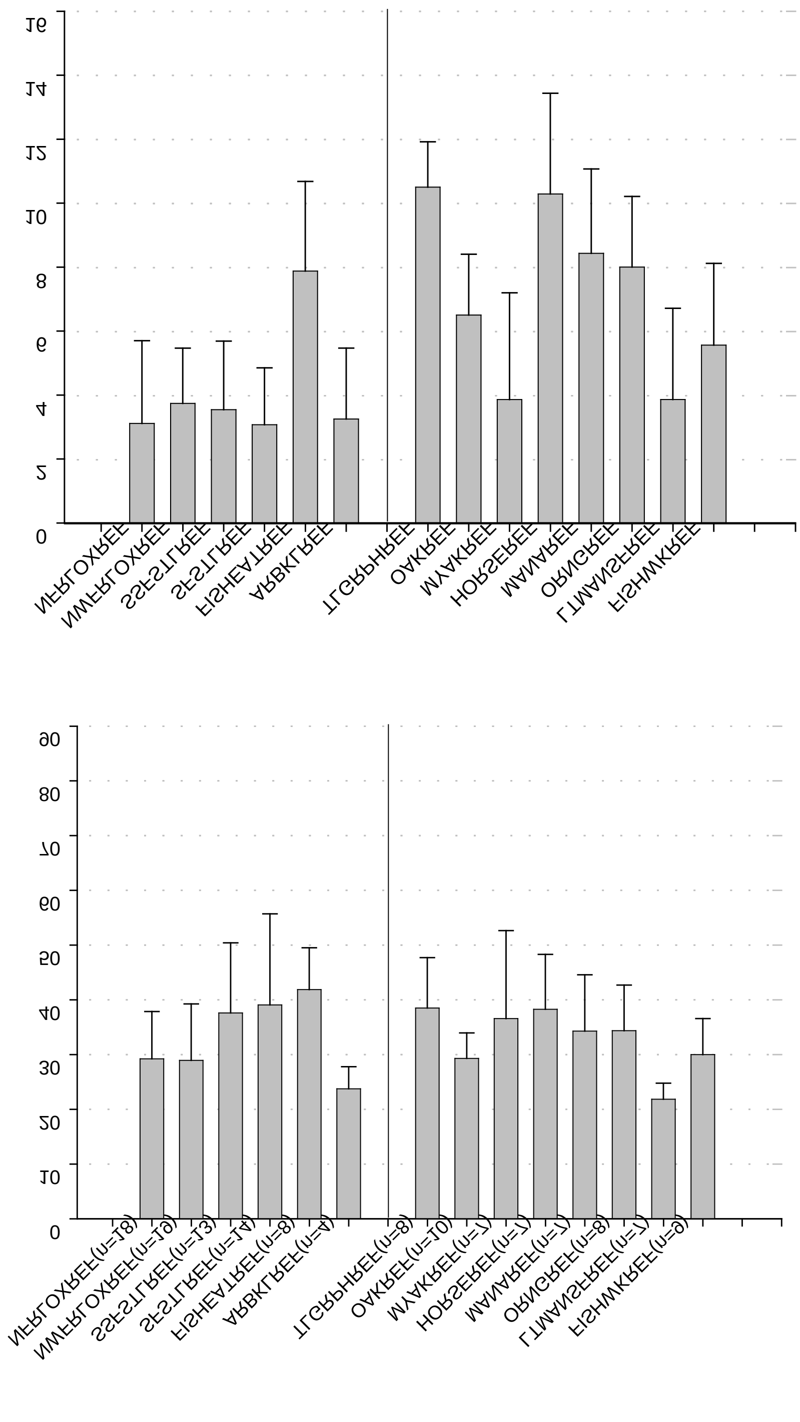

**Figure D-7. Comparison of mean metric values (+/- 1 standard deviation) for total richness and EPT richness between zone 1 and zone 2 of the peninsula bioregion. Sites are stream reference sites in the FDEP database sampled 1992-2006 (see Figure D-6).**

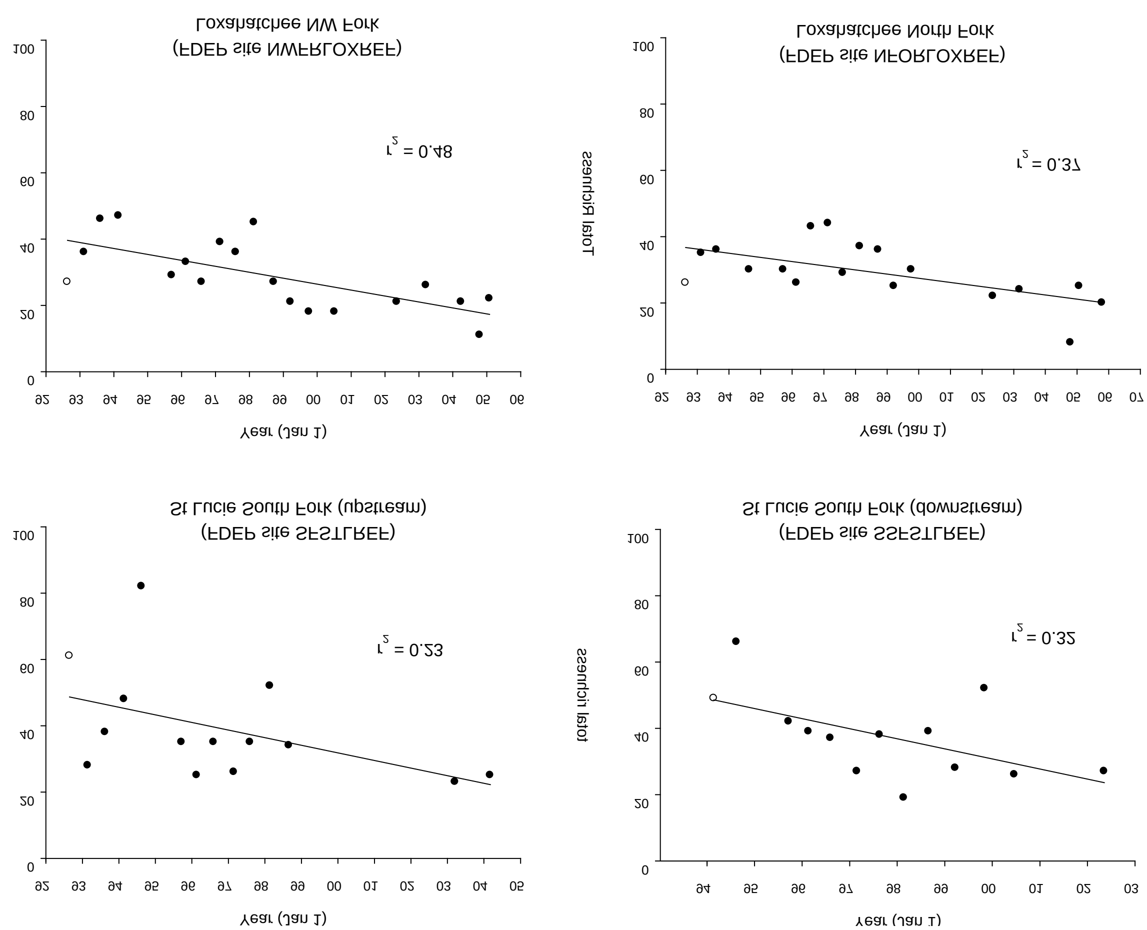


**Figure D-8. Trends in total richness for four sites in zone 1 (east).**

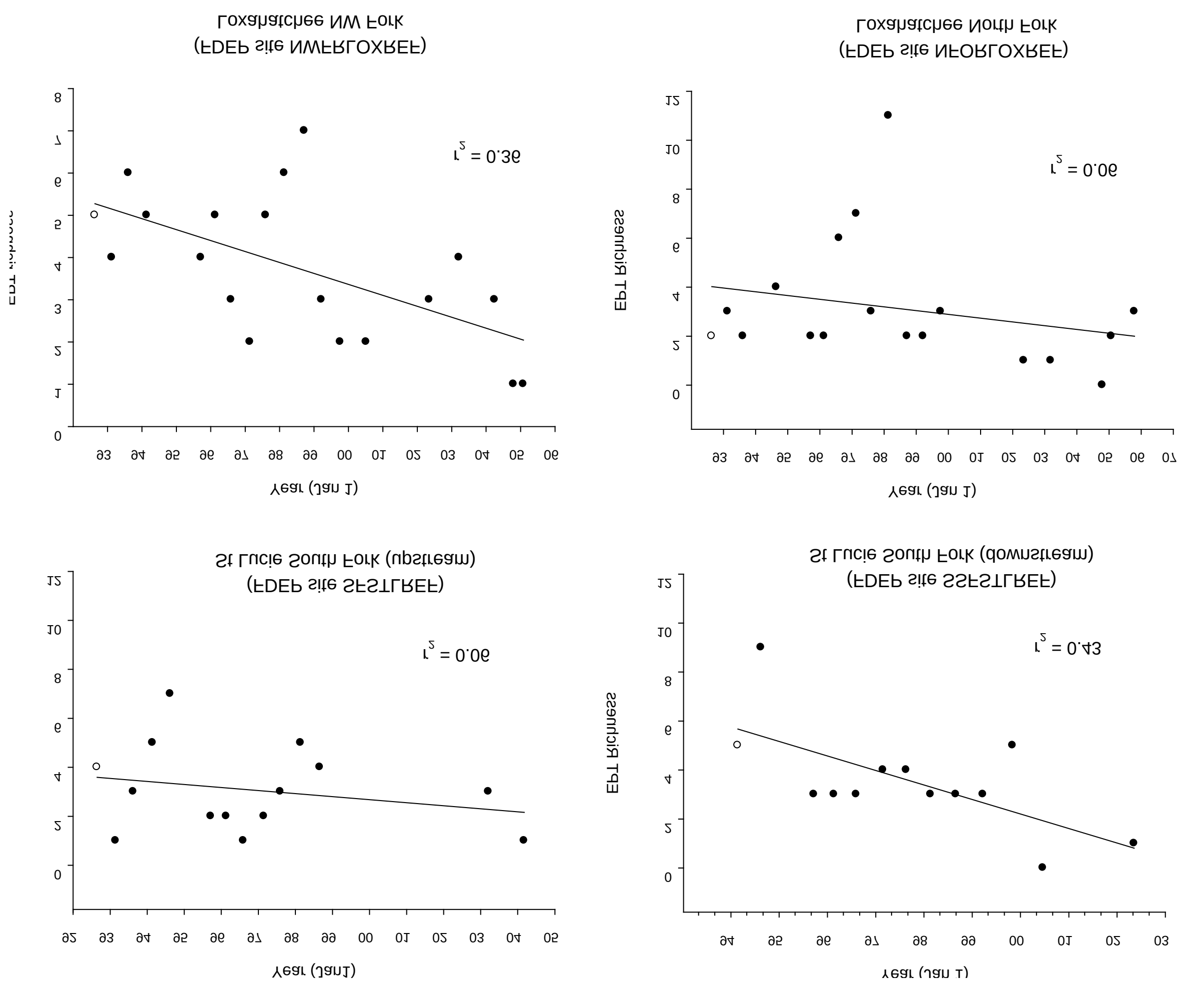


**Figure D-9. Trends in EPT richness for four sites in zone 1 (east).**

## Canal Project – Report Summary

## DB Environmental Inc. Report on Reedy Creek Drainage Basin

**John Maxted**

**November 13, 2009**

DeBusk, T. and K. Grace. 2009. Relationships between water column nutrients and macroinvertebrate assemblages in the Reedy Creek Drainage Basin, Central Florida. Prepared by DB Environmental, Inc. and Azurea, Inc., Rockledge, FL. July 21, 2009. 49 pp.

DeBusk and Grace (2009) examined the effects of improved water quality on the macroinvertebrate community at a single site (RC-14) on Reedy Creek near Orlando, Florida. Water quality, habitat, and macroinvertebrate data collected over a 26-year period (1980-2006) were used to assess the effects sewage treatment plant improvements in 1990. The mean annual total phosphorus (TP) concentration before 1990 was 266 µg/L compared to 75 µg/L after 1990; mean annual total nitrogen (TN) concentrations were 1.92 µg/L and 1.41 µg/L, respectively. The macroinvertebrate community showed little or no response to improved water quality. Five macroinvertebrate metrics (total richness, Ephemeroptera and Trichoptera [ET] richness, % ET, % dominant taxon, % very tolerant individuals) did not change, two metrics (% filterers and % Diptera richness) showed some improved response, and six metrics (Florida Biotic Index, E richness, % Diptera, clinger richness, % long-lived individuals, and % sensitive individuals) declined in biological condition with improved water quality. The site maintained “optimal” habitat conditions over the study period, including a natural meandering channel, diverse instream habitat, and good riparian vegetation.

Data were also collected in a tributary of Reedy Creek (Bonnet Creek) upstream of site RC-14. This site (D-12) was a channelized stream with poor habitat quality, providing a framework for looking at the effects of habitat quality on the macroinvertebrate community. The macroinvertebrate communities were compared between these two sites for the years that had comparable water quality conditions. Most metrics showed significant reductions in biological condition at site D-12 compared to site RC-14, indicating that habitat quality was a key stressor.

The finding of this study should be viewed with caution due to the limited number of sites assessed and the lack of replication. However, the findings are similar to those of FDEP (2001) and Snyder et al. (1998) that showed that channelized South Florida streams and wetlands are influenced substantially by surrounding land use and physical alterations of the channel and riparian habitat.

## Canal Project – Report Summary

## DB Environmental Inc. Report on Canals Near Lake Okeechobee

**John Maxted**

**December 22, 2009**

DeBusk, T. and K. Grace. 2009b. Characteristics of Macroinvertebrate Populations in South Florida Canals. Prepared by DB Environmental, Inc., Rockledge, FL, December 15, 2009, 39 pp.

DeBusk and Grace (2009) examined the water quality (WQ), physical habitat, and macroinvertebrate communities in five canals near Lake Okeechobee; three sites were north of the lake (and south of Lake Istokpoga) and two sites were in the Everglades Agricultural Area. Single samples were collected at each site on two occasions during 2007 (April and November) and 2008 (February and September). Field WQ parameters included pH, temperature, Secchi depth, and dissolved oxygen (surface, mid-depth, bottom). Laboratory water quality analyses included conductivity, turbidity, nutrients, turbidity, color, and chlorophyll *a*. Six months of WQ data collected by the South Florida Water Management District (District) at the nearest site were analyzed and compared to the grab sample data. Physical habitat was assessed visually for eight habitat attributes using Florida Department of Environmental Protection (FDEP) methods. All sites were engineered canals with habitat scores ranging 40-57 points (20-36 % of 160 points), indicating poor habitat quality. Macroinvertebrate samples were collected and processed using FDEP protocols employing a D-framed dip net jabbed in stable habitats along the canal margins. Macroinvertebrate data were summarized using several metrics and the combined Stream Condition Index (SCI) developed by FDEP. While the SCI quality thresholds are not directly applicable to canals, the SCI scores provided a relative measure of the overall biological condition. The investigators compared these data to macroinvertebrate data collected by FDEP as part of their SCI network that included 12 canals and 53 reference streams throughout Florida.

One objective of the study was to assess the effects of nutrients on the macroinvertebrate community in canals. However, nutrient concentrations, both grab samples and six-month averages at nearby District sites, were highly variable and similar between the five sites making it difficult to assess nutrients as a possible stressor. Low dissolved oxygen (DO) concentrations (< 3 mg/L) were found at all sites and occurred in surface and bottom samples indicating a lack of stratification. Chlorophyll *a* concentrations were also similar between sites and ranged from 2.9 to 34.0 mg/m$^3$, indicating a high level of primary production. The effects of physical habitat quality alone could not be assessed because all the sites had poor habitat quality.

The study provides an assessment of the physical, chemical, and biological conditions of five canals in the central and agricultural region of the District. Total richness ranged from 7 to 34 taxa, EPT richness ranged from 0 to 2 taxa, % dominant taxa ranged from 13 to 68 percent, and SCI scores ranged from 5 to 28 points (out of a possible 100 points) indicating: (1) lower quality conditions compared to natural streams, and (2) high variability in all metrics. SCI scores were similar to FDEP canal sites and lower than all but one of the FDEP reference stream sites. The metric and SCI values were also similar to other studies of canals in South Florida (Snyder et al. 1998, FDEP 2001, DeBusk and Grace 2009a). A direct assessment of the community could not be made because the report did not provide data on individual taxa. The metric and SCI data indicate that canals provide a diverse community of macroinvertebrates (20-30 taxa) typical of lentic environments with low velocities, high primary production, and depositional substrata.

References

DeBusk, T. and K. Grace. 2009a. Relationships between water column nutrients and macroinvertebrate assemblages in the Reedy Creek Drainage Basin, Central Florida. Prepared by DB Environmental, Inc. and Azurea, Inc., Rockledge FL, July 21, 2009, 49 pp.

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Snyder, B.D., Barbour, M.T., and Leppo, E.W. 1998. Development of a watershed-based approach for biomonitoring of fresh surface waters in coastal Florida canal systems. Prepared by Tetra Tech, Inc., Owings Mills Maryland, under contract with Metro-Dade Environmental Resources Management (DERM), 201 pages.

## Canal Project – Report Summary

## Florida DEP 1999 Canal Study

**John Maxted**

**October 28, 2009**

Florida Department of Environmental Protection. 2001. An Investigation of canals in southwest Florida: relationships between biological health, water quality, and habitat. Division of Resource Assessment and Management, Bureau of Laboratories, 22 pp.

In the fall of 1999 and the spring of 2000, the Florida Department of Environmental Protection (FDEP) collected habitat, invertebrate, physico-chemical (temperature, DO, pH, conductivity, turbidity), and water quality ($NH_3$, $NO_3/NO_2$, TKN, TP, algal growth potential) data at 18 sites. Thirteen sites were canals in residential areas in and around Ft. Myers and Cape Coral, Florida, three sites were canals in the failed residential development of Southern Golden Gate Estates (canals and roads but no houses or residents) referred to as Picayune Strand (the name of the natural area prior to construction of the canals), and two sites were natural sloughs (moving water channels) in relatively undisturbed wetland areas of Picayune Strand and Fakahatchee Strand State Preserve. The sites were selected to represent a disturbance gradient based upon the degree of local development, water quality (WQ), and habitat quality (HQ). There were three primary objectives of the study: (1) to assess the appropriateness of the FDEP Stream Condition Index (Fore et al. 2007) to urban canals, (2) to establish biological expectations for urban canals, and (3) to relate biological conditions to habitat and water quality measures.

The study provides an assessment of the biological conditions in urban canals across a range of development intensity and habitat conditions. There was insufficient data to assess WQ conditions in canals or to statistically correlate biology to water and habitat quality. This was due to the limited number of sites and sampling events (single samples at most sites) and the difficulty in separating WQ and HQ stressors in urban areas. Six sites served as both reference and test sites for WQ and HQ stressors. The three main study areas provide a framework for assessing the biological conditions in canals. The 13 urban sites were in fully developed urban catchments and could be compared to the three sites in Picayune Strand to assess the effects of urban land use on canals. The urban sites covered a wide range of habitat conditions which could also be used to assess the effects of physical habitat quality in canals in urban areas. The two wetland slough sites were natural channels with intact riparian vegetation and provided a reference condition prior to canal construction.

Results indicated that invertebrate communities were quite resilient to this type of physical alteration. Invertebrate metrics covered a similar range of values for each of the major site categories (**Figure D-10**). Variability was high within each site category, and even the canals with the highest degree of WQ and HQ disturbances had both high and low invertebrate metric values. Biological quality was generally related to habitat quality but variability was high making for poor correlations (**Figure D-11**). The study provides: (1) an indication of the biological expectations (and variability) in urban canals, and (2) a design option for assessing the conditions in District canals across a wide range of land use categories.

References

Fore, L., R.B. Frydenborg, D. Miller, T. Frick, D. Whiting, J. Espy, and L. Wolfe. Development and Testing of Biomonitoring Tools for Macroinvertebrates in Florida Streams. Florida Department of Environmental Protection, 2007.

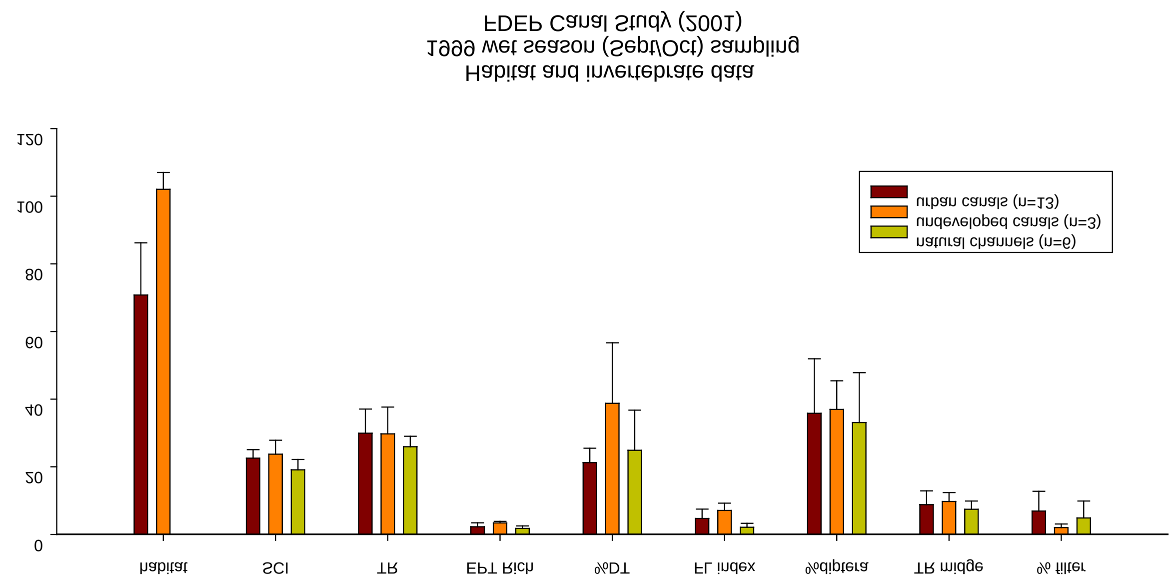


**Figure D-10. Comparison of mean (+/- 1 SD) scores for habitat quality and 8 invertebrate metrics for 3 site types; canals in fully developed urban areas, canals in the undeveloped areas of Picayune Strand, and natural channels in undisturbed wetland sloughs.**

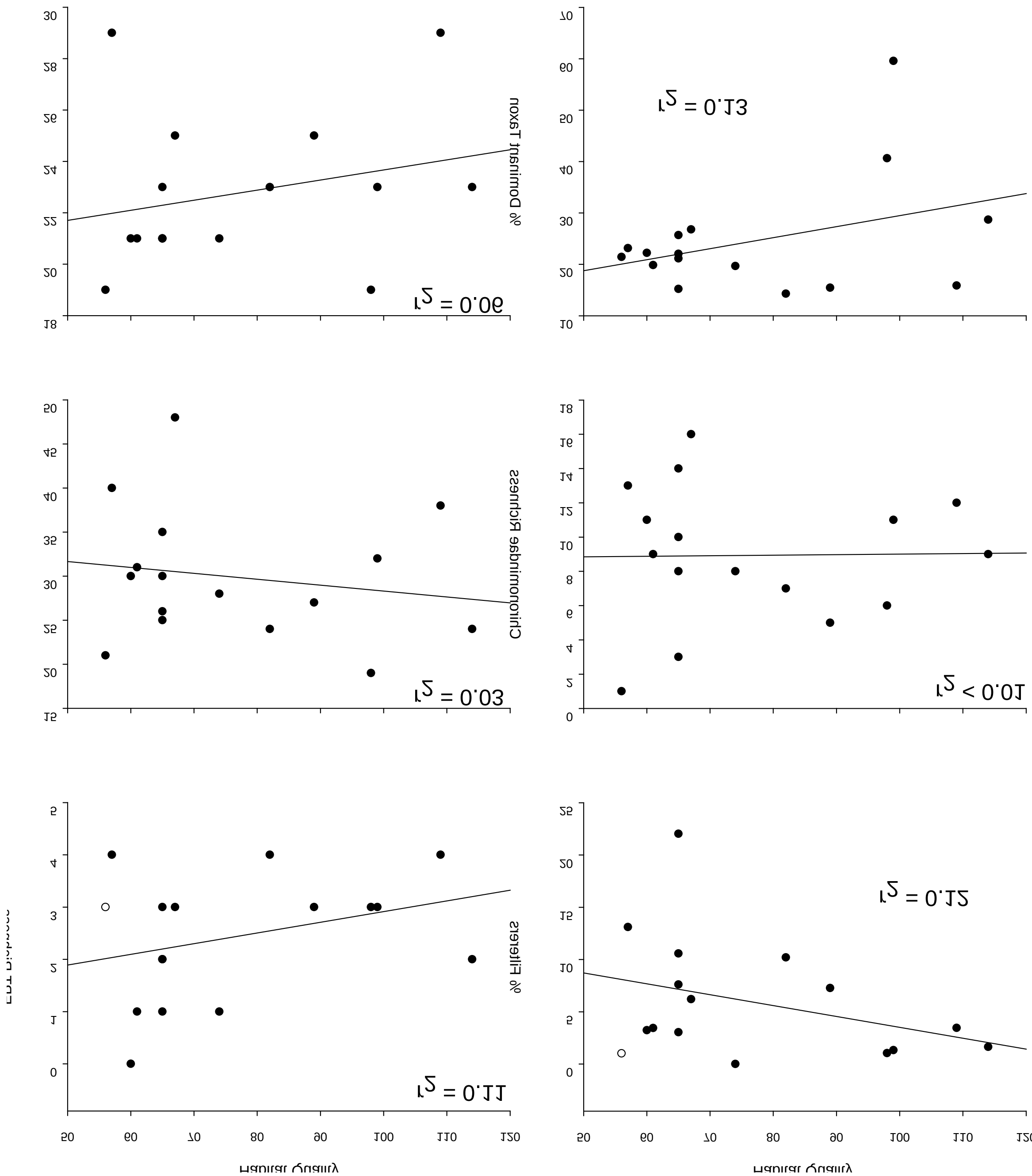

**Figure D-11. Relationships between habitat quality and 5 invertebrate metrics and the combined Florida Stream Condition Index for 16 canal sites in and around Ft. Myers, Cape Coral, and Picayune Strand, Florida.**

## Canal Science Inventory

## Overview and Preliminary Analysis

## Biological Aspects of Water Quality in Florida

## John Maxted

Ross, L.T. and D.A. Jones. 1979. Biological Aspects of Water Quality in Florida, Part IV: Lower Florida Drainage Basin. Department of Environmental Regulation, Tallahassee FL

Between 1975 and 1978, Ross and Jones (1979) conducted surveys of benthic macroinvertebrates from Lake Okeechobee southward, including canal sampling sites. Samples from the four primary canals just south of the lake revealed generally good biodiversity with pollution intolerant species typically absent. Pollution-tolerant oligochaete worms dominated most canal samples. The authors reported that biotic index numbers were low, indicating oxygen deficiencies. The larger St. Lucie Canal, exiting the lake to the east, contained a more diverse macroinvertebrate assemblage although oxygen stress was also indicated. Downstream sites on the West Palm Beach and Hillsborough canals near their eastern ends showed fairly good diversity, but there were also indications of low oxygen conditions. For canals, Ross and Jones (1979) compared natural and artificial substrates and suggest that the soft organic muck in canals provides poor habitat. The unconsolidated structure of muck and low oxygen conditions may be a key factor limiting diversity and promoting domination by pollution-tolerant species in canals.

## Canal Project – Report Summary (revised)

## Metro-Dade County 1998 Canal Study

**John Maxted**

**November 12, 2009**

Snyder, B.D., Barbour, M.T., and Leppo, E.W. 1998. Development of a watershed-based approach for biomonitoring of fresh surface waters in coastal Florida canal systems. Prepared by Tetra Tech, Inc., Owings Mills, Maryland, under contract with Metro-Dade Environmental Resources Management (DERM), 201 pp.

Macroinvertebrate and habitat quality data were collected at 32 sites in Miami-Dade County, Florida during February (winter, dry season) 1996 (**Figure D-12**). The sites were selected in four land use categories (wetlands, agriculture, suburban, and urban/industrial) to provide a disturbance gradient for these engineered waterways. Twenty sites were resampled in July (summer, wet season) 1996 to determine seasonal differences. Results for the winter sampling season are summarized here because there was little seasonal effect and more sites were sampled in the winter period. All sites were engineered canals with levees that physically separated the canals from the surrounding areas. Invertebrates were sampling using a 20-jab dip net method equivalent to the method used by the Florida Department of Environmental Protection (FDEP) for their Stream Condition Index (SCI). Invertebrate data were analysed using multi-dimensional scaling of the taxonomic data, several community metrics, and the SCI. Results were also compared to FDEP reference stream sites to assess the differences between canals and natural stream channels. Habitat was assessed using the FDEP and U.S. Environmental Protection Agency (USEPA) methods that visual assesses habitat quality using 7 to 10 habitat attributes. The objectives of the study were to: (1) test sampling methodologies, (2) characterize ecosystem health, and (3) identify stressor relationships. Stressor relationships included surrounding land use, habitat quality, and canal maintenance activities (dredging, weed control). No water quality (WQ) samples were collected, although two relevant studies were cited (see below) that showed higher phosphorus concentrations in canals compared to nearby marshes (Everglades).

Key drivers of invertebrate community condition were surrounding land use and habitat quality. Several invertebrate metrics (total richness, Florida index, % dominant taxon, % midge) and the SCI followed a pattern of increasing disturbance from wetlands → agricultural → suburban → urban/industrial. This pattern was also shown by multi-dimensional scaling of the raw taxonomic data. The highest quality sites were those with wetlands as the predominant surrounding land use, but had lower metric and SCI scores than FDEP reference sites. Biological condition as measured by the SCI was weakly correlated with habitat quality ($r^2 = 0.12$). The highest quality canal sites were dominated by long-lived taxa indicating that impacts were related to periodic stressors. These results indicate that: (1) canals have lower quality conditions than natural streams, (2) are affected by land use and habitat quality, and (3) other stressors are likely at play with nutrients and organic enrichment likely candidates. A valuable follow-up study would look at any water quality data that might be available in or near these sites including dissolved oxygen, conductivity, turbidity, nutrients, and other contaminants (site coordinates are published in the report). Selected figures from the report are reproduced below, along with Google Earth maps showing the highest (L3002) and lowest (C701) quality sites and their surround land uses.

Other relevant studies

Rudolph, HD. 1985. A biological basin assessment survey: a study of the macroinvertebrates collected in north Dade County canals during February and July 1995. Florida Department of Environmental Protection, Port St. Lucie, Florida.

McCormick, et al., 1996. Periphyton-water quality relationships along a nutrient gradient in the northern Florida everglades. *Journal of the North American Benthological Society* 15:433-439.

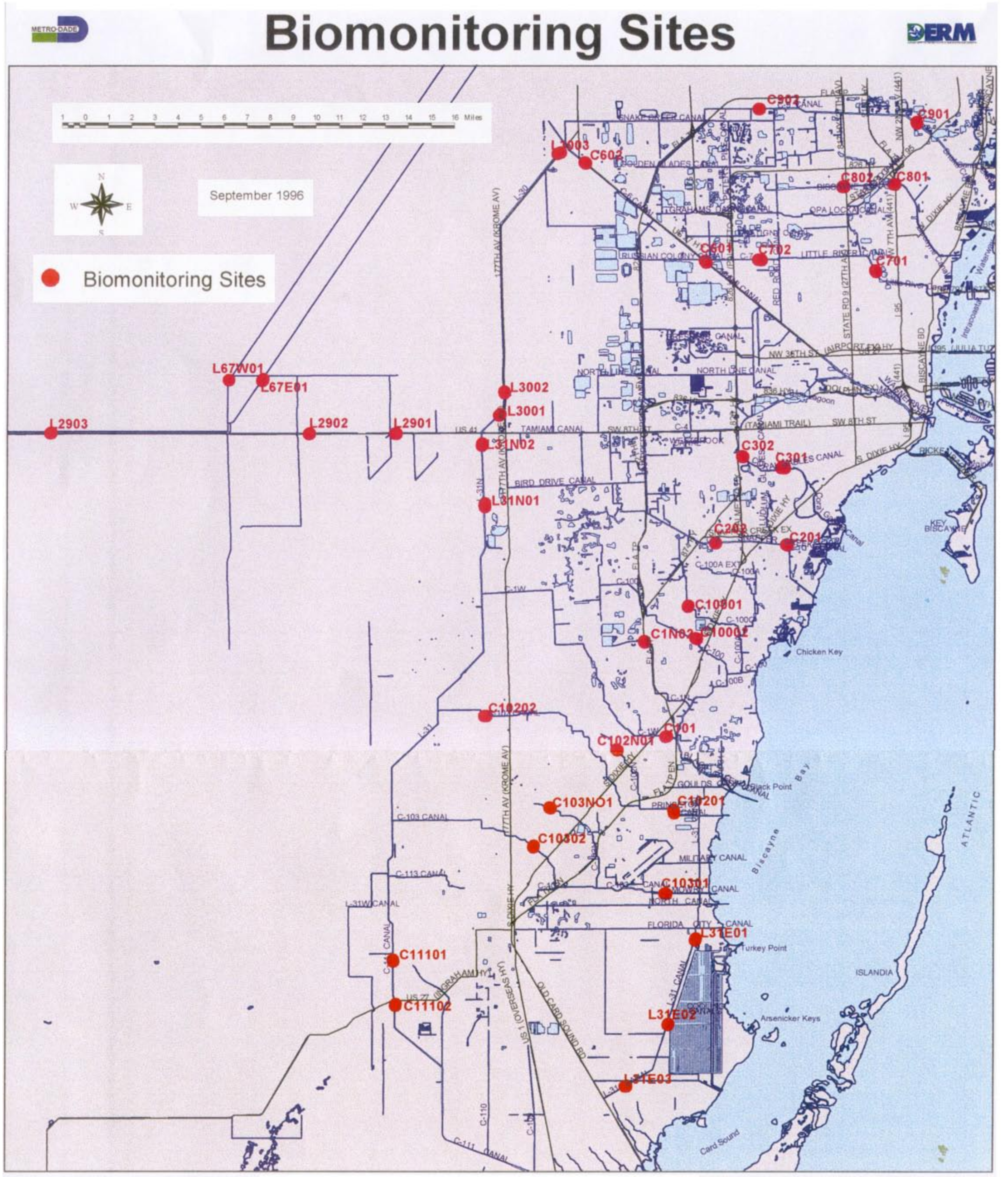


**Figure D-12. Macroinvertebrate monitoring sites in Miami-Dade County (Snyder et al., 1996)**

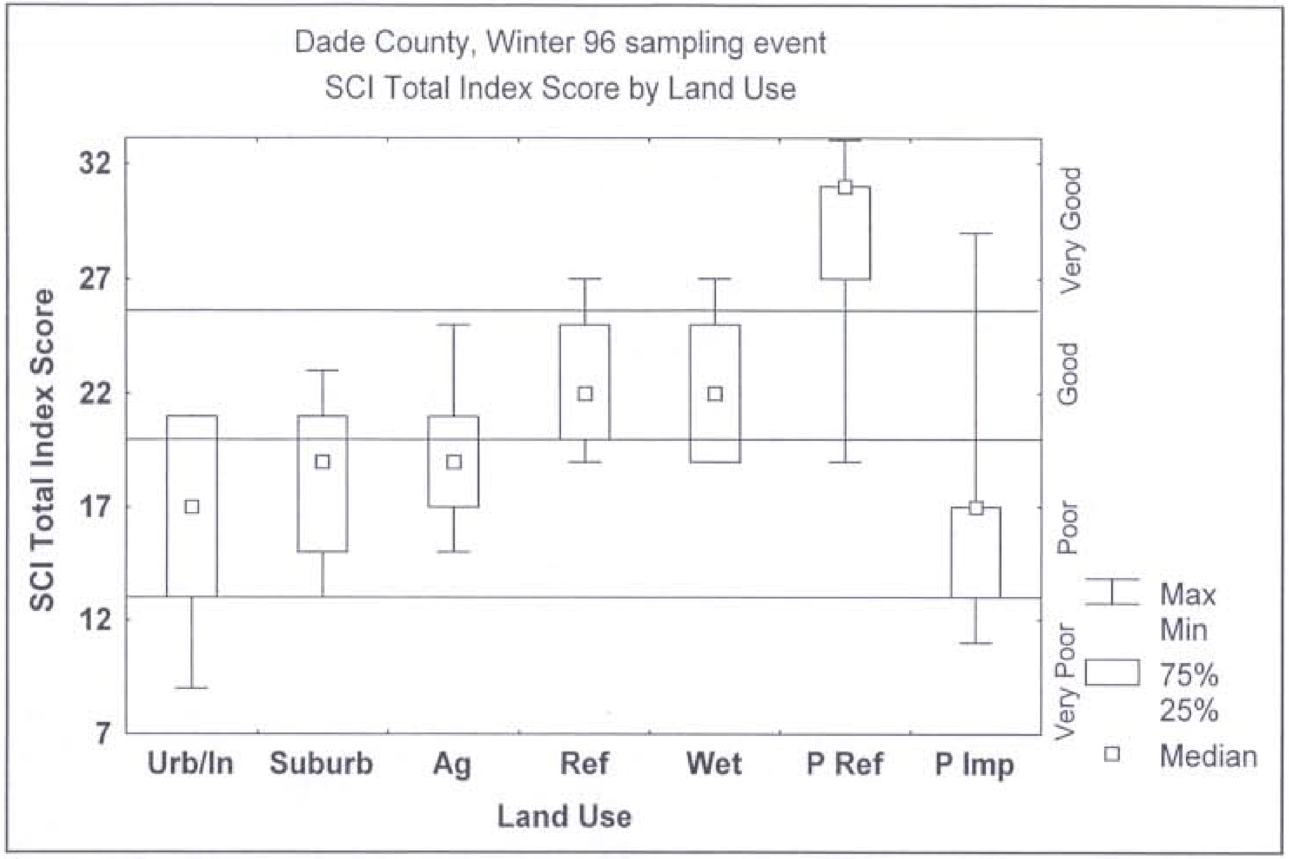


**Figure 3-18.** Dade County canal bioassessment results (winter 1996) segregated by land use designation. Land uses: urban/industrial (urb/in); suburban (suburb); agricultural (Ag); canals surrounded by wetlands (wet). Note: Ref = wetland canals with highest habitat index values; P Ref = DEP reference conditions for peninsular Florida; P Imp = DEP impaired site results for peninsular Florida.

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**Figure D-13. Dade County SCI Score Related to Land Use**

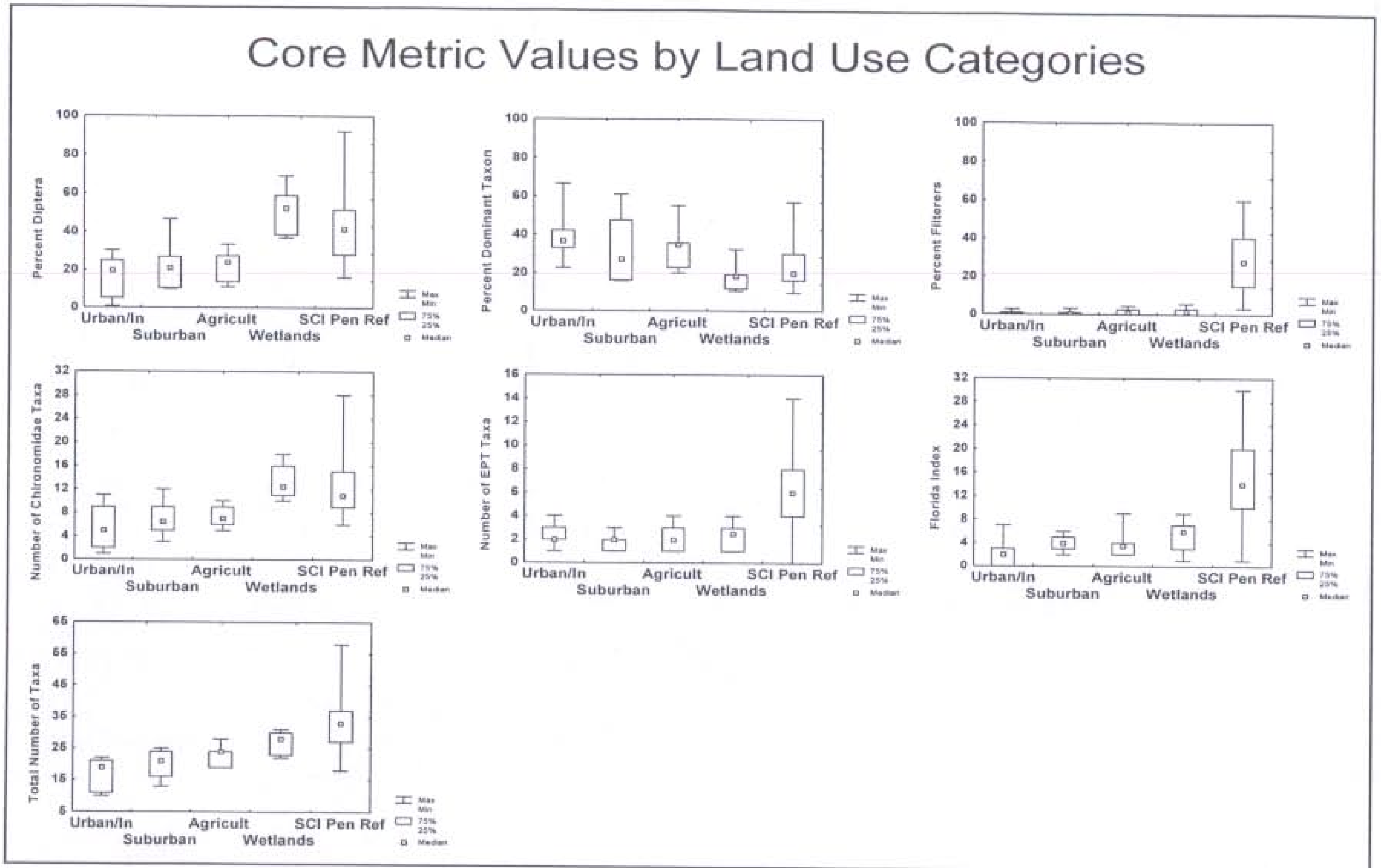


**Figure 3-6.** Core metric results for canal stations sampled during winter 1996. Note: SCI Pen Ref = Florida DEP reference conditions for streams of peninsular Florida.

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**Figure D-14. Dade County Core Metric Values Related to Land Use**

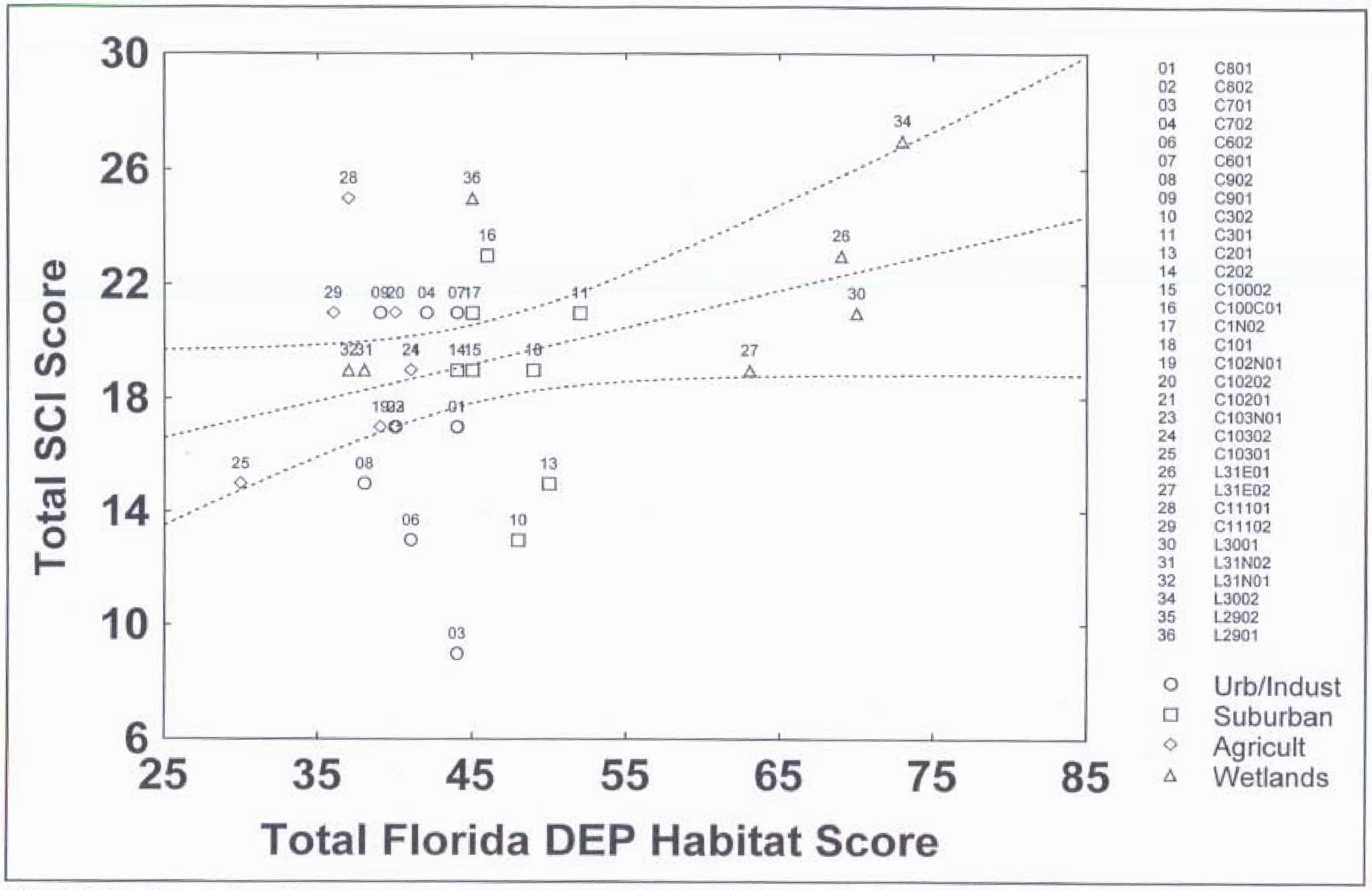
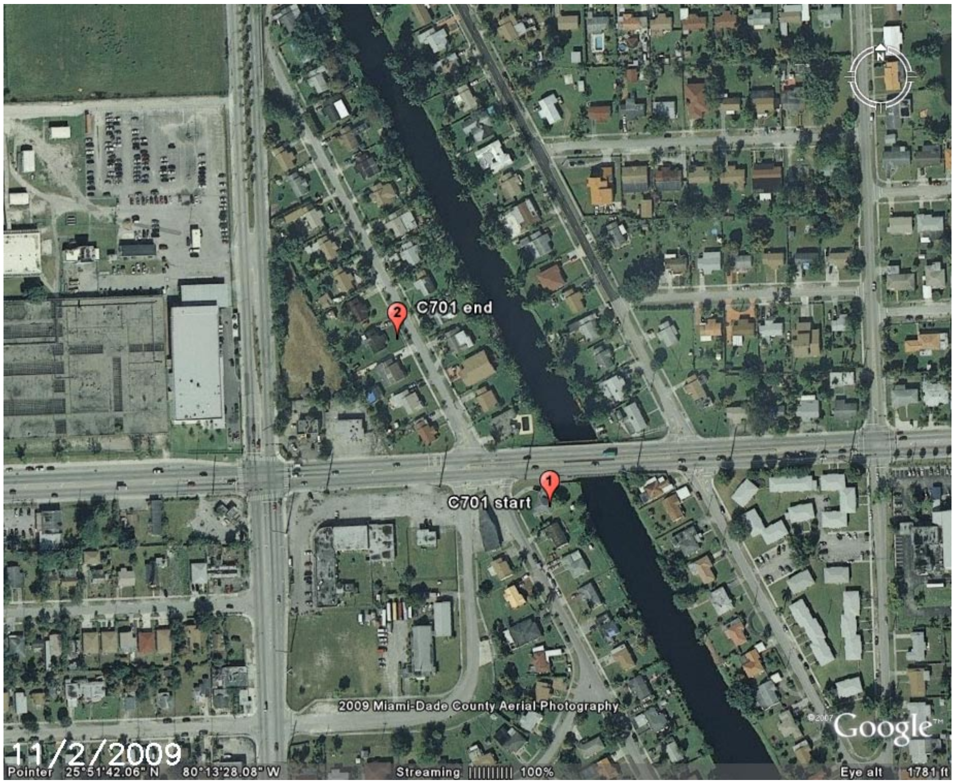



**Figure 3-19.** The relationship (regression and 95% confidence intervals) between benthic macroinvertebrate SCI scores and habitat assessment scores ($r = 0.33$), winter 1996.

*Results and Discussion* Page 3-40

**Figure D-15. Dade County SCI Score Related to Habitat Assessment Score**


**Figure D-16. Dade County Highest quality (biology and habitat) reference canal – site L3002**



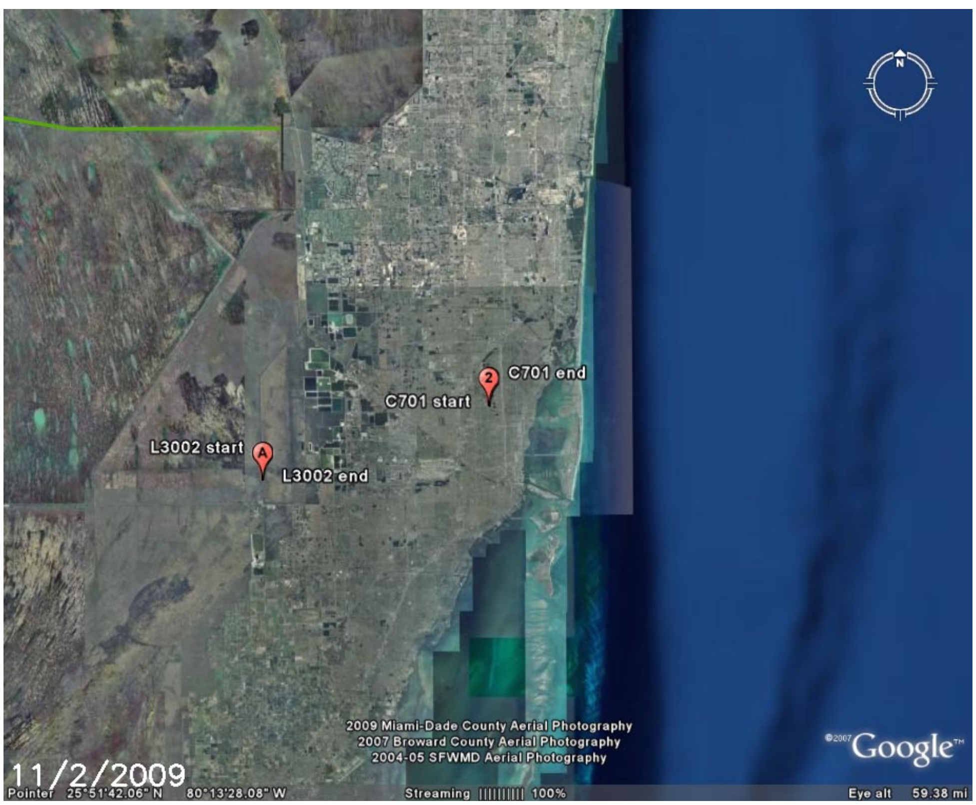




**Figure D-17. Dade County Lowest quality (biology and habitat) urban/industrial canal – site C701.**

# Canal Project – Report Summary (revised)

## Mid-Atlantic Region 1995 Study

**John Maxted**

**December 14, 2009**

Maxted, et al., 2000. Assessment framework for mid-Atlantic coastal plain streams using benthic macroinvertebrates. *Journal of the North American Benthological Society*, Vol. 19(1): 128-144.

A collaborative study among the six states along the mid-Atlantic seaboard of the USA developed a consistent approach for collecting and interpreting macroinvertebrate data for low gradient streams of the coastal plain. Macroinvertebrate, habitat quality (HQ), physico-chemical (DO, cond., TSS, pH), and water quality (TP, $NO_3$/$NO_2$) samples were collected in the fall of 1995. The study had three objectives: (1) to evaluate the spatial variability of reference sites across a large geographic (New Jersey to South Carolina), (2) to select biological metrics that best discriminate reference sites from sites impaired by habitat disturbance and organic pollution, and (3) to combine these metrics into an index of biological quality. There were 55 reference sites with natural channels and intact floodplains, stable channel banks, and natural and largely undisturbed riparian vegetation. There were 34 sites with impaired habitat quality and were all channelized waterways (i.e., canals); most (30) were in agricultural areas, four were in urban areas. There were 17 sites with impaired water quality defined by receiving the majority of its flow from a poorly treated municipal wastewater treatment plant discharge. These water quality (WQ) impaired sites had good habitat quality to focus on WQ stressors. Assessing the effects of each stressor type on biology was beyond the scope of this study. The data were reanalyzed to compare reference sites to canals and water quality sites separately. This analysis focused on bioregion 63N to reduce the variability between bioregions and because this bioregion had the majority of impaired sites.

The study provides an assessment of: (1) the biological conditions in canals as compared to reference streams with natural channels, and (2) the effects of wastewater discharges (poor WQ) on streams with natural channels and good riparian cover. There was insufficient data to correlate biology to individual WQ variables due to the limited data set (single samples and nutrients not collected at all sites). The biological results are not directly applicable to the aquatic fauna in Florida streams and canals, but some important conclusion can be reached on the effects of physical and WQ disturbances in canals.

There was separation between reference sites and both habitat impaired and WQ impaired sites indicating that both stressor types affected the biological communities in these low gradient streams (**Figure D-18**). The largest separation was observed for canal (habitat impaired) sites (EPT richness, the Hilsenhoff Biotic Index, and CPMI metrics) where the 75$^{th}$ percentile of the habitat group was less than the 25$^{th}$ percentile of the reference group. The study leads to important conclusions with regard to the management of canals in Florida. First, the maintenance of canal banks with the removal of riparian vegetation makes it difficult to achieve a high degree of biological quality in canals. Second, a high degree of biological quality can be achieved in streams with poor water quality if natural channels and riparian vegetation are maintained.

There is a third conclusion, although it has yet to be quantified with detailed WQ data. There was no separation in biological communities between state reference sites using multidimensional scaling of the taxonomic data (Figure 2B of the paper) even though the percentage of the catchments in forested land uses ranged from 19 to 99 percent. Assuming that water quality is proportional to the degree of development in the catchment, the high degree of urban and agricultural land uses at many reference sites did not adversely affect their biology. This subjective conclusion provides a further indication that WQ is less important than habitat quality in determining the biological conditions in canals.

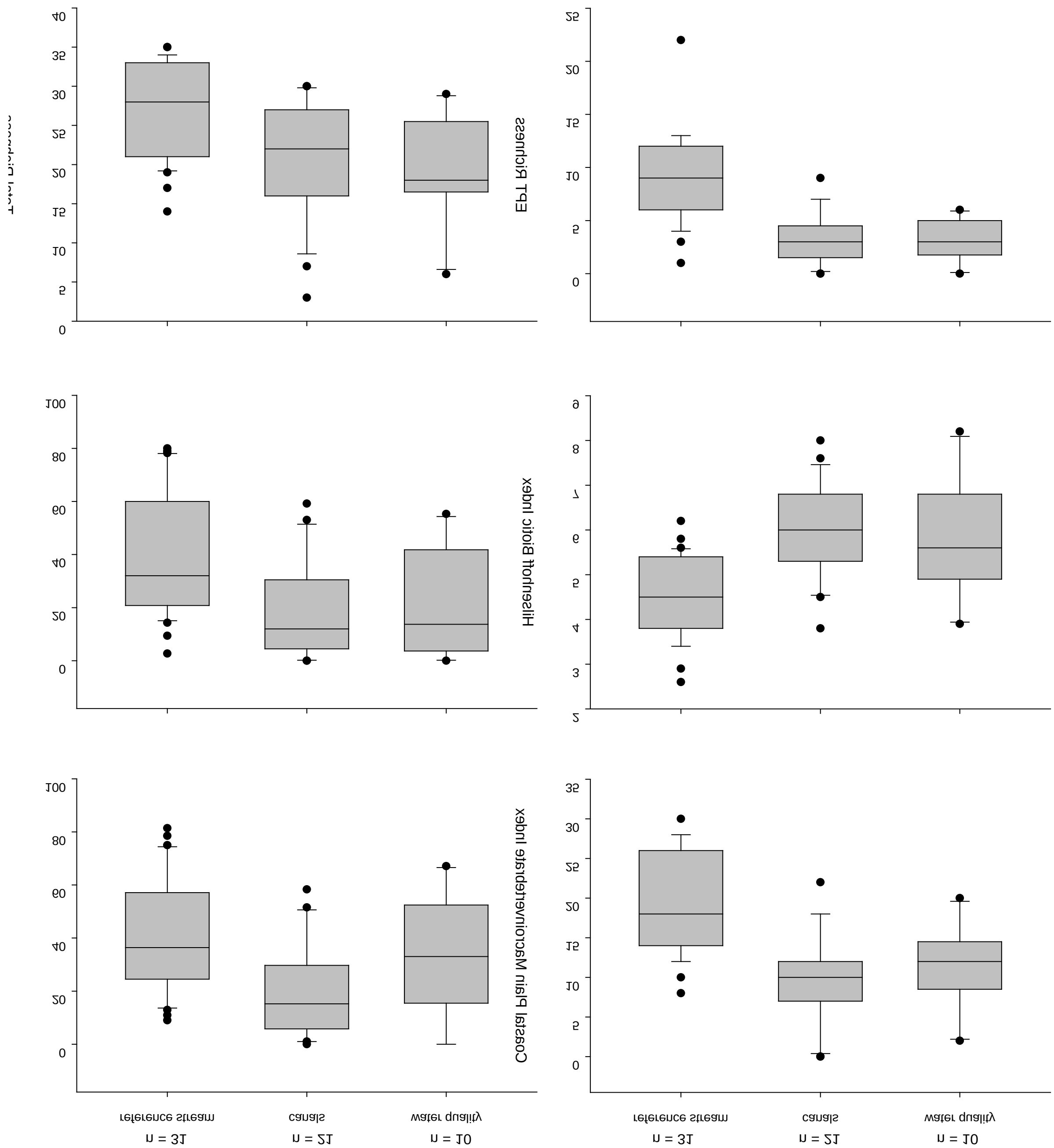



**Figure D-18. Comparisons of probability distributions for five macroinvertebrate metrics and the combined Coastal Plain Macroinvertebrate Index (CPMI) for three site types in ecoregion 63N; reference streams, canals, and water quality sites; water quality sites had good riparian cover and poor water quality due to wastewater discharges. Data taken from Maxted et al., 2000, Journal of the North American Benthological Society, Vol 19(1).**

# Canals in South Florida: A Technical Support Document

## Appendix E

## Fish, Reptile and Wildlife Information

| | Page |
|---|---|
| Table E-1. Historic Deployment of Grass Carp by SFWMD | E-2 |
| Table E-2. Annotated List of References Reviewed by SFWMD Staff | E-3 |

**Table E-1. Historic deployment of grass carp for management of aquatic vegetation in SFWMD lakes, wetlands and canals, 1987 to 2010**

| Location | County | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fish Lake | Osceola | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arch Creek | Miami-Dade | 0 | 0 | 1,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C12 | Broward | 0 | 0 | 0 | 5,379 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 280 | 0 | 0 | 2,250 | 0 | 2,400 | 1,700 | 1,000 | 0 | 0 | 0 |
| C11, C11S | Broward | 0 | 0 | 0 | 0 | 16,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,300 | 2,200 | 3,740 | 2,730 | 10,250 | 578 | 5,386 | 10,500 | 5,225 | 3,000 | 3,000 | 4,000 |
| Holeyland | Palm Beach | 0 | 0 | 0 | 0 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C13 | Broward | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,000 | 0 | 0 | 1,000 | 1,520 | 1,800 | 3,335 | 2,250 | 3,000 | 7,000 | 0 | 0 | 4,000 | 3,500 | 5,000 |
| C-100s | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21,000 | 0 | 0 | 3,350 | 0 | 3,380 | 0 | 0 | 5,454 | 13,500 | 6,875 | 4,000 | 2,100 | 0 | 0 |
| C14 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16,500 | 0 | 0 | 1,640 | 3,260 | 3,940 | 7,050 | 7,050 | 0 | 0 | 0 | 0 | 0 | 0 |
| C8 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,000 | 0 | 2,000 | 2,720 | 0 | 3,000 | 0 | 1,992 | 0 | 4,700 | 3,000 | 3,000 | 6,000 | 5,000 |
| C9 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 4,200 | 4,200 | 5,000 | 0 | 0 | 0 | 10,750 | 5,461 | 4,500 | 7,000 | 5,000 |
| C1 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19,500 | 0 | 3,300 | 4,850 | 5,675 | 3,000 | 5,728 | 0 | 8,000 | 4,000 | 4,000 | 4,851 |
| C1N | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,000 | 1,400 | 0 | 0 | 1,975 | 0 | 3,000 | 0 | 3,000 | 4,500 | 5,000 | 3,000 |
| C102 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,400 | 680 | 2,480 | 8,000 | 7,810 | 4,500 | 4,980 | 0 | 4,199 | 3,000 | 3,500 | 5,000 |
| C102N | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,435 | 0 | 0 | 0 | 0 | 0 | 3,000 | 3,500 | 2,500 | 3,000 |
| C103& 103N | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,200 | 1,440 | 1,640 | 9,700 | 2,325 | 0 | 4,981 | 0 | 9,725 | 4,500 | 3,166 | 5,000 |
| Airport Rd. Canal | Collier | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C24 | St. Lucie | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,265 | 400 | 600 | 0 | 0 | 0 | 0 | 0 | 0 |
| C2 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21,497 | 10,000 | 5,000 | 8,250 | 0 | 0 | 0 | 0 | 0 |
| C4 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,950 | 7,270 | 5,250 | 0 | 0 | 0 | 0 | 0 |
| L31E | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,460 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C113 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,060 | 1,000 | 0 | 0 | 1,000 | 1,000 | 1,500 | 0 |
| B1 Pond | Palm Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C111 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| G16 | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,200 | 0 | 0 | 0 | 0 |
| C1W | Miami-Dade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 | 1,247 | 1,500 | 0 |
| C42 | Glades | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,500 | 1,500 | 3,000 |
| G15 | Broward | | | | | | | | | | | | | | | | | | | | | | 10,000 | 4,500 | 6,000 |

initial stocking numbers

initial stocking numbers (unsure of number)

had fish already from adjacent canals

## Table E-2. Annotated list of fish, reptile and bird-related references reviewed by SFWMD staff

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| **Fish** | | | | | | | |
| Ellis, G., Zokan, M., Loftus, W.F., and Lorenz, J.J. | 2004 | | | | | Inventory of Freshwater Fishes of the Big Cypress National Preserve | Final Report to the USGS Greater Everglades Priority Ecosystems Science Program |
| | Brief Notes - Canals supported the greatest diversity of species; most of these were saltwater-adapted or large freshwater predator species. Canals provide aquatic refuge during the dry season allowing rapid dispersal by fishes and spread of exotic species. Some species of exotic fish captured on the marsh were exclusively taken when adjacent to canals. | | | | | | |
| Furse, J.B, Davis, L.J., and Bull, L.J. | 1996 | 1992-1993 | Lower Kissimmee | C-38 and tributaries | Fish / largemouth bass | Habitat Use and Movements of Largemouth Bass Associated with Changes in Dissolved Oxygen and Hydrology in Kissimmee River, Florida | 1996 Proc. Annual Conf. SEAFWA 50:12-25 |
| | Brief Notes - Tracked largemouth bass movements with a focus on floodplains. | | | | | | |
| Howard, Loftus and Trexler | 1995 | | | | | Seasonal Dynamics of Fishes in Artificial Culvert Pools in the C-111 Basin, Dade County, Florida | Final Report to the United States Army Corps of Engineers under Everglades National Park Cooperative |
| | Brief Notes – Canals are deep, long linear habitats that offer refuge of differing value to fishes depending on their body size. | | | | | | |
| Loftus, W.F. and Kushlan, J.A. | 1987 | December 1976 thru April 1983 | LEC, Everglades, Big Cypress, Florida Bay tributaries, and 10000 Islands | Primarily water bodies south of Tamiami Highway | Native and Exotic | Freshwater Fishes of Southern Florida | *Bull. Florida State Mus., Biol. Sci.* 31(4):147-344. |
| | Brief Notes – The first systematic study of the distribution of fishes in southern Florida's fresh waters. Includes a table of distribution of fishes in fresh water in seven major habitats, including some canals. | | | | | | |
| Nico, Herod and Loftus | 2001 | | | | | Life History Parameters and Population Dynamics of Freshwater Fishes of South Florida Canal Systems | American Society of Ichthyologists and Herpetologists 81st annual meeting, Pennsylvania State University, 5-10 July 2001. Abstract Only. |
| | Brief Notes - Extensive study across many canals in South Florida; in collaboration with Joel Trexler. Small-bodied fishes are typically short-lived and are most common in shallow marsh habitats. Contrasted with large-bodied fishes that are long-lived and more common in canals. | | | | | | |
| Rehage and Trexler | 2006 | | | | | Assessing the net effect of anthropogenic disturbance on aquatic communities in wetlands community structure relative to distance from canals | *Hydrobiologia* 569:359-373. |
| | Brief Notes - Density of fish and macroinvertebrates changed within 5 m of canal; little change in composition; pattern most pronounced in dry season suggesting canals act as refugia. Most apparent impact of canals was as conduits for nutrients that stimulated local productivity in adjacent marsh; there was no evidence that canals were sources for predators into the marsh; however, more study is needed, particularly on how fish disperse from canals. | | | | | | |
| Shafland, P. | 1996 | | LEC, primarily | various | Exotic Fishes | Exotic Fishes of Florida - 1994 | *Reviews in Fisheries Science* 4(2):101-122. |
| | Brief Notes - Review of exotic fishes in all of Florida with a major focus on waters of the District, 75 exotic species have been found at least once in Florida, 18 of these are considered to be permanent and 5 of these are believed to be reproducing. Some general characteristics are described for major species. | | | | | | |
| Shafland, P. Gestring, K, Stanford, M | Multiple | 1997-2002 | LEC | Cutler Drain, Tamiami, Snake Creek, Cypress Creek, Boynton, and West Palm Beach Canals | Fisheries | Metropolitan Southeast Florida Canal Fisheries and Recently Introduced Exotic Fishes | FFWCC Tech Report |
| | Brief Notes - Sportfish and their forage species are reported. West Palm Beach and Boynton have higher "catch per effort" in electrofishing than other 4 canals to the south. | | | | | | |

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| Shafland, P.L., Hilton, B.D., and Metzger, R.J. | 1985 | 1981-1985 | LEC | Black Creek Canal (C-1, C-1N; Dade County) | Fisheries | Fishes of Black Creek Canal 1981-1985 | FFWCC Tech Report |
| | Brief Notes - Description of populations of fishes in a Miami-Dade Canal. Spotted tilapia represented 50% of the population but largemouth bass populations were similar for other less disturbed Florida habitats. | | | | | | |
| Shafland, P. Gestring, K, Stanford, M and numerous others | 1982 through 2006 | 1982 through 2006 | LEC | numerous LEC canals | Exotic Fishes | Annual Report of Non-Native Fish Research | FFWCC Tech Reports |
| | Brief Notes - Numerous annual reports that describe the types of fish caught via electroshocking and rotenone techniques | | | | | | |
| Trexler, J.C., Loftus, W.F., Jordan, F. Lorenz, J.J., Chick, J.H., Kobza, R.M. | 2000 | | | | | Empirical assessment of fish introductions in a subtropical wetland: an evaluation of contrasting views | *Biological Invasions* 2(4): 265-277 |
| | Canals held the largest introduced fish populations. Natural habitats distant from canals held few individuals of introduced fishes. Canals are a permanent aquatic refuge unlike any native Everglades habitat. Introduced fishes became established in South Florida within canals. Canals provide refuge from drought for native and exotic fish, which then serves as a prey base for large predatory fishes; native and introduced fish move from canals into marsh after dry seasons. Urban and Everglades canals differ in composition and proportion of native to exotic species, principally due to marsh requirement of native fishes. | | | | | | |
| Turner, A.M., Trexler, J.C., Jordan, C.F., Slack, S.J., Geddes, P., Chick, J.H., Loftus, W.F. | 1999 | | | | | Targeting ecosystem features for conservation: Standing crops in the Florida Everglades | *Conservation Biology* 13(4): 898-911 |
| | Brief Notes - Sharp nutrient gradients along canals resulted in greater fish biomass at enriched sites than reference sites, but no difference for invertebrates; suggested that fish are consuming the invertebrate production. Study indicated standing stocks in Everglades are unusual, possibly similar to seasonal-tropical wetlands with limited deep-water refugia for large-sized fish. | | | | | | |

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| **Reptiles** | | | | | | | |
| Barr, B. | 1997 | | | | | Food habits of the American alligator, Alligator mississippiensis, in the southern Everglades. | Ph.D Diss. University of Miami |
| | Brief Notes - Marsh study of Shark River Slough alligators. Best study available on Everglades alligator diets. Found that snakes are dominant prey of adult alligators, snails for sub-adults, and insects for juveniles. Fish were consumed far less than snakes; birds were rare in stomachs. This diet is unique among Everglades alligators. Alligators are in better condition during high water than low water in the marsh. Author suggested that canals have a different prey base and thermal gradient than sawgrass marshes. | | | | | | |
| Chopp, M.D. | 2002 | | | | | Everglades alligator (Alligator mississippiensis) production in interior and canal habitats at Arthur R. Marshall Loxahatchee National Wildlife Refuge. | Masters Symp., Dept Wildlife Ecology and Conserv. Seminar Series, Gainesville, FL, December 2, 2002. |
| | Brief Notes - Study of juvenile alligators from L-38 canal. Apple snails and crayfish made up the vast majority of the diet. All study animals were in good condition. | | | | | | |
| Chopp, M.D. | 2003 | | | | | Everglades Alligator Production And Natural History In Interior And Canal Habitats At Arthur R. Marshall Loxahatchee National Wildlife Refuge | M.S. Thesis, University of Florida, Gainesville, FL |
| | Brief Notes - Tree islands protect from nest flooding; canal nests were flooded more frequently; small numbers of young produced in canal nests; low production of canal alligators; canal adult populations are sustained by recruitment of adults from adjacent marsh habitat; canal alligators do not contribute to the overall Everglades population. | | | | | | |
| Chopp, Percival, Rice | 2001 | | | | | Northern Everglades canals: alligator population sources or sinks? | Joint GEER and Fla. Bay Conf., Palm Harbor, FL. April 13-18, 2003. |
| | Brief Notes - Study of juvenile alligators from L-38 canal. Apple snails and crayfish made up the vast majority of the diet. All study animals were in good condition. This is from a conference abstract. Alligator study comparing border canal and interior marsh alligator populations at ARM. Canals were harsh environments for alligator reproduction compared to interior sites, due to flooding and predation of canal nests. Adult alligator density was high in canals due to immigration and high adult survival rates. Authors suggest canals are sinks for alligator reproduction.. | | | | | | |

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| Chopp, Percival, Rice | 2002 | | | | | Everglades Alligator Production Differences between Marsh Interior and Marsh Canal habitats at ARM | Masters Symp. Dept. of Wildlife Ecology and Conservation Seminar Series, Gainesville, FL, December 2, 2002 |
| | Brief Notes - Everglades alligators produce relatively small egg clutches compared to north Florida and Louisiana; therefore lower annual reproduction, comparatively. Nest flooding affects age structure of population, especially after repeated flooding at marsh canal habitats. Egg position in clutch significantly affects probability of egg being flooded and surviving; even small changes of nest elevation affect survivorship along canals. During 2000 all canal nests flooded, while no interior marsh nests flooded. Marsh nests are made of high-quality material; canal nests are made of poor nesting materials. Interior nests on tree islands may experience mammalian predation. Canal habitat is population sink reproductively speaking for alligators. Building spoil mounds on interior marsh side of canals could boost reproductive success and serve as an alternative to changing water management schedules. | | | | | | |
| Chopp, Rice, Mazzotti, Percival | 2000 | | | | | The Effects of Canals on Alligators in the Everglades | 2000 GEER Meeting, Naples, FL |
| | Brief Notes - Canals influence alligator populations 1 km into adjacent Everglades marsh. Canal alligators move over larger distances and have larger home ranges. Hatching success and young survivorship is lower in canals. Adult alligator density is higher in canals than in marsh. Alligators living in canals prefer to stay there. Canal alligators are healthier than marsh alligators. Canal alligators benefit from warmer canal water and better digestion rates. | | | | | | |
| Craighead, F.C. | 1968 | | | | | The role of the alligator in shaping plant communities and maintaining wildlife in the Southern Everglades. | *Fla Naturalist*. 41:2-7, 69-74, 94. |
| | Brief Notes - Early (pre) drainage information about alligator ecology. | | | | | | |
| Dalrymple, G.H. | 1996 | | | | | Growth of the American alligator in the Shark Valley region of the Everglades National Park. | *Copeia* 1:212-216 |
| | Brief Notes - Study of alligators living in Shark Valley Canal. Growth is extremely slow for alligators in southern Florida. | | | | | | |
| Dalrymple, G.H. | 2001 | | | | | American Alligator nesting and reproductive success in Everglades National Park an analysis of the systematic reconnaissance flight data (SRF) from 1985-1998 | University of Miami-Everglades National Park Cooperative Agreement # CA528-03-9013. Everglades Research Group, Inc. Homestead, FL |
| | Brief Notes - 86% of alligator nests were in Shark River Slough. Surveys expanded starting 1993--after 1993, nests clumped within Shark River Slough west of L-67 canal--All other basins, including Northeast Shark River Slough, has very few nests. Within Shark River, nests were not clumped by location or ground surface elevation; no relationship between ground elevation and nest flooding; circumstantial, but no empirical, evidence suggests alligators build taller nests at lower elevations; More alligators built nests in wet years, but only 30-60% of females nest annually; 60% of eggs hatched over all years--similar to studies in other areas; Over duration of study only 70% of nests were flooded; Predation and egg infertility were minor; latter-year nesting females were smaller | | | | | | |
| Fogarty and Albury | 1967 | | | | | Late summer foods of young alligators in Florida. | Proc. Southeast Assoc. Game Fish Comm. 21: 220-222 |
| | Brief Notes - Study of juvenile alligators from L-38 canal. Apple snails and crayfish made up the vast majority of the diet. All study animals were in good condition. | | | | | | |
| Fujisaki, Rice, Pearlstine, Mazzotti | 2009 | | | | | Relationship between body condition of American alligators and water depth in the Everglades, Florida | *Hydrobiologia* 635: 329-338 |
| | Brief Notes - Marsh study. Alligators are very sensitive to changes in hydrology on a short time scale (days). | | | | | | |
| Kushlan, J.A. | 1974 | | | | | Observations of the role of the American alligator in the southern Florida wetlands. | *Copeia* 1974(4): 993-996. |
| | Brief Notes - Canals are the primary refugia for alligators in many areas; many large alligators reside in canals. In areas without canals, ponds are disappearing from lack of large alligator presence. The importance of alligator ponds to Everglades alligators is decreasing due to canals. | | | | | | |
| Kushlan, Mazzotti | 1989 | | | | | Historic and present distribution of the American crocodile in Florida. | *Journal of Herpetology* 23(1): 1–7. |
| | Brief Notes - Reported canal-dependant crocodiles range as far north as southern Biscayne Bay/Turkey Point; Easternmost observation of crocodiles are on northern Key Largo in old canals. Only permanent northern population is warm canals in Fort Lauderdale power plant. Reports of crocodiles moving 10 km inland using canals. | | | | | | |

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| Mazzotti, F.J. | 1999 | | | | | The American Crocodile in Florida Bay | *Estuaries* 22(2B): 552-561 |
| | Brief Notes - Results of federal crocodile protection program presented, found that number and range of nests increased 1970-1995, but nesting success decreased. Increase in nesting was due to artificial substrates (canal spoil), which were prone to raccoon predation. At least 1.5% of marked hatchlings survived for at least 12 months and growth rates varied. | | | | | | |
| Mazzotti, F.J. Brandt, L.A. | 1994 | | | | | Ecology of the American alligator in a seasonally fluctuating environment. | Everglades: The Ecosystem and its Restoration, Davis and Ogden (eds) |
| | Brief Notes - Cites highest abundance of alligators in canals. | | | | | | |
| Mazzotti, Cherkiss | 2003 | | | | | Status and Conservation of the American Crocodile in Florida: Recovering an Endangered Species While Restoring an Endangered Ecosystem | University of Florida, final report submitted to the National Park Service |
| | Brief Notes - Canals are important nursery habitat for crocodiles in along southern Florida coast. In ENP, increased nesting effort occurred as a result excavated fill near man-made canals and use of canals for habitat. Canal construction has caused expansion of habitat into historic western range in Florida Bay. Cooling canals of Turkey Point have resulted in large crocodile populations. Canals provide wind protection, low salinity, abundant food, and protection from predators. | | | | | | |
| Mazzotti, Cherkiss | 2003 | | | | | Final Report the 2002-2003 monitoring program for the endangered American crocodile in south Florida | Final Report prepared for Everglades National Park, Homestead, Florida |
| | Brief Notes - Most observations of crocodiles were from disturbed habitats (canals); In ENP during 2002, 50% of nests depredated by raccoons; crocodiles are not displaced by human activity that does not directly harass or threaten them; Nursery habitat for alligators requires protection from wind and waves, low salinity, abundant food, and refugia from predators--provided by estuarine creeks, ponds and canals. | | | | | | |
| Meshaka, Babbitt | 2005 | | | | | Amphibians and Reptiles Status and Conservation in Florida | Kreiger Publishing Company, Melbourne, FL |
| | Brief Notes - Rise in water level of 15 cm after nest construction will begin to kill eggs of alligators; total mortality with rise of 30-45 cm of water. Except in central WCA-1 on tree islands. Changes in land use and land cover resulting from water management also have affected alligator populations. Some locations that were alligator habitat have been converted to agricultural and residential development. Other locations have not been developed, but are so overdrained that alligators only occur in permanent water bodies such as canals or ponds, or during periods of extremely high water. Alligators, initially displaced by development or drainage, have ended up in canals. Adult alligator and, especially, adult male alligator densities are higher in canal habitats than those in the natural marsh interior. The density and occupancy of alligator holes near canals is less than that of the marsh interior. The characteristics of alligator habitats have changed with the creation of canal systems now present in the Florida Everglades. As canals are removed, densities of alligators in adjacent marshes and occupancy of alligator holes is expected to increase. | | | | | | |
| Morea, Rice, Percival, Howarter | 2000 | | | | | Home Range and Movement of Alligators in the Everglades more linear in canals | GEER Conference, December 2000 |
| | ENP and WCA alligators do not differ in home range; males moved longer distances and had wider home ranges; canal alligators had linearly-shaped home ranges as opposed to marsh alligator home range size; large alligators moved less; movements increased with water level increase; spring season most important for males/summer for females; seasonal and hydrologic factors determine movements in the Everglades | | | | | | |
| Palmer, Gross and Rice | 1998 | | | | | ATLSS American Alligator Production Index Model Basic Model Description | Institute for Environmental Modeling, University of Tennessee, Knoxville, Knoxville, TN |
| | Brief Notes - Marsh alligator density is highest in canals; canal habitats contain high concentrations of adult alligators; Survival of young alligators may be very low near canals due to decrease in number of alligator holes and brood habitat. Canals act as surrogate alligator holes and refugia. Telemetry data suggests that canal influence on alligator movement extends a kilometer into the surround marsh. Canals are a sink to adult animals and may contribute to an overall decrease in population. | | | | | | |
| Phillips, M.L., K.G. Rice, C.R. Morea, H.F. Percival, S.R. Howarter | 2003 | | | Everglades | ENP | Habitat Selection and Home Range of American Alligators in the Greater Everglades | GEER Conf. 2003, Abstracts |
| | Brief Notes - Canal alligators strongly selected canals over all other cover types for daily and weekly locations. The creation of canals in the Greater Everglades has influenced alligator movement and habitat selection. Canal alligators spend most of their time in canals and move greater distances than alligators in WCA or ENP marshes. | | | | | | |

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| Rice, Hart, Mazzotti, Jeffery, Percival | 2008 | | | | | American Alligator Distribution, Size, and Hole Occupancy and American Crocodile Juvenile Growth and Survival | Monitoring and Assessment Plan 3.1.3.15 and 3.1.3.16, prepared for U.S. Army Corps of Engineers |
| | Brief Notes - 292 km of airboat trails and canal surveyed. Nesting increased in ENP after canals were plugged in 1980s. Canal construction has altered alligator habitat. Canals are refuge for large male alligators, with high densities over that of natural marsh. Marsh alligators move into canals during dry season. Marsh counts of alligators during dry season are very low. Virtually the entire increase in crocodiles nesting in Florida is due to nesting on artificial substrates in the Cape Sable/Flamingo area of ENP on canal banks that were created more than 40 years ago, and on the peat canal banks created at CLNWR, and at TP. Plugging canals in the Cape Sable/Flamingo area in the 1980s and 1990s to reduce saltwater intrusion and retain fresh water provided more suitable habitat for nesting for the few crocodiles present in the area and for growth and survival of hatchling crocodiles. | | | | | | |

| Source/Author | Date published | Date of study | Region (of 9) | Specific Locale | Focus | Title | Source |
|---|---|---|---|---|---|---|---|
| **Other Wildlife** | | | | | | | |
| Dalrymple, N.K. and Dalrymple, G.H. | 1996 | | | | | Dade County lake belt plan, wildlife study-8th quarterly report exotic fish exotic species disturbance | Dade County Department of Environmental Resources Management, Florida City, FL |
| | Brief Notes - Canals served as focal point for wading birds and other wildlife for the Lake Belt Study Area (northwest Dade County). Some details of wildlife survey along canal are included | | | | | | |
| Frederick, P.C., Dwyer, N, Fitzgerald, S., Bennetts, R.E. | 1990 | | | | | Relative abundance and habitat preferences of Least Bitterns (Ixobrychus exilis) in the Everglades | *Florida Field Naturalist* 18(1): 1-9 |
| | Brief Notes -- Canals were poorest habitat studied for least bitterns. | | | | | | |

**Acronyms and abbreviations:**

ARM – Arthur R. Marshall Loxahatchee National Wildlife Refuge

ATLSS – Across Trophic Level System Simulation

CLNWR – Crocodile Lake National Wildlife Refuge

ENP – Everglades National Park

FFWCC – Florida Fish and Wildlife Conservation Commission

GEER – Greater Everglades Ecosystem Restoration

LEC – Lower East Coast

SEAFWA – Southeastern Association of Fish and Wildlife Agencies

TP – Turkey Point Power Plant

USGS – U.S. Geological Society

WCA – Water Conservation Area

# Canals in South Florida: A Technical Support Document

## Appendix F

## Water Quality Statistics


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Table F-1 . Summary Water Quality Statistics By Region

| Test_ Code | Units | Region | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALK | mg/L | CAL | 286 | 124 | 45 | 115 | 26 | 94 | 122 | 157 | 241 |
| ALK | mg/L | EAA | 4361 | 202 | 71 | 189 | 30 | 140 | 201 | 244 | 471 |
| ALK | mg/L | KIS | 2956 | 59 | 44 | 47 | 2 | 28 | 42 | 71 | 221 |
| ALK | mg/L | LEC | 1264 | 178 | 45 | 171 | 32 | 147 | 180 | 202 | 294 |
| ALK | mg/L | LWC | 478 | 209 | 48 | 202 | 3 | 179 | 214 | 246 | 310 |
| ALK | mg/L | UEC | 1554 | 120 | 50 | 108 | 12 | 82 | 121 | 159 | 238 |
| ALK | mg/L | WCA | 4171 | 188 | 59 | 179 | 44 | 145 | 187 | 224 | 444 |
| CHLA | mg/M3 | CAL | 142 | 11.6 | 37.5 | 6.0 | 0.5 | 3.0 | 5.3 | 11.4 | 445.0 |
| CHLA | mg/M3 | EAA | 223 | 18.6 | 32.4 | 10.7 | 0.5 | 6.0 | 10.0 | 18.6 | 269.7 |
| CHLA | mg/M3 | KIS | 1245 | 15.5 | 15.9 | 10.4 | 0.5 | 6.0 | 12.1 | 21.0 | 291.4 |
| CHLA | mg/M3 | LEC | 433 | 6.6 | 32.2 | 2.1 | 0.5 | 0.5 | 2.0 | 4.0 | 594.0 |
| CHLA | mg/M3 | LWC | 16 | 9.2 | 13.4 | 5.7 | 1.5 | 3.5 | 5.3 | 8.6 | 56.5 |
| CHLA | mg/M3 | UEC | 56 | 13.6 | 10.6 | 9.6 | 0.5 | 6.0 | 11.5 | 17.0 | 51.0 |
| CHLA | mg/M3 | WCA | 890 | 5.5 | 8.3 | 2.8 | 0.5 | 1.4 | 2.1 | 6.0 | 74.3 |
| CHLA2 | mg/M3 | CAL | 137 | 8.5 | 11.7 | 5.0 | 0.3 | 2.5 | 4.5 | 8.7 | 73.8 |
| CHLA2 | mg/M3 | EAA | 221 | 14.3 | 28.0 | 7.9 | 0.5 | 4.8 | 7.0 | 13.2 | 232.3 |
| CHLA2 | mg/M3 | KIS | 1242 | 12.8 | 14.0 | 8.4 | 0.5 | 4.6 | 10.0 | 17.0 | 247.0 |
| CHLA2 | mg/M3 | LEC | 431 | 5.6 | 26.4 | 2.0 | 0.5 | 1.0 | 2.0 | 4.0 | 482.0 |
| CHLA2 | mg/M3 | LWC | 1469 | 4.0 | 5.6 | 2.7 | 1.5 | 1.5 | 1.5 | 4.8 | 99.9 |
| CHLA2 | mg/M3 | UEC | 56 | 10.0 | 7.3 | 7.1 | 0.5 | 4.5 | 8.5 | 14.0 | 34.0 |
| CHLA2 | mg/M3 | WCA | 929 | 5.4 | 8.5 | 2.7 | 0.4 | 1.3 | 2.0 | 5.3 | 101.0 |
| CL | mg/L | CAL | 291 | 59 | 44 | 51 | 7 | 39 | 50 | 62 | 451 |
| CL | mg/L | EAA | 4801 | 82 | 51 | 71 | 0 | 50 | 68 | 101 | 1045 |
| CL | mg/L | KIS | 2939 | 60 | 145 | 34 | 2 | 20 | 27 | 50 | 2457 |
| CL | mg/L | LEC | 1686 | 49 | 29 | 45 | 8 | 36 | 42 | 56 | 484 |
| CL | mg/L | LWC | 482 | 73 | 281 | 23 | 1 | 18 | 27 | 59 | 4500 |
| CL | mg/L | UEC | 2127 | 110 | 99 | 81 | 0 | 49 | 76 | 140 | 1195 |
| CL | mg/L | WCA | 4521 | 72 | 42 | 58 | 0 | 35 | 68 | 101 | 275 |
| COLOR | PCU | CAL | 388 | 102 | 80 | 84 | 28 | 54 | 74 | 121 | 644 |
| COLOR | PCU | EAA | 2633 | 84 | 50 | 72 | 18 | 43 | 76 | 110 | 486 |
| COLOR | PCU | KIS | 2939 | 133 | 92 | 110 | 19 | 71 | 112 | 164 | 875 |
| COLOR | PCU | LEC | 1241 | 36 | 22 | 30 | 3 | 16 | 37 | 46 | 177 |
| COLOR | PCU | LWC | 1469 | 74 | 57 | 60 | 3 | 40 | 60 | 100 | 800 |
| COLOR | PCU | UEC | 1528 | 112 | 97 | 82 | 10 | 41 | 76 | 147 | 616 |
| COLOR | PCU | WCA | 3403 | 65 | 32 | 57 | 1 | 41 | 63 | 84 | 229 |
| DO | mg/L | CAL | 488 | 5.75 | 2.15 | 5.23 | 0.39 | 4.02 | 6.05 | 7.48 | 12.20 |
| DO | mg/L | EAA | 9729 | 5.08 | 2.28 | 4.39 | 0.08 | 3.21 | 5.26 | 6.80 | 13.00 |
| DO | mg/L | KIS | 3061 | 5.56 | 2.41 | 4.74 | 0.06 | 3.79 | 5.90 | 7.35 | 12.30 |
| DO | mg/L | LEC | 3045 | 4.07 | 2.47 | 3.19 | 0.09 | 2.03 | 3.70 | 5.87 | 12.90 |
| DO | mg/L | LWC | 1959 | 5.63 | 2.33 | 5.07 | 0.18 | 3.75 | 5.55 | 7.36 | 13.61 |
| DO | mg/L | UEC | 2759 | 5.20 | 2.44 | 4.30 | 0.02 | 3.44 | 5.40 | 7.09 | 13.21 |
| DO | mg/L | WCA | 8308 | 4.19 | 2.00 | 3.63 | 0.08 | 2.68 | 4.05 | 5.49 | 13.03 |
| NH4 | mg/L | CAL | 376 | 0.094 | 0.137 | 0.047 | 0.003 | 0.020 | 0.048 | 0.101 | 0.938 |
| NH4 | mg/L | EAA | 5498 | 0.134 | 0.220 | 0.057 | 0.003 | 0.023 | 0.062 | 0.138 | 2.678 |
| NH4 | mg/L | KIS | 2940 | 0.067 | 0.104 | 0.031 | 0.003 | 0.013 | 0.030 | 0.075 | 1.200 |
| NH4 | mg/L | LEC | 1726 | 0.144 | 0.154 | 0.067 | 0.003 | 0.025 | 0.077 | 0.239 | 1.186 |
| NH4 | mg/L | LWC | 372 | 0.041 | 0.050 | 0.021 | 0.004 | 0.005 | 0.020 | 0.054 | 0.390 |
| NH4 | mg/L | UEC | 2857 | 0.127 | 0.894 | 0.043 | 0.003 | 0.017 | 0.046 | 0.119 | 29.719 |
| NH4 | mg/L | WCA | 4503 | 0.103 | 0.270 | 0.039 | 0.002 | 0.018 | 0.034 | 0.076 | 3.505 |
| NOX | mg/L | CAL | 455 | 0.205 | 0.172 | 0.107 | 0.002 | 0.054 | 0.175 | 0.312 | 0.849 |
| NOX | mg/L | EAA | 6863 | 0.345 | 0.527 | 0.120 | 0.002 | 0.040 | 0.157 | 0.453 | 7.583 |
| NOX | mg/L | KIS | 4965 | 0.263 | 0.426 | 0.067 | 0.002 | 0.014 | 0.087 | 0.322 | 2.921 |
| NOX | mg/L | LEC | 3456 | 0.076 | 0.104 | 0.041 | 0.002 | 0.019 | 0.048 | 0.097 | 2.260 |
| NOX | mg/L | LWC | 1264 | 0.034 | 0.050 | 0.015 | 0.001 | 0.005 | 0.010 | 0.050 | 0.820 |
| NOX | mg/L | UEC | 3463 | 0.228 | 1.502 | 0.062 | 0.001 | 0.017 | 0.085 | 0.244 | 61.548 |
| NOX | mg/L | WCA | 6993 | 0.061 | 0.173 | 0.022 | 0.002 | 0.009 | 0.022 | 0.048 | 4.200 |
| OPO4 | mg/L | CAL | 372 | 0.094 | 0.090 | 0.066 | 0.002 | 0.045 | 0.071 | 0.118 | 0.830 |
| OPO4 | mg/L | EAA | 7090 | 0.054 | 0.063 | 0.027 | 0.001 | 0.010 | 0.037 | 0.074 | 0.826 |
| OPO4 | mg/L | KIS | 2902 | 0.057 | 0.077 | 0.027 | 0.001 | 0.010 | 0.031 | 0.074 | 0.868 |
| OPO4 | mg/L | LEC | 1815 | 0.016 | 0.036 | 0.004 | 0.001 | 0.002 | 0.002 | 0.008 | 0.344 |
| OPO4 | mg/L | LWC | 1281 | 0.008 | 0.012 | 0.005 | 0.002 | 0.002 | 0.005 | 0.009 | 0.244 |
| OPO4 | mg/L | UEC | 2195 | 0.202 | 0.214 | 0.110 | 0.001 | 0.054 | 0.121 | 0.287 | 1.610 |
| OPO4 | mg/L | WCA | 4699 | 0.012 | 0.027 | 0.005 | 0.001 | 0.002 | 0.004 | 0.008 | 0.544 |
| SCOND | µS/cm | CAL | 480 | 524 | 246 | 484 | 146 | 391 | 468 | 591 | 2574 |

Table F-1 . Summary Water Quality Statistics By Region

| Test_ Code | Units | Region | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCOND | µS/cm | EAA | 10086 | 737 | 312 | 681 | 8 | 535 | 658 | 876 | 3390 |
| SCOND | µS/cm | KIS | 3091 | 390 | 532 | 280 | 58 | 165 | 238 | 436 | 7415 |
| SCOND | µS/cm | LEC | 3102 | 603 | 164 | 582 | 5 | 505 | 554 | 726 | 1939 |
| SCOND | µS/cm | LWC | 1945 | 667 | 722 | 587 | 178 | 476 | 579 | 699 | 16063 |
| SCOND | µS/cm | UEC | 2788 | 593 | 377 | 492 | 53 | 331 | 515 | 735 | 5007 |
| SCOND | µS/cm | WCA | 8408 | 628 | 337 | 577 | 1 | 455 | 596 | 752 | 7995 |
| TEMP | °C | CAL | 524 | 24.9 | 4.3 | 24.5 | 12.9 | 21.4 | 25.0 | 28.8 | 33.1 |
| TEMP | °C | EAA | 9963 | 25.1 | 4.2 | 24.7 | 3.2 | 21.8 | 25.8 | 28.7 | 36.5 |
| TEMP | °C | KIS | 3089 | 24.8 | 4.6 | 24.3 | 11.0 | 21.1 | 25.3 | 28.9 | 36.4 |
| TEMP | °C | LEC | 3139 | 25.3 | 2.8 | 25.2 | 15.3 | 23.4 | 25.6 | 27.4 | 32.6 |
| TEMP | °C | LWC | 2072 | 24.9 | 3.6 | 24.6 | 13.9 | 22.3 | 25.6 | 27.7 | 32.5 |
| TEMP | °C | UEC | 2803 | 24.4 | 4.4 | 24.0 | 10.3 | 21.2 | 25.0 | 28.2 | 39.8 |
| TEMP | °C | WCA | 7841 | 25.1 | 3.9 | 24.8 | 13.0 | 22.2 | 25.6 | 28.6 | 35.0 |
| TKN | mg/L | CAL | 474 | 1.31 | 0.38 | 1.25 | 0.03 | 1.05 | 1.24 | 1.47 | 3.03 |
| TKN | mg/L | EAA | 6996 | 1.94 | 0.95 | 1.79 | 0.03 | 1.36 | 1.68 | 2.23 | 30.52 |
| TKN | mg/L | KIS | 6594 | 1.45 | 0.63 | 1.36 | 0.10 | 1.10 | 1.34 | 1.69 | 24.00 |
| TKN | mg/L | LEC | 3784 | 0.93 | 0.38 | 0.85 | 0.03 | 0.61 | 0.87 | 1.19 | 5.45 |
| TKN | mg/L | LWC | 1146 | 0.68 | 0.37 | 0.58 | 0.02 | 0.46 | 0.62 | 0.82 | 3.43 |
| TKN | mg/L | UEC | 4150 | 1.46 | 0.96 | 1.35 | 0.13 | 1.10 | 1.36 | 1.64 | 29.56 |
| TKN | mg/L | WCA | 7704 | 1.39 | 0.59 | 1.31 | 0.03 | 1.04 | 1.28 | 1.58 | 11.09 |
| TOTN | mg/L | CAL | 454 | 1.49 | 0.34 | 1.46 | 0.50 | 1.30 | 1.43 | 1.60 | 3.00 |
| TOTN | mg/L | EAA | 6823 | 2.28 | 1.25 | 2.06 | 0.10 | 1.50 | 1.90 | 2.60 | 30.90 |
| TOTN | mg/L | KIS | 4933 | 1.80 | 0.78 | 1.69 | 0.10 | 1.30 | 1.70 | 2.10 | 25.20 |
| TOTN | mg/L | LEC | 3436 | 1.01 | 0.41 | 0.93 | 0.25 | 0.70 | 0.95 | 1.30 | 5.70 |
| TOTN | mg/L | LWC | 1070 | 0.73 | 0.38 | 0.64 | 0.05 | 0.50 | 0.70 | 0.90 | 3.40 |
| TOTN | mg/L | UEC | 3398 | 1.66 | 2.36 | 1.48 | 0.10 | 1.20 | 1.50 | 1.80 | 89.60 |
| TOTN | mg/L | WCA | 6937 | 1.47 | 0.67 | 1.37 | 0.25 | 1.10 | 1.30 | 1.60 | 11.10 |
| TPO4 | mg/L | CAL | 458 | 0.145 | 0.096 | 0.126 | 0.020 | 0.092 | 0.121 | 0.170 | 1.136 |
| TPO4 | mg/L | EAA | 16057 | 0.111 | 0.114 | 0.078 | 0.007 | 0.044 | 0.080 | 0.142 | 3.944 |
| TPO4 | mg/L | KIS | 9581 | 0.129 | 0.181 | 0.100 | 0.002 | 0.062 | 0.091 | 0.149 | 10.000 |
| TPO4 | mg/L | LEC | 5196 | 0.021 | 0.040 | 0.012 | 0.001 | 0.006 | 0.009 | 0.016 | 0.925 |
| TPO4 | mg/L | LWC | 1231 | 0.025 | 0.026 | 0.020 | 0.002 | 0.012 | 0.020 | 0.030 | 0.435 |
| TPO4 | mg/L | UEC | 5294 | 0.324 | 0.246 | 0.250 | 0.006 | 0.153 | 0.260 | 0.418 | 2.003 |
| TPO4 | mg/L | UKB | 139 | 0.099 | 0.172 | 0.047 | 0.012 | 0.025 | 0.033 | 0.055 | 1.024 |
| TPO4 | mg/L | WCA | 11994 | 0.030 | 0.086 | 0.020 | 0.001 | 0.011 | 0.017 | 0.033 | 8.540 |
| TURB | NTU | CAL | 385 | 6.4 | 7.0 | 4.4 | 0.4 | 2.5 | 3.8 | 7.5 | 56.8 |
| TURB | NTU | EAA | 4105 | 15.1 | 30.5 | 6.4 | 0.6 | 2.6 | 4.9 | 12.9 | 366.0 |
| TURB | NTU | KIS | 2970 | 4.9 | 4.1 | 4.0 | 0.1 | 2.6 | 3.8 | 5.7 | 57.6 |
| TURB | NTU | LEC | 1602 | 3.2 | 4.9 | 2.3 | 0.2 | 1.4 | 2.3 | 3.4 | 110.0 |
| TURB | NTU | LWC | 1563 | 2.1 | 2.4 | 1.5 | 0.1 | 0.9 | 1.5 | 2.5 | 53.2 |
| TURB | NTU | UEC | 1675 | 16.2 | 33.6 | 6.3 | 0.1 | 2.8 | 4.6 | 11.8 | 386.0 |
| TURB | NTU | WCA | 3789 | 3.0 | 7.8 | 1.7 | 0.1 | 0.9 | 1.5 | 2.8 | 243.0 |

Table F-2 . Summary Water Quality Statistics By Canal

| Test_ Code | Units | Region | Canal | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTN | mg/L | CAL | C-19 | 53 | 1.76 | 0.42 | 1.72 | 1.20 | 1.40 | 1.60 | 2.00 | 2.90 |
| TOTN | mg/L | CAL | C-43 | 299 | 1.40 | 0.28 | 1.38 | 0.50 | 1.20 | 1.40 | 1.50 | 2.80 |
| TOTN | mg/L | CAL | L-41/L-42 | 102 | 1.61 | 0.35 | 1.58 | 1.00 | 1.40 | 1.50 | 1.80 | 3.00 |
| TOTN | mg/L | EAA | C-21 | 155 | 1.87 | 0.60 | 1.78 | 0.25 | 1.50 | 1.70 | 2.10 | 3.80 |
| TOTN | mg/L | EAA | Industrial | 172 | 2.14 | 0.84 | 2.00 | 1.00 | 1.50 | 1.90 | 2.50 | 5.20 |
| TOTN | mg/L | EAA | L-10 | 779 | 2.25 | 1.63 | 2.02 | 1.00 | 1.60 | 1.90 | 2.40 | 30.90 |
| TOTN | mg/L | EAA | L-12 | 654 | 3.09 | 1.40 | 2.79 | 1.00 | 1.90 | 2.90 | 4.00 | 9.40 |
| TOTN | mg/L | EAA | L-14/L-20 | 253 | 3.84 | 2.09 | 3.32 | 0.90 | 2.10 | 3.60 | 5.00 | 13.80 |
| TOTN | mg/L | EAA | L-15 | 582 | 3.05 | 1.09 | 2.86 | 1.10 | 2.30 | 2.90 | 3.70 | 7.80 |
| TOTN | mg/L | EAA | L-1e | 339 | 1.64 | 0.45 | 1.60 | 0.10 | 1.40 | 1.60 | 1.80 | 7.30 |
| TOTN | mg/L | EAA | L-2 | 961 | 1.52 | 0.39 | 1.48 | 0.90 | 1.30 | 1.50 | 1.70 | 6.60 |
| TOTN | mg/L | EAA | L-23 | 244 | 2.55 | 1.28 | 2.28 | 1.00 | 1.50 | 2.10 | 3.35 | 6.90 |
| TOTN | mg/L | EAA | L-25 | 217 | 2.95 | 1.60 | 2.62 | 0.90 | 1.80 | 2.60 | 3.83 | 10.90 |
| TOTN | mg/L | EAA | L-3 | 323 | 1.56 | 0.27 | 1.54 | 1.00 | 1.40 | 1.50 | 1.70 | 2.90 |
| TOTN | mg/L | EAA | L-5 | 659 | 2.05 | 0.78 | 1.94 | 0.80 | 1.60 | 1.90 | 2.30 | 6.40 |
| TOTN | mg/L | EAA | L-6 | 387 | 2.19 | 0.72 | 2.09 | 0.70 | 1.80 | 2.00 | 2.40 | 5.60 |
| TOTN | mg/L | EAA | L-7 | 190 | 2.76 | 1.22 | 2.53 | 1.10 | 1.80 | 2.40 | 3.70 | 7.30 |
| TOTN | mg/L | EAA | L-8 | 908 | 2.05 | 0.91 | 1.91 | 0.90 | 1.50 | 1.80 | 2.30 | 7.00 |
| TOTN | mg/L | KIS | C-38 | 1294 | 1.24 | 0.28 | 1.21 | 0.25 | 1.10 | 1.20 | 1.40 | 3.70 |
| TOTN | mg/L | KIS | C-40 | 1122 | 1.92 | 0.57 | 1.85 | 0.70 | 1.50 | 1.80 | 2.20 | 6.00 |
| TOTN | mg/L | KIS | C-41 | 1328 | 2.26 | 1.04 | 2.15 | 0.10 | 1.80 | 2.10 | 2.50 | 25.20 |
| TOTN | mg/L | KIS | C-41A | 235 | 1.39 | 0.53 | 1.33 | 0.60 | 1.10 | 1.30 | 1.50 | 6.80 |
| TOTN | mg/L | KIS | L-48 | 120 | 1.99 | 0.33 | 1.96 | 1.20 | 1.80 | 1.90 | 2.20 | 3.20 |
| TOTN | mg/L | KIS | L-49 | 123 | 1.59 | 0.23 | 1.57 | 1.20 | 1.40 | 1.60 | 1.70 | 2.70 |
| TOTN | mg/L | KIS | L-50 | 256 | 1.72 | 0.54 | 1.66 | 1.00 | 1.40 | 1.60 | 1.80 | 4.40 |
| TOTN | mg/L | KIS | L-59 | 236 | 2.08 | 0.76 | 1.96 | 0.80 | 1.50 | 1.90 | 2.40 | 5.10 |
| TOTN | mg/L | KIS | L-60W | 96 | 1.90 | 0.52 | 1.84 | 1.20 | 1.50 | 1.80 | 2.10 | 3.70 |
| TOTN | mg/L | KIS | L-61 | 123 | 2.10 | 0.63 | 2.01 | 1.00 | 1.70 | 2.00 | 2.40 | 4.40 |
| TOTN | mg/L | LEC | C-11 | 518 | 1.49 | 0.16 | 1.48 | 0.70 | 1.40 | 1.50 | 1.60 | 1.90 |
| TOTN | mg/L | LEC | C-111 | 1084 | 0.71 | 0.30 | 0.66 | 0.25 | 0.60 | 0.60 | 0.80 | 5.70 |
| TOTN | mg/L | LEC | C-111e | 131 | 0.94 | 0.55 | 0.82 | 0.25 | 0.60 | 0.80 | 1.08 | 3.50 |
| TOTN | mg/L | LEC | C-15 | 120 | 1.17 | 0.46 | 1.11 | 0.70 | 0.90 | 1.00 | 1.30 | 4.20 |
| TOTN | mg/L | LEC | C-16 | 122 | 1.16 | 0.50 | 1.10 | 0.60 | 0.90 | 1.10 | 1.30 | 5.50 |
| TOTN | mg/L | LEC | C-17 | 122 | 1.03 | 0.19 | 1.01 | 0.60 | 0.90 | 1.00 | 1.20 | 1.50 |
| TOTN | mg/L | LEC | C-18 | 109 | 0.87 | 0.20 | 0.85 | 0.50 | 0.70 | 0.80 | 1.00 | 1.90 |
| TOTN | mg/L | LEC | C-51 | 123 | 1.27 | 0.42 | 1.22 | 0.70 | 1.00 | 1.20 | 1.48 | 3.90 |
| TOTN | mg/L | LEC | L-31n | 1107 | 1.04 | 0.32 | 0.99 | 0.25 | 0.80 | 1.00 | 1.20 | 2.70 |
| TOTN | mg/L | LWC | Airport Road | 71 | 0.86 | 0.35 | 0.78 | 0.05 | 0.70 | 0.80 | 1.00 | 2.50 |
| TOTN | mg/L | LWC | Cocohatchee | 117 | 0.75 | 0.33 | 0.70 | 0.10 | 0.60 | 0.70 | 0.90 | 2.90 |
| TOTN | mg/L | LWC | Corkscrew | 70 | 1.32 | 0.48 | 1.21 | 0.10 | 1.00 | 1.20 | 1.60 | 2.60 |
| TOTN | mg/L | LWC | Cr-951 | 130 | 0.83 | 0.30 | 0.79 | 0.10 | 0.70 | 0.80 | 0.90 | 2.10 |
| TOTN | mg/L | LWC | Faka Union | 272 | 0.58 | 0.32 | 0.52 | 0.05 | 0.40 | 0.50 | 0.70 | 3.40 |
| TOTN | mg/L | LWC | Golden Gate | 69 | 0.75 | 0.30 | 0.68 | 0.05 | 0.60 | 0.70 | 0.90 | 1.90 |
| TOTN | mg/L | LWC | Golden Gate Main | 67 | 0.78 | 0.37 | 0.70 | 0.10 | 0.60 | 0.70 | 0.90 | 2.70 |
| TOTN | mg/L | LWC | Henderson | 71 | 0.69 | 0.27 | 0.63 | 0.05 | 0.50 | 0.60 | 0.80 | 2.00 |
| TOTN | mg/L | LWC | Merritt | 138 | 0.57 | 0.30 | 0.50 | 0.05 | 0.40 | 0.50 | 0.60 | 1.80 |
| TOTN | mg/L | LWC | Miller | 65 | 0.62 | 0.27 | 0.58 | 0.20 | 0.50 | 0.60 | 0.70 | 1.80 |
| TOTN | mg/L | UEC | C-23 | 408 | 1.44 | 0.43 | 1.37 | 0.25 | 1.10 | 1.50 | 1.70 | 3.80 |
| TOTN | mg/L | UEC | C-24 | 373 | 1.40 | 0.42 | 1.35 | 0.70 | 1.10 | 1.40 | 1.60 | 5.80 |
| TOTN | mg/L | UEC | C-25 | 406 | 1.30 | 0.42 | 1.23 | 0.25 | 1.00 | 1.30 | 1.60 | 2.70 |
| TOTN | mg/L | UEC | C-44 | 695 | 1.64 | 0.59 | 1.56 | 0.80 | 1.30 | 1.50 | 1.80 | 5.40 |
| TOTN | mg/L | UEC | C-59 | 234 | 1.64 | 0.46 | 1.58 | 0.90 | 1.30 | 1.60 | 2.00 | 2.90 |
| TOTN | mg/L | UEC | L-47 | 128 | 1.54 | 0.29 | 1.52 | 1.10 | 1.40 | 1.50 | 1.60 | 3.70 |
| TOTN | mg/L | UEC | L-62 | 222 | 1.62 | 0.42 | 1.58 | 0.80 | 1.30 | 1.50 | 1.80 | 3.60 |
| TOTN | mg/L | UEC | L-63n | 289 | 2.50 | 7.69 | 1.44 | 0.20 | 0.90 | 1.30 | 2.00 | 89.60 |
| TOTN | mg/L | UEC | L-63s | 62 | 2.58 | 2.95 | 2.02 | 0.70 | 1.60 | 1.88 | 2.10 | 21.90 |
| TOTN | mg/L | UEC | Ld-4 | 127 | 1.63 | 0.29 | 1.61 | 1.10 | 1.40 | 1.60 | 1.80 | 2.50 |
| TOTN | mg/L | UEC | Taylor Creek | 454 | 1.84 | 0.90 | 1.68 | 0.10 | 1.30 | 1.70 | 2.20 | 11.15 |
| TOTN | mg/L | WCA | C-123 | 156 | 1.57 | 0.31 | 1.55 | 1.00 | 1.40 | 1.60 | 1.70 | 4.00 |
| TOTN | mg/L | WCA | C-304 | 104 | 1.37 | 0.25 | 1.35 | 1.00 | 1.20 | 1.30 | 1.50 | 2.00 |
| TOTN | mg/L | WCA | C-51 | 135 | 1.77 | 0.64 | 1.68 | 1.00 | 1.40 | 1.60 | 1.90 | 5.00 |
| TOTN | mg/L | WCA | L-23/C-123 | 153 | 1.51 | 0.35 | 1.48 | 1.00 | 1.30 | 1.50 | 1.70 | 3.30 |
| TOTN | mg/L | WCA | L-28 | 357 | 1.20 | 0.34 | 1.17 | 0.25 | 1.02 | 1.20 | 1.30 | 6.10 |

Table F-2 . Summary Water Quality Statistics By Canal

| Test_ Code | Units | Region | Canal | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTN | mg/L | WCA | L-28 Interceptor | 154 | 1.11 | 0.14 | 1.10 | 0.70 | 1.00 | 1.10 | 1.20 | 1.60 |
| TOTN | mg/L | WCA | L-29 | 3522 | 1.23 | 0.39 | 1.18 | 0.25 | 1.00 | 1.20 | 1.50 | 11.10 |
| TOTN | mg/L | WCA | L-30 | 20 | 1.33 | 0.22 | 1.31 | 0.90 | 1.15 | 1.35 | 1.45 | 1.70 |
| TOTN | mg/L | WCA | L-31W | 26 | 0.76 | 0.25 | 0.73 | 0.48 | 0.56 | 0.67 | 1.00 | 1.20 |
| TOTN | mg/L | WCA | L-35 | 120 | 1.68 | 0.37 | 1.65 | 0.80 | 1.50 | 1.60 | 1.80 | 3.70 |
| TOTN | mg/L | WCA | L-35b | 337 | 1.63 | 0.43 | 1.57 | 0.25 | 1.30 | 1.60 | 1.90 | 3.10 |
| TOTN | mg/L | WCA | L-38e | 573 | 1.80 | 0.51 | 1.74 | 0.70 | 1.50 | 1.70 | 2.00 | 4.40 |
| TOTN | mg/L | WCA | L-39 | 710 | 2.26 | 1.11 | 2.04 | 0.75 | 1.50 | 1.90 | 2.70 | 6.40 |
| TOTN | mg/L | WCA | L-40 | 143 | 1.77 | 0.75 | 1.65 | 0.80 | 1.30 | 1.60 | 2.00 | 5.50 |
| TOTN | mg/L | WCA | L-7 | 207 | 2.34 | 1.04 | 2.16 | 0.94 | 1.62 | 2.00 | 2.70 | 7.70 |
| TOTN | mg/L | WCA | West Feeder | 220 | 1.16 | 0.20 | 1.14 | 0.70 | 1.00 | 1.10 | 1.30 | 1.90 |
| TPO4 | mg/L | CAL | C-19 | 60 | 0.213 | 0.193 | 0.164 | 0.045 | 0.099 | 0.144 | 0.252 | 1.136 |
| TPO4 | mg/L | CAL | C-43 | 292 | 0.132 | 0.062 | 0.119 | 0.020 | 0.095 | 0.120 | 0.158 | 0.561 |
| TPO4 | mg/L | CAL | L-41/L-42 | 106 | 0.144 | 0.074 | 0.128 | 0.052 | 0.089 | 0.120 | 0.171 | 0.450 |
| TPO4 | mg/L | EAA | C-21 | 157 | 0.117 | 0.059 | 0.104 | 0.039 | 0.075 | 0.098 | 0.145 | 0.362 |
| TPO4 | mg/L | EAA | Industrial | 172 | 0.130 | 0.079 | 0.114 | 0.039 | 0.080 | 0.111 | 0.154 | 0.535 |
| TPO4 | mg/L | EAA | L-1 | 213 | 0.059 | 0.024 | 0.055 | 0.025 | 0.041 | 0.052 | 0.071 | 0.161 |
| TPO4 | mg/L | EAA | L-10 | 887 | 0.218 | 0.146 | 0.193 | 0.023 | 0.140 | 0.183 | 0.251 | 2.568 |
| TPO4 | mg/L | EAA | L-12 | 959 | 0.138 | 0.077 | 0.120 | 0.016 | 0.084 | 0.121 | 0.169 | 0.822 |
| TPO4 | mg/L | EAA | L-13 | 246 | 0.124 | 0.080 | 0.105 | 0.030 | 0.072 | 0.105 | 0.145 | 0.558 |
| TPO4 | mg/L | EAA | L-14 | 3 | 0.145 | 0.007 | 0.145 | 0.137 | 0.140 | 0.147 | 0.150 | 0.151 |
| TPO4 | mg/L | EAA | L-14/L-20 | 256 | 0.155 | 0.161 | 0.124 | 0.033 | 0.084 | 0.119 | 0.185 | 1.653 |
| TPO4 | mg/L | EAA | L-15 | 937 | 0.075 | 0.061 | 0.058 | 0.013 | 0.032 | 0.060 | 0.100 | 0.799 |
| TPO4 | mg/L | EAA | L-18 | 210 | 0.042 | 0.024 | 0.036 | 0.008 | 0.026 | 0.040 | 0.053 | 0.138 |
| TPO4 | mg/L | EAA | L-1e | 618 | 0.094 | 0.109 | 0.067 | 0.015 | 0.038 | 0.057 | 0.104 | 1.440 |
| TPO4 | mg/L | EAA | L-2 | 3762 | 0.150 | 0.150 | 0.117 | 0.024 | 0.071 | 0.107 | 0.180 | 3.944 |
| TPO4 | mg/L | EAA | L-23 | 1862 | 0.054 | 0.043 | 0.043 | 0.007 | 0.027 | 0.042 | 0.067 | 0.591 |
| TPO4 | mg/L | EAA | L-25 | 224 | 0.099 | 0.074 | 0.083 | 0.027 | 0.055 | 0.081 | 0.115 | 0.589 |
| TPO4 | mg/L | EAA | L-2w | 205 | 0.070 | 0.049 | 0.061 | 0.027 | 0.043 | 0.056 | 0.080 | 0.566 |
| TPO4 | mg/L | EAA | L-3 | 1234 | 0.084 | 0.081 | 0.062 | 0.008 | 0.039 | 0.055 | 0.093 | 0.791 |
| TPO4 | mg/L | EAA | L-3w | 321 | 0.110 | 0.118 | 0.077 | 0.016 | 0.044 | 0.067 | 0.122 | 0.915 |
| TPO4 | mg/L | EAA | L-5 | 1205 | 0.041 | 0.050 | 0.031 | 0.007 | 0.018 | 0.027 | 0.049 | 1.286 |
| TPO4 | mg/L | EAA | L-6 | 633 | 0.033 | 0.028 | 0.026 | 0.007 | 0.015 | 0.024 | 0.039 | 0.319 |
| TPO4 | mg/L | EAA | L-7 | 621 | 0.147 | 0.084 | 0.124 | 0.018 | 0.089 | 0.137 | 0.192 | 0.706 |
| TPO4 | mg/L | EAA | L-8 | 1332 | 0.140 | 0.094 | 0.116 | 0.016 | 0.078 | 0.119 | 0.177 | 0.723 |
| TPO4 | mg/L | KIS | C-38 | 5069 | 0.085 | 0.055 | 0.074 | 0.002 | 0.054 | 0.070 | 0.097 | 1.137 |
| TPO4 | mg/L | KIS | C-40 | 1416 | 0.205 | 0.132 | 0.176 | 0.021 | 0.121 | 0.166 | 0.251 | 1.380 |
| TPO4 | mg/L | KIS | C-41 | 1728 | 0.200 | 0.366 | 0.154 | 0.002 | 0.097 | 0.140 | 0.234 | 10.000 |
| TPO4 | mg/L | KIS | C-41A | 295 | 0.081 | 0.060 | 0.068 | 0.025 | 0.049 | 0.066 | 0.089 | 0.491 |
| TPO4 | mg/L | KIS | Istokpoga | 87 | 0.064 | 0.029 | 0.060 | 0.030 | 0.049 | 0.058 | 0.070 | 0.242 |
| TPO4 | mg/L | KIS | L-48 | 123 | 0.144 | 0.110 | 0.115 | 0.033 | 0.065 | 0.108 | 0.193 | 0.673 |
| TPO4 | mg/L | KIS | L-49 | 130 | 0.076 | 0.038 | 0.068 | 0.028 | 0.045 | 0.069 | 0.097 | 0.199 |
| TPO4 | mg/L | KIS | L-50 | 263 | 0.106 | 0.052 | 0.096 | 0.034 | 0.069 | 0.101 | 0.130 | 0.434 |
| TPO4 | mg/L | KIS | L-59 | 245 | 0.192 | 0.180 | 0.152 | 0.034 | 0.099 | 0.135 | 0.228 | 1.926 |
| TPO4 | mg/L | KIS | L-60W | 98 | 0.139 | 0.089 | 0.120 | 0.052 | 0.079 | 0.118 | 0.165 | 0.524 |
| TPO4 | mg/L | KIS | L-61 | 127 | 0.172 | 0.121 | 0.141 | 0.035 | 0.084 | 0.137 | 0.206 | 0.686 |
| TPO4 | mg/L | LEC | C-11 | 1366 | 0.015 | 0.008 | 0.014 | 0.004 | 0.011 | 0.013 | 0.017 | 0.140 |
| TPO4 | mg/L | LEC | C-111 | 1439 | 0.007 | 0.006 | 0.006 | 0.001 | 0.005 | 0.006 | 0.008 | 0.126 |
| TPO4 | mg/L | LEC | C-111e | 224 | 0.042 | 0.039 | 0.031 | 0.006 | 0.019 | 0.030 | 0.048 | 0.286 |
| TPO4 | mg/L | LEC | C-15 | 122 | 0.167 | 0.107 | 0.142 | 0.029 | 0.098 | 0.127 | 0.204 | 0.702 |
| TPO4 | mg/L | LEC | C-16 | 123 | 0.112 | 0.099 | 0.092 | 0.027 | 0.060 | 0.088 | 0.125 | 0.925 |
| TPO4 | mg/L | LEC | C-17 | 124 | 0.056 | 0.021 | 0.052 | 0.017 | 0.042 | 0.051 | 0.065 | 0.130 |
| TPO4 | mg/L | LEC | C-18 | 112 | 0.028 | 0.019 | 0.023 | 0.009 | 0.015 | 0.022 | 0.037 | 0.112 |
| TPO4 | mg/L | LEC | C-51 | 165 | 0.076 | 0.040 | 0.067 | 0.024 | 0.049 | 0.067 | 0.093 | 0.279 |
| TPO4 | mg/L | LEC | L-31n | 1521 | 0.008 | 0.004 | 0.007 | 0.003 | 0.006 | 0.007 | 0.009 | 0.051 |
| TPO4 | mg/L | LWC | Airport Road | 80 | 0.047 | 0.026 | 0.041 | 0.012 | 0.027 | 0.040 | 0.062 | 0.130 |
| TPO4 | mg/L | LWC | Cocohatchee | 138 | 0.028 | 0.028 | 0.022 | 0.002 | 0.016 | 0.020 | 0.031 | 0.256 |
| TPO4 | mg/L | LWC | Corkscrew | 77 | 0.037 | 0.034 | 0.029 | 0.005 | 0.021 | 0.027 | 0.037 | 0.260 |
| TPO4 | mg/L | LWC | Cr-951 | 150 | 0.024 | 0.023 | 0.019 | 0.002 | 0.012 | 0.018 | 0.028 | 0.165 |
| TPO4 | mg/L | LWC | Faka Union | 316 | 0.023 | 0.029 | 0.017 | 0.002 | 0.010 | 0.017 | 0.029 | 0.435 |
| TPO4 | mg/L | LWC | Golden Gate | 78 | 0.026 | 0.041 | 0.020 | 0.005 | 0.016 | 0.020 | 0.024 | 0.315 |
| TPO4 | mg/L | LWC | Golden Gate Main | 75 | 0.031 | 0.015 | 0.027 | 0.005 | 0.020 | 0.028 | 0.038 | 0.070 |
| TPO4 | mg/L | LWC | Henderson | 78 | 0.020 | 0.013 | 0.018 | 0.007 | 0.012 | 0.019 | 0.023 | 0.105 |

| Table F-2 . Summary Water Quality Statistics By Canal | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Test_ Code** | **Units** | **Regi on** | **Canal** | **01_ N** | **02_ Mean** | **03_ StdDev** | **04_ GeoMean** | **05_ Min** | **06_ P25** | **07_ Median** | 08_ P75 | 09_ Max |
| TPO4 | mg/L | LWC | Merritt | 158 | 0.018 | 0.012 | 0.016 | 0.002 | 0.010 | 0.016 | 0.023 | 0.072 |
| TPO4 | mg/L | LWC | Miller | 81 | 0.013 | 0.006 | 0.012 | 0.005 | 0.009 | 0.012 | 0.015 | 0.036 |
| TPO4 | mg/L | UEC | C-23 | 427 | 0.365 | 0.190 | 0.313 | 0.066 | 0.219 | 0.341 | 0.473 | 1.100 |
| TPO4 | mg/L | UEC | C-24 | 386 | 0.280 | 0.167 | 0.232 | 0.038 | 0.147 | 0.262 | 0.363 | 1.020 |
| TPO4 | mg/L | UEC | C-25 | 437 | 0.205 | 0.166 | 0.148 | 0.017 | 0.079 | 0.156 | 0.292 | 0.895 |
| TPO4 | mg/L | UEC | C-44 | 714 | 0.198 | 0.106 | 0.177 | 0.050 | 0.125 | 0.170 | 0.241 | 0.908 |
| TPO4 | mg/L | UEC | C-59 | 991 | 0.432 | 0.225 | 0.380 | 0.085 | 0.254 | 0.366 | 0.562 | 1.242 |
| TPO4 | mg/L | UEC | L-47 | 133 | 0.106 | 0.063 | 0.091 | 0.028 | 0.063 | 0.086 | 0.129 | 0.342 |
| TPO4 | mg/L | UEC | L-62 | 1047 | 0.361 | 0.337 | 0.255 | 0.027 | 0.137 | 0.230 | 0.462 | 2.003 |
| TPO4 | mg/L | UEC | L-63n | 342 | 0.293 | 0.256 | 0.207 | 0.006 | 0.130 | 0.225 | 0.344 | 1.520 |
| TPO4 | mg/L | UEC | L-63s | 71 | 0.342 | 0.257 | 0.227 | 0.010 | 0.110 | 0.301 | 0.488 | 1.100 |
| TPO4 | mg/L | UEC | Ld-4 | 131 | 0.196 | 0.132 | 0.165 | 0.050 | 0.109 | 0.145 | 0.225 | 0.688 |
| TPO4 | mg/L | UEC | Taylor Creek | 615 | 0.412 | 0.219 | 0.363 | 0.071 | 0.264 | 0.357 | 0.484 | 1.370 |
| TPO4 | mg/L | UKB | C-29a | 21 | 0.033 | 0.007 | 0.032 | 0.020 | 0.030 | 0.032 | 0.038 | 0.050 |
| TPO4 | mg/L | UKB | C-29b | 28 | 0.041 | 0.012 | 0.039 | 0.023 | 0.033 | 0.038 | 0.048 | 0.069 |
| TPO4 | mg/L | UKB | C-30 | 13 | 0.021 | 0.005 | 0.020 | 0.014 | 0.017 | 0.019 | 0.026 | 0.029 |
| TPO4 | mg/L | UKB | C-32g | 23 | 0.025 | 0.014 | 0.023 | 0.012 | 0.016 | 0.020 | 0.026 | 0.071 |
| TPO4 | mg/L | UKB | C-33 | 8 | 0.029 | 0.008 | 0.028 | 0.017 | 0.024 | 0.027 | 0.033 | 0.044 |
| TPO4 | mg/L | UKB | C-34 | 46 | 0.235 | 0.248 | 0.122 | 0.018 | 0.033 | 0.135 | 0.379 | 1.024 |
| TPO4 | mg/L | WCA | C-123 | 161 | 0.019 | 0.011 | 0.016 | 0.006 | 0.011 | 0.015 | 0.021 | 0.072 |
| TPO4 | mg/L | WCA | C-304 | 105 | 0.016 | 0.018 | 0.013 | 0.006 | 0.010 | 0.012 | 0.015 | 0.171 |
| TPO4 | mg/L | WCA | C-51 | 140 | 0.115 | 0.065 | 0.100 | 0.029 | 0.068 | 0.103 | 0.142 | 0.409 |
| TPO4 | mg/L | WCA | L-23/C-123 | 158 | 0.033 | 0.022 | 0.028 | 0.010 | 0.018 | 0.027 | 0.041 | 0.136 |
| TPO4 | mg/L | WCA | L-28 | 923 | 0.044 | 0.036 | 0.038 | 0.009 | 0.029 | 0.037 | 0.049 | 0.783 |
| TPO4 | mg/L | WCA | L-28 Interceptor | 532 | 0.060 | 0.050 | 0.047 | 0.001 | 0.029 | 0.040 | 0.080 | 0.368 |
| TPO4 | mg/L | WCA | L-29 | 6229 | 0.016 | 0.109 | 0.013 | 0.001 | 0.009 | 0.012 | 0.017 | 8.540 |
| TPO4 | mg/L | WCA | L-30 | 38 | 0.010 | 0.017 | 0.008 | 0.004 | 0.006 | 0.007 | 0.010 | 0.110 |
| TPO4 | mg/L | WCA | L-31W | 27 | 0.007 | 0.003 | 0.006 | 0.002 | 0.005 | 0.007 | 0.008 | 0.015 |
| TPO4 | mg/L | WCA | L-35 | 512 | 0.018 | 0.010 | 0.017 | 0.007 | 0.012 | 0.016 | 0.021 | 0.108 |
| TPO4 | mg/L | WCA | L-35b | 337 | 0.017 | 0.017 | 0.013 | 0.002 | 0.008 | 0.011 | 0.019 | 0.222 |
| TPO4 | mg/L | WCA | L-38e | 587 | 0.023 | 0.020 | 0.018 | 0.006 | 0.012 | 0.017 | 0.026 | 0.199 |
| TPO4 | mg/L | WCA | L-39 | 782 | 0.049 | 0.037 | 0.039 | 0.004 | 0.024 | 0.039 | 0.063 | 0.306 |
| TPO4 | mg/L | WCA | L-40 | 168 | 0.069 | 0.081 | 0.050 | 0.011 | 0.028 | 0.047 | 0.078 | 0.653 |
| TPO4 | mg/L | WCA | L-7 | 428 | 0.109 | 0.073 | 0.086 | 0.004 | 0.050 | 0.092 | 0.152 | 0.541 |
| TPO4 | mg/L | WCA | West Feeder | 867 | 0.044 | 0.025 | 0.038 | 0.012 | 0.027 | 0.037 | 0.052 | 0.235 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALK | mg/L | 3AE0 | 63 | 191 | 37 | 187 | 113 | 166 | 201 | 217 | 267 |
| ALK | mg/L | 3AW0 | 91 | 187 | 37 | 183 | 97 | 163 | 190 | 213 | 270 |
| ALK | mg/L | BC10 | 31 | 209 | 66 | 195 | 68 | 161 | 232 | 255 | 308 |
| ALK | mg/L | BC11 | 30 | 197 | 52 | 189 | 102 | 142 | 215 | 241 | 272 |
| ALK | mg/L | BC14 | 30 | 185 | 32 | 182 | 132 | 164 | 187 | 218 | 246 |
| ALK | mg/L | BC15 | 30 | 193 | 42 | 189 | 120 | 166 | 186 | 221 | 308 |
| ALK | mg/L | BC22 | 32 | 211 | 50 | 204 | 90 | 187 | 212 | 258 | 280 |
| ALK | mg/L | BC23 | 32 | 228 | 35 | 225 | 148 | 202 | 238 | 250 | 310 |
| ALK | mg/L | BC26 | 26 | 184 | 34 | 181 | 118 | 165 | 186 | 206 | 268 |
| ALK | mg/L | BC7 | 32 | 228 | 49 | 221 | 104 | 200 | 236 | 268 | 288 |
| ALK | mg/L | BC8 | 32 | 212 | 37 | 209 | 140 | 178 | 214 | 239 | 276 |
| ALK | mg/L | BC9 | 31 | 258 | 41 | 253 | 78 | 247 | 264 | 278 | 307 |
| ALK | mg/L | C123SR84 | 132 | 208 | 42 | 204 | 125 | 178 | 204 | 231 | 352 |
| ALK | mg/L | C15S40 | 125 | 147 | 17 | 146 | 32 | 139 | 149 | 155 | 207 |
| ALK | mg/L | C16S41 | 125 | 144 | 15 | 144 | 100 | 135 | 145 | 150 | 210 |
| ALK | mg/L | C17S44 | 125 | 159 | 19 | 158 | 101 | 145 | 164 | 174 | 192 |
| ALK | mg/L | C18S46 | 112 | 144 | 48 | 134 | 45 | 98 | 151 | 186 | 228 |
| ALK | mg/L | C23S48 | 130 | 160 | 41 | 154 | 74 | 131 | 165 | 194 | 231 |
| ALK | mg/L | C24S49 | 130 | 143 | 36 | 137 | 12 | 122 | 150 | 167 | 238 |
| ALK | mg/L | C25S50 | 130 | 170 | 32 | 166 | 90 | 150 | 179 | 197 | 214 |
| ALK | mg/L | C44S80 | 130 | 150 | 37 | 146 | 80 | 117 | 149 | 185 | 225 |
| ALK | mg/L | C51S155 | 125 | 163 | 23 | 161 | 96 | 148 | 161 | 178 | 228 |
| ALK | mg/L | COC@LAKE | 19 | 203 | 37 | 199 | 144 | 174 | 201 | 230 | 278 |
| ALK | mg/L | CORK@846 | 31 | 189 | 76 | 174 | 94 | 115 | 180 | 262 | 304 |
| ALK | mg/L | CR-04.8T | 61 | 141 | 45 | 133 | 61 | 105 | 143 | 166 | 227 |
| ALK | mg/L | CULV10A | 229 | 134 | 55 | 126 | 30 | 102 | 121 | 148 | 451 |
| ALK | mg/L | CULV5A | 107 | 101 | 49 | 90 | 26 | 63 | 92 | 126 | 241 |
| ALK | mg/L | E0 | 119 | 262 | 74 | 249 | 61 | 204 | 262 | 320 | 401 |
| ALK | mg/L | F0 | 118 | 277 | 74 | 265 | 72 | 228 | 284 | 332 | 444 |
| ALK | mg/L | FAKA | 32 | 211 | 51 | 188 | 3 | 193 | 225 | 248 | 276 |
| ALK | mg/L | FAKA858 | 28 | 199 | 34 | 196 | 120 | 177 | 196 | 225 | 279 |
| ALK | mg/L | FROGCITY | 40 | 184 | 34 | 181 | 126 | 159 | 187 | 206 | 246 |
| ALK | mg/L | G123 | 105 | 247 | 46 | 243 | 130 | 213 | 247 | 286 | 334 |
| ALK | mg/L | G136 | 152 | 189 | 36 | 185 | 88 | 173 | 198 | 213 | 266 |
| ALK | mg/L | G300 | 97 | 201 | 58 | 194 | 110 | 156 | 193 | 231 | 350 |
| ALK | mg/L | G301 | 98 | 217 | 66 | 207 | 102 | 163 | 218 | 263 | 369 |
| ALK | mg/L | G302 | 241 | 221 | 75 | 209 | 92 | 159 | 214 | 285 | 382 |
| ALK | mg/L | G311 | 92 | 199 | 62 | 190 | 109 | 155 | 187 | 228 | 381 |
| ALK | mg/L | G342A | 248 | 190 | 46 | 184 | 72 | 158 | 205 | 224 | 309 |
| ALK | mg/L | G342B | 247 | 195 | 44 | 189 | 79 | 171 | 206 | 229 | 266 |
| ALK | mg/L | G342C | 245 | 201 | 43 | 195 | 80 | 182 | 211 | 232 | 276 |
| ALK | mg/L | G342D | 245 | 206 | 43 | 201 | 81 | 182 | 213 | 239 | 277 |
| ALK | mg/L | G342E | 10 | 219 | 32 | 217 | 154 | 198 | 229 | 245 | 253 |
| ALK | mg/L | G342F | 10 | 214 | 27 | 213 | 156 | 199 | 224 | 231 | 246 |
| ALK | mg/L | G353A | 15 | 174 | 21 | 172 | 129 | 161 | 178 | 190 | 203 |
| ALK | mg/L | G353B | 35 | 185 | 18 | 185 | 130 | 174 | 192 | 198 | 211 |
| ALK | mg/L | G353C | 15 | 172 | 17 | 171 | 141 | 159 | 172 | 186 | 197 |
| ALK | mg/L | G372 | 134 | 213 | 67 | 202 | 94 | 140 | 231 | 260 | 353 |
| ALK | mg/L | G94B | 113 | 151 | 53 | 142 | 46 | 123 | 148 | 182 | 307 |
| ALK | mg/L | GGC@858 | 31 | 202 | 11 | 202 | 175 | 198 | 204 | 210 | 224 |
| ALK | mg/L | GGCAT31 | 31 | 227 | 23 | 226 | 168 | 213 | 228 | 246 | 265 |
| ALK | mg/L | INDUSCAN | 172 | 179 | 66 | 168 | 86 | 119 | 163 | 231 | 411 |
| ALK | mg/L | L3BRS | 248 | 207 | 44 | 202 | 94 | 172 | 214 | 242 | 287 |
| ALK | mg/L | L59E | 124 | 95 | 41 | 85 | 17 | 66 | 90 | 124 | 210 |
| ALK | mg/L | L59W | 120 | 71 | 31 | 64 | 11 | 44 | 65 | 93 | 142 |
| ALK | mg/L | L60W | 98 | 65 | 26 | 60 | 23 | 42 | 65 | 84 | 130 |
| ALK | mg/L | L61E | 126 | 51 | 23 | 46 | 15 | 31 | 48 | 65 | 146 |
| ALK | mg/L | L61W | 128 | 79 | 41 | 68 | 7 | 51 | 72 | 97 | 196 |
| ALK | mg/L | LOXA104 | 23 | 232 | 41 | 229 | 161 | 197 | 232 | 263 | 315 |
| ALK | mg/L | LOXA135 | 24 | 191 | 46 | 186 | 126 | 158 | 190 | 214 | 298 |
| ALK | mg/L | S10A | 61 | 141 | 50 | 132 | 54 | 109 | 141 | 173 | 304 |
| ALK | mg/L | S10C | 63 | 162 | 75 | 144 | 44 | 102 | 160 | 214 | 340 |
| ALK | mg/L | S10D | 138 | 201 | 69 | 189 | 57 | 149 | 204 | 245 | 397 |
| ALK | mg/L | S11A | 136 | 206 | 46 | 201 | 109 | 171 | 202 | 240 | 333 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALK | mg/L | S11B | 105 | 202 | 41 | 197 | 114 | 171 | 197 | 229 | 329 |
| ALK | mg/L | S11C | 159 | 227 | 45 | 222 | 107 | 194 | 233 | 254 | 344 |
| ALK | mg/L | S127 | 122 | 150 | 25 | 148 | 74 | 135 | 152 | 169 | 192 |
| ALK | mg/L | S129 | 130 | 155 | 30 | 153 | 78 | 133 | 154 | 178 | 221 |
| ALK | mg/L | S12A | 131 | 123 | 30 | 119 | 72 | 100 | 116 | 137 | 214 |
| ALK | mg/L | S12B | 139 | 125 | 28 | 122 | 70 | 105 | 120 | 136 | 213 |
| ALK | mg/L | S12C | 146 | 137 | 27 | 135 | 64 | 118 | 136 | 157 | 203 |
| ALK | mg/L | S12D | 184 | 165 | 34 | 161 | 88 | 134 | 172 | 190 | 243 |
| ALK | mg/L | S131 | 135 | 138 | 25 | 135 | 47 | 121 | 138 | 157 | 201 |
| ALK | mg/L | S133 | 131 | 133 | 20 | 131 | 80 | 120 | 134 | 146 | 193 |
| ALK | mg/L | S135 | 133 | 164 | 23 | 163 | 100 | 150 | 166 | 182 | 215 |
| ALK | mg/L | S140 | 155 | 186 | 36 | 182 | 87 | 155 | 187 | 216 | 249 |
| ALK | mg/L | S145 | 145 | 184 | 39 | 180 | 70 | 159 | 184 | 211 | 274 |
| ALK | mg/L | S150 | 142 | 233 | 56 | 226 | 106 | 196 | 242 | 270 | 375 |
| ALK | mg/L | S151 | 136 | 223 | 35 | 220 | 124 | 201 | 221 | 246 | 320 |
| ALK | mg/L | S154 | 230 | 50 | 16 | 48 | 29 | 40 | 48 | 56 | 190 |
| ALK | mg/L | S169 | 157 | 145 | 43 | 140 | 90 | 113 | 128 | 172 | 271 |
| ALK | mg/L | S177 | 177 | 203 | 16 | 202 | 117 | 196 | 200 | 207 | 265 |
| ALK | mg/L | S178 | 108 | 133 | 42 | 125 | 51 | 103 | 131 | 171 | 208 |
| ALK | mg/L | S18C | 169 | 199 | 9 | 199 | 174 | 194 | 199 | 204 | 246 |
| ALK | mg/L | S190 | 130 | 208 | 45 | 203 | 107 | 184 | 213 | 243 | 307 |
| ALK | mg/L | S191 | 239 | 77 | 22 | 73 | 29 | 60 | 81 | 95 | 152 |
| ALK | mg/L | S197 | 22 | 184 | 15 | 183 | 142 | 177 | 187 | 195 | 201 |
| ALK | mg/L | S2 | 164 | 246 | 105 | 221 | 102 | 127 | 267 | 332 | 471 |
| ALK | mg/L | S3 | 162 | 192 | 70 | 180 | 81 | 123 | 195 | 255 | 341 |
| ALK | mg/L | S308C | 230 | 121 | 29 | 118 | 63 | 101 | 116 | 136 | 228 |
| ALK | mg/L | S31 | 87 | 229 | 28 | 227 | 133 | 207 | 230 | 249 | 288 |
| ALK | mg/L | S331 | 1 | 209 | | 209 | 209 | | | | 209 |
| ALK | mg/L | S332B | 10 | 219 | 18 | 218 | 196 | 207 | 222 | 226 | 258 |
| ALK | mg/L | S332C | 10 | 217 | 18 | 216 | 198 | 203 | 214 | 226 | 256 |
| ALK | mg/L | S333 | 174 | 173 | 30 | 170 | 98 | 150 | 173 | 192 | 246 |
| ALK | mg/L | S334 | 92 | 184 | 25 | 183 | 126 | 169 | 185 | 204 | 240 |
| ALK | mg/L | S34 | 146 | 222 | 40 | 219 | 122 | 196 | 220 | 248 | 338 |
| ALK | mg/L | S344 | 28 | 112 | 30 | 108 | 53 | 89 | 107 | 141 | 165 |
| ALK | mg/L | S352 | 254 | 130 | 52 | 124 | 72 | 103 | 117 | 135 | 448 |
| ALK | mg/L | S38 | 151 | 174 | 39 | 169 | 84 | 143 | 172 | 200 | 286 |
| ALK | mg/L | S39 | 136 | 156 | 57 | 146 | 49 | 117 | 153 | 182 | 378 |
| ALK | mg/L | S390 | 71 | 117 | 32 | 112 | 36 | 100 | 121 | 138 | 186 |
| ALK | mg/L | S5A | 260 | 225 | 84 | 209 | 98 | 144 | 216 | 300 | 447 |
| ALK | mg/L | S5AE | 137 | 131 | 45 | 125 | 47 | 103 | 120 | 149 | 284 |
| ALK | mg/L | S5AS | 105 | 197 | 70 | 185 | 94 | 133 | 192 | 238 | 354 |
| ALK | mg/L | S5AW | 57 | 155 | 57 | 145 | 48 | 110 | 140 | 194 | 307 |
| ALK | mg/L | S6 | 243 | 295 | 70 | 284 | 119 | 268 | 315 | 338 | 424 |
| ALK | mg/L | S65 | 258 | 29 | 9 | 28 | 8 | 22 | 28 | 36 | 49 |
| ALK | mg/L | S65A | 257 | 31 | 12 | 29 | 9 | 22 | 29 | 39 | 66 |
| ALK | mg/L | S65C | 259 | 39 | 16 | 36 | 2 | 26 | 35 | 50 | 78 |
| ALK | mg/L | S65D | 260 | 38 | 13 | 36 | 13 | 27 | 36 | 47 | 69 |
| ALK | mg/L | S65E | 300 | 39 | 12 | 37 | 14 | 28 | 37 | 47 | 68 |
| ALK | mg/L | S7 | 183 | 249 | 63 | 240 | 104 | 208 | 252 | 291 | 398 |
| ALK | mg/L | S71 | 239 | 42 | 22 | 37 | 13 | 27 | 35 | 51 | 126 |
| ALK | mg/L | S72 | 156 | 59 | 31 | 53 | 11 | 38 | 48 | 69 | 154 |
| ALK | mg/L | S78 | 60 | 134 | 33 | 130 | 76 | 104 | 131 | 161 | 200 |
| ALK | mg/L | S79 | 58 | 141 | 29 | 138 | 83 | 117 | 141 | 162 | 193 |
| ALK | mg/L | S8 | 176 | 212 | 47 | 206 | 105 | 184 | 219 | 247 | 312 |
| ALK | mg/L | S84 | 244 | 35 | 18 | 30 | 6 | 22 | 29 | 44 | 89 |
| ALK | mg/L | S9 | 135 | 253 | 22 | 252 | 176 | 239 | 254 | 270 | 294 |
| ALK | mg/L | S9A | 20 | 260 | 16 | 259 | 212 | 248 | 264 | 272 | 281 |
| ALK | mg/L | T0E | 13 | 205 | 11 | 204 | 176 | 200 | 205 | 213 | 216 |
| ALK | mg/L | T0W | 14 | 204 | 15 | 204 | 168 | 199 | 204 | 215 | 228 |
| ALK | mg/L | TAMBR6 | 53 | 185 | 30 | 183 | 127 | 164 | 190 | 208 | 236 |
| ALK | mg/L | US41-25 | 166 | 158 | 43 | 152 | 77 | 114 | 159 | 199 | 258 |
| ALK | mg/L | X0 | 124 | 210 | 56 | 202 | 73 | 174 | 210 | 254 | 313 |
| ALK | mg/L | Z0 | 119 | 210 | 59 | 201 | 73 | 165 | 210 | 253 | 387 |
| CHLA | mg/M3 | BC10 | 1 | 3.7 | | 3.7 | 3.7 | | | | 3.7 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CHLA | mg/M3 | BC11 | 1 | 5.9 | | 5.9 | 5.9 | | | | 5.9 |
| CHLA | mg/M3 | BC14 | 1 | 1.5 | | 1.5 | 1.5 | | | | 1.5 |
| CHLA | mg/M3 | BC15 | 1 | 20.8 | | 20.8 | 20.8 | | | | 20.8 |
| CHLA | mg/M3 | BC22 | 1 | 3.7 | | 3.7 | 3.7 | | | | 3.7 |
| CHLA | mg/M3 | BC23 | 1 | 3.2 | | 3.2 | 3.2 | | | | 3.2 |
| CHLA | mg/M3 | BC26 | 1 | 3.7 | | 3.7 | 3.7 | | | | 3.7 |
| CHLA | mg/M3 | BC7 | 1 | 3.2 | | 3.2 | 3.2 | | | | 3.2 |
| CHLA | mg/M3 | BC8 | 1 | 9.1 | | 9.1 | 9.1 | | | | 9.1 |
| CHLA | mg/M3 | BC9 | 1 | 1.5 | | 1.5 | 1.5 | | | | 1.5 |
| CHLA | mg/M3 | C44S80 | 7 | 8.6 | 6.2 | 6.5 | 2.0 | 3.3 | 7.0 | 13.5 | 18.0 |
| CHLA | mg/M3 | C51S155 | 11 | 17.9 | 15.1 | 12.1 | 1.0 | 6.3 | 18.0 | 21.3 | 57.0 |
| CHLA | mg/M3 | CES01 | 126 | 12.1 | 39.7 | 6.2 | 0.5 | 3.2 | 5.7 | 11.4 | 445.0 |
| CHLA | mg/M3 | COC@LAKE | 1 | 56.5 | | 56.5 | 56.5 | | | | 56.5 |
| CHLA | mg/M3 | CORK@846 | 1 | 9.6 | | 9.6 | 9.6 | | | | 9.6 |
| CHLA | mg/M3 | CULV10A | 6 | 1.9 | 1.6 | 1.5 | 0.5 | 1.0 | 1.5 | 2.0 | 5.0 |
| CHLA | mg/M3 | FAKA | 1 | 6.9 | | 6.9 | 6.9 | | | | 6.9 |
| CHLA | mg/M3 | FAKA858 | 1 | 5.3 | | 5.3 | 5.3 | | | | 5.3 |
| CHLA | mg/M3 | GGC@858 | 1 | 5.3 | | 5.3 | 5.3 | | | | 5.3 |
| CHLA | mg/M3 | GGCAT31 | 1 | 8.0 | | 8.0 | 8.0 | | | | 8.0 |
| CHLA | mg/M3 | S12A | 125 | 8.1 | 12.1 | 3.8 | 0.5 | 1.9 | 2.6 | 9.0 | 74.3 |
| CHLA | mg/M3 | S12B | 133 | 5.3 | 6.9 | 2.8 | 0.5 | 1.3 | 2.0 | 6.2 | 33.0 |
| CHLA | mg/M3 | S12C | 139 | 4.1 | 5.5 | 2.2 | 0.5 | 1.0 | 2.0 | 4.4 | 31.8 |
| CHLA | mg/M3 | S12D | 166 | 3.6 | 5.6 | 2.0 | 0.5 | 1.0 | 2.0 | 3.4 | 52.0 |
| CHLA | mg/M3 | S177 | 165 | 5.8 | 46.3 | 1.2 | 0.5 | 0.5 | 1.0 | 2.0 | 594.0 |
| CHLA | mg/M3 | S178 | 101 | 13.1 | 28.8 | 6.4 | 0.5 | 3.1 | 6.0 | 12.0 | 239.0 |
| CHLA | mg/M3 | S18C | 156 | 2.4 | 3.9 | 1.5 | 0.5 | 0.5 | 1.8 | 2.5 | 35.0 |
| CHLA | mg/M3 | S2 | 28 | 26.4 | 43.9 | 13.1 | 3.1 | 6.0 | 11.3 | 19.6 | 187.0 |
| CHLA | mg/M3 | S3 | 30 | 17.8 | 11.7 | 14.4 | 4.8 | 8.2 | 12.8 | 26.0 | 46.9 |
| CHLA | mg/M3 | S308C | 49 | 14.3 | 11.0 | 10.2 | 0.5 | 6.0 | 12.0 | 17.3 | 51.0 |
| CHLA | mg/M3 | S333 | 162 | 3.8 | 5.3 | 2.2 | 0.5 | 1.1 | 2.0 | 4.0 | 35.8 |
| CHLA | mg/M3 | S352 | 17 | 25.8 | 27.2 | 14.0 | 0.5 | 6.0 | 21.0 | 31.6 | 106.5 |
| CHLA | mg/M3 | S5A | 137 | 17.4 | 34.3 | 10.2 | 1.8 | 6.0 | 9.1 | 14.1 | 269.7 |
| CHLA | mg/M3 | S5AE | 11 | 10.6 | 9.6 | 8.0 | 3.0 | 4.0 | 8.0 | 13.3 | 36.0 |
| CHLA | mg/M3 | S65 | 248 | 24.9 | 11.6 | 22.2 | 1.0 | 16.1 | 22.9 | 31.9 | 83.5 |
| CHLA | mg/M3 | S65A | 244 | 21.8 | 22.4 | 16.8 | 0.5 | 12.7 | 19.2 | 26.3 | 291.4 |
| CHLA | mg/M3 | S65C | 249 | 11.9 | 10.1 | 8.3 | 0.5 | 5.0 | 9.2 | 17.7 | 96.3 |
| CHLA | mg/M3 | S65D | 252 | 10.6 | 15.9 | 7.0 | 0.5 | 4.0 | 8.0 | 13.0 | 223.6 |
| CHLA | mg/M3 | S65E | 252 | 8.5 | 7.9 | 5.8 | 0.5 | 3.6 | 6.6 | 11.3 | 69.3 |
| CHLA | mg/M3 | S78 | 16 | 7.6 | 7.9 | 4.9 | 1.0 | 2.5 | 4.5 | 9.5 | 31.0 |
| CHLA | mg/M3 | SW2 | 2 | 8.5 | 3.5 | 8.1 | 6.0 | 6.0 | 8.5 | 11.0 | 11.0 |
| CHLA | mg/M3 | SW6IN | 3 | 12.3 | 7.8 | 10.8 | 6.0 | 7.0 | 10.0 | 18.3 | 21.0 |
| CHLA | mg/M3 | US41-25 | 154 | 8.5 | 11.0 | 4.6 | 0.5 | 2.0 | 3.0 | 10.0 | 52.0 |
| CHLA2 | mg/M3 | BC10 | 97 | 3.8 | 3.7 | 2.8 | 1.5 | 1.5 | 1.5 | 4.8 | 22.4 |
| CHLA2 | mg/M3 | BC11 | 93 | 4.5 | 5.8 | 2.9 | 1.5 | 1.5 | 1.5 | 5.3 | 41.1 |
| CHLA2 | mg/M3 | BC14 | 92 | 2.8 | 2.3 | 2.2 | 1.5 | 1.5 | 1.5 | 3.7 | 11.2 |
| CHLA2 | mg/M3 | BC15 | 95 | 6.5 | 11.9 | 3.7 | 1.5 | 1.5 | 3.7 | 5.8 | 99.9 |
| CHLA2 | mg/M3 | BC22 | 96 | 4.6 | 4.7 | 3.1 | 1.5 | 1.5 | 1.5 | 5.3 | 22.4 |
| CHLA2 | mg/M3 | BC23 | 98 | 4.0 | 4.9 | 2.7 | 1.5 | 1.5 | 1.5 | 4.3 | 33.6 |
| CHLA2 | mg/M3 | BC26 | 85 | 3.4 | 5.7 | 2.4 | 1.5 | 1.5 | 1.5 | 3.9 | 51.6 |
| CHLA2 | mg/M3 | BC7 | 93 | 2.8 | 2.8 | 2.2 | 1.5 | 1.5 | 1.5 | 3.2 | 16.6 |
| CHLA2 | mg/M3 | BC8 | 93 | 2.1 | 1.6 | 1.8 | 1.5 | 1.5 | 1.5 | 1.5 | 9.1 |
| CHLA2 | mg/M3 | BC9 | 97 | 2.6 | 2.1 | 2.1 | 1.5 | 1.5 | 1.5 | 3.2 | 10.7 |
| CHLA2 | mg/M3 | C44S80 | 7 | 5.9 | 4.1 | 4.5 | 2.0 | 2.0 | 5.0 | 9.8 | 11.0 |
| CHLA2 | mg/M3 | C51S155 | 11 | 13.9 | 11.8 | 10.3 | 2.0 | 5.8 | 12.0 | 15.0 | 45.0 |
| CHLA2 | mg/M3 | CES01 | 123 | 8.9 | 12.2 | 5.1 | 0.3 | 2.7 | 4.8 | 9.6 | 73.8 |
| CHLA2 | mg/M3 | COC@LAKE | 56 | 3.4 | 3.5 | 2.5 | 1.5 | 1.5 | 1.5 | 3.7 | 16.6 |
| CHLA2 | mg/M3 | CORK@846 | 95 | 6.2 | 8.4 | 3.9 | 1.5 | 1.5 | 3.7 | 8.5 | 71.0 |
| CHLA2 | mg/M3 | CULV10A | 6 | 2.4 | 1.9 | 1.9 | 0.5 | 2.0 | 2.0 | 2.0 | 6.0 |
| CHLA2 | mg/M3 | E0 | 9 | 25.3 | 20.2 | 15.0 | 1.0 | 5.7 | 23.0 | 42.0 | 58.0 |
| CHLA2 | mg/M3 | F0 | 9 | 26.6 | 21.5 | 14.6 | 0.5 | 8.0 | 18.0 | 49.0 | 52.7 |
| CHLA2 | mg/M3 | FAKA | 95 | 2.4 | 2.2 | 1.9 | 1.5 | 1.5 | 1.5 | 1.5 | 12.8 |
| CHLA2 | mg/M3 | FAKA858 | 93 | 5.0 | 5.2 | 3.5 | 1.5 | 1.5 | 3.2 | 6.4 | 34.7 |
| CHLA2 | mg/M3 | GGC@858 | 94 | 6.2 | 6.9 | 4.3 | 1.5 | 1.5 | 4.3 | 7.5 | 51.3 |
| CHLA2 | mg/M3 | GGCAT31 | 97 | 2.8 | 3.8 | 2.1 | 1.5 | 1.5 | 1.5 | 3.2 | 33.6 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CHLA2 | mg/M3 | S12A | 125 | 6.8 | 9.5 | 3.5 | 0.5 | 1.9 | 2.4 | 8.1 | 60.3 |
| CHLA2 | mg/M3 | S12B | 133 | 4.6 | 5.4 | 2.6 | 0.5 | 1.2 | 2.0 | 5.2 | 25.1 |
| CHLA2 | mg/M3 | S12C | 138 | 3.5 | 4.4 | 2.1 | 0.5 | 1.0 | 2.0 | 3.6 | 25.6 |
| CHLA2 | mg/M3 | S12D | 165 | 3.1 | 4.6 | 1.8 | 0.5 | 1.0 | 1.9 | 3.0 | 45.0 |
| CHLA2 | mg/M3 | S177 | 164 | 5.0 | 37.7 | 1.3 | 0.5 | 0.5 | 1.2 | 2.0 | 482.0 |
| CHLA2 | mg/M3 | S178 | 101 | 10.8 | 24.7 | 5.3 | 0.5 | 2.8 | 5.0 | 9.3 | 210.0 |
| CHLA2 | mg/M3 | S18C | 155 | 2.3 | 3.5 | 1.5 | 0.5 | 1.0 | 1.7 | 2.5 | 34.0 |
| CHLA2 | mg/M3 | S2 | 28 | 22.0 | 42.4 | 9.2 | 2.1 | 4.6 | 6.7 | 15.2 | 179.9 |
| CHLA2 | mg/M3 | S3 | 30 | 13.6 | 9.9 | 10.6 | 3.3 | 5.9 | 9.5 | 22.9 | 39.1 |
| CHLA2 | mg/M3 | S308C | 49 | 10.5 | 7.4 | 7.6 | 0.5 | 5.0 | 9.0 | 15.0 | 34.0 |
| CHLA2 | mg/M3 | S333 | 161 | 3.3 | 4.3 | 2.1 | 0.5 | 1.1 | 2.0 | 3.3 | 31.4 |
| CHLA2 | mg/M3 | S352 | 15 | 15.4 | 14.2 | 9.4 | 0.5 | 5.3 | 14.6 | 20.6 | 48.7 |
| CHLA2 | mg/M3 | S5A | 137 | 13.5 | 29.1 | 7.4 | 0.5 | 4.2 | 6.8 | 10.2 | 232.3 |
| CHLA2 | mg/M3 | S5AE | 11 | 8.9 | 9.0 | 6.5 | 2.0 | 4.0 | 6.0 | 10.3 | 34.0 |
| CHLA2 | mg/M3 | S65 | 248 | 20.9 | 10.2 | 18.4 | 0.5 | 14.1 | 19.0 | 26.3 | 72.1 |
| CHLA2 | mg/M3 | S65A | 243 | 18.0 | 19.7 | 13.7 | 0.5 | 10.0 | 15.7 | 22.0 | 247.0 |
| CHLA2 | mg/M3 | S65C | 248 | 9.6 | 8.7 | 6.6 | 0.5 | 4.0 | 8.0 | 14.2 | 88.4 |
| CHLA2 | mg/M3 | S65D | 251 | 8.9 | 14.9 | 5.7 | 0.5 | 4.0 | 6.0 | 11.0 | 210.7 |
| CHLA2 | mg/M3 | S65E | 252 | 6.9 | 6.9 | 4.6 | 0.5 | 2.5 | 5.0 | 8.9 | 60.7 |
| CHLA2 | mg/M3 | S78 | 14 | 5.4 | 6.3 | 3.7 | 1.0 | 2.0 | 3.5 | 7.0 | 26.0 |
| CHLA2 | mg/M3 | SW2 | 2 | 7.0 | 2.8 | 6.7 | 5.0 | 5.0 | 7.0 | 9.0 | 9.0 |
| CHLA2 | mg/M3 | SW6IN | 3 | 11.3 | 6.1 | 10.3 | 6.0 | 7.0 | 10.0 | 16.0 | 18.0 |
| CHLA2 | mg/M3 | US41-25 | 154 | 6.9 | 8.7 | 3.9 | 0.5 | 2.0 | 3.0 | 7.8 | 41.0 |
| CHLA2 | mg/M3 | X0 | 12 | 19.3 | 28.1 | 7.4 | 0.4 | 3.0 | 8.8 | 25.2 | 101.0 |
| CHLA2 | mg/M3 | Z0 | 12 | 14.2 | 12.1 | 9.1 | 0.4 | 5.4 | 11.5 | 20.0 | 43.0 |
| CL | mg/L | 3AE0 | 65 | 29 | 7 | 28 | 15 | 25 | 29 | 33 | 47 |
| CL | mg/L | 3AW0 | 93 | 29 | 6 | 29 | 15 | 26 | 30 | 33 | 46 |
| CL | mg/L | BC10 | 31 | 19 | 8 | 13 | 1 | 18 | 21 | 23 | 30 |
| CL | mg/L | BC11 | 30 | 21 | 9 | 14 | 1 | 20 | 23 | 26 | 32 |
| CL | mg/L | BC14 | 31 | 117 | 226 | 43 | 1 | 27 | 68 | 101 | 1174 |
| CL | mg/L | BC15 | 33 | 69 | 63 | 38 | 1 | 49 | 68 | 74 | 372 |
| CL | mg/L | BC22 | 32 | 358 | 817 | 104 | 1 | 68 | 129 | 246 | 4500 |
| CL | mg/L | BC23 | 33 | 48 | 32 | 25 | 1 | 26 | 53 | 63 | 132 |
| CL | mg/L | BC26 | 25 | 16 | 8 | 11 | 1 | 16 | 19 | 20 | 26 |
| CL | mg/L | BC7 | 33 | 39 | 34 | 23 | 1 | 29 | 34 | 45 | 200 |
| CL | mg/L | BC8 | 32 | 49 | 112 | 19 | 1 | 20 | 33 | 39 | 655 |
| CL | mg/L | BC9 | 31 | 18 | 8 | 13 | 1 | 15 | 20 | 24 | 34 |
| CL | mg/L | C123SR84 | 139 | 60 | 14 | 59 | 29 | 49 | 60 | 71 | 99 |
| CL | mg/L | C15S40 | 115 | 43 | 12 | 42 | 22 | 37 | 41 | 47 | 116 |
| CL | mg/L | C16S41 | 116 | 49 | 24 | 45 | 18 | 34 | 41 | 57 | 162 |
| CL | mg/L | C17S44 | 116 | 37 | 5 | 36 | 20 | 34 | 38 | 40 | 47 |
| CL | mg/L | C18S46 | 104 | 51 | 50 | 39 | 10 | 23 | 42 | 57 | 332 |
| CL | mg/L | C23S48 | 132 | 104 | 53 | 94 | 32 | 75 | 89 | 123 | 361 |
| CL | mg/L | C24S49 | 132 | 235 | 91 | 213 | 33 | 169 | 233 | 296 | 449 |
| CL | mg/L | C25S50 | 132 | 180 | 60 | 169 | 43 | 140 | 182 | 216 | 305 |
| CL | mg/L | C25S99 | 3 | 403 | 42 | 401 | 371 | 375 | 386 | 435 | 451 |
| CL | mg/L | C44S80 | 132 | 97 | 60 | 83 | 26 | 57 | 77 | 126 | 348 |
| CL | mg/L | C51S155 | 117 | 66 | 25 | 62 | 17 | 46 | 62 | 83 | 164 |
| CL | mg/L | CES01 | 7 | 153 | 42 | 149 | 118 | 123 | 131 | 190 | 221 |
| CL | mg/L | COC@LAKE | 21 | 85 | 46 | 71 | 18 | 44 | 89 | 109 | 184 |
| CL | mg/L | CORK@846 | 30 | 21 | 12 | 14 | 1 | 15 | 22 | 27 | 61 |
| CL | mg/L | CR-04.8T | 60 | 51 | 15 | 49 | 26 | 40 | 51 | 62 | 86 |
| CL | mg/L | CULV10A | 230 | 73 | 62 | 62 | 12 | 48 | 56 | 76 | 699 |
| CL | mg/L | CULV5A | 107 | 44 | 15 | 42 | 7 | 35 | 44 | 55 | 85 |
| CL | mg/L | E0 | 120 | 121 | 33 | 116 | 28 | 99 | 123 | 145 | 230 |
| CL | mg/L | F0 | 120 | 124 | 30 | 119 | 34 | 100 | 130 | 145 | 190 |
| CL | mg/L | FAKA | 32 | 190 | 600 | 40 | 1 | 31 | 35 | 58 | 3365 |
| CL | mg/L | FAKA858 | 28 | 13 | 6 | 9 | 1 | 11 | 14 | 16 | 21 |
| CL | mg/L | FROGCITY | 40 | 42 | 14 | 40 | 22 | 29 | 41 | 54 | 68 |
| CL | mg/L | G123 | 109 | 95 | 21 | 92 | 46 | 79 | 95 | 107 | 151 |
| CL | mg/L | G136 | 152 | 45 | 18 | 41 | 12 | 33 | 45 | 54 | 153 |
| CL | mg/L | G300 | 97 | 101 | 31 | 96 | 43 | 76 | 98 | 121 | 219 |
| CL | mg/L | G301 | 98 | 107 | 35 | 101 | 39 | 83 | 103 | 127 | 198 |
| CL | mg/L | G302 | 241 | 117 | 43 | 109 | 39 | 83 | 109 | 150 | 238 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CL | mg/L | G311 | 79 | 95 | 31 | 90 | 39 | 73 | 90 | 117 | 199 |
| CL | mg/L | G342A | 247 | 59 | 20 | 55 | 13 | 42 | 62 | 71 | 119 |
| CL | mg/L | G342B | 248 | 55 | 16 | 53 | 16 | 45 | 56 | 66 | 114 |
| CL | mg/L | G342C | 244 | 54 | 16 | 51 | 17 | 41 | 54 | 66 | 105 |
| CL | mg/L | G342D | 244 | 50 | 15 | 48 | 16 | 39 | 50 | 60 | 84 |
| CL | mg/L | G342E | 10 | 36 | 8 | 35 | 25 | 32 | 36 | 41 | 50 |
| CL | mg/L | G342F | 10 | 36 | 7 | 35 | 25 | 32 | 36 | 42 | 46 |
| CL | mg/L | G353A | 15 | 31 | 8 | 31 | 20 | 26 | 29 | 33 | 49 |
| CL | mg/L | G353B | 35 | 44 | 13 | 42 | 21 | 30 | 49 | 51 | 70 |
| CL | mg/L | G353C | 15 | 32 | 9 | 31 | 24 | 26 | 29 | 33 | 56 |
| CL | mg/L | G372 | 134 | 84 | 28 | 79 | 34 | 60 | 84 | 106 | 151 |
| CL | mg/L | G94B | 113 | 74 | 29 | 68 | 19 | 52 | 68 | 97 | 162 |
| CL | mg/L | GGC@858 | 28 | 14 | 6 | 9 | 1 | 11 | 16 | 18 | 23 |
| CL | mg/L | GGCAT31 | 32 | 59 | 34 | 32 | 1 | 39 | 63 | 77 | 113 |
| CL | mg/L | INDUSCAN | 171 | 64 | 18 | 62 | 21 | 51 | 63 | 77 | 129 |
| CL | mg/L | L3BRS | 248 | 64 | 27 | 58 | 19 | 45 | 62 | 84 | 149 |
| CL | mg/L | L59E | 122 | 487 | 480 | 273 | 14 | 111 | 329 | 697 | 2011 |
| CL | mg/L | L59W | 119 | 47 | 25 | 42 | 12 | 31 | 40 | 58 | 161 |
| CL | mg/L | L60W | 98 | 45 | 17 | 42 | 21 | 32 | 42 | 53 | 100 |
| CL | mg/L | L61E | 125 | 39 | 15 | 36 | 15 | 25 | 37 | 48 | 76 |
| CL | mg/L | L61W | 127 | 41 | 21 | 36 | 9 | 26 | 35 | 54 | 123 |
| CL | mg/L | LOXA104 | 23 | 130 | 28 | 127 | 80 | 117 | 132 | 150 | 182 |
| CL | mg/L | LOXA135 | 24 | 106 | 30 | 101 | 48 | 87 | 111 | 125 | 162 |
| CL | mg/L | S10A | 61 | 79 | 32 | 72 | 27 | 51 | 73 | 106 | 156 |
| CL | mg/L | S10C | 63 | 88 | 38 | 79 | 22 | 56 | 87 | 124 | 156 |
| CL | mg/L | S10D | 138 | 109 | 37 | 100 | 17 | 86 | 118 | 136 | 184 |
| CL | mg/L | S11A | 143 | 106 | 31 | 102 | 46 | 83 | 104 | 126 | 210 |
| CL | mg/L | S11B | 105 | 103 | 31 | 99 | 46 | 81 | 98 | 122 | 212 |
| CL | mg/L | S11C | 160 | 111 | 33 | 106 | 46 | 88 | 104 | 128 | 209 |
| CL | mg/L | S127 | 122 | 162 | 60 | 151 | 26 | 129 | 154 | 187 | 354 |
| CL | mg/L | S129 | 129 | 80 | 31 | 75 | 29 | 64 | 70 | 82 | 175 |
| CL | mg/L | S12A | 163 | 22 | 17 | 18 | 5 | 12 | 16 | 23 | 99 |
| CL | mg/L | S12B | 169 | 26 | 15 | 23 | 3 | 17 | 22 | 30 | 86 |
| CL | mg/L | S12C | 176 | 37 | 18 | 33 | 10 | 22 | 33 | 50 | 95 |
| CL | mg/L | S12D | 182 | 48 | 23 | 41 | 0 | 24 | 54 | 66 | 103 |
| CL | mg/L | S131 | 134 | 62 | 17 | 60 | 25 | 50 | 59 | 77 | 99 |
| CL | mg/L | S133 | 131 | 77 | 27 | 70 | 0 | 62 | 73 | 86 | 180 |
| CL | mg/L | S135 | 133 | 88 | 16 | 86 | 49 | 78 | 89 | 101 | 126 |
| CL | mg/L | S140 | 153 | 48 | 31 | 40 | 9 | 25 | 38 | 65 | 197 |
| CL | mg/L | S145 | 152 | 102 | 32 | 97 | 33 | 78 | 99 | 121 | 193 |
| CL | mg/L | S150 | 145 | 95 | 40 | 88 | 35 | 68 | 88 | 111 | 293 |
| CL | mg/L | S151 | 143 | 80 | 17 | 78 | 29 | 69 | 78 | 91 | 122 |
| CL | mg/L | S154 | 230 | 206 | 151 | 163 | 21 | 102 | 185 | 265 | 1195 |
| CL | mg/L | S169 | 157 | 62 | 15 | 60 | 27 | 50 | 63 | 74 | 98 |
| CL | mg/L | S177 | 241 | 43 | 12 | 42 | 20 | 36 | 40 | 49 | 97 |
| CL | mg/L | S178 | 149 | 41 | 34 | 38 | 22 | 33 | 37 | 43 | 446 |
| CL | mg/L | S18C | 221 | 42 | 32 | 39 | 29 | 34 | 38 | 43 | 484 |
| CL | mg/L | S190 | 147 | 36 | 12 | 34 | 13 | 28 | 36 | 44 | 71 |
| CL | mg/L | S191 | 239 | 153 | 104 | 121 | 17 | 72 | 121 | 201 | 502 |
| CL | mg/L | S197 | 31 | 68 | 92 | 47 | 24 | 32 | 40 | 47 | 464 |
| CL | mg/L | S2 | 165 | 102 | 45 | 93 | 34 | 63 | 100 | 120 | 247 |
| CL | mg/L | S3 | 162 | 91 | 42 | 83 | 33 | 60 | 82 | 111 | 260 |
| CL | mg/L | S308C | 275 | 55 | 17 | 52 | 27 | 41 | 51 | 68 | 111 |
| CL | mg/L | S31 | 94 | 73 | 15 | 72 | 45 | 64 | 70 | 79 | 122 |
| CL | mg/L | S331 | 1 | 34 | | 34 | 34 | | | | 34 |
| CL | mg/L | S332B | 123 | 48 | 13 | 46 | 32 | 38 | 44 | 53 | 102 |
| CL | mg/L | S332C | 118 | 46 | 13 | 44 | 8 | 38 | 42 | 51 | 104 |
| CL | mg/L | S332DX | 65 | 56 | 18 | 53 | 26 | 43 | 51 | 62 | 108 |
| CL | mg/L | S333 | 246 | 59 | 23 | 54 | 15 | 40 | 60 | 75 | 121 |
| CL | mg/L | S334 | 110 | 50 | 17 | 45 | 0 | 38 | 48 | 60 | 93 |
| CL | mg/L | S335 | 37 | 66 | 19 | 63 | 29 | 53 | 67 | 74 | 114 |
| CL | mg/L | S34 | 153 | 99 | 30 | 95 | 44 | 75 | 96 | 121 | 170 |
| CL | mg/L | S344 | 28 | 14 | 7 | 13 | 4 | 9 | 13 | 21 | 29 |
| CL | mg/L | S352 | 255 | 68 | 53 | 60 | 29 | 47 | 55 | 75 | 458 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CL | mg/L | S356 | 22 | 55 | 19 | 52 | 27 | 35 | 59 | 68 | 93 |
| CL | mg/L | S38 | 158 | 94 | 31 | 89 | 31 | 71 | 94 | 111 | 175 |
| CL | mg/L | S39 | 145 | 85 | 33 | 77 | 18 | 57 | 89 | 106 | 175 |
| CL | mg/L | S390 | 47 | 88 | 40 | 79 | 12 | 63 | 83 | 105 | 201 |
| CL | mg/L | S5A | 259 | 129 | 55 | 118 | 44 | 83 | 123 | 167 | 306 |
| CL | mg/L | S5AE | 136 | 79 | 45 | 68 | 14 | 49 | 68 | 102 | 275 |
| CL | mg/L | S5AS | 104 | 103 | 42 | 95 | 39 | 70 | 91 | 128 | 252 |
| CL | mg/L | S5AW | 56 | 80 | 40 | 68 | 1 | 54 | 74 | 103 | 202 |
| CL | mg/L | S6 | 240 | 143 | 39 | 133 | 0 | 122 | 149 | 170 | 275 |
| CL | mg/L | S65 | 256 | 21 | 5 | 20 | 12 | 17 | 20 | 25 | 34 |
| CL | mg/L | S65A | 255 | 20 | 6 | 19 | 8 | 16 | 19 | 24 | 40 |
| CL | mg/L | S65C | 256 | 20 | 6 | 19 | 9 | 15 | 19 | 24 | 47 |
| CL | mg/L | S65D | 259 | 20 | 5 | 19 | 11 | 16 | 19 | 23 | 35 |
| CL | mg/L | S65E | 300 | 23 | 7 | 22 | 11 | 18 | 21 | 26 | 63 |
| CL | mg/L | S7 | 181 | 113 | 79 | 103 | 46 | 81 | 104 | 133 | 1045 |
| CL | mg/L | S71 | 239 | 38 | 15 | 34 | 2 | 25 | 37 | 45 | 77 |
| CL | mg/L | S72 | 155 | 40 | 19 | 37 | 15 | 28 | 37 | 47 | 150 |
| CL | mg/L | S78 | 59 | 53 | 18 | 50 | 27 | 40 | 50 | 62 | 133 |
| CL | mg/L | S79 | 58 | 87 | 79 | 68 | 25 | 42 | 57 | 101 | 451 |
| CL | mg/L | S8 | 174 | 75 | 23 | 71 | 24 | 61 | 71 | 90 | 142 |
| CL | mg/L | S84 | 243 | 64 | 164 | 39 | 16 | 22 | 29 | 54 | 2457 |
| CL | mg/L | S9 | 142 | 73 | 9 | 72 | 41 | 67 | 73 | 78 | 91 |
| CL | mg/L | S9A | 27 | 78 | 9 | 77 | 57 | 73 | 77 | 84 | 90 |
| CL | mg/L | SW1B | 70 | 54 | 24 | 49 | 19 | 35 | 49 | 70 | 130 |
| CL | mg/L | SW2 | 235 | 61 | 38 | 53 | 13 | 40 | 47 | 62 | 212 |
| CL | mg/L | SW6IN | 155 | 126 | 106 | 90 | 14 | 42 | 85 | 182 | 527 |
| CL | mg/L | T0E | 13 | 34 | 9 | 33 | 24 | 26 | 32 | 41 | 52 |
| CL | mg/L | T0W | 14 | 35 | 9 | 34 | 24 | 27 | 33 | 42 | 55 |
| CL | mg/L | TAMBR6 | 53 | 42 | 14 | 40 | 21 | 30 | 40 | 55 | 87 |
| CL | mg/L | TCNS 201 | 103 | 54 | 31 | 47 | 14 | 32 | 48 | 66 | 169 |
| CL | mg/L | TCNS 213 | 218 | 63 | 72 | 56 | 19 | 48 | 59 | 69 | 1097 |
| CL | mg/L | TCNS 217 | 220 | 29 | 27 | 27 | 9 | 24 | 27 | 29 | 403 |
| CL | mg/L | US41-25 | 189 | 17 | 7 | 16 | 4 | 12 | 17 | 21 | 60 |
| CL | mg/L | X0 | 125 | 117 | 40 | 109 | 25 | 93 | 120 | 140 | 220 |
| CL | mg/L | Z0 | 122 | 113 | 40 | 106 | 25 | 88 | 110 | 140 | 240 |
| COLOR | PCU | BC10 | 96 | 43 | 27 | 37 | 5 | 25 | 40 | 50 | 150 |
| COLOR | PCU | BC11 | 93 | 59 | 39 | 50 | 10 | 34 | 50 | 80 | 200 |
| COLOR | PCU | BC14 | 93 | 65 | 35 | 58 | 20 | 40 | 50 | 80 | 200 |
| COLOR | PCU | BC15 | 96 | 51 | 17 | 48 | 20 | 40 | 50 | 60 | 120 |
| COLOR | PCU | BC22 | 95 | 61 | 41 | 52 | 20 | 36 | 45 | 78 | 240 |
| COLOR | PCU | BC23 | 97 | 99 | 84 | 84 | 30 | 60 | 80 | 120 | 800 |
| COLOR | PCU | BC26 | 86 | 78 | 44 | 69 | 30 | 50 | 60 | 100 | 300 |
| COLOR | PCU | BC7 | 95 | 42 | 19 | 37 | 3 | 30 | 40 | 50 | 100 |
| COLOR | PCU | BC8 | 95 | 39 | 21 | 34 | 10 | 20 | 30 | 50 | 100 |
| COLOR | PCU | BC9 | 95 | 69 | 29 | 64 | 30 | 50 | 60 | 90 | 180 |
| COLOR | PCU | C123SR84 | 131 | 72 | 25 | 68 | 31 | 52 | 67 | 87 | 168 |
| COLOR | PCU | C15S40 | 123 | 50 | 9 | 49 | 32 | 43 | 48 | 54 | 81 |
| COLOR | PCU | C16S41 | 124 | 43 | 7 | 43 | 32 | 39 | 42 | 46 | 69 |
| COLOR | PCU | C17S44 | 124 | 40 | 8 | 40 | 28 | 36 | 38 | 43 | 94 |
| COLOR | PCU | C18S46 | 112 | 65 | 36 | 57 | 24 | 38 | 50 | 86 | 177 |
| COLOR | PCU | C23S48 | 130 | 121 | 79 | 98 | 12 | 56 | 92 | 177 | 360 |
| COLOR | PCU | C24S49 | 130 | 125 | 87 | 99 | 28 | 52 | 94 | 180 | 400 |
| COLOR | PCU | C25S50 | 130 | 82 | 60 | 65 | 27 | 37 | 51 | 108 | 295 |
| COLOR | PCU | C44S80 | 131 | 60 | 38 | 52 | 26 | 34 | 44 | 76 | 221 |
| COLOR | PCU | C51S155 | 125 | 51 | 21 | 48 | 29 | 37 | 44 | 56 | 140 |
| COLOR | PCU | CES01 | 101 | 95 | 54 | 82 | 35 | 59 | 74 | 114 | 255 |
| COLOR | PCU | COC@LAKE | 57 | 62 | 26 | 57 | 30 | 45 | 60 | 70 | 150 |
| COLOR | PCU | CORK@846 | 94 | 169 | 77 | 154 | 60 | 120 | 150 | 200 | 400 |
| COLOR | PCU | CR-04.8T | 60 | 110 | 78 | 94 | 37 | 64 | 88 | 133 | 443 |
| COLOR | PCU | CULV10A | 228 | 79 | 69 | 59 | 21 | 32 | 43 | 107 | 373 |
| COLOR | PCU | CULV5A | 107 | 117 | 106 | 90 | 28 | 55 | 77 | 126 | 522 |
| COLOR | PCU | FAKA | 95 | 39 | 19 | 34 | 5 | 30 | 40 | 50 | 100 |
| COLOR | PCU | FAKA858 | 93 | 105 | 41 | 97 | 40 | 69 | 100 | 120 | 240 |
| COLOR | PCU | FROGCITY | 38 | 44 | 13 | 42 | 27 | 34 | 41 | 49 | 78 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| COLOR | PCU | G123 | 105 | 67 | 17 | 64 | 36 | 55 | 64 | 76 | 110 |
| COLOR | PCU | G136 | 152 | 116 | 66 | 102 | 36 | 68 | 90 | 148 | 361 |
| COLOR | PCU | G342A | 1 | 159 | | 159 | 159 | | | | 159 |
| COLOR | PCU | G342B | 1 | 127 | | 127 | 127 | | | | 127 |
| COLOR | PCU | G342C | 1 | 114 | | 114 | 114 | | | | 114 |
| COLOR | PCU | G342D | 2 | 100 | 20 | 99 | 86 | 86 | 100 | 114 | 114 |
| COLOR | PCU | G94B | 113 | 94 | 30 | 90 | 45 | 76 | 86 | 108 | 172 |
| COLOR | PCU | GGC@858 | 93 | 114 | 37 | 109 | 60 | 90 | 120 | 121 | 240 |
| COLOR | PCU | GGCAT31 | 96 | 79 | 81 | 66 | 20 | 48 | 60 | 100 | 800 |
| COLOR | PCU | INDUSCAN | 170 | 65 | 41 | 58 | 28 | 38 | 60 | 85 | 486 |
| COLOR | PCU | L3BRS | 247 | 85 | 39 | 78 | 32 | 60 | 72 | 97 | 247 |
| COLOR | PCU | L59E | 123 | 157 | 117 | 130 | 37 | 85 | 114 | 173 | 808 |
| COLOR | PCU | L59W | 119 | 167 | 110 | 139 | 42 | 94 | 136 | 202 | 580 |
| COLOR | PCU | L60W | 97 | 135 | 68 | 121 | 50 | 87 | 117 | 168 | 404 |
| COLOR | PCU | L61E | 126 | 153 | 84 | 134 | 49 | 90 | 133 | 200 | 500 |
| COLOR | PCU | L61W | 126 | 237 | 180 | 186 | 60 | 111 | 166 | 293 | 875 |
| COLOR | PCU | LOXA104 | 18 | 130 | 46 | 122 | 73 | 89 | 125 | 168 | 218 |
| COLOR | PCU | LOXA135 | 19 | 121 | 42 | 114 | 48 | 86 | 113 | 157 | 194 |
| COLOR | PCU | S10A | 61 | 81 | 26 | 77 | 45 | 63 | 75 | 95 | 159 |
| COLOR | PCU | S10C | 63 | 84 | 30 | 80 | 45 | 62 | 76 | 101 | 158 |
| COLOR | PCU | S10D | 138 | 99 | 36 | 93 | 45 | 73 | 87 | 118 | 223 |
| COLOR | PCU | S11A | 134 | 83 | 21 | 81 | 32 | 70 | 81 | 93 | 161 |
| COLOR | PCU | S11B | 104 | 84 | 19 | 81 | 41 | 71 | 82 | 97 | 143 |
| COLOR | PCU | S11C | 160 | 89 | 21 | 87 | 30 | 74 | 89 | 104 | 141 |
| COLOR | PCU | S127 | 122 | 140 | 83 | 119 | 39 | 72 | 121 | 179 | 368 |
| COLOR | PCU | S129 | 130 | 97 | 43 | 88 | 37 | 65 | 88 | 120 | 242 |
| COLOR | PCU | S12A | 130 | 24 | 6 | 23 | 12 | 20 | 24 | 26 | 55 |
| COLOR | PCU | S12B | 138 | 28 | 10 | 27 | 13 | 21 | 26 | 32 | 69 |
| COLOR | PCU | S12C | 145 | 37 | 16 | 34 | 12 | 24 | 32 | 48 | 97 |
| COLOR | PCU | S12D | 183 | 47 | 21 | 43 | 17 | 29 | 47 | 63 | 125 |
| COLOR | PCU | S131 | 135 | 129 | 77 | 112 | 34 | 80 | 108 | 139 | 417 |
| COLOR | PCU | S133 | 129 | 76 | 53 | 63 | 20 | 40 | 56 | 97 | 339 |
| COLOR | PCU | S135 | 131 | 59 | 24 | 54 | 28 | 38 | 52 | 75 | 143 |
| COLOR | PCU | S140 | 151 | 77 | 24 | 73 | 33 | 61 | 74 | 91 | 147 |
| COLOR | PCU | S145 | 145 | 81 | 18 | 79 | 34 | 71 | 79 | 94 | 121 |
| COLOR | PCU | S150 | 144 | 87 | 24 | 83 | 32 | 74 | 89 | 105 | 133 |
| COLOR | PCU | S151 | 134 | 64 | 19 | 60 | 1 | 51 | 61 | 76 | 109 |
| COLOR | PCU | S154 | 230 | 184 | 112 | 156 | 52 | 107 | 147 | 237 | 616 |
| COLOR | PCU | S169 | 156 | 60 | 49 | 51 | 21 | 36 | 46 | 69 | 403 |
| COLOR | PCU | S177 | 179 | 19 | 9 | 17 | 5 | 12 | 14 | 24 | 62 |
| COLOR | PCU | S178 | 109 | 18 | 6 | 17 | 5 | 15 | 18 | 21 | 39 |
| COLOR | PCU | S18C | 169 | 13 | 5 | 12 | 5 | 10 | 12 | 14 | 34 |
| COLOR | PCU | S190 | 131 | 70 | 32 | 64 | 30 | 44 | 57 | 90 | 169 |
| COLOR | PCU | S191 | 238 | 196 | 116 | 163 | 40 | 94 | 167 | 290 | 533 |
| COLOR | PCU | S197 | 21 | 14 | 4 | 13 | 9 | 11 | 13 | 15 | 22 |
| COLOR | PCU | S2 | 168 | 93 | 51 | 78 | 21 | 39 | 104 | 133 | 221 |
| COLOR | PCU | S3 | 166 | 74 | 42 | 64 | 18 | 38 | 67 | 99 | 190 |
| COLOR | PCU | S308C | 279 | 49 | 36 | 42 | 10 | 31 | 36 | 50 | 250 |
| COLOR | PCU | S31 | 85 | 57 | 16 | 55 | 34 | 46 | 52 | 61 | 107 |
| COLOR | PCU | S331 | 22 | 36 | 10 | 33 | 3 | 35 | 39 | 42 | 47 |
| COLOR | PCU | S333 | 173 | 49 | 18 | 46 | 19 | 34 | 47 | 61 | 103 |
| COLOR | PCU | S334 | 110 | 45 | 13 | 43 | 23 | 35 | 45 | 52 | 74 |
| COLOR | PCU | S34 | 145 | 72 | 19 | 69 | 35 | 57 | 71 | 88 | 118 |
| COLOR | PCU | S344 | 28 | 42 | 20 | 38 | 21 | 30 | 35 | 50 | 116 |
| COLOR | PCU | S352 | 253 | 42 | 31 | 37 | 20 | 28 | 32 | 42 | 239 |
| COLOR | PCU | S38 | 151 | 81 | 17 | 79 | 33 | 71 | 79 | 91 | 130 |
| COLOR | PCU | S39 | 133 | 84 | 27 | 80 | 43 | 65 | 77 | 97 | 196 |
| COLOR | PCU | S5A | 222 | 102 | 53 | 88 | 29 | 53 | 95 | 146 | 232 |
| COLOR | PCU | S5AE | 138 | 80 | 48 | 69 | 30 | 46 | 66 | 98 | 229 |
| COLOR | PCU | S5AS | 108 | 92 | 48 | 81 | 30 | 50 | 83 | 133 | 218 |
| COLOR | PCU | S5AW | 61 | 80 | 45 | 69 | 32 | 42 | 64 | 111 | 188 |
| COLOR | PCU | S6 | 176 | 111 | 38 | 104 | 34 | 88 | 110 | 141 | 243 |
| COLOR | PCU | S65 | 254 | 72 | 47 | 59 | 19 | 35 | 55 | 99 | 197 |
| COLOR | PCU | S65A | 255 | 102 | 73 | 82 | 26 | 49 | 79 | 132 | 389 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| COLOR | PCU | S65C | 257 | 128 | 79 | 109 | 31 | 72 | 112 | 160 | 441 |
| COLOR | PCU | S65D | 258 | 139 | 83 | 117 | 34 | 78 | 120 | 171 | 466 |
| COLOR | PCU | S65E | 299 | 145 | 86 | 123 | 35 | 82 | 128 | 179 | 467 |
| COLOR | PCU | S7 | 179 | 92 | 27 | 87 | 29 | 76 | 94 | 109 | 164 |
| COLOR | PCU | S71 | 239 | 145 | 80 | 127 | 48 | 83 | 128 | 187 | 496 |
| COLOR | PCU | S72 | 155 | 165 | 89 | 142 | 40 | 102 | 147 | 215 | 429 |
| COLOR | PCU | S78 | 63 | 93 | 85 | 76 | 34 | 49 | 69 | 103 | 644 |
| COLOR | PCU | S79 | 57 | 88 | 55 | 75 | 34 | 51 | 70 | 102 | 268 |
| COLOR | PCU | S8 | 174 | 93 | 31 | 87 | 29 | 73 | 92 | 112 | 194 |
| COLOR | PCU | S84 | 244 | 109 | 54 | 98 | 39 | 69 | 103 | 134 | 403 |
| COLOR | PCU | S9 | 133 | 47 | 7 | 47 | 28 | 42 | 46 | 52 | 71 |
| COLOR | PCU | SW1B | 2 | 101 | 14 | 101 | 91 | 91 | 101 | 111 | 111 |
| COLOR | PCU | SW2 | 2 | 138 | 5 | 137 | 134 | 134 | 138 | 141 | 141 |
| COLOR | PCU | SW6IN | 2 | 124 | 26 | 122 | 105 | 105 | 124 | 142 | 142 |
| COLOR | PCU | TAMBR6 | 50 | 44 | 15 | 42 | 19 | 35 | 40 | 50 | 93 |
| COLOR | PCU | US41-25 | 167 | 27 | 11 | 25 | 15 | 20 | 24 | 29 | 89 |
| DO | mg/L | 02273230 | 198 | 6.27 | 2.26 | 5.64 | 0.12 | 4.75 | 6.41 | 8.09 | 10.71 |
| DO | mg/L | 02274325 | 158 | 4.65 | 1.87 | 4.02 | 0.02 | 3.49 | 4.55 | 5.83 | 9.57 |
| DO | mg/L | 02274505 | 224 | 3.09 | 2.43 | 1.86 | 0.06 | 0.90 | 2.85 | 4.47 | 10.18 |
| DO | mg/L | 02275631 | 191 | 4.57 | 2.34 | 3.87 | 0.33 | 2.81 | 4.18 | 6.32 | 13.21 |
| DO | mg/L | 3AE0 | 61 | 6.82 | 2.31 | 6.31 | 1.37 | 5.32 | 7.41 | 8.42 | 13.03 |
| DO | mg/L | 3AW0 | 90 | 6.73 | 2.14 | 6.29 | 1.29 | 5.30 | 7.04 | 8.42 | 12.77 |
| DO | mg/L | BC10 | 163 | 6.43 | 2.52 | 5.76 | 0.30 | 4.83 | 6.67 | 8.26 | 13.61 |
| DO | mg/L | BC11 | 146 | 3.87 | 2.04 | 3.36 | 0.35 | 2.44 | 3.31 | 4.92 | 10.26 |
| DO | mg/L | BC14 | 158 | 6.14 | 2.31 | 5.66 | 2.06 | 4.09 | 6.31 | 8.13 | 10.68 |
| DO | mg/L | BC15 | 167 | 5.11 | 2.04 | 4.58 | 0.18 | 3.36 | 5.17 | 6.67 | 10.66 |
| DO | mg/L | BC22 | 124 | 5.98 | 2.30 | 5.47 | 1.78 | 4.29 | 6.12 | 7.54 | 11.42 |
| DO | mg/L | BC23 | 122 | 5.79 | 2.00 | 5.41 | 1.75 | 4.47 | 5.56 | 7.24 | 10.98 |
| DO | mg/L | BC26 | 89 | 5.41 | 2.42 | 4.82 | 0.90 | 3.64 | 4.77 | 7.05 | 10.98 |
| DO | mg/L | BC7 | 96 | 7.21 | 2.36 | 6.71 | 1.61 | 5.79 | 7.53 | 8.74 | 12.17 |
| DO | mg/L | BC8 | 96 | 6.91 | 2.90 | 6.19 | 1.38 | 4.51 | 7.44 | 9.40 | 12.33 |
| DO | mg/L | BC9 | 131 | 5.00 | 2.25 | 4.50 | 1.06 | 3.34 | 4.45 | 6.99 | 12.66 |
| DO | mg/L | C123SR84 | 157 | 4.35 | 2.17 | 3.75 | 0.64 | 2.46 | 4.15 | 5.91 | 9.12 |
| DO | mg/L | C15S40 | 117 | 6.75 | 1.81 | 6.50 | 2.34 | 5.35 | 6.61 | 7.92 | 12.41 |
| DO | mg/L | C16S41 | 117 | 6.38 | 1.71 | 6.14 | 2.65 | 5.09 | 6.28 | 7.66 | 10.90 |
| DO | mg/L | C17S44 | 117 | 6.58 | 2.18 | 6.16 | 0.68 | 4.81 | 6.66 | 8.08 | 12.90 |
| DO | mg/L | C18S46 | 104 | 6.12 | 2.04 | 5.73 | 1.56 | 4.70 | 6.23 | 7.64 | 11.12 |
| DO | mg/L | C23S48 | 145 | 6.13 | 1.96 | 5.72 | 0.45 | 4.91 | 6.20 | 7.29 | 11.18 |
| DO | mg/L | C24S49 | 153 | 5.23 | 2.48 | 4.36 | 0.29 | 3.32 | 5.47 | 7.07 | 10.70 |
| DO | mg/L | C25S50 | 135 | 5.77 | 2.62 | 4.81 | 0.32 | 3.60 | 6.47 | 7.83 | 10.40 |
| DO | mg/L | C25S99 | 3 | 5.15 | 1.69 | 4.98 | 3.94 | 4.06 | 4.43 | 6.42 | 7.08 |
| DO | mg/L | C44S80 | 177 | 6.21 | 1.82 | 5.85 | 0.60 | 5.19 | 6.34 | 7.34 | 10.72 |
| DO | mg/L | C51S155 | 125 | 5.54 | 1.76 | 5.25 | 1.83 | 4.04 | 5.57 | 6.74 | 9.75 |
| DO | mg/L | CES01 | 194 | 5.85 | 1.88 | 5.50 | 1.20 | 4.24 | 6.05 | 7.49 | 10.70 |
| DO | mg/L | COC@LAKE | 97 | 5.32 | 2.32 | 4.63 | 0.39 | 3.17 | 5.85 | 7.13 | 9.34 |
| DO | mg/L | COOPERTN | 158 | 3.96 | 1.55 | 3.56 | 0.29 | 2.88 | 4.05 | 5.00 | 8.20 |
| DO | mg/L | CORK@846 | 103 | 4.15 | 1.62 | 3.81 | 1.06 | 3.04 | 4.22 | 5.25 | 9.50 |
| DO | mg/L | CR-04.8T | 58 | 5.33 | 2.35 | 4.74 | 1.05 | 3.48 | 5.30 | 7.22 | 9.83 |
| DO | mg/L | CULV10A | 231 | 6.14 | 2.60 | 5.36 | 0.51 | 4.10 | 6.55 | 8.19 | 12.91 |
| DO | mg/L | CULV5A | 107 | 5.02 | 2.46 | 4.22 | 0.39 | 2.85 | 5.25 | 7.23 | 11.04 |
| DO | mg/L | DF02.1TW | 28 | 5.22 | 2.18 | 4.61 | 1.29 | 3.66 | 5.77 | 6.87 | 8.15 |
| DO | mg/L | E0 | 114 | 3.41 | 1.67 | 2.93 | 0.22 | 2.06 | 3.25 | 4.47 | 7.81 |
| DO | mg/L | F0 | 116 | 2.75 | 1.82 | 2.09 | 0.12 | 1.50 | 2.40 | 3.75 | 7.80 |
| DO | mg/L | FAKA | 98 | 6.69 | 2.22 | 6.13 | 0.22 | 5.19 | 6.94 | 8.28 | 11.07 |
| DO | mg/L | FAKA858 | 108 | 5.03 | 1.60 | 4.76 | 1.73 | 3.68 | 5.23 | 6.18 | 9.20 |
| DO | mg/L | FROGCITY | 95 | 3.12 | 1.61 | 2.56 | 0.27 | 1.77 | 3.14 | 4.35 | 7.06 |
| DO | mg/L | G123 | 336 | 3.74 | 1.84 | 3.22 | 0.29 | 2.36 | 3.68 | 4.89 | 10.69 |
| DO | mg/L | G136 | 332 | 5.71 | 2.35 | 5.02 | 0.35 | 4.02 | 6.01 | 7.51 | 11.00 |
| DO | mg/L | G150 | 28 | 5.53 | 2.31 | 4.82 | 1.05 | 4.45 | 6.22 | 6.95 | 9.11 |
| DO | mg/L | G151 | 1 | 2.80 |  | 2.80 | 2.80 |  |  |  | 2.80 |
| DO | mg/L | G200 | 120 | 5.44 | 2.39 | 4.72 | 0.31 | 3.52 | 5.69 | 7.25 | 13.00 |
| DO | mg/L | G300 | 301 | 4.59 | 2.09 | 3.98 | 0.15 | 2.80 | 4.69 | 6.27 | 10.10 |
| DO | mg/L | G301 | 308 | 4.58 | 2.13 | 4.02 | 0.69 | 2.83 | 4.56 | 6.12 | 11.60 |
| DO | mg/L | G302 | 372 | 4.53 | 2.20 | 3.93 | 0.57 | 2.50 | 4.40 | 6.24 | 11.50 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DO | mg/L | G311 | 198 | 5.02 | 2.04 | 4.55 | 0.89 | 3.32 | 5.09 | 6.46 | 12.10 |
| DO | mg/L | G341 | 15 | 3.58 | 1.81 | 3.16 | 1.37 | 1.83 | 4.02 | 4.37 | 7.73 |
| DO | mg/L | G342A | 490 | 4.91 | 2.45 | 3.99 | 0.12 | 2.82 | 5.37 | 6.79 | 11.60 |
| DO | mg/L | G342B | 511 | 4.81 | 2.43 | 3.86 | 0.08 | 2.77 | 5.21 | 6.56 | 12.00 |
| DO | mg/L | G342C | 483 | 4.83 | 2.38 | 3.93 | 0.11 | 2.85 | 5.29 | 6.57 | 10.89 |
| DO | mg/L | G342D | 504 | 5.04 | 2.39 | 4.16 | 0.09 | 3.19 | 5.33 | 6.85 | 11.30 |
| DO | mg/L | G342E | 24 | 4.96 | 2.16 | 4.36 | 1.36 | 2.89 | 5.38 | 6.73 | 7.54 |
| DO | mg/L | G342F | 24 | 4.97 | 2.13 | 4.44 | 1.60 | 3.03 | 5.25 | 6.64 | 8.45 |
| DO | mg/L | G353A | 37 | 4.73 | 2.14 | 4.13 | 0.75 | 2.69 | 5.22 | 6.41 | 8.91 |
| DO | mg/L | G353B | 67 | 5.41 | 2.12 | 4.83 | 0.81 | 3.66 | 6.01 | 6.86 | 8.95 |
| DO | mg/L | G353C | 37 | 5.18 | 2.10 | 4.68 | 1.08 | 3.68 | 5.06 | 7.04 | 9.04 |
| DO | mg/L | G357 | 270 | 5.40 | 2.00 | 4.94 | 0.61 | 4.00 | 5.59 | 6.99 | 10.40 |
| DO | mg/L | G371 | 11 | 8.12 | 1.27 | 8.03 | 6.19 | 7.56 | 7.91 | 8.71 | 11.10 |
| DO | mg/L | G372 | 271 | 5.62 | 2.13 | 5.17 | 1.30 | 3.71 | 5.80 | 7.29 | 11.00 |
| DO | mg/L | G373 | 12 | 7.14 | 1.11 | 7.06 | 4.88 | 6.45 | 7.08 | 8.09 | 8.68 |
| DO | mg/L | G404 | 304 | 5.54 | 2.04 | 5.07 | 0.29 | 4.11 | 5.70 | 7.06 | 11.20 |
| DO | mg/L | G406 | 290 | 4.91 | 2.35 | 4.19 | 0.36 | 2.84 | 5.19 | 6.75 | 10.60 |
| DO | mg/L | G407 | 62 | 5.07 | 2.38 | 4.21 | 0.33 | 3.17 | 5.37 | 6.83 | 9.28 |
| DO | mg/L | G409 | 349 | 5.85 | 1.91 | 5.45 | 0.21 | 4.62 | 6.18 | 7.29 | 11.31 |
| DO | mg/L | G94B | 124 | 3.71 | 1.82 | 3.13 | 0.30 | 2.30 | 3.64 | 4.96 | 7.53 |
| DO | mg/L | GGC@858 | 103 | 5.64 | 1.62 | 5.36 | 1.17 | 4.58 | 5.86 | 6.70 | 9.19 |
| DO | mg/L | GGCAT31 | 158 | 5.91 | 1.88 | 5.60 | 1.61 | 4.60 | 5.79 | 7.02 | 12.80 |
| DO | mg/L | GLADER | 147 | 3.89 | 1.48 | 3.50 | 0.26 | 2.99 | 3.97 | 4.99 | 8.11 |
| DO | mg/L | HC05.7 | 1 | 1.94 | | 1.94 | 1.94 | | | | 1.94 |
| DO | mg/L | HC12.8 | 1 | 1.98 | | 1.98 | 1.98 | | | | 1.98 |
| DO | mg/L | HC14.4 | 1 | 1.78 | | 1.78 | 1.78 | | | | 1.78 |
| DO | mg/L | HC15.3 | 1 | 2.15 | | 2.15 | 2.15 | | | | 2.15 |
| DO | mg/L | HC18.2 | 1 | 1.67 | | 1.67 | 1.67 | | | | 1.67 |
| DO | mg/L | HC19.3 | 1 | 1.69 | | 1.69 | 1.69 | | | | 1.69 |
| DO | mg/L | INDUSCAN | 158 | 5.45 | 2.24 | 4.91 | 0.65 | 3.67 | 5.44 | 7.08 | 11.10 |
| DO | mg/L | L3BRS | 253 | 5.72 | 2.14 | 5.13 | 0.55 | 4.43 | 6.22 | 7.30 | 10.25 |
| DO | mg/L | L59E | 123 | 4.95 | 3.06 | 3.55 | 0.15 | 2.40 | 4.72 | 7.26 | 12.30 |
| DO | mg/L | L59W | 120 | 5.37 | 2.48 | 4.50 | 0.25 | 3.34 | 5.81 | 7.24 | 10.90 |
| DO | mg/L | L60W | 97 | 4.90 | 2.37 | 4.03 | 0.35 | 3.42 | 4.78 | 6.65 | 9.51 |
| DO | mg/L | L61E | 128 | 5.24 | 2.33 | 4.59 | 0.69 | 3.36 | 5.50 | 7.06 | 10.00 |
| DO | mg/L | L61W | 128 | 4.29 | 2.27 | 3.44 | 0.26 | 2.44 | 4.69 | 6.32 | 9.22 |
| DO | mg/L | L8MZBN | 4 | 5.12 | 1.60 | 4.93 | 3.61 | 3.74 | 5.14 | 6.50 | 6.59 |
| DO | mg/L | L8MZBS | 4 | 5.82 | 1.45 | 5.68 | 4.18 | 4.62 | 5.92 | 7.03 | 7.28 |
| DO | mg/L | LOXA104 | 35 | 4.89 | 2.03 | 4.26 | 0.31 | 3.28 | 4.86 | 6.36 | 8.80 |
| DO | mg/L | LOXA135 | 35 | 4.72 | 2.48 | 3.73 | 0.13 | 3.15 | 5.15 | 6.16 | 12.00 |
| DO | mg/L | S10A | 66 | 5.58 | 2.29 | 4.98 | 1.04 | 4.10 | 5.55 | 7.31 | 10.26 |
| DO | mg/L | S10C | 68 | 5.47 | 1.90 | 5.06 | 0.61 | 4.17 | 5.32 | 7.06 | 9.88 |
| DO | mg/L | S10D | 141 | 4.71 | 2.12 | 4.17 | 0.61 | 3.00 | 4.51 | 6.25 | 10.40 |
| DO | mg/L | S11A | 156 | 5.69 | 1.80 | 5.36 | 1.50 | 4.36 | 5.80 | 6.96 | 9.68 |
| DO | mg/L | S11B | 102 | 4.63 | 1.70 | 4.29 | 1.39 | 3.41 | 4.53 | 6.02 | 9.19 |
| DO | mg/L | S11C | 155 | 4.00 | 1.90 | 3.53 | 0.61 | 2.36 | 3.68 | 5.43 | 9.30 |
| DO | mg/L | S127 | 124 | 4.56 | 2.24 | 3.73 | 0.23 | 2.64 | 4.90 | 6.45 | 8.83 |
| DO | mg/L | S129 | 130 | 5.71 | 2.12 | 5.24 | 1.24 | 4.00 | 5.95 | 7.27 | 11.43 |
| DO | mg/L | S12A | 285 | 4.19 | 1.48 | 3.89 | 0.10 | 3.14 | 4.03 | 5.21 | 9.31 |
| DO | mg/L | S12B | 231 | 4.08 | 1.56 | 3.73 | 0.17 | 2.87 | 3.92 | 5.19 | 8.85 |
| DO | mg/L | S12C | 289 | 3.70 | 1.60 | 3.32 | 0.29 | 2.42 | 3.61 | 4.77 | 9.32 |
| DO | mg/L | S12D | 266 | 3.47 | 1.44 | 3.14 | 0.33 | 2.39 | 3.26 | 4.56 | 8.22 |
| DO | mg/L | S131 | 137 | 5.62 | 2.03 | 5.17 | 0.91 | 3.85 | 5.96 | 7.19 | 10.04 |
| DO | mg/L | S133 | 127 | 4.69 | 1.95 | 4.15 | 0.25 | 3.23 | 4.66 | 6.39 | 8.41 |
| DO | mg/L | S135 | 127 | 6.35 | 2.01 | 5.93 | 0.57 | 5.11 | 6.33 | 7.63 | 11.40 |
| DO | mg/L | S140 | 392 | 4.84 | 2.41 | 4.14 | 0.60 | 2.62 | 4.99 | 6.81 | 11.60 |
| DO | mg/L | S145 | 168 | 4.59 | 1.60 | 4.29 | 1.33 | 3.49 | 4.47 | 5.64 | 9.43 |
| DO | mg/L | S150 | 324 | 4.79 | 1.98 | 4.36 | 0.91 | 3.16 | 4.68 | 6.47 | 9.66 |
| DO | mg/L | S151 | 164 | 3.68 | 1.71 | 3.27 | 0.61 | 2.39 | 3.53 | 4.85 | 11.61 |
| DO | mg/L | S154 | 225 | 5.58 | 2.46 | 4.74 | 0.20 | 3.85 | 5.85 | 7.57 | 11.30 |
| DO | mg/L | S169 | 145 | 6.35 | 1.89 | 6.02 | 1.88 | 5.17 | 6.54 | 7.63 | 12.76 |
| DO | mg/L | S177 | 297 | 3.96 | 2.41 | 3.08 | 0.14 | 1.69 | 3.74 | 5.99 | 10.40 |
| DO | mg/L | S178 | 225 | 4.51 | 2.28 | 3.79 | 0.31 | 2.79 | 4.41 | 5.98 | 10.80 |
| DO | mg/L | S18C | 422 | 5.41 | 2.53 | 4.69 | 0.20 | 3.06 | 5.53 | 7.54 | 12.20 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DO | mg/L | S190 | 280 | 6.10 | 2.31 | 5.55 | 0.85 | 4.27 | 6.48 | 7.93 | 10.90 |
| DO | mg/L | S191 | 225 | 5.52 | 2.41 | 4.66 | 0.19 | 3.52 | 6.08 | 7.32 | 10.17 |
| DO | mg/L | S197 | 31 | 6.15 | 2.23 | 5.66 | 2.03 | 4.84 | 6.47 | 7.79 | 10.90 |
| DO | mg/L | S2 | 170 | 4.87 | 2.52 | 4.05 | 0.57 | 2.61 | 4.82 | 6.98 | 10.58 |
| DO | mg/L | S3 | 164 | 5.89 | 2.25 | 5.38 | 0.96 | 3.94 | 6.31 | 7.74 | 12.12 |
| DO | mg/L | S308C | 285 | 7.11 | 1.82 | 6.78 | 0.33 | 6.03 | 7.37 | 8.36 | 10.36 |
| DO | mg/L | S31 | 107 | 3.36 | 1.79 | 2.87 | 0.51 | 1.96 | 2.90 | 4.52 | 8.96 |
| DO | mg/L | S331 | 40 | 1.94 | 1.11 | 1.63 | 0.34 | 1.08 | 1.94 | 2.60 | 5.50 |
| DO | mg/L | S332B | 255 | 2.87 | 1.83 | 2.20 | 0.19 | 1.19 | 2.70 | 4.06 | 7.24 |
| DO | mg/L | S332C | 263 | 3.07 | 1.95 | 2.32 | 0.09 | 1.29 | 3.02 | 4.58 | 9.71 |
| DO | mg/L | S332DX | 81 | 4.25 | 2.18 | 3.56 | 0.51 | 2.41 | 4.42 | 5.87 | 10.10 |
| DO | mg/L | S333 | 352 | 3.76 | 1.39 | 3.48 | 0.33 | 2.74 | 3.75 | 4.75 | 8.06 |
| DO | mg/L | S334 | 142 | 4.58 | 2.05 | 3.88 | 0.19 | 3.29 | 4.79 | 6.19 | 8.94 |
| DO | mg/L | S335 | 38 | 4.53 | 1.55 | 4.22 | 1.02 | 3.66 | 4.45 | 5.17 | 8.01 |
| DO | mg/L | S34 | 167 | 4.68 | 1.87 | 4.18 | 0.70 | 3.33 | 4.86 | 6.20 | 8.94 |
| DO | mg/L | S344 | 38 | 3.75 | 1.67 | 3.39 | 1.27 | 2.29 | 3.71 | 5.03 | 8.44 |
| DO | mg/L | S352 | 266 | 6.75 | 2.14 | 6.27 | 0.54 | 5.22 | 7.28 | 8.35 | 11.80 |
| DO | mg/L | S356 | 63 | 3.89 | 2.09 | 3.35 | 0.88 | 2.15 | 3.47 | 5.43 | 11.30 |
| DO | mg/L | S38 | 170 | 3.76 | 1.86 | 3.34 | 1.11 | 2.33 | 3.27 | 4.73 | 10.31 |
| DO | mg/L | S39 | 163 | 5.74 | 2.07 | 5.25 | 0.83 | 4.29 | 5.87 | 7.43 | 9.73 |
| DO | mg/L | S390 | 72 | 5.11 | 1.69 | 4.68 | 0.20 | 3.93 | 5.38 | 6.23 | 9.10 |
| DO | mg/L | S5A | 545 | 4.42 | 2.26 | 3.72 | 0.16 | 2.33 | 4.58 | 6.18 | 11.10 |
| DO | mg/L | S5AE | 149 | 5.37 | 2.02 | 4.90 | 0.71 | 4.08 | 5.38 | 7.03 | 10.01 |
| DO | mg/L | S5AS | 107 | 4.87 | 2.20 | 4.17 | 0.29 | 3.12 | 5.03 | 6.63 | 8.74 |
| DO | mg/L | S5AW | 61 | 5.47 | 2.36 | 4.79 | 0.54 | 3.95 | 5.42 | 7.47 | 10.41 |
| DO | mg/L | S6 | 573 | 3.78 | 1.99 | 3.24 | 0.10 | 2.19 | 3.46 | 5.20 | 11.60 |
| DO | mg/L | S65 | 241 | 7.43 | 1.59 | 7.22 | 1.32 | 6.48 | 7.48 | 8.55 | 10.62 |
| DO | mg/L | S65A | 241 | 6.17 | 2.18 | 5.63 | 0.29 | 4.74 | 6.40 | 7.63 | 12.30 |
| DO | mg/L | S65C | 241 | 4.81 | 2.41 | 3.79 | 0.08 | 2.94 | 5.20 | 6.68 | 10.10 |
| DO | mg/L | S65D | 241 | 5.15 | 2.35 | 4.25 | 0.08 | 3.19 | 5.61 | 6.94 | 10.27 |
| DO | mg/L | S65E | 282 | 5.17 | 2.27 | 4.32 | 0.06 | 3.52 | 5.43 | 6.98 | 10.03 |
| DO | mg/L | S7 | 396 | 4.60 | 2.04 | 4.09 | 0.33 | 2.94 | 4.46 | 6.11 | 9.51 |
| DO | mg/L | S71 | 236 | 5.34 | 2.39 | 4.62 | 0.24 | 3.51 | 5.67 | 7.16 | 11.90 |
| DO | mg/L | S72 | 156 | 4.89 | 2.47 | 4.07 | 0.35 | 2.80 | 4.80 | 7.19 | 9.56 |
| DO | mg/L | S78 | 77 | 6.23 | 1.91 | 5.85 | 1.46 | 4.92 | 6.56 | 7.81 | 9.28 |
| DO | mg/L | S79 | 52 | 6.68 | 1.98 | 6.35 | 2.75 | 5.57 | 6.89 | 7.68 | 12.20 |
| DO | mg/L | S8 | 524 | 5.21 | 2.17 | 4.64 | 0.18 | 3.53 | 5.26 | 6.83 | 11.94 |
| DO | mg/L | S84 | 238 | 6.66 | 2.09 | 6.23 | 0.84 | 5.35 | 6.97 | 8.22 | 10.90 |
| DO | mg/L | S9 | 523 | 2.53 | 1.44 | 2.07 | 0.12 | 1.35 | 2.44 | 3.50 | 8.45 |
| DO | mg/L | S9A | 328 | 2.47 | 1.43 | 2.02 | 0.27 | 1.28 | 2.43 | 3.35 | 9.80 |
| DO | mg/L | SAFARI | 218 | 3.37 | 1.57 | 2.96 | 0.17 | 1.98 | 3.22 | 4.58 | 8.22 |
| DO | mg/L | SW1B | 64 | 5.92 | 1.88 | 5.60 | 2.64 | 4.24 | 5.76 | 7.60 | 9.16 |
| DO | mg/L | SW2 | 232 | 5.48 | 1.25 | 5.30 | 0.60 | 5.14 | 5.33 | 5.56 | 9.98 |
| DO | mg/L | SW6IN | 179 | 5.55 | 1.66 | 5.24 | 1.28 | 4.41 | 6.05 | 6.29 | 9.69 |
| DO | mg/L | T0E | 12 | 5.28 | 0.95 | 5.19 | 3.17 | 4.84 | 5.24 | 5.85 | 6.96 |
| DO | mg/L | T0W | 12 | 5.12 | 1.21 | 4.96 | 2.30 | 4.59 | 5.35 | 5.74 | 6.92 |
| DO | mg/L | TAMBR1 | 237 | 4.21 | 1.99 | 3.57 | 0.23 | 2.63 | 4.35 | 5.55 | 9.34 |
| DO | mg/L | TAMBR2 | 232 | 4.12 | 1.86 | 3.58 | 0.28 | 2.75 | 4.20 | 5.34 | 9.23 |
| DO | mg/L | TAMBR3 | 208 | 4.06 | 1.76 | 3.54 | 0.29 | 2.84 | 4.25 | 5.08 | 8.77 |
| DO | mg/L | TAMBR4 | 180 | 3.87 | 1.67 | 3.37 | 0.24 | 2.61 | 4.16 | 4.95 | 8.22 |
| DO | mg/L | TAMBR5 | 146 | 3.67 | 1.53 | 3.26 | 0.29 | 2.56 | 3.70 | 4.69 | 8.20 |
| DO | mg/L | TAMBR6 | 162 | 3.69 | 1.55 | 3.24 | 0.29 | 2.62 | 3.72 | 4.74 | 7.61 |
| DO | mg/L | TCNS 201 | 91 | 3.54 | 1.99 | 2.88 | 0.21 | 2.07 | 3.28 | 4.49 | 8.53 |
| DO | mg/L | TCNS 213 | 211 | 5.14 | 2.08 | 4.58 | 0.15 | 3.77 | 5.15 | 6.58 | 11.05 |
| DO | mg/L | TCNS 217 | 210 | 3.68 | 2.16 | 2.90 | 0.28 | 1.84 | 3.74 | 5.03 | 11.80 |
| DO | mg/L | US41-25 | 253 | 2.98 | 1.05 | 2.77 | 0.11 | 2.43 | 2.85 | 3.44 | 8.23 |
| DO | mg/L | WPB-26.1 | 21 | 2.95 | 1.62 | 2.60 | 1.01 | 1.78 | 2.48 | 3.64 | 7.69 |
| DO | mg/L | WPB-28.2 | 21 | 3.25 | 1.85 | 2.77 | 0.81 | 1.77 | 3.11 | 3.86 | 7.14 |
| DO | mg/L | WPB-31.2 | 21 | 2.96 | 1.66 | 2.50 | 0.57 | 1.60 | 2.62 | 3.97 | 6.38 |
| DO | mg/L | WPB-33.5 | 21 | 3.35 | 1.91 | 2.87 | 1.09 | 1.78 | 2.82 | 4.93 | 7.17 |
| DO | mg/L | WPB-35.4 | 21 | 2.83 | 1.45 | 2.50 | 0.87 | 1.65 | 2.46 | 3.97 | 5.72 |
| DO | mg/L | WPB-37.2 | 21 | 2.58 | 1.63 | 2.16 | 0.69 | 1.54 | 2.10 | 3.21 | 6.43 |
| DO | mg/L | WPB-38.0 | 21 | 3.61 | 2.02 | 3.08 | 0.90 | 1.86 | 3.86 | 4.82 | 9.30 |
| DO | mg/L | WWEIR | 526 | 3.57 | 2.00 | 2.83 | 0.08 | 1.88 | 3.37 | 5.17 | 8.96 |

| Table F-3 . Summary Water Quality Statistics By Station | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
| DO | mg/L | X0 | 114 | 4.31 | 1.76 | 3.86 | 0.86 | 2.76 | 4.34 | 5.60 | 8.17 |
| DO | mg/L | Z0 | 115 | 4.32 | 1.87 | 3.82 | 0.73 | 2.80 | 4.24 | 5.76 | 8.51 |
| NH4 | mg/L | 02273230 | 8 | 0.299 | 0.389 | 0.162 | 0.027 | 0.083 | 0.159 | 0.340 | 1.200 |
| NH4 | mg/L | 02274325 | 5 | 0.176 | 0.084 | 0.158 | 0.068 | 0.122 | 0.160 | 0.238 | 0.290 |
| NH4 | mg/L | 02274505 | 7 | 0.048 | 0.014 | 0.046 | 0.032 | 0.037 | 0.047 | 0.062 | 0.066 |
| NH4 | mg/L | 02275631 | 6 | 0.196 | 0.112 | 0.159 | 0.040 | 0.100 | 0.213 | 0.300 | 0.310 |
| NH4 | mg/L | 3AE0 | 64 | 0.029 | 0.029 | 0.020 | 0.005 | 0.013 | 0.016 | 0.035 | 0.150 |
| NH4 | mg/L | 3AW0 | 89 | 0.026 | 0.026 | 0.017 | 0.003 | 0.011 | 0.016 | 0.028 | 0.130 |
| NH4 | mg/L | BC10 | 28 | 0.025 | 0.021 | 0.017 | 0.004 | 0.005 | 0.020 | 0.037 | 0.070 |
| NH4 | mg/L | BC11 | 27 | 0.030 | 0.033 | 0.020 | 0.004 | 0.013 | 0.030 | 0.040 | 0.180 |
| NH4 | mg/L | BC14 | 24 | 0.079 | 0.051 | 0.054 | 0.004 | 0.045 | 0.080 | 0.110 | 0.220 |
| NH4 | mg/L | BC15 | 25 | 0.148 | 0.088 | 0.107 | 0.004 | 0.105 | 0.130 | 0.185 | 0.390 |
| NH4 | mg/L | BC22 | 28 | 0.020 | 0.023 | 0.012 | 0.004 | 0.005 | 0.011 | 0.020 | 0.100 |
| NH4 | mg/L | BC23 | 26 | 0.039 | 0.025 | 0.029 | 0.004 | 0.020 | 0.040 | 0.060 | 0.080 |
| NH4 | mg/L | BC26 | 21 | 0.037 | 0.032 | 0.022 | 0.004 | 0.009 | 0.020 | 0.063 | 0.100 |
| NH4 | mg/L | BC7 | 26 | 0.010 | 0.007 | 0.008 | 0.004 | 0.005 | 0.005 | 0.020 | 0.020 |
| NH4 | mg/L | BC8 | 24 | 0.015 | 0.012 | 0.011 | 0.004 | 0.005 | 0.010 | 0.020 | 0.047 |
| NH4 | mg/L | BC9 | 27 | 0.037 | 0.035 | 0.023 | 0.004 | 0.012 | 0.020 | 0.060 | 0.120 |
| NH4 | mg/L | C123SR84 | 133 | 0.039 | 0.046 | 0.026 | 0.003 | 0.015 | 0.027 | 0.043 | 0.375 |
| NH4 | mg/L | C15S40 | 119 | 0.035 | 0.057 | 0.015 | 0.003 | 0.005 | 0.013 | 0.035 | 0.352 |
| NH4 | mg/L | C16S41 | 120 | 0.039 | 0.048 | 0.021 | 0.003 | 0.009 | 0.025 | 0.050 | 0.303 |
| NH4 | mg/L | C17S44 | 121 | 0.054 | 0.063 | 0.029 | 0.003 | 0.011 | 0.030 | 0.076 | 0.352 |
| NH4 | mg/L | C18S46 | 109 | 0.030 | 0.034 | 0.018 | 0.003 | 0.005 | 0.023 | 0.040 | 0.251 |
| NH4 | mg/L | C23S48 | 305 | 0.115 | 0.106 | 0.059 | 0.003 | 0.023 | 0.068 | 0.198 | 0.518 |
| NH4 | mg/L | C24S49 | 308 | 0.106 | 0.094 | 0.060 | 0.003 | 0.030 | 0.074 | 0.168 | 0.401 |
| NH4 | mg/L | C25S50 | 295 | 0.086 | 0.078 | 0.048 | 0.003 | 0.021 | 0.067 | 0.124 | 0.505 |
| NH4 | mg/L | C44S80 | 323 | 0.058 | 0.063 | 0.037 | 0.003 | 0.023 | 0.040 | 0.067 | 0.437 |
| NH4 | mg/L | C51S155 | 121 | 0.072 | 0.067 | 0.039 | 0.003 | 0.010 | 0.059 | 0.108 | 0.353 |
| NH4 | mg/L | CES01 | 95 | 0.053 | 0.047 | 0.035 | 0.003 | 0.018 | 0.035 | 0.072 | 0.210 |
| NH4 | mg/L | COC@LAKE | 5 | 0.058 | 0.038 | 0.038 | 0.004 | 0.035 | 0.063 | 0.076 | 0.110 |
| NH4 | mg/L | CORK@846 | 20 | 0.028 | 0.019 | 0.020 | 0.004 | 0.010 | 0.024 | 0.047 | 0.060 |
| NH4 | mg/L | CR-04.8T | 60 | 0.230 | 0.240 | 0.110 | 0.005 | 0.045 | 0.114 | 0.406 | 0.870 |
| NH4 | mg/L | CULV10A | 242 | 0.128 | 0.246 | 0.040 | 0.003 | 0.010 | 0.044 | 0.145 | 2.221 |
| NH4 | mg/L | CULV5A | 107 | 0.095 | 0.126 | 0.049 | 0.005 | 0.020 | 0.053 | 0.122 | 0.938 |
| NH4 | mg/L | E0 | 117 | 0.695 | 0.740 | 0.313 | 0.012 | 0.097 | 0.390 | 1.200 | 2.987 |
| NH4 | mg/L | F0 | 118 | 0.891 | 0.891 | 0.417 | 0.016 | 0.180 | 0.550 | 1.300 | 3.505 |
| NH4 | mg/L | FAKA | 24 | 0.009 | 0.007 | 0.007 | 0.004 | 0.005 | 0.005 | 0.010 | 0.030 |
| NH4 | mg/L | FAKA858 | 20 | 0.023 | 0.020 | 0.014 | 0.004 | 0.004 | 0.020 | 0.035 | 0.070 |
| NH4 | mg/L | FROGCITY | 40 | 0.136 | 0.148 | 0.082 | 0.016 | 0.037 | 0.080 | 0.145 | 0.520 |
| NH4 | mg/L | G123 | 106 | 0.213 | 0.186 | 0.131 | 0.009 | 0.049 | 0.136 | 0.364 | 0.682 |
| NH4 | mg/L | G136 | 282 | 0.068 | 0.097 | 0.040 | 0.005 | 0.023 | 0.050 | 0.098 | 1.400 |
| NH4 | mg/L | G200 | 95 | 0.087 | 0.079 | 0.055 | 0.005 | 0.025 | 0.065 | 0.127 | 0.345 |
| NH4 | mg/L | G300 | 91 | 0.129 | 0.154 | 0.066 | 0.003 | 0.032 | 0.063 | 0.181 | 0.656 |
| NH4 | mg/L | G301 | 91 | 0.196 | 0.321 | 0.072 | 0.003 | 0.026 | 0.059 | 0.149 | 1.479 |
| NH4 | mg/L | G302 | 162 | 0.242 | 0.358 | 0.083 | 0.003 | 0.029 | 0.050 | 0.338 | 1.660 |
| NH4 | mg/L | G311 | 74 | 0.180 | 0.282 | 0.075 | 0.003 | 0.035 | 0.063 | 0.179 | 1.720 |
| NH4 | mg/L | G342A | 246 | 0.065 | 0.068 | 0.033 | 0.003 | 0.011 | 0.040 | 0.102 | 0.337 |
| NH4 | mg/L | G342B | 247 | 0.062 | 0.062 | 0.033 | 0.003 | 0.013 | 0.042 | 0.103 | 0.313 |
| NH4 | mg/L | G342C | 244 | 0.062 | 0.058 | 0.034 | 0.003 | 0.012 | 0.042 | 0.104 | 0.270 |
| NH4 | mg/L | G342D | 243 | 0.059 | 0.064 | 0.031 | 0.003 | 0.013 | 0.034 | 0.090 | 0.374 |
| NH4 | mg/L | G342E | 10 | 0.085 | 0.052 | 0.072 | 0.028 | 0.046 | 0.065 | 0.115 | 0.196 |
| NH4 | mg/L | G342F | 10 | 0.081 | 0.055 | 0.067 | 0.032 | 0.035 | 0.069 | 0.098 | 0.188 |
| NH4 | mg/L | G353A | 15 | 0.050 | 0.037 | 0.039 | 0.012 | 0.021 | 0.035 | 0.073 | 0.131 |
| NH4 | mg/L | G353B | 33 | 0.035 | 0.023 | 0.029 | 0.005 | 0.018 | 0.032 | 0.046 | 0.103 |
| NH4 | mg/L | G353C | 15 | 0.044 | 0.027 | 0.037 | 0.015 | 0.024 | 0.039 | 0.057 | 0.097 |
| NH4 | mg/L | G372 | 132 | 0.076 | 0.074 | 0.047 | 0.003 | 0.024 | 0.049 | 0.104 | 0.364 |
| NH4 | mg/L | G94B | 113 | 0.049 | 0.103 | 0.019 | 0.003 | 0.009 | 0.017 | 0.038 | 0.667 |
| NH4 | mg/L | GGC@858 | 22 | 0.073 | 0.057 | 0.041 | 0.004 | 0.019 | 0.065 | 0.130 | 0.170 |
| NH4 | mg/L | GGCAT31 | 25 | 0.044 | 0.025 | 0.034 | 0.004 | 0.028 | 0.040 | 0.056 | 0.090 |
| NH4 | mg/L | INDUSCAN | 171 | 0.180 | 0.211 | 0.099 | 0.005 | 0.052 | 0.104 | 0.240 | 1.490 |
| NH4 | mg/L | L3BRS | 246 | 0.050 | 0.046 | 0.029 | 0.005 | 0.011 | 0.037 | 0.079 | 0.259 |
| NH4 | mg/L | L59E | 124 | 0.120 | 0.158 | 0.049 | 0.005 | 0.015 | 0.037 | 0.171 | 0.846 |
| NH4 | mg/L | L59W | 120 | 0.066 | 0.074 | 0.035 | 0.003 | 0.015 | 0.032 | 0.088 | 0.349 |
| NH4 | mg/L | L60W | 98 | 0.053 | 0.053 | 0.031 | 0.003 | 0.014 | 0.036 | 0.074 | 0.256 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NH4 | mg/L | L61E | 126 | 0.101 | 0.140 | 0.050 | 0.005 | 0.022 | 0.047 | 0.121 | 0.834 |
| NH4 | mg/L | L61W | 127 | 0.102 | 0.095 | 0.062 | 0.005 | 0.034 | 0.071 | 0.137 | 0.413 |
| NH4 | mg/L | LOXA104 | 17 | 0.121 | 0.171 | 0.064 | 0.010 | 0.028 | 0.063 | 0.122 | 0.704 |
| NH4 | mg/L | LOXA135 | 19 | 0.122 | 0.211 | 0.055 | 0.005 | 0.025 | 0.050 | 0.121 | 0.938 |
| NH4 | mg/L | S10A | 60 | 0.027 | 0.040 | 0.016 | 0.003 | 0.010 | 0.015 | 0.026 | 0.251 |
| NH4 | mg/L | S10C | 62 | 0.056 | 0.137 | 0.022 | 0.003 | 0.012 | 0.017 | 0.028 | 1.001 |
| NH4 | mg/L | S10D | 138 | 0.091 | 0.262 | 0.029 | 0.003 | 0.014 | 0.024 | 0.045 | 2.259 |
| NH4 | mg/L | S11A | 133 | 0.035 | 0.041 | 0.023 | 0.003 | 0.013 | 0.022 | 0.040 | 0.344 |
| NH4 | mg/L | S11B | 102 | 0.033 | 0.026 | 0.025 | 0.003 | 0.017 | 0.026 | 0.039 | 0.151 |
| NH4 | mg/L | S11C | 156 | 0.040 | 0.056 | 0.025 | 0.003 | 0.017 | 0.026 | 0.040 | 0.562 |
| NH4 | mg/L | S127 | 123 | 0.095 | 0.119 | 0.043 | 0.003 | 0.014 | 0.046 | 0.133 | 0.749 |
| NH4 | mg/L | S129 | 130 | 0.035 | 0.038 | 0.021 | 0.005 | 0.010 | 0.020 | 0.047 | 0.189 |
| NH4 | mg/L | S12A | 133 | 0.043 | 0.068 | 0.024 | 0.003 | 0.015 | 0.023 | 0.038 | 0.417 |
| NH4 | mg/L | S12B | 139 | 0.039 | 0.048 | 0.025 | 0.003 | 0.015 | 0.024 | 0.041 | 0.317 |
| NH4 | mg/L | S12C | 211 | 0.045 | 0.048 | 0.031 | 0.003 | 0.019 | 0.029 | 0.050 | 0.275 |
| NH4 | mg/L | S12D | 184 | 0.046 | 0.043 | 0.035 | 0.005 | 0.023 | 0.036 | 0.051 | 0.267 |
| NH4 | mg/L | S131 | 135 | 0.040 | 0.051 | 0.024 | 0.005 | 0.012 | 0.023 | 0.045 | 0.330 |
| NH4 | mg/L | S133 | 130 | 0.101 | 0.106 | 0.055 | 0.005 | 0.024 | 0.077 | 0.127 | 0.549 |
| NH4 | mg/L | S135 | 132 | 0.038 | 0.059 | 0.019 | 0.003 | 0.008 | 0.018 | 0.038 | 0.421 |
| NH4 | mg/L | S140 | 154 | 0.061 | 0.042 | 0.040 | 0.003 | 0.022 | 0.061 | 0.093 | 0.192 |
| NH4 | mg/L | S145 | 140 | 0.035 | 0.055 | 0.021 | 0.003 | 0.012 | 0.020 | 0.034 | 0.538 |
| NH4 | mg/L | S150 | 218 | 0.087 | 0.072 | 0.062 | 0.003 | 0.038 | 0.071 | 0.113 | 0.438 |
| NH4 | mg/L | S151 | 133 | 0.104 | 0.079 | 0.079 | 0.003 | 0.048 | 0.080 | 0.129 | 0.398 |
| NH4 | mg/L | S154 | 228 | 0.081 | 0.119 | 0.042 | 0.005 | 0.018 | 0.044 | 0.112 | 1.383 |
| NH4 | mg/L | S169 | 157 | 0.131 | 0.146 | 0.076 | 0.005 | 0.040 | 0.087 | 0.135 | 0.856 |
| NH4 | mg/L | S177 | 229 | 0.095 | 0.109 | 0.066 | 0.005 | 0.044 | 0.071 | 0.113 | 1.186 |
| NH4 | mg/L | S178 | 110 | 0.036 | 0.035 | 0.025 | 0.005 | 0.017 | 0.026 | 0.045 | 0.263 |
| NH4 | mg/L | S18C | 172 | 0.058 | 0.043 | 0.039 | 0.005 | 0.018 | 0.055 | 0.082 | 0.205 |
| NH4 | mg/L | S190 | 139 | 0.028 | 0.033 | 0.015 | 0.003 | 0.005 | 0.011 | 0.047 | 0.146 |
| NH4 | mg/L | S191 | 239 | 0.099 | 0.118 | 0.048 | 0.003 | 0.020 | 0.051 | 0.123 | 0.638 |
| NH4 | mg/L | S197 | 22 | 0.050 | 0.038 | 0.034 | 0.005 | 0.016 | 0.050 | 0.073 | 0.130 |
| NH4 | mg/L | S2 | 229 | 0.322 | 0.414 | 0.144 | 0.005 | 0.050 | 0.134 | 0.463 | 2.133 |
| NH4 | mg/L | S3 | 204 | 0.174 | 0.225 | 0.085 | 0.005 | 0.035 | 0.081 | 0.216 | 1.254 |
| NH4 | mg/L | S308C | 287 | 0.054 | 0.085 | 0.020 | 0.003 | 0.005 | 0.016 | 0.043 | 0.497 |
| NH4 | mg/L | S31 | 86 | 0.103 | 0.065 | 0.082 | 0.005 | 0.054 | 0.092 | 0.132 | 0.349 |
| NH4 | mg/L | S331 | 40 | 0.268 | 0.057 | 0.262 | 0.159 | 0.230 | 0.263 | 0.301 | 0.401 |
| NH4 | mg/L | S332B | 74 | 0.188 | 0.090 | 0.156 | 0.005 | 0.132 | 0.187 | 0.244 | 0.380 |
| NH4 | mg/L | S332C | 76 | 0.176 | 0.080 | 0.148 | 0.005 | 0.142 | 0.173 | 0.217 | 0.388 |
| NH4 | mg/L | S333 | 239 | 0.051 | 0.041 | 0.039 | 0.005 | 0.025 | 0.037 | 0.062 | 0.261 |
| NH4 | mg/L | S334 | 109 | 0.136 | 0.157 | 0.076 | 0.002 | 0.031 | 0.083 | 0.180 | 0.909 |
| NH4 | mg/L | S34 | 144 | 0.080 | 0.104 | 0.046 | 0.005 | 0.024 | 0.047 | 0.085 | 0.663 |
| NH4 | mg/L | S344 | 28 | 0.031 | 0.029 | 0.021 | 0.005 | 0.011 | 0.021 | 0.038 | 0.123 |
| NH4 | mg/L | S352 | 393 | 0.110 | 0.303 | 0.030 | 0.003 | 0.010 | 0.025 | 0.072 | 2.678 |
| NH4 | mg/L | S38 | 147 | 0.040 | 0.059 | 0.021 | 0.005 | 0.010 | 0.017 | 0.042 | 0.350 |
| NH4 | mg/L | S39 | 142 | 0.025 | 0.033 | 0.015 | 0.003 | 0.009 | 0.015 | 0.023 | 0.212 |
| NH4 | mg/L | S390 | 47 | 0.082 | 0.090 | 0.044 | 0.003 | 0.016 | 0.054 | 0.113 | 0.486 |
| NH4 | mg/L | S5A | 526 | 0.244 | 0.329 | 0.098 | 0.005 | 0.034 | 0.098 | 0.337 | 2.305 |
| NH4 | mg/L | S5AE | 135 | 0.089 | 0.110 | 0.050 | 0.005 | 0.027 | 0.049 | 0.108 | 0.573 |
| NH4 | mg/L | S5AS | 103 | 0.149 | 0.211 | 0.066 | 0.005 | 0.029 | 0.050 | 0.158 | 0.948 |
| NH4 | mg/L | S5AW | 57 | 0.092 | 0.114 | 0.049 | 0.005 | 0.022 | 0.047 | 0.108 | 0.513 |
| NH4 | mg/L | S6 | 431 | 0.251 | 0.193 | 0.180 | 0.005 | 0.103 | 0.205 | 0.340 | 0.955 |
| NH4 | mg/L | S65 | 253 | 0.015 | 0.017 | 0.010 | 0.003 | 0.005 | 0.010 | 0.016 | 0.133 |
| NH4 | mg/L | S65A | 250 | 0.035 | 0.048 | 0.018 | 0.003 | 0.006 | 0.017 | 0.044 | 0.288 |
| NH4 | mg/L | S65C | 256 | 0.048 | 0.054 | 0.029 | 0.003 | 0.013 | 0.032 | 0.058 | 0.336 |
| NH4 | mg/L | S65D | 257 | 0.046 | 0.058 | 0.028 | 0.005 | 0.015 | 0.029 | 0.049 | 0.489 |
| NH4 | mg/L | S65E | 298 | 0.049 | 0.062 | 0.031 | 0.005 | 0.018 | 0.032 | 0.055 | 0.541 |
| NH4 | mg/L | S7 | 298 | 0.074 | 0.077 | 0.046 | 0.005 | 0.023 | 0.046 | 0.098 | 0.461 |
| NH4 | mg/L | S71 | 238 | 0.130 | 0.167 | 0.066 | 0.005 | 0.026 | 0.070 | 0.161 | 1.135 |
| NH4 | mg/L | S72 | 155 | 0.147 | 0.174 | 0.075 | 0.003 | 0.029 | 0.087 | 0.179 | 0.996 |
| NH4 | mg/L | S78 | 58 | 0.062 | 0.060 | 0.039 | 0.005 | 0.020 | 0.042 | 0.085 | 0.278 |
| NH4 | mg/L | S79 | 56 | 0.047 | 0.041 | 0.033 | 0.003 | 0.020 | 0.035 | 0.059 | 0.238 |
| NH4 | mg/L | S8 | 307 | 0.071 | 0.061 | 0.048 | 0.005 | 0.025 | 0.054 | 0.102 | 0.471 |
| NH4 | mg/L | S84 | 242 | 0.062 | 0.089 | 0.027 | 0.005 | 0.010 | 0.028 | 0.079 | 0.563 |
| NH4 | mg/L | S9 | 334 | 0.339 | 0.114 | 0.320 | 0.070 | 0.254 | 0.319 | 0.411 | 0.724 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NH4 | mg/L | S9A | 79 | 0.421 | 0.146 | 0.392 | 0.075 | 0.324 | 0.400 | 0.553 | 0.744 |
| NH4 | mg/L | T0E | 13 | 0.160 | 0.094 | 0.119 | 0.017 | 0.091 | 0.160 | 0.230 | 0.300 |
| NH4 | mg/L | T0W | 13 | 0.151 | 0.089 | 0.112 | 0.012 | 0.096 | 0.160 | 0.223 | 0.280 |
| NH4 | mg/L | TAMBR6 | 53 | 0.172 | 0.198 | 0.097 | 0.010 | 0.045 | 0.083 | 0.239 | 0.784 |
| NH4 | mg/L | TCNS 201 | 105 | 0.074 | 0.065 | 0.049 | 0.005 | 0.028 | 0.055 | 0.091 | 0.316 |
| NH4 | mg/L | TCNS 213 | 218 | 0.131 | 0.273 | 0.058 | 0.003 | 0.033 | 0.058 | 0.125 | 2.987 |
| NH4 | mg/L | TCNS 217 | 222 | 0.601 | 3.146 | 0.038 | 0.003 | 0.012 | 0.028 | 0.081 | 29.719 |
| NH4 | mg/L | US41-25 | 166 | 0.068 | 0.061 | 0.048 | 0.005 | 0.026 | 0.053 | 0.091 | 0.490 |
| NH4 | mg/L | WWEIR | 217 | 0.050 | 0.028 | 0.044 | 0.011 | 0.029 | 0.046 | 0.060 | 0.174 |
| NH4 | mg/L | X0 | 120 | 0.061 | 0.089 | 0.039 | 0.003 | 0.023 | 0.035 | 0.067 | 0.610 |
| NH4 | mg/L | Z0 | 117 | 0.071 | 0.121 | 0.040 | 0.003 | 0.023 | 0.036 | 0.066 | 0.880 |
| NOX | mg/L | 02273230 | 99 | 0.187 | 0.215 | 0.093 | 0.002 | 0.043 | 0.100 | 0.280 | 1.200 |
| NOX | mg/L | 02274325 | 84 | 0.329 | 0.269 | 0.147 | 0.002 | 0.082 | 0.332 | 0.530 | 0.945 |
| NOX | mg/L | 02274505 | 91 | 0.136 | 0.149 | 0.053 | 0.001 | 0.017 | 0.063 | 0.210 | 0.556 |
| NOX | mg/L | 02275631 | 80 | 0.122 | 0.138 | 0.062 | 0.001 | 0.030 | 0.080 | 0.180 | 0.900 |
| NOX | mg/L | 3AE0 | 62 | 0.013 | 0.020 | 0.005 | 0.002 | 0.002 | 0.002 | 0.017 | 0.110 |
| NOX | mg/L | 3AW0 | 90 | 0.015 | 0.023 | 0.006 | 0.002 | 0.002 | 0.003 | 0.019 | 0.118 |
| NOX | mg/L | BC10 | 82 | 0.010 | 0.011 | 0.007 | 0.001 | 0.005 | 0.005 | 0.010 | 0.060 |
| NOX | mg/L | BC11 | 79 | 0.015 | 0.018 | 0.009 | 0.001 | 0.005 | 0.005 | 0.020 | 0.090 |
| NOX | mg/L | BC14 | 82 | 0.060 | 0.068 | 0.026 | 0.001 | 0.005 | 0.032 | 0.097 | 0.258 |
| NOX | mg/L | BC15 | 82 | 0.071 | 0.069 | 0.037 | 0.003 | 0.013 | 0.055 | 0.110 | 0.370 |
| NOX | mg/L | BC22 | 81 | 0.021 | 0.031 | 0.009 | 0.001 | 0.005 | 0.005 | 0.020 | 0.150 |
| NOX | mg/L | BC23 | 78 | 0.046 | 0.037 | 0.026 | 0.001 | 0.005 | 0.040 | 0.080 | 0.134 |
| NOX | mg/L | BC26 | 76 | 0.025 | 0.028 | 0.014 | 0.001 | 0.005 | 0.010 | 0.040 | 0.120 |
| NOX | mg/L | BC7 | 82 | 0.016 | 0.018 | 0.009 | 0.001 | 0.005 | 0.005 | 0.023 | 0.080 |
| NOX | mg/L | BC8 | 85 | 0.010 | 0.010 | 0.007 | 0.001 | 0.005 | 0.005 | 0.010 | 0.050 |
| NOX | mg/L | BC9 | 79 | 0.027 | 0.030 | 0.014 | 0.001 | 0.005 | 0.010 | 0.044 | 0.140 |
| NOX | mg/L | C123SR84 | 154 | 0.072 | 0.164 | 0.023 | 0.002 | 0.008 | 0.022 | 0.069 | 1.240 |
| NOX | mg/L | C15S40 | 122 | 0.087 | 0.132 | 0.018 | 0.002 | 0.003 | 0.012 | 0.132 | 0.549 |
| NOX | mg/L | C16S41 | 124 | 0.104 | 0.132 | 0.034 | 0.002 | 0.007 | 0.043 | 0.171 | 0.908 |
| NOX | mg/L | C17S44 | 123 | 0.108 | 0.116 | 0.043 | 0.002 | 0.011 | 0.054 | 0.191 | 0.442 |
| NOX | mg/L | C18S46 | 109 | 0.033 | 0.039 | 0.015 | 0.002 | 0.005 | 0.014 | 0.048 | 0.244 |
| NOX | mg/L | C23S48 | 408 | 0.124 | 0.121 | 0.062 | 0.002 | 0.029 | 0.085 | 0.185 | 0.575 |
| NOX | mg/L | C24S49 | 373 | 0.080 | 0.091 | 0.037 | 0.002 | 0.013 | 0.052 | 0.109 | 0.518 |
| NOX | mg/L | C25S50 | 409 | 0.076 | 0.082 | 0.036 | 0.002 | 0.012 | 0.056 | 0.113 | 0.617 |
| NOX | mg/L | C40VMB | 625 | 0.157 | 0.213 | 0.075 | 0.002 | 0.037 | 0.091 | 0.192 | 1.864 |
| NOX | mg/L | C41VMB | 633 | 0.745 | 0.642 | 0.426 | 0.002 | 0.252 | 0.536 | 1.100 | 2.921 |
| NOX | mg/L | C44S80 | 408 | 0.277 | 0.187 | 0.182 | 0.002 | 0.136 | 0.258 | 0.388 | 0.858 |
| NOX | mg/L | C51S155 | 123 | 0.200 | 0.189 | 0.078 | 0.002 | 0.020 | 0.164 | 0.308 | 0.923 |
| NOX | mg/L | CES01 | 180 | 0.272 | 0.158 | 0.197 | 0.002 | 0.155 | 0.244 | 0.395 | 0.640 |
| NOX | mg/L | COC@LAKE | 59 | 0.069 | 0.059 | 0.040 | 0.005 | 0.018 | 0.068 | 0.101 | 0.220 |
| NOX | mg/L | CORK@846 | 82 | 0.019 | 0.027 | 0.012 | 0.003 | 0.005 | 0.010 | 0.020 | 0.220 |
| NOX | mg/L | CR-04.8T | 53 | 0.142 | 0.174 | 0.062 | 0.002 | 0.023 | 0.098 | 0.182 | 0.849 |
| NOX | mg/L | CULV10A | 241 | 0.342 | 0.329 | 0.211 | 0.002 | 0.105 | 0.286 | 0.463 | 2.366 |
| NOX | mg/L | CULV5A | 102 | 0.100 | 0.115 | 0.044 | 0.002 | 0.018 | 0.050 | 0.166 | 0.596 |
| NOX | mg/L | E0 | 103 | 0.126 | 0.215 | 0.054 | 0.002 | 0.029 | 0.077 | 0.160 | 1.700 |
| NOX | mg/L | F0 | 109 | 0.109 | 0.305 | 0.029 | 0.002 | 0.008 | 0.031 | 0.120 | 2.700 |
| NOX | mg/L | FAKA | 83 | 0.012 | 0.011 | 0.008 | 0.001 | 0.005 | 0.005 | 0.020 | 0.049 |
| NOX | mg/L | FAKA858 | 77 | 0.029 | 0.039 | 0.012 | 0.001 | 0.005 | 0.005 | 0.050 | 0.160 |
| NOX | mg/L | FROGCITY | 39 | 0.032 | 0.025 | 0.024 | 0.002 | 0.016 | 0.024 | 0.036 | 0.110 |
| NOX | mg/L | G123 | 120 | 0.074 | 0.200 | 0.022 | 0.002 | 0.009 | 0.020 | 0.049 | 1.570 |
| NOX | mg/L | G136 | 343 | 0.061 | 0.090 | 0.029 | 0.002 | 0.010 | 0.033 | 0.079 | 0.798 |
| NOX | mg/L | G200 | 110 | 0.585 | 0.832 | 0.190 | 0.002 | 0.062 | 0.197 | 0.730 | 4.362 |
| NOX | mg/L | G300 | 87 | 0.273 | 0.526 | 0.091 | 0.003 | 0.029 | 0.116 | 0.341 | 4.402 |
| NOX | mg/L | G301 | 98 | 0.309 | 0.410 | 0.110 | 0.003 | 0.030 | 0.163 | 0.433 | 2.680 |
| NOX | mg/L | G302 | 170 | 0.459 | 0.469 | 0.216 | 0.003 | 0.109 | 0.368 | 0.691 | 2.920 |
| NOX | mg/L | G311 | 92 | 0.392 | 0.645 | 0.126 | 0.003 | 0.040 | 0.122 | 0.466 | 4.337 |
| NOX | mg/L | G342A | 243 | 0.070 | 0.103 | 0.028 | 0.002 | 0.008 | 0.038 | 0.099 | 0.943 |
| NOX | mg/L | G342B | 243 | 0.056 | 0.081 | 0.024 | 0.002 | 0.008 | 0.029 | 0.074 | 0.618 |
| NOX | mg/L | G342C | 240 | 0.057 | 0.083 | 0.025 | 0.002 | 0.009 | 0.031 | 0.079 | 0.727 |
| NOX | mg/L | G342D | 237 | 0.053 | 0.094 | 0.022 | 0.002 | 0.008 | 0.026 | 0.065 | 0.976 |
| NOX | mg/L | G342E | 9 | 0.048 | 0.029 | 0.039 | 0.014 | 0.020 | 0.047 | 0.071 | 0.089 |
| NOX | mg/L | G342F | 9 | 0.048 | 0.029 | 0.039 | 0.013 | 0.020 | 0.049 | 0.070 | 0.092 |
| NOX | mg/L | G353A | 15 | 0.037 | 0.053 | 0.021 | 0.003 | 0.012 | 0.020 | 0.037 | 0.220 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOX | mg/L | G353B | 32 | 0.031 | 0.027 | 0.019 | 0.003 | 0.009 | 0.022 | 0.058 | 0.083 |
| NOX | mg/L | G353C | 15 | 0.023 | 0.025 | 0.014 | 0.003 | 0.007 | 0.013 | 0.033 | 0.078 |
| NOX | mg/L | G372 | 134 | 0.752 | 0.877 | 0.325 | 0.002 | 0.132 | 0.492 | 0.958 | 4.170 |
| NOX | mg/L | G94B | 123 | 0.082 | 0.282 | 0.012 | 0.002 | 0.003 | 0.008 | 0.037 | 2.240 |
| NOX | mg/L | GGC@858 | 80 | 0.042 | 0.033 | 0.024 | 0.001 | 0.009 | 0.040 | 0.069 | 0.143 |
| NOX | mg/L | GGCAT31 | 77 | 0.080 | 0.105 | 0.037 | 0.001 | 0.008 | 0.080 | 0.110 | 0.820 |
| NOX | mg/L | INDUSCAN | 172 | 0.425 | 0.510 | 0.214 | 0.004 | 0.092 | 0.249 | 0.528 | 2.780 |
| NOX | mg/L | L3BRS | 243 | 0.057 | 0.093 | 0.022 | 0.002 | 0.007 | 0.022 | 0.075 | 0.890 |
| NOX | mg/L | L59E | 119 | 0.029 | 0.044 | 0.013 | 0.002 | 0.005 | 0.013 | 0.035 | 0.230 |
| NOX | mg/L | L59W | 117 | 0.112 | 0.224 | 0.033 | 0.002 | 0.011 | 0.030 | 0.132 | 2.018 |
| NOX | mg/L | L60W | 96 | 0.403 | 0.542 | 0.114 | 0.002 | 0.026 | 0.135 | 0.627 | 2.341 |
| NOX | mg/L | L61E | 123 | 0.520 | 0.545 | 0.196 | 0.002 | 0.074 | 0.363 | 0.751 | 2.295 |
| NOX | mg/L | L61W | 126 | 0.058 | 0.099 | 0.026 | 0.002 | 0.012 | 0.026 | 0.058 | 0.635 |
| NOX | mg/L | LOXA104 | 22 | 0.236 | 0.316 | 0.092 | 0.003 | 0.031 | 0.096 | 0.309 | 1.320 |
| NOX | mg/L | LOXA135 | 22 | 0.161 | 0.281 | 0.065 | 0.004 | 0.019 | 0.081 | 0.123 | 1.260 |
| NOX | mg/L | S10A | 55 | 0.063 | 0.140 | 0.019 | 0.002 | 0.008 | 0.014 | 0.065 | 0.820 |
| NOX | mg/L | S10C | 57 | 0.116 | 0.209 | 0.030 | 0.002 | 0.010 | 0.022 | 0.080 | 0.841 |
| NOX | mg/L | S10D | 132 | 0.182 | 0.371 | 0.038 | 0.002 | 0.010 | 0.027 | 0.138 | 2.055 |
| NOX | mg/L | S11A | 159 | 0.098 | 0.311 | 0.019 | 0.002 | 0.006 | 0.014 | 0.050 | 2.360 |
| NOX | mg/L | S11B | 98 | 0.079 | 0.291 | 0.021 | 0.002 | 0.008 | 0.020 | 0.044 | 2.358 |
| NOX | mg/L | S11C | 149 | 0.140 | 0.350 | 0.034 | 0.002 | 0.012 | 0.026 | 0.075 | 2.264 |
| NOX | mg/L | S127 | 120 | 0.059 | 0.101 | 0.018 | 0.002 | 0.006 | 0.014 | 0.053 | 0.466 |
| NOX | mg/L | S129 | 123 | 0.055 | 0.100 | 0.014 | 0.002 | 0.003 | 0.012 | 0.035 | 0.458 |
| NOX | mg/L | S12A | 628 | 0.016 | 0.025 | 0.009 | 0.002 | 0.005 | 0.008 | 0.015 | 0.256 |
| NOX | mg/L | S12B | 133 | 0.027 | 0.040 | 0.016 | 0.002 | 0.009 | 0.015 | 0.028 | 0.301 |
| NOX | mg/L | S12C | 649 | 0.030 | 0.036 | 0.021 | 0.002 | 0.012 | 0.019 | 0.034 | 0.549 |
| NOX | mg/L | S12D | 168 | 0.051 | 0.071 | 0.032 | 0.002 | 0.016 | 0.037 | 0.061 | 0.690 |
| NOX | mg/L | S131 | 131 | 0.094 | 0.144 | 0.023 | 0.002 | 0.005 | 0.014 | 0.133 | 0.662 |
| NOX | mg/L | S133 | 127 | 0.083 | 0.100 | 0.037 | 0.002 | 0.015 | 0.045 | 0.111 | 0.567 |
| NOX | mg/L | S135 | 128 | 0.037 | 0.065 | 0.012 | 0.002 | 0.003 | 0.012 | 0.033 | 0.372 |
| NOX | mg/L | S140 | 176 | 0.043 | 0.037 | 0.026 | 0.002 | 0.016 | 0.033 | 0.063 | 0.201 |
| NOX | mg/L | S145 | 164 | 0.043 | 0.130 | 0.014 | 0.002 | 0.006 | 0.012 | 0.032 | 1.145 |
| NOX | mg/L | S150 | 271 | 0.141 | 0.250 | 0.061 | 0.002 | 0.024 | 0.054 | 0.151 | 2.354 |
| NOX | mg/L | S151 | 156 | 0.078 | 0.101 | 0.053 | 0.007 | 0.028 | 0.055 | 0.090 | 1.029 |
| NOX | mg/L | S154 | 222 | 0.036 | 0.052 | 0.018 | 0.002 | 0.007 | 0.019 | 0.044 | 0.367 |
| NOX | mg/L | S169 | 155 | 0.264 | 0.327 | 0.121 | 0.002 | 0.057 | 0.113 | 0.331 | 1.612 |
| NOX | mg/L | S177 | 771 | 0.060 | 0.054 | 0.038 | 0.002 | 0.020 | 0.045 | 0.084 | 0.297 |
| NOX | mg/L | S178 | 133 | 0.175 | 0.326 | 0.041 | 0.002 | 0.011 | 0.025 | 0.177 | 2.260 |
| NOX | mg/L | S18C | 288 | 0.099 | 0.067 | 0.072 | 0.002 | 0.050 | 0.085 | 0.139 | 0.422 |
| NOX | mg/L | S190 | 154 | 0.016 | 0.019 | 0.009 | 0.002 | 0.003 | 0.010 | 0.023 | 0.121 |
| NOX | mg/L | S191 | 235 | 0.189 | 0.191 | 0.068 | 0.002 | 0.014 | 0.143 | 0.321 | 0.979 |
| NOX | mg/L | S197 | 30 | 0.099 | 0.126 | 0.052 | 0.002 | 0.027 | 0.068 | 0.135 | 0.684 |
| NOX | mg/L | S2 | 253 | 0.878 | 0.998 | 0.414 | 0.007 | 0.148 | 0.535 | 1.213 | 6.302 |
| NOX | mg/L | S3 | 218 | 0.764 | 1.062 | 0.315 | 0.002 | 0.113 | 0.416 | 1.050 | 7.583 |
| NOX | mg/L | S308C | 289 | 0.341 | 0.231 | 0.230 | 0.002 | 0.158 | 0.310 | 0.483 | 0.963 |
| NOX | mg/L | S31 | 104 | 0.041 | 0.054 | 0.022 | 0.002 | 0.012 | 0.026 | 0.052 | 0.342 |
| NOX | mg/L | S331 | 38 | 0.037 | 0.034 | 0.029 | 0.009 | 0.020 | 0.029 | 0.038 | 0.184 |
| NOX | mg/L | S332B | 252 | 0.042 | 0.031 | 0.034 | 0.003 | 0.023 | 0.034 | 0.052 | 0.294 |
| NOX | mg/L | S332C | 266 | 0.044 | 0.035 | 0.034 | 0.003 | 0.021 | 0.034 | 0.058 | 0.303 |
| NOX | mg/L | S332DX | 556 | 0.065 | 0.050 | 0.044 | 0.003 | 0.018 | 0.056 | 0.097 | 0.332 |
| NOX | mg/L | S333 | 1250 | 0.043 | 0.043 | 0.030 | 0.002 | 0.017 | 0.033 | 0.059 | 0.747 |
| NOX | mg/L | S334 | 116 | 0.040 | 0.027 | 0.030 | 0.002 | 0.021 | 0.038 | 0.052 | 0.122 |
| NOX | mg/L | S335 | 20 | 0.045 | 0.039 | 0.031 | 0.007 | 0.014 | 0.037 | 0.065 | 0.158 |
| NOX | mg/L | S34 | 167 | 0.067 | 0.167 | 0.026 | 0.002 | 0.012 | 0.026 | 0.060 | 1.540 |
| NOX | mg/L | S344 | 38 | 0.011 | 0.008 | 0.008 | 0.002 | 0.004 | 0.010 | 0.015 | 0.034 |
| NOX | mg/L | S352 | 782 | 0.331 | 0.313 | 0.214 | 0.002 | 0.144 | 0.292 | 0.454 | 6.193 |
| NOX | mg/L | S356 | 359 | 0.036 | 0.037 | 0.026 | 0.005 | 0.015 | 0.025 | 0.039 | 0.262 |
| NOX | mg/L | S38 | 173 | 0.030 | 0.065 | 0.012 | 0.002 | 0.005 | 0.011 | 0.027 | 0.525 |
| NOX | mg/L | S39 | 158 | 0.048 | 0.127 | 0.014 | 0.002 | 0.006 | 0.011 | 0.027 | 0.875 |
| NOX | mg/L | S390 | 70 | 0.182 | 0.245 | 0.052 | 0.003 | 0.011 | 0.084 | 0.284 | 1.133 |
| NOX | mg/L | S5A | 661 | 0.553 | 0.466 | 0.334 | 0.002 | 0.222 | 0.459 | 0.754 | 3.400 |
| NOX | mg/L | S5AE | 135 | 0.291 | 0.289 | 0.162 | 0.002 | 0.083 | 0.214 | 0.403 | 2.127 |
| NOX | mg/L | S5AS | 101 | 0.372 | 0.421 | 0.157 | 0.002 | 0.056 | 0.295 | 0.516 | 2.717 |
| NOX | mg/L | S5AW | 56 | 0.230 | 0.205 | 0.124 | 0.002 | 0.055 | 0.182 | 0.345 | 0.784 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOX | mg/L | S6 | 586 | 0.557 | 0.586 | 0.367 | 0.003 | 0.221 | 0.372 | 0.673 | 4.090 |
| NOX | mg/L | S65 | 252 | 0.032 | 0.069 | 0.008 | 0.002 | 0.003 | 0.004 | 0.018 | 0.424 |
| NOX | mg/L | S65A | 249 | 0.059 | 0.099 | 0.015 | 0.002 | 0.003 | 0.010 | 0.067 | 0.498 |
| NOX | mg/L | S65C | 251 | 0.074 | 0.097 | 0.031 | 0.002 | 0.010 | 0.040 | 0.093 | 0.536 |
| NOX | mg/L | S65D | 255 | 0.092 | 0.111 | 0.036 | 0.002 | 0.011 | 0.044 | 0.133 | 0.485 |
| NOX | mg/L | S65E | 291 | 0.117 | 0.137 | 0.046 | 0.002 | 0.014 | 0.053 | 0.161 | 0.593 |
| NOX | mg/L | S7 | 395 | 0.253 | 0.450 | 0.077 | 0.002 | 0.023 | 0.073 | 0.251 | 3.246 |
| NOX | mg/L | S71 | 617 | 0.553 | 0.513 | 0.298 | 0.002 | 0.201 | 0.402 | 0.747 | 2.748 |
| NOX | mg/L | S72 | 503 | 0.193 | 0.300 | 0.080 | 0.002 | 0.029 | 0.090 | 0.253 | 2.710 |
| NOX | mg/L | S78 | 64 | 0.155 | 0.129 | 0.084 | 0.002 | 0.039 | 0.134 | 0.248 | 0.454 |
| NOX | mg/L | S79 | 56 | 0.302 | 0.201 | 0.169 | 0.002 | 0.136 | 0.290 | 0.441 | 0.843 |
| NOX | mg/L | S8 | 393 | 0.332 | 0.559 | 0.111 | 0.002 | 0.039 | 0.113 | 0.307 | 3.674 |
| NOX | mg/L | S84 | 235 | 0.117 | 0.205 | 0.029 | 0.002 | 0.006 | 0.028 | 0.112 | 0.993 |
| NOX | mg/L | S9 | 415 | 0.082 | 0.063 | 0.058 | 0.002 | 0.034 | 0.071 | 0.118 | 0.682 |
| NOX | mg/L | S9A | 106 | 0.039 | 0.044 | 0.023 | 0.002 | 0.011 | 0.024 | 0.046 | 0.244 |
| NOX | mg/L | SW1B | 69 | 0.318 | 0.233 | 0.200 | 0.015 | 0.075 | 0.326 | 0.556 | 0.729 |
| NOX | mg/L | SW2 | 149 | 0.363 | 0.285 | 0.201 | 0.003 | 0.082 | 0.299 | 0.610 | 1.340 |
| NOX | mg/L | SW6IN | 117 | 0.267 | 0.238 | 0.141 | 0.003 | 0.059 | 0.186 | 0.456 | 1.179 |
| NOX | mg/L | T0E | 13 | 0.038 | 0.027 | 0.031 | 0.011 | 0.019 | 0.028 | 0.050 | 0.110 |
| NOX | mg/L | T0W | 13 | 0.032 | 0.025 | 0.025 | 0.009 | 0.012 | 0.028 | 0.045 | 0.100 |
| NOX | mg/L | TAMBR6 | 52 | 0.037 | 0.031 | 0.026 | 0.002 | 0.015 | 0.027 | 0.052 | 0.169 |
| NOX | mg/L | TCNS 201 | 104 | 0.075 | 0.072 | 0.044 | 0.002 | 0.019 | 0.053 | 0.105 | 0.336 |
| NOX | mg/L | TCNS 213 | 219 | 0.460 | 0.499 | 0.161 | 0.002 | 0.054 | 0.298 | 0.699 | 2.958 |
| NOX | mg/L | TCNS 217 | 216 | 1.047 | 5.901 | 0.039 | 0.002 | 0.006 | 0.022 | 0.230 | 61.548 |
| NOX | mg/L | US41-25 | 149 | 0.028 | 0.020 | 0.022 | 0.002 | 0.014 | 0.025 | 0.037 | 0.107 |
| NOX | mg/L | WWEIR | 222 | 0.015 | 0.012 | 0.011 | 0.002 | 0.007 | 0.012 | 0.021 | 0.074 |
| NOX | mg/L | X0 | 114 | 0.152 | 0.491 | 0.026 | 0.002 | 0.007 | 0.024 | 0.110 | 4.200 |
| NOX | mg/L | Z0 | 112 | 0.135 | 0.378 | 0.024 | 0.002 | 0.007 | 0.025 | 0.096 | 2.700 |
| OPO4 | mg/L | 02273230 | 7 | 0.121 | 0.109 | 0.078 | 0.017 | 0.032 | 0.100 | 0.198 | 0.310 |
| OPO4 | mg/L | 02274325 | 7 | 0.291 | 0.067 | 0.285 | 0.200 | 0.240 | 0.290 | 0.328 | 0.400 |
| OPO4 | mg/L | 02274505 | 6 | 0.142 | 0.039 | 0.136 | 0.072 | 0.130 | 0.150 | 0.170 | 0.180 |
| OPO4 | mg/L | 02275631 | 8 | 0.346 | 0.119 | 0.329 | 0.200 | 0.255 | 0.310 | 0.465 | 0.510 |
| OPO4 | mg/L | 3AE0 | 62 | 0.016 | 0.030 | 0.006 | 0.002 | 0.002 | 0.002 | 0.022 | 0.170 |
| OPO4 | mg/L | 3AW0 | 88 | 0.013 | 0.027 | 0.004 | 0.001 | 0.002 | 0.002 | 0.011 | 0.170 |
| OPO4 | mg/L | BC10 | 82 | 0.007 | 0.007 | 0.005 | 0.002 | 0.002 | 0.005 | 0.008 | 0.043 |
| OPO4 | mg/L | BC11 | 81 | 0.008 | 0.007 | 0.006 | 0.002 | 0.002 | 0.006 | 0.010 | 0.051 |
| OPO4 | mg/L | BC14 | 82 | 0.007 | 0.006 | 0.005 | 0.002 | 0.002 | 0.005 | 0.011 | 0.028 |
| OPO4 | mg/L | BC15 | 81 | 0.015 | 0.014 | 0.010 | 0.002 | 0.005 | 0.010 | 0.026 | 0.058 |
| OPO4 | mg/L | BC22 | 86 | 0.005 | 0.009 | 0.004 | 0.002 | 0.002 | 0.002 | 0.005 | 0.078 |
| OPO4 | mg/L | BC23 | 85 | 0.007 | 0.009 | 0.005 | 0.002 | 0.002 | 0.005 | 0.007 | 0.076 |
| OPO4 | mg/L | BC26 | 74 | 0.009 | 0.012 | 0.005 | 0.002 | 0.002 | 0.005 | 0.010 | 0.062 |
| OPO4 | mg/L | BC7 | 81 | 0.004 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.005 | 0.015 |
| OPO4 | mg/L | BC8 | 83 | 0.004 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.005 | 0.016 |
| OPO4 | mg/L | BC9 | 83 | 0.004 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.005 | 0.014 |
| OPO4 | mg/L | C123SR84 | 154 | 0.009 | 0.010 | 0.005 | 0.001 | 0.002 | 0.006 | 0.010 | 0.057 |
| OPO4 | mg/L | C139S2 | 132 | 0.030 | 0.037 | 0.018 | 0.001 | 0.009 | 0.015 | 0.034 | 0.186 |
| OPO4 | mg/L | C139S3 | 128 | 0.010 | 0.014 | 0.005 | 0.001 | 0.002 | 0.004 | 0.010 | 0.108 |
| OPO4 | mg/L | C139S4 | 79 | 0.010 | 0.011 | 0.006 | 0.001 | 0.002 | 0.006 | 0.013 | 0.052 |
| OPO4 | mg/L | C15S40 | 123 | 0.099 | 0.074 | 0.071 | 0.002 | 0.049 | 0.081 | 0.128 | 0.344 |
| OPO4 | mg/L | C16S41 | 123 | 0.048 | 0.049 | 0.030 | 0.001 | 0.017 | 0.037 | 0.062 | 0.235 |
| OPO4 | mg/L | C17S44 | 119 | 0.011 | 0.013 | 0.007 | 0.001 | 0.004 | 0.006 | 0.014 | 0.075 |
| OPO4 | mg/L | C18S46 | 109 | 0.010 | 0.015 | 0.005 | 0.001 | 0.002 | 0.004 | 0.012 | 0.087 |
| OPO4 | mg/L | C23S48 | 143 | 0.232 | 0.168 | 0.177 | 0.034 | 0.096 | 0.192 | 0.339 | 0.879 |
| OPO4 | mg/L | C24S49 | 145 | 0.181 | 0.147 | 0.126 | 0.005 | 0.075 | 0.147 | 0.254 | 0.801 |
| OPO4 | mg/L | C25S50 | 130 | 0.102 | 0.133 | 0.042 | 0.001 | 0.015 | 0.045 | 0.141 | 0.698 |
| OPO4 | mg/L | C44S80 | 170 | 0.090 | 0.077 | 0.068 | 0.006 | 0.043 | 0.064 | 0.103 | 0.401 |
| OPO4 | mg/L | C51S155 | 123 | 0.037 | 0.030 | 0.023 | 0.001 | 0.012 | 0.035 | 0.050 | 0.158 |
| OPO4 | mg/L | CES01 | 92 | 0.087 | 0.051 | 0.068 | 0.002 | 0.051 | 0.077 | 0.116 | 0.235 |
| OPO4 | mg/L | COC@LAKE | 55 | 0.006 | 0.006 | 0.004 | 0.002 | 0.002 | 0.004 | 0.010 | 0.025 |
| OPO4 | mg/L | CORK@846 | 80 | 0.010 | 0.012 | 0.006 | 0.002 | 0.004 | 0.007 | 0.011 | 0.064 |
| OPO4 | mg/L | CR-04.8T | 60 | 0.147 | 0.170 | 0.085 | 0.002 | 0.044 | 0.087 | 0.181 | 0.830 |
| OPO4 | mg/L | CULV10A | 228 | 0.057 | 0.025 | 0.050 | 0.006 | 0.038 | 0.054 | 0.074 | 0.135 |
| OPO4 | mg/L | CULV5A | 105 | 0.068 | 0.062 | 0.046 | 0.003 | 0.029 | 0.050 | 0.082 | 0.324 |
| OPO4 | mg/L | DF02.1TW | 143 | 0.056 | 0.069 | 0.026 | 0.001 | 0.011 | 0.035 | 0.069 | 0.336 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OPO4 | mg/L | DF05.0TW | 27 | 0.121 | 0.099 | 0.082 | 0.003 | 0.060 | 0.086 | 0.155 | 0.370 |
| OPO4 | mg/L | E0 | 108 | 0.011 | 0.019 | 0.005 | 0.001 | 0.002 | 0.003 | 0.009 | 0.110 |
| OPO4 | mg/L | F0 | 111 | 0.013 | 0.024 | 0.005 | 0.001 | 0.002 | 0.003 | 0.011 | 0.140 |
| OPO4 | mg/L | FAKA | 85 | 0.004 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.005 | 0.014 |
| OPO4 | mg/L | FAKA858 | 78 | 0.013 | 0.019 | 0.008 | 0.002 | 0.005 | 0.008 | 0.013 | 0.116 |
| OPO4 | mg/L | FROGCITY | 39 | 0.004 | 0.004 | 0.003 | 0.002 | 0.002 | 0.002 | 0.005 | 0.017 |
| OPO4 | mg/L | G123 | 123 | 0.004 | 0.004 | 0.003 | 0.001 | 0.002 | 0.004 | 0.005 | 0.029 |
| OPO4 | mg/L | G136 | 216 | 0.044 | 0.088 | 0.011 | 0.001 | 0.003 | 0.007 | 0.036 | 0.572 |
| OPO4 | mg/L | G150 | 150 | 0.008 | 0.011 | 0.004 | 0.001 | 0.002 | 0.003 | 0.009 | 0.072 |
| OPO4 | mg/L | G151 | 50 | 0.006 | 0.008 | 0.004 | 0.001 | 0.002 | 0.003 | 0.006 | 0.038 |
| OPO4 | mg/L | G200 | 28 | 0.027 | 0.031 | 0.015 | 0.002 | 0.006 | 0.015 | 0.037 | 0.132 |
| OPO4 | mg/L | G300 | 172 | 0.056 | 0.055 | 0.031 | 0.001 | 0.014 | 0.041 | 0.080 | 0.271 |
| OPO4 | mg/L | G301 | 173 | 0.061 | 0.059 | 0.031 | 0.001 | 0.013 | 0.045 | 0.090 | 0.253 |
| OPO4 | mg/L | G302 | 341 | 0.073 | 0.059 | 0.046 | 0.001 | 0.021 | 0.060 | 0.108 | 0.406 |
| OPO4 | mg/L | G311 | 154 | 0.057 | 0.059 | 0.029 | 0.001 | 0.011 | 0.036 | 0.081 | 0.277 |
| OPO4 | mg/L | G341 | 23 | 0.109 | 0.086 | 0.083 | 0.010 | 0.066 | 0.088 | 0.132 | 0.399 |
| OPO4 | mg/L | G342A | 409 | 0.043 | 0.044 | 0.026 | 0.001 | 0.013 | 0.027 | 0.054 | 0.301 |
| OPO4 | mg/L | G342B | 408 | 0.060 | 0.060 | 0.038 | 0.002 | 0.020 | 0.042 | 0.083 | 0.549 |
| OPO4 | mg/L | G342C | 402 | 0.074 | 0.087 | 0.042 | 0.001 | 0.021 | 0.044 | 0.094 | 0.699 |
| OPO4 | mg/L | G342D | 405 | 0.082 | 0.097 | 0.054 | 0.005 | 0.030 | 0.050 | 0.094 | 0.826 |
| OPO4 | mg/L | G342E | 19 | 0.059 | 0.033 | 0.045 | 0.001 | 0.040 | 0.048 | 0.074 | 0.123 |
| OPO4 | mg/L | G342F | 17 | 0.062 | 0.035 | 0.053 | 0.025 | 0.033 | 0.043 | 0.084 | 0.130 |
| OPO4 | mg/L | G353A | 30 | 0.075 | 0.080 | 0.034 | 0.001 | 0.016 | 0.041 | 0.121 | 0.336 |
| OPO4 | mg/L | G353B | 64 | 0.034 | 0.049 | 0.011 | 0.001 | 0.003 | 0.012 | 0.047 | 0.236 |
| OPO4 | mg/L | G353C | 29 | 0.052 | 0.045 | 0.027 | 0.001 | 0.018 | 0.044 | 0.078 | 0.157 |
| OPO4 | mg/L | G372 | 232 | 0.030 | 0.029 | 0.015 | 0.001 | 0.005 | 0.023 | 0.050 | 0.182 |
| OPO4 | mg/L | G406 | 17 | 0.077 | 0.055 | 0.063 | 0.023 | 0.036 | 0.055 | 0.098 | 0.216 |
| OPO4 | mg/L | G407 | 44 | 0.042 | 0.047 | 0.015 | 0.001 | 0.003 | 0.018 | 0.071 | 0.183 |
| OPO4 | mg/L | G94B | 113 | 0.030 | 0.061 | 0.011 | 0.001 | 0.005 | 0.010 | 0.023 | 0.461 |
| OPO4 | mg/L | GGC@858 | 82 | 0.007 | 0.027 | 0.004 | 0.002 | 0.002 | 0.005 | 0.005 | 0.244 |
| OPO4 | mg/L | GGCAT31 | 83 | 0.012 | 0.009 | 0.009 | 0.002 | 0.004 | 0.011 | 0.018 | 0.048 |
| OPO4 | mg/L | HC05.7 | 1 | 0.176 | | 0.176 | 0.176 | | | | 0.176 |
| OPO4 | mg/L | HC12.8 | 1 | 0.169 | | 0.169 | 0.169 | | | | 0.169 |
| OPO4 | mg/L | HC14.4 | 1 | 0.128 | | 0.128 | 0.128 | | | | 0.128 |
| OPO4 | mg/L | HC15.3 | 1 | 0.117 | | 0.117 | 0.117 | | | | 0.117 |
| OPO4 | mg/L | HC18.2 | 1 | 0.119 | | 0.119 | 0.119 | | | | 0.119 |
| OPO4 | mg/L | HC19.3 | 1 | 0.114 | | 0.114 | 0.114 | | | | 0.114 |
| OPO4 | mg/L | INDUSCAN | 169 | 0.068 | 0.071 | 0.045 | 0.004 | 0.025 | 0.055 | 0.078 | 0.451 |
| OPO4 | mg/L | L3BRS | 240 | 0.037 | 0.070 | 0.010 | 0.001 | 0.004 | 0.007 | 0.027 | 0.431 |
| OPO4 | mg/L | L59E | 120 | 0.048 | 0.064 | 0.020 | 0.001 | 0.007 | 0.023 | 0.070 | 0.420 |
| OPO4 | mg/L | L59W | 120 | 0.121 | 0.135 | 0.074 | 0.007 | 0.039 | 0.070 | 0.152 | 0.868 |
| OPO4 | mg/L | L60W | 94 | 0.077 | 0.081 | 0.046 | 0.002 | 0.023 | 0.049 | 0.106 | 0.404 |
| OPO4 | mg/L | L61E | 126 | 0.102 | 0.104 | 0.062 | 0.001 | 0.028 | 0.064 | 0.135 | 0.614 |
| OPO4 | mg/L | L61W | 126 | 0.051 | 0.045 | 0.036 | 0.004 | 0.019 | 0.036 | 0.069 | 0.257 |
| OPO4 | mg/L | LOXA104 | 17 | 0.071 | 0.066 | 0.044 | 0.008 | 0.020 | 0.046 | 0.108 | 0.224 |
| OPO4 | mg/L | LOXA135 | 19 | 0.064 | 0.128 | 0.018 | 0.002 | 0.005 | 0.014 | 0.058 | 0.544 |
| OPO4 | mg/L | S10A | 61 | 0.014 | 0.022 | 0.006 | 0.001 | 0.002 | 0.005 | 0.014 | 0.109 |
| OPO4 | mg/L | S10C | 63 | 0.014 | 0.021 | 0.006 | 0.001 | 0.002 | 0.005 | 0.016 | 0.084 |
| OPO4 | mg/L | S10D | 138 | 0.025 | 0.036 | 0.010 | 0.001 | 0.003 | 0.009 | 0.029 | 0.217 |
| OPO4 | mg/L | S11A | 160 | 0.008 | 0.018 | 0.004 | 0.001 | 0.002 | 0.004 | 0.008 | 0.153 |
| OPO4 | mg/L | S11B | 104 | 0.007 | 0.015 | 0.004 | 0.001 | 0.002 | 0.004 | 0.007 | 0.139 |
| OPO4 | mg/L | S11C | 160 | 0.011 | 0.015 | 0.006 | 0.001 | 0.002 | 0.006 | 0.012 | 0.122 |
| OPO4 | mg/L | S127 | 121 | 0.090 | 0.104 | 0.039 | 0.001 | 0.010 | 0.053 | 0.126 | 0.519 |
| OPO4 | mg/L | S129 | 125 | 0.030 | 0.034 | 0.014 | 0.001 | 0.005 | 0.012 | 0.053 | 0.172 |
| OPO4 | mg/L | S12A | 160 | 0.002 | 0.002 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.010 |
| OPO4 | mg/L | S12B | 164 | 0.002 | 0.001 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.007 |
| OPO4 | mg/L | S12C | 171 | 0.002 | 0.001 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.008 |
| OPO4 | mg/L | S12D | 181 | 0.003 | 0.002 | 0.003 | 0.001 | 0.002 | 0.002 | 0.004 | 0.010 |
| OPO4 | mg/L | S131 | 134 | 0.060 | 0.046 | 0.036 | 0.001 | 0.015 | 0.057 | 0.094 | 0.219 |
| OPO4 | mg/L | S133 | 129 | 0.121 | 0.129 | 0.066 | 0.002 | 0.033 | 0.082 | 0.130 | 0.614 |
| OPO4 | mg/L | S135 | 125 | 0.042 | 0.049 | 0.019 | 0.001 | 0.007 | 0.021 | 0.060 | 0.241 |
| OPO4 | mg/L | S140 | 178 | 0.019 | 0.031 | 0.011 | 0.001 | 0.006 | 0.012 | 0.020 | 0.265 |
| OPO4 | mg/L | S145 | 168 | 0.005 | 0.005 | 0.003 | 0.001 | 0.002 | 0.004 | 0.006 | 0.031 |
| OPO4 | mg/L | S150 | 142 | 0.009 | 0.012 | 0.005 | 0.001 | 0.002 | 0.005 | 0.009 | 0.083 |

| Table F-3 . Summary Water Quality Statistics By Station | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
| OPO4 | mg/L | S151 | 162 | 0.004 | 0.004 | 0.003 | 0.001 | 0.002 | 0.002 | 0.005 | 0.034 |
| OPO4 | mg/L | S154 | 229 | 0.197 | 0.278 | 0.077 | 0.004 | 0.025 | 0.077 | 0.271 | 1.604 |
| OPO4 | mg/L | S169 | 154 | 0.053 | 0.050 | 0.033 | 0.002 | 0.017 | 0.041 | 0.071 | 0.280 |
| OPO4 | mg/L | S177 | 233 | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.002 | 0.002 | 0.021 |
| OPO4 | mg/L | S178 | 145 | 0.009 | 0.017 | 0.004 | 0.001 | 0.002 | 0.004 | 0.007 | 0.094 |
| OPO4 | mg/L | S18C | 217 | 0.002 | 0.001 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.009 |
| OPO4 | mg/L | S190 | 161 | 0.024 | 0.036 | 0.009 | 0.001 | 0.002 | 0.006 | 0.031 | 0.217 |
| OPO4 | mg/L | S191 | 239 | 0.355 | 0.214 | 0.296 | 0.032 | 0.196 | 0.299 | 0.455 | 1.148 |
| OPO4 | mg/L | S197 | 31 | 0.004 | 0.012 | 0.002 | 0.001 | 0.001 | 0.002 | 0.002 | 0.070 |
| OPO4 | mg/L | S2 | 167 | 0.062 | 0.048 | 0.043 | 0.003 | 0.022 | 0.051 | 0.087 | 0.227 |
| OPO4 | mg/L | S3 | 162 | 0.037 | 0.031 | 0.022 | 0.001 | 0.008 | 0.027 | 0.064 | 0.110 |
| OPO4 | mg/L | S308C | 281 | 0.082 | 0.070 | 0.067 | 0.005 | 0.051 | 0.068 | 0.087 | 0.579 |
| OPO4 | mg/L | S31 | 106 | 0.003 | 0.002 | 0.002 | 0.001 | 0.002 | 0.002 | 0.004 | 0.008 |
| OPO4 | mg/L | S331 | 37 | 0.004 | 0.002 | 0.004 | 0.002 | 0.002 | 0.004 | 0.006 | 0.009 |
| OPO4 | mg/L | S332B | 120 | 0.002 | 0.001 | 0.002 | 0.001 | 0.001 | 0.002 | 0.002 | 0.004 |
| OPO4 | mg/L | S332C | 117 | 0.002 | 0.001 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.010 |
| OPO4 | mg/L | S332DX | 57 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.005 |
| OPO4 | mg/L | S333 | 234 | 0.003 | 0.002 | 0.002 | 0.001 | 0.002 | 0.002 | 0.004 | 0.015 |
| OPO4 | mg/L | S334 | 109 | 0.003 | 0.001 | 0.003 | 0.001 | 0.002 | 0.002 | 0.004 | 0.007 |
| OPO4 | mg/L | S335 | 36 | 0.001 | 0.000 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.002 |
| OPO4 | mg/L | S34 | 170 | 0.005 | 0.005 | 0.003 | 0.001 | 0.002 | 0.004 | 0.006 | 0.028 |
| OPO4 | mg/L | S344 | 28 | 0.004 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.004 | 0.018 |
| OPO4 | mg/L | S352 | 275 | 0.070 | 0.038 | 0.062 | 0.005 | 0.048 | 0.063 | 0.082 | 0.313 |
| OPO4 | mg/L | S356 | 22 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.003 |
| OPO4 | mg/L | S38 | 174 | 0.005 | 0.005 | 0.003 | 0.001 | 0.002 | 0.004 | 0.006 | 0.037 |
| OPO4 | mg/L | S39 | 163 | 0.011 | 0.016 | 0.006 | 0.001 | 0.002 | 0.005 | 0.011 | 0.128 |
| OPO4 | mg/L | S390 | 47 | 0.351 | 0.203 | 0.303 | 0.077 | 0.216 | 0.302 | 0.403 | 0.942 |
| OPO4 | mg/L | S5A | 428 | 0.079 | 0.056 | 0.058 | 0.001 | 0.039 | 0.067 | 0.102 | 0.406 |
| OPO4 | mg/L | S5AE | 138 | 0.048 | 0.028 | 0.041 | 0.005 | 0.028 | 0.045 | 0.062 | 0.186 |
| OPO4 | mg/L | S5AS | 109 | 0.057 | 0.044 | 0.040 | 0.002 | 0.025 | 0.051 | 0.077 | 0.271 |
| OPO4 | mg/L | S5AW | 61 | 0.047 | 0.029 | 0.036 | 0.004 | 0.022 | 0.048 | 0.066 | 0.149 |
| OPO4 | mg/L | S6 | 404 | 0.040 | 0.044 | 0.019 | 0.001 | 0.008 | 0.023 | 0.058 | 0.251 |
| OPO4 | mg/L | S65 | 250 | 0.012 | 0.029 | 0.006 | 0.001 | 0.002 | 0.006 | 0.011 | 0.374 |
| OPO4 | mg/L | S65A | 248 | 0.018 | 0.022 | 0.009 | 0.001 | 0.004 | 0.008 | 0.025 | 0.114 |
| OPO4 | mg/L | S65C | 250 | 0.032 | 0.029 | 0.021 | 0.001 | 0.011 | 0.025 | 0.043 | 0.198 |
| OPO4 | mg/L | S65D | 254 | 0.044 | 0.041 | 0.029 | 0.001 | 0.018 | 0.031 | 0.062 | 0.301 |
| OPO4 | mg/L | S65E | 297 | 0.059 | 0.050 | 0.041 | 0.001 | 0.024 | 0.040 | 0.081 | 0.322 |
| OPO4 | mg/L | S7 | 178 | 0.016 | 0.023 | 0.007 | 0.001 | 0.002 | 0.007 | 0.018 | 0.183 |
| OPO4 | mg/L | S71 | 238 | 0.110 | 0.119 | 0.065 | 0.002 | 0.031 | 0.068 | 0.138 | 0.632 |
| OPO4 | mg/L | S72 | 155 | 0.118 | 0.102 | 0.085 | 0.006 | 0.045 | 0.086 | 0.167 | 0.641 |
| OPO4 | mg/L | S78 | 58 | 0.086 | 0.067 | 0.070 | 0.008 | 0.051 | 0.067 | 0.108 | 0.468 |
| OPO4 | mg/L | S79 | 57 | 0.105 | 0.051 | 0.092 | 0.007 | 0.066 | 0.090 | 0.134 | 0.262 |
| OPO4 | mg/L | S8 | 186 | 0.018 | 0.021 | 0.010 | 0.001 | 0.004 | 0.010 | 0.021 | 0.111 |
| OPO4 | mg/L | S84 | 237 | 0.029 | 0.044 | 0.015 | 0.001 | 0.008 | 0.013 | 0.030 | 0.291 |
| OPO4 | mg/L | S9 | 151 | 0.004 | 0.004 | 0.003 | 0.001 | 0.002 | 0.003 | 0.005 | 0.047 |
| OPO4 | mg/L | S9A | 110 | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.002 | 0.002 | 0.014 |
| OPO4 | mg/L | SW1B | 68 | 0.049 | 0.031 | 0.035 | 0.002 | 0.018 | 0.051 | 0.079 | 0.104 |
| OPO4 | mg/L | SW2 | 147 | 0.061 | 0.050 | 0.047 | 0.002 | 0.036 | 0.057 | 0.079 | 0.426 |
| OPO4 | mg/L | SW6IN | 84 | 0.053 | 0.040 | 0.039 | 0.002 | 0.022 | 0.051 | 0.073 | 0.273 |
| OPO4 | mg/L | T0E | 13 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.005 |
| OPO4 | mg/L | T0W | 14 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.004 |
| OPO4 | mg/L | TAMBR6 | 52 | 0.005 | 0.006 | 0.003 | 0.002 | 0.002 | 0.003 | 0.005 | 0.042 |
| OPO4 | mg/L | TCNS 201 | 102 | 0.384 | 0.217 | 0.327 | 0.091 | 0.226 | 0.345 | 0.490 | 1.085 |
| OPO4 | mg/L | TCNS 213 | 215 | 0.327 | 0.232 | 0.254 | 0.021 | 0.173 | 0.269 | 0.383 | 1.075 |
| OPO4 | mg/L | TCNS 217 | 219 | 0.225 | 0.253 | 0.129 | 0.004 | 0.067 | 0.141 | 0.283 | 1.610 |
| OPO4 | mg/L | US41-25 | 185 | 0.003 | 0.002 | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.020 |
| OPO4 | mg/L | WPB-26.1 | 21 | 0.131 | 0.082 | 0.106 | 0.020 | 0.059 | 0.121 | 0.185 | 0.305 |
| OPO4 | mg/L | WPB-28.2 | 20 | 0.122 | 0.091 | 0.077 | 0.001 | 0.051 | 0.096 | 0.188 | 0.289 |
| OPO4 | mg/L | WPB-31.2 | 21 | 0.118 | 0.077 | 0.091 | 0.009 | 0.059 | 0.096 | 0.187 | 0.289 |
| OPO4 | mg/L | WPB-33.5 | 21 | 0.143 | 0.075 | 0.120 | 0.026 | 0.084 | 0.137 | 0.199 | 0.278 |
| OPO4 | mg/L | WPB-35.4 | 21 | 0.168 | 0.107 | 0.130 | 0.023 | 0.083 | 0.139 | 0.264 | 0.372 |
| OPO4 | mg/L | WPB-37.2 | 21 | 0.174 | 0.124 | 0.134 | 0.028 | 0.076 | 0.120 | 0.259 | 0.510 |
| OPO4 | mg/L | WPB-38.0 | 21 | 0.194 | 0.156 | 0.134 | 0.015 | 0.077 | 0.148 | 0.295 | 0.639 |
| OPO4 | mg/L | WWEIR | 12 | 0.005 | 0.004 | 0.004 | 0.001 | 0.003 | 0.005 | 0.007 | 0.014 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OPO4 | mg/L | X0 | 114 | 0.020 | 0.027 | 0.009 | 0.001 | 0.003 | 0.008 | 0.028 | 0.140 |
| OPO4 | mg/L | Z0 | 108 | 0.020 | 0.026 | 0.009 | 0.001 | 0.002 | 0.008 | 0.027 | 0.130 |
| SCOND | µS/cm | 02273230 | 204 | 299 | 178 | 258 | 107 | 165 | 235 | 396 | 925 |
| SCOND | µS/cm | 02274325 | 159 | 493 | 203 | 448 | 92 | 406 | 515 | 572 | 1503 |
| SCOND | µS/cm | 02274505 | 224 | 198 | 50 | 189 | 53 | 185 | 218 | 231 | 318 |
| SCOND | µS/cm | 02275631 | 194 | 454 | 196 | 410 | 101 | 318 | 426 | 570 | 937 |
| SCOND | µS/cm | 3AE0 | 61 | 454 | 81 | 447 | 277 | 398 | 468 | 507 | 636 |
| SCOND | µS/cm | 3AW0 | 89 | 449 | 81 | 442 | 279 | 382 | 460 | 501 | 647 |
| SCOND | µS/cm | BC10 | 164 | 500 | 113 | 484 | 193 | 449 | 538 | 585 | 645 |
| SCOND | µS/cm | BC11 | 151 | 452 | 89 | 442 | 178 | 391 | 479 | 521 | 598 |
| SCOND | µS/cm | BC14 | 156 | 666 | 149 | 649 | 330 | 561 | 663 | 752 | 1057 |
| SCOND | µS/cm | BC15 | 169 | 670 | 104 | 661 | 397 | 586 | 687 | 753 | 853 |
| SCOND | µS/cm | BC22 | 127 | 1293 | 1483 | 1006 | 232 | 852 | 992 | 1099 | 11100 |
| SCOND | µS/cm | BC23 | 124 | 641 | 121 | 629 | 387 | 539 | 637 | 703 | 970 |
| SCOND | µS/cm | BC26 | 83 | 479 | 81 | 473 | 313 | 427 | 479 | 528 | 819 |
| SCOND | µS/cm | BC7 | 95 | 804 | 1092 | 658 | 324 | 568 | 622 | 663 | 9496 |
| SCOND | µS/cm | BC8 | 95 | 575 | 397 | 534 | 336 | 473 | 534 | 568 | 3793 |
| SCOND | µS/cm | BC9 | 134 | 599 | 82 | 592 | 225 | 577 | 606 | 645 | 746 |
| SCOND | µS/cm | C123SR84 | 160 | 633 | 131 | 618 | 106 | 540 | 627 | 709 | 1160 |
| SCOND | µS/cm | C15S40 | 124 | 478 | 53 | 475 | 325 | 446 | 476 | 503 | 787 |
| SCOND | µS/cm | C16S41 | 123 | 486 | 100 | 478 | 289 | 434 | 459 | 511 | 946 |
| SCOND | µS/cm | C17S44 | 124 | 456 | 49 | 453 | 281 | 436 | 460 | 490 | 540 |
| SCOND | µS/cm | C18S46 | 111 | 458 | 232 | 412 | 101 | 292 | 446 | 564 | 1588 |
| SCOND | µS/cm | C23S48 | 143 | 721 | 226 | 688 | 292 | 588 | 684 | 833 | 1707 |
| SCOND | µS/cm | C24S49 | 151 | 1132 | 398 | 1045 | 249 | 854 | 1166 | 1443 | 1940 |
| SCOND | µS/cm | C25S50 | 137 | 1025 | 276 | 981 | 377 | 815 | 1073 | 1219 | 1561 |
| SCOND | µS/cm | C25S99 | 3 | 1823 | 130 | 1820 | 1736 | 1742 | 1760 | 1920 | 1973 |
| SCOND | µS/cm | C44S80 | 171 | 656 | 281 | 609 | 298 | 467 | 553 | 827 | 2002 |
| SCOND | µS/cm | C51S155 | 132 | 572 | 119 | 547 | 5 | 499 | 550 | 632 | 981 |
| SCOND | µS/cm | CES01 | 183 | 590 | 320 | 534 | 249 | 403 | 475 | 660 | 2574 |
| SCOND | µS/cm | COC@LAKE | 93 | 705 | 152 | 686 | 332 | 570 | 767 | 823 | 930 |
| SCOND | µS/cm | COOPERTN | 159 | 593 | 559 | 543 | 52 | 481 | 553 | 627 | 7452 |
| SCOND | µS/cm | CORK@846 | 99 | 437 | 151 | 411 | 184 | 295 | 424 | 582 | 697 |
| SCOND | µS/cm | CR-04.8T | 60 | 493 | 121 | 478 | 250 | 411 | 489 | 592 | 740 |
| SCOND | µS/cm | CULV10A | 239 | 553 | 314 | 505 | 104 | 408 | 473 | 589 | 3390 |
| SCOND | µS/cm | CULV5A | 107 | 403 | 134 | 378 | 146 | 305 | 403 | 493 | 684 |
| SCOND | µS/cm | DF02.1TW | 27 | 545 | 139 | 477 | 8 | 473 | 585 | 620 | 708 |
| SCOND | µS/cm | E0 | 116 | 934 | 236 | 895 | 213 | 792 | 981 | 1110 | 1486 |
| SCOND | µS/cm | F0 | 119 | 957 | 226 | 921 | 248 | 833 | 1006 | 1114 | 1375 |
| SCOND | µS/cm | FAKA | 93 | 1354 | 2243 | 834 | 410 | 553 | 601 | 754 | 16063 |
| SCOND | µS/cm | FAKA858 | 103 | 433 | 79 | 425 | 240 | 371 | 425 | 496 | 620 |
| SCOND | µS/cm | FROGCITY | 96 | 602 | 685 | 539 | 338 | 471 | 546 | 604 | 7183 |
| SCOND | µS/cm | G123 | 344 | 865 | 118 | 856 | 432 | 797 | 885 | 934 | 1198 |
| SCOND | µS/cm | G136 | 333 | 541 | 100 | 530 | 219 | 490 | 562 | 601 | 739 |
| SCOND | µS/cm | G150 | 27 | 575 | 162 | 550 | 312 | 471 | 642 | 708 | 826 |
| SCOND | µS/cm | G151 | 1 | 433 | | 433 | 433 | | | | 433 |
| SCOND | µS/cm | G200 | 125 | 715 | 181 | 691 | 369 | 554 | 737 | 839 | 1127 |
| SCOND | µS/cm | G300 | 308 | 811 | 255 | 772 | 277 | 608 | 765 | 992 | 1564 |
| SCOND | µS/cm | G301 | 311 | 892 | 297 | 842 | 348 | 649 | 822 | 1101 | 1612 |
| SCOND | µS/cm | G302 | 376 | 904 | 316 | 849 | 318 | 651 | 838 | 1146 | 2221 |
| SCOND | µS/cm | G311 | 203 | 800 | 243 | 767 | 409 | 638 | 738 | 956 | 1745 |
| SCOND | µS/cm | G341 | 14 | 1295 | 414 | 1193 | 384 | 1268 | 1357 | 1499 | 1712 |
| SCOND | µS/cm | G342A | 496 | 570 | 147 | 547 | 189 | 474 | 614 | 670 | 934 |
| SCOND | µS/cm | G342B | 516 | 569 | 122 | 553 | 208 | 516 | 608 | 653 | 877 |
| SCOND | µS/cm | G342C | 491 | 575 | 121 | 559 | 208 | 504 | 610 | 659 | 877 |
| SCOND | µS/cm | G342D | 512 | 573 | 111 | 560 | 210 | 510 | 597 | 646 | 903 |
| SCOND | µS/cm | G342E | 24 | 505 | 94 | 495 | 278 | 451 | 521 | 585 | 619 |
| SCOND | µS/cm | G342F | 24 | 499 | 88 | 490 | 277 | 454 | 523 | 573 | 593 |
| SCOND | µS/cm | G353A | 39 | 472 | 80 | 466 | 291 | 427 | 450 | 558 | 613 |
| SCOND | µS/cm | G353B | 70 | 515 | 76 | 509 | 314 | 451 | 545 | 565 | 622 |
| SCOND | µS/cm | G353C | 39 | 472 | 73 | 467 | 323 | 431 | 460 | 540 | 611 |
| SCOND | µS/cm | G357 | 276 | 710 | 174 | 686 | 320 | 604 | 730 | 833 | 1101 |
| SCOND | µS/cm | G371 | 12 | 1051 | 185 | 1034 | 627 | 969 | 1045 | 1185 | 1287 |
| SCOND | µS/cm | G372 | 283 | 762 | 214 | 730 | 333 | 556 | 781 | 919 | 1195 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCOND | µS/cm | G373 | 12 | 788 | 213 | 760 | 473 | 626 | 774 | 963 | 1098 |
| SCOND | µS/cm | G404 | 309 | 722 | 171 | 699 | 330 | 627 | 736 | 847 | 1098 |
| SCOND | µS/cm | G406 | 297 | 561 | 110 | 549 | 282 | 480 | 588 | 643 | 795 |
| SCOND | µS/cm | G407 | 65 | 519 | 90 | 512 | 367 | 457 | 535 | 568 | 813 |
| SCOND | µS/cm | G409 | 355 | 647 | 160 | 626 | 273 | 542 | 647 | 768 | 1023 |
| SCOND | µS/cm | G94B | 125 | 569 | 214 | 526 | 178 | 425 | 563 | 703 | 1140 |
| SCOND | µS/cm | GGC@858 | 98 | 443 | 38 | 441 | 247 | 433 | 447 | 460 | 570 |
| SCOND | µS/cm | GGCAT31 | 161 | 702 | 95 | 695 | 438 | 624 | 722 | 767 | 922 |
| SCOND | µS/cm | GLADER | 147 | 598 | 556 | 550 | 310 | 472 | 562 | 636 | 7147 |
| SCOND | µS/cm | HC05.7 | 1 | 1384 | | 1384 | 1384 | | | | 1384 |
| SCOND | µS/cm | HC12.8 | 1 | 1421 | | 1421 | 1421 | | | | 1421 |
| SCOND | µS/cm | HC14.4 | 1 | 1504 | | 1504 | 1504 | | | | 1504 |
| SCOND | µS/cm | HC15.3 | 1 | 1463 | | 1463 | 1463 | | | | 1463 |
| SCOND | µS/cm | HC18.2 | 1 | 1475 | | 1475 | 1475 | | | | 1475 |
| SCOND | µS/cm | HC19.3 | 1 | 1601 | | 1601 | 1601 | | | | 1601 |
| SCOND | µS/cm | INDUSCAN | 167 | 652 | 186 | 625 | 274 | 499 | 637 | 790 | 1296 |
| SCOND | µS/cm | L3BRS | 254 | 631 | 160 | 610 | 288 | 523 | 629 | 740 | 1018 |
| SCOND | µS/cm | L59E | 121 | 2074 | 1731 | 1393 | 121 | 685 | 1550 | 3007 | 7415 |
| SCOND | µS/cm | L59W | 120 | 409 | 148 | 382 | 133 | 298 | 392 | 496 | 862 |
| SCOND | µS/cm | L60W | 98 | 388 | 116 | 371 | 181 | 294 | 384 | 474 | 709 |
| SCOND | µS/cm | L61E | 128 | 343 | 120 | 322 | 136 | 251 | 331 | 417 | 726 |
| SCOND | µS/cm | L61W | 128 | 330 | 137 | 299 | 87 | 242 | 319 | 397 | 674 |
| SCOND | µS/cm | L8MZBN | 65 | 1093 | 632 | 917 | 272 | 498 | 883 | 1695 | 2112 |
| SCOND | µS/cm | L8MZBS | 66 | 1094 | 589 | 952 | 417 | 580 | 872 | 1632 | 2105 |
| SCOND | µS/cm | LOXA104 | 39 | 836 | 234 | 800 | 303 | 715 | 838 | 1022 | 1354 |
| SCOND | µS/cm | LOXA135 | 39 | 753 | 176 | 734 | 455 | 617 | 740 | 860 | 1161 |
| SCOND | µS/cm | S10A | 66 | 620 | 218 | 577 | 212 | 455 | 629 | 802 | 1083 |
| SCOND | µS/cm | S10C | 68 | 687 | 289 | 616 | 142 | 454 | 687 | 933 | 1242 |
| SCOND | µS/cm | S10D | 141 | 838 | 257 | 789 | 220 | 674 | 867 | 1032 | 1288 |
| SCOND | µS/cm | S11A | 160 | 815 | 182 | 794 | 460 | 681 | 810 | 939 | 1317 |
| SCOND | µS/cm | S11B | 105 | 808 | 173 | 790 | 472 | 675 | 793 | 924 | 1275 |
| SCOND | µS/cm | S11C | 159 | 883 | 185 | 863 | 465 | 722 | 889 | 1018 | 1261 |
| SCOND | µS/cm | S127 | 124 | 946 | 245 | 910 | 246 | 842 | 934 | 1062 | 1726 |
| SCOND | µS/cm | S129 | 130 | 674 | 166 | 656 | 334 | 577 | 635 | 721 | 1128 |
| SCOND | µS/cm | S12A | 285 | 343 | 135 | 323 | 148 | 257 | 304 | 372 | 874 |
| SCOND | µS/cm | S12B | 230 | 337 | 105 | 323 | 107 | 266 | 320 | 367 | 743 |
| SCOND | µS/cm | S12C | 288 | 391 | 112 | 376 | 154 | 315 | 366 | 458 | 781 |
| SCOND | µS/cm | S12D | 266 | 502 | 153 | 477 | 214 | 355 | 536 | 619 | 835 |
| SCOND | µS/cm | S131 | 137 | 552 | 108 | 541 | 300 | 485 | 555 | 641 | 756 |
| SCOND | µS/cm | S133 | 131 | 608 | 127 | 595 | 354 | 542 | 595 | 669 | 1000 |
| SCOND | µS/cm | S135 | 132 | 657 | 97 | 649 | 335 | 602 | 671 | 716 | 864 |
| SCOND | µS/cm | S140 | 402 | 620 | 180 | 592 | 219 | 463 | 628 | 755 | 1172 |
| SCOND | µS/cm | S145 | 173 | 746 | 190 | 720 | 273 | 600 | 758 | 898 | 1176 |
| SCOND | µS/cm | S150 | 331 | 828 | 218 | 797 | 344 | 667 | 844 | 988 | 1558 |
| SCOND | µS/cm | S151 | 168 | 733 | 110 | 725 | 374 | 661 | 736 | 807 | 1008 |
| SCOND | µS/cm | S154 | 224 | 910 | 542 | 771 | 154 | 529 | 858 | 1151 | 5007 |
| SCOND | µS/cm | S169 | 152 | 575 | 130 | 560 | 294 | 470 | 581 | 660 | 939 |
| SCOND | µS/cm | S177 | 289 | 540 | 62 | 537 | 301 | 506 | 524 | 561 | 797 |
| SCOND | µS/cm | S178 | 214 | 468 | 82 | 461 | 279 | 417 | 472 | 527 | 747 |
| SCOND | µS/cm | S18C | 413 | 532 | 55 | 529 | 184 | 505 | 521 | 543 | 952 |
| SCOND | µS/cm | S190 | 280 | 519 | 91 | 510 | 252 | 469 | 523 | 576 | 845 |
| SCOND | µS/cm | S191 | 234 | 762 | 429 | 649 | 139 | 425 | 651 | 1007 | 2200 |
| SCOND | µS/cm | S197 | 31 | 574 | 222 | 547 | 389 | 474 | 492 | 561 | 1472 |
| SCOND | µS/cm | S2 | 180 | 944 | 392 | 861 | 359 | 564 | 987 | 1179 | 2079 |
| SCOND | µS/cm | S3 | 168 | 793 | 303 | 738 | 346 | 536 | 740 | 969 | 1622 |
| SCOND | µS/cm | S308C | 294 | 471 | 212 | 450 | 262 | 375 | 428 | 533 | 3500 |
| SCOND | µS/cm | S31 | 110 | 717 | 89 | 712 | 487 | 665 | 715 | 754 | 979 |
| SCOND | µS/cm | S331 | 40 | 516 | 31 | 516 | 430 | 500 | 521 | 540 | 570 |
| SCOND | µS/cm | S332B | 257 | 579 | 82 | 567 | 8 | 534 | 558 | 608 | 857 |
| SCOND | µS/cm | S332C | 264 | 580 | 77 | 575 | 403 | 529 | 557 | 607 | 859 |
| SCOND | µS/cm | S332DX | 83 | 622 | 95 | 616 | 504 | 545 | 593 | 698 | 873 |
| SCOND | µS/cm | S333 | 354 | 529 | 142 | 508 | 213 | 405 | 540 | 627 | 858 |
| SCOND | µS/cm | S334 | 143 | 530 | 92 | 522 | 328 | 462 | 533 | 584 | 772 |
| SCOND | µS/cm | S335 | 39 | 686 | 88 | 680 | 502 | 630 | 695 | 739 | 874 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCOND | µS/cm | S34 | 170 | 794 | 168 | 776 | 413 | 670 | 786 | 915 | 1218 |
| SCOND | µS/cm | S344 | 38 | 287 | 76 | 277 | 133 | 222 | 294 | 347 | 410 |
| SCOND | µS/cm | S352 | 277 | 583 | 329 | 534 | 287 | 421 | 494 | 618 | 2560 |
| SCOND | µS/cm | S356 | 63 | 610 | 97 | 603 | 429 | 538 | 615 | 667 | 795 |
| SCOND | µS/cm | S38 | 175 | 689 | 194 | 650 | 7 | 550 | 684 | 833 | 1227 |
| SCOND | µS/cm | S39 | 163 | 613 | 235 | 564 | 160 | 430 | 609 | 783 | 1344 |
| SCOND | µS/cm | S390 | 73 | 667 | 244 | 624 | 133 | 517 | 627 | 756 | 1458 |
| SCOND | µS/cm | S5A | 550 | 969 | 351 | 902 | 357 | 669 | 950 | 1252 | 1998 |
| SCOND | µS/cm | S5AE | 178 | 729 | 439 | 628 | 147 | 437 | 600 | 835 | 2085 |
| SCOND | µS/cm | S5AS | 109 | 782 | 296 | 729 | 221 | 547 | 727 | 932 | 1566 |
| SCOND | µS/cm | S5AW | 61 | 628 | 247 | 582 | 183 | 446 | 596 | 749 | 1405 |
| SCOND | µS/cm | S6 | 579 | 1093 | 251 | 1058 | 427 | 983 | 1156 | 1268 | 1931 |
| SCOND | µS/cm | S65 | 246 | 156 | 40 | 151 | 75 | 126 | 151 | 187 | 325 |
| SCOND | µS/cm | S65A | 246 | 157 | 47 | 150 | 58 | 122 | 147 | 189 | 328 |
| SCOND | µS/cm | S65C | 246 | 178 | 63 | 168 | 86 | 129 | 163 | 213 | 385 |
| SCOND | µS/cm | S65D | 247 | 175 | 48 | 168 | 90 | 135 | 169 | 210 | 353 |
| SCOND | µS/cm | S65E | 286 | 188 | 58 | 180 | 94 | 143 | 178 | 222 | 423 |
| SCOND | µS/cm | S7 | 404 | 896 | 198 | 873 | 443 | 758 | 904 | 1029 | 1466 |
| SCOND | µS/cm | S71 | 236 | 332 | 113 | 313 | 147 | 237 | 324 | 394 | 596 |
| SCOND | µS/cm | S72 | 156 | 378 | 135 | 356 | 135 | 276 | 355 | 447 | 922 |
| SCOND | µS/cm | S78 | 74 | 490 | 93 | 481 | 285 | 425 | 467 | 564 | 713 |
| SCOND | µS/cm | S79 | 56 | 620 | 265 | 575 | 292 | 433 | 530 | 751 | 1504 |
| SCOND | µS/cm | S8 | 524 | 720 | 150 | 703 | 351 | 631 | 718 | 833 | 1108 |
| SCOND | µS/cm | S84 | 238 | 350 | 280 | 281 | 122 | 181 | 230 | 387 | 1286 |
| SCOND | µS/cm | S9 | 533 | 753 | 59 | 751 | 448 | 720 | 763 | 800 | 939 |
| SCOND | µS/cm | S9A | 336 | 766 | 52 | 765 | 596 | 736 | 780 | 807 | 861 |
| SCOND | µS/cm | SAFARI | 216 | 535 | 496 | 492 | 258 | 389 | 498 | 603 | 7534 |
| SCOND | µS/cm | SW1B | 70 | 484 | 171 | 456 | 172 | 344 | 429 | 608 | 957 |
| SCOND | µS/cm | SW2 | 260 | 648 | 433 | 550 | 156 | 379 | 483 | 737 | 2105 |
| SCOND | µS/cm | SW6IN | 204 | 950 | 572 | 789 | 168 | 479 | 755 | 1350 | 2518 |
| SCOND | µS/cm | T0E | 12 | 484 | 51 | 481 | 396 | 449 | 490 | 520 | 562 |
| SCOND | µS/cm | T0W | 12 | 487 | 53 | 484 | 398 | 450 | 490 | 528 | 562 |
| SCOND | µS/cm | TAMBR1 | 236 | 576 | 464 | 544 | 282 | 482 | 542 | 615 | 7503 |
| SCOND | µS/cm | TAMBR2 | 232 | 580 | 497 | 545 | 287 | 479 | 543 | 617 | 7962 |
| SCOND | µS/cm | TAMBR3 | 208 | 584 | 526 | 545 | 293 | 480 | 544 | 617 | 7995 |
| SCOND | µS/cm | TAMBR4 | 179 | 589 | 542 | 548 | 302 | 485 | 543 | 617 | 7682 |
| SCOND | µS/cm | TAMBR5 | 145 | 596 | 602 | 548 | 307 | 485 | 547 | 615 | 7700 |
| SCOND | µS/cm | TAMBR6 | 160 | 586 | 567 | 542 | 279 | 485 | 540 | 607 | 7607 |
| SCOND | µS/cm | TCNS 201 | 92 | 343 | 147 | 313 | 104 | 238 | 322 | 403 | 785 |
| SCOND | µS/cm | TCNS 213 | 213 | 439 | 128 | 420 | 152 | 359 | 445 | 511 | 1006 |
| SCOND | µS/cm | TCNS 217 | 213 | 229 | 94 | 216 | 73 | 196 | 218 | 238 | 983 |
| SCOND | µS/cm | US41-25 | 250 | 374 | 98 | 353 | 1 | 300 | 387 | 453 | 568 |
| SCOND | µS/cm | WPB-21.2 | 28 | 1518 | 200 | 1506 | 1206 | 1323 | 1554 | 1691 | 1939 |
| SCOND | µS/cm | WPB-26.1 | 21 | 1120 | 313 | 1074 | 585 | 938 | 1160 | 1365 | 1557 |
| SCOND | µS/cm | WPB-28.2 | 21 | 1129 | 348 | 1070 | 542 | 898 | 1211 | 1363 | 1653 |
| SCOND | µS/cm | WPB-31.2 | 21 | 1192 | 387 | 1123 | 507 | 1013 | 1238 | 1422 | 1882 |
| SCOND | µS/cm | WPB-33.5 | 21 | 1302 | 481 | 1208 | 511 | 1026 | 1398 | 1575 | 2534 |
| SCOND | µS/cm | WPB-35.4 | 21 | 1410 | 503 | 1302 | 535 | 1037 | 1450 | 1788 | 2149 |
| SCOND | µS/cm | WPB-37.2 | 21 | 1455 | 600 | 1321 | 522 | 1089 | 1310 | 2028 | 2337 |
| SCOND | µS/cm | WPB-38.0 | 21 | 1597 | 701 | 1428 | 569 | 1099 | 1453 | 2306 | 2662 |
| SCOND | µS/cm | WWEIR | 528 | 644 | 151 | 620 | 129 | 572 | 685 | 742 | 902 |
| SCOND | µS/cm | X0 | 120 | 852 | 250 | 808 | 213 | 688 | 852 | 1015 | 1432 |
| SCOND | µS/cm | Z0 | 120 | 842 | 261 | 791 | 108 | 678 | 835 | 1028 | 1505 |
| TEMP | °C | 02273230 | 203 | 25.6 | 4.7 | 25.1 | 13.8 | 22.2 | 27.3 | 29.6 | 33.9 |
| TEMP | °C | 02274325 | 160 | 24.9 | 4.1 | 24.6 | 14.3 | 21.5 | 25.6 | 28.4 | 34.2 |
| TEMP | °C | 02274505 | 224 | 23.3 | 4.8 | 22.8 | 11.6 | 19.9 | 24.2 | 27.4 | 31.6 |
| TEMP | °C | 02275631 | 192 | 25.8 | 4.1 | 25.4 | 15.8 | 22.3 | 26.9 | 29.1 | 34.0 |
| TEMP | °C | BC10 | 172 | 24.9 | 3.6 | 24.7 | 15.7 | 22.7 | 25.4 | 27.5 | 31.4 |
| TEMP | °C | BC11 | 158 | 23.6 | 3.3 | 23.4 | 14.7 | 21.4 | 23.7 | 26.4 | 29.7 |
| TEMP | °C | BC14 | 165 | 25.9 | 3.4 | 25.7 | 17.7 | 23.5 | 26.9 | 28.3 | 31.5 |
| TEMP | °C | BC15 | 177 | 25.0 | 3.9 | 24.7 | 13.9 | 22.3 | 26.3 | 28.1 | 31.7 |
| TEMP | °C | BC22 | 134 | 25.1 | 4.2 | 24.7 | 15.5 | 22.2 | 25.8 | 28.4 | 32.3 |
| TEMP | °C | BC23 | 131 | 25.5 | 3.4 | 25.2 | 17.5 | 23.3 | 26.2 | 28.1 | 31.8 |
| TEMP | °C | BC26 | 92 | 24.7 | 3.8 | 24.4 | 15.4 | 21.5 | 24.4 | 28.2 | 32.5 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEMP | °C | BC7 | 102 | 24.9 | 3.7 | 24.6 | 17.1 | 21.8 | 26.0 | 27.6 | 31.8 |
| TEMP | °C | BC8 | 102 | 24.5 | 3.5 | 24.2 | 15.8 | 21.9 | 25.4 | 26.9 | 31.8 |
| TEMP | °C | BC9 | 141 | 24.9 | 3.3 | 24.7 | 15.5 | 23.1 | 25.5 | 27.2 | 32.0 |
| TEMP | °C | C123SR84 | 162 | 25.1 | 4.1 | 24.8 | 13.3 | 22.0 | 26.0 | 28.6 | 32.4 |
| TEMP | °C | C15S40 | 125 | 25.7 | 3.9 | 25.4 | 16.5 | 22.6 | 26.1 | 29.4 | 32.3 |
| TEMP | °C | C16S41 | 124 | 25.7 | 4.0 | 25.4 | 15.7 | 23.1 | 26.0 | 29.3 | 32.6 |
| TEMP | °C | C17S44 | 125 | 25.6 | 4.1 | 25.3 | 15.7 | 22.4 | 26.0 | 29.2 | 32.1 |
| TEMP | °C | C18S46 | 111 | 25.3 | 3.9 | 25.0 | 16.9 | 22.5 | 25.0 | 28.7 | 32.6 |
| TEMP | °C | C23S48 | 145 | 25.2 | 3.8 | 24.9 | 16.0 | 22.0 | 25.7 | 28.5 | 32.8 |
| TEMP | °C | C24S49 | 154 | 25.3 | 3.9 | 25.0 | 15.3 | 21.8 | 26.2 | 28.8 | 30.9 |
| TEMP | °C | C25S50 | 138 | 25.2 | 3.8 | 24.9 | 16.4 | 22.1 | 25.6 | 28.7 | 31.8 |
| TEMP | °C | C25S99 | 3 | 25.6 | 1.8 | 25.6 | 23.7 | 24.3 | 26.2 | 26.8 | 27.0 |
| TEMP | °C | C44S80 | 179 | 25.6 | 3.6 | 25.3 | 14.8 | 22.5 | 25.9 | 29.0 | 31.2 |
| TEMP | °C | C51S155 | 133 | 25.6 | 3.9 | 25.3 | 16.3 | 22.6 | 25.9 | 29.1 | 31.7 |
| TEMP | °C | CES01 | 218 | 25.1 | 4.2 | 24.8 | 14.4 | 21.3 | 25.5 | 29.2 | 32.9 |
| TEMP | °C | COC@LAKE | 100 | 25.1 | 3.2 | 24.9 | 18.2 | 22.6 | 25.8 | 27.6 | 30.8 |
| TEMP | °C | COOPERTN | 163 | 25.2 | 3.9 | 24.9 | 14.4 | 22.3 | 25.1 | 28.8 | 32.0 |
| TEMP | °C | CORK@846 | 108 | 24.1 | 3.6 | 23.9 | 16.6 | 21.1 | 24.7 | 27.1 | 31.0 |
| TEMP | °C | CR-04.8T | 60 | 24.5 | 4.4 | 24.0 | 13.1 | 21.4 | 24.6 | 28.5 | 31.2 |
| TEMP | °C | CULV10A | 240 | 24.4 | 4.6 | 23.9 | 12.5 | 20.6 | 25.1 | 28.4 | 31.7 |
| TEMP | °C | CULV5A | 108 | 24.3 | 4.4 | 23.9 | 12.9 | 21.2 | 24.9 | 28.3 | 31.7 |
| TEMP | °C | DF02.1TW | 28 | 27.5 | 4.2 | 27.1 | 18.1 | 23.9 | 28.6 | 31.5 | 32.4 |
| TEMP | °C | FAKA | 103 | 25.3 | 3.6 | 25.1 | 17.6 | 22.6 | 26.2 | 27.8 | 32.5 |
| TEMP | °C | FAKA858 | 111 | 24.6 | 3.7 | 24.3 | 15.0 | 21.3 | 24.6 | 28.0 | 30.3 |
| TEMP | °C | FROGCITY | 96 | 24.8 | 3.8 | 24.5 | 14.3 | 22.4 | 25.0 | 28.1 | 32.0 |
| TEMP | °C | G123 | 345 | 24.9 | 3.8 | 24.6 | 14.2 | 22.4 | 25.0 | 28.2 | 32.5 |
| TEMP | °C | G136 | 335 | 24.9 | 4.4 | 24.5 | 13.0 | 21.5 | 25.9 | 28.9 | 32.7 |
| TEMP | °C | G150 | 28 | 26.7 | 4.1 | 26.4 | 17.7 | 23.1 | 28.3 | 30.0 | 32.6 |
| TEMP | °C | G151 | 1 | 27.5 | | 27.5 | 27.5 | | | | 27.5 |
| TEMP | °C | G200 | 125 | 24.5 | 4.3 | 24.1 | 15.9 | 20.7 | 24.8 | 28.5 | 31.5 |
| TEMP | °C | G300 | 309 | 24.8 | 4.2 | 24.5 | 13.3 | 21.6 | 25.1 | 28.7 | 33.0 |
| TEMP | °C | G301 | 313 | 25.0 | 4.2 | 24.6 | 13.2 | 21.6 | 25.5 | 28.9 | 35.0 |
| TEMP | °C | G302 | 379 | 25.1 | 4.2 | 24.7 | 13.3 | 21.7 | 25.9 | 28.8 | 34.0 |
| TEMP | °C | G311 | 204 | 24.9 | 4.2 | 24.5 | 13.2 | 21.3 | 25.2 | 28.8 | 32.8 |
| TEMP | °C | G341 | 15 | 28.2 | 1.1 | 28.2 | 25.9 | 27.4 | 28.3 | 28.9 | 29.8 |
| TEMP | °C | G342A | 496 | 25.5 | 4.3 | 25.1 | 13.6 | 22.2 | 26.2 | 29.0 | 36.5 |
| TEMP | °C | G342B | 516 | 25.1 | 4.2 | 24.8 | 13.5 | 21.9 | 25.9 | 28.8 | 32.5 |
| TEMP | °C | G342C | 491 | 25.1 | 4.3 | 24.7 | 13.7 | 21.7 | 25.8 | 28.8 | 32.9 |
| TEMP | °C | G342D | 512 | 24.8 | 4.1 | 24.5 | 13.7 | 21.7 | 25.4 | 28.4 | 31.7 |
| TEMP | °C | G342E | 24 | 24.2 | 4.2 | 23.8 | 18.3 | 20.4 | 23.1 | 28.2 | 30.0 |
| TEMP | °C | G342F | 24 | 24.2 | 4.2 | 23.9 | 18.6 | 20.4 | 23.4 | 28.3 | 30.4 |
| TEMP | °C | G353A | 39 | 25.4 | 4.3 | 25.0 | 15.0 | 21.8 | 26.7 | 29.4 | 31.9 |
| TEMP | °C | G353B | 70 | 25.1 | 3.9 | 24.8 | 15.4 | 22.1 | 24.9 | 28.8 | 31.6 |
| TEMP | °C | G353C | 39 | 25.6 | 4.3 | 25.2 | 15.4 | 22.0 | 27.4 | 29.4 | 31.5 |
| TEMP | °C | G357 | 278 | 24.8 | 4.0 | 24.5 | 15.8 | 21.5 | 25.5 | 28.6 | 31.2 |
| TEMP | °C | G371 | 12 | 21.2 | 3.0 | 21.0 | 17.1 | 19.3 | 20.4 | 22.4 | 26.9 |
| TEMP | °C | G372 | 284 | 24.9 | 4.2 | 24.5 | 15.7 | 21.5 | 25.0 | 28.6 | 36.1 |
| TEMP | °C | G373 | 12 | 21.5 | 2.5 | 21.4 | 17.4 | 19.4 | 21.7 | 22.6 | 25.6 |
| TEMP | °C | G404 | 311 | 24.9 | 3.9 | 24.5 | 15.9 | 21.8 | 25.3 | 28.5 | 31.8 |
| TEMP | °C | G406 | 298 | 25.0 | 4.3 | 24.6 | 8.4 | 22.1 | 26.1 | 28.4 | 31.5 |
| TEMP | °C | G407 | 66 | 25.0 | 3.6 | 24.8 | 17.9 | 21.7 | 25.4 | 27.9 | 30.7 |
| TEMP | °C | G409 | 357 | 24.6 | 4.3 | 24.2 | 3.2 | 21.5 | 25.0 | 28.4 | 31.7 |
| TEMP | °C | G94B | 127 | 24.9 | 4.1 | 24.5 | 15.4 | 22.0 | 25.3 | 28.5 | 32.3 |
| TEMP | °C | GGC@858 | 106 | 25.1 | 3.3 | 24.9 | 17.5 | 21.9 | 25.6 | 28.0 | 30.6 |
| TEMP | °C | GGCAT31 | 170 | 25.1 | 3.4 | 24.8 | 18.1 | 22.7 | 25.5 | 28.0 | 31.2 |
| TEMP | °C | GLADER | 150 | 24.8 | 3.8 | 24.5 | 14.3 | 22.1 | 24.3 | 28.5 | 31.8 |
| TEMP | °C | HC05.7 | 1 | 27.8 | | 27.8 | 27.8 | | | | 27.8 |
| TEMP | °C | HC12.8 | 1 | 27.9 | | 27.9 | 27.9 | | | | 27.9 |
| TEMP | °C | HC14.4 | 1 | 28.0 | | 28.0 | 28.0 | | | | 28.0 |
| TEMP | °C | HC15.3 | 1 | 28.1 | | 28.1 | 28.1 | | | | 28.1 |
| TEMP | °C | HC18.2 | 1 | 28.0 | | 28.0 | 28.0 | | | | 28.0 |
| TEMP | °C | HC19.3 | 1 | 28.3 | | 28.3 | 28.3 | | | | 28.3 |
| TEMP | °C | INDUSCAN | 168 | 25.8 | 4.3 | 25.4 | 13.6 | 22.9 | 26.9 | 29.1 | 32.5 |
| TEMP | °C | L3BRS | 256 | 25.2 | 4.2 | 24.8 | 14.8 | 22.0 | 26.2 | 28.8 | 31.6 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TEMP | °C | L59E | 122 | 25.2 | 4.8 | 24.7 | 13.9 | 21.4 | 25.9 | 29.1 | 33.3 |
| TEMP | °C | L59W | 118 | 25.2 | 4.4 | 24.8 | 15.5 | 21.9 | 26.0 | 29.0 | 33.0 |
| TEMP | °C | L60W | 98 | 24.6 | 4.5 | 24.1 | 14.7 | 21.3 | 25.5 | 28.3 | 33.7 |
| TEMP | °C | L61E | 127 | 24.6 | 4.6 | 24.1 | 11.0 | 21.0 | 25.2 | 28.6 | 36.4 |
| TEMP | °C | L61W | 128 | 24.7 | 4.4 | 24.3 | 13.7 | 21.5 | 25.3 | 28.7 | 32.3 |
| TEMP | °C | L8MZBN | 5 | 23.9 | 3.1 | 23.7 | 19.8 | 21.5 | 24.0 | 26.5 | 27.6 |
| TEMP | °C | L8MZBS | 5 | 24.3 | 2.6 | 24.2 | 21.6 | 22.1 | 24.0 | 26.6 | 27.5 |
| TEMP | °C | LOXA104 | 39 | 24.4 | 4.4 | 24.0 | 15.8 | 20.5 | 24.8 | 28.1 | 32.7 |
| TEMP | °C | LOXA135 | 40 | 24.4 | 4.5 | 24.0 | 15.1 | 20.6 | 24.2 | 28.6 | 30.5 |
| TEMP | °C | S10A | 66 | 25.5 | 4.0 | 25.2 | 15.0 | 23.0 | 26.7 | 28.9 | 30.9 |
| TEMP | °C | S10C | 68 | 25.7 | 3.8 | 25.4 | 14.7 | 23.3 | 26.3 | 29.0 | 31.4 |
| TEMP | °C | S10D | 142 | 25.2 | 4.2 | 24.8 | 13.5 | 22.4 | 26.2 | 28.9 | 30.7 |
| TEMP | °C | S11A | 162 | 25.6 | 4.2 | 25.2 | 13.4 | 22.8 | 26.4 | 29.0 | 33.0 |
| TEMP | °C | S11B | 106 | 25.9 | 4.1 | 25.5 | 13.2 | 23.3 | 26.9 | 29.1 | 32.2 |
| TEMP | °C | S11C | 161 | 25.0 | 4.3 | 24.6 | 13.0 | 21.7 | 26.3 | 28.6 | 31.6 |
| TEMP | °C | S127 | 122 | 25.0 | 4.4 | 24.6 | 14.4 | 21.4 | 25.5 | 29.0 | 32.0 |
| TEMP | °C | S129 | 130 | 24.9 | 4.3 | 24.5 | 15.2 | 21.2 | 25.4 | 29.0 | 32.2 |
| TEMP | °C | S12A | 287 | 25.3 | 4.0 | 25.0 | 14.6 | 22.4 | 25.6 | 28.8 | 32.6 |
| TEMP | °C | S12B | 235 | 25.7 | 3.9 | 25.4 | 14.8 | 23.1 | 26.3 | 29.0 | 32.6 |
| TEMP | °C | S12C | 296 | 25.6 | 3.9 | 25.3 | 14.4 | 22.7 | 26.2 | 28.9 | 32.0 |
| TEMP | °C | S12D | 270 | 25.5 | 3.9 | 25.2 | 14.3 | 22.7 | 26.4 | 28.8 | 32.3 |
| TEMP | °C | S131 | 136 | 25.3 | 4.3 | 24.9 | 15.1 | 21.5 | 26.4 | 29.2 | 31.6 |
| TEMP | °C | S133 | 131 | 24.6 | 4.5 | 24.1 | 11.1 | 21.1 | 24.8 | 28.7 | 30.9 |
| TEMP | °C | S135 | 132 | 24.9 | 4.4 | 24.5 | 15.8 | 21.4 | 24.9 | 29.1 | 32.7 |
| TEMP | °C | S140 | 403 | 24.9 | 3.6 | 24.6 | 15.4 | 21.8 | 25.5 | 28.2 | 30.6 |
| TEMP | °C | S145 | 174 | 25.1 | 4.2 | 24.7 | 13.4 | 22.3 | 26.0 | 28.4 | 32.0 |
| TEMP | °C | S150 | 332 | 24.8 | 4.2 | 24.4 | 14.3 | 21.6 | 25.5 | 28.6 | 32.3 |
| TEMP | °C | S151 | 168 | 25.4 | 3.7 | 25.1 | 14.5 | 22.6 | 26.0 | 28.5 | 31.7 |
| TEMP | °C | S154 | 224 | 25.2 | 4.5 | 24.8 | 14.4 | 22.3 | 25.7 | 29.1 | 33.5 |
| TEMP | °C | S169 | 153 | 25.7 | 4.4 | 25.3 | 13.7 | 22.7 | 26.4 | 29.2 | 32.9 |
| TEMP | °C | S177 | 301 | 25.3 | 2.0 | 25.2 | 19.1 | 24.1 | 25.7 | 26.5 | 31.2 |
| TEMP | °C | S178 | 228 | 24.5 | 3.6 | 24.2 | 15.3 | 21.9 | 24.8 | 27.5 | 30.9 |
| TEMP | °C | S18C | 429 | 25.3 | 2.7 | 25.1 | 16.8 | 23.7 | 25.8 | 27.2 | 31.2 |
| TEMP | °C | S190 | 281 | 26.0 | 4.0 | 25.6 | 15.9 | 22.6 | 27.0 | 29.1 | 34.6 |
| TEMP | °C | S191 | 235 | 24.5 | 4.3 | 24.1 | 13.7 | 21.1 | 24.8 | 28.4 | 39.8 |
| TEMP | °C | S197 | 32 | 25.7 | 2.9 | 25.5 | 18.3 | 23.1 | 26.1 | 27.7 | 31.1 |
| TEMP | °C | S2 | 180 | 25.5 | 4.2 | 25.1 | 13.0 | 22.4 | 26.4 | 28.8 | 32.1 |
| TEMP | °C | S3 | 168 | 25.8 | 4.5 | 25.4 | 12.6 | 22.4 | 26.7 | 29.3 | 34.3 |
| TEMP | °C | S308C | 295 | 24.3 | 4.6 | 23.8 | 12.3 | 20.9 | 24.9 | 28.3 | 32.4 |
| TEMP | °C | S31 | 110 | 24.9 | 3.3 | 24.7 | 16.9 | 22.6 | 25.0 | 27.4 | 32.1 |
| TEMP | °C | S331 | 40 | 26.2 | 1.4 | 26.2 | 23.0 | 25.4 | 26.2 | 27.0 | 30.5 |
| TEMP | °C | S332B | 265 | 25.1 | 2.3 | 24.9 | 19.2 | 23.4 | 25.3 | 26.8 | 30.2 |
| TEMP | °C | S332C | 273 | 25.2 | 2.2 | 25.1 | 19.4 | 23.6 | 25.4 | 26.6 | 30.3 |
| TEMP | °C | S332DX | 83 | 24.8 | 2.3 | 24.7 | 18.9 | 23.4 | 25.2 | 26.3 | 29.5 |
| TEMP | °C | S333 | 360 | 25.0 | 4.0 | 24.6 | 14.3 | 21.9 | 25.4 | 28.6 | 32.5 |
| TEMP | °C | S334 | 147 | 25.6 | 3.6 | 25.3 | 14.9 | 23.0 | 25.8 | 28.4 | 33.9 |
| TEMP | °C | S335 | 40 | 24.6 | 2.9 | 24.4 | 18.9 | 22.3 | 24.5 | 27.5 | 29.1 |
| TEMP | °C | S34 | 171 | 24.5 | 4.2 | 24.1 | 14.0 | 21.2 | 24.7 | 28.5 | 32.2 |
| TEMP | °C | S344 | 39 | 25.1 | 4.2 | 24.7 | 17.1 | 21.4 | 26.0 | 28.7 | 32.2 |
| TEMP | °C | S352 | 278 | 24.6 | 4.6 | 24.1 | 13.1 | 20.8 | 25.4 | 28.5 | 32.2 |
| TEMP | °C | S356 | 63 | 25.7 | 2.7 | 25.6 | 18.5 | 23.7 | 26.1 | 27.8 | 30.6 |
| TEMP | °C | S38 | 176 | 24.8 | 4.2 | 24.4 | 13.4 | 21.7 | 24.9 | 28.3 | 33.6 |
| TEMP | °C | S39 | 165 | 25.1 | 4.3 | 24.7 | 13.7 | 22.2 | 25.3 | 29.0 | 31.5 |
| TEMP | °C | S390 | 73 | 23.1 | 4.0 | 22.8 | 15.4 | 20.1 | 22.5 | 26.6 | 30.8 |
| TEMP | °C | S5A | 553 | 24.8 | 4.2 | 24.4 | 13.8 | 21.3 | 25.3 | 28.5 | 33.3 |
| TEMP | °C | S5AE | 151 | 24.6 | 4.1 | 24.2 | 13.9 | 21.1 | 24.9 | 28.6 | 31.0 |
| TEMP | °C | S5AS | 109 | 23.7 | 4.0 | 23.3 | 14.0 | 20.9 | 23.2 | 27.5 | 30.2 |
| TEMP | °C | S5AW | 61 | 23.9 | 4.3 | 23.4 | 13.8 | 20.8 | 24.4 | 27.9 | 31.2 |
| TEMP | °C | S6 | 581 | 24.8 | 3.8 | 24.5 | 14.1 | 21.8 | 25.3 | 28.1 | 35.3 |
| TEMP | °C | S65 | 247 | 24.1 | 5.2 | 23.5 | 11.8 | 20.0 | 24.4 | 29.0 | 33.1 |
| TEMP | °C | S65A | 246 | 24.4 | 5.0 | 23.8 | 12.0 | 20.2 | 24.3 | 28.7 | 34.7 |
| TEMP | °C | S65C | 247 | 24.5 | 4.6 | 24.0 | 13.4 | 20.8 | 25.0 | 28.7 | 32.5 |
| TEMP | °C | S65D | 248 | 24.5 | 4.6 | 24.0 | 12.8 | 20.8 | 25.0 | 28.8 | 32.3 |
| TEMP | °C | S65E | 288 | 24.5 | 4.6 | 24.0 | 11.4 | 20.6 | 25.0 | 28.7 | 32.1 |

| Table F-3 . Summary Water Quality Statistics By Station | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
| TEMP | °C | S7 | 404 | 24.6 | 4.1 | 24.2 | 14.2 | 21.4 | 25.2 | 28.3 | 31.4 |
| TEMP | °C | S71 | 236 | 24.8 | 4.3 | 24.4 | 14.5 | 21.4 | 25.2 | 28.8 | 33.5 |
| TEMP | °C | S72 | 155 | 25.5 | 4.4 | 25.1 | 15.7 | 22.2 | 26.6 | 29.3 | 32.3 |
| TEMP | °C | S78 | 82 | 24.6 | 4.3 | 24.3 | 15.1 | 21.4 | 24.2 | 29.0 | 31.4 |
| TEMP | °C | S79 | 56 | 25.5 | 4.3 | 25.1 | 15.8 | 22.1 | 25.3 | 29.8 | 33.1 |
| TEMP | °C | S8 | 532 | 24.9 | 3.8 | 24.6 | 15.9 | 21.8 | 25.3 | 28.3 | 32.3 |
| TEMP | °C | S84 | 238 | 25.1 | 4.4 | 24.7 | 15.0 | 21.5 | 25.5 | 29.1 | 33.6 |
| TEMP | °C | S9 | 534 | 25.6 | 2.4 | 25.5 | 19.5 | 23.7 | 25.5 | 27.5 | 31.9 |
| TEMP | °C | S9A | 336 | 25.5 | 2.3 | 25.4 | 20.3 | 23.6 | 25.4 | 27.4 | 30.6 |
| TEMP | °C | SAFARI | 222 | 24.5 | 3.9 | 24.2 | 14.2 | 21.9 | 24.7 | 27.8 | 31.7 |
| TEMP | °C | SW1B | 70 | 24.6 | 4.3 | 24.2 | 15.5 | 21.2 | 25.1 | 28.7 | 31.2 |
| TEMP | °C | SW2 | 237 | 26.4 | 4.2 | 26.0 | 15.9 | 23.1 | 27.1 | 29.8 | 34.3 |
| TEMP | °C | SW6IN | 186 | 26.2 | 3.8 | 25.9 | 13.6 | 23.5 | 27.1 | 28.9 | 33.2 |
| TEMP | °C | TAMBR1 | 242 | 25.2 | 3.7 | 24.9 | 14.4 | 22.3 | 25.8 | 28.6 | 31.7 |
| TEMP | °C | TAMBR2 | 237 | 25.4 | 3.8 | 25.1 | 14.4 | 22.3 | 26.1 | 28.8 | 31.1 |
| TEMP | °C | TAMBR3 | 213 | 25.4 | 3.8 | 25.1 | 14.4 | 22.4 | 25.7 | 28.7 | 32.8 |
| TEMP | °C | TAMBR4 | 184 | 25.3 | 3.8 | 25.0 | 14.4 | 22.4 | 25.4 | 28.8 | 32.0 |
| TEMP | °C | TAMBR5 | 150 | 25.3 | 3.7 | 25.0 | 14.5 | 22.5 | 25.4 | 28.8 | 31.7 |
| TEMP | °C | TAMBR6 | 166 | 25.3 | 3.8 | 25.0 | 14.4 | 22.6 | 25.1 | 28.8 | 32.1 |
| TEMP | °C | TCNS 201 | 94 | 22.6 | 4.2 | 22.1 | 11.7 | 19.6 | 23.3 | 26.3 | 28.2 |
| TEMP | °C | TCNS 213 | 212 | 23.2 | 4.5 | 22.7 | 10.8 | 20.0 | 24.0 | 27.0 | 31.6 |
| TEMP | °C | TCNS 217 | 212 | 22.8 | 4.5 | 22.3 | 10.3 | 19.3 | 23.6 | 26.6 | 30.8 |
| TEMP | °C | US41-25 | 255 | 25.2 | 3.7 | 24.9 | 15.7 | 22.6 | 25.5 | 28.6 | 31.4 |
| TEMP | °C | WPB-26.1 | 21 | 28.6 | 1.3 | 28.6 | 24.8 | 28.0 | 29.1 | 29.4 | 30.1 |
| TEMP | °C | WPB-28.2 | 21 | 28.6 | 1.4 | 28.5 | 24.7 | 27.6 | 29.2 | 29.5 | 30.2 |
| TEMP | °C | WPB-31.2 | 21 | 28.5 | 1.5 | 28.5 | 24.8 | 27.7 | 28.7 | 29.3 | 31.3 |
| TEMP | °C | WPB-33.5 | 21 | 28.8 | 1.6 | 28.8 | 24.7 | 27.7 | 29.3 | 29.7 | 31.6 |
| TEMP | °C | WPB-35.4 | 21 | 28.8 | 1.5 | 28.7 | 24.8 | 27.6 | 29.2 | 29.9 | 30.7 |
| TEMP | °C | WPB-37.2 | 21 | 28.5 | 1.5 | 28.4 | 25.0 | 27.5 | 28.3 | 29.5 | 31.0 |
| TEMP | °C | WPB-38.0 | 21 | 28.8 | 1.6 | 28.8 | 25.0 | 27.9 | 29.2 | 29.8 | 31.0 |
| TEMP | °C | WWEIR | 535 | 24.4 | 4.1 | 24.0 | 13.6 | 21.4 | 24.8 | 27.7 | 33.3 |
| TKN | mg/L | 02273230 | 90 | 2.26 | 3.17 | 1.74 | 0.13 | 1.30 | 1.70 | 2.20 | 24.00 |
| TKN | mg/L | 02274325 | 74 | 1.63 | 1.48 | 1.36 | 0.13 | 1.15 | 1.30 | 1.60 | 11.15 |
| TKN | mg/L | 02274505 | 82 | 1.35 | 0.58 | 1.24 | 0.23 | 0.96 | 1.26 | 1.65 | 4.40 |
| TKN | mg/L | 02275631 | 67 | 2.39 | 2.78 | 1.86 | 0.55 | 1.46 | 1.63 | 2.00 | 21.00 |
| TKN | mg/L | 3AE0 | 61 | 1.15 | 0.19 | 1.13 | 0.79 | 1.00 | 1.10 | 1.20 | 1.90 |
| TKN | mg/L | 3AW0 | 87 | 1.13 | 0.22 | 1.11 | 0.73 | 0.99 | 1.07 | 1.20 | 1.80 |
| TKN | mg/L | BC10 | 79 | 0.48 | 0.26 | 0.40 | 0.02 | 0.34 | 0.46 | 0.59 | 1.57 |
| TKN | mg/L | BC11 | 76 | 0.62 | 0.31 | 0.53 | 0.02 | 0.45 | 0.56 | 0.73 | 1.66 |
| TKN | mg/L | BC14 | 73 | 0.70 | 0.30 | 0.66 | 0.18 | 0.58 | 0.69 | 0.77 | 2.87 |
| TKN | mg/L | BC15 | 74 | 0.78 | 0.35 | 0.67 | 0.02 | 0.65 | 0.81 | 0.94 | 2.46 |
| TKN | mg/L | BC22 | 74 | 0.68 | 0.27 | 0.62 | 0.04 | 0.53 | 0.63 | 0.76 | 1.98 |
| TKN | mg/L | BC23 | 77 | 0.79 | 0.28 | 0.74 | 0.11 | 0.63 | 0.74 | 0.86 | 2.01 |
| TKN | mg/L | BC26 | 61 | 0.81 | 0.31 | 0.76 | 0.30 | 0.61 | 0.75 | 0.94 | 2.10 |
| TKN | mg/L | BC7 | 74 | 0.48 | 0.40 | 0.37 | 0.02 | 0.32 | 0.46 | 0.53 | 3.43 |
| TKN | mg/L | BC8 | 73 | 0.46 | 0.25 | 0.41 | 0.05 | 0.36 | 0.43 | 0.53 | 1.62 |
| TKN | mg/L | BC9 | 75 | 0.56 | 0.28 | 0.46 | 0.02 | 0.43 | 0.52 | 0.64 | 1.70 |
| TKN | mg/L | C123SR84 | 156 | 1.43 | 0.27 | 1.41 | 0.93 | 1.25 | 1.40 | 1.58 | 2.97 |
| TKN | mg/L | C15S40 | 123 | 1.08 | 0.41 | 1.03 | 0.65 | 0.86 | 0.96 | 1.18 | 4.18 |
| TKN | mg/L | C16S41 | 123 | 1.05 | 0.50 | 0.99 | 0.60 | 0.80 | 0.94 | 1.13 | 5.45 |
| TKN | mg/L | C17S44 | 124 | 0.92 | 0.14 | 0.91 | 0.62 | 0.82 | 0.91 | 0.99 | 1.33 |
| TKN | mg/L | C18S46 | 112 | 0.84 | 0.19 | 0.82 | 0.54 | 0.71 | 0.79 | 0.96 | 1.87 |
| TKN | mg/L | C23S48 | 424 | 1.31 | 0.43 | 1.24 | 0.25 | 0.98 | 1.31 | 1.58 | 3.73 |
| TKN | mg/L | C24S49 | 385 | 1.33 | 0.42 | 1.28 | 0.65 | 1.03 | 1.28 | 1.54 | 5.77 |
| TKN | mg/L | C25S50 | 435 | 1.23 | 0.42 | 1.16 | 0.25 | 0.90 | 1.18 | 1.47 | 3.52 |
| TKN | mg/L | C40VMB | 636 | 1.71 | 0.41 | 1.66 | 0.62 | 1.41 | 1.63 | 1.95 | 3.39 |
| TKN | mg/L | C41VMB | 637 | 1.55 | 0.46 | 1.49 | 0.83 | 1.23 | 1.45 | 1.78 | 4.49 |
| TKN | mg/L | C44S80 | 412 | 1.16 | 0.27 | 1.14 | 0.73 | 0.99 | 1.12 | 1.28 | 2.75 |
| TKN | mg/L | C51S155 | 125 | 1.07 | 0.36 | 1.03 | 0.65 | 0.86 | 1.03 | 1.17 | 3.87 |
| TKN | mg/L | CES01 | 184 | 1.10 | 0.28 | 1.05 | 0.03 | 0.92 | 1.09 | 1.23 | 2.31 |
| TKN | mg/L | COC@LAKE | 48 | 0.69 | 0.35 | 0.61 | 0.04 | 0.52 | 0.67 | 0.75 | 2.35 |
| TKN | mg/L | CORK@846 | 72 | 1.29 | 0.47 | 1.18 | 0.10 | 0.99 | 1.20 | 1.54 | 2.58 |
| TKN | mg/L | CR-04.8T | 60 | 1.67 | 0.41 | 1.63 | 1.05 | 1.36 | 1.61 | 1.87 | 2.74 |
| TKN | mg/L | CULV10A | 244 | 1.81 | 0.82 | 1.68 | 0.87 | 1.32 | 1.57 | 2.01 | 6.38 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TKN | mg/L | CULV5A | 107 | 1.53 | 0.34 | 1.49 | 0.92 | 1.28 | 1.46 | 1.71 | 3.03 |
| TKN | mg/L | E0 | 115 | 2.89 | 1.08 | 2.69 | 0.82 | 2.10 | 2.70 | 3.68 | 6.10 |
| TKN | mg/L | F0 | 115 | 3.26 | 1.24 | 3.01 | 0.74 | 2.40 | 3.10 | 4.14 | 6.40 |
| TKN | mg/L | FAKA | 81 | 0.51 | 0.29 | 0.43 | 0.02 | 0.37 | 0.48 | 0.60 | 1.94 |
| TKN | mg/L | FAKA858 | 67 | 0.74 | 0.27 | 0.67 | 0.02 | 0.60 | 0.72 | 0.82 | 1.88 |
| TKN | mg/L | FROGCITY | 42 | 1.11 | 0.21 | 1.09 | 0.69 | 0.95 | 1.10 | 1.24 | 1.59 |
| TKN | mg/L | G123 | 127 | 1.62 | 0.27 | 1.59 | 0.78 | 1.46 | 1.61 | 1.78 | 2.40 |
| TKN | mg/L | G136 | 350 | 1.60 | 0.46 | 1.55 | 0.03 | 1.36 | 1.51 | 1.76 | 6.74 |
| TKN | mg/L | G200 | 121 | 1.95 | 0.63 | 1.85 | 0.93 | 1.43 | 1.81 | 2.33 | 3.90 |
| TKN | mg/L | G300 | 96 | 2.01 | 0.68 | 1.91 | 1.14 | 1.44 | 1.84 | 2.38 | 3.97 |
| TKN | mg/L | G301 | 98 | 2.15 | 0.85 | 2.01 | 1.10 | 1.48 | 1.81 | 2.79 | 5.44 |
| TKN | mg/L | G302 | 170 | 2.32 | 0.95 | 2.15 | 1.10 | 1.55 | 2.00 | 3.00 | 4.69 |
| TKN | mg/L | G311 | 93 | 1.93 | 0.82 | 1.79 | 0.97 | 1.32 | 1.66 | 2.37 | 5.51 |
| TKN | mg/L | G342A | 247 | 1.49 | 0.33 | 1.46 | 0.99 | 1.28 | 1.43 | 1.63 | 3.62 |
| TKN | mg/L | G342B | 246 | 1.46 | 0.33 | 1.43 | 0.87 | 1.25 | 1.41 | 1.61 | 3.76 |
| TKN | mg/L | G342C | 244 | 1.48 | 0.37 | 1.45 | 0.87 | 1.26 | 1.40 | 1.62 | 4.28 |
| TKN | mg/L | G342D | 244 | 1.42 | 0.48 | 1.37 | 0.80 | 1.18 | 1.33 | 1.58 | 6.60 |
| TKN | mg/L | G342E | 10 | 1.38 | 0.10 | 1.38 | 1.26 | 1.33 | 1.36 | 1.37 | 1.57 |
| TKN | mg/L | G342F | 10 | 1.38 | 0.11 | 1.38 | 1.26 | 1.31 | 1.34 | 1.41 | 1.59 |
| TKN | mg/L | G353A | 15 | 1.42 | 0.15 | 1.42 | 1.27 | 1.28 | 1.37 | 1.53 | 1.72 |
| TKN | mg/L | G353B | 35 | 1.39 | 0.12 | 1.38 | 1.20 | 1.31 | 1.35 | 1.46 | 1.72 |
| TKN | mg/L | G353C | 15 | 1.38 | 0.14 | 1.38 | 1.22 | 1.27 | 1.32 | 1.51 | 1.63 |
| TKN | mg/L | G372 | 134 | 1.83 | 0.58 | 1.74 | 0.95 | 1.30 | 1.87 | 2.29 | 4.43 |
| TKN | mg/L | G94B | 125 | 1.57 | 0.50 | 1.50 | 0.81 | 1.25 | 1.48 | 1.80 | 3.30 |
| TKN | mg/L | GGC@858 | 71 | 0.70 | 0.29 | 0.62 | 0.02 | 0.58 | 0.67 | 0.81 | 1.84 |
| TKN | mg/L | GGCAT31 | 71 | 0.68 | 0.32 | 0.61 | 0.02 | 0.51 | 0.62 | 0.80 | 2.65 |
| TKN | mg/L | INDUSCAN | 172 | 1.71 | 0.49 | 1.65 | 0.94 | 1.37 | 1.57 | 1.96 | 4.14 |
| TKN | mg/L | L3BRS | 247 | 1.54 | 0.27 | 1.52 | 1.01 | 1.37 | 1.52 | 1.69 | 2.78 |
| TKN | mg/L | L59E | 124 | 2.27 | 0.79 | 2.13 | 0.79 | 1.68 | 2.14 | 2.73 | 4.41 |
| TKN | mg/L | L59W | 121 | 1.75 | 0.62 | 1.67 | 0.94 | 1.34 | 1.58 | 1.98 | 4.70 |
| TKN | mg/L | L60W | 98 | 1.50 | 0.33 | 1.47 | 0.87 | 1.27 | 1.49 | 1.69 | 2.60 |
| TKN | mg/L | L61E | 127 | 1.58 | 0.50 | 1.52 | 0.92 | 1.21 | 1.47 | 1.82 | 3.35 |
| TKN | mg/L | L61W | 128 | 1.84 | 0.70 | 1.74 | 0.96 | 1.38 | 1.69 | 2.00 | 4.41 |
| TKN | mg/L | LOXA104 | 22 | 2.30 | 0.43 | 2.26 | 1.55 | 2.12 | 2.26 | 2.49 | 3.41 |
| TKN | mg/L | LOXA135 | 24 | 2.17 | 0.55 | 2.11 | 1.49 | 1.76 | 2.09 | 2.39 | 3.96 |
| TKN | mg/L | S10A | 60 | 1.45 | 0.40 | 1.40 | 0.78 | 1.18 | 1.36 | 1.67 | 3.14 |
| TKN | mg/L | S10C | 63 | 1.63 | 0.57 | 1.53 | 0.80 | 1.14 | 1.59 | 1.96 | 3.77 |
| TKN | mg/L | S10D | 138 | 2.00 | 0.73 | 1.89 | 0.75 | 1.50 | 1.88 | 2.33 | 4.49 |
| TKN | mg/L | S11A | 161 | 1.70 | 0.36 | 1.66 | 0.93 | 1.46 | 1.66 | 1.95 | 2.75 |
| TKN | mg/L | S11B | 104 | 1.71 | 0.37 | 1.67 | 0.94 | 1.43 | 1.66 | 1.96 | 2.73 |
| TKN | mg/L | S11C | 159 | 1.83 | 0.37 | 1.79 | 0.93 | 1.57 | 1.87 | 2.03 | 2.95 |
| TKN | mg/L | S127 | 123 | 1.93 | 0.31 | 1.90 | 1.18 | 1.72 | 1.86 | 2.13 | 3.15 |
| TKN | mg/L | S129 | 131 | 1.54 | 0.24 | 1.52 | 1.16 | 1.37 | 1.49 | 1.70 | 2.69 |
| TKN | mg/L | S12A | 708 | 1.10 | 0.49 | 1.04 | 0.25 | 0.84 | 1.00 | 1.25 | 11.09 |
| TKN | mg/L | S12B | 173 | 0.96 | 0.26 | 0.93 | 0.25 | 0.79 | 0.91 | 1.09 | 2.16 |
| TKN | mg/L | S12C | 794 | 1.11 | 0.27 | 1.08 | 0.03 | 0.92 | 1.09 | 1.27 | 4.29 |
| TKN | mg/L | S12D | 185 | 1.13 | 0.24 | 1.11 | 0.68 | 0.94 | 1.11 | 1.30 | 1.90 |
| TKN | mg/L | S131 | 135 | 1.48 | 0.22 | 1.46 | 1.11 | 1.35 | 1.44 | 1.53 | 2.32 |
| TKN | mg/L | S133 | 131 | 1.56 | 0.31 | 1.53 | 1.05 | 1.33 | 1.51 | 1.74 | 2.50 |
| TKN | mg/L | S135 | 133 | 1.50 | 0.28 | 1.48 | 1.06 | 1.35 | 1.46 | 1.58 | 3.65 |
| TKN | mg/L | S140 | 185 | 1.23 | 0.39 | 1.20 | 0.70 | 1.13 | 1.21 | 1.30 | 6.08 |
| TKN | mg/L | S145 | 169 | 1.64 | 0.41 | 1.59 | 0.77 | 1.35 | 1.61 | 1.92 | 3.02 |
| TKN | mg/L | S150 | 277 | 1.72 | 0.38 | 1.67 | 0.56 | 1.41 | 1.76 | 1.99 | 2.88 |
| TKN | mg/L | S151 | 162 | 1.50 | 0.29 | 1.48 | 0.85 | 1.33 | 1.49 | 1.61 | 3.91 |
| TKN | mg/L | S154 | 541 | 1.61 | 0.41 | 1.56 | 0.52 | 1.35 | 1.57 | 1.80 | 4.20 |
| TKN | mg/L | S169 | 157 | 1.60 | 0.42 | 1.55 | 0.25 | 1.32 | 1.50 | 1.79 | 3.54 |
| TKN | mg/L | S177 | 847 | 0.68 | 0.29 | 0.64 | 0.03 | 0.53 | 0.58 | 0.74 | 5.44 |
| TKN | mg/L | S178 | 147 | 0.76 | 0.46 | 0.67 | 0.25 | 0.46 | 0.69 | 0.91 | 3.49 |
| TKN | mg/L | S18C | 303 | 0.55 | 0.22 | 0.52 | 0.25 | 0.44 | 0.52 | 0.61 | 2.37 |
| TKN | mg/L | S190 | 167 | 1.09 | 0.14 | 1.08 | 0.72 | 0.99 | 1.07 | 1.19 | 1.58 |
| TKN | mg/L | S191 | 558 | 1.52 | 0.56 | 1.45 | 0.40 | 1.19 | 1.42 | 1.80 | 10.00 |
| TKN | mg/L | S197 | 32 | 0.46 | 0.17 | 0.43 | 0.25 | 0.25 | 0.52 | 0.60 | 0.72 |
| TKN | mg/L | S2 | 255 | 2.97 | 1.52 | 2.66 | 0.93 | 1.89 | 2.88 | 3.55 | 12.81 |
| TKN | mg/L | S3 | 222 | 2.19 | 0.83 | 2.05 | 0.93 | 1.49 | 2.11 | 2.70 | 5.97 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TKN | mg/L | S308C | 292 | 1.60 | 0.60 | 1.52 | 0.71 | 1.24 | 1.46 | 1.73 | 4.57 |
| TKN | mg/L | S31 | 109 | 1.33 | 0.23 | 1.32 | 0.98 | 1.16 | 1.28 | 1.45 | 1.99 |
| TKN | mg/L | S331 | 40 | 0.76 | 0.16 | 0.74 | 0.25 | 0.70 | 0.76 | 0.84 | 1.06 |
| TKN | mg/L | S332B | 309 | 0.93 | 0.27 | 0.90 | 0.51 | 0.72 | 0.92 | 1.06 | 2.67 |
| TKN | mg/L | S332C | 332 | 0.91 | 0.26 | 0.88 | 0.34 | 0.69 | 0.87 | 1.07 | 2.17 |
| TKN | mg/L | S332DX | 623 | 1.03 | 0.30 | 0.99 | 0.55 | 0.81 | 0.99 | 1.21 | 1.93 |
| TKN | mg/L | S333 | 1413 | 1.27 | 0.36 | 1.23 | 0.69 | 1.02 | 1.24 | 1.49 | 7.04 |
| TKN | mg/L | S334 | 136 | 1.18 | 0.19 | 1.16 | 0.83 | 1.05 | 1.15 | 1.28 | 1.79 |
| TKN | mg/L | S335 | 37 | 1.28 | 0.21 | 1.27 | 0.87 | 1.12 | 1.33 | 1.41 | 1.73 |
| TKN | mg/L | S34 | 171 | 1.61 | 0.36 | 1.57 | 0.73 | 1.34 | 1.59 | 1.81 | 2.57 |
| TKN | mg/L | S344 | 40 | 1.09 | 0.37 | 1.02 | 0.25 | 0.79 | 1.05 | 1.42 | 1.85 |
| TKN | mg/L | S352 | 784 | 1.92 | 1.55 | 1.70 | 0.83 | 1.30 | 1.55 | 2.02 | 30.52 |
| TKN | mg/L | S356 | 407 | 1.42 | 0.17 | 1.41 | 0.98 | 1.30 | 1.41 | 1.54 | 2.23 |
| TKN | mg/L | S38 | 176 | 1.54 | 0.40 | 1.48 | 0.25 | 1.28 | 1.47 | 1.79 | 2.88 |
| TKN | mg/L | S39 | 162 | 1.48 | 0.38 | 1.43 | 0.77 | 1.18 | 1.44 | 1.67 | 2.88 |
| TKN | mg/L | S390 | 71 | 1.47 | 0.43 | 1.42 | 0.96 | 1.21 | 1.33 | 1.60 | 2.87 |
| TKN | mg/L | S5A | 671 | 2.52 | 1.15 | 2.27 | 0.89 | 1.53 | 2.32 | 3.32 | 8.46 |
| TKN | mg/L | S5AE | 137 | 1.47 | 0.47 | 1.41 | 0.83 | 1.14 | 1.33 | 1.60 | 3.44 |
| TKN | mg/L | S5AS | 105 | 1.97 | 0.76 | 1.84 | 1.00 | 1.37 | 1.72 | 2.45 | 3.85 |
| TKN | mg/L | S5AW | 57 | 1.54 | 0.50 | 1.48 | 0.92 | 1.19 | 1.36 | 1.83 | 2.90 |
| TKN | mg/L | S6 | 603 | 2.50 | 0.76 | 2.39 | 0.99 | 1.96 | 2.48 | 2.99 | 6.59 |
| TKN | mg/L | S65 | 452 | 1.36 | 0.32 | 1.33 | 0.63 | 1.13 | 1.31 | 1.57 | 2.46 |
| TKN | mg/L | S65A | 584 | 1.19 | 0.34 | 1.15 | 0.20 | 1.04 | 1.17 | 1.31 | 4.20 |
| TKN | mg/L | S65C | 582 | 1.08 | 0.31 | 1.03 | 0.20 | 0.90 | 1.03 | 1.23 | 2.46 |
| TKN | mg/L | S65D | 604 | 1.03 | 0.31 | 0.98 | 0.10 | 0.84 | 1.01 | 1.17 | 3.03 |
| TKN | mg/L | S65E | 640 | 1.15 | 0.31 | 1.10 | 0.20 | 0.94 | 1.10 | 1.34 | 2.39 |
| TKN | mg/L | S7 | 408 | 1.94 | 0.44 | 1.89 | 0.25 | 1.74 | 1.96 | 2.16 | 3.81 |
| TKN | mg/L | S71 | 622 | 1.63 | 0.48 | 1.57 | 0.87 | 1.29 | 1.54 | 1.87 | 5.07 |
| TKN | mg/L | S72 | 515 | 1.81 | 0.52 | 1.74 | 0.87 | 1.43 | 1.74 | 2.12 | 4.61 |
| TKN | mg/L | S78 | 66 | 1.29 | 0.30 | 1.26 | 0.88 | 1.09 | 1.27 | 1.39 | 2.72 |
| TKN | mg/L | S79 | 57 | 1.20 | 0.25 | 1.18 | 0.84 | 1.02 | 1.14 | 1.30 | 2.00 |
| TKN | mg/L | S8 | 406 | 1.86 | 0.52 | 1.79 | 0.98 | 1.51 | 1.76 | 2.15 | 4.18 |
| TKN | mg/L | S84 | 245 | 1.27 | 0.49 | 1.23 | 0.60 | 1.05 | 1.19 | 1.35 | 6.83 |
| TKN | mg/L | S9 | 430 | 1.38 | 0.17 | 1.37 | 0.56 | 1.27 | 1.37 | 1.47 | 1.92 |
| TKN | mg/L | S9A | 114 | 1.53 | 0.17 | 1.52 | 1.22 | 1.41 | 1.51 | 1.65 | 1.93 |
| TKN | mg/L | SW1B | 69 | 1.50 | 0.44 | 1.45 | 0.88 | 1.25 | 1.36 | 1.62 | 3.67 |
| TKN | mg/L | SW2 | 149 | 1.54 | 0.50 | 1.47 | 0.89 | 1.18 | 1.40 | 1.74 | 4.24 |
| TKN | mg/L | SW6IN | 118 | 1.46 | 0.63 | 1.38 | 0.88 | 1.17 | 1.33 | 1.51 | 6.43 |
| TKN | mg/L | T0E | 13 | 0.74 | 0.23 | 0.70 | 0.47 | 0.54 | 0.65 | 0.92 | 1.10 |
| TKN | mg/L | T0W | 14 | 0.78 | 0.30 | 0.73 | 0.47 | 0.56 | 0.64 | 0.94 | 1.40 |
| TKN | mg/L | TAMBR6 | 54 | 1.12 | 0.17 | 1.11 | 0.83 | 0.97 | 1.11 | 1.23 | 1.53 |
| TKN | mg/L | TCNS 201 | 101 | 1.46 | 0.57 | 1.35 | 0.51 | 0.95 | 1.44 | 1.91 | 2.74 |
| TKN | mg/L | TCNS 213 | 221 | 1.53 | 0.59 | 1.45 | 0.78 | 1.21 | 1.37 | 1.68 | 5.35 |
| TKN | mg/L | TCNS 217 | 223 | 1.78 | 3.12 | 1.25 | 0.40 | 0.81 | 1.09 | 1.67 | 29.56 |
| TKN | mg/L | US41-25 | 198 | 0.82 | 0.20 | 0.80 | 0.25 | 0.69 | 0.83 | 0.94 | 1.56 |
| TKN | mg/L | WWEIR | 224 | 1.15 | 0.21 | 1.13 | 0.72 | 1.01 | 1.10 | 1.25 | 2.06 |
| TKN | mg/L | X0 | 119 | 2.10 | 0.62 | 2.01 | 0.92 | 1.67 | 2.10 | 2.58 | 3.50 |
| TKN | mg/L | Z0 | 116 | 2.09 | 0.64 | 1.99 | 0.86 | 1.65 | 2.00 | 2.50 | 4.80 |
| TOTN | mg/L | 02273230 | 84 | 2.50 | 3.37 | 1.91 | 0.10 | 1.40 | 1.90 | 2.50 | 25.20 |
| TOTN | mg/L | 02274325 | 67 | 2.02 | 1.57 | 1.70 | 0.10 | 1.36 | 1.80 | 2.20 | 11.15 |
| TOTN | mg/L | 02274505 | 73 | 1.51 | 0.63 | 1.38 | 0.20 | 1.00 | 1.50 | 1.90 | 4.40 |
| TOTN | mg/L | 02275631 | 62 | 2.58 | 2.95 | 2.02 | 0.70 | 1.60 | 1.88 | 2.10 | 21.90 |
| TOTN | mg/L | 3AE0 | 59 | 1.15 | 0.19 | 1.14 | 0.83 | 1.04 | 1.10 | 1.20 | 1.90 |
| TOTN | mg/L | 3AW0 | 85 | 1.14 | 0.22 | 1.12 | 0.73 | 1.00 | 1.08 | 1.26 | 1.80 |
| TOTN | mg/L | BC10 | 71 | 0.51 | 0.25 | 0.45 | 0.05 | 0.40 | 0.50 | 0.60 | 1.60 |
| TOTN | mg/L | BC11 | 67 | 0.66 | 0.33 | 0.59 | 0.10 | 0.50 | 0.60 | 0.78 | 1.80 |
| TOTN | mg/L | BC14 | 71 | 0.75 | 0.31 | 0.71 | 0.30 | 0.60 | 0.70 | 0.90 | 2.90 |
| TOTN | mg/L | BC15 | 71 | 0.86 | 0.35 | 0.78 | 0.05 | 0.70 | 0.80 | 1.00 | 2.50 |
| TOTN | mg/L | BC22 | 71 | 0.69 | 0.27 | 0.63 | 0.05 | 0.50 | 0.60 | 0.80 | 2.00 |
| TOTN | mg/L | BC23 | 71 | 0.83 | 0.29 | 0.78 | 0.10 | 0.70 | 0.80 | 0.90 | 2.10 |
| TOTN | mg/L | BC26 | 59 | 0.85 | 0.31 | 0.80 | 0.40 | 0.60 | 0.80 | 1.00 | 2.10 |
| TOTN | mg/L | BC7 | 66 | 0.53 | 0.41 | 0.46 | 0.10 | 0.40 | 0.50 | 0.60 | 3.40 |
| TOTN | mg/L | BC8 | 71 | 0.48 | 0.25 | 0.43 | 0.05 | 0.40 | 0.40 | 0.58 | 1.60 |
| TOTN | mg/L | BC9 | 65 | 0.62 | 0.27 | 0.58 | 0.20 | 0.50 | 0.60 | 0.70 | 1.80 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTN | mg/L | C123SR84 | 153 | 1.51 | 0.35 | 1.48 | 1.00 | 1.30 | 1.50 | 1.70 | 3.30 |
| TOTN | mg/L | C15S40 | 120 | 1.17 | 0.46 | 1.11 | 0.70 | 0.90 | 1.00 | 1.30 | 4.20 |
| TOTN | mg/L | C16S41 | 122 | 1.16 | 0.50 | 1.10 | 0.60 | 0.90 | 1.10 | 1.30 | 5.50 |
| TOTN | mg/L | C17S44 | 122 | 1.03 | 0.19 | 1.01 | 0.60 | 0.90 | 1.00 | 1.20 | 1.50 |
| TOTN | mg/L | C18S46 | 109 | 0.87 | 0.20 | 0.85 | 0.50 | 0.70 | 0.80 | 1.00 | 1.90 |
| TOTN | mg/L | C23S48 | 408 | 1.44 | 0.43 | 1.37 | 0.25 | 1.10 | 1.50 | 1.70 | 3.80 |
| TOTN | mg/L | C24S49 | 373 | 1.40 | 0.42 | 1.35 | 0.70 | 1.10 | 1.40 | 1.60 | 5.80 |
| TOTN | mg/L | C25S50 | 406 | 1.30 | 0.42 | 1.23 | 0.25 | 1.00 | 1.30 | 1.60 | 2.70 |
| TOTN | mg/L | C40VMB | 619 | 1.86 | 0.49 | 1.81 | 0.70 | 1.50 | 1.80 | 2.10 | 4.30 |
| TOTN | mg/L | C41VMB | 628 | 2.30 | 0.61 | 2.22 | 0.90 | 1.90 | 2.20 | 2.60 | 4.90 |
| TOTN | mg/L | C44S80 | 406 | 1.43 | 0.38 | 1.39 | 0.80 | 1.20 | 1.40 | 1.60 | 3.50 |
| TOTN | mg/L | C51S155 | 123 | 1.27 | 0.42 | 1.22 | 0.70 | 1.00 | 1.20 | 1.48 | 3.90 |
| TOTN | mg/L | CES01 | 179 | 1.37 | 0.28 | 1.34 | 0.50 | 1.20 | 1.40 | 1.50 | 2.40 |
| TOTN | mg/L | COC@LAKE | 46 | 0.75 | 0.36 | 0.68 | 0.10 | 0.50 | 0.70 | 0.80 | 2.40 |
| TOTN | mg/L | CORK@846 | 70 | 1.32 | 0.48 | 1.21 | 0.10 | 1.00 | 1.20 | 1.60 | 2.60 |
| TOTN | mg/L | CR-04.8T | 53 | 1.76 | 0.42 | 1.72 | 1.20 | 1.40 | 1.60 | 2.00 | 2.90 |
| TOTN | mg/L | CULV10A | 240 | 2.13 | 0.94 | 1.98 | 1.00 | 1.60 | 1.80 | 2.30 | 6.90 |
| TOTN | mg/L | CULV5A | 102 | 1.61 | 0.35 | 1.58 | 1.00 | 1.40 | 1.50 | 1.80 | 3.00 |
| TOTN | mg/L | E0 | 99 | 2.98 | 1.12 | 2.77 | 0.84 | 2.10 | 2.90 | 3.80 | 6.10 |
| TOTN | mg/L | F0 | 105 | 3.39 | 1.30 | 3.12 | 0.75 | 2.40 | 3.20 | 4.43 | 6.40 |
| TOTN | mg/L | FAKA | 74 | 0.55 | 0.29 | 0.49 | 0.05 | 0.40 | 0.50 | 0.60 | 1.90 |
| TOTN | mg/L | FAKA858 | 61 | 0.76 | 0.24 | 0.73 | 0.20 | 0.60 | 0.80 | 0.90 | 1.90 |
| TOTN | mg/L | FROGCITY | 39 | 1.14 | 0.23 | 1.12 | 0.70 | 1.00 | 1.20 | 1.30 | 1.70 |
| TOTN | mg/L | G123 | 120 | 1.68 | 0.37 | 1.65 | 0.80 | 1.50 | 1.60 | 1.80 | 3.70 |
| TOTN | mg/L | G136 | 339 | 1.64 | 0.45 | 1.60 | 0.10 | 1.40 | 1.60 | 1.80 | 7.30 |
| TOTN | mg/L | G200 | 110 | 2.49 | 1.28 | 2.22 | 1.00 | 1.50 | 2.00 | 3.30 | 6.60 |
| TOTN | mg/L | G300 | 86 | 2.25 | 1.00 | 2.08 | 1.20 | 1.50 | 1.90 | 2.70 | 6.60 |
| TOTN | mg/L | G301 | 98 | 2.45 | 1.14 | 2.24 | 1.10 | 1.60 | 2.00 | 3.20 | 6.80 |
| TOTN | mg/L | G302 | 169 | 2.79 | 1.27 | 2.54 | 1.10 | 1.80 | 2.40 | 3.80 | 7.30 |
| TOTN | mg/L | G311 | 92 | 2.33 | 1.27 | 2.08 | 1.10 | 1.50 | 1.85 | 2.85 | 7.00 |
| TOTN | mg/L | G342A | 242 | 1.56 | 0.35 | 1.52 | 1.00 | 1.30 | 1.50 | 1.70 | 3.80 |
| TOTN | mg/L | G342B | 242 | 1.52 | 0.35 | 1.48 | 0.90 | 1.30 | 1.50 | 1.70 | 3.90 |
| TOTN | mg/L | G342C | 240 | 1.54 | 0.37 | 1.50 | 0.90 | 1.30 | 1.50 | 1.70 | 4.30 |
| TOTN | mg/L | G342D | 237 | 1.47 | 0.49 | 1.42 | 0.90 | 1.20 | 1.40 | 1.60 | 6.60 |
| TOTN | mg/L | G342E | 9 | 1.44 | 0.10 | 1.44 | 1.30 | 1.40 | 1.40 | 1.53 | 1.60 |
| TOTN | mg/L | G342F | 9 | 1.43 | 0.11 | 1.43 | 1.30 | 1.38 | 1.40 | 1.53 | 1.60 |
| TOTN | mg/L | G353A | 15 | 1.45 | 0.16 | 1.45 | 1.30 | 1.30 | 1.40 | 1.58 | 1.70 |
| TOTN | mg/L | G353B | 32 | 1.43 | 0.12 | 1.42 | 1.20 | 1.30 | 1.40 | 1.50 | 1.70 |
| TOTN | mg/L | G353C | 15 | 1.39 | 0.13 | 1.39 | 1.20 | 1.30 | 1.30 | 1.50 | 1.60 |
| TOTN | mg/L | G372 | 134 | 2.59 | 1.29 | 2.32 | 1.00 | 1.60 | 2.10 | 3.40 | 6.90 |
| TOTN | mg/L | G94B | 121 | 1.67 | 0.70 | 1.57 | 0.80 | 1.30 | 1.50 | 1.80 | 5.50 |
| TOTN | mg/L | GGC@858 | 69 | 0.75 | 0.30 | 0.68 | 0.05 | 0.60 | 0.70 | 0.90 | 1.90 |
| TOTN | mg/L | GGCAT31 | 67 | 0.78 | 0.37 | 0.70 | 0.10 | 0.60 | 0.70 | 0.90 | 2.70 |
| TOTN | mg/L | INDUSCAN | 172 | 2.14 | 0.84 | 2.00 | 1.00 | 1.50 | 1.90 | 2.50 | 5.20 |
| TOTN | mg/L | L3BRS | 243 | 1.60 | 0.29 | 1.58 | 1.00 | 1.40 | 1.60 | 1.78 | 2.90 |
| TOTN | mg/L | L59E | 119 | 2.31 | 0.78 | 2.18 | 0.80 | 1.70 | 2.10 | 2.80 | 4.40 |
| TOTN | mg/L | L59W | 117 | 1.84 | 0.66 | 1.75 | 1.00 | 1.40 | 1.70 | 2.03 | 5.10 |
| TOTN | mg/L | L60W | 96 | 1.90 | 0.52 | 1.84 | 1.20 | 1.50 | 1.80 | 2.10 | 3.70 |
| TOTN | mg/L | L61E | 123 | 2.10 | 0.63 | 2.01 | 1.00 | 1.70 | 2.00 | 2.40 | 4.40 |
| TOTN | mg/L | L61W | 126 | 1.90 | 0.70 | 1.80 | 1.00 | 1.40 | 1.70 | 2.10 | 4.40 |
| TOTN | mg/L | LOXA104 | 21 | 2.56 | 0.64 | 2.49 | 1.90 | 2.20 | 2.30 | 2.83 | 4.30 |
| TOTN | mg/L | LOXA135 | 22 | 2.32 | 0.80 | 2.23 | 1.50 | 1.80 | 2.20 | 2.50 | 5.20 |
| TOTN | mg/L | S10A | 55 | 1.52 | 0.48 | 1.45 | 0.80 | 1.20 | 1.40 | 1.70 | 3.20 |
| TOTN | mg/L | S10C | 57 | 1.80 | 0.69 | 1.69 | 0.90 | 1.28 | 1.70 | 2.13 | 3.90 |
| TOTN | mg/L | S10D | 132 | 2.22 | 0.96 | 2.05 | 1.00 | 1.60 | 2.00 | 2.50 | 6.30 |
| TOTN | mg/L | S11A | 159 | 1.80 | 0.54 | 1.74 | 0.90 | 1.50 | 1.70 | 2.00 | 4.30 |
| TOTN | mg/L | S11B | 98 | 1.77 | 0.49 | 1.72 | 0.90 | 1.50 | 1.70 | 1.90 | 4.20 |
| TOTN | mg/L | S11C | 149 | 1.95 | 0.55 | 1.89 | 1.10 | 1.60 | 1.90 | 2.10 | 4.40 |
| TOTN | mg/L | S127 | 120 | 1.99 | 0.33 | 1.96 | 1.20 | 1.80 | 1.90 | 2.20 | 3.20 |
| TOTN | mg/L | S129 | 123 | 1.59 | 0.23 | 1.57 | 1.20 | 1.40 | 1.60 | 1.70 | 2.70 |
| TOTN | mg/L | S12A | 627 | 1.13 | 0.52 | 1.07 | 0.25 | 0.90 | 1.00 | 1.30 | 11.10 |
| TOTN | mg/L | S12B | 133 | 1.01 | 0.27 | 0.97 | 0.25 | 0.80 | 0.90 | 1.20 | 1.70 |
| TOTN | mg/L | S12C | 642 | 1.16 | 0.29 | 1.13 | 0.50 | 1.00 | 1.20 | 1.30 | 4.30 |
| TOTN | mg/L | S12D | 166 | 1.17 | 0.26 | 1.14 | 0.70 | 1.00 | 1.20 | 1.30 | 2.00 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTN | mg/L | S131 | 130 | 1.55 | 0.23 | 1.53 | 1.10 | 1.40 | 1.50 | 1.60 | 2.50 |
| TOTN | mg/L | S133 | 127 | 1.63 | 0.29 | 1.61 | 1.10 | 1.40 | 1.60 | 1.80 | 2.50 |
| TOTN | mg/L | S135 | 128 | 1.54 | 0.29 | 1.52 | 1.10 | 1.40 | 1.50 | 1.60 | 3.70 |
| TOTN | mg/L | S140 | 175 | 1.28 | 0.40 | 1.25 | 0.70 | 1.20 | 1.30 | 1.40 | 6.10 |
| TOTN | mg/L | S145 | 164 | 1.68 | 0.44 | 1.62 | 0.80 | 1.40 | 1.60 | 1.90 | 3.10 |
| TOTN | mg/L | S150 | 267 | 1.85 | 0.49 | 1.80 | 0.80 | 1.50 | 1.90 | 2.10 | 5.00 |
| TOTN | mg/L | S151 | 156 | 1.57 | 0.31 | 1.55 | 1.00 | 1.40 | 1.60 | 1.70 | 4.00 |
| TOTN | mg/L | S154 | 222 | 1.62 | 0.42 | 1.58 | 0.80 | 1.30 | 1.50 | 1.80 | 3.60 |
| TOTN | mg/L | S169 | 155 | 1.87 | 0.60 | 1.78 | 0.25 | 1.50 | 1.70 | 2.10 | 3.80 |
| TOTN | mg/L | S177 | 766 | 0.74 | 0.32 | 0.70 | 0.25 | 0.60 | 0.60 | 0.80 | 5.70 |
| TOTN | mg/L | S178 | 131 | 0.94 | 0.55 | 0.82 | 0.25 | 0.60 | 0.80 | 1.08 | 3.50 |
| TOTN | mg/L | S18C | 288 | 0.64 | 0.24 | 0.60 | 0.25 | 0.50 | 0.60 | 0.80 | 2.40 |
| TOTN | mg/L | S190 | 154 | 1.11 | 0.14 | 1.10 | 0.70 | 1.00 | 1.10 | 1.20 | 1.60 |
| TOTN | mg/L | S191 | 234 | 1.64 | 0.46 | 1.58 | 0.90 | 1.30 | 1.60 | 2.00 | 2.90 |
| TOTN | mg/L | S197 | 30 | 0.52 | 0.24 | 0.47 | 0.25 | 0.25 | 0.60 | 0.70 | 1.20 |
| TOTN | mg/L | S2 | 253 | 3.84 | 2.09 | 3.32 | 0.90 | 2.10 | 3.60 | 5.00 | 13.80 |
| TOTN | mg/L | S3 | 217 | 2.95 | 1.60 | 2.62 | 0.90 | 1.80 | 2.60 | 3.83 | 10.90 |
| TOTN | mg/L | S308C | 289 | 1.94 | 0.70 | 1.84 | 1.00 | 1.50 | 1.80 | 2.20 | 5.40 |
| TOTN | mg/L | S31 | 104 | 1.37 | 0.25 | 1.35 | 1.00 | 1.20 | 1.30 | 1.50 | 2.00 |
| TOTN | mg/L | S331 | 38 | 0.79 | 0.17 | 0.76 | 0.25 | 0.70 | 0.80 | 0.90 | 1.10 |
| TOTN | mg/L | S332B | 248 | 0.98 | 0.29 | 0.94 | 0.50 | 0.80 | 0.95 | 1.10 | 2.70 |
| TOTN | mg/L | S332C | 265 | 0.97 | 0.27 | 0.93 | 0.35 | 0.70 | 0.90 | 1.20 | 1.60 |
| TOTN | mg/L | S332DX | 556 | 1.11 | 0.34 | 1.06 | 0.60 | 0.80 | 1.10 | 1.30 | 2.10 |
| TOTN | mg/L | S333 | 1242 | 1.33 | 0.39 | 1.29 | 0.70 | 1.10 | 1.30 | 1.60 | 7.10 |
| TOTN | mg/L | S334 | 114 | 1.21 | 0.19 | 1.19 | 0.80 | 1.10 | 1.20 | 1.30 | 1.80 |
| TOTN | mg/L | S335 | 20 | 1.33 | 0.22 | 1.31 | 0.90 | 1.15 | 1.35 | 1.45 | 1.70 |
| TOTN | mg/L | S34 | 167 | 1.67 | 0.43 | 1.62 | 0.70 | 1.40 | 1.60 | 1.90 | 3.90 |
| TOTN | mg/L | S344 | 38 | 1.08 | 0.36 | 1.01 | 0.25 | 0.80 | 1.05 | 1.40 | 1.80 |
| TOTN | mg/L | S352 | 779 | 2.25 | 1.63 | 2.02 | 1.00 | 1.60 | 1.90 | 2.40 | 30.90 |
| TOTN | mg/L | S356 | 359 | 1.45 | 0.19 | 1.44 | 1.00 | 1.30 | 1.50 | 1.60 | 2.20 |
| TOTN | mg/L | S38 | 173 | 1.57 | 0.42 | 1.51 | 0.25 | 1.30 | 1.50 | 1.80 | 3.00 |
| TOTN | mg/L | S39 | 156 | 1.54 | 0.46 | 1.48 | 0.80 | 1.20 | 1.50 | 1.70 | 3.60 |
| TOTN | mg/L | S390 | 70 | 1.65 | 0.55 | 1.57 | 1.00 | 1.20 | 1.40 | 1.90 | 3.20 |
| TOTN | mg/L | S5A | 654 | 3.09 | 1.40 | 2.79 | 1.00 | 1.90 | 2.90 | 4.00 | 9.40 |
| TOTN | mg/L | S5AE | 135 | 1.77 | 0.64 | 1.68 | 1.00 | 1.40 | 1.60 | 1.90 | 5.00 |
| TOTN | mg/L | S5AS | 101 | 2.35 | 1.07 | 2.15 | 1.10 | 1.50 | 2.00 | 2.80 | 6.10 |
| TOTN | mg/L | S5AW | 56 | 1.78 | 0.58 | 1.70 | 1.00 | 1.40 | 1.70 | 2.00 | 3.40 |
| TOTN | mg/L | S6 | 582 | 3.05 | 1.09 | 2.86 | 1.10 | 2.30 | 2.90 | 3.70 | 7.80 |
| TOTN | mg/L | S65 | 250 | 1.28 | 0.21 | 1.26 | 0.80 | 1.10 | 1.30 | 1.40 | 2.30 |
| TOTN | mg/L | S65A | 247 | 1.24 | 0.27 | 1.22 | 0.60 | 1.10 | 1.20 | 1.30 | 3.70 |
| TOTN | mg/L | S65C | 251 | 1.22 | 0.28 | 1.19 | 0.70 | 1.10 | 1.20 | 1.30 | 2.50 |
| TOTN | mg/L | S65D | 255 | 1.23 | 0.31 | 1.19 | 0.25 | 1.00 | 1.20 | 1.40 | 3.10 |
| TOTN | mg/L | S65E | 291 | 1.24 | 0.30 | 1.21 | 0.60 | 1.00 | 1.20 | 1.40 | 2.20 |
| TOTN | mg/L | S7 | 387 | 2.19 | 0.72 | 2.09 | 0.70 | 1.80 | 2.00 | 2.40 | 5.60 |
| TOTN | mg/L | S71 | 616 | 2.19 | 0.62 | 2.11 | 1.00 | 1.80 | 2.10 | 2.50 | 5.30 |
| TOTN | mg/L | S72 | 503 | 2.00 | 0.65 | 1.91 | 0.90 | 1.60 | 1.90 | 2.30 | 6.00 |
| TOTN | mg/L | S78 | 64 | 1.43 | 0.28 | 1.41 | 1.00 | 1.30 | 1.40 | 1.60 | 2.80 |
| TOTN | mg/L | S79 | 56 | 1.48 | 0.25 | 1.46 | 1.00 | 1.30 | 1.45 | 1.60 | 2.20 |
| TOTN | mg/L | S8 | 392 | 2.19 | 0.90 | 2.05 | 1.00 | 1.60 | 1.90 | 2.40 | 6.40 |
| TOTN | mg/L | S84 | 235 | 1.39 | 0.53 | 1.33 | 0.60 | 1.10 | 1.30 | 1.50 | 6.80 |
| TOTN | mg/L | S9 | 413 | 1.47 | 0.15 | 1.46 | 0.70 | 1.40 | 1.50 | 1.50 | 1.90 |
| TOTN | mg/L | S9A | 105 | 1.57 | 0.16 | 1.56 | 1.30 | 1.40 | 1.60 | 1.70 | 1.90 |
| TOTN | mg/L | SW1B | 69 | 1.82 | 0.50 | 1.77 | 1.00 | 1.50 | 1.70 | 2.00 | 4.30 |
| TOTN | mg/L | SW2 | 149 | 1.90 | 0.62 | 1.82 | 1.00 | 1.50 | 1.70 | 2.13 | 4.80 |
| TOTN | mg/L | SW6IN | 115 | 1.73 | 0.72 | 1.63 | 0.90 | 1.33 | 1.60 | 1.90 | 7.00 |
| TOTN | mg/L | T0E | 13 | 0.78 | 0.24 | 0.74 | 0.49 | 0.56 | 0.70 | 1.01 | 1.20 |
| TOTN | mg/L | T0W | 13 | 0.75 | 0.26 | 0.71 | 0.48 | 0.55 | 0.63 | 1.00 | 1.20 |
| TOTN | mg/L | TAMBR6 | 52 | 1.16 | 0.19 | 1.14 | 0.80 | 1.00 | 1.20 | 1.30 | 1.60 |
| TOTN | mg/L | TCNS 201 | 99 | 1.53 | 0.60 | 1.41 | 0.50 | 1.00 | 1.50 | 2.00 | 2.80 |
| TOTN | mg/L | TCNS 213 | 218 | 2.00 | 0.78 | 1.86 | 0.80 | 1.40 | 1.80 | 2.60 | 5.80 |
| TOTN | mg/L | TCNS 217 | 216 | 2.84 | 8.86 | 1.46 | 0.40 | 0.85 | 1.30 | 2.00 | 89.60 |
| TOTN | mg/L | US41-25 | 148 | 0.84 | 0.22 | 0.81 | 0.25 | 0.70 | 0.80 | 1.00 | 1.60 |
| TOTN | mg/L | WWEIR | 220 | 1.16 | 0.20 | 1.14 | 0.70 | 1.00 | 1.10 | 1.30 | 1.90 |
| TOTN | mg/L | X0 | 109 | 2.25 | 0.94 | 2.10 | 0.94 | 1.65 | 2.10 | 2.60 | 7.70 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTN | mg/L | Z0 | 106 | 2.20 | 0.84 | 2.08 | 0.87 | 1.70 | 2.10 | 2.60 | 6.30 |
| TPO4 | mg/L | 02273230 | 90 | 0.404 | 1.455 | 0.154 | 0.002 | 0.088 | 0.145 | 0.245 | 10.000 |
| TPO4 | mg/L | 02274325 | 79 | 0.326 | 0.142 | 0.294 | 0.086 | 0.223 | 0.320 | 0.400 | 0.740 |
| TPO4 | mg/L | 02274505 | 87 | 0.179 | 0.111 | 0.135 | 0.006 | 0.068 | 0.186 | 0.250 | 0.520 |
| TPO4 | mg/L | 02275631 | 71 | 0.342 | 0.257 | 0.227 | 0.010 | 0.110 | 0.301 | 0.488 | 1.100 |
| TPO4 | mg/L | 3AE0 | 60 | 0.063 | 0.038 | 0.055 | 0.013 | 0.042 | 0.055 | 0.074 | 0.240 |
| TPO4 | mg/L | 3AW0 | 89 | 0.049 | 0.026 | 0.044 | 0.017 | 0.031 | 0.042 | 0.058 | 0.140 |
| TPO4 | mg/L | AJ28243124 | 21 | 0.033 | 0.007 | 0.032 | 0.020 | 0.030 | 0.032 | 0.038 | 0.050 |
| TPO4 | mg/L | AL11263113 | 23 | 0.025 | 0.014 | 0.023 | 0.012 | 0.016 | 0.020 | 0.026 | 0.071 |
| TPO4 | mg/L | BC10 | 81 | 0.023 | 0.014 | 0.019 | 0.005 | 0.013 | 0.019 | 0.027 | 0.072 |
| TPO4 | mg/L | BC11 | 77 | 0.023 | 0.013 | 0.020 | 0.006 | 0.013 | 0.021 | 0.027 | 0.072 |
| TPO4 | mg/L | BC14 | 82 | 0.025 | 0.017 | 0.021 | 0.002 | 0.015 | 0.020 | 0.030 | 0.124 |
| TPO4 | mg/L | BC15 | 80 | 0.047 | 0.026 | 0.041 | 0.012 | 0.027 | 0.040 | 0.062 | 0.130 |
| TPO4 | mg/L | BC22 | 78 | 0.020 | 0.013 | 0.018 | 0.007 | 0.012 | 0.019 | 0.023 | 0.105 |
| TPO4 | mg/L | BC23 | 78 | 0.020 | 0.014 | 0.017 | 0.002 | 0.012 | 0.017 | 0.022 | 0.099 |
| TPO4 | mg/L | BC26 | 72 | 0.029 | 0.029 | 0.021 | 0.005 | 0.013 | 0.019 | 0.032 | 0.165 |
| TPO4 | mg/L | BC7 | 80 | 0.014 | 0.011 | 0.012 | 0.002 | 0.009 | 0.011 | 0.016 | 0.090 |
| TPO4 | mg/L | BC8 | 81 | 0.015 | 0.009 | 0.012 | 0.002 | 0.010 | 0.012 | 0.018 | 0.072 |
| TPO4 | mg/L | BC9 | 81 | 0.013 | 0.006 | 0.012 | 0.005 | 0.009 | 0.012 | 0.015 | 0.036 |
| TPO4 | mg/L | C123SR84 | 158 | 0.033 | 0.022 | 0.028 | 0.010 | 0.018 | 0.027 | 0.041 | 0.136 |
| TPO4 | mg/L | C139S2 | 250 | 0.133 | 0.265 | 0.097 | 0.035 | 0.061 | 0.089 | 0.128 | 3.944 |
| TPO4 | mg/L | C139S3 | 245 | 0.132 | 0.296 | 0.075 | 0.028 | 0.048 | 0.065 | 0.092 | 2.860 |
| TPO4 | mg/L | C139S4 | 149 | 0.066 | 0.052 | 0.057 | 0.027 | 0.041 | 0.053 | 0.073 | 0.566 |
| TPO4 | mg/L | C15S40 | 122 | 0.167 | 0.107 | 0.142 | 0.029 | 0.098 | 0.127 | 0.204 | 0.702 |
| TPO4 | mg/L | C16S41 | 123 | 0.112 | 0.099 | 0.092 | 0.027 | 0.060 | 0.088 | 0.125 | 0.925 |
| TPO4 | mg/L | C17S44 | 124 | 0.056 | 0.021 | 0.052 | 0.017 | 0.042 | 0.051 | 0.065 | 0.130 |
| TPO4 | mg/L | C18S46 | 112 | 0.028 | 0.019 | 0.023 | 0.009 | 0.015 | 0.022 | 0.037 | 0.112 |
| TPO4 | mg/L | C23S48 | 427 | 0.365 | 0.190 | 0.313 | 0.066 | 0.219 | 0.341 | 0.473 | 1.100 |
| TPO4 | mg/L | C24S49 | 386 | 0.280 | 0.167 | 0.232 | 0.038 | 0.147 | 0.262 | 0.363 | 1.020 |
| TPO4 | mg/L | C25S50 | 437 | 0.205 | 0.166 | 0.148 | 0.017 | 0.079 | 0.156 | 0.292 | 0.895 |
| TPO4 | mg/L | C40VMB | 640 | 0.204 | 0.122 | 0.180 | 0.037 | 0.128 | 0.167 | 0.237 | 1.150 |
| TPO4 | mg/L | C41VMB | 638 | 0.190 | 0.141 | 0.158 | 0.057 | 0.099 | 0.142 | 0.238 | 1.209 |
| TPO4 | mg/L | C44S80 | 413 | 0.175 | 0.084 | 0.159 | 0.050 | 0.116 | 0.155 | 0.213 | 0.604 |
| TPO4 | mg/L | C51S155 | 125 | 0.086 | 0.041 | 0.078 | 0.025 | 0.058 | 0.077 | 0.100 | 0.279 |
| TPO4 | mg/L | CES01 | 169 | 0.127 | 0.056 | 0.114 | 0.020 | 0.089 | 0.117 | 0.154 | 0.290 |
| TPO4 | mg/L | CL06283121 | 35 | 0.301 | 0.251 | 0.198 | 0.029 | 0.077 | 0.259 | 0.426 | 1.024 |
| TPO4 | mg/L | CL19273113 | 11 | 0.027 | 0.008 | 0.026 | 0.018 | 0.022 | 0.026 | 0.029 | 0.046 |
| TPO4 | mg/L | COC@LAKE | 56 | 0.032 | 0.039 | 0.024 | 0.010 | 0.016 | 0.020 | 0.034 | 0.256 |
| TPO4 | mg/L | COOPERTN | 163 | 0.012 | 0.005 | 0.012 | 0.005 | 0.009 | 0.011 | 0.014 | 0.041 |
| TPO4 | mg/L | CORK@846 | 77 | 0.037 | 0.034 | 0.029 | 0.005 | 0.021 | 0.027 | 0.037 | 0.260 |
| TPO4 | mg/L | CR-04.8T | 60 | 0.213 | 0.193 | 0.164 | 0.045 | 0.099 | 0.144 | 0.252 | 1.136 |
| TPO4 | mg/L | CULV10A | 257 | 0.175 | 0.115 | 0.147 | 0.035 | 0.099 | 0.150 | 0.204 | 0.723 |
| TPO4 | mg/L | CULV5A | 106 | 0.144 | 0.074 | 0.128 | 0.052 | 0.089 | 0.120 | 0.171 | 0.450 |
| TPO4 | mg/L | DF02.1TW | 294 | 0.104 | 0.116 | 0.073 | 0.016 | 0.042 | 0.064 | 0.110 | 0.915 |
| TPO4 | mg/L | DF05.0TW | 27 | 0.175 | 0.126 | 0.132 | 0.019 | 0.085 | 0.131 | 0.256 | 0.456 |
| TPO4 | mg/L | E0 | 117 | 0.056 | 0.028 | 0.048 | 0.004 | 0.036 | 0.052 | 0.067 | 0.160 |
| TPO4 | mg/L | ET05253114 | 28 | 0.041 | 0.012 | 0.039 | 0.023 | 0.033 | 0.038 | 0.048 | 0.069 |
| TPO4 | mg/L | F0 | 116 | 0.066 | 0.035 | 0.057 | 0.007 | 0.044 | 0.061 | 0.079 | 0.210 |
| TPO4 | mg/L | FAKA | 79 | 0.019 | 0.048 | 0.013 | 0.002 | 0.009 | 0.012 | 0.016 | 0.435 |
| TPO4 | mg/L | FAKA858 | 76 | 0.037 | 0.021 | 0.033 | 0.010 | 0.023 | 0.033 | 0.043 | 0.161 |
| TPO4 | mg/L | FROGCITY | 95 | 0.018 | 0.013 | 0.015 | 0.006 | 0.010 | 0.014 | 0.020 | 0.071 |
| TPO4 | mg/L | G123 | 512 | 0.018 | 0.010 | 0.017 | 0.007 | 0.012 | 0.016 | 0.021 | 0.108 |
| TPO4 | mg/L | G136 | 618 | 0.094 | 0.109 | 0.067 | 0.015 | 0.038 | 0.057 | 0.104 | 1.440 |
| TPO4 | mg/L | G150 | 213 | 0.059 | 0.024 | 0.055 | 0.025 | 0.041 | 0.052 | 0.071 | 0.161 |
| TPO4 | mg/L | G151 | 56 | 0.079 | 0.037 | 0.072 | 0.033 | 0.053 | 0.066 | 0.101 | 0.178 |
| TPO4 | mg/L | G200 | 217 | 0.067 | 0.040 | 0.057 | 0.018 | 0.040 | 0.053 | 0.088 | 0.280 |
| TPO4 | mg/L | G300 | 309 | 0.123 | 0.070 | 0.105 | 0.024 | 0.076 | 0.110 | 0.158 | 0.503 |
| TPO4 | mg/L | G301 | 311 | 0.130 | 0.073 | 0.110 | 0.024 | 0.072 | 0.119 | 0.171 | 0.541 |
| TPO4 | mg/L | G302 | 580 | 0.153 | 0.083 | 0.132 | 0.018 | 0.096 | 0.142 | 0.195 | 0.706 |
| TPO4 | mg/L | G311 | 260 | 0.140 | 0.084 | 0.117 | 0.026 | 0.073 | 0.120 | 0.191 | 0.477 |
| TPO4 | mg/L | G341 | 246 | 0.124 | 0.080 | 0.105 | 0.030 | 0.072 | 0.105 | 0.145 | 0.558 |
| TPO4 | mg/L | G342A | 702 | 0.123 | 0.089 | 0.101 | 0.027 | 0.064 | 0.095 | 0.147 | 0.585 |
| TPO4 | mg/L | G342B | 749 | 0.139 | 0.095 | 0.117 | 0.032 | 0.075 | 0.113 | 0.172 | 1.005 |
| TPO4 | mg/L | G342C | 697 | 0.166 | 0.123 | 0.134 | 0.030 | 0.082 | 0.128 | 0.211 | 0.956 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TPO4 | mg/L | G342D | 728 | 0.169 | 0.146 | 0.132 | 0.024 | 0.079 | 0.124 | 0.207 | 1.298 |
| TPO4 | mg/L | G342E | 31 | 0.177 | 0.118 | 0.148 | 0.074 | 0.084 | 0.137 | 0.243 | 0.549 |
| TPO4 | mg/L | G342F | 30 | 0.163 | 0.099 | 0.138 | 0.063 | 0.081 | 0.118 | 0.254 | 0.363 |
| TPO4 | mg/L | G353A | 51 | 0.135 | 0.106 | 0.103 | 0.039 | 0.050 | 0.091 | 0.204 | 0.482 |
| TPO4 | mg/L | G353B | 91 | 0.091 | 0.064 | 0.074 | 0.032 | 0.044 | 0.061 | 0.113 | 0.326 |
| TPO4 | mg/L | G353C | 53 | 0.099 | 0.056 | 0.084 | 0.036 | 0.048 | 0.084 | 0.133 | 0.233 |
| TPO4 | mg/L | G357 | 455 | 0.040 | 0.029 | 0.034 | 0.010 | 0.022 | 0.032 | 0.046 | 0.239 |
| TPO4 | mg/L | G371 | 210 | 0.042 | 0.024 | 0.036 | 0.008 | 0.026 | 0.040 | 0.053 | 0.138 |
| TPO4 | mg/L | G372 | 465 | 0.073 | 0.050 | 0.061 | 0.015 | 0.042 | 0.062 | 0.090 | 0.591 |
| TPO4 | mg/L | G373 | 213 | 0.066 | 0.052 | 0.054 | 0.014 | 0.035 | 0.055 | 0.082 | 0.526 |
| TPO4 | mg/L | G404 | 512 | 0.039 | 0.031 | 0.032 | 0.007 | 0.021 | 0.030 | 0.045 | 0.247 |
| TPO4 | mg/L | G406 | 391 | 0.181 | 0.130 | 0.142 | 0.031 | 0.081 | 0.139 | 0.246 | 0.882 |
| TPO4 | mg/L | G407 | 72 | 0.081 | 0.057 | 0.069 | 0.035 | 0.046 | 0.057 | 0.096 | 0.317 |
| TPO4 | mg/L | G409 | 649 | 0.071 | 0.075 | 0.053 | 0.011 | 0.034 | 0.049 | 0.075 | 0.791 |
| TPO4 | mg/L | G94B | 126 | 0.066 | 0.073 | 0.048 | 0.015 | 0.027 | 0.042 | 0.074 | 0.515 |
| TPO4 | mg/L | GGC@858 | 78 | 0.026 | 0.041 | 0.020 | 0.005 | 0.016 | 0.020 | 0.024 | 0.315 |
| TPO4 | mg/L | GGCAT31 | 75 | 0.031 | 0.015 | 0.027 | 0.005 | 0.020 | 0.028 | 0.038 | 0.070 |
| TPO4 | mg/L | GLADER | 148 | 0.013 | 0.005 | 0.012 | 0.007 | 0.009 | 0.011 | 0.015 | 0.042 |
| TPO4 | mg/L | HC05.7 | 1 | 0.206 | | 0.206 | 0.206 | | | | 0.206 |
| TPO4 | mg/L | HC12.8 | 1 | 0.210 | | 0.210 | 0.210 | | | | 0.210 |
| TPO4 | mg/L | HC14.4 | 1 | 0.164 | | 0.164 | 0.164 | | | | 0.164 |
| TPO4 | mg/L | HC15.3 | 1 | 0.151 | | 0.151 | 0.151 | | | | 0.151 |
| TPO4 | mg/L | HC18.2 | 1 | 0.147 | | 0.147 | 0.147 | | | | 0.147 |
| TPO4 | mg/L | HC19.3 | 1 | 0.137 | | 0.137 | 0.137 | | | | 0.137 |
| TPO4 | mg/L | HP06393232 | 112 | 0.207 | 0.311 | 0.147 | 0.053 | 0.092 | 0.117 | 0.211 | 2.960 |
| TPO4 | mg/L | HP06393242 | 45 | 0.211 | 0.218 | 0.152 | 0.052 | 0.089 | 0.119 | 0.238 | 1.128 |
| TPO4 | mg/L | HP10373114 | 110 | 0.117 | 0.092 | 0.098 | 0.011 | 0.072 | 0.088 | 0.118 | 0.638 |
| TPO4 | mg/L | HP11373132 | 50 | 0.055 | 0.024 | 0.051 | 0.025 | 0.040 | 0.047 | 0.067 | 0.168 |
| TPO4 | mg/L | HP22393211 | 114 | 0.161 | 0.112 | 0.136 | 0.054 | 0.089 | 0.122 | 0.197 | 0.683 |
| TPO4 | mg/L | IN13373531 | 31 | 0.363 | 0.154 | 0.334 | 0.160 | 0.261 | 0.318 | 0.479 | 0.744 |
| TPO4 | mg/L | INDUSCAN | 172 | 0.130 | 0.079 | 0.114 | 0.039 | 0.080 | 0.111 | 0.154 | 0.535 |
| TPO4 | mg/L | IP09383242 | 57 | 0.172 | 0.110 | 0.151 | 0.074 | 0.111 | 0.139 | 0.175 | 0.639 |
| TPO4 | mg/L | IP14383214 | 95 | 0.213 | 0.226 | 0.137 | 0.021 | 0.073 | 0.118 | 0.265 | 0.897 |
| TPO4 | mg/L | IP29383313 | 115 | 0.192 | 0.151 | 0.163 | 0.043 | 0.114 | 0.143 | 0.227 | 1.380 |
| TPO4 | mg/L | KR17373513 | 107 | 0.265 | 0.221 | 0.198 | 0.027 | 0.109 | 0.179 | 0.340 | 1.028 |
| TPO4 | mg/L | KR30353214 | 87 | 0.064 | 0.029 | 0.060 | 0.030 | 0.049 | 0.058 | 0.070 | 0.242 |
| TPO4 | mg/L | L3BRS | 257 | 0.084 | 0.080 | 0.061 | 0.008 | 0.036 | 0.057 | 0.088 | 0.468 |
| TPO4 | mg/L | L59E | 124 | 0.167 | 0.106 | 0.142 | 0.034 | 0.096 | 0.135 | 0.196 | 0.625 |
| TPO4 | mg/L | L59W | 121 | 0.217 | 0.231 | 0.163 | 0.061 | 0.103 | 0.133 | 0.252 | 1.926 |
| TPO4 | mg/L | L60W | 98 | 0.139 | 0.089 | 0.120 | 0.052 | 0.079 | 0.118 | 0.165 | 0.524 |
| TPO4 | mg/L | L61E | 127 | 0.172 | 0.121 | 0.141 | 0.035 | 0.084 | 0.137 | 0.206 | 0.686 |
| TPO4 | mg/L | L61W | 128 | 0.106 | 0.059 | 0.095 | 0.037 | 0.068 | 0.095 | 0.120 | 0.434 |
| TPO4 | mg/L | LG32263114 | 8 | 0.029 | 0.008 | 0.028 | 0.017 | 0.024 | 0.027 | 0.033 | 0.044 |
| TPO4 | mg/L | LOXA104 | 41 | 0.069 | 0.055 | 0.054 | 0.020 | 0.031 | 0.051 | 0.092 | 0.237 |
| TPO4 | mg/L | LOXA135 | 42 | 0.080 | 0.103 | 0.055 | 0.011 | 0.031 | 0.061 | 0.084 | 0.653 |
| TPO4 | mg/L | MJ01253113 | 13 | 0.021 | 0.005 | 0.020 | 0.014 | 0.017 | 0.019 | 0.026 | 0.029 |
| TPO4 | mg/L | S10A | 64 | 0.035 | 0.030 | 0.028 | 0.010 | 0.018 | 0.026 | 0.039 | 0.166 |
| TPO4 | mg/L | S10C | 67 | 0.037 | 0.029 | 0.029 | 0.010 | 0.015 | 0.029 | 0.042 | 0.130 |
| TPO4 | mg/L | S10D | 141 | 0.059 | 0.053 | 0.044 | 0.009 | 0.028 | 0.041 | 0.067 | 0.306 |
| TPO4 | mg/L | S11A | 157 | 0.022 | 0.023 | 0.017 | 0.006 | 0.010 | 0.015 | 0.024 | 0.179 |
| TPO4 | mg/L | S11B | 104 | 0.020 | 0.019 | 0.016 | 0.006 | 0.010 | 0.015 | 0.023 | 0.163 |
| TPO4 | mg/L | S11C | 158 | 0.029 | 0.026 | 0.022 | 0.008 | 0.013 | 0.020 | 0.035 | 0.199 |
| TPO4 | mg/L | S127 | 123 | 0.144 | 0.110 | 0.115 | 0.033 | 0.065 | 0.108 | 0.193 | 0.673 |
| TPO4 | mg/L | S129 | 130 | 0.076 | 0.038 | 0.068 | 0.028 | 0.045 | 0.069 | 0.097 | 0.199 |
| TPO4 | mg/L | S12A | 810 | 0.028 | 0.300 | 0.015 | 0.004 | 0.009 | 0.014 | 0.020 | 8.540 |
| TPO4 | mg/L | S12B | 231 | 0.014 | 0.010 | 0.011 | 0.004 | 0.007 | 0.010 | 0.017 | 0.052 |
| TPO4 | mg/L | S12C | 822 | 0.015 | 0.008 | 0.013 | 0.001 | 0.009 | 0.013 | 0.019 | 0.058 |
| TPO4 | mg/L | S12D | 263 | 0.013 | 0.007 | 0.012 | 0.005 | 0.009 | 0.011 | 0.016 | 0.068 |
| TPO4 | mg/L | S131 | 135 | 0.106 | 0.044 | 0.098 | 0.034 | 0.072 | 0.104 | 0.135 | 0.333 |
| TPO4 | mg/L | S133 | 131 | 0.196 | 0.132 | 0.165 | 0.050 | 0.109 | 0.145 | 0.225 | 0.688 |
| TPO4 | mg/L | S135 | 133 | 0.106 | 0.063 | 0.091 | 0.028 | 0.063 | 0.086 | 0.129 | 0.342 |
| TPO4 | mg/L | S140 | 735 | 0.042 | 0.036 | 0.038 | 0.015 | 0.029 | 0.036 | 0.045 | 0.783 |
| TPO4 | mg/L | S145 | 169 | 0.016 | 0.020 | 0.012 | 0.002 | 0.007 | 0.010 | 0.018 | 0.222 |
| TPO4 | mg/L | S150 | 467 | 0.026 | 0.019 | 0.022 | 0.008 | 0.015 | 0.020 | 0.030 | 0.150 |

| Table F-3 . Summary Water Quality Statistics By Station | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
| TPO4 | mg/L | S151 | 161 | 0.019 | 0.011 | 0.016 | 0.006 | 0.011 | 0.015 | 0.021 | 0.072 |
| TPO4 | mg/L | S154 | 940 | 0.372 | 0.346 | 0.262 | 0.037 | 0.142 | 0.234 | 0.479 | 2.003 |
| TPO4 | mg/L | S155A | 40 | 0.044 | 0.012 | 0.042 | 0.024 | 0.034 | 0.042 | 0.051 | 0.078 |
| TPO4 | mg/L | S169 | 157 | 0.117 | 0.059 | 0.104 | 0.039 | 0.075 | 0.098 | 0.145 | 0.362 |
| TPO4 | mg/L | S177 | 830 | 0.007 | 0.005 | 0.006 | 0.001 | 0.005 | 0.006 | 0.008 | 0.126 |
| TPO4 | mg/L | S178 | 224 | 0.042 | 0.039 | 0.031 | 0.006 | 0.019 | 0.030 | 0.048 | 0.286 |
| TPO4 | mg/L | S18C | 578 | 0.007 | 0.006 | 0.006 | 0.002 | 0.004 | 0.005 | 0.007 | 0.097 |
| TPO4 | mg/L | S190 | 532 | 0.060 | 0.050 | 0.047 | 0.001 | 0.029 | 0.040 | 0.080 | 0.368 |
| TPO4 | mg/L | S191 | 991 | 0.432 | 0.225 | 0.380 | 0.085 | 0.254 | 0.366 | 0.562 | 1.242 |
| TPO4 | mg/L | S197 | 31 | 0.010 | 0.020 | 0.007 | 0.003 | 0.005 | 0.006 | 0.008 | 0.116 |
| TPO4 | mg/L | S2 | 256 | 0.155 | 0.161 | 0.124 | 0.033 | 0.084 | 0.119 | 0.185 | 1.653 |
| TPO4 | mg/L | S3 | 224 | 0.099 | 0.074 | 0.083 | 0.027 | 0.055 | 0.081 | 0.115 | 0.589 |
| TPO4 | mg/L | S308C | 301 | 0.228 | 0.125 | 0.204 | 0.072 | 0.145 | 0.192 | 0.280 | 0.908 |
| TPO4 | mg/L | S31 | 105 | 0.016 | 0.018 | 0.013 | 0.006 | 0.010 | 0.012 | 0.015 | 0.171 |
| TPO4 | mg/L | S331 | 75 | 0.008 | 0.003 | 0.008 | 0.004 | 0.007 | 0.008 | 0.009 | 0.016 |
| TPO4 | mg/L | S332B | 388 | 0.008 | 0.004 | 0.007 | 0.003 | 0.006 | 0.007 | 0.008 | 0.045 |
| TPO4 | mg/L | S332C | 418 | 0.008 | 0.004 | 0.007 | 0.004 | 0.006 | 0.007 | 0.008 | 0.043 |
| TPO4 | mg/L | S332DX | 640 | 0.008 | 0.004 | 0.008 | 0.004 | 0.006 | 0.007 | 0.009 | 0.051 |
| TPO4 | mg/L | S333 | 1446 | 0.015 | 0.017 | 0.013 | 0.005 | 0.009 | 0.012 | 0.017 | 0.390 |
| TPO4 | mg/L | S334 | 144 | 0.014 | 0.005 | 0.013 | 0.006 | 0.010 | 0.013 | 0.015 | 0.038 |
| TPO4 | mg/L | S335 | 38 | 0.010 | 0.017 | 0.008 | 0.004 | 0.006 | 0.007 | 0.010 | 0.110 |
| TPO4 | mg/L | S34 | 168 | 0.019 | 0.010 | 0.018 | 0.006 | 0.013 | 0.017 | 0.022 | 0.060 |
| TPO4 | mg/L | S344 | 39 | 0.032 | 0.024 | 0.024 | 0.009 | 0.012 | 0.019 | 0.051 | 0.088 |
| TPO4 | mg/L | S352 | 804 | 0.214 | 0.146 | 0.190 | 0.023 | 0.139 | 0.180 | 0.244 | 2.568 |
| TPO4 | mg/L | S356 | 446 | 0.010 | 0.002 | 0.010 | 0.006 | 0.009 | 0.010 | 0.011 | 0.034 |
| TPO4 | mg/L | S38 | 168 | 0.017 | 0.013 | 0.013 | 0.004 | 0.008 | 0.011 | 0.021 | 0.070 |
| TPO4 | mg/L | S39 | 161 | 0.031 | 0.021 | 0.027 | 0.008 | 0.018 | 0.026 | 0.036 | 0.148 |
| TPO4 | mg/L | S390 | 179 | 0.413 | 0.191 | 0.377 | 0.147 | 0.287 | 0.381 | 0.462 | 1.119 |
| TPO4 | mg/L | S5A | 897 | 0.135 | 0.075 | 0.118 | 0.023 | 0.083 | 0.120 | 0.163 | 0.822 |
| TPO4 | mg/L | S5AE | 140 | 0.115 | 0.065 | 0.100 | 0.029 | 0.068 | 0.103 | 0.142 | 0.409 |
| TPO4 | mg/L | S5AS | 109 | 0.117 | 0.061 | 0.100 | 0.026 | 0.063 | 0.112 | 0.154 | 0.314 |
| TPO4 | mg/L | S5AW | 61 | 0.110 | 0.065 | 0.094 | 0.027 | 0.065 | 0.102 | 0.123 | 0.370 |
| TPO4 | mg/L | S6 | 934 | 0.075 | 0.061 | 0.058 | 0.013 | 0.032 | 0.060 | 0.100 | 0.799 |
| TPO4 | mg/L | S65 | 880 | 0.089 | 0.061 | 0.076 | 0.007 | 0.056 | 0.074 | 0.097 | 0.515 |
| TPO4 | mg/L | S65A | 1020 | 0.070 | 0.047 | 0.063 | 0.002 | 0.050 | 0.064 | 0.079 | 1.137 |
| TPO4 | mg/L | S65C | 1018 | 0.079 | 0.044 | 0.070 | 0.013 | 0.051 | 0.064 | 0.092 | 0.412 |
| TPO4 | mg/L | S65D | 1043 | 0.079 | 0.045 | 0.070 | 0.022 | 0.050 | 0.066 | 0.094 | 0.398 |
| TPO4 | mg/L | S65E | 1108 | 0.108 | 0.064 | 0.094 | 0.028 | 0.065 | 0.086 | 0.133 | 0.467 |
| TPO4 | mg/L | S7 | 633 | 0.033 | 0.028 | 0.026 | 0.007 | 0.015 | 0.024 | 0.039 | 0.319 |
| TPO4 | mg/L | S71 | 619 | 0.201 | 0.133 | 0.168 | 0.034 | 0.109 | 0.161 | 0.253 | 0.829 |
| TPO4 | mg/L | S72 | 509 | 0.213 | 0.119 | 0.185 | 0.048 | 0.125 | 0.187 | 0.273 | 0.768 |
| TPO4 | mg/L | S78 | 66 | 0.129 | 0.073 | 0.117 | 0.065 | 0.086 | 0.108 | 0.144 | 0.561 |
| TPO4 | mg/L | S79 | 57 | 0.150 | 0.060 | 0.140 | 0.065 | 0.106 | 0.131 | 0.178 | 0.287 |
| TPO4 | mg/L | S8 | 738 | 0.049 | 0.060 | 0.038 | 0.007 | 0.023 | 0.036 | 0.060 | 1.286 |
| TPO4 | mg/L | S84 | 245 | 0.086 | 0.063 | 0.073 | 0.026 | 0.052 | 0.069 | 0.094 | 0.491 |
| TPO4 | mg/L | S9 | 791 | 0.016 | 0.009 | 0.014 | 0.004 | 0.011 | 0.014 | 0.018 | 0.140 |
| TPO4 | mg/L | S9A | 575 | 0.013 | 0.006 | 0.012 | 0.007 | 0.010 | 0.012 | 0.014 | 0.058 |
| TPO4 | mg/L | SAFARI | 220 | 0.015 | 0.008 | 0.013 | 0.006 | 0.010 | 0.013 | 0.017 | 0.069 |
| TPO4 | mg/L | SW1B | 69 | 0.141 | 0.099 | 0.114 | 0.032 | 0.073 | 0.104 | 0.188 | 0.599 |
| TPO4 | mg/L | SW2 | 149 | 0.161 | 0.115 | 0.133 | 0.020 | 0.095 | 0.134 | 0.182 | 0.712 |
| TPO4 | mg/L | SW6IN | 118 | 0.119 | 0.091 | 0.093 | 0.016 | 0.054 | 0.106 | 0.154 | 0.720 |
| TPO4 | mg/L | T0E | 13 | 0.006 | 0.002 | 0.006 | 0.004 | 0.005 | 0.005 | 0.007 | 0.012 |
| TPO4 | mg/L | T0W | 14 | 0.008 | 0.004 | 0.007 | 0.002 | 0.006 | 0.007 | 0.009 | 0.015 |
| TPO4 | mg/L | TAMBR1 | 242 | 0.013 | 0.004 | 0.012 | 0.007 | 0.010 | 0.012 | 0.015 | 0.043 |
| TPO4 | mg/L | TAMBR2 | 236 | 0.013 | 0.004 | 0.012 | 0.007 | 0.010 | 0.012 | 0.015 | 0.040 |
| TPO4 | mg/L | TAMBR3 | 213 | 0.012 | 0.004 | 0.012 | 0.007 | 0.009 | 0.011 | 0.014 | 0.042 |
| TPO4 | mg/L | TAMBR4 | 183 | 0.012 | 0.004 | 0.011 | 0.007 | 0.009 | 0.011 | 0.014 | 0.036 |
| TPO4 | mg/L | TAMBR5 | 150 | 0.012 | 0.005 | 0.011 | 0.007 | 0.009 | 0.011 | 0.013 | 0.047 |
| TPO4 | mg/L | TAMBR6 | 166 | 0.015 | 0.013 | 0.013 | 0.006 | 0.010 | 0.012 | 0.016 | 0.145 |
| TPO4 | mg/L | TC03373511 | 31 | 0.307 | 0.132 | 0.285 | 0.150 | 0.215 | 0.269 | 0.353 | 0.685 |
| TPO4 | mg/L | TCNS 201 | 106 | 0.469 | 0.247 | 0.411 | 0.142 | 0.280 | 0.433 | 0.580 | 1.370 |
| TPO4 | mg/L | TCNS 213 | 220 | 0.428 | 0.245 | 0.370 | 0.071 | 0.268 | 0.364 | 0.492 | 1.296 |
| TPO4 | mg/L | TCNS 217 | 224 | 0.327 | 0.292 | 0.229 | 0.023 | 0.133 | 0.225 | 0.426 | 1.520 |
| TPO4 | mg/L | US41-25 | 251 | 0.023 | 0.018 | 0.018 | 0.005 | 0.011 | 0.016 | 0.028 | 0.124 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TPO4 | mg/L | WPB-26.1 | 21 | 0.189 | 0.092 | 0.168 | 0.070 | 0.111 | 0.168 | 0.249 | 0.366 |
| TPO4 | mg/L | WPB-28.2 | 20 | 0.183 | 0.102 | 0.150 | 0.016 | 0.113 | 0.165 | 0.248 | 0.385 |
| TPO4 | mg/L | WPB-31.2 | 21 | 0.193 | 0.085 | 0.173 | 0.046 | 0.132 | 0.191 | 0.258 | 0.390 |
| TPO4 | mg/L | WPB-33.5 | 21 | 0.229 | 0.108 | 0.203 | 0.069 | 0.169 | 0.218 | 0.300 | 0.495 |
| TPO4 | mg/L | WPB-35.4 | 21 | 0.250 | 0.125 | 0.219 | 0.066 | 0.165 | 0.192 | 0.347 | 0.500 |
| TPO4 | mg/L | WPB-37.2 | 21 | 0.254 | 0.144 | 0.218 | 0.075 | 0.143 | 0.211 | 0.339 | 0.619 |
| TPO4 | mg/L | WPB-38.0 | 20 | 0.288 | 0.165 | 0.242 | 0.066 | 0.165 | 0.261 | 0.378 | 0.720 |
| TPO4 | mg/L | WWEIR | 867 | 0.044 | 0.025 | 0.038 | 0.012 | 0.027 | 0.037 | 0.052 | 0.235 |
| TPO4 | mg/L | X0 | 117 | 0.054 | 0.037 | 0.045 | 0.004 | 0.032 | 0.044 | 0.062 | 0.230 |
| TPO4 | mg/L | Z0 | 116 | 0.055 | 0.038 | 0.045 | 0.004 | 0.030 | 0.045 | 0.070 | 0.290 |
| TURB | NTU | 02273230 | 34 | 11.1 | 12.7 | 6.7 | 0.8 | 2.9 | 6.7 | 15.3 | 57.6 |
| TURB | NTU | 02274325 | 27 | 2.5 | 1.8 | 1.9 | 0.1 | 1.3 | 2.2 | 2.8 | 8.3 |
| TURB | NTU | 02274505 | 38 | 22.6 | 62.3 | 5.8 | 0.1 | 3.0 | 5.7 | 7.0 | 357.7 |
| TURB | NTU | 02275631 | 22 | 1.7 | 1.4 | 1.1 | 0.1 | 0.7 | 1.1 | 2.7 | 4.8 |
| TURB | NTU | BC10 | 102 | 1.2 | 0.5 | 1.1 | 0.1 | 0.9 | 1.1 | 1.5 | 3.2 |
| TURB | NTU | BC11 | 99 | 0.9 | 0.6 | 0.7 | 0.3 | 0.5 | 0.7 | 1.0 | 4.4 |
| TURB | NTU | BC14 | 99 | 1.8 | 1.9 | 1.4 | 0.4 | 0.9 | 1.4 | 2.0 | 17.0 |
| TURB | NTU | BC15 | 103 | 1.7 | 1.4 | 1.4 | 0.5 | 1.0 | 1.4 | 2.0 | 12.5 |
| TURB | NTU | BC22 | 99 | 1.3 | 1.2 | 1.0 | 0.1 | 0.6 | 0.8 | 1.5 | 8.3 |
| TURB | NTU | BC23 | 102 | 2.2 | 1.1 | 2.0 | 0.6 | 1.5 | 2.1 | 2.5 | 9.1 |
| TURB | NTU | BC26 | 89 | 2.8 | 2.4 | 2.2 | 0.3 | 1.5 | 2.3 | 3.1 | 17.4 |
| TURB | NTU | BC7 | 102 | 1.1 | 0.6 | 0.9 | 0.1 | 0.6 | 1.0 | 1.5 | 3.1 |
| TURB | NTU | BC8 | 102 | 0.9 | 0.8 | 0.8 | 0.2 | 0.6 | 0.8 | 1.1 | 6.9 |
| TURB | NTU | BC9 | 102 | 2.7 | 1.6 | 2.2 | 0.5 | 1.4 | 2.6 | 3.7 | 7.0 |
| TURB | NTU | C123SR84 | 154 | 3.6 | 4.3 | 2.5 | 0.6 | 1.3 | 2.4 | 4.1 | 32.5 |
| TURB | NTU | C15S40 | 125 | 3.2 | 2.1 | 2.8 | 0.8 | 1.9 | 2.8 | 3.9 | 17.3 |
| TURB | NTU | C16S41 | 125 | 3.2 | 2.8 | 2.7 | 0.6 | 1.8 | 2.7 | 4.0 | 26.9 |
| TURB | NTU | C17S44 | 124 | 3.3 | 1.9 | 3.0 | 0.7 | 2.3 | 3.1 | 3.9 | 18.1 |
| TURB | NTU | C18S46 | 112 | 1.8 | 2.5 | 1.4 | 0.7 | 1.0 | 1.2 | 1.9 | 24.7 |
| TURB | NTU | C23S48 | 130 | 4.7 | 3.6 | 3.9 | 1.0 | 2.6 | 3.7 | 5.6 | 25.1 |
| TURB | NTU | C24S49 | 130 | 3.4 | 2.2 | 2.9 | 1.0 | 2.2 | 2.8 | 4.0 | 17.0 |
| TURB | NTU | C25S50 | 130 | 3.2 | 2.4 | 2.8 | 1.0 | 2.0 | 2.8 | 3.5 | 19.8 |
| TURB | NTU | C44S80 | 131 | 15.9 | 17.7 | 10.4 | 2.1 | 5.2 | 9.4 | 18.0 | 90.3 |
| TURB | NTU | C51S155 | 125 | 7.5 | 8.8 | 5.5 | 1.7 | 3.3 | 4.8 | 8.5 | 59.4 |
| TURB | NTU | CES01 | 101 | 4.3 | 4.4 | 3.1 | 0.4 | 1.9 | 2.8 | 4.3 | 32.5 |
| TURB | NTU | COC@LAKE | 63 | 2.9 | 1.3 | 2.7 | 1.2 | 2.0 | 2.6 | 3.8 | 9.2 |
| TURB | NTU | CORK@846 | 100 | 4.8 | 7.1 | 3.2 | 0.8 | 1.6 | 2.8 | 5.3 | 53.2 |
| TURB | NTU | CR-04.8T | 60 | 4.7 | 3.3 | 4.0 | 1.6 | 2.6 | 3.7 | 5.5 | 20.6 |
| TURB | NTU | CULV10A | 226 | 49.7 | 56.5 | 28.1 | 1.4 | 13.7 | 31.4 | 63.0 | 306.0 |
| TURB | NTU | CULV5A | 107 | 11.0 | 10.0 | 7.8 | 1.6 | 4.1 | 7.5 | 14.5 | 56.8 |
| TURB | NTU | FAKA | 100 | 1.1 | 0.6 | 1.0 | 0.4 | 0.7 | 1.0 | 1.2 | 3.2 |
| TURB | NTU | FAKA858 | 100 | 2.4 | 1.3 | 2.2 | 0.3 | 1.6 | 2.1 | 2.7 | 7.1 |
| TURB | NTU | FROGCITY | 39 | 2.3 | 1.7 | 1.8 | 0.5 | 1.1 | 1.7 | 3.0 | 7.9 |
| TURB | NTU | G123 | 124 | 1.7 | 1.0 | 1.5 | 0.5 | 1.1 | 1.5 | 2.1 | 7.0 |
| TURB | NTU | G136 | 152 | 2.9 | 1.9 | 2.5 | 1.0 | 2.0 | 2.4 | 3.0 | 13.7 |
| TURB | NTU | G300 | 5 | 10.5 | 4.5 | 9.8 | 7.1 | 7.5 | 7.9 | 13.7 | 17.5 |
| TURB | NTU | G342A | 224 | 3.9 | 2.6 | 3.4 | 1.2 | 2.3 | 3.1 | 4.4 | 15.9 |
| TURB | NTU | G342B | 223 | 3.9 | 3.3 | 3.2 | 0.8 | 2.1 | 2.8 | 4.4 | 26.7 |
| TURB | NTU | G342C | 212 | 4.0 | 4.0 | 3.2 | 1.1 | 2.1 | 2.9 | 4.0 | 38.5 |
| TURB | NTU | G342D | 212 | 4.2 | 4.6 | 2.9 | 0.6 | 1.7 | 2.7 | 4.2 | 30.6 |
| TURB | NTU | G353B | 4 | 3.3 | 0.8 | 3.2 | 2.3 | 2.7 | 3.2 | 3.9 | 4.3 |
| TURB | NTU | G372 | 133 | 7.7 | 10.4 | 4.9 | 1.0 | 2.7 | 3.8 | 8.1 | 71.0 |
| TURB | NTU | G94B | 125 | 3.1 | 3.0 | 2.4 | 0.6 | 1.4 | 2.4 | 3.7 | 20.6 |
| TURB | NTU | GGC@858 | 100 | 3.6 | 1.4 | 3.4 | 1.7 | 2.9 | 3.4 | 4.2 | 11.2 |
| TURB | NTU | GGCAT31 | 101 | 1.8 | 1.0 | 1.6 | 0.4 | 1.1 | 1.5 | 2.1 | 6.6 |
| TURB | NTU | HC14.4 | 1 | 12.3 | | 12.3 | 12.3 | | | | 12.3 |
| TURB | NTU | HC18.2 | 1 | 2.9 | | 2.9 | 2.9 | | | | 2.9 |
| TURB | NTU | HC19.3 | 1 | 2.7 | | 2.7 | 2.7 | | | | 2.7 |
| TURB | NTU | INDUSCAN | 171 | 11.2 | 13.5 | 7.0 | 1.2 | 3.4 | 6.2 | 13.0 | 91.8 |
| TURB | NTU | L3BRS | 248 | 4.5 | 5.0 | 3.5 | 0.8 | 2.3 | 3.3 | 4.9 | 60.4 |
| TURB | NTU | L59E | 123 | 8.1 | 7.6 | 6.1 | 1.1 | 3.8 | 5.4 | 9.5 | 52.0 |
| TURB | NTU | L59W | 119 | 5.0 | 2.8 | 4.4 | 1.1 | 3.3 | 4.3 | 6.1 | 17.5 |
| TURB | NTU | L60W | 96 | 4.5 | 2.7 | 3.9 | 1.4 | 2.6 | 3.6 | 5.6 | 15.5 |
| TURB | NTU | L61E | 125 | 5.1 | 4.8 | 4.2 | 0.9 | 2.9 | 4.2 | 5.5 | 44.4 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TURB | NTU | L61W | 126 | 3.9 | 2.6 | 3.2 | 1.2 | 2.2 | 3.0 | 4.6 | 14.8 |
| TURB | NTU | LOXA104 | 23 | 5.2 | 3.7 | 4.2 | 1.5 | 2.3 | 4.3 | 7.1 | 14.7 |
| TURB | NTU | LOXA135 | 24 | 8.3 | 4.7 | 7.0 | 1.8 | 4.3 | 7.5 | 12.3 | 19.0 |
| TURB | NTU | S10A | 61 | 2.6 | 3.1 | 1.8 | 0.7 | 1.0 | 1.6 | 2.6 | 18.1 |
| TURB | NTU | S10C | 63 | 2.9 | 3.2 | 1.9 | 0.6 | 1.0 | 1.5 | 3.9 | 15.5 |
| TURB | NTU | S10D | 138 | 6.3 | 7.6 | 4.0 | 0.7 | 2.0 | 3.8 | 7.2 | 55.8 |
| TURB | NTU | S11A | 161 | 2.1 | 2.0 | 1.6 | 0.2 | 1.0 | 1.4 | 2.6 | 17.3 |
| TURB | NTU | S11B | 104 | 2.3 | 2.2 | 1.6 | 0.5 | 0.9 | 1.2 | 2.8 | 15.9 |
| TURB | NTU | S11C | 160 | 2.8 | 2.8 | 2.1 | 0.5 | 1.2 | 2.0 | 3.4 | 17.3 |
| TURB | NTU | S127 | 120 | 3.3 | 1.8 | 2.9 | 0.9 | 2.2 | 2.8 | 3.9 | 10.4 |
| TURB | NTU | S129 | 128 | 3.4 | 2.0 | 3.0 | 1.1 | 2.2 | 2.9 | 4.1 | 18.7 |
| TURB | NTU | S12A | 138 | 1.4 | 1.4 | 1.0 | 0.4 | 0.6 | 0.9 | 1.3 | 9.3 |
| TURB | NTU | S12B | 139 | 1.2 | 0.9 | 0.9 | 0.4 | 0.6 | 0.8 | 1.2 | 4.8 |
| TURB | NTU | S12C | 146 | 1.2 | 0.8 | 1.0 | 0.3 | 0.7 | 0.9 | 1.3 | 5.1 |
| TURB | NTU | S12D | 185 | 1.5 | 1.3 | 1.2 | 0.3 | 0.8 | 1.1 | 2.0 | 12.8 |
| TURB | NTU | S131 | 133 | 2.8 | 1.6 | 2.5 | 1.0 | 2.0 | 2.6 | 3.0 | 15.0 |
| TURB | NTU | S133 | 126 | 8.9 | 8.8 | 6.6 | 1.7 | 3.9 | 6.0 | 10.5 | 72.2 |
| TURB | NTU | S135 | 128 | 6.2 | 6.8 | 4.9 | 1.6 | 3.5 | 4.5 | 5.8 | 52.6 |
| TURB | NTU | S140 | 181 | 2.2 | 1.3 | 1.9 | 0.6 | 1.3 | 1.9 | 2.8 | 10.5 |
| TURB | NTU | S145 | 171 | 1.6 | 2.1 | 1.1 | 0.4 | 0.6 | 1.0 | 1.8 | 23.2 |
| TURB | NTU | S150 | 143 | 2.8 | 2.7 | 2.2 | 0.6 | 1.5 | 2.1 | 3.3 | 20.2 |
| TURB | NTU | S151 | 161 | 2.2 | 1.5 | 1.8 | 0.4 | 1.2 | 1.7 | 2.9 | 7.7 |
| TURB | NTU | S154 | 230 | 9.4 | 9.5 | 6.6 | 1.0 | 3.4 | 6.1 | 12.1 | 91.5 |
| TURB | NTU | S169 | 156 | 12.3 | 9.8 | 9.4 | 2.6 | 5.3 | 9.6 | 15.1 | 61.6 |
| TURB | NTU | S177 | 186 | 2.0 | 1.8 | 1.7 | 0.5 | 1.1 | 1.7 | 2.5 | 20.5 |
| TURB | NTU | S178 | 115 | 6.4 | 12.9 | 2.8 | 0.4 | 1.1 | 2.4 | 6.1 | 110.0 |
| TURB | NTU | S18C | 176 | 1.8 | 1.5 | 1.5 | 0.5 | 1.1 | 1.4 | 2.1 | 15.7 |
| TURB | NTU | S190 | 164 | 2.1 | 1.0 | 1.9 | 0.6 | 1.4 | 1.9 | 2.5 | 6.5 |
| TURB | NTU | S191 | 234 | 3.0 | 1.8 | 2.6 | 1.0 | 1.8 | 2.6 | 3.5 | 12.1 |
| TURB | NTU | S197 | 30 | 1.9 | 3.0 | 1.2 | 0.2 | 0.7 | 1.1 | 2.0 | 17.4 |
| TURB | NTU | S2 | 165 | 13.4 | 13.5 | 9.2 | 1.4 | 4.7 | 8.0 | 15.3 | 68.6 |
| TURB | NTU | S3 | 165 | 11.3 | 14.0 | 7.3 | 1.8 | 3.8 | 6.5 | 11.4 | 84.6 |
| TURB | NTU | S308C | 280 | 62.1 | 57.6 | 41.1 | 2.5 | 20.1 | 47.5 | 85.1 | 386.0 |
| TURB | NTU | S31 | 108 | 1.8 | 1.2 | 1.5 | 0.4 | 1.0 | 1.4 | 2.3 | 7.8 |
| TURB | NTU | S331 | 39 | 2.8 | 1.1 | 2.6 | 0.8 | 2.1 | 2.5 | 3.3 | 5.5 |
| TURB | NTU | S332B | 87 | 1.9 | 0.8 | 1.7 | 0.6 | 1.3 | 1.8 | 2.3 | 4.4 |
| TURB | NTU | S332C | 89 | 1.7 | 0.6 | 1.6 | 0.3 | 1.2 | 1.7 | 2.1 | 3.1 |
| TURB | NTU | S332DX | 7 | 2.4 | 1.3 | 2.1 | 1.0 | 1.4 | 2.2 | 3.2 | 4.5 |
| TURB | NTU | S333 | 182 | 1.6 | 1.3 | 1.3 | 0.3 | 0.8 | 1.2 | 2.0 | 8.0 |
| TURB | NTU | S334 | 139 | 2.1 | 1.7 | 1.7 | 0.6 | 1.1 | 1.5 | 2.6 | 13.0 |
| TURB | NTU | S34 | 171 | 1.9 | 1.5 | 1.6 | 0.3 | 1.0 | 1.5 | 2.6 | 12.8 |
| TURB | NTU | S344 | 40 | 2.0 | 1.8 | 1.3 | 0.3 | 0.6 | 1.1 | 3.8 | 7.5 |
| TURB | NTU | S352 | 268 | 57.6 | 60.5 | 36.8 | 4.3 | 20.0 | 36.4 | 70.7 | 366.0 |
| TURB | NTU | S356 | 5 | 1.8 | 0.7 | 1.7 | 1.1 | 1.3 | 1.7 | 2.4 | 2.8 |
| TURB | NTU | S38 | 177 | 1.3 | 1.0 | 1.0 | 0.1 | 0.6 | 0.9 | 1.6 | 5.9 |
| TURB | NTU | S39 | 164 | 2.2 | 1.7 | 1.8 | 0.6 | 1.1 | 1.7 | 2.7 | 11.1 |
| TURB | NTU | S390 | 69 | 5.5 | 2.7 | 4.9 | 1.2 | 4.0 | 4.6 | 5.7 | 13.3 |
| TURB | NTU | S5A | 260 | 13.5 | 17.1 | 8.7 | 1.3 | 4.3 | 8.2 | 15.5 | 136.5 |
| TURB | NTU | S5AE | 140 | 24.1 | 31.9 | 13.4 | 1.9 | 5.8 | 13.4 | 28.3 | 243.0 |
| TURB | NTU | S5AS | 109 | 17.3 | 20.4 | 10.9 | 1.3 | 5.8 | 10.5 | 18.6 | 110.0 |
| TURB | NTU | S5AW | 61 | 22.5 | 35.9 | 11.0 | 1.0 | 5.3 | 8.7 | 18.4 | 208.0 |
| TURB | NTU | S6 | 242 | 6.8 | 9.4 | 3.9 | 0.6 | 1.9 | 3.4 | 7.9 | 80.2 |
| TURB | NTU | S65 | 257 | 6.0 | 2.9 | 5.5 | 1.9 | 4.2 | 5.4 | 7.4 | 26.7 |
| TURB | NTU | S65A | 257 | 4.6 | 3.2 | 4.0 | 1.3 | 2.8 | 4.0 | 5.6 | 37.9 |
| TURB | NTU | S65C | 259 | 4.9 | 4.7 | 3.9 | 1.1 | 2.6 | 3.8 | 5.6 | 45.0 |
| TURB | NTU | S65D | 259 | 3.8 | 2.8 | 3.2 | 0.9 | 2.3 | 3.0 | 4.3 | 23.2 |
| TURB | NTU | S65E | 298 | 3.4 | 1.9 | 3.0 | 0.1 | 2.2 | 2.9 | 4.1 | 13.7 |
| TURB | NTU | S7 | 180 | 3.9 | 3.8 | 2.9 | 0.6 | 1.7 | 2.7 | 4.2 | 27.4 |
| TURB | NTU | S71 | 238 | 5.5 | 3.6 | 4.6 | 1.1 | 3.1 | 4.4 | 6.8 | 23.6 |
| TURB | NTU | S72 | 155 | 5.7 | 3.2 | 5.0 | 1.6 | 3.6 | 4.9 | 7.2 | 21.2 |
| TURB | NTU | S78 | 59 | 5.5 | 5.2 | 4.2 | 1.1 | 2.5 | 3.6 | 6.3 | 24.9 |
| TURB | NTU | S79 | 58 | 4.3 | 3.2 | 3.5 | 0.8 | 2.1 | 3.3 | 5.1 | 17.7 |
| TURB | NTU | S8 | 176 | 4.3 | 3.8 | 3.3 | 0.8 | 2.1 | 3.1 | 5.0 | 26.2 |
| TURB | NTU | S84 | 243 | 6.2 | 5.8 | 5.0 | 1.5 | 3.4 | 4.6 | 7.5 | 46.2 |

Table F-3 . Summary Water Quality Statistics By Station

| Test_ Code | Units | Station | 01_ N | 02_ Mean | 03_ StdDev | 04_ GeoMean | 05_ Min | 06_ P25 | 07_ Median | 08_ P75 | 09_ Max |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TURB | NTU | S9 | 152 | 3.7 | 2.6 | 3.1 | 0.3 | 2.4 | 3.3 | 4.4 | 21.8 |
| TURB | NTU | S9A | 110 | 3.0 | 1.7 | 2.7 | 0.2 | 2.3 | 2.9 | 3.4 | 15.5 |
| TURB | NTU | SW1B | 69 | 34.5 | 42.0 | 17.9 | 2.4 | 6.7 | 15.2 | 50.0 | 214.0 |
| TURB | NTU | SW2 | 146 | 39.1 | 50.5 | 19.5 | 1.1 | 7.6 | 17.1 | 49.8 | 289.0 |
| TURB | NTU | SW6IN | 87 | 27.3 | 39.7 | 14.3 | 2.0 | 5.3 | 13.1 | 36.7 | 310.0 |
| TURB | NTU | TAMBR6 | 52 | 2.1 | 1.1 | 1.9 | 0.6 | 1.3 | 2.0 | 2.8 | 4.3 |
| TURB | NTU | US41-25 | 173 | 1.5 | 1.2 | 1.1 | 0.4 | 0.6 | 1.0 | 1.8 | 6.4 |
| TURB | NTU | WPB-35.4 | 21 | 13.0 | 9.7 | 10.9 | 4.9 | 7.5 | 9.3 | 15.7 | 49.4 |
| TURB | NTU | WPB-38.0 | 21 | 11.4 | 11.8 | 8.9 | 5.3 | 5.8 | 7.3 | 10.9 | 55.8 |

# Canals in South Florida: A Technical Support Document

## Appendix G

## Sediment Studies


| Study Title | Page |
|---|---|
| Trefry, J.H., R. P. Trocine and H. Bennett. 2009. Sediment sourcing study of Lake Worth Lagoon and C-51 Basin, Palm Beach County. Draft Final Report to Palm Beach County and the South Florida Water Management District, Contract R2008-0985. October 2009. 80 pp. | G-2 |
| Daroub, S.H., J.D. Stuck, T.A. Lang, O.A. Diaz, and M. Chen. 2003. Implementation and verification of BMPs for reducing P loading in the EAA. Final Project Report submitted to the Everglades Agricultural Area Environmental Protection District and the Florida Department of Environmental Protection, Tallahassee FL. | G-3 |
| Diaz, O.A., S.H. Daroub, J.D. Stuck, M.W. Clark, T.A. Lang, and K.R. Reddy. 2006. Sediment Inventory and phosphorus fractions for Water Conservation Area canals in the Everglades. Soil Sci. Soc. Am. J. 70:863-871 | |

## Canal Project – Report Summary

## Sediment Sourcing Study of Lake Worth Lagoon and C-51 Basin

**John Maxted**

Trefry, J.H., R. P. Trocine and H. Bennett. 2009. Sediment sourcing study of Lake Worth Lagoon and C-51 Basin, Palm Beach County. Draft Final Report to Palm Beach County and the South Florida Water Management District, Contract R2008-0985. October 2009. 80 pp.

Trefry et al. (2009) provide one of the only detailed studies of the chemistry of canal sediments in South Florida. Bottom sediments in the West Palm Beach (C-51) canal were analyzed in 33 locations. The average depth of sediments was about 50 cm with 5 of 33 samples in the canal having sediment depths greater than 1 meter. Water depths at these locations averaged 4.3 m with shallower depths being seen upstream. No upstream – downstream pattern was evident in sediment depth. Using a suite of chemical ratios for sediments from the C-51 canal and from Lake Worth Lagoon, they provided substantial evidence that downstream sediments in the lagoon within 2 km of the canal terminus are derived largely from canal sediments and that canal sediments in turn, are sourced primarily from the western, agricultural portion of the canal. Terrestrial inputs upstream are an important source of organic matter in the canal and downstream in the lagoon. This observation is important as it suggests that the canal is subsidized heavily from external particulate inputs, as opposed to generating organic matter primarily within the canal food web.

**Canal Project – Report Summary**

**Sediment Sourcing Study of Lake Worth Lagoon and C-51 Basin**

**Orlando Diaz**

# Sediment Inventory and Phosphorus Fractions from Water Conservation Area Canals

## Sediment Inventory

***Site Description and Sampling***

This study was undertaken to evaluate the potential impact of existing sediment material in the Water Conservation Area (WCA) canals on low-phosphorus water discharged from the Stormwater Treatment Areas (STAs). Detailed methodology and results related to this study are presented in Daroub et al. (2003) and Diaz et al. (2006). The canal reaches selected for this study characterized approximately 196 km of canals in the WCAs (**Figure G-1**). Canals were grouped by location into eastern (L7, L39, and L40), central (L5, L6, and L38), and western (Miami Canal North [MCN] and Miami Canal South [MCS]) to evaluate general trends across the WCAs. The bathymetry of each canal cross-section was surveyed at a spacing of 1.6 km down from the upstream end of each canal reach. At each sampling location, sediment samples were collected using an Ogeechee sediment core sampler at the canal centerline and at locations 25 percent of the canal width from each bank. Sediment cores were transported to the University of Florida Everglades Research and Education Center in Belle Glade for description, sectioning, and analysis. Sediment surface elevation and sediment depth at each transect were measured with a calibrated submersible footpad and a calibrated steel rod. Sediment depth readings were taken at 1.5–m increments across all transects. Sediment material in the inventory is defined as particles of different size, shape, and chemical composition that have been deposited through time on top of the bedrock at the bottom of the canals.

Intact sediment cores were transported to the laboratory and extruded using a piston and sectioned at depth increments of 0 to 2 cm, 5 to 7 cm, and 10 to 12 cm. All sediment samples were analyzed for moisture content, bulk density, organic matter, and total phosphorus (TP). A sample from each sediment depth was weighed and dried to determine bulk density and moisture content. Organic matter content was determined by igniting an oven-dried sediment sample at 550oC for 4 h in a muffle furnace, with weight loss (LOI) considered as the amount of organic matter in the sample, with the remaining ash dissolved in 6 M HCl (Andersen, 1976). The digestate was analyzed for TP using the automated ascorbic acid method (Method 365.4, U.S. Environmental Protection Agency, 1983).

## Sediment Phosphorus Forms

***Sampling and Analysis***

Twenty transects from seven major canal systems in the WCAs were selected and sampled in the summer of 2001 (**Figure G-1**). Transects used for the phosphorus (P) fractionation analysis were different from transects used for the sediment inventory to avoid any disturbance of the surface sediment layer caused during depth measurements. At each transect location, triplicate intact sediment cores were collected within the middle two-thirds of the canal cross-sectional area. However, due to differences in water depths, bathymetry of the bottom, and variation in sediment thickness, core collection was often skewed toward one bank or another. Sediment cores were collected using a piston core sampler (Fisher et al., 1992). Core samples for P fractionation were sectioned on site into 0- to 10 and 10- to 30-cm increments, stored in polyethylene bags on ice, and transported to the University of Florida Wetland Biogeochemistry Laboratory in Gainesville for further analysis. Data from the 0- to 10-cm depth of the P fractionation study is presented in this summary report.

***Phosphorus Fractionation***

The P fractionation procedure was a modification of the procedure described by Hieltjes and Lijklema (1980), and adopted for wetland soils (Reddy et al., 1998). Field-wet subsamples (0.5 g dry weight equivalent) were sequentially extracted with 1 M KCl (labile P), 0.1 M NaOH (Fe and Al-bound P, and alkali extractable organic phosphorus [Po]), and 0.5 M HCl (Ca and Mg-bound P). The residue from the above extraction was combusted at 550oC for 4 h and the ash dissolved in 6 M HCl and analyzed for TP. Total phosphorus from the ash procedure is assumed to be residual Po. The NaOH extracts were analyzed for both TP (Method 4500-P, APHA, 1998) and inorganic phosphorus (Pi) after a 0.45-µm filtration (Method 365.1, U.S. Environmental Protection Agency, 1983). These fractions are referred to as NaOH-TP and NaOH-Pi, respectively, with NaOH-Pi representing the iron- and aluminum-bound P. The difference between NaOH-TP and NaOH-Pi was assumed to be Po (NaOH-Po) associated with humic and fulvic acid (Qualls and Richardson, 1995; Reddy et al., 1998).

## Results Summary

## Sediment Physicochemical Properties

Canal sediments showed a wide range in selected physicochemical properties throughout the WCA canals (**Table G-1**). In general, bulk density values increased with depth at all locations, with the least values observed in the sediments of the L7N and L40N canals. Low bulk densities in surface sediments in these two canals were probably the contribution of detrital matter from aquatic vegetation. In contrast, the greatest bulk density values were observed in sediments from the MCN that were characterized by lower organic matter content and higher mineral matter. Overall, organic matter and TP decreased with depth at all locations. Average TP concentrations from surface sediments ranged from 258 mg/kg in sediment samples from the L6 canal to 1700 mg/kg in samples from the MCS.

## Sediment Depth and Volume in Main Canals

Sediment depth were highly variable, both across a given transect and longitudinally down any given canal. Canal midpoint sediment depths varied from less than 5 cm for several transects in the L38 canal to more than 3 m at L7N canal (**Figure G-2**). Canal average sediment depth ranged from 0.54 m in the L6 canal to 2.45 m in the L7N canal totaling 1.5 million $m^3$ (**Table G-2**). The total sediment volume calculated for the entire 196 km of canal reaches was about 6.8 million $m^3$, with 71 percent stored in the canals from the eastern side (L7, L39, and L40) of the WCAs (**Figure G-1**).

Low sediment accumulation in some canals sections, such as south of structure S7 on L38 and south of S8 on the Miami Canal (**Figure G-2**), are probably the result of higher flow velocities due to the canals' small cross-sectional areas, increasing the likelihood of sediment resuspension and transport during strong drainage events. In contrast, the deep sediments in the L7N canal are probably influenced by its location north of STA-1W outlet, and therefore not being exposed to most of the drainage flow coming out of the S-5A structure. Few drainage events, together with high productivity of aquatic vegetation in the L7N canal reduced the potential of sediment transport and increased the amount of detrital material being deposited to become part of the sediment inventory of this canal.

Higher sediment accumulation in the eastern canals is probably the result of a combination of factors such as flow, canal size, and nutrient loading from drainage waters coming from the Everglades Agricultural Area and adjacent urban areas (Walker, 1999). Historical data shows that TP concentrations of inflow water coming into the Everglades Protection Areas generally shows a decreasing north to south gradient, with the highest concentrations measured in the inflow to canals around WCA-1 (Noe et al., 2001). Higher TP loads increase the productivity of these canals resulting in higher amounts of particulate P that is being deposited through mechanisms such as biological uptake, sorption, and precipitation (Stuck et al., 2001).

Sediment depth and accumulation in main WCA canals also showed variability from north to south (**Figure G-2**). Sediment accumulation in the eastern canals was considerable larger in the northern sections (L7N and L40N), where cross-sectional area of these canals was larger and exposed to few drainage events during the year (**Table G-2**, **Figures G-2A** and **G-2B**). Total sediment accumulation and physical and chemical properties from the Miami Canal were notably different form north to south. The Miami Canal section north of structure S-8 was deepened in the late 1950s to provide better flow conveyance from the EAA to what is now WCA-3 (Light and Dinnen, 1994). This section of the Miami Canal has a larger cross-sectional area than the southern section, allowing longer flow residence time and increasing sediment deposition (**Table G-2**). Sediments from this section were high in TP and mineral matter as reflected in the higher bulk densities and TP storage when compared with the rest of the canals. In contrast, sediment accumulation in the MCS was less variable along the entire canal. The cross-sectional area of the MCS is considerably smaller than the north section, reducing the probability of sediment accumulation, especially for the first 9 km south of structure S-8 (**Figure G-2D**). Sediment accumulation was considerably higher north of structure S-339 and south of structure S-340, which are two gate-sheetpile barrier dams constructed to hold water in the adjacent marshes during low flow periods (U.S. Army Corps of Engineers, 1992).

Sediments in main WCA canals play an important role in P storage from agricultural drainage waters introduced into the Everglades Protection Area. Estimates from this study shows that the surface 12-cm sediment layer of all canal reaches downstream of functioning STAs store a TP mass of approximately 217 megagrams (Mg) (**Table G-2**). Canal reaches upstream of the STAs have an additional 18 Mg of P. The total P mass calculated for the entire sediment profile of all canal reaches in the WCAs was estimated to be in excess of 1800 Mg P.

## Inorganic Phosphorus Fractions

Phosphorus stored in the labile pool is of concern because it represents the readily available pool of P. However, the KCl-Pi fraction represented less than 1 percent of the TP in surface sediments at all locations (**Table G-3**). Low P recovery in KCl extraction was probably due to some precipitation of P as Ca-P compounds during the equilibration period (Reddy et al., 1998). The NaOH-Pi fraction represents P associated with amorphous oxyhydroxide surfaces and crystalline iron and aluminum oxides and may constitute a potential source of P to the water column under certain conditions. Inorganic P extracted with NaOH ranged from 0.9 to 13 percent of the TP in all canal sediments (**Table G-3**). The L40 canal contained the greatest concentration of this P fraction, which equaled to 6189 kg iron- and aluminum- bound P in the surface 10 cm (**Table G-4**). This P fraction was considerable higher in the organic sediments of canals located in the eastern side of the WCAs (L7, L39, and L40). The NaOH-Pi fraction along the eastern canals increased with distance from the inflow structures accounting for 8 percent of TP in the northern part of the L40 canal (C22), and up to 27 percent of the TP in sediments midway down on L40 (C24) (**Figure G-3A**). In contrast, sediments from the Miami Canal were more variable with NaOH-Pi values ranging from less than 2 percent of TP in sediments north of structure S-8 (C28), to 9 percent of TP in sediments north of structure S-339 (C2) (**Figure G-3C**). The significance of the NaOH-Pi fraction in the eastern canals is its susceptibility to changes with redox potential that can result in possible long-term P release to the water column.

Phosphorus bound to calcium and magnesium minerals (HCl-Pi) was the dominant P fraction in all canal sediments. The HCl-Pi fraction from all locations accounted for 41 to 64 percent of the TP, with the greatest concentrations measured in sediments from the MCN and the least concentrations in sediments from the L40 canal (**Table G-3**). This P fraction accounted for 105 Mg of the calculated TP from all surface sediments (**Table G-4**). Under most natural conditions the calcium- and magnesium-bound P is relatively stable and unavailable for biological assimilation (Sonzogni et al., 1982). The HCl-Pi fraction along the eastern canals decreased with distance to the inflow structures from EAA (**Figure G-3A** and **G-3B**). Similarly, the Miami Canal showed the greatest concentration of this P fraction around the inflow structure (S-8) from the Everglades Agricultural Area (**Figure G-1** and **G-3C**). Drainage concentrations from the EAA are generally high in calcium and magnesium concentrations (Diaz et al., 1994) and play a major role in P precipitation and storage in sediments (Newman and Pietro, 2001). Several studies have shown that HCL-extractable P from soils and sediments from the WCAs are significantly correlated with extractable calcium and magnesium (Richardson and Vaithiyanathan, 1995; Reddy et al., 1998), with calcium playing a significant role for the long- and short-term storage for P within the STAs (Newman and Pietro, 2001).

## Organic Phosphorus Fractions

Organic P extracted with NaOH is associated with humic and fulvic acid, which is biologically reactive and can be hydrolyzed to bioavailable forms (Bowman and Cole, 1978; Ivanoff et al., 1998). The NaOH-Po fraction represented 1 to 17 percent of TP in canal sediments, with the greatest concentrations measured in the L40 canal and the least concentrations observed in the sediments from the MCN (**Table G-3**). This P fraction accounted for 22,532 kg of the calculated TP mass from all surface sediments (**Table G-4**). The NaOH-Po fraction along the eastern canals gradually increased with distance from the inflow structures, with the greatest increases observed in the L7/L39 canal (**Figure G-3B**). This P fraction accounted for 7 percent of TP in sediments around the inflow structure G-310, gradually increasing up to 19 percent in sediments from the southern section of L39. In contrast, sediments from the Miami Canal were more variable with NaOH-Po values ranging from less than 1 percent of TP in sediments collected north of structure S-8, to 14 percent of TP in sediments in the southern section of the canal (**Figure G-3C**). These results show that a considerable portion of the TP in WCA sediments is stored in the NaOH-Po pool, especially in the eastern canals on the WCAs, particular in the L40 canal sediments. Some studies in the Everglades have suggested that Po storage in the impacted areas of WCA-2A appears to be through vegetative uptake and subsequent accumulation via detrital tissue deposition (Qualls and Richardson, 1995; Reddy et al., 1998). However, the relative stability of this P fraction is unknown and dependent on environmental condition regulating the rate of Po mineralization.

Residual Po at all locations represented between 21 and 35 percent of TP, with the greatest concentrations observed in sediments from the MCN (**Table G-3**). This P fraction accounted for 54,491 kg of calculated TP mass of all surface sediments (**Table G-4**). Residual Po is considered to be highly resistant and biologically unavailable (Hieltjes and Lijklema, 1980). In the eastern canals, residual Po represented up 30 percent of TP in the L40 canal (**Figure G-3A**). In the Miami Canal, residual Po represented more than half of the TP in sediments north of structure S-8, and an average of 23 percent of TP in the southern section (**Figure G-3C**). Phosphorus stored in this pool fraction represents a stable and long-term storage pool in this ecosystem. The residual Po fraction was the second largest storage pool in these canal sediments after the Ca-P pool. These results indicate that more than 80 percent of the TP mass in the surface 10-cm sediment layer of all canals in the WCAs is fairly stable. However, there is still a considerable P fraction, especially in sediments stored in canals bordering the Loxahatchee National Wildlife Refuge that are more susceptible to be released with changes in redox potential and can become a source of P to the overlying water column.

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**Table G-1. Selected physical and chemical properties of surface sediments from major canals in the Water Conservation Areas.**

| Canal Designation† | Depth | Bulk Density | Organic Matter | Total P |
|---|---|---|---|---|
| | cm | g $cm^{-3}$ | g $kg^{-1}$ | mg $kg^{-1}$ |
| L7N (n=63) | 0-2 | 0.111 (0.017) | 452 (45) | 1370 (227) |
| | 5-7 | 0.142 (0.022) | 503 (68) | 1222 (245) |
| | 10-12 | 0.158 (0.024) | 489 (79) | 1254 (308) |
| L7S (n=80) | 0-2 | 0.048 (0.061) | 403 (111) | 980 (275) |
| | 5-7 | 0.218 (0.171) | 398 (114) | 1080 (486) |
| | 10-12 | 0.218 (0.132) | 421 (141) | 956 (447) |
| L39 (n=107) | 0-2 | 0.229 (0.185) | 363 (156) | 958 (585) |
| | 5-7 | 0.331 (0.265) | 340 (180) | 697 (469) |
| | 10-12 | 0.363 (0.273) | 347 (224) | 629 (611) |
| L40N (n=36) | 0-2 | 0.109 (0.027) | 408 (59) | 1220 (190) |
| | 5-7 | 0.141 (0.026) | 408 (80) | 1167 (136) |
| | 10-12 | 0.154 (0.017) | 439 (95) | 1117 (245) |
| L40S (n=201) | 0-2 | 0.161 (0.227) | 440 (182) | 1301 (542) |
| | 5-7 | 0.338 (0.414) | 336 (191) | 1113 (662) |
| | 10-12 | 0.572 (0.511) | 250 (208) | 827 (680) |
| L6 (n=69) | 0-2 | 0.388 (0.210) | 246 (168) | 320 (188) |
| | 5-7 | 0.589 (0.375) | 215 (178) | 258 (178) |
| | 10-12 | 0.599 (0.391) | 232 (220) | 276 (217) |
| L5 (n=54) | 0-2 | 0.192 (0.157) | 373 (152) | 844 (382) |
| | 5-7 | 0.330 (0.226) | 287 (123) | 556 (332) |
| | 10-12 | 0.458 (0.285) | 234 (140) | 413 (279) |
| L38 (n=75) | 0-2 | 0.340 (0.358) | 311 (144) | 1306 (591) |
| | 5-7 | 0.450 (0.355) | 275 (170) | 1113 (598) |
| | 10-12 | 0.396 (0.280) | 269 (172) | 936 (529) |
| MCN (n=99) | 0-2 | 0.507 (0.268) | 122 (61) | 1409 (403) |
| | 5-7 | 0.493 (0.206) | 176 (89) | 1265 (434) |
| | 10-12 | 0.571 (0.262) | 161 (111) | 1312 (543) |
| MCS (n=217) | 0-2 | 0.250 (0.241) | 320 (141) | 1700 (778) |
| | 5-7 | 0.396 (0.333) | 262 (151) | 1488 (753) |
| | 10-12 | 0.498 (0.374) | 224 (155) | 1291 (887) |

†L7S = Canal 7 South; L40S = Canal 40 South; MCN = Miami Canal North; MCS = Miami Canal South; L7N = Canal 7 North; L40N = Canal 40 North.
‡Mean value with standard deviation in parentheses.

**Table G-2. Sediment and P inventories from the entire profile and surface 12-cm depth in major canals of the Water Conservations Areas.**

| Canal Designation† | Transect Numbers | Average Sediment Depth | Average Canal Width | Canal Length | Canal Bed Area | Total Sediment Volume | Total Sediment P Mass | Sediment Volume in Top 12- cm | Total P Mass in Top 12-cm |
|---|---|---|---|---|---|---|---|---|---|
| | | ----------- | (m) | ----------- | ($m^2$) | ($m^3$) | (Mg) | ($m^3$) | (Mg) |
| L7S | L7-01 to L7-09 | 1.07 | 55.2 | 14 725 | 812 887 | 869 784 | 138.8 | 97 546 | 15.6 |
| L39 | L39-01 to L39-12 | 0.91 | 42.8 | 20 921 | 895 418 | 813 709 | 138.3 | 107 450 | 18.3 |
| L40S | L40-01 to L40-24 | 0.76 | 37.4 | 40 073 | 1 498 269 | 1 133 683 | 236.7 | 179 792 | 37.5 |
| L6 | L6-01 to L6-08 | 0.54 | 41.5 | 11 265 | 467 412 | 252 947 | 30.3 | 56 089 | 6.7 |
| L5 | L5-01 to L5-05 | 0.82 | 19.5 | 8 851 | 172 666 | 141 967 | 18.6 | 20 720 | 2.7 |
| L38 | L38-01 to L38-13 | 0.64 | 25.0 | 20 921 | 523 393 | 334 848 | 113.3 | 62 807 | 21.3 |
| MCN | MCN-01 to MCN-11 | 0.97 | 31.2 | 17 220 | 537 271 | 521 092 | 387.0 | 64 473 | 47.9 |
| MCS | MCS-01 to MCS-28 | 0.72 | 21.7 | 44 901 | 976 575 | 707 161 | 403.8 | 117 189 | 66.9 |
| Totals | | | | 178 869 | 5 883 891 | 4 775 189 | 1 466.9 | 706 067 | 216.9 |
| | | | | | | | | | |
| L7N | L7-10 to L7-16 | 2.45 | 56.6 | 10 863 | 614 912 | 1 506 362 | 264.8 | 74 336 | 13.1 |
| L40N | L40-25 to L40-28 | 1.78 | 43.8 | 6 276 | 275 002 | 488 370 | 76.1 | 33 000 | 5.1 |
| Totals | | | | 17 140 | 889 914 | 1 994 733 | 340.8 | 107 336 | 18.3 |

†Eastern Canals = L7, L39, and L40; Central Canals = L5, L6, and L38; Western Canals = MCN and MCS.

**Table G-3. Labile and non-labile pools of phosphorus from the 0 to 10-cm in canal sediments from the Water Conservation Areas.**

| Canal Designation† | P Forms | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | KCl-Pi | NaOH-Pi | HCl-Pi | Total Pi | NaOH-Po | Residual P | Total Po | Total TP |
| | | | | μg cm$^{-3}$ | | | | |
| L40 (n=9) | 0.16 (0.23)‡ | 9.3 (13.4) | 28.5 (41.2) | 38.0 (54.8) | 11.9 (17.2) | 19.4 (28.0) | 31.3 (45.2) | 69.3 |
| L7 (n=9) | 0.19 (0.15) | 6.4 (4.9) | 74.0 (57.4) | 80.5 (62.5) | 12.3 (9.6) | 36.0 (27.9) | 48.3 (37.5) | 128.9 |
| L39 (n=6) | 0.57 (0.77) | 5.4 (7.3) | 34.8 (47.0) | 40.8 (55.1) | 10.7 (14.5) | 22.5 (30.4) | 33.2 (44.9) | 74.0 |
| L6 (n=6) | 0.26 (0.42) | 2.0 (3.2) | 36.9 (61.5) | 39.2 (65.2) | 4.9 (8.2) | 16.0 (26.7) | 20.9 (34.8) | 60.1 |
| L38 (n=6) | 0.25 (0.15) | 5.8 (3.5) | 105.6 (64.3) | 111.7 (68.0) | 18.0 (10.9) | 34.5 (21.0) | 52.5 (32.0) | 164.2 |
| L5 (n=6) | 0.22 (0.25) | 4.4 (4.9) | 48.0 (54.1) | 52.5 (59.3) | 11.6 (13.1) | 24.5 (27.6) | 36.1 (40.7) | 88.6 |
| MCN (n=9) | 0.30 (0.05) | 6.0 (0.9) | 423.0 (63.2) | 429.4 (64.1) | 5.3 (0.8) | 234.8 (35.1) | 240.1 (35.9) | 669.4 |
| MCS (n=9) | 0.15 (0.11) | 8.2 (6.0) | 79.0 (57.7) | 87.3 (63.9) | 18.4 (13.4) | 31.0 (22.7) | 49.4 (36.1) | 136.8 |

†L7 = Canal 7; L40 = Canal 40; MCN = Miami Canal North; MCS = Miami Canal South; L39 = Canal 39; L5 = Canal 5; L6 Canal 6.
‡ Mean value with % TP in parenthesis.

**Table G-4. Estimates of total P mass of different pools in the 0- to 10-cm-sediment depth of major canals in the Water Conservation Areas**

| Canal Designation | Labile P (KCl) | Fe/Al Bound P | Ca/Mg Bound P | Total Pi | Humic Organic Bound P | Residual Po | Total Po | Total Sediment P Mass |
|---|---|---|---|---|---|---|---|---|
| | ------------------------------------------------ | | | (kg) | ------------------------------------------------ | | | Mg |
| L7 | 35 | 1 241 | 13 313 | 14 590 | 2 434 | 6 824 | 9 257 | 23.8 |
| L39 | 116 | 1 263 | 6 482 | 7 861 | 2 541 | 4 823 | 7 365 | 15.2 |
| L40 | 89 | 6 189 | 13 197 | 19 475 | 6 473 | 9 604 | 16 078 | 35.6 |
| L6 | 26 | 207 | 3 185 | 3 418 | 499 | 1 694 | 2 193 | 5.6 |
| L5 | 6 | 120 | 1 160 | 1 286 | 326 | 653 | 979 | 2.3 |
| L38 | 27 | 797 | 10 183 | 11 006 | 2 426 | 4 286 | 6 712 | 17.7 |
| MCN | 24 | 399 | 25 098 | 25 521 | 359 | 14 005 | 14 364 | 39.9 |
| MCS | 61 | 3 346 | 32 289 | 35 696 | 7 473 | 12 603 | 20 076 | 55.8 |
| Totals | 384 | 13 562 | 104 907 | 118 854 | 22 532 | 54 491 | 77 024 | 195.9 |

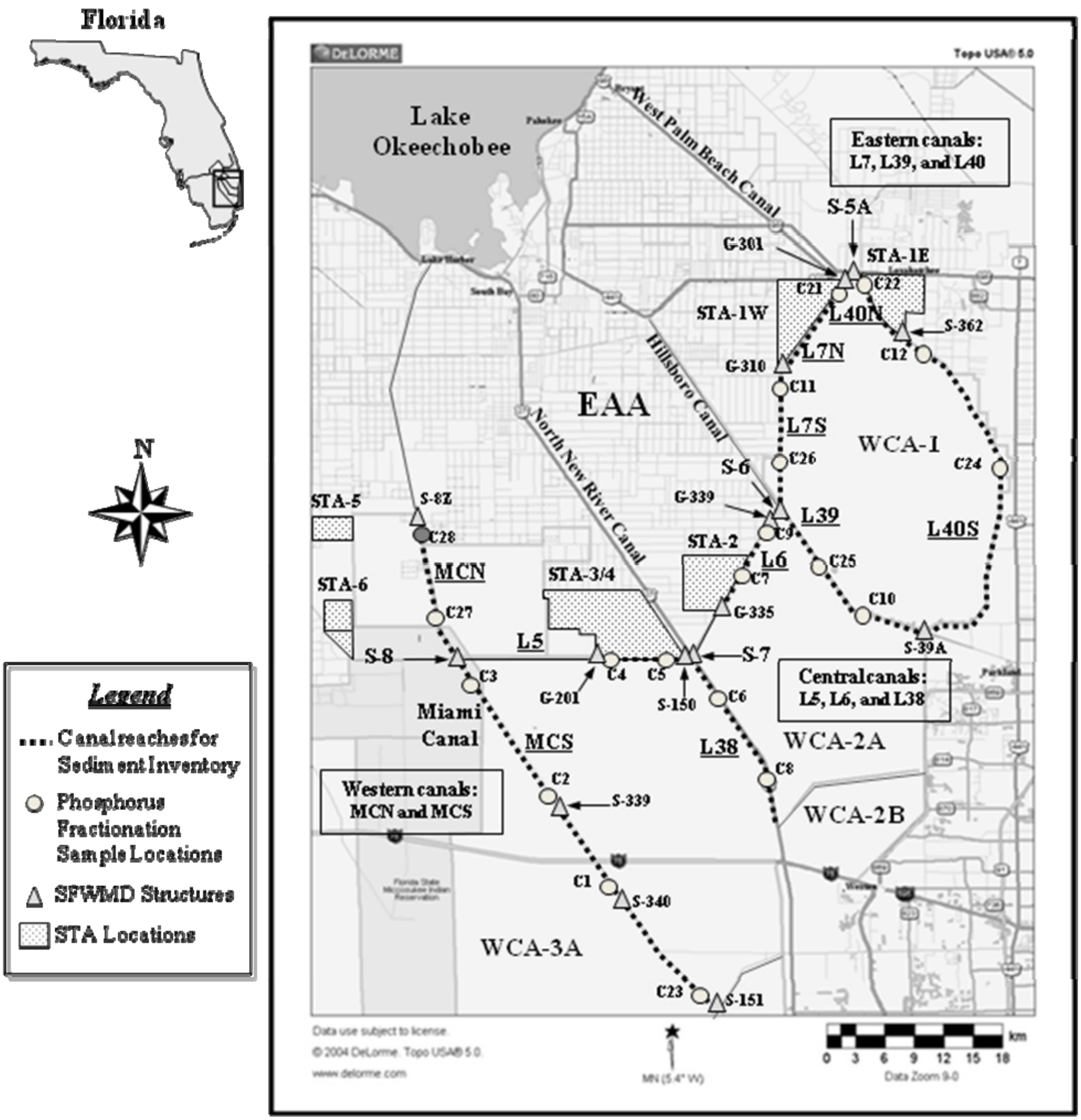


**Figure G-1. Canal reaches and sampling locations in the Water Conservation Areas.**

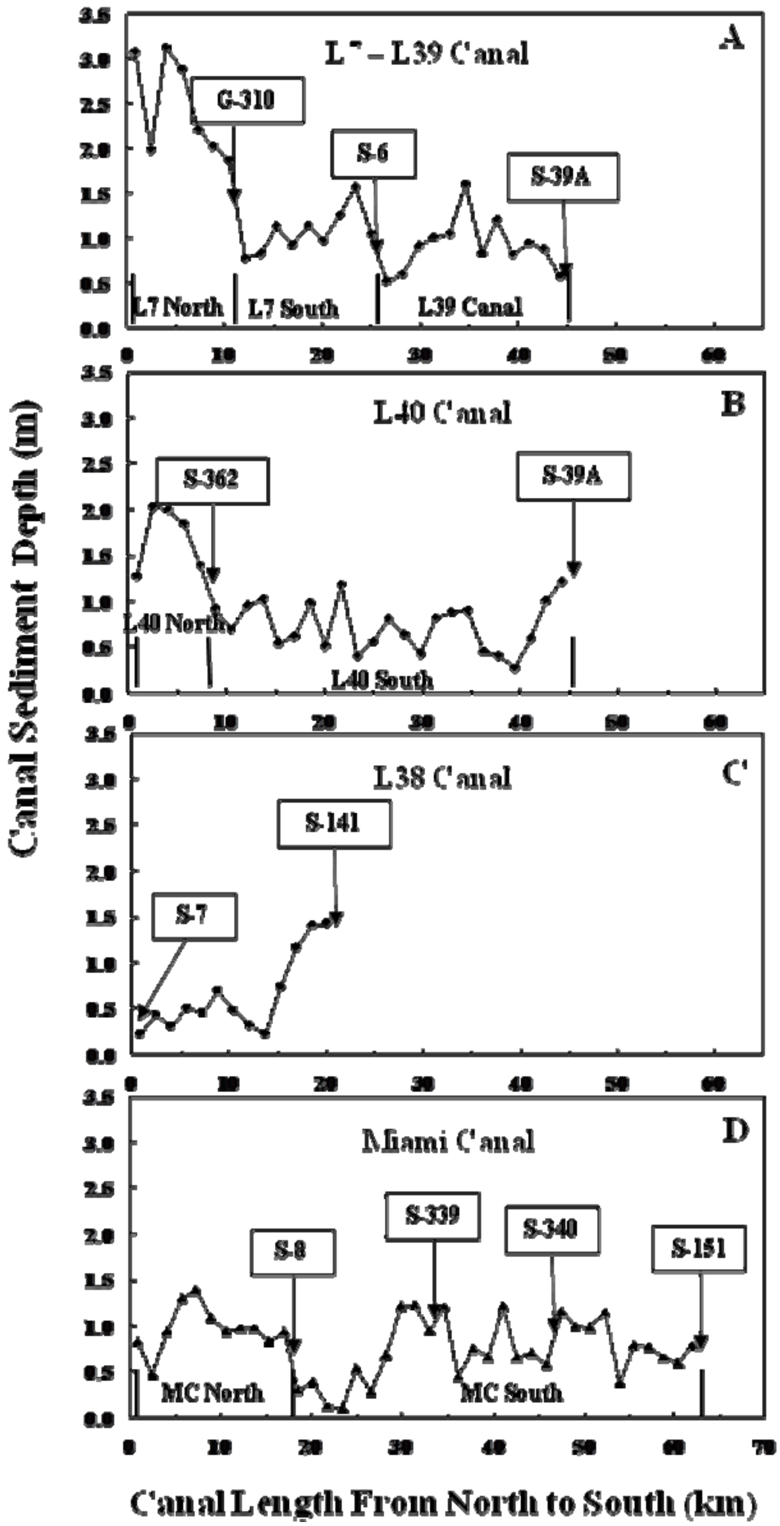


**Figure G-2. Sediment depth profiles of main canals in the Water Conservation Areas.**

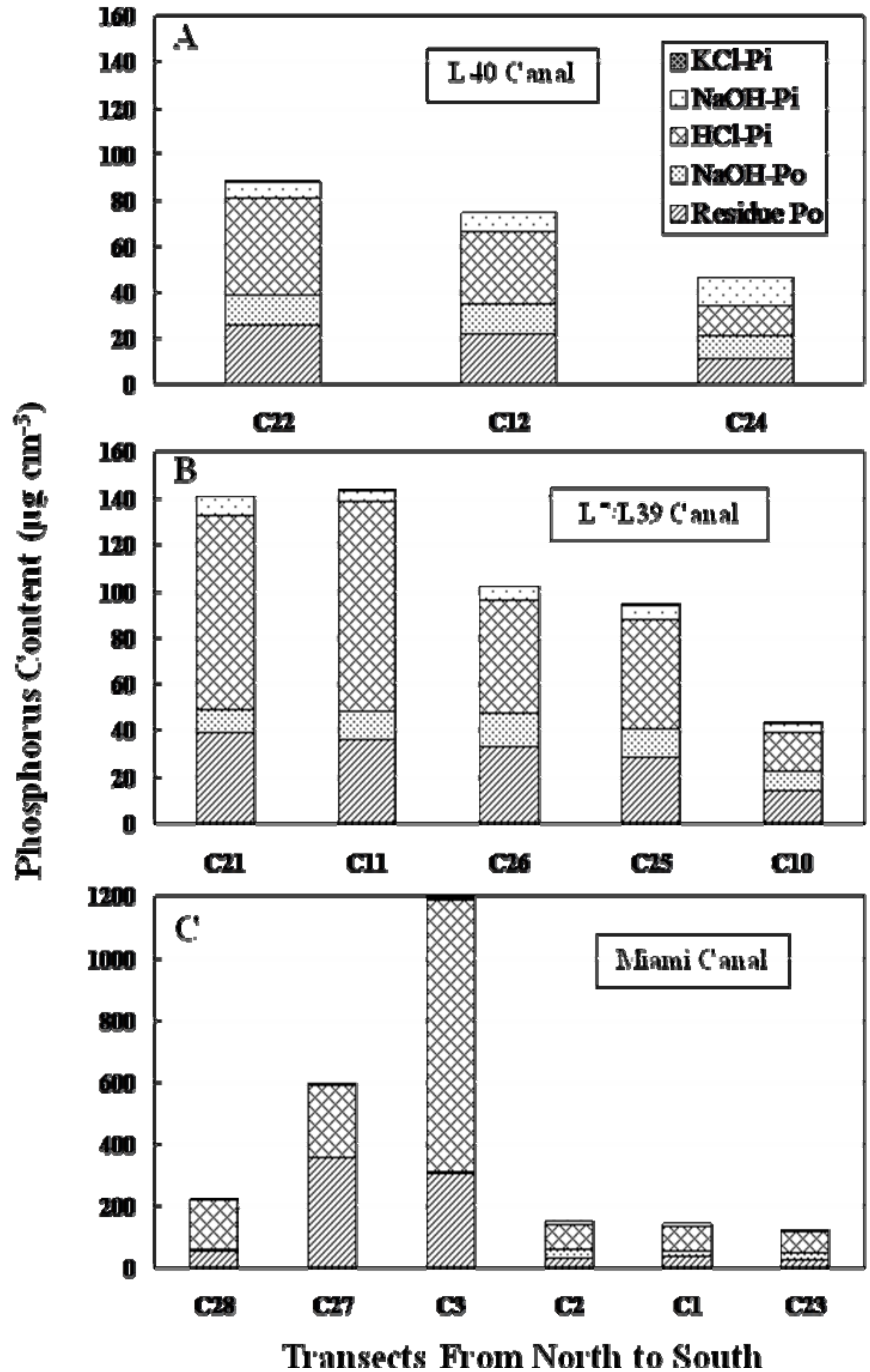


**Figure G-3. Distribution of sediment P fractions at selected transects in main WCA canals.**