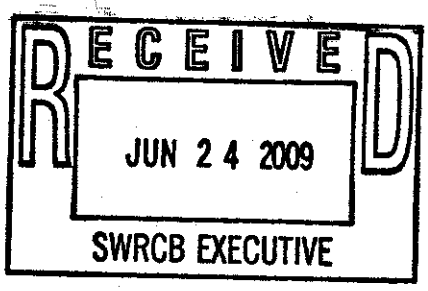
ATS WORKING GROUP
COMMENTS ON 2009 DRAFT CONSTRUCTION GENERAL PERMIT
JUNE 23, 2009



COMMENT 1.

Active Treatment System (ATS) Requirements

ATTACHMENT F:

(C.6) - Current Permit Language:

6. The ATS shall be designed to capture and treat (within a 72-hour period) a volume equivalent to the runoff from a 10-year, 24-hour storm event using a watershed runoff coefficient of 1.0.

(C.6) - Suggested Change:

6. The ATS shall be designed to capture and treat (within a 72-hour period) a volume equivalent to the runoff from a 10-year, 24-hour storm event using a watershed runoff coefficient of 1.0. This parameter is to insure that the ATS system is sized appropriately for the site acreage and basin capacity during back-to-back rain events. The ATS flow rate or the basin capacity can be sized to meet this criterion when compared to the runoff calculation.

(C.6) – Justification for Change:

We think there will be a misconception that in order to use ATS the rain event model for the site changes. This is not the intent of this parameter. ATS is easily scaled up or down to fit existing site characteristics such as basin size. If cost of increasing a storage basin is more economical then deploying a large ATS system then owner/developer will have that option.

(H.1.2) - Current Permit Language:

H. ATS Instrumentation

1. The ATS shall be equipped with instrumentation that automatically measures and records effluent water quality data and flow rate.
2. The minimum data recorded shall be consistent with the Monitoring and Reporting requirements below, and shall include:
    a. Effluent Turbidity
    b. Effluent pH
    c. Residual Chemical
    d. Flow rate
    e. Flow volume

(H.1.2) - Suggested Change:

H. ATS Instrumentation

1. The ATS shall be equipped with instrumentation that automatically measures and records influent and effluent water quality data and flow rate.
2. The minimum data recorded shall be consistent with the Monitoring and Reporting requirements below, and shall include:

a. Influent Turbidity
b. Effluent Turbidity
c. Influent pH
d. Effluent pH
e. Residual Chemical
f. Effluent Flow rate
g. Effluent Flow volume

(H.1.2) - <u>Justification for Change:</u>
Attachment F: (M.2.b&c) There are conflicting requirements within Attachment F and we suggest this change to maintain consistency and clarity.

COMMENT 2.

REQUIREMENTS FOR ACTION WHEN TURBIDITY NAL IS EXCEEDED FOR RISK LEVEL 2 SITES

It is unclear what defines corrective actions when an NAL is exceeded. The draft permit seems to indicate that the permit holder must take corrective actions so that further discharges are below the NAL. Is that the case? What if following sampling events exceed the NAL? What if the steps taken by the discharger after the first NAL exceedance were not sufficient to prevent further NAL exceedances? Is that a violation of the permit? Please see the references to the permit and factsheet below. We think this should be clearly stated.

FACTSHEET WORDING
F.2. **Determining Compliance with Effluent Standards**
a. **Technology-Based Numeric Action Levels (NALs) (Page 17)**
This General Permit contains technology-based NALs for pH and turbidity, and requirements for effluent monitoring at all sites. Numeric action levels are essentially numeric benchmark values for certain parameters that, if exceeded in effluent sampling, trigger the discharger to take actions. Exceedance of an NAL does not itself constitute a violation of the General Permit. If the discharger fails to take the corrective action required by the General Permit, though, that may constitute a violation.

DRAFT PERMIT WORDING
H. 55.(Page 9)
This General Permit requires dischargers with NAL exceedances to immediately implement additional BMPs and revise their Storm Water Pollution Prevention Plans (SWPPPs) accordingly

to either prevent pollutants and authorized non-storm water discharges from contaminating storm water, or to substantially reduce the pollutants to levels consistently below the NALs. NAL exceedances are reported in the State Water Boards SMARTS system, and the discharger is required to provide an NAL Exceedance Report when requested by a Regional Water Board.

V.C.3 (Page 29)
Whenever an analytical effluent monitoring result indicates that the discharge is below the lower NAL for pH, exceeds the upper NAL for pH, or exceeds the turbidity NAL (as listed in Table 1), the discharger shall conduct a construction site and run-on evaluation to determine whether pollutant source(s) associated with the site's construction activity may have caused or contributed to the NAL exceedance and shall immediately implement corrective actions if they are needed.

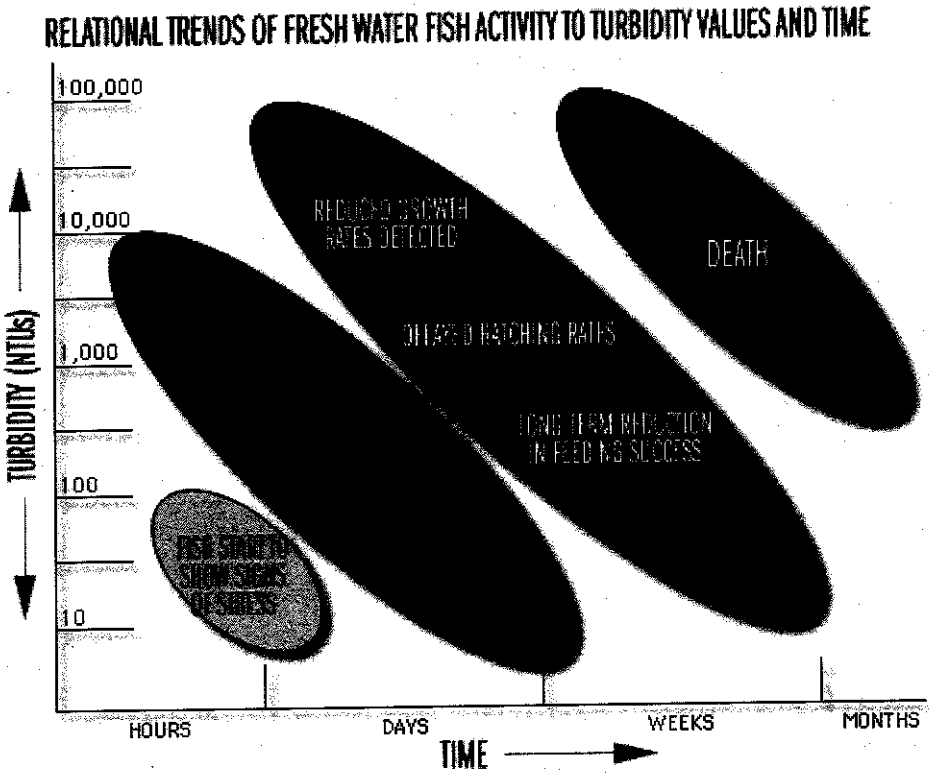
COMMENT 3.

Turbidity NEL and NAL Levels

Numerous studies have shown the sediment loading and time has to potential to cause aquatic species to show signs of stress, act in non-normal behavior, reduced or eliminated feeding patterns, to even mortality. Many of these studies are summarized in (Newcombe & Jensen, 1996) and (Newcombe, 1994). The youngest of aquatic species are most vulnerable (eggs, fry, larvae & juvenile). Cold water species are more susceptible to sediment loading, but warm water species are not immune from moderate levels of sediment. While much of the research is based on Suspended Solids (SS) vs. turbidity some correlations can be made. Conservatively, relating the two on a one to one basis (i.e. 1 mg/L = 1 NTU), even striped bass (larvae) showed 50% mortality rate at 485 SS for 24 hours (Morgan et al., 1973).

Numeric Action Limits (NALs) at 250 NTU and Numeric Effluent Limits (NELs) at 500 NTU are not providing clean enough water to protect these aquatic species and prevent destruction of their habitats. Technology is available that can provide the desired water quality and the concern of cleaning the construction stormwater run-off "too much" is a fallacy. ATS could be designed to "side stream" some unfiltered water and blend that with treated water to give the ideal amount of "natural" sediment. However, ATS Workgroup doesn't see that as being a problem, in all our combined years of experience, we have not seen "too clean" of water causing stream erosion because of a "lack of sediment".

The following chart shows a simple summary of the relationship between turbidity and time. Please take note of where 250 and 500 NTUs fall on the graph and given a day at those levels can cause aquatic species to act in ways that directly or indirectly may lead to reduced pollution over time.



Schematic adapted from "Turbidity: A Water Quality Measure", Water Action Volunteers, Monitoring Factsheet Series, UW-Extension, Environmental Resources Center. It is a generic, un-calibrated impact assessment model based on Newcombe, C. P., and J. O. T. Jensen. 1996. Channel suspended sediment and fisheries: a synthesis for quantitative assessment of risk and impact. North American Journal of Fisheries Management. 16: 693-727.

The graph is available at http://wateronthewb.org/under/waterquality/sediment.html.