AMENDMENT TO THE FACT SHEET
AT THE TIME OF FINAL PERMIT ISSUANCE

DATE:

FACILITY: Easley - Middle Branch WWTP

NPDES NUMBER: SC0039853

PERMIT WRITER: Virginia Buff

1. **Changes to the permit from Draft to Final Permit Stage**:

The concentration and load of Total Suspended Solids (TSS) has been increased from monthly averages of 21.0 mg/l (613 lbs/day) to 30.0 mg/l (876 lbs/day) and weekly averages of 30.0 mg/l (876 lbs/day) to 45.0 mg/l (1314 lbs/day). Justification for these changes can be found in the response to comments section which follows below.

The Cover Page has been revised to reflect the attachment of State Clean Water Act (CWA) Section 401 Certification requirements. In accordance with the certification, nickel mass loadings of 1.63 lbs/day (monthly average) and 3.27 lbs/day (weekly average) and a requirement to report the mass copper loadings have been included on page I-2 of the permit.

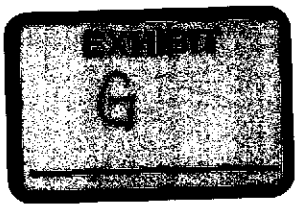
2. **Public Comments**:

The permittee provided timely comments in a letter dated April 13, 2007, and a response to each summarized comment is provided below.

Comment #1: Copper Water Effect Ratio (WER)

Easley spent $20,000 on a WER evaluation giving a WER of 7.051 which translates to effluent limits of 64 ug/l (monthly average) and 84 ug/l (daily max). EPA has proposed WER reevaluations and testing procedures tied to effluent concentrations which are not EPA standard procedures. Additionally, another NPDES facility owned by Easley (Georges Creek) has no copper effluent limits based on a WER and reasonable potential (RP) analysis. EPA concurred in that conclusion.

There is no legal basis for EPA to require more WER reevaluations. EPA has now proposed a WER reevaluation process that is neither consistent with standard practice nor necessary for water quality purposes. Rather, permit issuance is the permit issuing authority's opportunity to evaluate the RP to exceed water quality standards. Furthermore, the WER reevaluation provision is required if any of five (5) water quality parameters were to fall below the values used in the WER study. Also, the WER study



was based on a 7Q10 critical low receiving water flow mix. Non-7Q10 conditions will present an even less critical water quality condition. The combination of critical low receiving water flow mix and the already very conservative factors used for the five variables in the WER procedure make any reevaluation completely unnecessary. We are also not aware of any other NPDES permits with such conditions and would like a list of those issued in the last ten years.

Response: For clarification, Region 4's policy for a WER that results in no RP for the parameter of interest, is that the WER will be minimized by setting an effluent limit based on past performance. A limit is set in order to avoid additional WER tests and evaluations as recommended by the "Interim Guidance on Determination and Use of Water Effect Ratios for Metals" dated February 1994 EPA-823-B-94-001 (Interim Guidance). In a previous draft of this permit Easley objected to a copper effluent limit. In response to this objection, the actual copper limits have been removed; however, additional monitoring/WER reevaluations would be required in the unlikely event that there is a demonstrated increase in copper concentrations discharged. This monitoring and WER reevaluation condition follows the recommendations of the Interim Guidance.

Easley has indicated that the conditional WER monitoring/reevaluation is unnecessary. A close examination of the permit reveals that the WER reevaluation would only occur in the event that there is a significant change in the effluent concentration of copper being discharged. The additional monitoring/reevaluation would only be required if a trigger value of 0.025 mg/l (monthly average) or 0.034 mg/l (daily max) is exceeded in back-to-back months. These Level I trigger values represent the 95th percentile of evaluated DMR data times a multiplying factor of 1.2. A statistical analysis of the likelihood of discharging above the trigger values in consecutive months is 0.25%. Based on current DMR data 99.75% of the time neither of the Level I trigger values will be exceeded in back-to-back months. This conditional monitoring/reevaluations requirement follows the recommendations of the "Interim Guidance" which ensures that the receiving stream will not be adversely impacted due to a change in effluent discharge characteristics. Furthermore, since the effluent makes up 82% of the total stream flow during receiving stream low flow events, special precaution is warranted to protect the stream.

In commenting on the draft permit, Easley noted that another facility owned by Easley (Georges Creek) the State removed the copper limit after a WER performed for this facility showed no reasonable potential. No additional WER testing requirements were included in this permit. While EPA concurred in the WER itself, EPA also concurred with the memorandum which stated that the WER would be minimized (e.g. an effluent limit would be placed in the permit). Since this permit is for a minor facility, it was not overviewed by EPA (as per the NPDES memorandum of agreement), and thus there was no EPA concurrence with the removal of the copper limit. It should also be noted that there are many NPDES permits in South Carolina that have copper limits even when there is no reasonable potential to exceed the WER-adjusted water quality standard.

Easley also commented that most of the time discharge to the receiving stream is during non-7Q10 conditions and yet the WER study was based on a 7Q10 critical low receiving

water flow mix, thus making any WER reevaluation completely unnecessary. EPA must consider critical events to protect the water body at all times, especially critical flow events. While we would agree that non-7Q10 flow regimes would lower the in-stream copper concentrations; however, additional dilution would also make the WER lower. Characterization of in-stream copper concentrations during non-7Q10 in-stream flow events is not a simple calculation of application of WER that was determined by 7Q10 flow proportion, and then add in dilution for non-7Q10 flow regimes, as suggested by Easley's comments. Rather, the appropriate WER calculation for non-7Q10 stream flows would entail a new WER using non-7Q10 flow dilutions which would produce a much lower WER value than as determined by 7Q10 flow mix.

The authority for South Carolina to allow WERs is found in SC reg. 61-68 Section E.14.c(7) which states:

> "Site-specific permit effluent limitations and alternate criteria less stringent than those derived in accordance with the above requirements may be derived where it is demonstrated that such limits and criteria shall maintain the existing and classified uses, adequate opportunity for public participation in such derivation process has occurred, and the effluent shall not cause criteria for human health to be exceeded. Where a site-specific permit effluent limitation and alternate criterion has been derived, such derivation shall be subject to EPA review as appropriate. Also, at a minimum, opportunity for input in derivation of a site-specific permit effluent limitation, and alternate criterion shall be provided via public notice in NPDES permit notices."

This legal basis is further affirmed by letters of April 28, 1994, and March 23, 1994, between EPA and SCDHEC addressing site-specific criteria and WERs. These letters are included in the administrative record. Thus, as provided in the SC regulations, there is a reference to EPA's review role of site-specific criteria including WERs.

EPA's authority to require monitoring of effluents is found under Section 308(a) of the CWA which states "Whenever to carry out the objective of this Act, including but not limited to (1) developing or assisting in the development of any effluent limitation . . . the Administrator shall require the owner or operator of the point source to . . . (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe . . ." Thus, the WER conditional monitoring is clearly allowed by Section 308(a) to verify if at any time a copper effluent limit is needed based on increased copper concentrations.

Comment #2: TSS

It is apparent that EPA believes that TSS could possibly be the cause of biological impairment in the receiving water. EPA should examine the many TMDLs for benthic impairment to determine if any of these TMDLs have implicated secondary TSS levels.