

**BBNPP Information Submittal AE-25:**

Written response presented during the BBNPP environmental audit and Figure 3.4-3B.

**Response:**

The written response discussed during the BBNPP environmental audit is below.

***Original AE-25 Environmental Audit Information Need Request:***

Provide a knowledgeable expert to discuss the relocation of a section of the ditch draining the Canal into the Susquehanna River, the “natural stream” model for the reconstruction, and potential monitoring of the reconstructed ditch.

***Original AE-25 Environmental Audit Response:***

Briefly, the ditch draining the Canal is a man-made structure that drains overflow from the Canal into the Susquehanna River. The ditch is a steep-sided structure that is cut down into the land surface. The ditch will need to be relocated for construction of the intake structure. The basic premise for reconstruction of the ditch would be to relocate it from its existing location and create a more natural stream channel using, for example, guidance provided by NC State University (2003). Instead of a steep sided channelized ditch, the channel would be reconstructed to mimic a more natural stream channel. The reconstructed channel would have a natural grade, mimic natural channel meanders, and incorporate habitat that would be beneficial to aquatic life. The riparian area adjacent to the new channel would be planted with native vegetation.

As discussed in ER Section 4.3.2, monitoring of the ditch post-construction could be completed once the new created channel has been colonized by aquatic organisms. Fish, amphibian, and benthic macroinvertebrate surveys could be completed to determine what type of organisms have colonized the created channel.

**Source Cited in the Response:**

1. NC State University, 2003. Stream Restoration, A Natural Channel Design Handbook.  
[http://www.bae.ncsu.edu/programs/extension/wqg/sri/stream\\_rest\\_guidebook/guidebook.html](http://www.bae.ncsu.edu/programs/extension/wqg/sri/stream_rest_guidebook/guidebook.html) Date accessed: April 16,2009.

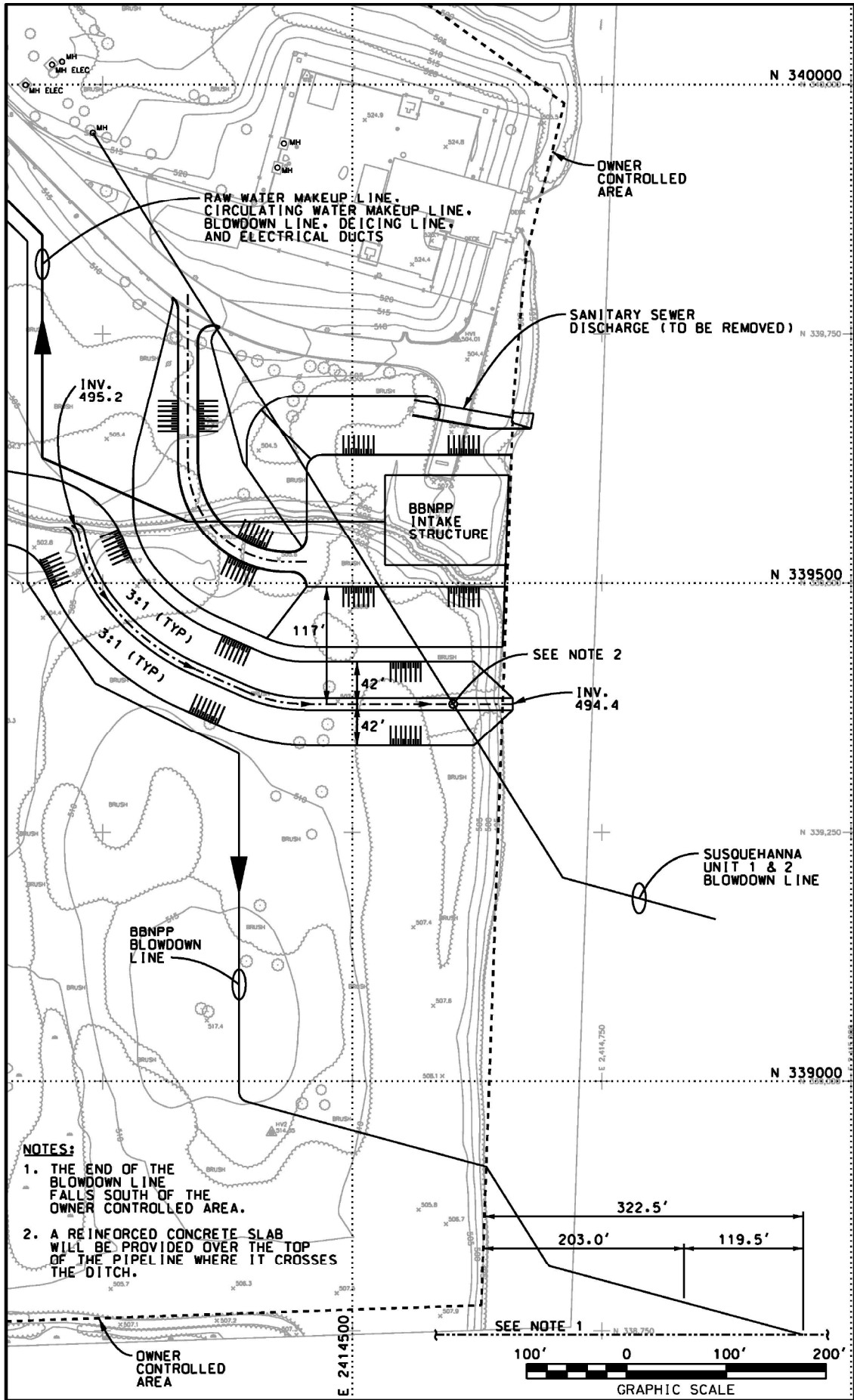


FIGURE 3.4-3B