PUBLIC NOTICE

US Army Corps
of Engineers
Kansas City District

Permit No. 2015-1321
Issue Date: June 15, 2015
Expiration Date: July 15, 2015

30-Day Notice

JOINT PUBLIC NOTICE: This public notice is issued jointly with the Missouri Department of Natural Resources, Water Pollution Control Program. The Missouri Department of Natural Resources will use the comments to this notice in deciding whether to grant Section 401 water quality certification. Commenters are requested to furnish a copy of their comments to the Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102.

APPLICANT: U.S. Army Corps of Engineers – Kansas City District
601 East 12th Street
Kansas City, MO 64106-2896

PROJECT LOCATION (As shown on the attached drawings): The proposed project, Tadpole Island Side Channel Modification Project, is located on is located on approximately 600 acres of the Overton Bottoms Missouri River Recovery Program project lands in Moniteau County, Missouri. Overton Bottoms consists of 5,459 acres of land that was purchased by the federal government from willing sellers between the years 1994 and 2010. Overton Bottoms is managed by the USFWS as part of the Big Muddy National Fish and Wildlife Refuge. The area is adjacent to the right descending bank of the Missouri River, at river miles 178 to 180. See Figures 1 and 2.

AUTHORITY: The project would be completed under the authority of the Missouri River Fish and Wildlife Mitigation Project (Mitigation Project) from Water Resource Development Acts (WRDA) of 1986, 1999, and 2007. The proposed action is regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act (33 USC 1344).

ACTIVITY (As shown on the attached drawings): PROPOSED WORK: The purpose of the proposed project is to improve connectivity between the side channel at Tadpole Island and the mainstem of the Missouri River while maintaining adequate flow to the navigation channel adjacent to the island. The side channel was constructed in 2006 and is approximately 9,600 feet in length. At the time it was constructed, it was expected that the side channel would widen and meander. Due in part to a series of flood events in the years following project construction, the side channel deepened and widened but did not develop any meandering characteristics. By 2012, approximately 30% of the water flow of the Missouri River was flowing through the side

channel. Typically, USACE does not divert more than 10% of the river flow through side channels, although this varies in accordance with site specific conditions. It was noted that shoaling had started to occur in the mainstem navigation channel in 2011 in the vicinity of the downstream end of Tadpole Island. It is believed that this occurred, at least in part, because of the large amount of water that was flowing through the side channel instead of the navigation channel. Consequently, in 2012, rock was placed at the entrance of the side channel to reduce the amount of water that would flow through the channel. Currently, approximately 15% of the mainstem flow currently enters the side channel, primarily from the surface of the river as it overtops rock structures at the entrance of the side channel. While this has reduced the concern about negative impacts to the navigation channel, it is still desirable to reduce the amount of water that flows through the side channel even further. Also, the rock that was placed at the entrance of the side channel in 2012 now limits fish and other aquatic organisms access the side channel from the upstream end

As with the other alternatives, the Recommended Plan would lengthen Tadpole Island side channel in order to slow down water velocities. Approximately six rock dikes would be constructed at alternating locations to form the foundation of the inside bends of the side channel meanders. The rock dikes would not exceed 300 feet in length, including the portion of the dikes that would be buried in the banks. The height of the dikes would be about the same height as the water surface elevation during typical navigation flows. Approximately 80,000 cubic yards of material would be extracted from the top five to six feet of the outside portions of the meanders (Figure 3). The material excavated from the outside bends would be used to bury the rock dikes and fill the upstream and downstream sides of the rock dikes while forming point bars. A maximum of five acres of trees would be removed as a result of the excavation. To the extent possible, trees from the excavated locations would be used to further stabilize the inside bends to further diversify fish and wildlife habitat. It is estimated that the overall length of the side channel would increase approximately 25%, to about 12,000 feet in length. However, the side channel is expected to be dynamic in nature and its length would fluctuate over time. Two new dikes would be constructed, and another extended in length, on the mainstem of the Missouri River as shown in Figure 5. The purpose of these dikes would be to prevent shoaling to further maintain the navigation channel. Approximately 20,000 tons of rock would be used to construct all of the dikes. Because this alternative includes extensive excavation, it is expected that construction access road(s) would be constructed to complete the work. Although the final locations of the road(s) have not been identified at this time, it is estimated that approximately 12 acres of trees would be removed for this purpose. As a conservation measure for threatened and endangered bats and to minimize potential impacts to migratory birds, all tree clearing would between November 1 and March 31. Trees would be allowed to naturally regenerate following project construction. Wetland and other environmentally sensitive locations would be avoided to construct the access road(s). Additional bat habitat surveys would be conducted for the access road(s) once the route(s) is selected to minimize bat habitat impacts. Once the project is completed access road(s) would be seeded with native grasses, milkweed, and forbs to prevent erosion and spread of invasive species.

The rate at which meanders would develop would be dependent on river flows. It is expected over time that erosion would cause trees along the banks to fall into the side channel, further diversifying the aquatic habitat. After water velocities have been sufficiently reduced in the side

channel, the rock at the entrance of the side channel would be removed to improve access for fish and other aquatic organisms. In the future, additional modifications to rock structures near the entrance and within the side channel may be undertaken in order to specifically benefit pallid sturgeon. Although it is not known what the modifications to these structures would entail at this time, it is expected that any environmental impacts would be similar to those for this alternative. If, in the future, it is determined that modifications to benefit pallid sturgeon are within the scope of impacts described for this action, a memorandum would be prepared documenting such. If the potential impacts are outside the scope impacts described, then a new environmental assessment would be prepared.

The proposed action would not result in any negative impacts to any adjacent private property, including the Cooper County Levee. If, at any time in the future, private property adjacent to the project were to become threatened by the dynamic nature of the side channel, rock would be used to direct the side channel away from the private property. The proposed action would meet the objectives of increasing connectivity between the side channel and the Missouri River to improve access for fish and other aquatic organisms, while maintaining the navigation channel. If this plan were selected for implementation, detailed engineering plans and specifications would be developed that could result in minor modifications to the quantities presented herein. The project may be constructed in phases over several years depending on the availability of funding.

WETLANDS/AQUATIC HABITAT: Prior to being purchased by the federal government, Tadpole Island was used as agricultural cropland. In January 2015, areas that had a potential to be directly disturbed as part of the proposed action was surveyed for wetlands. It was determined that there were approximately 31 acres of forested wetlands directly in or immediately adjacent to the project work area. Using remote sensing information, an additional five acres were identified within the study area but outside any proposed project work areas. The total number of wetlands, all forested, within the study area is approximately 36 acres (Figure 4).

The proposed action would not result in any direct impacts to wetlands. When this plan was initially developed, it included excavation in a location that was later identified as forested wetland. After the forested wetland area was identified, the plan was modified to avoid direct impacts to this location. Indirect impacts to wetlands may occur as a result of creating a more dynamic side channel. This would occur if the alignment of the side channel migrated to locations with existing wetlands. However, new wetlands would likely develop as part of the channel migration process.

APPLICANT'S STATEMENT OF AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION FOR UNAVOIDABLE IMPACTS TO AQUATIC RESOURCES: The proposed project has been designed to incorporate all practicable measures to avoid, minimize, and mitigate unavoidable adverse impacts to aquatic resources while still meeting the project purpose.

ADDITIONAL INFORMATION: Additional information about this application may be obtained by contacting Mr. Chris Name, Environmental Resources Specialist, U.S Army Corps of Engineers, Kansas City District, ATTN: Environmental Resources Section, 601 East 12th

Street, Kansas City, Missouri 64106, by email at chris.name@usace.army.mil, or by telephone at (816)389-3829. All comments to this public notice should be directed to the above address.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1968, as amended:
A draft environmental assessment, titled Tadpole Island Side Channel Modification Project and a Section 404(b)(1) evaluation is available online at:
http://www.nwk.usace.army.mil/Media/PublicNotices/PlanningPublicNotices.aspx

The Corps has made a preliminary determination that the proposed project would not result in any significant impacts to the human environment and therefore the proposed project would support a Finding of No Significant Impact (FONSI). The Corps will utilize comments received in response to this Public Notice to complete the evaluation of the project in compliance with the requirements of NEPA, Section 404 of the Clean Water Act, and other Federal, state, and local regulations. The Corps has made a preliminary determination that the proposed project would not be contrary to the public interest and is in compliance with the Section 404(b)(1) Guidelines. The Draft Section 404(b)(1) Evaluation is included as Appendix C in the draft environmental assessment.

CULTURAL RESOURCES: An archeological background review of the project area was conducted that included an examination of the National Register of Historic Places on-line (NRHP), the Missouri Department of Natural Resources Archeological Viewer, and pertinent cultural resource reports and shipwreck location maps on file at the Kansas City District.

The Recommended Plan would be expected to have no affect on any cultural resources. Cultural resource investigations took place prior to the side channels construction and no cultural resources were indicated or found during construction. Furthermore, the project is located on accreted lands formed from construction of the BSNP and is not likely to contain any cultural resources. The Missouri State Historic Preservation Officer concurred with USACE determination that there would be no historic properties affected in a letter dated February 11, 2015. If cultural materials were encountered during project activities, all construction would be halted and the State Historic Preservation Officer would be notified as soon as possible in order to determine the appropriate course of action.

ENDANGERED SPECIES: The proposed action would result in the clearing of up to 17 acres of trees. This would be from clearing up to 12 acres of trees for construction access roads and clearing five acres from the outside bends of the side channel meanders. USACE has determined that the Recommended Plan may affect, but is not likely to adversely affect, federally listed Indian bat and northern long-eared bat. As a conservation measure, trees would be cleared between November 1 and March 31, a time of the year when these species are not expected to be present. The USFWS concurred with this determination in an email dated 27 April 2015 (Appendix D). This alternative would have no affect on gray bats. The nearest known roosting habitat for gray bats is roughly five miles away from the project area. It would not adversely impact the overall populations of insects that any threatened and endangered bats use for forage. Furthermore, this alternative is not likely to adversely affect pallid sturgeon. Pallid sturgeon have the ability to move out of any areas that would be temporarily disturbed during project construction. Also, there is no known spawning of pallid sturgeon within the areas that would be

disturbed during project construction. Long-term, the proposed action may provide beneficial effects to pallid sturgeon by providing greater connectivity between the mainstem of the Missouri River and the Tadpole Island side channel. In order to complete an evaluation of this activity, comments are solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

FLOODPLAINS: This activity is being reviewed in accordance with Executive Order 11988, Floodplain Management, which discourages direct or indirect support of floodplain development whenever there is a practicable alternative. By this public notice, comments are requested from individuals and agencies who believe the described work will adversely impact the floodplain.

WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act (33 USC 1341) requires that all discharges of dredged or fill material must be certified by the appropriate state agency as complying with applicable effluent limitations and water quality standards. This public notice serves as an application to the state in which the discharge site is located for certification of the discharge. The discharge must be certified before a Department of the Army permit can be issued. Certification, if issued, expresses the state's opinion that the discharge will not violate applicable water quality standards.

PUBLIC INTEREST REVIEW: The decision to issue a permit will be based on an evaluation of the probable impact including the cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, esthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency under authority of Section 404(b) of the Clean Water Act (33 USC 1344). The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

COMMENTS: This notice is provided to outline details of the above-described activity so this District may consider all pertinent comments prior to determining if issuance of a permit would be in the public interest. Any interested party is invited to submit to this office written facts or

objections relative to the activity on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted and made a part of the record and will receive full consideration in determining whether it would be in the public interest to issue the Department of the Army authorization. Copies of all comments, including names and addresses of commenters, may be provided to the applicant. Comments should be mailed to the address shown on page 3 of this public notice.

PUBLIC HEARING: Any person may request, in writing, prior to the expiration date of this public notice, that a public hearing be held to consider this application. Such requests shall state, with particularity, the reasons for holding a public hearing.

Figure 1: Location of Tadpole Island in Moniteau County, Missouri.

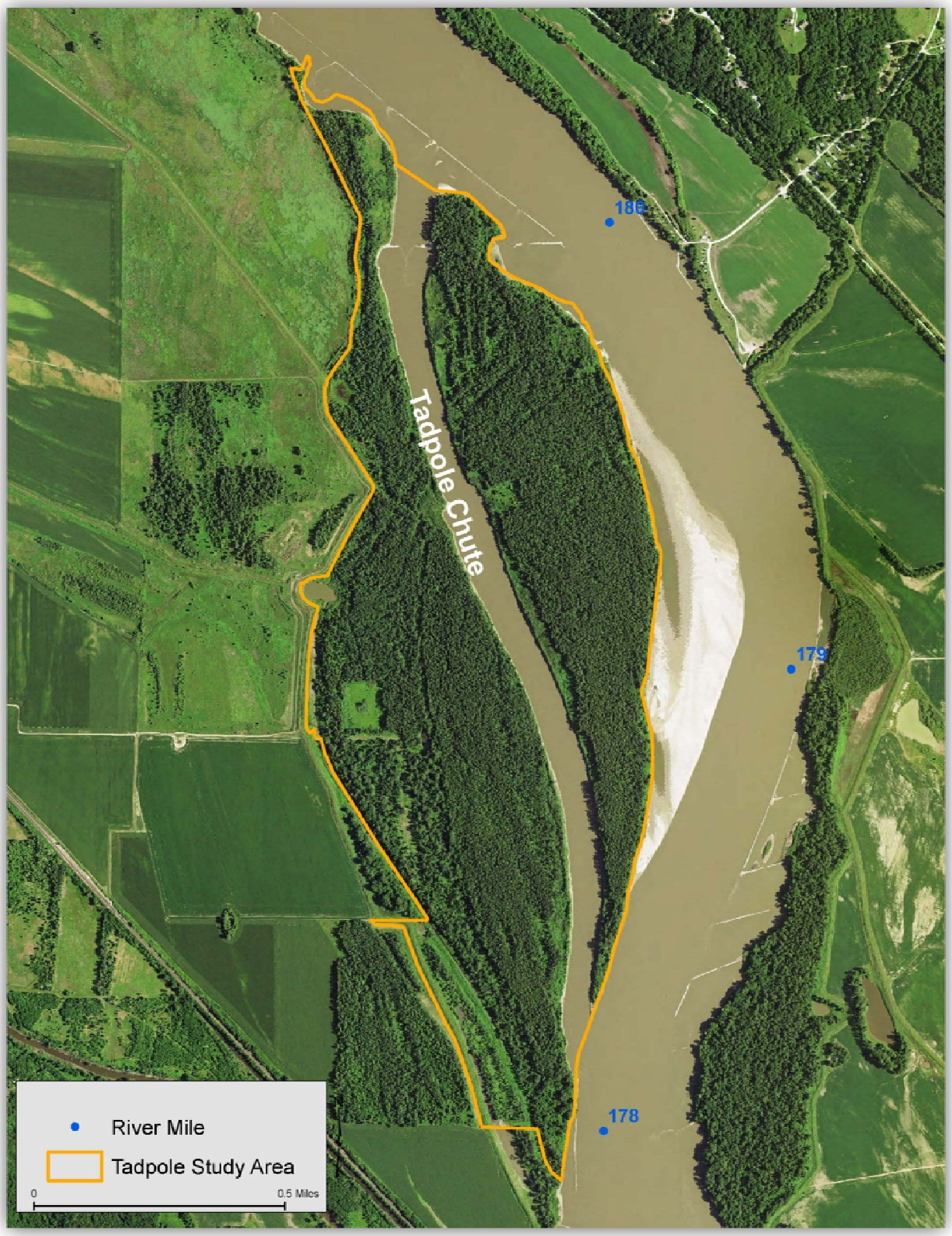

Figure 2: The Tadpole Island side channel is located between Missouri River miles 178 to 180 The 600 acre study area is indicated within the outlined area.

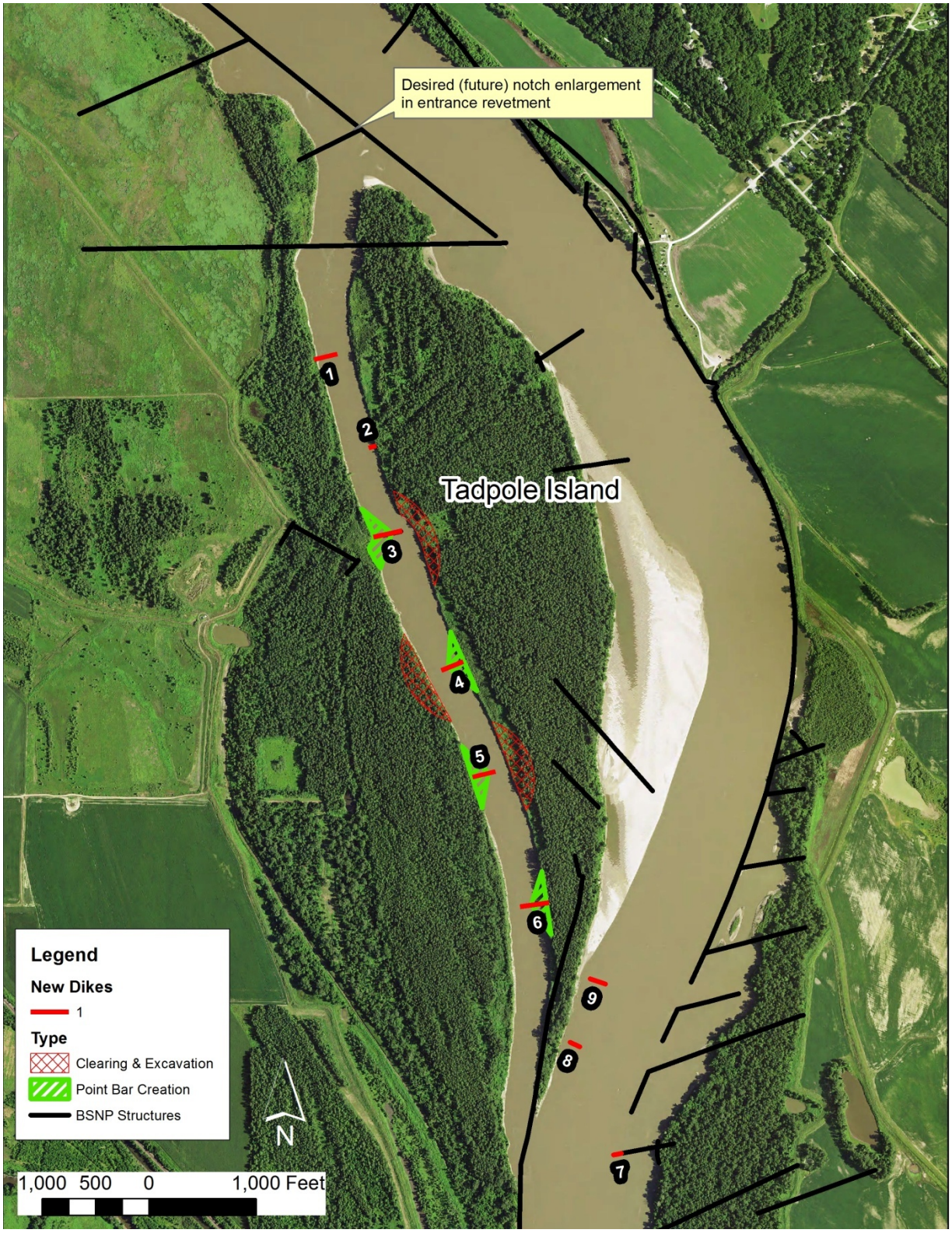

Figure 3: The proposed action would increase the length of the side channel by using a cut and fill technique to reduce water velocities.

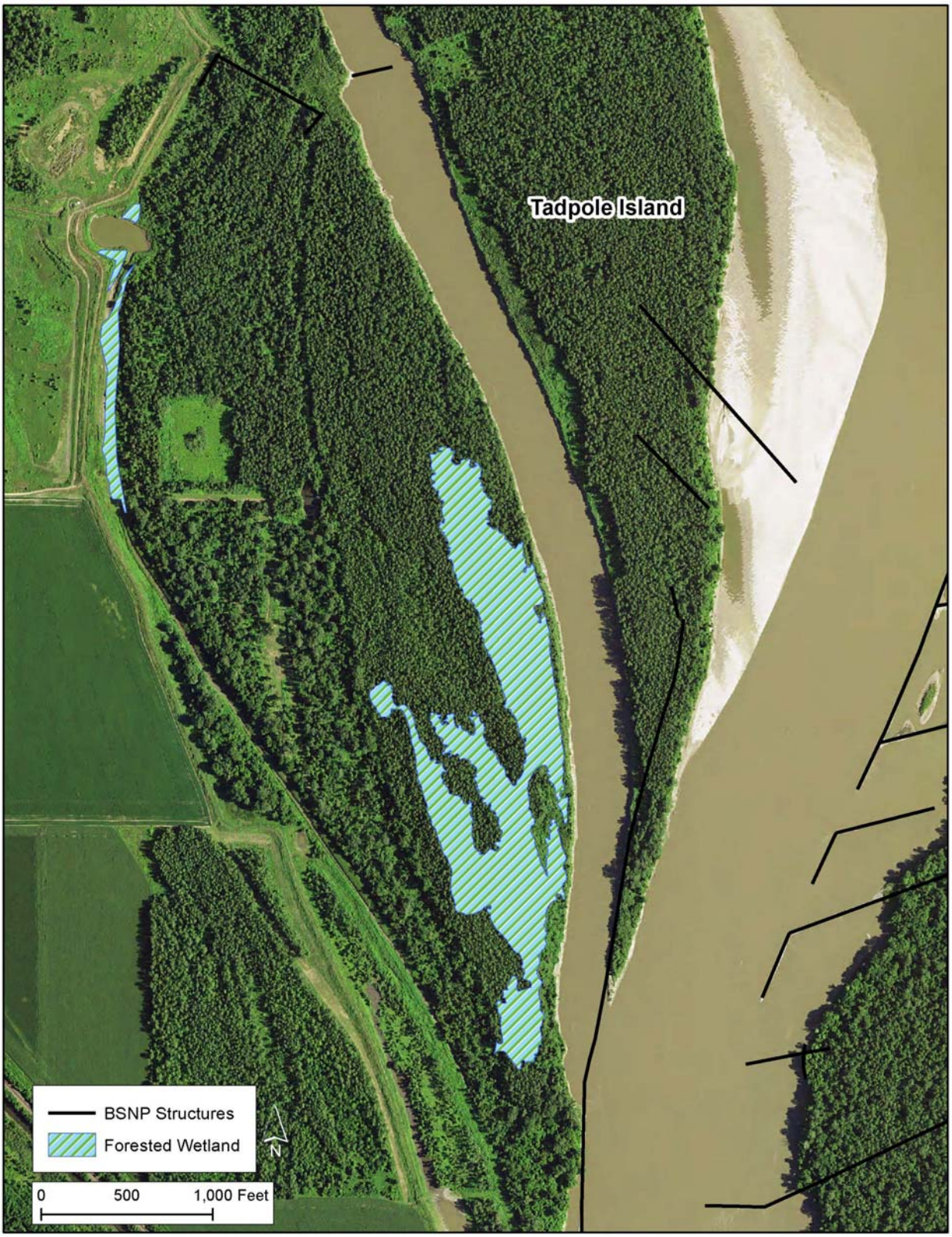

Figure 4: Wetlands within the study area.