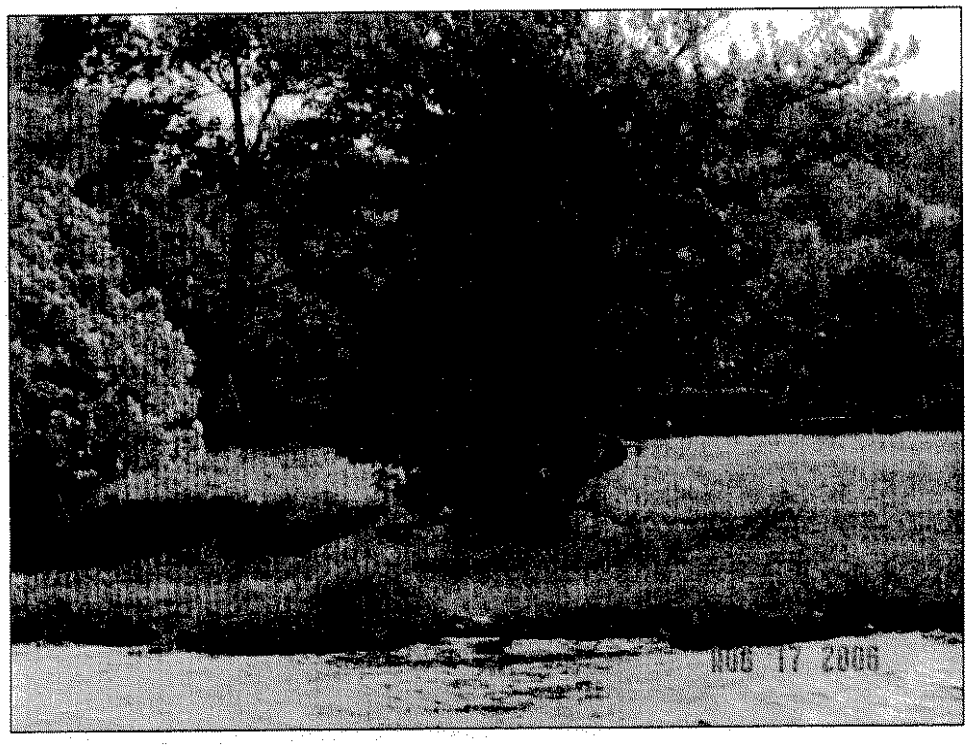
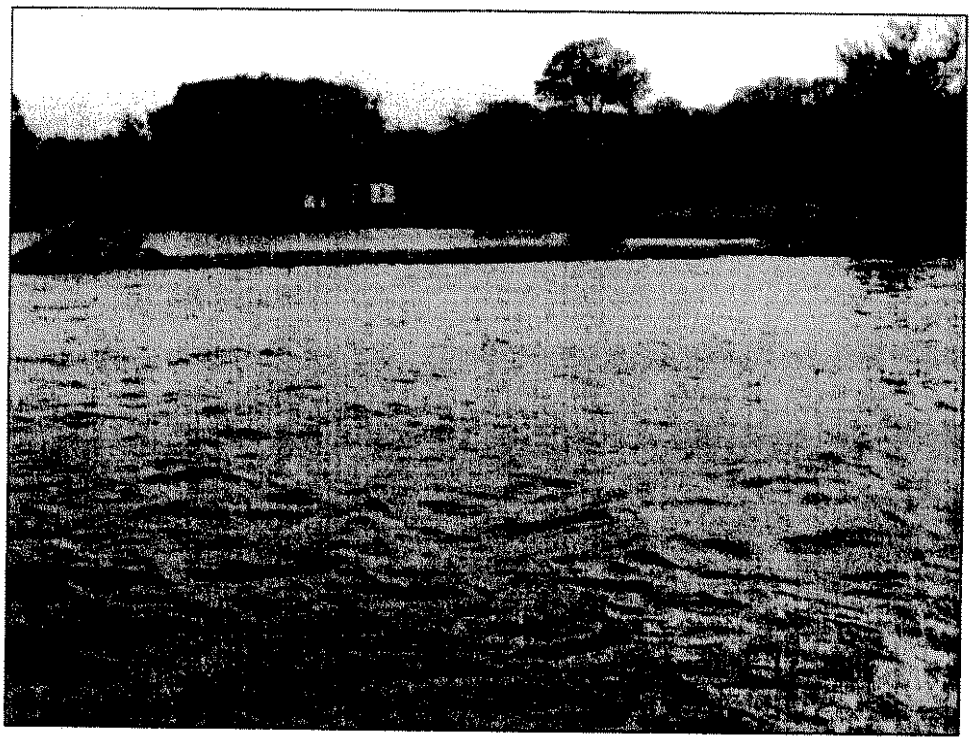
APPENDIX D

Photographs

Two Rivers, LLC
Elk River Mile 1.8L, Limestone County, AL
File No. 2006-01721



Public Notice No. 06-92; Application No. 2006-01721
SUBJECT: Proposed Community Fixed Docks and Bank Stabilization at Elk River Mile 1.8L, Wheeler Lake, Limestone County, Alabama (Two Rivers Condominiums – Billy Christopher)
Inspection: August 17, 2006



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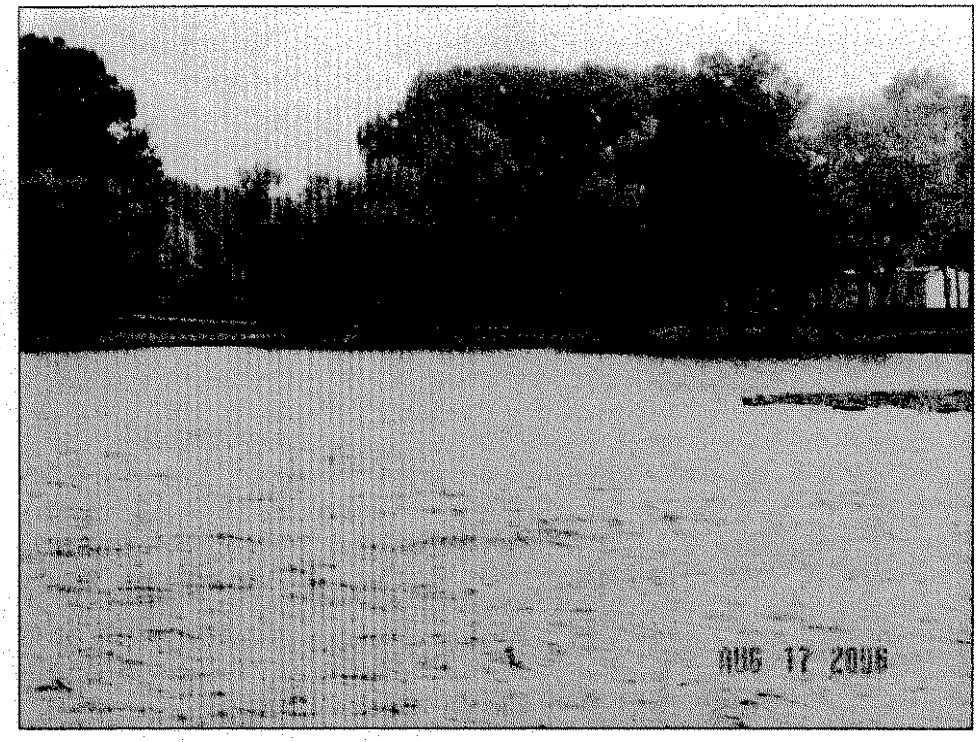

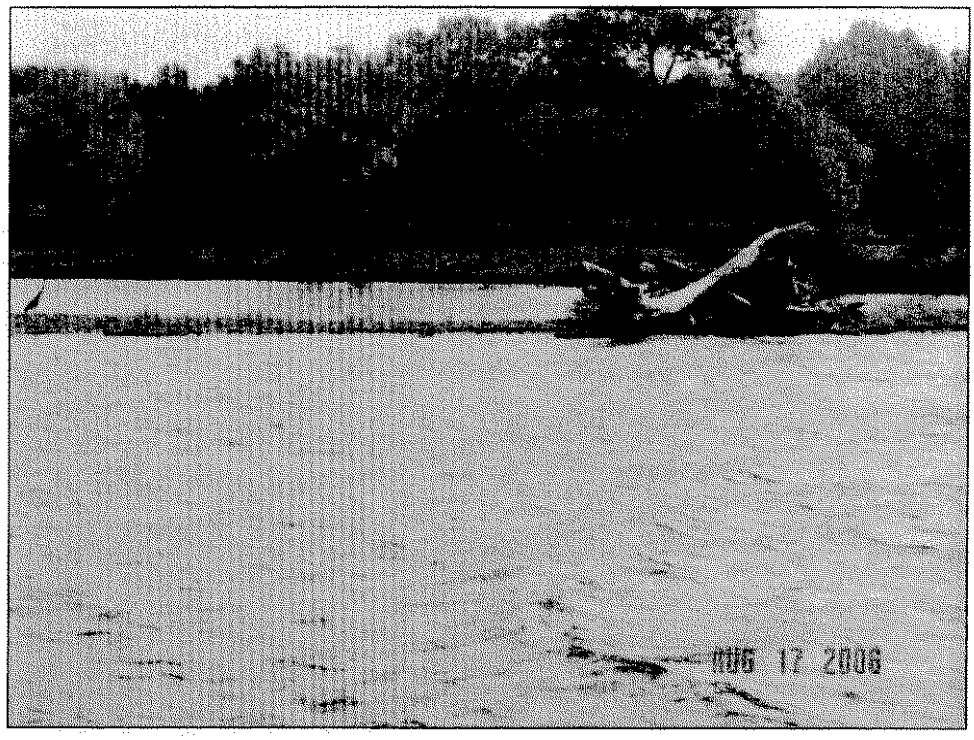

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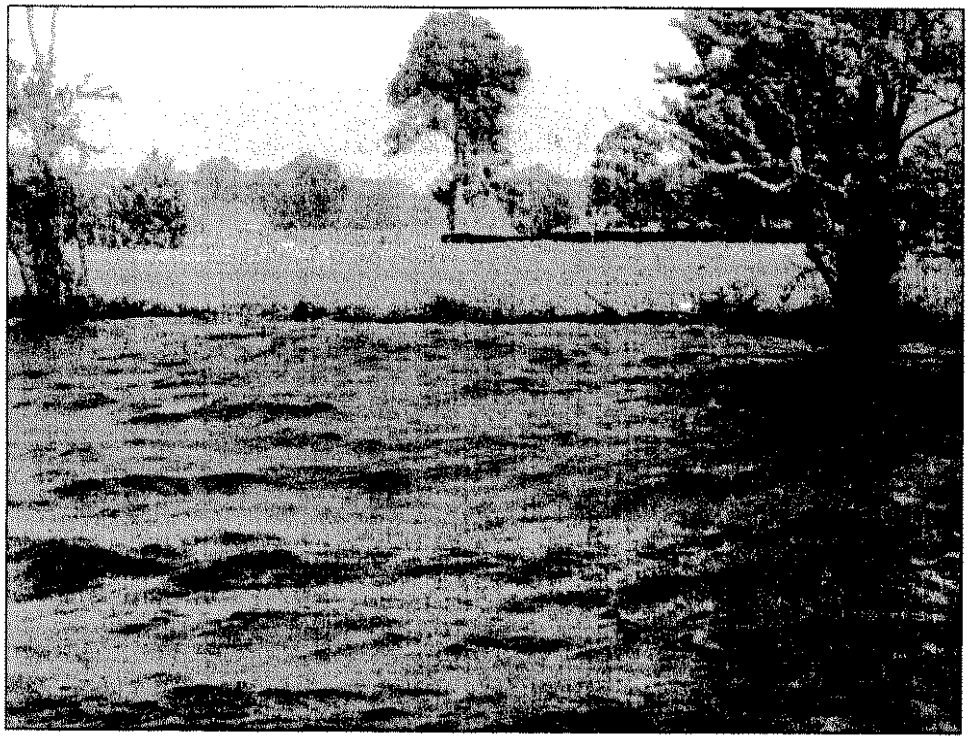

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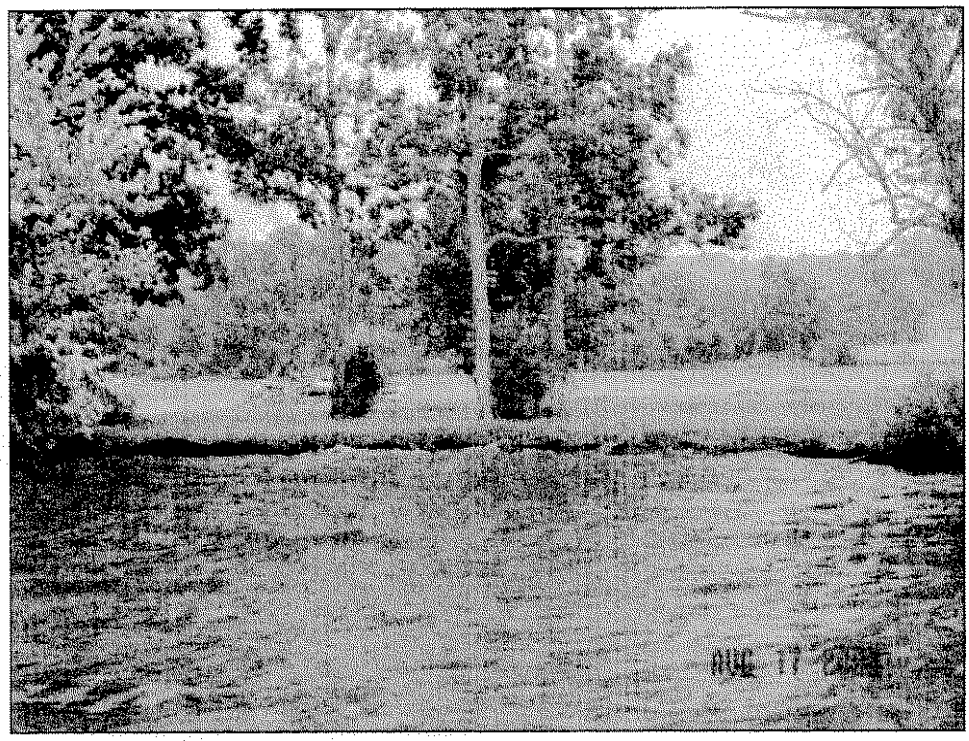

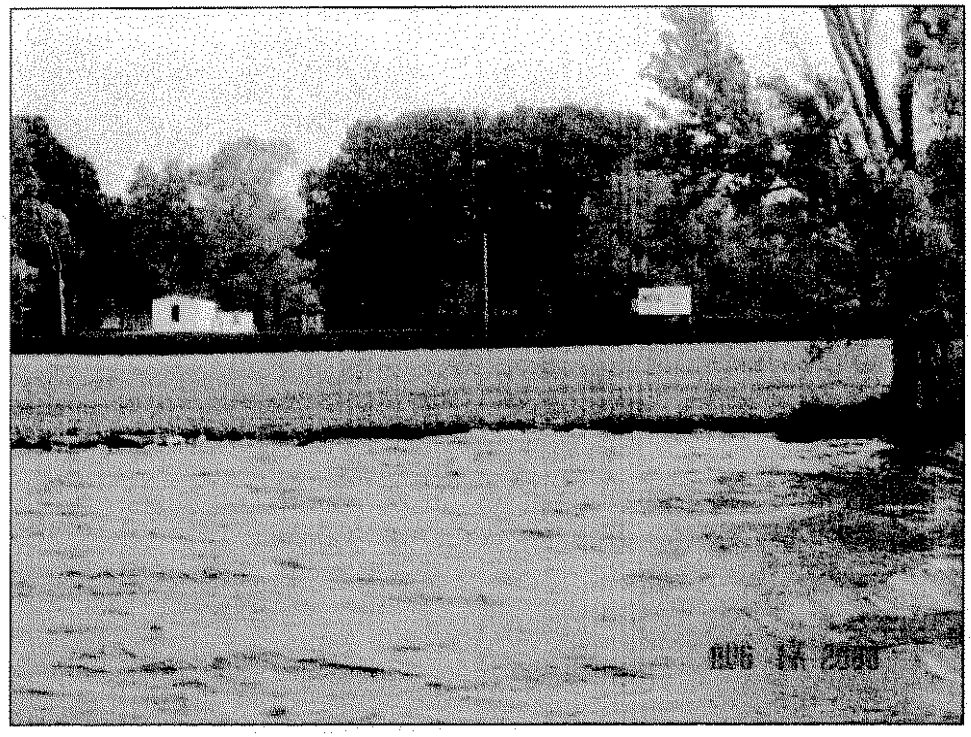

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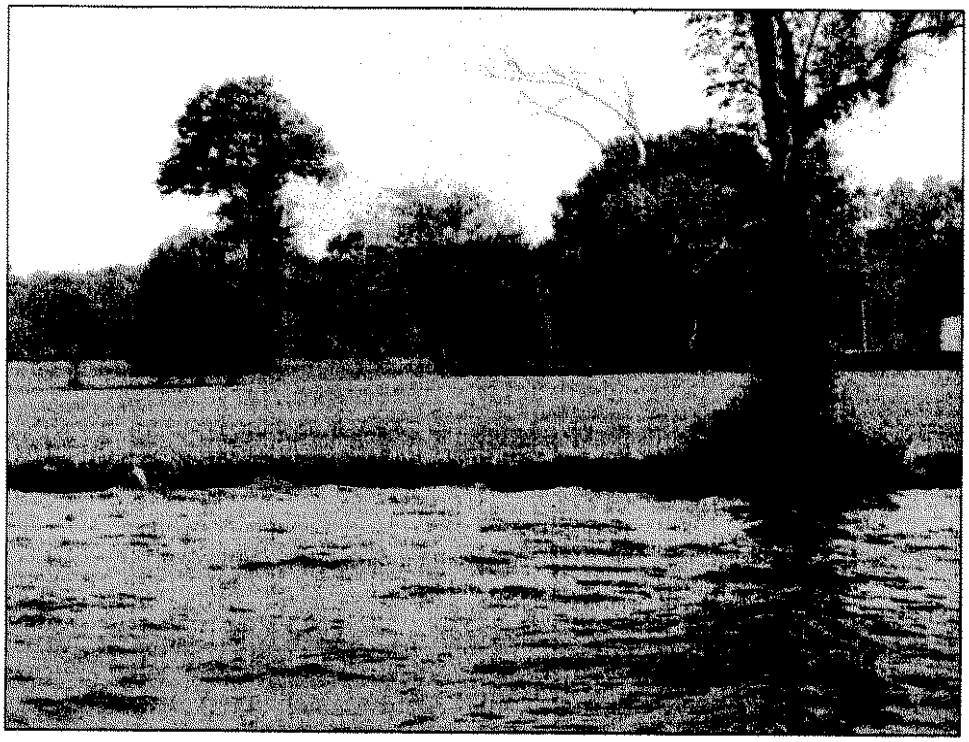

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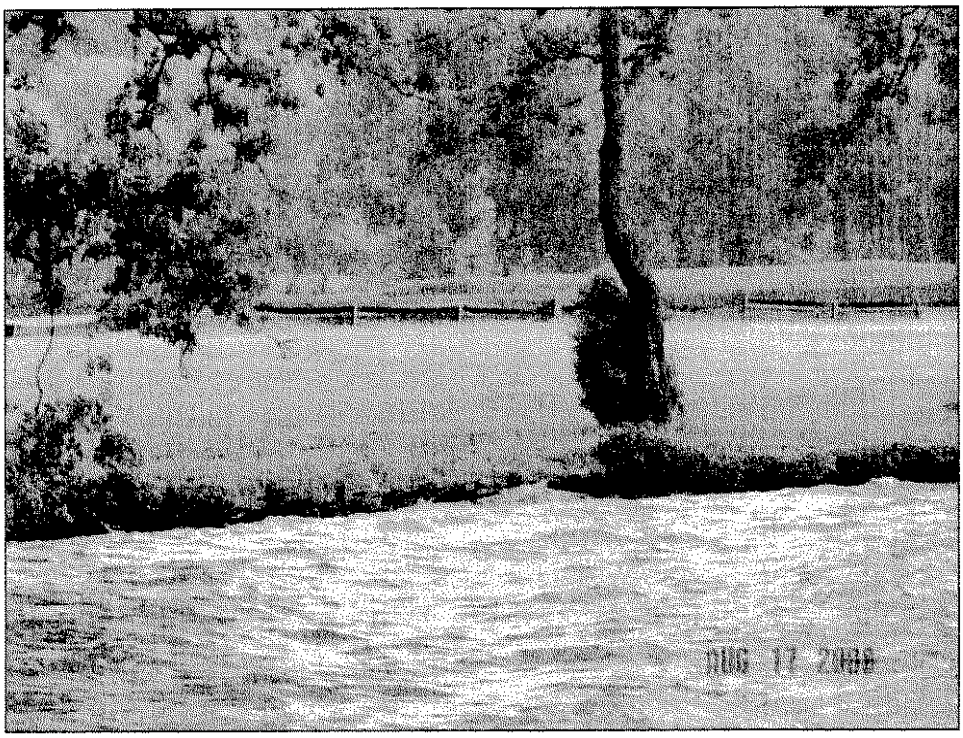

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APPENDIX E

Nationwide Permit and ADEM BMP Special Conditions

Two Rivers, LLC
Elk River Mile 1.8L, Limestone County, AL
File No. 2006-01721

US Army Corps of Engineers®
Nashville District

Nationwide Permit Conditions

The following General Conditions must be followed in order for any authorization by an NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.

2. Proper Maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

4. Aquatic Life Movements. No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its Section 401 Water Quality Certification and Coastal Zone Management Act consistency determination.

7. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a ``study river'' for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water Quality. (a) In certain states and tribal lands an individual 401 Water Quality Certification must be obtained or waived (See 33 CFR 330.4(c)). (b) For NWPs 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the state or tribal 401 certification (either generically or individually) does not require or approve water quality management measures, the permittee must provide water quality management measures that will ensure that the authorized work does not result in more than minimal degradation of water quality (or the Corps determines that compliance with state or local standards, where applicable, will ensure no more than minimal adverse effect on water quality). An important component of water quality management includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality (refer to General Condition 21 for stormwater management requirements). Another important component of water quality management is the establishment and maintenance of vegetated buffers next to open waters, including streams (refer to General Condition 19 for vegetated buffer requirements for the NWPs). This condition is only applicable to projects that have the potential to affect water quality. While appropriate measures must be taken, in most cases it is not necessary to conduct detailed studies to identify such measures or to require monitoring.

11. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the NWPs.

(b) Authorization of an activity by a NWP does not authorize the ``take'' of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with ``incidental take'' provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal ``takes'' of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS or their World Wide Web pages at http://www.fws.gov/r9endspp/endspp.html and http://www.nfms.noaa.gov/prot_res/overview/es.html respectively.

12. Historic Properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District Engineer has complied with the provisions of 33 CFR part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

14. Compliance Certification. Every permittee who has received NWP verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include:

(a) A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;

(b) A statement that any required mitigation was completed in accordance with the permit conditions; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit (e.g. if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed \1/3\-acre).

16. Water Supply Intakes. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the CWA).

20. Spawning Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow. This condition is only applicable to projects that have the potential to affect water flows. While appropriate measures must be taken, it is not necessary to conduct detailed studies to identify such measures or require monitoring to ensure their effectiveness. Normally, the Corps will defer to state and local authorities regarding management of water flow.

22. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to the acceleration of the passage of water, and/or the restricting its flow shall be minimized to the maximum extent practicable. This includes structures and work in navigable waters of the US, or discharges of dredged or fill material.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Except as noted below, discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the US may be authorized by the above NWPs in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the USFWS or the NMFS has concurred in a determination of compliance with this condition.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this General Condition, 100-year floodplains will be identified through the existing Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

(a) Discharges in Floodplain; Below Headwaters. Discharges of dredged or fill material into waters of the US within the mapped 100-year floodplain, below headwaters (i.e. five cfs), resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, 43, and 44.

(b) Discharges in Floodway; Above Headwaters. Discharges of dredged or fill material into waters of the US within the FEMA or locally mapped floodway, resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, and 44.

(c) The permittee must comply with any applicable FEMA-approved state or local floodplain management requirements.

27. Construction Period. For activities that have not been verified by the Corps and the project was commenced or under contract to commence by the expiration date of the NWP (or modification or revocation date), the work must be completed within 12-months after such date (including any modification that affects the project).

For activities that have been verified and the project was commenced or under contract to commence within the verification period, the work must be completed by the date determined by the Corps. For projects that have been verified by the Corps, an extension of a Corps approved completion date maybe requested. This request must be submitted at least one month before the previously approved completion date.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

*** Some NWP conditions that are not applicable for this verification were omitted from above list. If you are interested in a complete list, you should contact the Corps of Engineers office that handled your request.**

US Army Corps
of Engineers
Nashville District

Nationwide Permit

No. 13, Bank Stabilization

Bank stabilization activities necessary for erosion prevention provided the activity meets all of the following criteria:

a. No material is placed more than the minimum needed for erosion protection;
b. The bank stabilization activity is not more than 500 feet in length;
c. The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark or the high tide line;
d. No material is placed in any special aquatic site, including wetlands;
e. No material is of the type, or is placed in any location, or in any manner, to impair surface water flow into or out of any wetland area;
f. No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,
g. The activity is part of a single and complete project.

Bank stabilization activities in excess of 500 feet in length or greater than an average of one cubic yard per running foot may be authorized if the District Engineer determines the activity complies with the other terms and conditions of the NWP and the adverse environmental effects are minimal both individually and cumulatively. This NWP may not be used for the channelization of waters of the US. (Sections 10 and 404)

SPECIAL CONDITIONS FOR NATIONWIDE PERMITS FOR ALABAMA

BEST MANAGEMENT PRACTICES

1. The applicant shall comply with all terms, conditions and requirements of a National Pollution Discharge Elimination System (NPDES) individual or general permit authorization and any other NPDES permit coverage issued to the facility. Failure to comply with the referenced NPDES permit may constitute a violation of this certification.

2. Please be advised the pursuant to Phase 1 of Federal Storm water Rules and ADEM administrative rules, the operator, owner, or applicant is required to apply for and obtain valid NPDES permit coverage for storm water discharges prior to beginning construction or land disturbance above the Ordinary High water Mark for any non-dredge/fill operations below Ordinary High water Mark and construction of associated upland dredge disposal sites that will exceed 5 acres or is part of a larger common plan of development or sale in which disturbed acreage will eventually exceed 5 acres. The regulated construction disturbance also includes, but is not limited to associated areas utilized for support activities such as vehicle parking, equipment or supply storage areas, material stockpiles, temporary office areas, access roads, etc. And pre-construction activities performed in advance or in support of construction such as logging, clearing, dewatering, etc. The regulations also require permit coverage for disturbance activities less than five acres that are part of adjacent to, or associated with a larger common plan of development or sale that may eventually exceed five acres. Please be advised that a registrant, permittee, operator/owner, contractor or other responsible entity, separately or collectively, must retain general permit coverage for phased developments until all disturbance activity, including phased construction, is substantially complete. Failure to apply for and obtain NPDES permit coverage if required as described in this paragraph, or failure to comply with all terms, conditions, and requirements of any NPDES permit coverage issued for activities related to this certification constitute a violation of this certification. Effective March 10, 2003, construction disturbances equal to or greater than 1 acre requires NPDES permit coverage as described in this paragraph.

3. Until the project is complete, the applicant shall retain regular, detailed records regarding the status of implementation/construction of the proposed project, prepared by the design engineer and providing a schedule of remaining construction for the proposed project as well as certification that pollution control measures specified in the Corps permit and any special conditions specified by ADEM have been and are being properly implemented.

4. The applicant shall retain records adequate to document activities authorized by this certification including but not limited to, inspection reports, monitoring information, copies of any reports and all data used to complete the above reports on the application for this certification, for a period of at least three years after completion of work/activity authorized by the certification. Upon written request, the applicant shall provide the Department with a copy of any record/information required by this paragraph.

5. Upon the loss or failure of any treatment facility, best management practices (BMP) etc., the applicant shall, where necessary to maintain compliance with this certification, suspend, cease, reduce or otherwise control work/activity and all discharges until effective treatment is restored. It shall not be a defense for the applicant in a compliance action that it would have been necessary to halt or reduce work or other activities in order to maintain compliance with the conditions of this certification.

6. After completion of construction of the proposed project the applicant is required to retain certification by a qualified credentialed professional that all aspects of the project have in fact been implemented according to the requirements of this certification, and that the pollution control measures specified in the Corps permit and any special conditions specified by ADEM have been properly implemented.

7. The applicant shall implement and maintain a Best Management Practices (BMP) Plan for prevention and control of nonpoint sources of pollutants including measures that will be taken to ensure permanent revegetation or cover of all disturbed areas, during and after project implementation.

8. The applicant shall implement a Spill Prevention Control and Counter Measures (SPCC) Plan for all onsite fuel or chemical storage tanks or facilities. The applicant shall maintain onsite or have readily available sufficient oil & grease absorbing material and flotation booms to contain and clean-up fuel or chemical spills and leaks. The applicant shall immediately notify the Department after becoming aware of significant, visible oil sheen in the vicinity of the proposed activity. In the event of a spill with the potential to impact groundwater or other waters of the State, the applicant should immediately call the National Response Center at 1-800-424-8802 and the Alabama Emergency Management Agency at 1-800-843-0699. The caller should be prepared to report the name, address and telephone number of person reporting spill, the exact location of the spill, the company name and location, the material spilled, the estimated quantity, the source of the spill, the cause of the spill, the nearest downstream water with the potential to receive the spill, and the actions taken for containment and cleanup.

9. The applicant shall implement an ADEM approved system for the collection, storage, treatment and disposal of sewage and other putrescible wastes.

10. All construction and worker debris (e.g. trash, garbage, etc.) must be immediately removed and disposed of in an approved manner, if acceptable offsite options are unavailable, effective onsite provisions for collection and control of onsite worker toilet wastes or gray waste waters (i.e. port-o-lot, shower wash down, etc.) must be implemented and maintained. Also, soil contaminated by paint or chemical spills, oil spills, etc. must be immediately cleaned up or be removed and disposed of in an approved manner.

11. Appropriate measures must be taken to prevent the deposition of airborne pollutants such as sand blasting particles, spray paint, herbicides, excessive road dust, etc. from entering the water body.

12. Appropriate measures must be taken to prevent the deposition/disposal of, and removal as necessary, material, debris, or liquids resulting from bridge/culvert construction and /or maintenance such as concrete/cement, wash water, surfactants, sand blasting particles, paint, etc. from falling into the water body.

13. Diversion structures (berms, ditches, etc.) created in order to re-route upgradient storm water runoff from the proposed project location shall be constructed, stabilized, and vegetated as necessary, prior to commencement of disturbance activities.

14. The applicant shall implement appropriate, effective BMPs, including installation of floating turbidity screens as necessary, to minimize downstream turbidity to the maximum extent practicable. The applicant shall visually monitor or measure background turbidity. The applicant must suspend operations should turbidity resulting form project implementation exceed background turbidity by more than 50 NTU's. Operation may resume when the turbidity decreases to within acceptable levels.

15. The applicant shall implement appropriate measures as necessary to ensure that the activities authorized by this certification do not significantly contribute to or cause in stream dissolved oxygen concentrations to decrease below 5 mg/l.

16. All materials used as fill or for construction purposes must be non-toxic, non-leaching, non-acid forming and free of solid waste or other debris.

17. Permanent or temporary raised water body crossings must be constructed with pipe(s) to safely pass expected mean water flow of the water body for the time of year and length of time that they are installed, unless a properly constructed low-water crossing is installed that provides for unobstructed stream flow over the low-water structure. The crossing must be inspected on a regular basis and any significant debris or blockage removed and properly disposed of to ensure unobstructed flow of water. Placement of rock-fill without pipe(s) for passage of water is not acceptable. Each raised water body crossing must be designed and maintained to ensure structure integrity and stability for safe passage of water flow generated by expected precipitation events while the structure is in place.

18. Bilge or ballast water pumped from ship or boat (e.g. dredge or construction barges, tugboats, fishing boats, pleasure craft, etc.) shall not be discharged to waters of the State of Alabama without removal of solids, oils, petroleum by-products and toxic compounds.

19. No rubbish, trash, garbage, or other such materials shall be discharged overboard into waters of the State of Alabama. Litter and refuse from vessels or a marina shall be disposed in a manner consistent with state and local regulations (e.g. trash receptacles, receptacles for fish offal and carcasses.)

20. Toilet waste, domestic wastewater and other domestic wastes must be pumped out to an approved onsite sewage system or municipal sewer, or must be treated by an approved marine sanitation device prior to discharge to waters of the State of Alabama.

21. Dredged or fill material may be temporarily side cast or otherwise temporarily placed in adjacent waters or wetlands provided the side cast or placed material is not permanently placed in adjacent waters or wetlands outside the permitted project area.

22. Disposal of fill material into waters of the State of Alabama dredging/excavating activities on upland areas above the normal low water of the water body outside of the permitted disposal area is prohibited.

23. If upland disposal areas are utilized, the applicant shall be responsible for the condition of the spoil disposal area for the life of the dredging and disposal activity and until the disposal area is reclaimed or adequately stabilized, and for pumping and discharge rates, to ensure settling of suspended solids within the confines of the spoil disposal area sufficient to ensure that turbidity in the return water will not cause substantial visible contrast with the receiving waters, or result in an increase of 50 NTUs above background turbidity levels in the receiving water.

24. The applicant shall contact the Department's Air Division at (334) 271-7861 to determine the need for an air permit prior to commencement of loading/unloading operations.

25. Water bodies should be no deeper than the depth of the adjacent receiving waters. Water body designs that are shallower at the margins with depths deepening as one approaches the receiving waters should be implemented to the extent practicable and are preferable because circulation and reaeration is enhanced. Slopes of channel banks, which are 1:3 or flatter provide bank stabilization, enhance water quality by improving water circulation, and promote colonization by littoral vegetation, which provides better habitat. Vertical bulk heading is strongly discouraged. Rounded corners in the water body interior optimize internal circulation.

26. Surface drainage patterns should be designed, constructed, and maintained to the extent practicable with swales or other methods to minimize direct runoff into waters of the state and to minimize the introduction of pollutants.

27. Any proposed new or modified water body channel should duplicate the old water body channel in regard to pools, riffle areas, riparian vegetation, depth, gradient, and length to the maximum extent practicable so that the new modified water body channel maintains its dimension, pattern, and profile while neither degrading nor aggrading to ensure that water temperature, pH, turbidity, and dissolved oxygen are not adversely impacted after the project is completed.

28. The bottom of any proposed new or modified water body channel should be V-notched, concave in shape, or otherwise constructed to allow adequate concentrated and unobstructed flow of water during periods or low flow.

29. Design features, such as protection of existing watercourse trees or planting of new shade trees or other appropriate measures, should be implemented to the maximum extent practicable in order to minimize temperature extremes in any modified water body channel.

30. Modified or impacted water body bottoms and banks shall be returned to original contours to the extent possible and all disturbed areas stabilized and fully reclaimed.

31. The applicant shall conduct, at a minimum, weekly comprehensive site inspections to ensure that effective Best Management Practices (BMPs) are properly designed, implemented, and regularly maintained (i.e. repair, replace, add to, improve, implement more effective practice, etc.) utilizing good engineering practices to prevent/minimize to the maximum extent practicable discharges of pollutants in order to provide for the protection of water quality. Qualified credentialed professional, qualified personnel under the direct supervision of a QCP shall conduct the inspections, or an ADEM approved qualified credentialed inspection professional, until completion of the proposed activity.

32. The applicant shall conduct the proposed operation in a timely manner and with all due diligence utilizing good engineering practices in order to reduce potential environmental impacts created by the project to the maximum extent practicable.

33. To ensure the protection of water quality, the applicant shall conduct an evaluation of any dredged material in order to evaluate the presence of pollutants which have the potential to be present in concentrations which could result in water contamination. Detailed results of any analyses shall be made available to ADEM upon request.

34. For those NWPs that require written notification to the Corps, the applicant shall: 1) submit a written statement that the applicant is aware of ADEM regulations and that NPDES permit coverage from ADEM is not required; or 2) submit proof of coordination with ADEM that all appropriate NPDES or other permits have either been applied for and/or obtained.

APPENDIX F

Memorandum for Public Hearing Requests

Two Rivers, LLC
Elk River Mile 1.8L, Limestone County, AL
File No. 2006-01721

CELRN-OP-F (1145b1)

19 JAN 2007

MEMORANDUM FOR RECORD

SUBJECT: File No. 2006-01721; Public Notice 06-92; Proposed Community Piers and Bank Stabilization at Elk River Mile 1.8, Left Bank, Wheeler Lake, Limestone County, Alabama (Two Rivers)

1. On 28 August 2006, Mr. Billy Christopher, d/b/a Two Rivers, LLC, Athens, Alabama, submitted an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899. The application is for the construction of two, 260-feet long, community day-use docks, spaced 80 feet apart, and riprap bank stabilization for a proposed adjacent 61 unit riverfront condominium. The location of the action is Elk River Mile 1.8, left bank, Wheeler Lake, Limestone County, Alabama.

2. The U.S. Army Corps of Engineers (Corps) and the Tennessee Valley Authority (TVA) issued Joint Public Notice 06-92 (Encl 1) describing the work and soliciting public comments between 31 August 2006 and 29 September 2006. The notice was sent to numerous interested parties including federal, state, and local agencies, adjacent property owners, elected officials, and other groups and individuals.

3. In response to the notice, the U.S. Fish and Wildlife Service stated that no adverse effects to fish and wildlife were expected to result from the proposed work. The Alabama Historical Commission stated that the proposed work would have no effect on National Register of Historic Places listed or eligible properties. TVA requested that the proposed piers be reduced in length from 260 feet to 150 feet to be consistent with TVA guidelines for this location. (Encl 2)

4. During the comment period, comments from the public were received; seven were opposed and two were in support. There were five requests for a public hearing. After 29 September 2006, seven additional opposing comments were received. Copies of the comments (Encl 3) were forwarded to the applicant for consideration. The main public concerns were a perception of

reduced navigation maneuverability, private use of the shoreline, increased boat traffic, on-water recreational safety, aesthetic impacts, and lack of public notice of the proposed action.

5. The Corps and TVA's navigation representatives have inspected the site by boat and met with the applicant. In response to the concerns, the applicant submitted a revised application in October 2006 (Encl 4). The lengths of the piers were reduced to 150-feet as requested by TVA.

6. At this time, the Corps and TVA are preparing an Environmental Assessment for the reduced scope of work.

7. The public has been given ample opportunity to express their views and opinions regarding the proposed action through the Corps' Public interest review process. All issues and relevant factors that were brought forward during the comment period have been clearly identified and addressed. A public hearing is not likely to provide additional information that would assist me in reaching a final decision on the permit request, nor serve any valid interest. Therefore, I have decided not to hold a hearing. The requesting parties will be advised of this decision.

4 Encls

STEVEN J. ROEMHILDT, P.E.
LTC, EN
Commanding

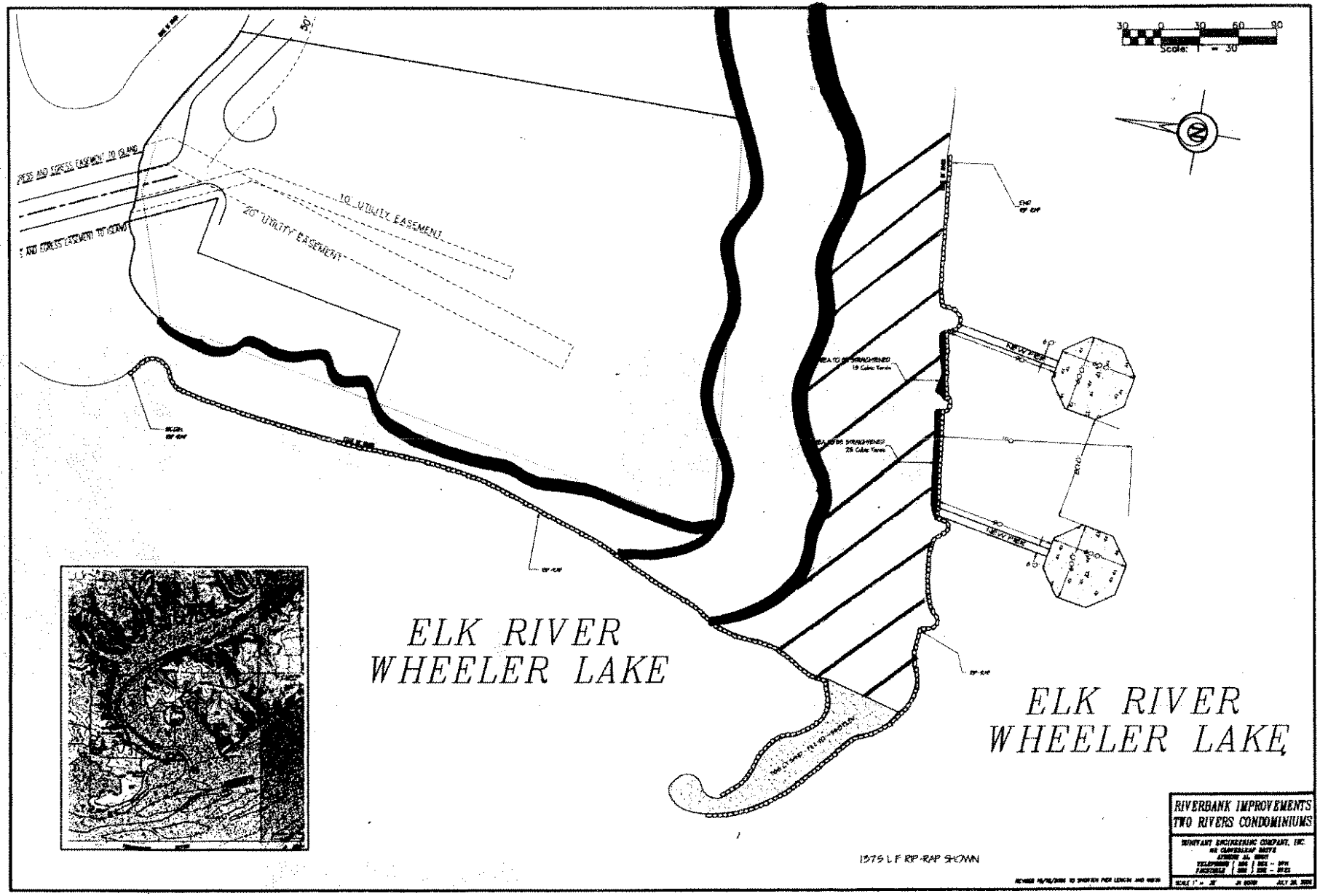
CELRN-OP-F (1145b1)
SUBJECT: File No. 2006-01721; PN 06-92; Public Hearing Request, Proposed Community Piers at Elk River Mile 1.8, Left Bank, Wheeler Lake, Limestone County, AL

BISHOP/OP-F
GATLIN/OP-F
RIVERA/OP-S
ENSCH/OP
HILL/OC
PHILLIPS/DE-S
WARREN/XO
GUTH/DDE
LTC ROEMHILDT/DE

APPENDIX G

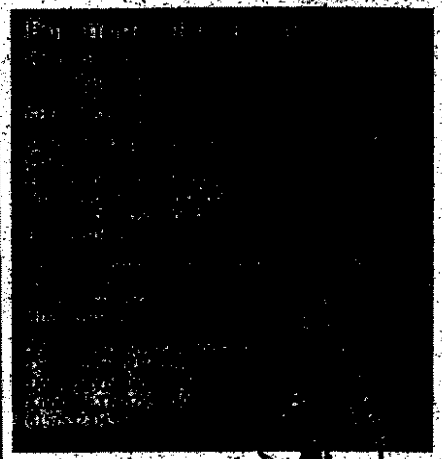
Planting Plan

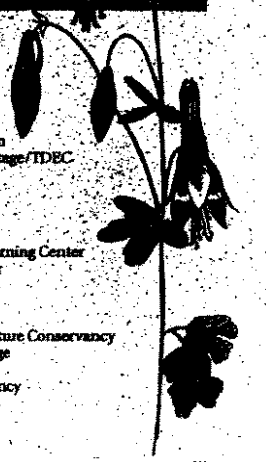
Two Rivers, LLC
Elk River Mile 1.8L, Limestone County, AL
File No. 2006-01721


30 0 30 60 90
Scale: 1" = 30'
10' UTILITY EASEMENT
20' UTILITY EASEMENT
ELK RIVER
WHEELER LAKE
ELK RIVER
WHEELER LAKE
1575 L.F. RIP-RAP SHOWN
RIVERBANK IMPROVEMENTS
TWO RIVERS CONDOMINIUMS

Celebrate our natural heritage and protect native plant communities

1. Learn more about native plants.
2. Buy nursery propagated plant material.
3. Don't dig plants from the wild.
4. Protect native plant and natural area habitat.
5. Promote responsible landscaping practices.
6. Plant native and not exotic plant species.





Text by
Warner Park Nature Center
Tennessee Natural Areas Program
In the Division of Natural Heritage/TDEC

Brochure made possible by
TN-EPPC

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Tennessee Native Plant Society
Tennessee Field Office of The Nature Conservancy
TDEC Division of Natural Heritage
TDEC Bureau of State Parks
Tennessee Wildlife Resource Agency
Tennessee Valley Authority

[redacted]

Central Basin and Highland Rim

LANDSCAPING WITH NATIVE PLANTS

PROMOTES BIODIVERSITY

and endorses a land ethic that celebrates our natural heritage

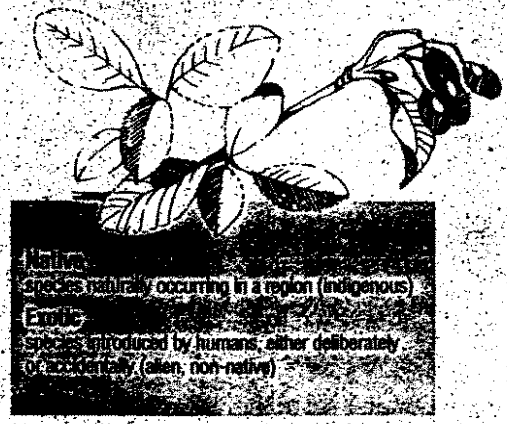
Our natural heritage

The use of native plants in landscaping is a celebration of our natural heritage and an awakening of a land ethic first expressed by Aldo Leopold more than 50 years ago.

The natural processes from which natives evolve represent the cog and wheel of a healthy ecosystem sustained by a complex web of biological diversity.

Native plants have many inherent qualities and adaptive traits that make them aesthetically pleasing, practical, and ecologically valuable for landscaping.

Using native plants contributes to the health and often the restoration of an ecosystem. Landscaping with natives in an urban setting helps restore regional character and places fewer demands on resources.



Native
species naturally occurring in a region (indigenous)

Exotic
species introduced by humans, either deliberately or accidentally (alien, non-native)

What are natives?

Natives are plants that evolved over geologic time and are distributed across the landscape largely in response to climatic episodes and adaptation to site conditions related to land formation.

Natives are generally defined as plants that occurred in North America before European settlement. This distinction is made because of the large-scale changes in the flora that have resulted since European settlement and the introduction of "exotic" plants.

Exotics are plants that are directly or indirectly, deliberately or accidentally introduced by human action. To be more precise, natives are natural elements of a regional landscape. While some species are native to North America, they may be exotic to Middle Tennessee.

Natives vs. exotics

While many exotics are harmless, others pose serious threats to biodiversity. Exotics that escape and naturalize change the floral composition of native plant communities. Exotics that invade native plant communities spread, out-compete, and displace natives. Other exotics are vectors for disease and exotic insects. Future introductions can be prevented by using native species.

Using natives also exhibits regional flora and promotes our natural heritage. Natives have often been overlooked and their aesthetic value ignored. Instead, many regions look the same because overuse of the same exotics has created a monotonous, predictable landscape.

Basics about using natives

When landscaping with natives match the right plants with the right site conditions. Consider using plants that occur together in their natural habitats. Do your homework before planting; study the plants and the site condition information in this brochure. Visit a natural area and observe how plants occur and design your landscape accordingly. Buy nursery propagated plants. Remember, landscaping with natives is art imitating nature.

Benefits of natives

- Adapted to regional conditions and may require less maintenance and are cost-effective.
- Hardy, withstand extreme winter cold, do not suffer from die back.
- Environmentally friendly, require fewer pesticides and fertilizers because of natural adaptations.
- Promote biodiversity and stewardship.
- Provide food and shelter for native wildlife.
- Restore regional landscapes.
- Prevent future exotic introductions.

Natives for wildlife

Using natives in landscaping helps sustain native butterflies, moths and other beneficial insects; native birds, reptiles, mammals, and other fauna. Fall migrating birds depend on high-energy fruits from flowering dogwood and spicebush. Spring migrants feed on insects that occur on oak trees. Beech and other native trees provide nesting habitat, while Eastern red cedar, Virginia pine, and American holly provide winter cover and food.

- **Don't dig plants from the wild.**
- **Buy nursery-propagated plant material.**

MIDDLE TENNESSEE

Central Basin and Highland Rim

The Central Basin and the Highland Rim are uniquely different physiographic provinces that make up Middle Tennessee. Site conditions for each respective province are determined by topography, soil pH, soil depth, aspect, availability of light, and hydrology. These site conditions support a mosaic of native plant communities.

- Dry upland sites support xeric oak-hickory forests.
- Beech, tulip poplar, basswood, and sugar maple (mixed mesophytic) forest communities occur on north-facing slopes.
- Floodplains and upland swamps support "wet feet" or hydric plants.
- Unique barrens occur in open grassy areas on the Highland Rim.
- Rare cedar glades occupy thin soil, poorly drained limestone outcrops (winter wet, summer dry habitat) in the Central Basin.

Soil pH is a distinguishing feature between the Basin and the Rim. The elliptically shaped Central Basin is underlain by Ordovician limestone and has alkaline soils, whereas much of the surrounding Highland Rim has acidic soils that are heavily leached and often occur in the resistant siliceous Fort Payne formation.

For landscaping purposes it is important to remember that plants growing in our region are specifically adapted to hydrology (moisture and dryness) and soil pH (acidity and alkalinity). Soil moisture, soil pH and light availability are important limiting factors. Matching plants to site conditions will yield the maximum benefits that natives provide.

Native plant recommendations

KEY

LIGHT
F = full sunlight
P = partial shade
S = shade

SOIL MOISTURE
H = hydric; wet, plants periodically or often inundated by water
M = mesic; moist, adequate soil moisture retention year-round
S = sub-xeric; moist to dry, seasonally moist, periodically dry
X = xeric; dry & drought resistant, little moisture retention, excessively drained

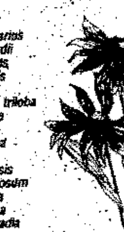
SOIL pH
B = basic; prefers limestone
A = acidic; prefers acidic soils
R = restricted to either B or A

COMMON NAME	SCIENTIFIC NAME	LIGHT			MOISTURE				SOIL pH		
		F	P	S	H	M	S	X	B	A	R
SHRUBS											
alder	Alnus serrulata	●	●		●	●					
leadplant amorpha	Amorpha fruticosa	●	●			●	●	●			
black chokeberry	Aronia melanocarpa	●	●		●	●	●	●		●	
sweetshrub	Calycanthus floridus		●		●		●			●	
American beautyberry	Callicarpa americana	●	●		●	●	●	●			
New Jersey tea	Ceanothus americanus		●	●		●	●	●		●	●
buttonbush	Cephalanthus occidentalis	●	●		●						
silky dogwood	Cornus amomum	●	●		●	●					
hazelnut	Corylus americana	●	●	●		●	●				
leatherwood	Dirca palustris	●	●	●		●					
hearts-a-bustin	Euonymus americanus		●	●		●	●				
swamp mallow	Hibiscus moscheutos	●	●		●						
oakleaf hydrangea	Hydrangea quercifolia	●	●	●		●	●				
wild hydrangea	Hydrangea arborescens		●	●		●		●			
golden St. John's Wort	Hypericum frondosum	●	●			●		●	●		●
shrubby St. John's Wort	Hypericum prolificum	●	●		●	●	●	●			
common winterberry	Ilex verticillata	●	●	●	●	●				●	
Virginia-willow	Itea virginica	●	●	●	●	●					
mountain laurel	Kalmia latifolia	●	●				●	●		●	●
spicebush	Lindera benzoin		●	●		●					
ninebark	Physocarpus opulifolius	●	●		●	●		●			
wild azalea	Rhododendron canescens		●	●		●	●			●	●
fragrant sumac	Rhus aromatica	●	●				●	●	●		●
winged sumac	Rhus copallina	●	●			●	●				
carolina rose	Rosa carolina	●	●			●	●		●		
swamp rose	Rosa palustris	●	●		●	●					
prairie rose	Rosa setigera	●	●			●	●	●	●		
elderberry	Sambucus canadensis	●	●	●		●			●		
bladdernut	Staphylea trifolia		●	●		●	●		●		
bigleaf snowbell	Styrax grandifolia	●	●	●		●	●			●	
coralberry, buckbrush	Symphoricarpos orbiculatus	●	●	●		●	●	●			
farkleberry	Vaccinium arboreum	●	●				●	●		●	●
deerberry	Vaccinium stamineum	●	●			●	●	●		●	●
lowbush blueberry	Vaccinium vacillans	●	●				●	●		●	●
mapleleaf viburnum	Viburnum acerifolium		●	●		●	●	●		●	
SMALL TREES											
serviceberry	Amelanchier arborea	●	●	●			●	●		●	
hercules club	Aralia spinosa	●	●				●	●			
paw paw	Asimina triloba		●	●		●			●		
buckthorn bumelia	Bumelia lycioides	●	●	●		●	●	●	●		●
ironwood	Carpinus caroliniana		●	●	●	●					
redbud	Cercis canadensis	●	●	●		●	●	●	●		
fringe tree	Chionanthus virginicus		●	●		●	●			●	
flowering dogwood	Cornus florida		●	●		●	●				
roughleaf dogwood	Cornus drummondii	●	●				●	●	●		●
Washington hawthorn	Crataegus phaenopyrum	●	●				●	●	●		
hawthorn	Crataegus mollis	●	●				●	●	●		
wahoo	Euonymus atropurpureus	●	●	●		●	●		●		
witch-hazel	Hamamelis virginiana		●	●		●	●			●	●
American holly	Ilex opaca	●	●	●		●	●			●	
cucumbertree	Magnolia acuminata		●	●		●					
hop-hornbeam	Ostrya virginiana		●	●		●	●		●		
sourwood	Oxydendrum arboreum		●	●			●	●		●	●
American plum	Prunus americana	●	●				●	●	●		
Chicasaw plum	Prunus angustifolia	●	●			●	●	●			
hop tree	Ptelea trifoliata	●	●	●			●	●	●		
Carolina buckthorn	Rhamnus caroliniana	●	●	●			●	●	●		
SMALL TREES (continued)											
staghorn sumac	Rhus typhina	●	●				●	●			
southern rusty blackhaw	Viburnum rufidulum	●	●	●		●	●	●	●		
northern blackhaw	Viburnum prunifolium	●	●	●		●	●	●			
TREES											
red maple	Acer rubrum	●	●	●	●		●	●		●	
silver maple	Acer saccharinum	●	●		●						
sugar maple	Acer saccharum	●	●	●		●	●		●		
buckeye	Aesculus glabra		●	●		●	●				
yellow buckeye	Aesculus octandra		●	●		●	●				
river birch	Betula nigra	●	●	●	●	●				●	
bitternut hickory	Carya cordiformis	●	●	●		●			●		
pignut hickory	Carya glabra	●	●	●			●	●			
shagbark	Carya ovata	●	●	●		●	●	●			
mockernut	Carya tomentosa	●	●	●		●	●	●			
yellow-wood	Cladrastis lutea	●	●	●		●	●		●		
persimmon	Diospyros virginiana	●	●			●	●				
American beech	Fagus grandifolia	●	●	●		●	●				
white ash	Fraxinus americana	●	●	●		●	●				
green ash	Fraxinus pennsylvanica	●	●	●	●	●	●	●			
blue ash	Fraxinus quadrangulata	●	●	●	●	●	●	●	●		
Kentucky coffeetree	Gymnocladus dioicus	●	●	●		●	●		●		
black walnut	Juglans nigra	●	●	●		●	●		●		
red cedar	Juniperus virginiana	●	●				●	●	●		
sweetgum	Liquidambar styraciflua	●	●	●	●	●	●	●		●	
tulip poplar	Liriodendron tulipifera	●	●			●	●				
blackgum	Nyssa sylvatica	●	●	●			●	●		●	
red mulberry	Morus rubra	●	●	●		●	●	●			
Virginia pine	Pinus virginiana	●					●	●		●	
shortleaf pine	Pinus echinata	●					●	●		●	
sycamore	Platanus occidentalis	●	●		●	●			●		
black cherry	Prunus serotina	●	●			●	●	●			
white oak	Quercus alba	●	●			●	●	●			
chinkapin oak	Quercus muehlenbergii	●	●			●	●	●	●		●
chestnut oak	Quercus prinus	●	●				●	●		●	●
bur oak	Quercus macrocarpa	●	●		●	●	●				
northern red oak	Quercus rubra	●	●		●	●	●				
black oak	Quercus velutina	●	●			●	●	●			
pin oak	Quercus palustris	●	●		●	●	●	●			
post oak	Quercus stellata	●	●				●	●			
shumard oak	Quercus shumardii	●	●		●	●	●	●	●		●
scarlet oak	Quercus coccinea	●	●				●	●		●	●
swamp white oak	Quercus michauxii	●	●		●	●					
water oak	Quercus nigra	●	●		●	●					
willow oak	Quercus phellos	●	●		●	●	●	●			
southern red oak	Quercus falcata	●	●				●	●		●	
black willow	Salix nigra	●	●		●				●		
sassafras	Sassafras albidum	●	●			●	●				
basswood	Tilia americana	●	●	●		●	●				
VINES											
crossvine	Bignonia capreolata	●	●		●	●	●				
trumpet creeper	Campsis radicans	●	●				●	●			
leatherflower	Clematis versicolor	●	●	●		●	●	●			
virgin's bower	Clematis virginiana	●	●	●		●	●	●			
coral honeysuckle	Lonicera sempervirens	●	●	●		●	●	●			
Virginia creeper	Parthenocissus quinquefolia	●	●	●		●	●	●			
passion flower	Passiflora incarnata	●	●				●	●			

GRASSES	
Big bluestem	Andropogon gerardii
Little bluestem	Andropogon scoparius
Broomsedge	Andropogon virginicus
River cane	Arundinaria gigantea
River oats, Spangle grass	Chasmanthium latifolium
Canada wild rye	Elymus canadensis
Bottle brush	Hystrix patula
Switch-grass	Panicum virgatum
Indian grass	Sorghastrum nutans

FLOWERS	
Doll's-eye baneberry	Actaea alba
Thimbleweed	Anemone virginiana
Wild columbine	Aquilegia canadensis
Wild ginger	Asarum canadense
Butterfly weed	Asclepias tuberosa
Swamp milkweed	Asclepias incarnata
New England aster	Aster novae-angliae
Bushy aster	Aster dumosus
Fall blue aster	Aster patens
Blue false indigo	Baptisia australis
Tall bellflower	Campanula americana
Coreopsis	Coreopsis major
Shooting star	Dodecatheon meadia
Joe-Pye weed	Eupatorium fistulosum
Mist flower	Eupatorium coelestinum
Wild geranium	Geranium maculatum
Woods sunflower	Helianthus divaricatus
Small headed sunflower	Helianthus microcephalus
Liverleaf	Hepatica acutiloba
Alumroot	Heuchera americana
Jewelweed	Impatiens pallida
Spotted jewelweed	Impatiens capensis
Dwarf crested iris	Iris cristata
Cardinal flower	Lobelia cardinalis
Great blue lobelia	Lobelia syphilitica
Virginia bluebells	Mertensia virginica
Partridge-berry	Mitchella repens
Bergamot	Monarda fistulosa
Prickly pear	Opuntia humifusa
Appalachian pachysandra	Pachysandra procumbens
Wild blue phlox	Phlox divaricata
Beard-tongue	Penstemon calycosus
Jacob's ladder	Polemonium reptans
Poke weed	Phytolacca americana
Solomon's seal	Polygonatum biflorum
Wild Petunia	Ruellia humilis
Fire Pink	Silene virginica
Indian Pink	Spigelia marilandica

FERNS	
Lady-fern	Athyrium filix-femina
Sensitive fern	Onoclea sensibilis
Cinnamon fern	Osmunda cinnamomea
Chain fern	Woodwardia areolata
Maidenhair fern	Adiantum pedatum
Ebony spleenwort	Asplenium platyneuron
Christmas fern	Polystichum acrostichoides
Common grape fern	Botrychium dissectum
Broad beech fern	Phegopteris hexagonoptera
Common woodsia	Woodsia obtusa



MOSAIC FOR FULL SUN	
Little blue stem	Andropogon scoparius
Big blue stem	Andropogon gerardii
Indian grass	Sorghastrum nutans
Canada rye grass	Elymus canadensis
Grey headed coneflower	Ratibida pinnata
Blackeyed susan	Rudbeckia hirta & triloba
New England aster	Aster novae-angliae
Bushy aster	Aster dumosus
Butterfly weed	Asclepias tuberosa
Blue false indigo	Baptisia australis
Rose vervain	Verbena canadensis
Joe Pye weed	Eupatorium fistulosum
Wild bergamot	Monarda fistulosa
Ironweed	Vernonia altissima
Shooting star	Dodecatheon meadia

MOSAIC FOR SHADE	
Thimbleweed	Anemone virginiana
Wild Ginger	Asarum canadense
Ebony Spleenwort	Asplenium platyneuron
Shooting Star	Dodecatheon meadia
Alumroot	Heuchera americana
Pachysandra	Pachysandra procumbens
Christmas Fern	Polystichum acrostichoides
Broad Beech Fern	Phegopteris hexagonoptera
Golden Ragwort	Senecio glabellus
Foam-flower	Tiarella cordifolia
Spiderwort	Tradescantia virginiana
Violets	Viola spp.
Woodsia	Woodsia obtusa