From:	Irwin, Mike
To:	"Budnik, Joel"
Cc:	<u>Stumne, Steve P; Pringle, Keara; Atkins, Kevin D; Bax, Stacia; Reenan, James S NWK; Morgan, Nancy; Jontry, James E</u>
Subject:	RE: Ameren Mark Twain Transmission Line Rebuild - Construction Detail Map
Date:	Wednesday, July 18, 2018 4:19:54 PM
Attachments:	image002.png
	image003.png

Hello Joel,

Since the project will not enter Iowa, the Missouri Department of Natural Resources concurs the project meets Specific Condition 22f; therefore, individual Clean Water Act Section 401 Water Quality Certification will NOT be required.

Thank you for providing clarification regarding the provided impact map, and my apologies for any inconvenience.

Mike Irwin, Environmental Scientist Clean Water Act Section 401 Water Quality Certification, Operating Permits Section, Water Protection Program Missouri Department of Natural Resources PO BOX 176, 1101 Riverside Dr., Jefferson City, MO 65102 573-522-1131 (Office) 573-522-9920 (FAX) mike.irwin@dnr.mo.gov

> We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at <u>https://www.surveymonkey.com/r/MoDNRsurvey</u>. Thank you.

From: Budnik, Joel [mailto:joel.budnik@woodplc.com]
Sent: Wednesday, July 18, 2018 4:13 PM
To: Irwin, Mike
Cc: Stumne, Steve P; Pringle, Keara; Atkins, Kevin D; Bax, Stacia; Reenan, James S NWK; Morgan, Nancy; Jontry, James E
Subject: RE: Ameren Mark Twain Transmission Line Rebuild - Construction Detail Map

Mike,

Thanks for discussing the Ameren Mark Twain project with me this afternoon. Per our discussion we have clarified that Ameren will only be working within Missouri on this project and will not extend into Iowa. Therefore the project will meet the WQC Specific Condition #22 f. Please reply to all on this message to acknowledge if you agree. Please let us know if you have any additional questions or need any other information. We appreciate your assistance with this project.

Thanks, Joel

Joel Budnik

Natural Resources Group Lead/Senior Biologist Environment & Infrastructure Solutions Direct: 636-200-5133 Mobile: 636-628-6452 Joel.Budnik@woodplc.com Note: Amec Foster Wheeler E&I is now part of **Wood.** www.woodplc.com



From: Irwin, Mike [mailto:mike.irwin@dnr.mo.gov]
Sent: Tuesday, July 17, 2018 11:36 AM
To: 'Pringle, Keara' <<u>keara.pringle@woodplc.com</u>>
Cc: James S Reenan (James.S.Reenan@usace.army.mil) <<u>James.S.Reenan@usace.army.mil</u>>; Atkins, Kevin D (<u>KAtkins@ameren.com</u>) <<u>KAtkins@ameren.com</u>>; Bax, Stacia <<u>stacia.bax@dnr.mo.gov</u>>
Subject: RE: Ameren Mark Twain Transmission Line Rebuild - Construction Detail Map

Hello Keara,

Thank you for sending the information I requested. As noted in the U.S. Army Corps of Engineers verification letter, the Missouri Department of Natural Resources certifies the Nationwide Permit will not violate existing state water quality standards provided you comply with the conditions included in the Clean Water Act Section 401 Water Quality Certification (WQC) General and Specific Conditions document. In this document, Missouri Specific Condition 22.f states the following: "New utilities lines, when considering the project as a whole, which (1) Cross more than one jurisdictional water resulting in greater than 500 LF and/or 0.50 acre of impact to jurisdictional waters as a project total, and (2) Travel through more than two county jurisdictions or more than one state jurisdiction shall be viewed as a whole project in the WQC process and require individual WQC of all crossings, except crossings utilizing directional boring."

After a review of project impacts, it is evident that individual Clean Water Act Section 401 Water Quality Certification will be required. The project permanently impacts a total 1,190 linear feet on multiple streams via construction of culverts and/or low-water crossings and travels through both Missouri and Iowa jurisdiction.

In short, the issued Nationwide Permit will not be valid until an individual Missouri WQC is validated. The Department has 60 days to review the project for WQC, and I will start the 60-day clock when we received the original notification on July 13, 2018.

Please let me know if you have any questions, comments, or concerns.

Thank you for working with the Department.

Respectfully,

Mike Irwin, Environmental Scientist Clean Water Act Section 401 Water Quality Certification, Operating Permits Section, Water Protection Program Missouri Department of Natural Resources PO BOX 176, 1101 Riverside Dr., Jefferson City, MO 65102 573-522-1131 (Office) 573-522-9920 (FAX) mike.irwin@dnr.mo.gov

> We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at <u>https://www.surveymonkey.com/r/MoDNRsurvey</u>. Thank you.

From: Pringle, Keara [mailto:keara.pringle@woodplc.com]
Sent: Tuesday, July 17, 2018 9:04 AM
To: Irwin, Mike
Subject: Ameren Mark Twain Transmission Line Rebuild - Construction Detail Map

Hi Mike,

Attached is a construction detail map showing where impacts to streams, wetlands, and open water are within the project limits. For the culverts called out on the map, the unit referring to the impact is linear feet even though it says just FT on the map.

Let me know if you have any further questions.

Thank you! Keara

> Keara Pringle Biologist Environment and Infrastructure Solutions 15933 Clayton Road, Suite 215, Ballwin, MO 63011 Direct: +1 (636) 200 5117 Mobile: +1 (636) 594 9862 Note: Amec Foster Wheeler E&I is now part of Wood www.woodplc.com



This message is the property of John Wood Group PLC and/or its subsidiaries and/or affiliates and is

intended only for the named recipient(s). Its contents (including any attachments) may be confidential, legally privileged or otherwise protected from disclosure by law. Unauthorized use, copying, distribution or disclosure of any of it may be unlawful and is strictly prohibited. We assume no responsibility to persons other than the intended named recipient(s) and do not accept liability for any errors or omissions which are a result of email transmission. If you have received this message in error, please notify us immediately by reply email to the sender and confirm that the original message and any attachments and copies have been destroyed and deleted from your system.

If you do not wish to receive future unsolicited commercial electronic messages from us, please forward this email to: <u>unsubscribe@woodplc.com</u> and include "Unsubscribe" in the subject line. If applicable, you will continue to receive invoices, project communications and similar factual, non-commercial electronic communications.

Please click <u>http://www.woodplc.com/email-disclaimer</u> for notices and company information in relation to emails originating in the UK, Italy or France.

As a recipient of an email from a John Wood Group Plc company, your contact information will be on our systems and we may hold other personal data about you such as identification information, CVs, financial information and information contained in correspondence. For more information on our privacy practices and your data protection rights, please see our privacy notice at https://www.woodplc.com/policies/privacy-notice



CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION 2017 GENERAL AND SPECIFIC CONDITIONS

Water Protection Program

Division of Environmental Quality Acting Director: Steve Feeler

03/2017 PUB02235

Consistent with Section 401 of the Clean Water Act, these precertified conditions are designed to ensure activities carried out under Nationwide Permits (NWPs) authorized by the U.S. Army Corps of Engineers (USACE) do not violate Missouri Water Quality Standards at 10 CSR 20-7.031, resulting in permanent damage to habitat, increased turbidity, reduced bank and channel stability or impacts to the biological and chemical integrity of the waters. Where applicable, these conditions are in addition to, not a replacement for, any federal requirements or conditions.

The conditions outlined in this document apply to those authorized projects where the applicant has chosen to accept these conditions instead of pursuing an individual Clean Water Act Section 401 Water Quality Certification (WQC) for the following NWPs:

- Only General Conditions apply to projects authorized by NWPs 5, 7, 15, 18, 23, 25, 27, 29, 30, 31, 36, 39, 40, 43, 45, and 46.
- Both General and Specific Conditions apply to projects authorized by NWPs 3, 4, 6, 7, 12, 13, 14, 16, 19, 20, 22, 33, 41, 42, 53 and 54.

Alternatively, an applicant may apply for individual WQC if they do not wish to accept the conditions outlined in this document.

Projects authorized by NWPs 17, 21, 32, 34, 37, 38, 44, 48, 49, 50, 51 and 52 require individual WQC by the Department of Natural Resources.

NWPs 1, 2, 8, 9, 10, 11, 28 and 35 authorize projects under Section 10 of the Rivers and Harbors Act of 1899 only. An activity needing only a Section 10 permit may require a WQC if that activity can reasonably be expected to result in any discharge either during construction or operation of the facility. Thus, if the agency determines the activity is likely to result in a discharge during construction or operation, the Department of Natural Resources has the discretion to require a WQC for a Section 10 activity. The USACE will advise a Section 10 permit applicant that they may need a WQC if there is a reasonable expectation that a discharge will occur either during the construction or operation of the project.

Pursuant to Chapter 644.037, RSMo, the Department of Natural Resources shall certify without conditions NWPs as they apply to impacts on wetlands in Missouri.

Pursuant to Chapter 644.038, RSMo, the Department of Natural Resources certifies all NWPs for impacts in all waters of the state without the above-stated or any other conditions for the construction of highways and bridges approved by the Missouri Highway and Transportation Commission. The Memorandum of Understanding of 2016 and any subsequent modifications between the two agencies outline the requirements by which the Missouri Department of Transportation will design and construct projects in order to protect the water quality of waters of the state.

GENERAL CONDITIONS

- 1. NWPs shall not allow the filling of jurisdictional springs such as those associated with a water body's point of origin or located in a streambed.
- 2. Acquisition of NWPs and the attendant WQCs shall not be construed or interpreted to imply the requirements for other permits are replaced or superseded, including Clean Water Act Section 402 National Pollutant Discharge Elimination System Permits for land disturbance or return water from material deposition. Permits or any other requirements shall remain in effect. Applicants with questions are encouraged to contact the Department of Natural Resources' regional office in the project area. A regional office map with contact information can be located at www.dnr.mo.gov/regions.htm.

- 3. Care shall be taken to keep machinery out of the water way as much as possible. If work in the water way is unavoidable, it shall be performed in a way that minimizes the duration and amount of any disturbance to banks, substrate and vegetation to prevent increases in turbidity. Fuel, oil and other petroleum products, equipment, construction materials and any solid waste shall not be stored below the ordinary high water mark at any time or in the adjacent flood-prone areas beyond normal working hours. All precautions shall be taken to avoid the release of wastes or fuel to streams and other adjacent waters as a result of this operation.
- 4. Petroleum products spilled into any water or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly. Any such spills of petroleum shall be reported as soon as possible, but no later than 24 hours after discovery to the Department of Natural Resources' Environmental Emergency Response number at 573-634-2436 or website at http://dnr.mo.gov/env/esp/esp-eer.htm.
- 5. Only clean, nonpolluting fill shall be used. The following materials are not suitable where contact with water is expected such as for bank stabilization, and shall not be used due to their potential to cause violations of the general and numeric criteria of the Water Quality Standards:
 - Earthen fill, gravel, broken concrete where the material does not meet the specifications stated in the "Missouri Nationwide Permit Regional Conditions" (<u>http://www.nwk.usace.army.mil/Portals/29/docs/regulatory/nationwidepermits/2017/2017NWP_MORegCon.pdf?ver=2017-03-17-114205-543</u>) and fragmented asphalt, since these materials are usually not substantial enough to withstand erosive flows.
 - b. Concrete with exposed rebar.
 - c. Tires, vehicles or vehicle bodies, construction or demolition debris are solid waste and are excluded from placement in the waters of the state.
 - d. Liquid concrete, including grouted riprap, if not placed as part of an engineered structure.
 - e. Any material containing chemicals that would result in violation of water quality standards.
- 6. Clearing of vegetation and trees shall be the minimum necessary to accomplish the activity except for the removal of invasive or noxious species and placement of ecologically beneficial practices. A vegetated riparian buffer strip shall be maintained during all stages of the project, including post-construction, from the high bank on either side of the jurisdictional channel to protect water quality and to provide for long-term stability of the stream channel, unless physical barriers prevent such a corridor. For purposes of these NWPs, lack of ownership or control of any portion of the riparian buffer strip may be considered a legitimate and discretionary cause to waive this requirement on that portion.
- 7. An individual WQC is required for any NWP issued on a water that is:
 - a. Listed for a sediment-related impairment, aquatic habitat alteration or unknown impairment as listed in the most current Water Quality Report (Section 305(b) Report) at http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm; or
 - b. Located in or occur within two miles upstream of a designated outstanding state or national resource water as found in 10 CSR 20-7.031, Tables D and E at http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf.

The Department of Natural Resources' geospatial data is available upon request, and all published data is available on the Missouri Spatial Data Information Services website at <u>msdis.missouri.edu/</u>. Additional information to identify the project location, including stream reaches with listed impairments or special water designations, may be obtained from the Department of Natural Resources' Water Protection Program at 573-522-4502.

- Discharge to designated metropolitan no-discharge streams is prohibited, except as specifically permitted under the Water Quality Standards, 10 CSR 20-7.031, and non-contaminated stormwater flows. No water contaminant except uncontaminated cooling water, permitted stormwater discharges in compliance with permit conditions, and excess wet-weather bypass discharges not interfering with beneficial uses should be discharged to the watersheds of streams listed in 10 CSR 20-7.031, Table F at http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf.
- A stream's pattern, profile and dimension, including but not limited to sinuosity, slope and channel width, shall be maintained as much as practicable. Streambed gradient shall not be adversely impacted during project construction. No project shall accelerate bed or bank erosion.
- 10. NWPs authorized by the USACE for which the district engineer waives the impact limit related to linear feet (LF) or width shall require notification to the Department of Natural Resources. The Department of Natural Resources shall

respond within 15 calendar days whether or not individual WQC would be required. This is applicable to NWPs 13, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52 and 54.

- 11. Proposed projects authorized by the USACE and containing a waiver of any "Missouri Nationwide Permit Regional Condition," except Regional Conditions 2, 3 and 7, shall require an individual WQC by the state.
- 12. Representatives from the Department of Natural Resources shall be allowed upon request on the project property, which includes the site(s) where the authorized activity takes place and any associated compensatory mitigation site(s), to inspect the authorized activity and mitigation efforts as deemed necessary by the Department of Natural Resources to ensure compliance with WQC conditions and water quality standards. The applicant or their consultant shall submit any requested information deemed necessary by the Department of Natural Resources to ensure compliance with WQC conditions.
- 13. After avoidance and minimization for the project, all unavoidable, adverse impacts shall be mitigated appropriately based on type and extent of impact.
 - a. Mitigation for loss of aquatic resources shall be in conformance with the currently approved "Missouri Stream Mitigation Method" and/or other mitigation guidance approved for use in Missouri. Mitigation guidance documents can be located online at www.nwk.usace.army.mil/Missions/RegulatoryBranch/StateofMissouri.
 - b. Mitigation shall be within the state of Missouri.
 - c. The applicant shall comply with the higher value of compensatory mitigation required by either the Department of Natural Resources or the USACE, but not both unless explicitly noted.
 - d. Stream impacts shall require compensatory mitigation with only in-stream or riparian corridor credits, unless the Department of Natural Resources agrees to an alternative.
- 14. Antidegradation requirements dictate all appropriate and reasonable Best Management Practices related to erosion and sediment control, project stabilization and prevention of water quality degradation are applied and maintained; for example, preserving vegetation, streambank stability and basic drainage. Best Management Practices shall be properly installed prior to conducting authorized activities and maintained, repaired and/or replaced as needed during all phases of the project to limit the amount of discharge of water contaminants to waters of the state. The project shall not involve more than normal stormwater or incidental loading of sediment caused by project activities so as to comply with Missouri's general water quality criteria [10 CSR 20-7.031(4); Page 15 at http://www.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-7a.pdf].
- 15. Channelization of streams is not allowed under this precertification:
 - a. Channelization includes but is not limited to reducing the length of the channel, widening the channel for increased water storage or flow, and/or construction of hard structures which concentrate flow.
 - b. Bank stabilization activities along one bank of a stream are permitted, including but not limited to, bank sloping and riprapping.
 - c. The redirection of flow by excavation of the opposite bank or a streambed is considered a channel modification and is prohibited.
- 16. No new or expanded wet stormwater retention basins or similar impoundment structures may be constructed unless they are located off-channel. In-channel dry stormwater detention basins are allowable if the stream channel is either temporarily or not adversely affected by the basin.
- 17. Any waste concrete or concrete rinsate shall be disposed of in a manner that does not result in any discharge to the jurisdictional waterways.

SPECIFIC CONDITIONS

- 18. Nationwide Permit 3 *Maintenance*
 - a. Silt, sediment and debris removal shall be limited to a maximum of 100 LF upstream and 100 LF downstream of structures.
 - b. During dewatering, water shall not be returned directly to the water way but shall be pumped upland and filtered through an appropriate treatment device as prescribed in any existing separate permit authorizing the discharge of return water. If, however, instream flow is 1 cubic foot per second (cfs) or greater and the return rate is set at 1 cfs or less, return may be made directly to the stream.
- Nationwide Permit 4 <u>Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities</u> Any inorganic or extraneous debris such as may be found on Christmas trees shall be removed to qualify as clean, nonpolluting fill.

20. Nationwide Permit 6 Survey Activities

Water, fines and excavated materials displaced by activities such as borings, shall not be returned directly to the water way, but shall be pumped upland and filtered through an appropriate treatment device as prescribed in any existing separate permit authorizing the discharge of return water.

21. Nationwide Permit 7 Outfall Structures and Associated Intake Structures

WQC does not replace or negate the need to obtain any required state permits under the Missouri Clean Water Law (Chapter 644, RSMo) for construction of wastewater treatment facility components including outfall structures; permits to release wastewater effluents; or for the construction of components related to public water supplies including intake structures as may be required by the Missouri Safe Drinking Water Law (Chapter 640, RSMo).

22. Nationwide Permit 12 Utility Line Activities

- a. For utility crossings that must disturb a water body, work shall be conducted in such a manner as to seal off the work area from flow and minimize sediment transport.
- b. Material resulting from activity may not be temporarily side-cast into waters of the state for more than one month.
- c. Directional boring to avoid impacts to waters of the state is recommended.
- d. Drilling mud and/or other materials shall not be discharged into waters of the state. Best Management Practices shall be implemented to prevent possible discharges from reaching waters of the state. In the event materials are inadvertently discharged to waters of the state, notification to the Department of Natural Resources is required within 24 hours by calling 573-522-4502. Restoration of the impacted water(s) may be required.
- e. Utility line crossings shall be placed as close to perpendicular as possible, and be limited to a maximum crossing length of no more than one and one-half times the width of the stream.
- f. New utilities lines, when considering the project as a whole, which (1) Cross more than one jurisdictional water resulting in greater than 500 LF and/or 0.50 acre of impact to jurisdictional waters as a project total, and (2) Travel through more than two county jurisdictions or more than one state jurisdiction shall be viewed as a whole project in the WQC process and require individual WQC of all crossings, except crossings utilizing directional boring.

23. Nationwide Permit 13 Bank Stabilization

Innovative stabilization approaches require consultation with the Department of Natural Resources prior to approval and may require an individual WQC. The permittee shall invite the USACE and the Department of Natural Resources as well as the other state and federal resource agencies to examine innovative approaches.

24. Nationwide Permit 14 Linear Transportation Projects

- a. The permittee must propose and employ measures to mitigate the removal of impounded sediment (e.g., sand, gravel) in the unstable area upstream of a proposed project to prevent it from being transported downstream and/or construct a notched weir to slow the release of impounded sediment from upstream of the proposed project. Accumulated gravel may be allowed to naturally deposit into downstream plunge pool voids. Consultation with a hydrologist or other scientist is recommended if the amount of accumulated unconsolidated gravel exceeds the volume of plunge pool voids.
- b. Where this NWP is used to authorize bridge and culvert structures, stream channel work is limited to a maximum of 100 feet upstream and a maximum of 100 feet downstream of the bridge or culvert. For purposes of this condition, a channel modification is any activity that alters the width, depth, length and/or sinuosity of a water way.

25. Nationwide Permit 16 Return Water from Upland Contained Disposal Areas

These activities could have specific tasks or processes involved which may require the acquisition of separate general or site specific permits. All applicants shall contact the Department of Natural Resources' Water Protection Program at 573-522-4502 to determine any specific requirements which may or may not require an individual WQC.

26. Nationwide Permit 19 Minor Dredging

These activities could have specific tasks or processes involved which may require the acquisition of separate general or site specific permits. All applicants shall contact the Department of Natural Resources' Water Protection Program at 573-522-4502 to determine any specific requirements which may or may not require an individual WQC.

27. Nationwide Permit 20 Response Operations for Oil and Hazardous Substances

- a. These activities could have specific tasks or processes involved which may require the acquisition of separate general or site specific permits. All applicants shall contact the Department of Natural Resources' Water Protection Program at 573-522-4502 to determine any specific requirements which may or may not require an individual WQC.
- b. Oil and hazardous substance releases are to be reported to the Department of Natural Resources' Environmental Emergency Response number at 573-634-2436. Continue to report updates with regard to the containment and cleanup of releases.

28. Nationwide Permit 22 Removal of Vessels

Use of this NWP in Missouri is limited to removal actions only and shall not be used for any disposal of vessel.

29. Nationwide Permit 33 Temporary Construction, Access and Dewatering

- a. The use of this NWP shall be limited to impacts of six months or less in duration.
- b. Any removal of accumulated sediment (e.g., sand, gravel) upstream of a proposed project shall be limited to the quantity necessary to relieve any obstruction or to protect downstream habitat. The permittee must propose and employ measures to mitigate the removal of impounded sediment in the unstable area upstream of a proposed project to prevent it from being transported downstream and/or construct a notched weir to slow the release of impounded sediment from upstream of the proposed project.

30. Nationwide Permit 41 Reshaping Existing Drainage Ditches

- a. Material from the reshaping activities shall not be side-cast into any jurisdictional waters.
- b. Removal of vegetation shall be the minimum necessary to conduct approved activity except for the removal of invasive or noxious species. The Department of Natural Resources encourages deep-rooted vegetation to be maintained on at least one side of the water way to protect water quality; for example, leaving trees on the west side to prevent temperature exceedances in the water way.

31. Nationwide Permit 42 *Recreational Facilities*

The vegetated riparian buffer strip to be maintained from the high bank on either side of the jurisdictional channel may be used in part for the construction of public recreational trails, including those constructed to standards set by the Americans with Disabilities Act (ADA).

32. Nationwide Permit 53 *Removal of Low-Head Dams*

- a. The permittee must propose and employ measures to mitigate the removal of impounded sediment (e.g., sand, gravel) in the unstable area upstream of a proposed project to prevent it from being transported downstream and/or construct a notched weir to slow the release of impounded sediment from upstream of the proposed project. Accumulated gravel may be allowed to naturally deposit into downstream plunge pool voids. Consultation with a hydrologist or other scientist is recommended if the amount of accumulated unconsolidated gravel exceeds the volume of plunge pool voids.
- b. Stream channel work is limited to a maximum of 100 feet upstream and a maximum of 100 feet downstream of the dam.
- c. Restoration of the stream channel to its former, natural state is authorized. Individual WQC is required for non-natural channel modifications. For purposes of this condition, a channel modification is any activity that alters the width, depth, length and/or sinuosity of a water way.

33. Nationwide Permit 54 Living Shorelines

Innovative stabilization approaches require consultation with the Department of Natural Resources prior to approval and may require an individual WQC. Invite the USACE and the Department of Natural Resources as well as the other state and federal resource agencies to examine innovative approaches.

Applications for WQC should be sent to the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176, or electronically to <u>wpsc401cert@dnr.mo.gov</u>. A complete application consists of the application submitted to the USACE as well as additional information necessary for a complete review of the project. This may include but is not limited to topographical maps, locational maps, engineering plans, project diagrams and where applicable mitigation plans [Section 644.026.26, RSMo and 10 CSR 20-6.060(5)].

An issued WQC becomes part of and expires with the Section 404 and/or Section 10 permit unless explicitly stated in the WQC. Consultation with the Department of Natural Resources is required should the permit require modification. Not all permit modifications require the WQC to be modified or reissued. For example when a permit expiration date is extended or the permit is reissued and there are no changes to the original project or water quality standards, the WQC may remain valid for that project.

The Department of Natural Resources encourages, but does not require the permittee to consider environmentally-friendly design techniques to include stormwater management strategies that maintain or restore the original site hydrology through infiltration, evaporation or reuse of stormwater. Designs might include creating vegetated swales or rain gardens, or using porous pavement. More information can be found at these websites: www.epa.gov/owow/NPS/lid/ and www.epa.gov/owow/NPS/lid/ and

The Department of Natural Resources encourages the use of native vegetation to protect impacted areas from future water quality concerns. Native vegetation has evolved with Missouri's geology, climate and wildlife to occur within a region as a result of natural processes rather than human intervention. For areas where direct impacts to streams are to be avoided, the Department of Natural Resources recommends a minimum riparian buffer strip width of 50 feet as measured from top of bank.

The following publication provides guidance on how to protect water quality through Best Management Practices on project sites. For more information, please read: "Protecting Water Quality: A field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas" dated January 2011 and located online at http://dnr.mo.gov/env/wpp/wpcp-guide.htm.

To help determine if a proposed activity could encounter species or sites of conservation concern within or near a project, including those that have not been recorded, the applicant is encouraged to visit:

- Missouri Department of Conservation's "Natural Heritage Review" website at
- https://naturalheritagereview.mdc.mo.gov/, and

• U.S. Fish and Wildlife Service's "Information, Planning and Conservation" website at <u>http://ecos.fws.gov/ipac/</u>. If the proposed project encounters and will potentially affect a species of concern, please report it to the Missouri Department of Conservation and the U.S. Fish and Wildlife Service.

For more information Missouri Department of Natural Resources Water Protection Program P.O. Box 176 Jefferson City, MO 65102-0176 <u>wpsc401cert@dnr.mo.gov</u> 800-361-4827 or 573-522-4502 <u>http://www.dnr.mo.gov/env/wpp</u>