

From: "APNNL NRC Vogtle" <nrc.vogtle@pnl.gov>
To: <VOGTLE_EIS@nrc.gov>
Date: 7/30/2007 1:07:12 PM
Subject: FW: Federal Threatened and Endangered Species in the Vicinity of Vogtle Electric Generating Plant

From: Krieg, Rebekah
Sent: Wednesday, July 11, 2007 10:28 AM
To: Jennifer Price
Cc: Julie Holling; Sackschewsky, Michael R; Stegen, Amanda
Subject: RE: Federal Threatened and Endangered Species in the Vicinity of Vogtle Electric Generating Plant

Jennifer,
Thank you for the quick response. Yes, I see that *Toxolasma pullus* was found in the comprehensive surveys of the Savannah River near the site by the Academy of Natural Sciences, Philadelphia in 1989, '93 and then from '97-'01. I also see that it was collected in the 60's and 70's.
Thank you for bringing this to my attention.

I have printed out all of the species descriptions that you wrote on these species. They were very helpful for the species-related information that I needed.

Our interest currently is in determining what concerns the State of South Carolina may have related to the potential addition of two new nuclear units at the Vogtle site. As we write the EIS we would like to address any concerns the State has related to State species of concern (in this case the mussels). We are currently consulting with the FWS and NOAA related to Federally identified species (for aquatic that is the shortnose sturgeon).

Here is the background information on the project -

Construction -

I've attached a figure showing the extent of disturbance to the Savannah River. The main construction issues are, briefly,

1. The construction of an intake canal (impacting approximately 400 ft of shoreline - no dredging in the river, a cofferdam will be used to minimize turbidity entering the river.)

2. The modification of the existing barge slip - the barge slip is currently on fill that was put into place during the initial

construction of the site. There would be about 300 cubic yards of soil dredged or excavated from the Savannah River at the east end of the barge slip where it enters the river. The depth of dredging will be to approximately 67 ft MSL. A tethered floating silt curtain would be placed prior to excavation. Excavation would begin at the west end of the barge slip and move toward the river to minimize turbidity.

3. The installation of a discharge structure (affecting approximately 20 ft of shoreline). The discharge pipe is approximately 3.5 ft in diameter and extends 50 ft into the river. A temporary sheet pile cofferdam and dewatering system will be installed prior to construction. Rip rap will be used to stabilize the sediment area around the discharge point.

4. The potential for future dredging from the main channel (recent bathymetry studies show that dredging will not need to be performed for the barge slip. However, the dredging may be required at a future date depending on the natural movement of sediment within the river.)

Operation -

1. Impingement/Entrainment issues - Water withdrawal will be accomplished using a cooling water intake structure that meets the EPA Phase I regulations (66 FR 65256) of 0.5 ft/s maximum design through-screen velocity

2. Thermal discharges - A thermal plume is anticipated - the maximum distance the 5 degrees F above ambient isotherm is estimated to occur is 97 ft downstream of the outfall pipe. The maximum lateral extent of the isotherm from the outfall pipe terminus toward the river centerline is 60ft. However, the maximum width of the curved isotherm is only 15 ft. Figure 2 shows the thermal plume.

Please feel free to call me with any questions you may have.

Becky

Rebekah Krieg
Sr. Research Scientist
Pacific Northwest National Laboratory
Phone: 509-376-5611
Fax: 509 372-3515
rebekah.krieg@pnl.gov

From: Jennifer Price [mailto:PriceJ@dnr.sc.gov]
Sent: Wednesday, July 11, 2007 8:05 AM
To: Julie Holling
Cc: Krieg, Rebekah
Subject: RE: Federal Threatened and Endangered Species in the Vicinity
of Vogtle Electric Generating Plant

Dear Becky,

I am the appropriate SCDNR contact person to answer any questions about freshwater mussels. I think there are a few more species of concern found in the Savannah as well-Toxolasma pullus is definitely one found last year (though I don't know if it's in the database yet) as well as many years ago (might have been more than 10 years ago).

Do you have specific questions about these species, or do you want some general information? What exactly will be the effects of the project in question on River and on water quality?

Thanks.

Jennifer Price, Ph.D.
Biologist, freshwater macroinvertebrates
SCDNR, freshwater fisheries research section
1921 Vanboken Road
Eastover, SC 29044
803-353-8232
pricej@dnr.sc.gov

From: Julie Holling
Sent: Tuesday, July 10, 2007 2:05 PM
To: Jennifer Price
Subject: FW: Federal Threatened and Endangered Species in the Vicinity
of Vogtle Electric Generating Plant

Jennifer,

Would you please contact Becky, and see if you can answer her questions? If you are not the correct person for this, would you please forward it to the correct person? I will let her know that someone will be contacting her.

Thanks,
Julie

From: Krieg, Rebekah [mailto:rebekah.krieg@pnl.gov]
Sent: Friday, July 06, 2007 10:05 AM
To: Julie Holling
Cc: Stegen, Amanda
Subject: Federal Threatened and Endangered Species in the Vicinity of
Vogtle Electric Generating Plant

Julie,
I am an aquatic ecologist with Battelle at the Pacific Northwest National Laboratory and I am assisting the U.S. Nuclear Regulatory Commission in preparing an EIS to evaluate impacts associated with an Early Site Permit (ESP) for two additional reactor plants at the Vogtle Electric Generating Plant site near Waynesboro, Georgia. I know you have previously corresponded with one of my coworkers, Amanda Stegen, that is working on the terrestrial ecology sections of the EIS.

I also had some questions related to species that are known to exist in the Savannah River near the VEGP, that occur on your SCDNR Natural Heritage Program list. These are 6 mussel species, all of which have been collected in comprehensive surveys of the Savannah River in the last 10 years that are South Carolina species of concern. These include the

Anodonta couperiana (barrel floater)
Elliptio congraea (Carolina slabshell)
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Pyganodon cataracta (Eastern floater)
Utterbackia imbecillis (paper pondshell)

Although most of the impacts would occur on the Georgia side of the river, I would appreciate it if you could help me contact the correct person at the SC DNR to talk to about any project concerns related to these species.

Thank you.
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Rebekah Krieg
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Subject: FW: Federal Threatened and Endangered Species in the Vicinity of
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Creation Date: 7/30/2007 1:07:12 PM
From: "^PNNL NRC Vogtle" <nrc.vogtle@pnl.gov>

Created By: nrc.vogtle@pnl.gov

Recipients
<VOGTLE_EIS@nrc.gov>

Post Office
TWGWPO04.HQGWDO01

Route
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Files	Size	Date & Time
MESSAGE	7078	7/30/2007 1:07:12 PM
TEXT.htm	15461	8/2/2007 8:51:19 AM
Disturbed_Areas.pdf	381712	8/2/2007 8:51:19 AM
vogtle_proposed_plumes.pdf	775133	8/2/2007
8:51:19 AM		
Mime.822	1609818	8/2/2007 8:51:19 AM

Options
Priority: Standard
Reply Requested: No
Return Notification: None
None

Concealed Subject: No
Security: Standard

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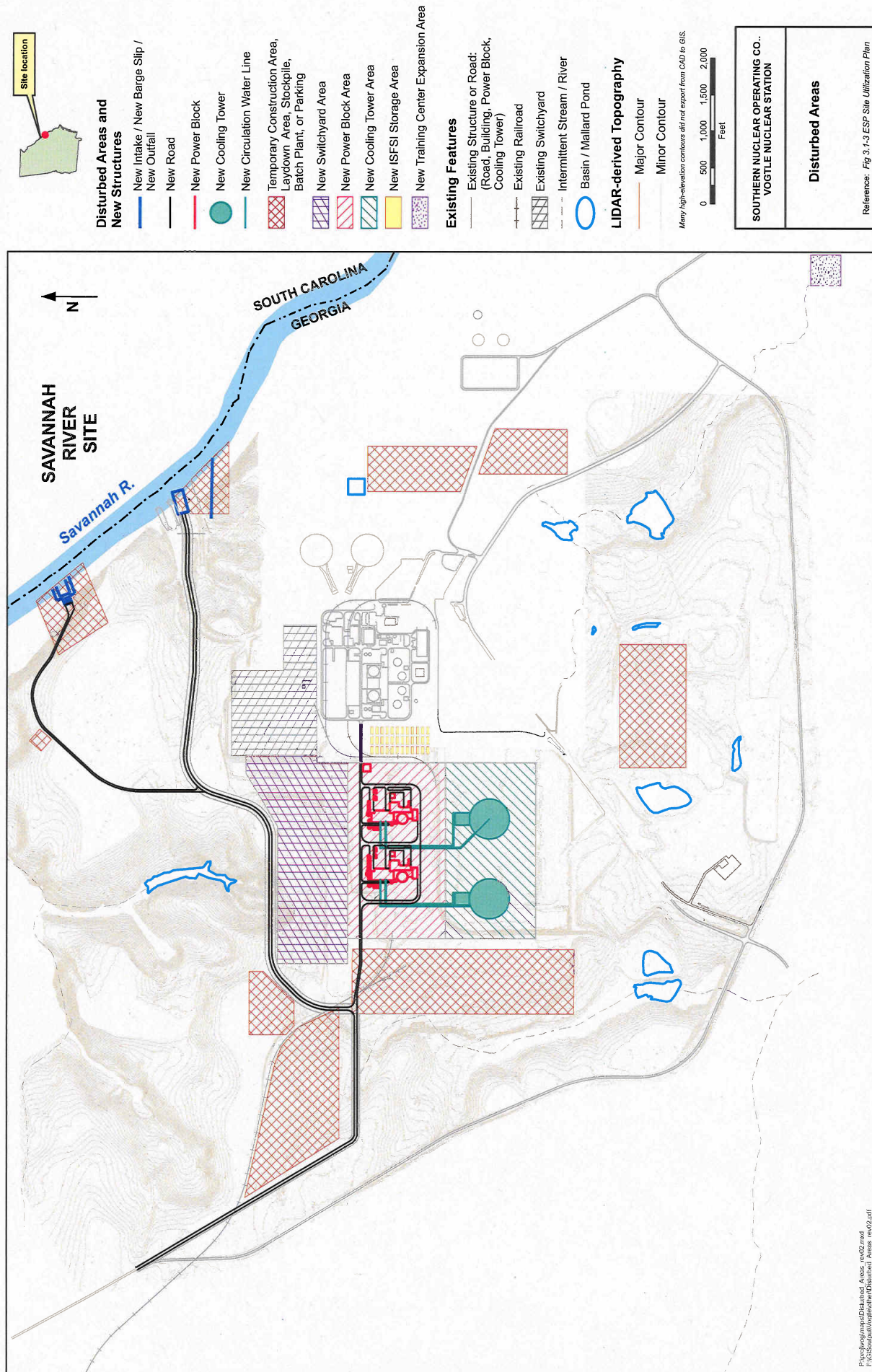
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Vogtle EIS

Proposed Thermal Plumes

Source: Southern Nuclear Operating Co.

