

## 1. Introduction – Purpose

This POS outlines the data collection effort needed by PCS to develop specific interpretations of the FDEP narrative nutrient criteria (NNC) in proposed rules 62-302 and 62-303 FAC that were approved by the Environmental Regulation Commission (ERC) on December 8, 2011. <http://www.dep.state.fl.us/water/wqssp/nutrients/docs/meetings/nnc-legislature-package-120911.pdf> There are four potential mechanisms for developing a specific interpretation of the FDEP NNC: 1) Type II Site Specific Alternative Criteria (SSAC), subsection 62-302.800(2) , F.A.C.; 2) water quality based effluent limits (WQBEL), Rule 62-650 ,F.A.C.; 3) total maximum daily load limits (TMDL), Rule 62-303, F.A.C., or 4) a site specific interpretation established by rule or final order of the Department, sub-subparagraph 62-302.531(2)(a)1.d., F.A.C. This POS is designed to collect adequate data to allow any of the above to be used to set the criteria once all the data are collected and analyzed.

Interpretations will be needed for Swift Creek (wbid 3375), Camp Branch (wbid 3444), Hunter Creek (wbid 3364) and Roaring Creek (wbid 3392) (Figure 1-1). Suwannee River wbid 3341, 3341a, and 3341b will be evaluated for potential downstream impacts (Figure 1-1). These wbid are part of the Upper Suwannee Planning unit which ends at the confluence with the Withlacoochee. In 2008 FDEP adopted Total Maximum Daily Loads (TMDLs) for Nitrate (NO<sub>3</sub>) for the Middle Suwannee and Lower Suwannee River <http://www.dep.state.fl.us/water/tmdl/docs/tmdls/final/gp1/suwanneebasinnutrienttmdl.pdf>. PCS is highly confident that there will be no increased nitrate loading to these downstream waters; however, this plan of study will be revised to address nitrate if increases are shown to occur. PCS expects the nitrate contributions from their facility to either remain the same or decrease, so PCS expects no additional impacts will be found. Although the facilities do not handle nitrate products, there is likely some conversion of ammonia, which is used in the process, to nitrate. The prior evaluations performed by FDEP for the development of estuary numeric nutrient criteria also addressed the estuary which is considered to be generally healthy and nitrogen limited. The Lower Suwannee Estuary WBID 3422D was on the cycle 2 adopted verified list for nutrients based on annual average chlorophyll concentrations in 2 consecutive years more than 50% above the historic minimum. WBID 3422D was part of the Lower Suwannee addressed in the TMDL.

Figure 1-1 shows the FDEP wbid and PCS suggested reaches that are slightly different from the wbid. PCS suggests using the proposed reaches to evaluate the data, pending further analysis of spatial heterogeneity and DEP approval. The rationale for reach break points are as follows. The reach SR above HC (Suwannee above Hunter) contains all stations with data prior to any

potential water quality influence from PCS operations. The SR HC to SC reach is actually the river segment from Hunter Creek confluence to just above confluence with Swift Creek. This segment periodically receives PCS stormwater discharges from reclaimed land and lakes. No chemical plant process or non-process water is discharged to this segment. The third reach is SR SC to WR (Suwannee below confluence with Swift Creek to Withlacoochee River). This segment includes the portion of the river that receives the PCS processing facilities discharges and discharges from numerous springs.

The goal is to have the new interpretations in place for inclusion into the renewal of PCS Industrial Wastewater (IW) permit # FL0000655. The renewal application is due July 7, 2014. Table 1-1 provides a tentative timeline for the study.

| <b>Table 1-1. Study Timeline</b>                                                                                                                                                                                  |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>TASK</b>                                                                                                                                                                                                       | <b>DATES</b> |
| Publish Public Notice                                                                                                                                                                                             | May 2012     |
| Finalize POS                                                                                                                                                                                                      |              |
| Begin Data Collection                                                                                                                                                                                             |              |
| Review data and evaluate need for modeling                                                                                                                                                                        | March 2013   |
| Interim Data Compilation<br>& Analyses                                                                                                                                                                            | May 2013     |
| Course Adjustment<br>Discussions & Decisions<br>Finalize modeling decisions                                                                                                                                       | June 2013    |
| Begin Data Review <ul style="list-style-type: none"> <li>- Discuss best option to determine NNC for study area</li> <li>- Note: data collection will continue until decision on site specific criteria</li> </ul> | Feb 2014     |
| Completed Data Analyses                                                                                                                                                                                           | April 2014   |
| Draft Report                                                                                                                                                                                                      | May 2014     |
| File IW Renewal Application                                                                                                                                                                                       | July 2014    |

Note: all data will be added to spreadsheets and distributed as it is finalized each month or quarter.

PCS expects all of the study areas (Figure 1-1) to be placed in assessment category 4d for DO (if evaluated in this cycle) for the Impaired Waters Rule (IWR) 2012 Group 1 evaluation cycle, pending results of this study. Several waters listed for DO are expected to be removed from the 303d list, assuming the new DO criteria proposed by DEP are approved by EPA. Waterbodies in

category 4d will be included on the federal 303(d) list and EPA may determine that TMDLs are necessary for these waters.

The FDEP Jacksonville District office will be the official repository for public documents related to this study.

## 2. Approach

The nutrient levels in PCS receiving streams are naturally high. The biological communities in these streams have adapted to these higher levels, based on SCI results. In fact, prior FDEP sampling in Camp Branch using the SCI procedure showed the stream met requirements for a benchmark stream for use in setting NNC criteria. However, EPA required FDEP remove the stream from the benchmark group due to mining in its watershed even though the SCI indicated clearly healthy biological communities. Prior sampling in Swift Creek typically resulted in scores well above the 40 threshold indicating a healthy stream. Hunter Creek has not been sampled for bioassessment data. Sampling in Roaring Creek has also shown it to be in the healthy category.

Statistical analyses of the historical data, parallel biological and chemical data, and projections of future conditions will be used to set specific levels for each receiving waterbody. All data collected pursuant to section 4 will be used in the evaluation.

An alternative point of reference for specific NNC levels could be those that existed when the Suwannee was adopted as an Outstanding Florida Water (OFW) pursuant to Rule 62-302.700, F.A.C. The base period for OFW water quality for the Suwannee is March 1, 1978 through February 28, 1979.

Should the lack of rainfall and water management at the facilities result in no discharges to Hunter or Roaring Creek during the study period, Camp Branch may be used as a surrogate for these streams, provided it can be demonstrated that these other streams are similar and comparable to Camp Branch

## 3. Summary of existing data

Considerable historical data are available for the study area. PCS collects weekly data for the instream compliance points for water quality criteria for many of the parameters needed for this study. Attachment A has the relevant monitoring requirements from the current IW permit. Both FDEP and the Suwannee River Water Management District (SRWMD) routinely collect data from the area streams and Suwannee River. These data are available via Florida storet (<http://storet.dep.state.fl.us/DearSpa/>). Table 2-1 contains the relevant stations that

have data after 1/1/2003. The majorities of these stations are located within the Suwannee River and will be used to evaluate downstream impacts, including long-term variability, from Swift Creek, Hunter Creek, Camp Branch, and Roaring Creek. Figure 2-1 shows the approximate locations of the Suwannee stations. The FDEP IWR Access database has most of this data also.

| <p><b>Table 2-1</b><br/><b>Suwannee River Stations 2003-present</b></p> |            |                                                    |             |       |                     |                      |                     |                  |
|-------------------------------------------------------------------------|------------|----------------------------------------------------|-------------|-------|---------------------|----------------------|---------------------|------------------|
| Map #                                                                   | Station ID | Station Name                                       | Reach       | WBID  | DO                  | TP                   | TN                  | Chl A            |
| 1                                                                       | 21821      | SUWANNEE RIVER 7 MILES US SR-6, SRC-LR-2003        | SR Above HC | 3341C | Sept 04 (2)         | Sept 04 (1)          | Sept 04 (1)         | Sept 04 (1)      |
| 2                                                                       | 21020017   | SUWANNEE R @ ROLINE BOAT RAMP                      | SR Above HC | 3341C | 2006 (11)           | 2006 (12)            | none                | 2006 (11)        |
| 38                                                                      | 18963      | SUWANNEE RIVER 5.7 MILES US US#41, SRC-LR-1016     | SR Above HC | 3341C | Sept 03 (2)         | Sept 03 (1)          | Sept 03 (1)         | Sept 03 (1)      |
| 3                                                                       | SUW010C1   | SUWANNEE RIVER AT SR-6 OR NEAR BENTON FL           | SR Above HC | 3341B | Jan 03-Sept 10 (99) | Jan 03-Sept 10 (102) | Jan 03-Sept 10 (91) | none             |
| 3                                                                       | 21020141   | SUWANNEE RIVER @ SR 6                              | SR Above HC | 3341B | Mar 11-> P (4)      | Mar 11-> P (4)       | Mar 11-> P (4)      | Mar 11-> P (4)   |
| 3                                                                       | 3535       | SUWANNEE RIVER AT S.R. 6 NEAR BENTON               | SR Above HC | 3341B | Jan 03 -> P (158)   | Jan 03 -> P (101)    | Jan 03 -> P (101)   | Jan 03 -> P (99) |
| 4                                                                       | 18948      | SUWANNEE RIVER .9 MILES DS SR-6, SRC-LR-1001       | SR Above HC | 3341B | Sept 03 (2)         | Sept 03 (1)          | Sept 03 (1)         | Sept 03 (1)      |
| 5                                                                       | 21010027   | SUWANNEE R ~ 200M DOWNSTREAM OF HUNTER CR          | SR HC to SC | 3341B | Apr 11-> P (2)      | Apr 11-> P (2)       | Apr 11-> P (2)      | Apr 11-> P (2)   |
| 6                                                                       | 18976      | SUWANNEE RIVER ABOVE CONE BRIDGE ROAD, SRC-LR-1030 | SR HC to SC | 3341B | Sept 03 (2)         | Sept 03 (1)          | Sept 03 (1)         | Sept 03 (1)      |
| 7                                                                       | 21010020   | SUWANNEE RIVER AT CONE BRIDGE RD                   | SR HC to SC | 3341B | Apr 03 -> P (28)    | Nov 05 -> P (5)      | Mar 11-> P (4)      | Nov 05 -> P (5)  |
| 8                                                                       | 21835      | SUWANNEE RIVER DS DEEP CREEK, SR1-LR-2018          | SR HC to SC | 3341B | Sept 04 (1)         | Sept 04 (1)          | Sept 04 (1)         | Sept 04 (1)      |
| 9                                                                       | 21823      | SUWANNEE RIVER 1.3 MILES US US#41, SR1-LR-2005     | SR HC to SC | 3341A | Sept 04 (1)         | Sept 04 (1)          | Sept 04 (1)         | Sept 04 (1)      |
| 10                                                                      | 21020042   | SUWANNEE R AT US #41                               | SR HC to SC | 3341A | July 06 (1)         | none                 | none                | none             |
| 10                                                                      | SUW040C1   | SUWANNEE RIVER AT WHITE SPR (US 41)                | SR HC to SC | 3341A | Jan 03 -> P (104)   | Jan 03 -> P (106)    | Jan 03 -> P (88)    | none             |
| 11                                                                      | 18954      | SUWANNEE RIVER .6 MILES DS US#41, SRC_LR-1007      | SR HC to SC | 3341A | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 12                                                                      | 18977      | SUWANNEE RIVER 1 MILE DS US#41, SRC-LR-1031        | SR HC to SC | 3341A | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 13                                                                      | 21020006   | SUWANNEE RIVER @ US 41 & SR 136                    | SR HC to SC | 3341A | June 06 (1)         | none                 | none                | none             |
| 14                                                                      | 21828      | SUWANNEE RIVER 2.75 MILES DS SR-136, SR1-LR-2010   | SR HC to SC | 3341A | Sept 04 (2)         | Sept 04 (1)          | Sept 04 (1)         | Sept 04 (1)      |
| 15                                                                      | 21020001   | SUWANNEE R U/S FR CONFL SWIFT CR                   | SR HC to SC | 3341A | Aug-Dec 08 (3)      | Aug-Dec 08 (3)       | Dec 08 (1)          | Aug-Dec 08 (3)   |
| 16                                                                      | 21020062   | SUWANNEE R ~ 150M BELOW SWIFT CREEK                | SR SC to WR | 3341A | Oct-Dec 08 (2)      | Aug-Dec 08 (3)       | Dec 08 (1)          | Aug-Dec 08 (3)   |
| 17                                                                      | 18973      | SUWANNEE RIVER AT I-75, SRC-LR-1026                | SR SC to WR | 3341A | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 18                                                                      | 37933      | SUWANNEE RIVER .9 MILES DS I-75, Z2-LR-3010R       | SR SC to WR | 3341  | Oct 09 (2)          | Oct 09 (1)           | Oct 09 (1)          | Oct 09 (1)       |
| 18                                                                      | 36366      | SUWANNEE RIVER .9 MILES DS I-75, Z2-LR-3010        | SR SC to WR | 3341  | Apr 09 (2)          | Apr 09 (1)           | Apr 09 (1)          | Apr 09 (1)       |
| 19                                                                      | 18959      | SUWANNEE RIVER 1.5 MILES DS I-75, SRC-LR-1012      | SR SC to WR | 3341  | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 20                                                                      | 18949      | SUWANNEE RIVER .9 MILES US CB RISE, SRC-LR-1002    | SR SC to WR | 3341  | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 37                                                                      | 18970      | SUWANNEE RIVER .6 MILES US CB RISE, SRC-LR-1023    | SR SC to WR | 3341  | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 21                                                                      | 18951      | SUWANNEE RIVER 1.1 MILES DS CB RISE, SRC-LR-1004   | SR SC to WR | 3341  | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 22                                                                      | 37936      | SUWANNEE RIVER 3 MILES DS CB RISE, Z2-LR-3014R     | SR SC to WR | 3341  | Apr 09 (2)          | Apr 09 (1)           | Apr 09 (1)          | Apr 09 (1)       |
| 22                                                                      | 36369      | SUWANNEE RIVER 3 MILES DS CB RISE, Z2-LR-3014      | SR SC to WR | 3341  | Oct 09 (2)          | Oct 09 (1)           | Oct 09 (1)          | Oct 09 (1)       |
| 23                                                                      | 21843      | SUWANNEE RIVER 1.6 MILES US SR-192, SR1-LR-2027    | SR SC to WR | 3341  | Sept 04 (2)         | Sept 04 (1)          | Sept 04 (1)         | Sept 04 (1)      |
| 24                                                                      | 18953      | SUWANNEE RIVER .5 MILES US SR-192, SRC-LR-1006     | SR SC to WR | 3341  | Aug 03 (2)          | Aug 03 (1)           | Aug 03 (1)          | Aug 03 (1)       |
| 25                                                                      | 21020015   | SUWANNEE R @ 93RD NR SR 129                        | SR SC to WR | 3341  | Mar-Nov 06 (11)     | Apr-Nov 06 (8)       | none                | Apr-Nov 06 (8)   |

Map # refers to locations on Figure 2-1

**Table 2-1 Continued**  
**Suwannee River Stations 2003-present**

|    |          |                                                        |             |      |                     |                   |                  |                 |
|----|----------|--------------------------------------------------------|-------------|------|---------------------|-------------------|------------------|-----------------|
| 25 | SUW070C1 | SUWANNEE RIVER AT SUW SPR AT OLD BRIDGE                | SR SC to WR | 3341 | Jan 03 -> P (96)    | Jan 03 -> P (99)  | Jan 03 -> P (83) | Oct 10 -> P (2) |
| 26 | 21820    | SUWANNEE RIVER 7.5 MILES DS SR 192, SR1-LR-2002        | SR SC to WR | 3341 | Sept 04 (2)         | Sept 04 (1)       | Sept 04 (1)      | Sept 04 (1)     |
| 27 | 39106    | SUWANNEE RIVER 8.4 MILES DS SR 192, Z2-LR-4010R        | SR SC to WR | 3341 | Oct 10 (2)          | Oct 10 (1)        | Oct 10 (1)       | Oct 10 (1)      |
| 27 | 38446    | SUWANNEE RIVER 8.4 MILES DS SR 192, Z2-LR-4010         | SR SC to WR | 3341 | Apr 10 (2)          | Apr 10 (1)        | Apr 10 (1)       | Apr 10 (1)      |
| 28 | 18950    | SUWANNEE RIVER 1 MILE US ALAPAHA, SRC-LR-1003          | SR SC to WR | 3341 | Aug 03 (2)          | Aug 03 (1)        | Aug 03 (1)       | Aug 03 (1)      |
| 29 | 21020128 | SUWANNEE RIVER @ GIBSON PARK                           | SR SC to WR | 3341 | Dec 09 -> P (35)    | Dec 09-Feb 10 (5) | none             | none            |
| 30 | 21020003 | SUWANNEE R FLA HWY #249                                | SR SC to WR | 3341 | June 03-Nov 06 (14) | Apr-Nov 06 (10)   | none             | Apr-Nov 06 (10) |
| 31 | 18956    | SUWANNEE RIVER 1.3 MILES DS ALAPAHA, SRC-LR-1009       | SR SC to WR | 3341 | Aug 03 (2)          | Aug 03 (1)        | Aug 03 (1)       | Aug 03 (1)      |
| 32 | 21837    | SUWANNEE RIVER 2.3 MILES DS ALAPAHA, SR1-LR-2020       | SR SC to WR | 3341 | Aug 04 (2)          | Aug 04 (1)        | Aug 04 (1)       | Aug 04 (1)      |
| 33 | 21020129 | SUWANNEE RIVER @ 77TH ST SUWANNEE CAMPSITES            | SR SC to WR | 3341 | Dec 09 -> P (35)    | Dec 09-Feb 10 (5) | none             | none            |
| 34 | 18955    | SUWANNEE RIVER 2.4 MILES US WITHLACOOCHEE, SRC-LR-1008 | SR SC to WR | 3341 | Aug 03 (2)          | Aug 03 (1)        | Aug 03 (1)       | Aug 03 (1)      |
| 35 | 21847    | SUWANNEE RIVER 1.7 MILES US WITHLACOOCHEE, SR1-LR-2032 | SR SC to WR | 3341 | Sept 04 (1)         | Sept 04 (1)       | Sept 04 (1)      | Sept 04 (1)     |
| 36 | 21020130 | SUWANNEE RIVER ~ 25M S OF BOAT RAMP@ SRSP              | SR SC to WR | 3341 | Dec 09 -> P (35)    | Dec 09-Feb 10 (5) | none             | none            |

**Map # refers to locations on Figure 2-1**

PCS collects flow, chemistry, and biological data as required by their IW permit. Instream data are collected in Swift Creek (D001), Hunter Creek (D002) and Camp Branch (D004). The Roaring Creek outfall (D003) has not been activated (Figure 3-1). The biological samples were collected at slightly different locations to preserve historical and background comparisons. The locations are designated SC\_BI, HC@WP, and CB\_BI respectively on Figure 3-1. Under the current IW permit, macroinvertebrate data are collected quarterly using Hester Dendy samplers. The sampling requirements are shown in attachment A. Samples are collected whenever there is flow at the monitoring locations as required by the permit. Instream monitoring points on Camp Branch and Swift Creek normally have flow even if PCS is not discharging from their outfalls. The Roaring Creek outfall has not been activated, so there are no samples taken as part of the routine compliance monitoring. However, monthly samples will be collected from Roaring Creek as part of this special study.

**Table 2-2**  
**Suwannee River Stations OFW Period 3/1/1978 to 2/28/1979**

| MAP # | Station ID      | Station Name                                       | REACH       | WBID  | Counts of Parameters |      |      |
|-------|-----------------|----------------------------------------------------|-------------|-------|----------------------|------|------|
|       |                 |                                                    |             |       | DO                   | TP   | TN   |
| 2     | 21020007        | SUWANNEE R W US 441                                | sr above hc | 3341C | 4                    | 3    | 7    |
| 3     | 2315000         | SUWANNEE R NR BENTON FLA                           | sr sc to wr | 3341B | 6                    | 6    | none |
| 3     | 21010020        | SUWANNEE RIVER AT CONE BRIDGE RD                   | sr hc to sc | 3341B | none                 | none | none |
| 3     | 304642082401700 | SUWANNEE R AT CONE BRIDGE LANDING NR BENTON FLA    | sr hc to sc | 3341B | 1                    | none | none |
| 4     | 302416082384800 | SUWANNEE RIVER @ .3 MI BLW LITTLE CR NR BENTON,FLA | sr hc to sc | 3341B | none                 | none | none |
| 5     | 302126082405700 | SUWANNEE RIVER ABV BIG SHOALS NR WHITE SPRINGS F   | sr hc to sc | 3341B | none                 | none | none |
| 6     | 302016082410300 | SUWANNEE R @ .1 MI BLW BIG SHOALS NR WHITE SPRS,FL | sr hc to sc | 3341B | none                 | none | none |
| 7     | 302000082432200 | SUWANNEE RIVER AT LITTLE SHOALS NR WHITE SPRS FL   | sr hc to sc | 3341A | none                 | none | none |
| 8     | 21020042        | SUWANNEE R AT US #41                               | sr hc to sc | 3341A | 2                    | 3    | 5    |
| 8     | 02315500        | SUWANNEE RIVER AT WHITE SPRINGS, FLA.              | sr hc to sc | 3341A | 6                    | 6    | none |
| 9     | 21020006        | SUWANNEE RIVER @ US 41 & SR 136                    | sr hc to sc | 3341A | 12                   | 9    | 21   |
| 10    | 301950082454500 | SUWANNEE R BLW WHITE SULPHUR SPRS AT WHITE SPS F   | sr hc to sc | 3341A | none                 | none | none |
| 11    | 301956082473700 | SUWANNEE R ABV SAL MARIE BRANCH NR WHITE SPRS FL   | sr hc to sc | 3341A | none                 | none | none |
| 12    | 21020001        | SUWANNEE R U/S FR CONFL SWIFT C                    | sr hc to sc | 3341A | 2                    | 2    | 3    |
| 13    | 21020002        | SUWANNEE R AT I 75                                 | sr sc to wr | 3341A | 3                    | 3    | 5    |
| 14    | 302038082500300 | SUWANNEE R BLW INTERSTATE 75 NR GENOA FLORIDA      | sr sc to wr | 3341A | none                 | none | none |
| 15    | 302103082510800 | SUWANNEE R BELOW ROCKY CREEK NR SUWANNEE SPRS FL   | sr sc to wr | 3341  | none                 | none | none |
| 16    | 302202082531000 | SUWANNEE RIVER @ .1 MI ABV CAMP BR NEAR GENOA,FLA  | sr sc to wr | 3341  | none                 | none | none |
| 17    | 02315550        | SUWANNEE RIVER AT SUWANNEE SPRINGS FLA             | sr sc to wr | 3341  | 5                    | 6    | none |
| 18    | 21020003        | SUWANNEE R FLA HWY #249                            | sr sc to wr | 3341  | none                 | none | none |

**Map # refers to locations on Figure 2-2**

Figure 2-2 and Table 2-2 show the stations that were sampled between March 1, 1978 and February 28, 1979, the base year for the OFW determination for the Suwannee.

#### 4. Supplemental data collection

Supplemental data will be collected for use in creating specific interpretations of the FDEP NNC. Figure 3-1 shows the approximate locations of the stations at which data will be collected. PCS will be responsible for collection of monthly chemical data. All data will be collected and processed using the appropriate FDEP SOPs in Chapter 62-160, F.A.C.. All chemical analyses will be done in NELAC certified laboratories. Table 3-1 contains the parameters to be collected.

| <b>Table 3-1. Water Quality Parameters to be collected</b> |
|------------------------------------------------------------|
| Total Phosphorus                                           |
| Ortho-Phosphorus                                           |
| Total Nitrogen                                             |
| Total Kjeldahl Nitrogen                                    |
| Nitrate-Nitrite                                            |
| Ammonia                                                    |
| Dissolved Oxygen                                           |
| Temperature                                                |
| Specific Conductivity                                      |
| pH                                                         |
| Turbidity                                                  |
| Total Suspended Solids                                     |
| BOD5                                                       |
| True Color                                                 |
| Corrected Chlorophyll-a                                    |

The FDEP standards and assessment section (SAS) will conduct audits to ensure that collection of water quality, Stream Condition Index (SCI), Rapid Periphyton Survey (RPS), and Linear Vegetation Survey (LVS) data meet all the applicable QA requirements. The goal will be to collect quarterly biological data; however, all preconditions for valid sampling must be met. All data will be collected and processed in accordance with the appropriate FDEP Standard Operating Procedures (SOP). Longitudinal patterns in periphyton coverage within each stream will be assessed by conducting RPS sampling at various points along the stream course from the discharge point (or appropriate headwater location) to the most downstream biological station shown in Figure 3-1. The longitudinal sampling will be conducted at least twice during the study. The planned monitoring frequency for each study site is summarized in Table 3-1. Biological data will be interpreted based on the version of SCI adopted in DEP rules (i.e., Chapter 62-160, F.A.C., Chapter 62-302, F.A.C.) at the time of final project report preparation. However, if the SCI 2008 bioregions are still in effect at that time, then the



Northeast region SCI metrics will be used as the majority of water at the biological stations originate from this region.

All data will be distributed via email or FTP to all parties to the study within two weeks of final analyses and quality control / assurance for each event.

Table 3-1. Study Monitoring Frequency by Station.

| Site Code    | Description<br>Locations shown on Figure 3-1 | Weekly<br>Compliance<br>Monitoring | Monthly<br>water<br>quality | Quarterly<br>Biological |
|--------------|----------------------------------------------|------------------------------------|-----------------------------|-------------------------|
| SR_AB_SR6    | Suwannee R above State Rd. 6                 |                                    | X                           | X                       |
| SR_UP_SC     | Suwannee R upstream of Swift Creek           |                                    | X                           | X                       |
| SR_DS_SC     | Suwannee R downstream of Swift Creek         |                                    | X                           | X                       |
| SR@129       | Suwannee R at Hwy 129                        |                                    | X                           | X                       |
| HC_CW        | Hunter Creek a~ ¾ mile west of CR 135        |                                    | X                           |                         |
| HC@WP        | Hunter Creek at Woodpecker , CR 135          |                                    | X                           | X                       |
| RO_003A      | Roaring Creek at Compliance Point 003        |                                    | x                           |                         |
| RO_182/RO_BI | Roaring Creek at CR 182                      |                                    | X                           | X                       |
| SC_001       | Swift Creek at Compliance Point 001          | X                                  | X                           | X                       |
| SC_CR25      | Swift Creek at County Road 25                |                                    | X                           |                         |
| CB_004       | Camp Branch at Compliance Point 004          | X                                  | X                           |                         |
| CB_BI        | Camp Branch at Trail                         |                                    | X                           | X                       |

NOTE: outfalls to Hunter Creek and Camps Branch will be monitored weekly if discharging

## 5. Potential modeling

Modeling may be needed to address conditions or impacts in the downstream receiving waters, Suwannee River wbids 3341, 3341a, and 3341b. The FDEP Watershed Evaluation & TMDL (WET) section will be consulted on any modeling effort. Based on previous meetings and discussion there are adequate physical and water quantity data either currently available or being collected under other programs to satisfy modeling requirements. The SRWMD will share their LiDar data and other morphological data for use in the modeling effort. Existing chemical data and the supplement data described above will also be available for use in any modeling that might be needed. As noted in Table 1-1, an initial evaluation of modeling needs will be made in conjunction with FDEP in March 2013. Should modeling be deemed necessary, details related to the modeling will be worked out and a final decision on modeling needs will be made by June 2013.

## 6. Interim reporting and analyses

PCS will summarize the status of data collections and ongoing activities quarterly and distribute to all parties. All parties collecting data that will be used in this study will be contacted for status of their work prior to the quarterly summary. Data available to PCS will be added to running files quarterly and made available to all parties.

PCS will also monitor the current conditions in the waterbodies being studied and notify FDEP of past or anticipated changes in flows and water levels to assist in assuring that appropriate conditions exist for biological sampling.

Should weather conditions (e.g. drought and subsequent lack of discharges) prevent adequate sampling and data collection at some of the stations, consideration of surrogate applicability, continued application of narrative standards, continued operation under current permit, potential extension of data collection activities, and other options will be considered to allow adequate evaluation of inherent variability in nutrients and nutrient response variables. Data adequacy will be assessed based on both existing Storet data (e.g., Table 2-1) and data collected pursuant to this POS using typical statistical tests. The status of rule changes and timing will also be considered. Any changes in the sampling design will only be made after approval by FDEP and if significant will be publicly noticed via a legal notice.

#### 7. Final data analyses and report

PCS will assemble the final report with input from all parties to the study. Once the report, which demonstrates fully protective site specific interpretations of the narrative nutrient criterion, has been accepted by FDEP, FDEP will be asked to begin the steps necessary to finalize the legal specific interpretation of FDEP NNC criteria for PCS receiving streams and downstream waterbodies. These specific interpretations will then be incorporated in the renewal of IW permit # FL0000655.

#### 8. Ancillary activities that will need to be completed

- a) A SSAC study on DO for Suwannee River wbid 3341 may be needed. Assuming the data analyses support site specific criteria and are scientifically defensible a SSAC will be established for this wbid. Numerous springs and other natural sources in this wbid apparently cause DO levels to fall below the current and proposed DO rule criteria.
- b) After the POS has been approved by FDEP, PCS will publish a legal notice prepared by FDEP to notify the public that this POS contains the steps and process necessary to investigate the establishment of site specific NNC criteria pursuant to proposed paragraph 62-302.531(2)(a) F.A.C.

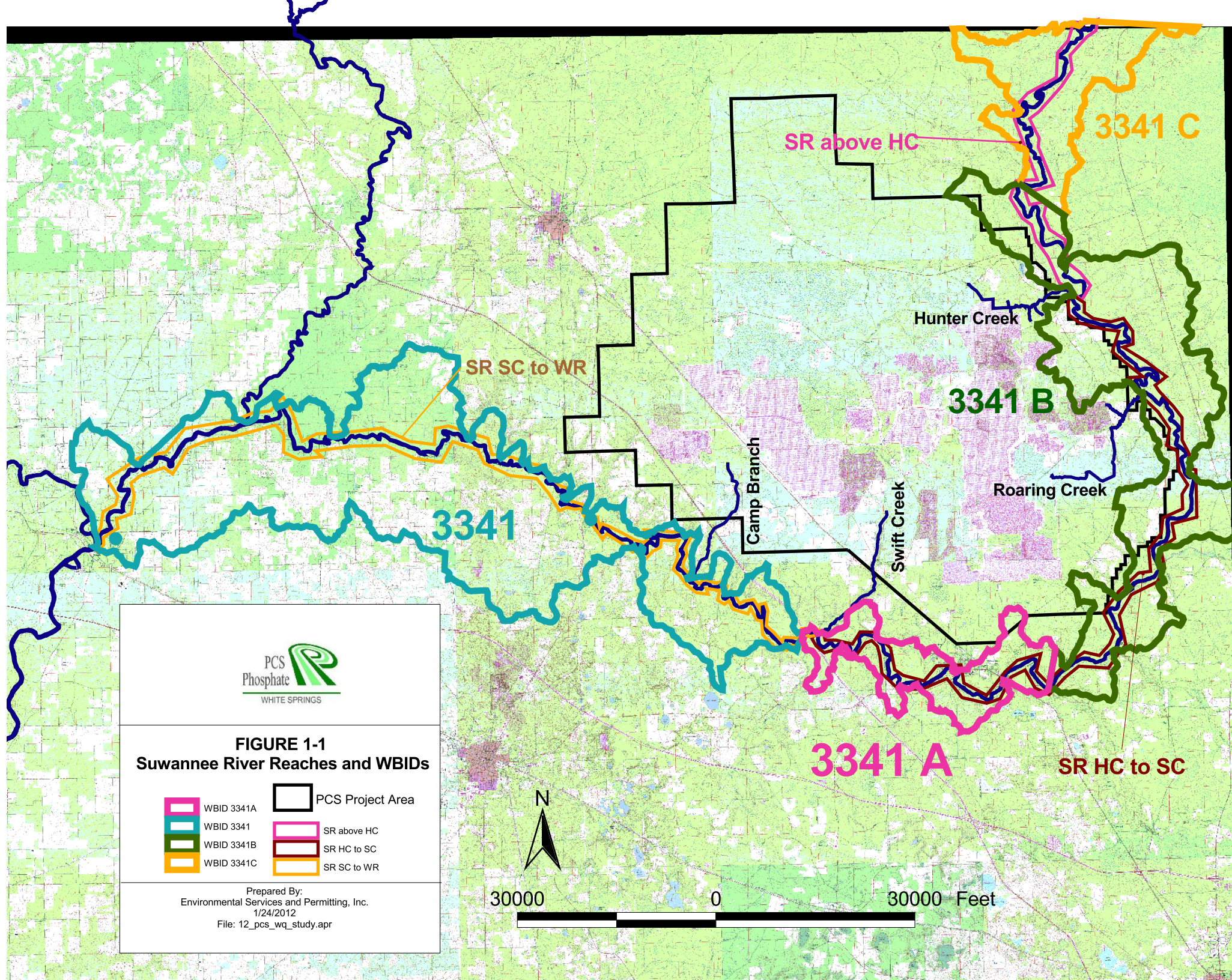




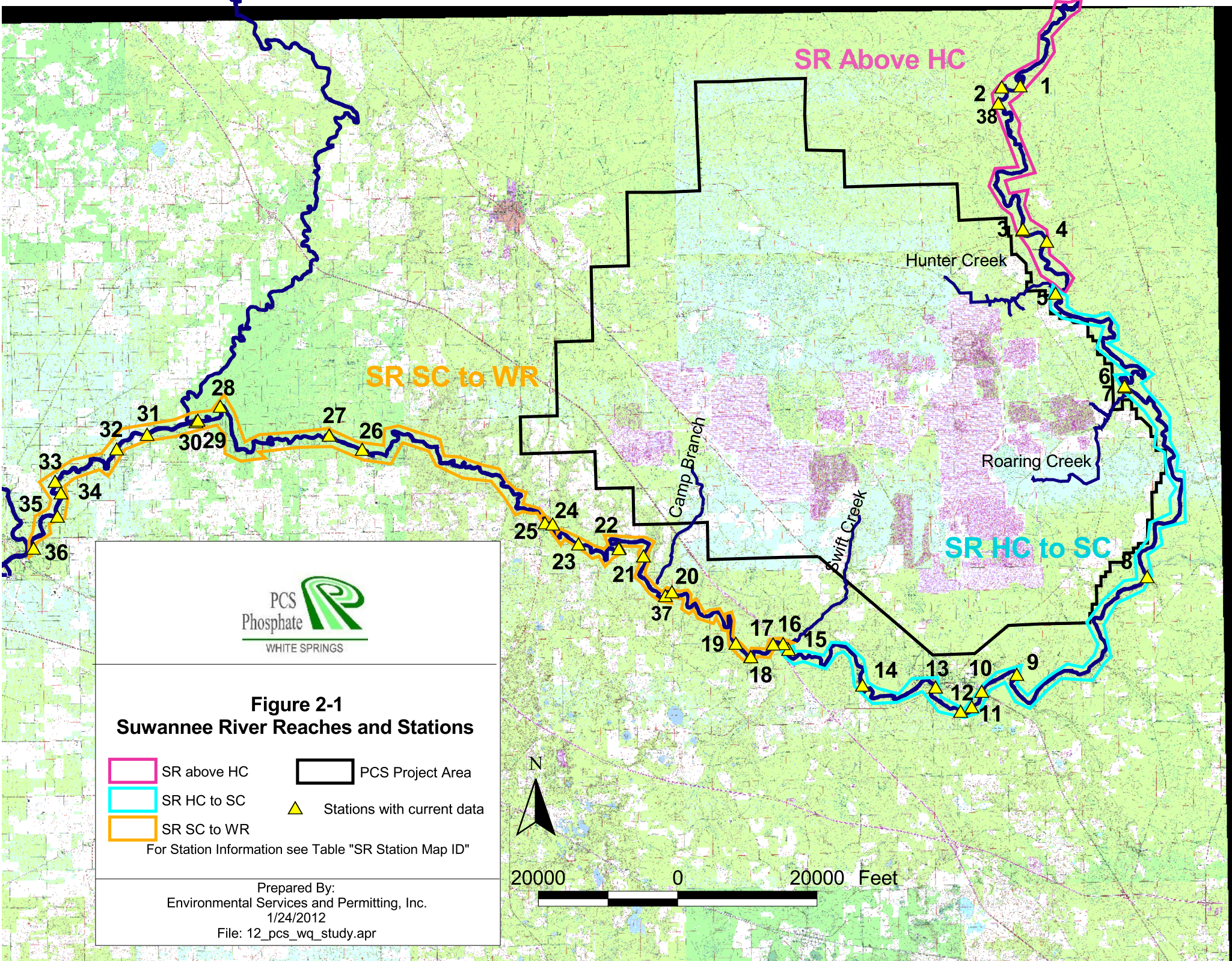
**FIGURE 1-1**  
**Suwannee River Reaches and WBIDs**



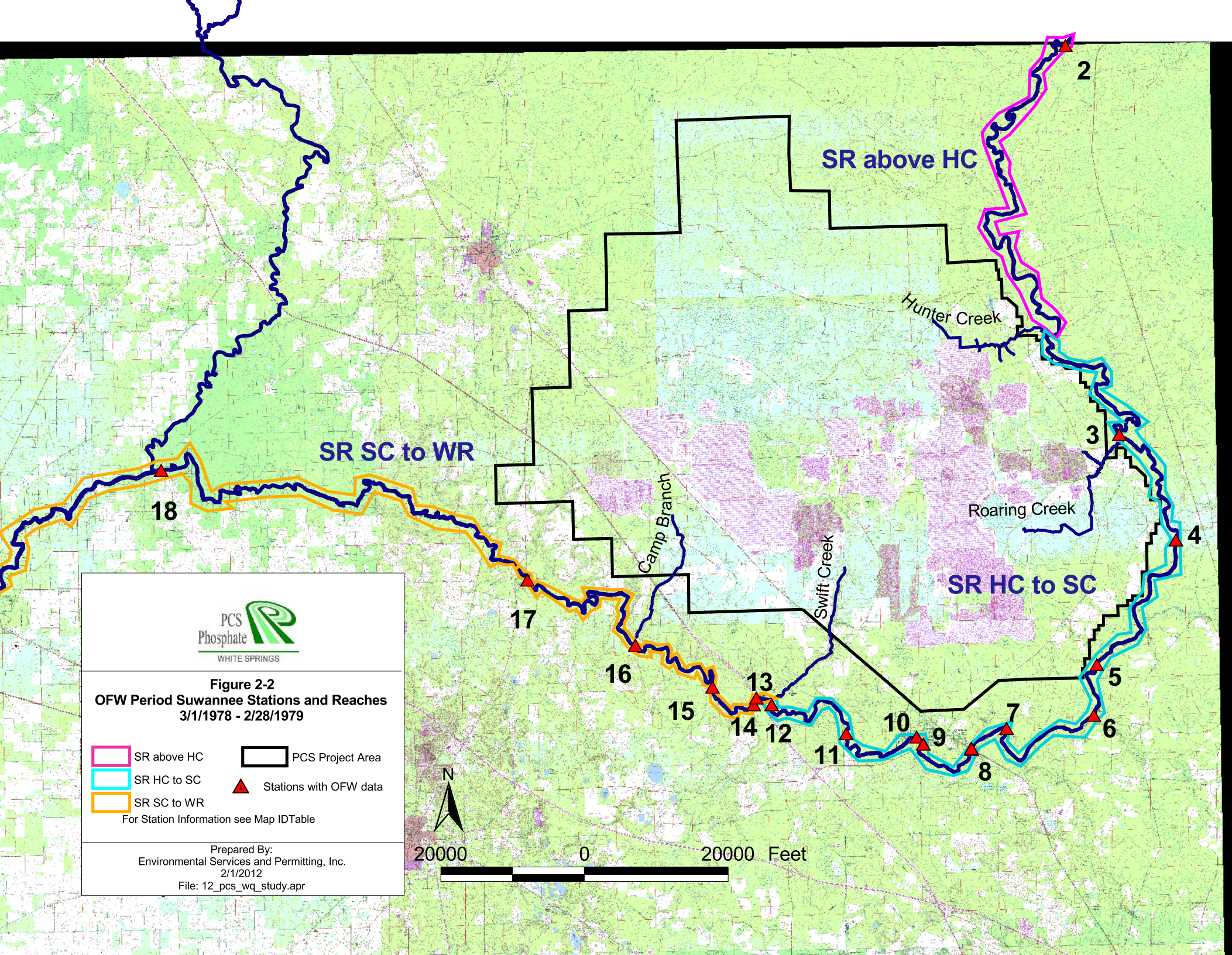
Prepared By:  
Environmental Services and Permitting, Inc.  
1/24/2012  
File: 12\_pcs\_wq\_study.apr













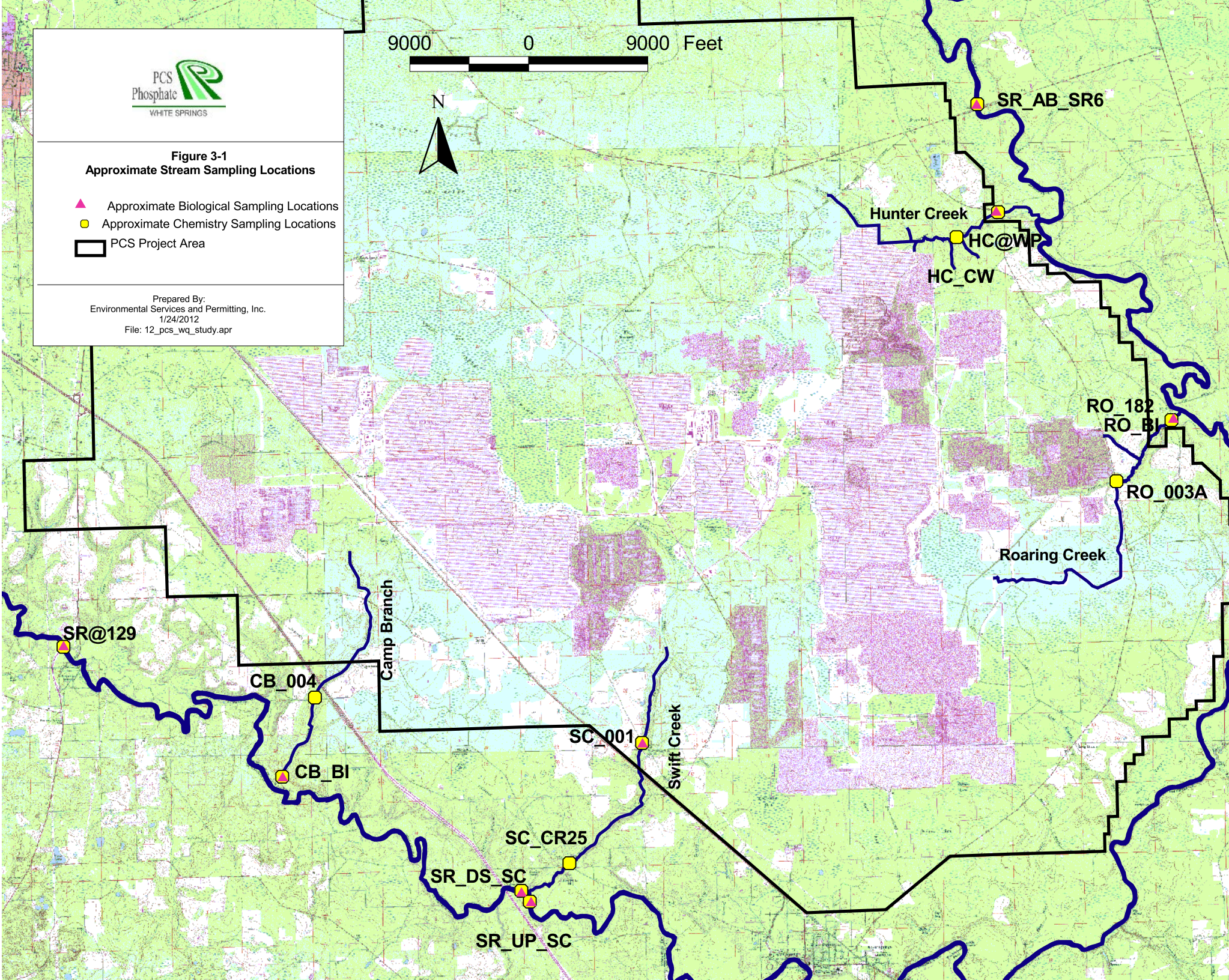


**Figure 3-1**  
**Approximate Stream Sampling Locations**

- ▲ Approximate Biological Sampling Locations
- Approximate Chemistry Sampling Locations
- PCS Project Area

Prepared By:  
Environmental Services and Permitting, Inc.  
1/24/2012  
File: 12\_pcs\_wq\_study.apr

9000 0 9000 Feet





# **ATTACHMENT A**

**Monitoring for IW Permit**

**# FL 0000655-004**

PERMITTEE:  
PCS Phosphate - White Springs  
White Springs, FL 32096

PERMIT NUMBER: FL0000655 – 004  
Expiration date: January 7, 2015

## I. Effluent Limitations and Monitoring Requirements

### A. Surface Water Discharges

- During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge from **Outfall D-001**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.E.3.:

| Parameters (units)                      | Discharge Limitations |                                     |               | Monitoring Requirements |                                    |              |
|-----------------------------------------|-----------------------|-------------------------------------|---------------|-------------------------|------------------------------------|--------------|
|                                         | Monthly Average       | Daily Maximum                       | Daily Minimum | Monitoring Frequency    | Sample Type                        | Sample Point |
| Flow (MGD)                              | Report                | Report                              | --            | Daily                   | Calculated                         | EFF-1        |
| Oxygen, Dissolved (DO) (MG/L)           | Report                | --                                  | 5.0           | Weekly                  | In-situ, mid-stream and mid-depth  | EFF-1        |
| Solids, Total Suspended (MG/L)          | Report                | Report                              | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Fluoride, Total (as F) (MG/L)           | Report                | 10.0                                | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Specific Conductance (UMHO/CM)          | Report                | 1275                                | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Temperature (°C), Water                 | Report                | Report                              | --            | Weekly                  | Grab or In-situ                    | EFF-1        |
| pH (SU)                                 | --                    | 8.5                                 | 6.0           | Weekly                  | Grab or In-situ                    | EFF-1        |
| Turbidity (NTU)                         | Report                | 31.0<br>See Permit Condition I.A.32 | --            | Weekly                  | Grab                               | EFF-1        |
| Nitrogen, Ammonia, Total (as N) (MG/L)  | Report                | Report                              | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Ammonia, Unionized (as NH3) (MG/L)      | Report                | 0.02                                | --            | Weekly                  | Calculated                         | EFF-1        |
| Nitrogen, Kjeldahl, Total (as N) (MG/L) | Report                | Report                              | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Nitrogen, Total (MG/L)                  | Report                | Report                              | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Nitrogen, Total (LBS/DAY)               | Report                | --                                  | --            | Weekly                  | Calculated                         | EFF-1        |
| Phosphorus, Total (as P) (MG/L)         | Report                | Report                              | --            | Weekly                  | 24-hr. time proportional composite | EFF-1        |
| Phosphorus, Total (as P) (LBS/DAY)      | Report                | --                                  | --            | Weekly                  | Calculated                         | EFF-1        |
| Radium 226 + Radium 228, Total (PCI/L)  | --                    | 5.0                                 | --            | Quarterly               | 24-hr. time proportional composite | EFF-1        |



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| Parameters (units)                                                         | Discharge Limitations       |               |                                   | Monitoring Requirements |                                    |              |
|----------------------------------------------------------------------------|-----------------------------|---------------|-----------------------------------|-------------------------|------------------------------------|--------------|
|                                                                            | Monthly Average             | Daily Maximum | Daily Minimum                     | Monitoring Frequency    | Sample Type                        | Sample Point |
| Alpha, Gross Particle Activity (PCI/L) <sup>1</sup>                        | --                          | 15.0          | --                                | Quarterly               | 24-hr. time proportional composite | EFF-1        |
| Chronic Whole Effluent Toxicity, 7-Day IC25 ( <i>Ceriodaphnia dubia</i> )  |                             |               | 100<br>See Permit Condition I.A.3 | Quarterly               | 24-hr. time proportional composite | EFF-1        |
| Chronic Whole Effluent Toxicity, 7-Day IC25 ( <i>Pimephales promelas</i> ) |                             |               | 100<br>See Permit Condition I.A.3 | Quarterly               | 24-hr. time proportional composite | EFF-1        |
| Biological Integrity                                                       | See Permit Condition I.A.31 |               |                                   | Quarterly               | --                                 | EFF-1        |

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below:

| Sample Point | Description of Monitoring Location |
|--------------|------------------------------------|
| EFF-1        | Swift Creek Surface Water Location |

3. The permittee shall comply with the following requirements to evaluate **chronic** whole effluent toxicity of the discharge from outfall D-001.

a. Effluent Limitation

- (1) In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC<sub>25</sub>) shall not be less than 100% effluent. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.]
- (2) For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]

b. Monitoring Frequency

- (1) Routine toxicity tests shall be conducted once every three months, the first starting three months from previous test and lasting for the duration of this permit.
- (2) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 3.a.(1) above, the permittee may submit a written request to the Department for a reduction in monitoring frequency to once every six months. The request shall include a summary of the data and the complete bioassay laboratory reports for each test used to demonstrate compliance. The Department shall act on the request within 45 days of receipt. Reductions in monitoring shall only become effective upon the Department's written confirmation that the facility has completed four consecutive valid routine tests that demonstrate compliance with the effluent limitation in 3.a.(1) above.
- (3) If a test within the sequence of the four is deemed invalid based on the acceptance criteria in EPA-821-R-02-013, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of evaluating the reduction of monitoring frequency.

<sup>1</sup> The Permittee shall first analyze for gross alpha particle including radium 226 but excluding radon and uranium. If the gross alpha particle activity exceeds 5 pCi/L, the Permittee will be required to analyze an aliquot of the same sample for the Radium 226 and 228, and shall be reported on the subsequent month's Discharge Monitoring Report (DMR). If the gross alpha particle activity does not exceed 5 pCi/L, compliance with the combined radium 226 and 228 limit will be deemed to have been achieved.

PERMITTEE:  
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White Springs, FL 32096

D002 monitoring

PERMIT NUMBER: FL0000655 – 004  
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| Parameters (units)                                  | Discharge Limitations |                                     |               | Monitoring Requirements |                                     |              |
|-----------------------------------------------------|-----------------------|-------------------------------------|---------------|-------------------------|-------------------------------------|--------------|
|                                                     | Monthly Average       | Daily Maximum                       | Daily Minimum | Monitoring Frequency    | Sample Type                         | Sample Point |
| Flow (MGD)                                          | Report                | Report                              | --            | 4 days/week             | Calculated                          | EFF-2        |
| Total Non-Volatile Non-Filterable Residue (MG/L)    | 12                    | 25                                  | --            | 2 days/week             | 24-hour time proportioned composite | EFF-2        |
| Solids, Total Suspended (MG/L)                      | 30                    | 60                                  | --            | 2 days/week             | 24-hour time proportioned composite | EFF-2        |
| Oxygen, Dissolved (DO) (MG/L)                       | Report                | --                                  | 5.0           | Weekly                  | In-situ                             | EFF-2        |
| Specific Conductance (UMHO/CM)                      |                       | 1275                                |               | Weekly                  | Grab                                | EFF-2        |
| Fluoride, Total (as F) (MG/L)                       | Report                | 10.0                                | --            | Weekly                  | 24-hour time proportioned composite | EFF-2        |
| Ammonia, Unionized (as NH3) (MG/L)                  | Report                | 0.02                                | --            | Weekly                  | Calculated                          | EFF-2        |
| Nitrogen, Ammonia, Total (as N) (MG/L)              | Report                | Report                              | --            | Weekly                  | Grab                                | EFF-2        |
| Temperature (°C), Water (DEG.C)                     | Report                | Report                              | --            | Weekly                  | Grab or In-situ                     | EFF-2        |
| Turbidity (NTU)                                     | Report                | 31.0<br>See Permit Condition I.A.32 | --            | Weekly                  | Grab                                | EFF-2        |
| pH (SU)                                             | --                    | 8.5                                 | 6.0           | Weekly                  | Grab or In-situ                     | EFF-2        |
| Phosphorus, Total (as P) (MG/L)                     | 3.0                   | 5.0                                 | --            | Weekly                  | 24-hour time proportioned composite | EFF-2        |
| Phosphorus, Total (as P) (LBS/DAY)                  | Report                | --                                  | --            | Weekly                  | Calculated                          | EFF-2        |
| Nitrogen, Kjeldahl, Total (as N) (MG/L)             | Report                | Report                              | --            | Weekly                  | 24-hour time proportioned composite | EFF-2        |
| Nitrogen, Total (MG/L)                              | Report                | Report                              | --            | Weekly                  | 24-hour time proportioned composite | EFF-2        |
| Nitrogen, Total (LBS/DAY)                           | Report                | --                                  | --            | Weekly                  | Calculated                          | EFF-2        |
| Radium 226 + Radium 228, Total (PCI/L)              | --                    | 5.0                                 | --            | Quarterly               | 24-hour time proportioned composite | EFF-2        |
| Alpha, Gross Particle Activity (PCI/L) <sup>4</sup> | --                    | 15.0                                | --            | Quarterly               | 24-hour time proportioned composite | EFF-2        |

<sup>4</sup> The Permittee shall first analyze for gross alpha particle including radium 226 but excluding radon and uranium. If the gross alpha particle activity exceeds 5 pCi/L, the Permittee will be required to analyze an aliquot of the same sample for the Radium 226 and 228, and shall be reported on the subsequent month's Discharge Monitoring Report (DMR). If the gross alpha particle activity does not exceed 5 pCi/L, compliance with the combined radium 226 and 228 limit will be deemed to have been achieved.



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| Parameters (units)                                             | Discharge Limitations       |               |                                    | Monitoring Requirements |             |              |
|----------------------------------------------------------------|-----------------------------|---------------|------------------------------------|-------------------------|-------------|--------------|
|                                                                | Monthly Average             | Daily Maximum | Daily Minimum                      | Monitoring Frequency    | Sample Type | Sample Point |
| Acute Whole Effluent Toxicity<br>( <i>Ceriodaphnia dubia</i> ) |                             |               | 100<br>See Permit Condition I.A.28 | Quarterly               | Grab        | EFF-2        |
| Acute Whole Effluent Toxicity<br>( <i>Cyprinella leedsi</i> )  |                             |               | 100<br>See Permit Condition I.A.28 | Quarterly               | Grab        | EFF-2        |
| Biological Integrity                                           | See Permit Condition I.A.31 |               |                                    | Quarterly               | --          | SWD-2        |

21. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.22 and as described below:

| Sample Point | Description of Monitoring Location |
|--------------|------------------------------------|
| EFF-2        | Canal to Hunter Creek              |
| SWD-2        | Hunter's Creek at CR 135           |

22. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge from **Outfall D-003**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.E.3.

| Parameters (units)                               | Discharge Limitations |               |               | Monitoring Requirements |                                     |              |
|--------------------------------------------------|-----------------------|---------------|---------------|-------------------------|-------------------------------------|--------------|
|                                                  | Monthly Average       | Daily Maximum | Daily Minimum | Monitoring Frequency    | Sample Type                         | Sample Point |
| Flow (MGD)                                       | Report                | Report        | --            | 4 days/week             | Calculated                          | EFF-3        |
| Total Non-Volatile Non-Filterable Residue (MG/L) | 12                    | 25            | --            | 2 days/week             | 24-hour time proportioned composite | EFF-3        |
| Solids, Total Suspended (MG/L)                   | 30                    | 60            | --            | 2 days/week             | 24-hour time proportioned composite | EFF-3        |
| Oxygen, Dissolved (DO) (MG/L)                    | Report                | --            | 5.0           | Weekly                  | In-situ                             | EFF-3        |
| Specific Conductance (UMHO/CM)                   |                       | 1275          |               | Weekly                  | Grab                                | EFF-3        |
| Fluoride, Total (as F) (MG/L)                    | Report                | 10.0          | --            | Weekly                  | 24-hour time proportioned composite | EFF-3        |
| Ammonia, Unionized (as NH3) (MG/L)               | Report                | 0.02          | --            | Weekly                  | Calculated                          | EFF-3        |
| Nitrogen, Ammonia, Total (as N) (MG/L)           | Report                | Report        | --            | Weekly                  | Grab                                | EFF-3        |
| Temperature (°C), Water (DEG.C)                  | Report                | Report        | --            | Weekly                  | Grab or In-situ                     | EFF-3        |

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| Parameters (units)                                          | Discharge Limitations       |                                     |                                    | Monitoring Requirements |                                     |              |
|-------------------------------------------------------------|-----------------------------|-------------------------------------|------------------------------------|-------------------------|-------------------------------------|--------------|
|                                                             | Monthly Average             | Daily Maximum                       | Daily Minimum                      | Monitoring Frequency    | Sample Type                         | Sample Point |
| Turbidity (NTU)                                             | Report                      | 31.0<br>See Permit Condition I.A.32 | --                                 | Weekly                  | Grab                                | EFF-3        |
| pH (SU)                                                     | --                          | 8.5                                 | 6.0                                | Weekly                  | Grab or In-situ                     | EFF-3        |
| Phosphorus, Total (as P) (MG/L)                             | 3.0                         | 5.0                                 | --                                 | Weekly                  | 24-hour time proportioned composite | EFF-3        |
| Phosphorus, Total (as P) (LBS/DAY)                          | Report                      | --                                  | --                                 | Weekly                  | Calculated                          | EFF-3        |
| Nitrogen, Kjeldahl, Total (as N) (MG/L)                     | Report                      | Report                              | --                                 | Weekly                  | 24-hour time proportioned composite | EFF-3        |
| Nitrogen, Total (MG/L)                                      | Report                      | Report                              | --                                 | Weekly                  | 24-hour time proportioned composite | EFF-3        |
| Nitrogen, Total (LBS/DAY)                                   | Report                      | --                                  | --                                 | Weekly                  | Calculated                          | EFF-3        |
| Radium 226 + Radium 228, Total (PCI/L)                      | --                          | 5.0                                 | --                                 | Quarterly               | 24-hour time proportioned composite | EFF-3        |
| Alpha, Gross Particle Activity (PCI/L) <sup>5</sup>         | --                          | 15.0                                | --                                 | Quarterly               | 24-hour time proportioned composite | EFF-3        |
| Acute Whole Effluent Toxicity ( <i>Ceriodaphnia dubia</i> ) |                             |                                     | 100<br>See Permit Condition I.A.28 | Quarterly               | Grab                                | EFF-3        |
| Acute Whole Effluent Toxicity ( <i>Cyprinella leedsii</i> ) |                             |                                     | 100<br>See Permit Condition I.A.28 | Quarterly               | Grab                                | EFF-3        |
| Biological Integrity                                        | See Permit Condition I.A.31 |                                     |                                    | Quarterly               | --                                  | SWD-3        |

23. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.24 and as described below:

| Sample Point | Description of Monitoring Location                                 |
|--------------|--------------------------------------------------------------------|
| EFF-3        | Roaring Creek at CR 135                                            |
| SWD-3        | Downstream from D-003 within Roaring Creek prior to Suwannee River |

<sup>5</sup> The Permittee shall first analyze for gross alpha particle including radium 226 but excluding radon and uranium. If the gross alpha particle activity exceeds 5 pCi/L, the Permittee will be required to analyze an aliquot of the same sample for the Radium 226 and 228, and shall be reported on the subsequent month's Discharge Monitoring Report (DMR). If the gross alpha particle activity does not exceed 5 pCi/L, compliance with the combined radium 226 and 228 limit will be deemed to have been achieved.



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24. During the period beginning upon placing the system into operation and lasting through the expiration date of this permit, the permittee is authorized to discharge from **Outfall D-004**. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.E.3.

| Parameters (units)                 | Discharge Limitations       |                                     |               | Monitoring Requirements |                                     |              |
|------------------------------------|-----------------------------|-------------------------------------|---------------|-------------------------|-------------------------------------|--------------|
|                                    | Monthly Average             | Daily Maximum                       | Daily Minimum | Monitoring Frequency    | Sample Type                         | Sample Point |
| Flow (MGD)                         | Report                      | Report                              | --            | 2 days/week             | Calculated                          | EFF-4        |
| pH (SU)                            | --                          | 8.5                                 | 6.0           | 2 days/week             | Grab or In-situ                     | EFF-4        |
| Solids, Total Suspended (MG/L)     | Report                      | Report                              | --            | Weekly                  | 24-hour time proportioned composite | EFF-4        |
| Oxygen, Dissolved (DO) (MG/L)      | Report                      | --                                  | 5.0           | Weekly                  | In-situ                             | EFF-4        |
| Fluoride, Total (as F) (MG/L)      | Report                      | 10.0                                | --            | Weekly                  | 24-hour time proportioned composite | EFF-4        |
| Specific Conductance (UMHO/CM)     | --                          | 1275                                | --            | Weekly                  | Grab                                | EFF-4        |
| Turbidity (NTU)                    | Report                      | 31.0<br>See Permit Condition I.A.32 | --            | Weekly                  | Grab                                | EFF-4        |
| Phosphorus, Total (as P) (MG/L)    | Report                      | Report                              | --            | Weekly                  | 24-hour time proportioned composite | EFF-4        |
| Phosphorus, Total (as P) (LBS/DAY) | Report                      | --                                  | --            | Weekly                  | Calculated                          | EFF-4        |
| Nitrogen, Total (MG/L)             | Report                      | Report                              | --            | Weekly                  | 24-hour time proportioned composite | EFF-4        |
| Nitrogen, Total (LBS/DAY)          | Report                      | --                                  | --            | Weekly                  | Calculated                          | EFF-4        |
| Biological Integrity               | See Permit Condition I.A.31 |                                     |               | Quarterly               | --                                  | SWD-4        |

25. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.26 and as described below:

| Sample Point | Description of Monitoring Location                        |
|--------------|-----------------------------------------------------------|
| EFF-4        | Camp Branch                                               |
| SWD-4        | Downstream of D-004 within Camp Branch prior to discharge |