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NSTC GREAT LAKES  
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LETTER AND U S NAVY RESPONSE TO ILLINOIS DEPARTMENT OF NATURAL  
RESOURCES COMMENTS TO DRAFT TIER II SAMPLING AND ANALYSIS PLAN SITE 17  
NSTC GREAT LAKES IL  
3/22/2012  
U S NAVY

**RESPONSE TO COMMENTS  
ILLINOIS DEPARTMENT OF NATURAL RESOURCES COMMENTS  
MARCH 16, 2012  
DRAFT SITE 17 TIER II SAMPLING AND ANALYSIS PLAN  
NAVAL STATION GREAT LAKES**

- 1) **General Comment 1** – Although March is not the optimal time to sample benthic invertebrates for multiple reasons, as long as reference streams are sampled at the same time, IDNR has less issue with the proposed March sampling date.

***Response: Comment noted. Site and reference streams will be sampled within the same week.***

- 2) **General Comment 2** – The comparison between reference data and Navy property data would have more statistical power if the same number of samples were collected from reference locations that are being collected from Navy property locations.

***Response: Because the North Branch (site) is longer than the South Branch (reference), an unequal number of samples is planned. The North Branch and South Branch including tributaries are approximately 3600 feet and 2400 feet in length, respectively. The number of samples will meet the statistical objectives for the project. As the sample design is now, we will be able to differentiate conditions between the south and north branches, as well as between individual reaches, with known uncertainty (90% confidence).***

- 3) **General Comment 3** – The Navy continues to ignore the IDNR Consultation recommendation to include the mudpuppy as a species of concern in Pettibone Creek.

***Response: Benthic macroinvertebrates were selected as the receptor of concern for this SAP based on the conclusions from the RI report. However, because the mudpuppy was recently listed as a Threatened Species in Illinois, and based on previous concerns expressed by the Illinois DNR, the Navy is in the process of conducting a study to determine whether the mudpuppy is present in the Harbor and Pettibone Creek at NSGL. The study began last year and is continuing this year. For the study, take permits were obtained from Illinois DNR for the collection and incidental take of endangered or threatened species. During the course of the study to date, which includes the placement of traps, no mudpuppies have been found. Therefore, benthic macroinvertebrates are considered an appropriate receptor of concern. If during the proposed sampling investigation mudpuppies are found, their presence will be recorded in the field log book.***

- 4) **General Comment 4** – Limiting the sediment investigation to the top 4 cm of sediment has the potential to overlook contaminated sediments below 4 cm. IDNRs understanding is that if the top 4 cm are deemed “clean,” then no sediments will be removed, when in fact, sediments below 4 cm (or 1 ½ inches) may be contaminated.

***Response: While contaminated sediments may exist beneath cleaner surface sediment, benthic macroinvertebrates are not expected to be substantially exposed to the deeper sediment, which is below the biotic zone. However, although the determination of whether the sediment needs removed will be made in part based on the sediment chemistry, the more important factor will be whether the benthic macroinvertebrate community is being impacted.***

- 5) **Section 7.0** – On page 30 the sampling reaches are summarized as follows: “At this time, 13 reaches are targeted for sampling to adequately characterize Pettibone Creek (see Figure 7-1). Nine of these reaches represent the site and will be located along the preferential pathway of the North Branch of Pettibone Creek, while four are reference areas, located in the South Branch of

March 22, 2012

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Pettibone Creek.....Each of the sample locations (NTC17PCSD53, NTC17PCSD54, NTC17PCSD58 through NTC17PCSD68) will consist of samples collected along a 300 foot long creek reach....Although the western fork of the South Branch of Pettibone Creek receives more urban runoff than does the southern fork, one reference sample (NTC17PCSD69) will be collected from this area as the stream is not influenced by potential Navy sources.” With the inclusion of the South Western reference site – NTC17PCSD69, there is a total of 14 reaches (9 test sites and 5 reference sites). This SW reference site should also be included with the summary: NTC17PCSD58 through NTC17PCSD69.

***Response: The text will be corrected to indicate 14 reaches are targeted for sampling. The reference site NTC17PCSD69 will be added to the following summary identifying locations along 300 foot reaches: “Each of the sample locations (NTC17PCSD53, NTC17PCSD54, NTC17PCSD58 through NTC17PCSD69) will consist of samples collected along a 300 foot long creek reach.”***