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TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR
Date/Time of Meeting 8/09/06
Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Follow up with survey requirements for the Eastern Spotted Skunk

Concern Level: High ___ Moderate ___ Low ___

Description: See attached email.
--

Issue: _____ Concern Level: High ___ Moderate ___ Low ___

Description:

Stribley, Sara

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]
Sent: Wednesday, August 09, 2006 7:11 AM
To: Stribley, Sara
Cc: Johnson, Charlie
Subject: Re: FW: Fwd: Keystone Pipeline Project, Wildlifeconsultationmeeting with the Missouri Dept. of Conserv

Sara,

She is on vacation all this week, however you are welcome to give her a call. (573) 522-4115 ext 3151 or Peggy.horner@mdc.mo.gov

Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
P.O. Box 180
2901 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

>>> "Stribley, Sara" <sstribley@ensr.aecom.com> 08/08/06 5:57 PM >>>

Hi Doyle,

One of the questions that remained from ENSR's meeting with the MDC was if surveys for the eastern spotted skunk would be needed along the Keystone Pipeline route. Have you heard anything from Peggy Warner regarding this issue? I would be willing to follow up with her too if you wouldn't mind sending a phone or email address?

Thanks!

Sara

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.aecom.com

From: Doyle Brown [mailto:Doyle.Brown@mdc.mo.gov]
Sent: Friday, July 28, 2006 7:16 AM
To: Stribley, Sara
Subject: Re: Fwd: Keystone Pipeline Project, Wildlife consultationmeeting with the Missouri Dept. of Conserv

Sara,

Let me know what else I owe you.

Doyle

8/9/2006

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
P.O. Box 180
2901 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

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TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 8/07/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Jeff Briggler
Title	Herpetologist
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Jeff.Briggler@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Identification of Survey Specialists for the Massasauga and Western Fox Snake

Concern Level: High Moderate Low

Description:

From: Stribley, Sara
Sent: Monday, August 7, 2006 12:38 PM
To: 'Jeff.Briggler@mdc.mo.gov'
Cc:
Subject: Keystone Pipeline Project ENSR - Massasauga and Western Fox Snake Specialist

Hi Jeff,
I wanted to thank you for providing us with the Massasauga and Western Fox Snake survey protocol! We are now trying to identify a specialist who could survey areas along the Keystone Pipeline Project route in MO for these two species, possibly this fall. Do you know of any qualified specialists who might be able to conduct these surveys for us? Any names/contact information you could provide would be greatly appreciated!!!

Thanks for your input!

Sincerely,
Sara

Sara Stribley
Staff Specialist

Stribley, Sara

From: Stribley, Sara

Sent: Monday, August 07, 2006 12:38 PM

To: 'Jeff.Briggler@mdc.mo.gov'

Subject: Keystone Pipeline Project ENSR - Massasauga and Western Fox Snake Specialist

Hi Jeff,
I wanted to thank you for providing us with the Massasauga and Western Fox Snake survey protocol! We are now trying to identify a specialist who could survey areas along the Keystone Pipeline Project route in MO for these two species, possibly this fall. Do you know of any qualified specialists who might be able to conduct these surveys for us? Any names/contact information you could provide would be greatly appreciated!!!

Thanks for your input!

Sincerely,

Sara

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.com

Johnson, Charlie

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]
Sent: Thursday, August 03, 2006 11:21 AM
To: Johnson, Charlie
Cc: Lorenz, Patricia
Subject: Re: MDC Meeting minutes (Keystone)

Charles,

Thanks for the review. Here are my comments.

Skunk

I need to follow with Peggy to see if she found out anything different from the recovery leader.

Harrier

I thought I heard Peggy say that MDC did **not have** a concern with this species. Your second sentence supports this premise.

Buffalo Clover

Did you get Tim Smith's email regarding plant experts.

The Public Access on the Missouri River is spelled "Jentell Brees".

Everything else looks good. Take care, Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
P.O. Box 180
2901 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

>>> "Johnson, Charlie" <CJohnson@ensr.aecom.com> 08/03/06 11:52 AM >>>

Doyle, I am providing to you an unofficial copy of the Keystone meeting minutes for you information, review, and input. If you have any concerns relative to the content of the meeting minutes, please let me know ASAP, so that I can incorporate your comments into the minutes for the project record.

Thanks

Charles Johnson
Senior Wildlife Biologist
ENSR|AECOM
1601 Prospect Parkway
Fort Collins, CO 80525
(970) 493-8878
CJohnson@ensr.aecom.com

8/11/2006

Johnson, Charlie

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]
Sent: Tuesday, August 01, 2006 3:44 PM
To: Johnson, Charlie
Cc: Castle, Carla; Duncan, Scott
Subject: Re: FW: Yankton Missouri River crossing

Charlie,

I do not believe that you have any biological issues for the geotechnical work in Missouri. For all species (plant and animal) your operation should not have an impact and you can always move a few feet either way to avoid the plant communities (if present). You may want to follow up with the USFWS folks regarding Indiana Bat.

One thing to remember on public lands (MDC and DNR, others?) is to contact early enough to get permission (MDC did a special use permit) for REX-West at Jentrell Brees (the Missouri River crossing). I do not know the process for DNR (Confluence State Park in St. Charles County. Ken McCarty would know.

Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
P.O. Box 180
1 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

>>> "Johnson, Charlie" <CJohnson@ensr.aecom.com> 08/01/06 1:56 PM >>>

Hello Doyle, as discussed on the phone, TransCanada is interested in conducting geotechnical test drills to determine the geology and feasibility to HDD the Missouri, Chariton, Cuivre (2 crossings), and the Mississippi Rivers. Could you please identify biological issues (e.g., special status species restrictions/surveys) and any other issues that would require surveys prior to geotechnical activities. Are there any additional permits that would be required to conduct these geotech surveys? Attached is geotechnical survey information for your review and input. Based on informal consultation with the USFWS lead for the project, the only requirement for geotechnical surveys would be to conduct piping plover/least tern surveys at the Missouri (Yankton-SD) and Platte River crossings, if these activities were to occur during the breeding season. Please keep in mind that these are pretty low impact surveys. Please see attachments for survey techniques and protocol. Geotech activities could occur anytime from August to mid-September.

Keystone Yankton Geotech NPS

This plan outlines the main components of geotech testing. As with the Missouri River Crossing at Yankton, drilling depth would extend to 100 feet.

Descriptive of Proposed Geotechnical Work

This pdf provides an overview of geotech work that would be conducted.

Geotechnical Exploration

Provides lat-long information for test drill locations.

Thanks you in advance for your review and input. Please call with any questions or concerns.

8/11/2006

Thanks

**Charles Johnson
Senior Wildlife Biologist
ENSR Corporation
1601 Prospect Parkway
Fort Collins, CO 80525
Phone (970) 493-8878
Fax (970) 493-0213**

Johnson, Charlie

From: Johnson, Charlie
Sent: Monday, July 31, 2006 12:22 PM
To: 'doyle.brown@mdc.mo.gov'
Cc: Duncan, Scott; Castle, Carla
Subject: FW: Keystone Pipeline Environmental Report

Doyle - As discussed at the July 19 meeting for the Keystone Pipeline Project, since the Keystone Environmental Report is a Department of State (DOS) document, ENSR has little control over its distribution and the DOS would like to know who has a copy of the document. Consequently, in order for the MDC to obtain a copy, please request a copy (s) directly from the DOS. Below is the contact information for the DOS lead. Please let me know if you have any problems.

Matthew T. McManus
Division Chief, Energy Producer Country Affairs
U.S. Department of State
2201 C Street, N.W.
EB/ESC/IEC
Room 7525
Washington, D.C. 20520
(202) 647-3423
McManusMT@State.gov

Charles Johnson
Senior Wildlife Biologist
ENSR/AECOM
1601 Prospect Parkway
Fort Collins, CO 80525
(970) 493-8878
cjohnson@ensr.aecom.com

8/11/2006

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Johnson, Charlie

From: Andrew Forbes [Andrew.Forbes@mdc.mo.gov]
Sent: Monday, July 31, 2006 8:33 AM
To: Stribley, Sara
Cc: Johnson, Charlie
Subject: Re: Keystone Pipeline Project ENSR - Bird Survey Questions from MDC/ENSR Meeting July 19, 2006

Sara,

I'll do my best to respond to your questions-

Barn Owls- Yes, they have the potential to occur in all of those counties, and I would recommend checking any potential nesting structure within the pipeline ROW.

Greater Prairie-chickens- There were a couple of birds still hanging on in Audrain Co. through the 90s, and there may be a small population on private land that we don't know about. I would recommend conducting surveys.

King Rail- The USFWS protocol will be a good tool for your use. You might consider allocating extra survey effort to marshes that either look very desirable to the species, and/or have an exceptional number of other marshbirds present. Recent studies conducted in midwest by David Kremnetz with the Arkansas Coop. Unit suggest that sites have to be visited 9 times to have sufficient confidence that the birds are not there.

Northern Harrier- No, I do not agree. While Harriers are far more common during migration in Missouri, they do breed here as well, mostly in northern and western Missouri. Definitely worth surveying for.

Let me know if you need any more information. Thanks for checking with me, I appreciate it!

Sincerely,

Andrew Forbes
Ornithologist
Missouri Dept. of Conservation/Audubon Missouri
phone: 573-447-2249
fax: 573-447-2428

>>> "Stribley, Sara" <sstribley@ensr.aecom.com> 07/28/06 5:27 PM >>>

Hi Andrew,

There were a few questions that arose from ENSR's meeting with the MDC regarding bird surveys for the Keystone Pipeline Project, and I was hoping that you might be able to provide some guidance?

Barn Owl: Does the barn owl occur throughout Missouri in all counties crossed by the pipeline route (Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Audrain, Montgomery, Lincoln, St Charles)? Should surveys be conducted across all counties at old structures/barns/grasslands within the ROW, or should we focus our surveys to particular counties/areas? According to MO NHP occurrence data, I think we originally only had St. Charles County down as an area to survey for this species?

Greater Prairie Chicken: It was suggested at the meeting that ENSR contact landowners along the pipeline route in Audrain County to determine if they have sighted or heard any greater prairie chickens on their land. Before we begin contacting these landowners, do you have any additional information regarding GPC occurrences in Audrain County? Have there been any recent sightings in Audrain, and is there a need to conduct surveys in this county?

King Rail: It was suggested at the meeting that we coordinate with you

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regarding this species. We have the FWS marsh bird survey protocol that you provided to us, and surveys are proposed for Buchanan, Carroll, Chariton, Lincoln, and St. Charles counties. We will also be looking to see if the proposed route crosses through the Grand River COA. Please feel free to provide any more information regarding surveys or requirements for this species, or let us know how we can coordinate with you.

Northern Harrier: The information provided at the meeting was that this species is a non-breeding migrant to the state and that surveys would not be necessary. Do you concur with this information?

Thanks very much for your help and input! Please feel free to contact me if you have any questions or need me to provide you with any more information!

Sincerely,
Sara

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstripley@ensr.aecom.com <mailto:sstripley@ensr.aecom.com>

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TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/31/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Andrew Forbes
Title	Biologist
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Andrew.Forbes@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Northern Harrier Survey Areas

Concern Level: High ___ Moderate ___ Low ___

Description:

They are less likely to occur in Montgomery, Lincoln, and St. Charles.

Andy

Andrew Forbes
Ornithologist

Missouri Dept. of Conservation/Audubon Missouri
phone: 573-447-2249
fax: 573-447-2428

>>> "Stribley, Sara" <sstribley@ensr.aecom.com> 07/31/06 10:59 AM >>>
Great! Thanks Andrew!!!

One more question if you don't mind? For the northern harrier, which counties would you suggest focusing survey efforts:

Suchanan
Clinton
Caldwell

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Carroll
Chariton
Randolph
Audrain
Montgomery
Lincoln
St. Charles

Thanks again for your help.
Sara

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.aecom.com

Issue: _____

Concern Level: High__Moderate__Low__.

Description:

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Stribley, Sara

From: Andrew Forbes [Andrew.Forbes@mdc.mo.gov]
Sent: Monday, July 31, 2006 10:05 AM
To: Stribley, Sara
Subject: RE: Keystone Pipeline Project ENSR - Bird Survey QuestionsfromMDC/ENSR Meeting July 19, 2006

They are less likely to occur in MONTgomery, Lincoln, and St. Charles.

Andy

Andrew Forbes
Ornithologist
Missouri Dept. of Conservation/Audubon Missouri
phone: 573-447-2249
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Buchanan
Clinton
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Carroll
Chariton
Randolph
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Montgomery
Lincoln
St. Charles

Thanks again for your help.
Sara

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Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.aecom.com

-----Original Message-----

From: Andrew Forbes [mailto:Andrew.Forbes@mdc.mo.gov]
Sent: Monday, July 31, 2006 8:33 AM
To: Stribley, Sara
Cc: Johnson, Charlie
Subject: Re: Keystone Pipeline Project ENSR - Bird Survey Questionsfrom MDC/ENSR Meeting July 19, 2006

Sara,

I'll do my best to respond to your questions-

Barn Owls- Yes, they have the potential to occur in all of those counties, and I would recommend checking any potential nesting structure within the pipeline ROW.

Greater Prairie-chickens- There were a couple of birds still hanging on in Audrain Co. through the 90s, and there may be a small population on private land that we don't know about. I would recommend conducting

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surveys.

King Rail- The USFWS protocol will be a good tool for your use. You might consider allocating extra survey effort to marshes that either look very desirable to the species, and/or have an exceptional number of other marshbirds present. Recent studies conducted in midwest by David Kremnetz with the Arkansas Coop. Unit suggest that sites have to be visited 9 times to have sufficient confidence that the birds are not there.

Northern Harrier- No, I do not agree. While Harriers are far more common during migration in Missouri, they do breed here as well, mostly in northern and western Missouri. Definitely worth surveying for.

Let me know if you need any more information. Thanks for checking with me, I appreciate it!

Sincerely,

Andrew Forbes
Ornithologist
Missouri Dept. of Conservation/Audubon Missouri
phone: 573-447-2249
fax: 573-447-2428

>>> "Stribley, Sara" <sstribley@ensr.aecom.com> 07/28/06 5:27 PM >>>

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King Rail: It was suggested at the meeting that we coordinate with you regarding this species. We have the FWS marsh bird survey protocol that you provided to us, and surveys are proposed for Buchanan, Carroll, Chariton, Lincoln, and St. Charles counties. We will also be looking to see if the proposed route crosses through the Grand River COA. Please feel free to provide any more information regarding surveys or requirements for this species, or let us know how we can coordinate with you.

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Thanks very much for your help and input! Please feel free to contact me if you have any questions or need me to provide you with any more information!

Sincerely,
Sara

Sara Stribley

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sstribley@ensr.aecom.com <mailto:sstribley@ensr.aecom.com>

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TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/31/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Andrew Forbes
Title	Biologist
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Andrew.Forbes@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Missouri Bird Survey Follow Up Questions

Concern Level: High Moderate Low

Description:

Sara,

I'll do my best to respond to your questions-

Barn Owls- Yes, they have the potential to occur in all of those counties, and I would recommend checking any potential nesting structure within the pipeline ROW.

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Sincerely,

Andrew Forbes
Ornithologist
Missouri Dept. of Conservation/Audubon Missouri
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Issue: _____

Concern Level: High__Moderate__Low__.

Description:

--

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Stribley, Sara

From: Andrew Forbes [Andrew.Forbes@mdc.mo.gov]
Sent: Monday, July 31, 2006 8:33 AM
To: Stribley, Sara
Cc: Johnson, Charlie
Subject: Re: Keystone Pipeline Project ENSR - Bird Survey Questions from MDC/ENSR Meeting July 19, 2006

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Location of Meeting	ENSR
Date/Time of Meeting	7/28/06
Keystone Team Member(s)	Sara Stribley

Contact Information:

Name	Andrew Forbes
Title	Biologist
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Andrew.Forbes@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Missouri Bird Survey Follow Up Questions

Concern Level: High ___ Moderate ___ Low ___

Description:

From: Stribley, Sara
Sent: Friday, July 28, 2006 4:28 PM
To: 'Andrew.Forbes@mdc.mo.gov'
Cc: Johnson, Charlie
Subject: Keystone Pipeline Project ENSR - Bird Survey Questions from MDC/ENSR Meeting July 19, 2006

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Greater Prairie Chicken: It was suggested at the meeting that ENSR contact landowners along the pipeline route in

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Audrain County to determine if they have sighted or heard any greater prairie chickens on their land. Before we begin contacting these landowners, do you have any additional information regarding GPC occurrences in Audrain County? Have there been any recent sightings in Audrain, and is there a need to conduct surveys in this county?

King Rail: It was suggested at the meeting that we coordinate with you regarding this species. We have the FWS marsh bird survey protocol that you provided to us, and surveys are proposed for Buchanan, Carroll, Chariton, Lincoln, and St. Charles counties. We will also be looking to see if the proposed route crosses through the Grand River COA. Please feel free to provide any more information regarding surveys or requirements for this species, or let us know how we can coordinate with you.

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Sincerely,
Sara

Sara Stribley
Staff Specialist
ENSR Corporation
1601 Prospect Pkwy
Fort Collins, CO 80525
970.493.8878 ext. 168
sstribley@ensr.aecom.com

Issue: _____

Concern Level: High__Moderate__Low__

Description:

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Location of Meeting ENSR
Date/Time of Meeting 7/28/06
Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Missouri fish species of conservation

Concern Level: High ___ Moderate ___ Low ___

Description:

See attached email.

Issue: _____

Concern Level: High ___ Moderate ___ Low ___

Description:

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]

Sent: Friday, July 28, 2006 3:18 PM

To: Stribley, Sara

Subject: Topeka shiner

Sara,

More information. Unless I can find the Trawl Method used by most fisheries folks for Sturgeon, Lake and Pallid, I do not believe I will have a survey protocol. It should not be an issue for the pipeline anyway. The chubs and Western Silvery Minnow I did not get anything as well.

I think I still owe you snakes, however Charles should have a hard copy.

Stay on top of me for this information, otherwise I keep getting swept away in the current of "Daily Work".

Doyle

Doyle F. Brown

Policy Coordinator

Missouri Department of Conservation

P.O. Box 180

2901 West Truman Blvd.

Jefferson City, MO 65109

(573) 522-4115 Ext 3355

Doyle.brown@mdc.mo.gov

Keystone Pipeline Project - Missouri Fish Species of Conservation Concern (SOCC)
Prepared by Doug Novinger, Missouri Department of Conservation, July 21, 2006.

The project corridor intersects watersheds with historical records of the Topeka shiner *Notropis topeka* (State/Federal Endangered, SOCC/SRank=S1), ghost shiner *Notropis b Buchananani* (SOCC/S2), Plains minnow *Hybognathus placitus* (SOCC/S2), and Highfin carpsucker *Carpionodes velifer* (SOCC/S2). The following maps highlight the watersheds for Topeka shiner (yellow) and point locations in watersheds for other species that might be affected by the pipeline project. Topeka shiner survey protocol should be used in flowing streams where intersected by the project to assess the fish community.

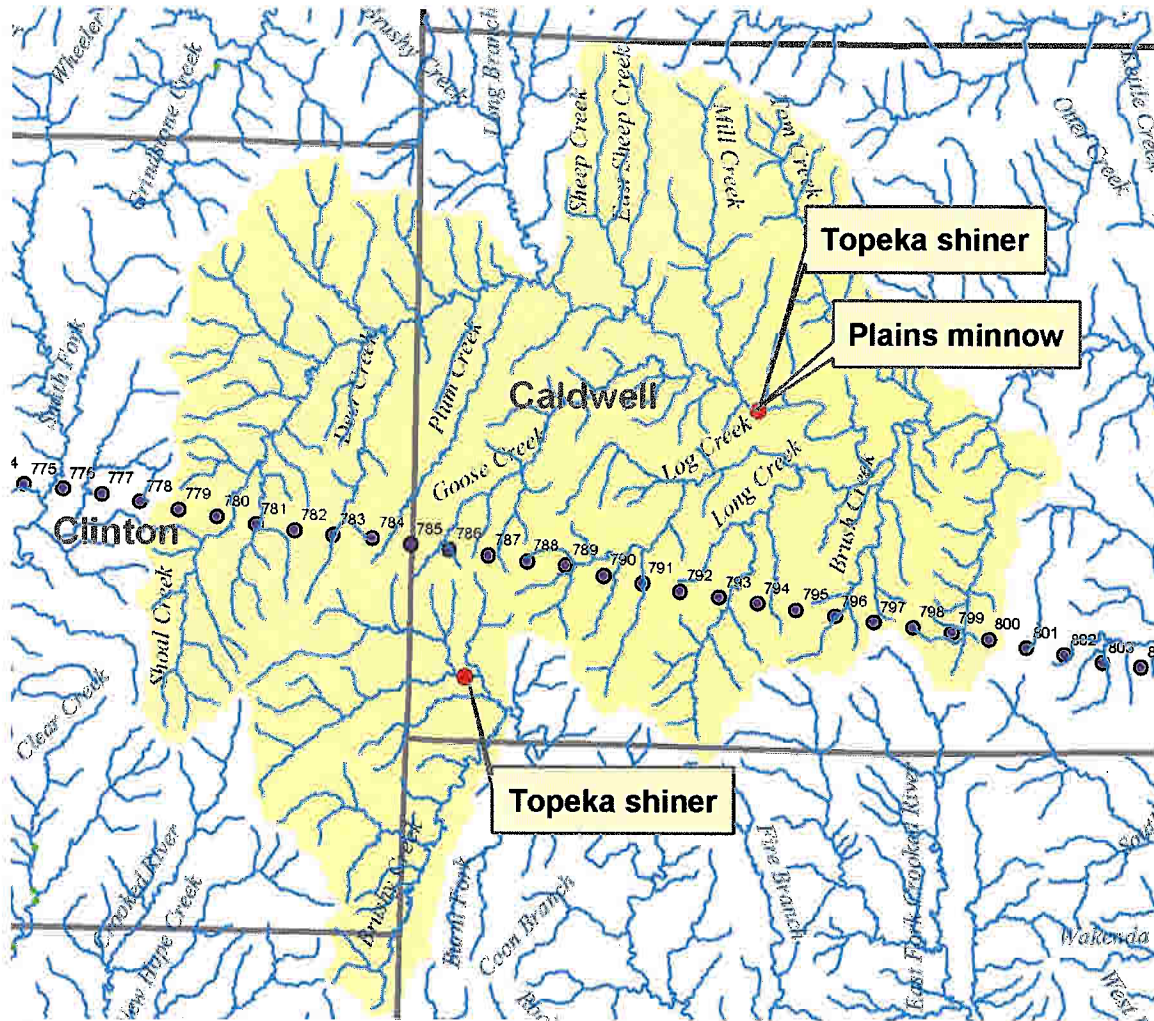


Figure 1.

Topeka shiner: Shoal Creek and headwaters of Crooked River in Clinton and Caldwell counties.

Plains minnow: Shoal Creek.

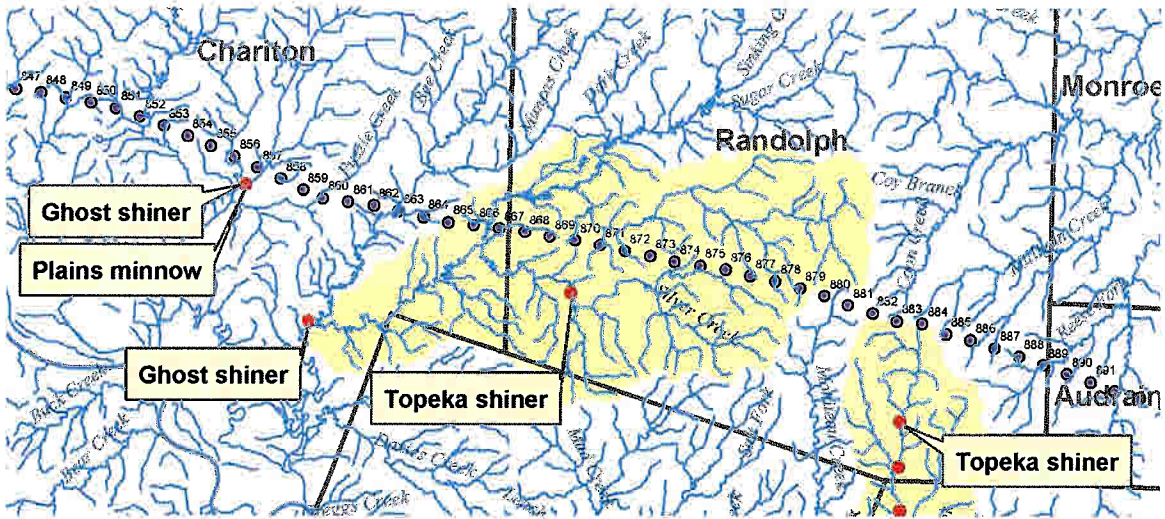


Figure 2.

Topeka shiner: East Fork Little Chariton River including Silver Creek and tributaries in the west and Perche Creek headwaters in the east in Chariton and Randolph counties.

Ghost shiner: Chariton River and Middle and East forks of Little Chariton River in Chariton County.

Plains minnow: Chariton River in Chariton County.

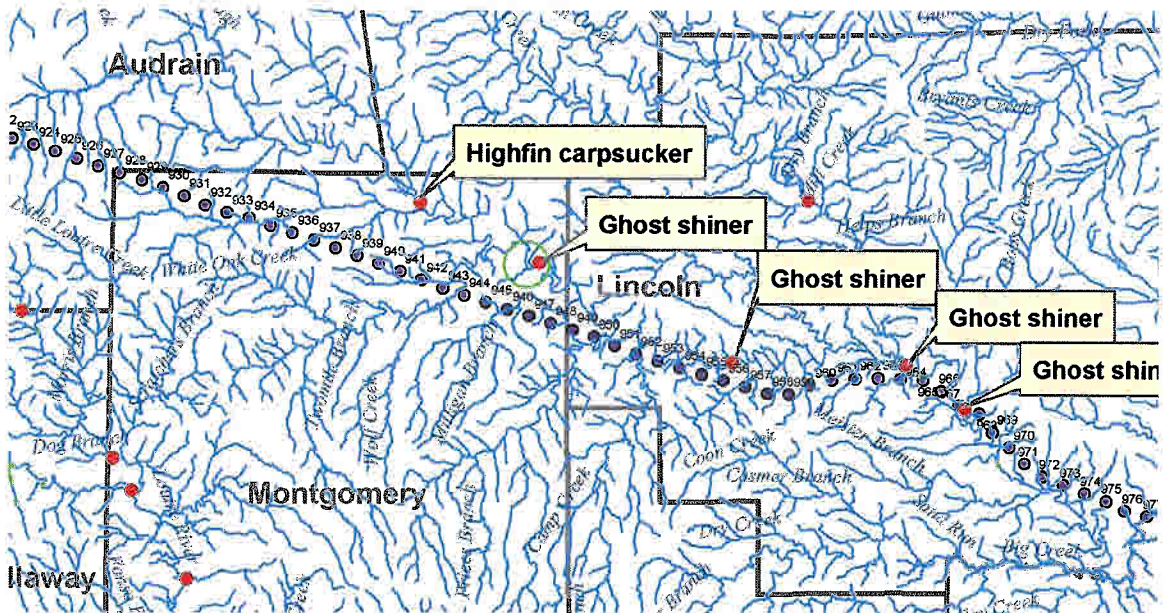


Figure 3.

Ghost shiner: West Fork Cuiwe River and major tributaries, and Cuiwe River in Montgomery and Lincoln counties.

Highfin carpsucker: West Fork Cuiwe River and major tributaries in Montgomery County.

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FOR INTERNAL KEYSTONE PROJECT USE ONLY

TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/28/06

Keystone Team
Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Plains Spotted Skunk and Eastern Spotted Skunk Survey Information

Concern Level: High ___ Moderate ___ Low ___

Description:

Doyle forwarded an email regarding the Plains Spotted Skunk and Eastern Spotted Skunk. See attached email.

Issue: _____

Concern Level: High ___ Moderate ___ Low ___

Description:

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Stribley, Sara

From: Jackie Combes [Jackie.Combes@mdc.mo.gov]
Sent: Thursday, July 20, 2006 1:42 PM
To: Doyle Brown
Subject: Re: Fwd: Keystone Pipeline Project, Wildlife consultation meeting with the Missouri Dept. of Conservation

Doyle,

The plains spotted skunk is a subspecies of the eastern spotted skunk. Missouri Heritage tracks it as plains spotted skunk. It is state endangered, but there is currently no federal status for this species. We currently do not know its state-wide distribution and we're in the process of developing sampling protocols. In 2003, I conducted a mail survey which generated unverified sighting reports in nearly every county of the state (they are commonly mistaken for striped skunks). Since 2004, we've been collaborating with University of Missouri-Columbia (MU) to determine its distribution in the Ozarks. The north Missouri survey will be conducted Sept 2006- May 2007.

The Ozark survey commenced in May and MU should have preliminary survey results and a survey protocol written for the Ozarks by September. I will send the survey protocol to you as soon as possible. Until then, I can offer only general survey requirements: detection will require live-trapping and/or track stations between October and May (surveying should not be done June through Sept due to very low detection rates). I do not believe other states have developed survey protocols for this species.

Let me know if I can be of further assistance.
Jackie

Jackie DeSanty-Combes
Resource Assistant
Missouri Department of Conservation
14410 Hwy 129
New Boston, MO 63557
Phone: 660-689-3012
Fax: 573-882-4517
Jackie.Combes@mdc.mo.gov

>>> Doyle Brown 07/12/06 10:14 AM >>>
Hello,

Some of you are aware of the upcoming meeting (July 19th) that I have regarding this project. For those of you I am including on this email, the consultant (ENSR) would like some additional information for the NEPA documents. This information that they would like to include is the survey protocol for MO and Federal species of concern (listed below). Some of you have the route information, and for those that do not, please let me know. Roughly the route enters Missouri south of St. Joseph (Buchanan Co.) travels to and exists just north of the Missouri / Mississippi River Confluence in St. Charles County.

We will have the consultants to fill out the forms provided in Missouri Species of Conservation Concern Checklist and if any take is required, a permit. Peggy indicated that for some species there is survey protocol already in place (USFWS), and some do not. If you could provide with the protocol that would be great, even if it a paragraph or two for the ones not done yet. Anything is appreciated.

For example, Max Alleger has provided me with a basic survey protocol for the consultant to use for Greater Prairie Chicken that includes courtship and breeding time frames (late Feb/Mid March to April 15), a fall period when males may be congregating (Sept-Oct), preferred daytime survey hours (early morning and late afternoon), and a simple landowner query about the absent/presence of booming grounds and birds, along with simple instructions. See attached (PC Survey Details). Thanks Max.

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Species that they need information on are the following:

Indiana Bat
Plains Spotted Skunk
Eastern Spotted Skunk
Bald Eagle
Greater Prairie Chicken
King Rail
Interior Least Tern
Barn Owl
Northern Harrier

Pallid Sturgeon
Lake Sturgeon
Sturgeon Chub
Sicklefin Chub
Western Silvery Minnow
Topeka Shiner

Western Fox Snake
Eastern Massasauga
Western Massasauga

Decurrent False Aster
Running Buffalo Clover

Thank you and if you have any questions, please give me a call.

Doyle

Doyle F. Brown
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Missouri Department of Conservation
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Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

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FOR INTERNAL KEYSTONE PROJECT USE ONLY

TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/28/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Additional Survey Information on Interior Least Terns and Piping Plovers

Concern Level: High ___ Moderate ___ Low ___

Description:

Sara,

Here is some more information on Interior Least Terns. If there is some contradiction in any of the materials we provided or conversation between MDC and ENSR, let me know and we can clarify.

Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
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Doyle.brown@mdc.mo.gov

Stribley, Sara

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]
Sent: Friday, July 28, 2006 7:28 AM
To: Stribley, Sara
Subject: Re: Fwd: Keystone Pipeline Project, Wildlife consultationmeeting with the Missouri Dept. of Conserv

Sara,

Here is some more information on Interior Least Terns. If there is some contradiction in any of the materials we provided or conversation between MDC and ENSR, let me know and we can clarify.

Doyle

Doyle F. Brown
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(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

8/8/2006

Stribley, Sara

From: Rochelle Renken [Rochelle.Renken@mdc.mo.gov]
Sent: Tuesday, July 25, 2006 1:51 PM
To: Doyle Brown
Subject: Re: Fwd: Keystone Pipeline Project, Wildlife consultation meeting with the Missouri Dept. of Conservation



Least Tern Nest
Search Procedu...

Doyle,

Sorry for not responding sooner. I was on vacation until yesterday.

The attached document describes the field technique I use for estimating the number of breeding least tern pair on Mississippi River sand islands and sandbars. It could also be used on the Missouri River within Missouri. I would recommend that the consulting firm fly over the impacted stretch of river in mid-June and mid-July to determine if any Missouri River sandbars and sand islands have nesting least terns. (Least terns can be seen from a aircraft such as a Cessna 182 at about 100 feet above the sand.) If no least terns are noted during the flight, then the firm would not have to perform the on-ground field work to estimate tern numbers. If least terns are sighted on the sandbars or sand islands, then the on-ground survey should be performed within a couple of days after the flight. The on-ground survey should be performed during the day and prior to about 11 am to reduce the potential of harming least tern eggs and chicks because of the summer heat. Sand temperatures of about 120 degrees F have been noted on sand islands in the Mississippi River basin in the mid-afternoon.

Unless someone tells me some news, I am not aware of least terns nesting on Missouri River sand islands or sandbars within Missouri since the mid-1950s. But that does not mean that nesting could not occur if conditions became suitable. For instance, the Kansas River now has some least terns nesting on sandbars within the river system. Terns had not nested on that system in a long time prior to 1997.

You also might consult with Casey Lott, of the American Bird Conservancy. Casey is or has developed a least tern survey technique that hopefully will eventually be used by all parties interested in estimating least tern numbers. Casey's email address is clott@abcbirds.org.

Hope this helps. If you or the consultants have any questions, please feel free to ask.

Rochelle

Least Tern Nest Search Procedure – Summer 2005

Purpose: to produce an index to the number of least tern pairs nesting in and adjacent to Missouri during a small window of time (within a week's time) in 2005.

To develop this index, we need to follow the following protocol when searching for tern nests:

- 1) After arriving on the sand island (colony sites for least terns), split the island lengthwise into columns, whose width will vary depending upon the number of nest searchers present. (In other words, if five nest searchers are present, then the length of the island is divided into five columns of approximately equal width.)
A nest searcher will begin walking through their assigned column along a serpentine path down the column. The distance between travel paths should be about 20-25 feet, depending upon the confidence searchers have in their ability to see nests in-between their paths.
- 2) Tern nests encountered along your path and within 10-12 feet of your path within the column should be marked by making a X in the sand 2-3 feet from the nest with your foot. (If the island is a colony where we will be performing a second count of nests, do not mark the nest with a X. Instead, mark the nest with a marble placed in the sand about 1-2 inches north of the nest edge. Push the marble in the sand so that $\frac{3}{4}$ of the marble is above the sand surface.) Scrapes without eggs are not considered to be nests. Eggs with no evidence of a scrape or tracks around the eggs are not considered to be nests. You may use a tally counter to help keep track of the number of nests encountered on the island. Also, please keep track of the number of tern chicks you encounter.
- 3) At the end of the island or when least terns stop mobbing us, we will assemble and total our numbers for a count of the estimated number of breeding pairs for the colony.
- 4) During the summer 2005 nest count we will also randomly select 2-3 islands for a second nest count of a portion of the colony site. At these colonies, we will repeat a search on a portion of the colony a day or so after our first nest search. As we search these areas again, please note the number of nests that had marbles and the number of nests without marbles. With that information I will be able to calculate a correction factor to use in estimating the total number of breeding least terns in and adjacent to Missouri.

**Missouri Department of Conservation Office
Jefferson City, MO**

July 19, 2006. 09:00am – 11:15am

Attendees:

Scott Duncan (ENSR)
Charles Johnson (ENSR)
Patty Grigsby Lorenz (ENSR)
Johnny Sellers (Universal Ensco, Inc.)
Doyle Brown (MDC Policy Coordinator)
Peggy Warner (MDC T&E Species Biologist)
Tim Smith (MDC Botanist),
Jeff Briggler (MDC Herpetologist)
Doug Novinger (MDC Research Scientist / T&E Fisheries Biologist)

Meeting Objectives

ENSR met with the MDC to discuss issues pertaining to wildlife and special status species that could potentially occur along the Keystone Project route. The goal of this discussion was to verify ENSR's habitat assessment approach, species occurrence information, and to discuss required surveys.

ENSR and Universal discussed the proposed construction schedule that would likely begin in early 2008 and would continue through 2009, including possible winter construction.

Response Overview

State agencies have not had the opportunity to review the Environmental Report (ER) on the Keystone Pipeline Project since the Department of State (DOS) has not yet published their "Notice of Intent" to prepare an Environmental Impact Statement (EIS) for the Keystone Pipeline Project. ENSR told MDC that they must formally request a copy of the document from the DOS in a letter request. ENSR will provide Doyle Brown a DOS contact to request the ER.

The agencies MDC have no issues with winter construction. In fact, winter construction would be preferable over spring/summer, given that most species revolve around breeding/nesting/spawning seasons.

Stream Crossings

It was indicated that TransCanada has committed to crossing 7 River areas by HDD including:

- Missouri River (2)
- Platte River (1)
- Chariton River (1)
- Cuivre (2)
- Mississippi (1)

MDC indicated that Horizontal Directional Drill (HDD) technique is MDC's preferred method for pipeline construction across streams where T&E species occur. As indicated above, TransCanada currently intends to HDD the following stream crossings in MO: Missouri, Chariton, Cuivre (2 crossings), and the Mississippi rivers. The Rockies Express Project (REX) intends to HDD only the Missouri River, Big Creek, and the Mississippi River.

MDC is concerned about the different proposed HDD crossings between REX and Keystone. MDC would like to have as many HDD crossings as possible (especially for Topeka shiner streams that are Federal and State-listed endangered species. Propose that ENSR and MDC aquatic biologist and project pipeline construction engineer visit key stream crossings to evaluate the habitat and discuss crossing methods, timing restrictions, and mitigation measures.

Important Conservation Areas

MDC also places high priority for protecting and minimizing impacts to natural community habitats. See Missouri Species and Communities of Conservation Concern document.

MDC has identified Conservation Opportunity Areas (COAs) that are biological diversity hotspots. COA's are generally undisturbed, natural communities that MDC places a high priority on protection. Doyle Brown provided ENSR a CD that contained shapefiles of COA's to determine where these may be in relation to the proposed Keystone Pipeline Project.

Species of Conservation Concern

MDC is concerned not only about potential impacts to Federal and State-listed T&E species, but also is concerned about potential impacts to other sensitive species such as the many State ranked species that are listed in the "Missouri Species and Communities of Conservation Concern" document. ENSR informed the MDC that potential impacts to these species will be evaluated in the EIS, but that no surveys are proposed for these species. Surveys would occur only in suitable habitat for Federal T & E species and State-listed species as identified in the Missouri State Wildlife Code.

MDC Recommended Seed Mixes

ENSR has a copy of MDC's preferred seed mix for reclamation of ROW that includes a warm season grass mixture that follows NRCS recommendations.

Special Status Species

Table 1, Missouri Special Status Species, Habitat by County and Mainline Milepost (previously provided by ENSR to MDC) was reviewed species by species to obtain MDC concurrence on species of concern, habitats, and whether biological surveys would be required. The following is a summary of the results.

Eastern Spotted Skunk (MO-E)

The MDC does not think that this species would occur along the route. Consequently, it is likely that there would be no issues from project construction. If present, fall/winter construction would minimize potential impacts to breeding skunks and young. ***Peggy Warner will confirm this with MDC's skunk expert, following the meeting.***

Plains Spotted Skunk (MO-E)

Same as discussed above for Eastern spotted skunk.

Gray Bat (FE; MO-E)

Species is a cave dweller. Since no caves along the project route, no surveys would be required for this species.

Indiana Bat (FE; MO-E)

MDC will defer to USFWS lead on this species. ENSR should consult with the local USFWS to determine whether suitable habitat exists along the proposed route, whether surveys are required, and determine appropriate mitigation requirements. ENSR indicated that Russ Romme (Indiana Bat expert) has been identified as a potential subcontractor to work with the USFWS to determine what would be required to satisfy Section 7 Consultation with the USFWS.

Bald Eagle (FT; MO-E)

MDC will defer to the USFWS for guidance on this species. ENSR indicated that the USFWS would require surveys for breeding/wintering bald eagles along river corridors and where historic accounts have been documented.

Barn Owl (MO-E)

ENSR should follow guidance provided by Andy Forbes (MDC) to (Sara Stribley - ENSR). Survey for nesting owls within suitable habitat, if construction occurs during the breeding season.

Greater Prairie Chicken (MO-E)

The only county that potentially has Greater Prairie Chicken (GPC) habitat is Audrain County. MDC stated that Carroll County can be eliminated from GPC survey requirements as this species is not likely to occur there. MDC requested that ENSR contact affected landowners to ask whether they have seen GPC on their land. If landowners indicate that they have not seen GPC, no surveys would be required. If needed, surveys may be conducted in the spring of 2007.

Interior Least Tern (FE, MO-E)

Not an issue for the proposed pipeline route in MO. Known populations are south of St. Louis.

King Rail (MO-E)

The king rail are found only in the higher quality wetlands (functionally intact or extensive wetlands). This species is expected to be found in some wetlands along the route, especially bottomlands of the Grand and Chariton rivers. MDC recommended that King rail surveys be conducted in suitable wetlands/bottomland habitats in Buchanan, Carroll, Chariton, Lincoln, and St. Charles counties. MDC has identified the Grand River COA (Carroll/Chariton county border) as a biological hotspot of diversity that includes extensive wetlands that harbor this species. Need to confirm if pipeline route crosses the Grand River COA. ENSR should coordinate with Andy Forbes regarding this species.

Northern Harrier (MO-E)

MDC does have an issue with this species. The harrier is predominantly a non-breeder in the state. To verify, ENSR should consult Andy Forbes correspondence.

Lake Sturgeon (MO-E), Pallid Sturgeon (FE; MO-E)

Since TransCanada plans to HDD the Missouri and Mississippi river, MDC has no issues with these species.

Topeka Shiner (FE; MO-E)

See Table 1 for suitable habitat identified for this species. Doug Novinger stated that Topeka Shiner surveys should also be conducted in the East Fork Chariton River (EFCR) crossing since this species occurs in Silver Creek that flows into the EFCR. South of the vicinity of milepost (MP) 884 is the headwaters of Perche Creek where there are known occurrences of the Topeka Shiner (TS). The drainage crossings in the vicinity of MP 884 may be intermittent, but sedimentation of these drainages is a concern because the TS inhabits Perche Creek downstream. The USFWS position on Topeka shiner streams is that if drainages are dry during pipeline construction, it is permissible to open-cut the drainage for the crossing. If there are pools present or flowing water present, then need to evaluate for occurrence of the species. If Topeka shiner is found to be present, then consult with the USFWS. ENSR proposes that a MDC fish biologist, ENSR fish biologist, (and project construction engineer visit the Topeka shiner stream crossings to evaluate the habitat and, discuss crossing methods, and mitigation.

Eastern Massasauga (FC, MO-E)

This species habitat occurs in wet prairies and riparian areas. Jeff Briggler of the MDC recommends surveys for this species in all suitable habitats. In addition to areas identified in Table 1, surveys should also be conducted in suitable habitats in Buchanan, Carroll, and St. Charles (east of highway 79) counties. Jeff stated that there is a high probability of finding this species in the Grand River wetlands complex / crossing vicinity. Jeff recommends conducting the surveys in 2007 to identify these snakes and hibernacula. There is no need to conduct pre-construction surveys in 2008 if surveys are conducted in 2007. Jeff recommended conducting surveys in April, May and June, or in October. He provided ENSR a recommended sampling protocol handout (Sampling Protocols for Massasauga Rattlesnakes and Western Fox Snakes).

Western Massasauga (MO-E)

MDC treats this subspecies the same as the Eastern Massasauga. See discussion on Eastern Massasauga.

Western Fox Snake (MO-E)

This species is found in the same habitat as the eastern massasauga. Surveys for this species can occur concurrently with massasauga surveys.

Decurrent False Aster (FE; MO-E)

Tim Smith indicated that this species potentially occurs along the proposed pipeline route in the eastern part of St. Charles County along the Missouri and Mississippi River floodplains. This species also potentially occurs in other disturbed areas in Eastern St. Charles County. Surveys will be required for this species in August and September within suitable habitat. Need to include flooded fields and farmed wetlands as part of suitable habitat for surveys. This species occurs in Confluence State Park. Note that the proposed pipeline route crosses this state park in St. Charles County – see note below.

Running Buffalo Clover (FE; MO-E)

This species typically occurs on the first terrace of larger streams such as the Cuivre River in wooded areas or the edge of wooded rivers. Surveys for this species should be conducted in May 2007 in suitable habitat along major rivers.

MDC will provide ENSR a list of recommended experts to conduct T&E and special status surveys.

Obtaining Easements to Cross State Lands

There are three state-owned parcels that the proposed route crosses: Jentell Brees boat ramp access on the Missouri River (managed by the MDC) in Buchanan County, Pigeon Hill Wildlife Conservation Area (managed by the MDC) in Buchanan County, and Confluence State Park (managed by the Missouri Dept. of Natural Resources [MDNR]) in St. Charles County. Plan on a minimum of 6 months lead time to obtain easements across these parcels. The MDC owned parcels were acquired with the assistance of federal funding such that federal agencies must also review the proposed easement agreements prior to easement approvals. ENSR - contact Ken McCarty at MDNR to coordinate easement acquisition for Confluence State Park.

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TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR
Date/Time of Meeting 7/19/06
Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Contact Information for Specialists who can conduct rare plant surveys

Concern Level: High ___ Moderate ___ Low ___

Description:

See attached email.

Issue: _____

Concern Level: High ___ Moderate ___ Low ___

Description:

Stribley, Sara

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]
Sent: Wednesday, July 19, 2006 1:26 PM
To: Stribley, Sara
Subject: Fwd: contacts for MO plant surveys

Sara,

FYI, MDC will be trying to identify specialist who could assist in certain surveys.

Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
P.O. Box 180
2901 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

8/8/2006

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Stribley, Sara

From: Tim Smith [Tim.Smith@mdc.mo.gov]
Sent: Wednesday, July 19, 2006 1:08 PM
To: Johnson, Charlie; Doyle Brown
Subject: contacts for MO plant surveys

Here are some contacts for plant surveys and for MO State Parks

MO State Parks - Ken McCarty

573/751-8660
ken.mccarty@dnr.mo.gov

surveyors for running buffalo clover - Ann Wakeman
(below)

or Nels Holmberg

573/642-6927
mike-ann@socketis.net

surveyors for decurrent false aster - Nels Holmberg

636/583-4551
nholmberg@fidnet.com

Dr. Marian Smith
Biology Dept. of SIUE
618/650-3855
msmith@siue.edu

Tim E. Smith
Botanist
MO Dept. of Conservation
P.O. Box 180
Jefferson City, MO 65102-0180
573/522-4115 ext.3200
FAX 573/526-5582
Tim.Smith@mdc.mo.gov

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FOR INTERNAL KEYSTONE PROJECT USE ONLY

TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/17/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Missouri Sensitive Species Permits

Concern Level: High Moderate Low

Description:

Sara,
One of the documents that we will profile at the meeting on Wednesday is the Missouri Species and Communities of Conservation Concern. It is available at the following link.

<http://www.mdc.mo.gov/documents/nathis/endangered/checklist.pdf>

At the end of the document (pages 53 -58) are reporting forms that you would use to record species information. For any necessary "take" of an animal species, there is also the requirement of a wildlife collector's permit and for federal species, a USFWS permit.

Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation

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FOR INTERNAL KEYSTONE PROJECT USE ONLY

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2901 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

Issue: _____

Concern Level: High__Moderate__Low__.

Description:

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FOR INTERNAL KEYSTONE PROJECT USE ONLY

TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/17/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
Address	P.O. Box 180 Jefferson City, MO 65102
County	
Phone	573-751-4115
E-mail address	Doyle.Brown@mdc.mo.gov

Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Topeka Shiner Survey Protocol

Concern Level: High Moderate Low

Description:

Doyle sent the following survey protocols for the Topeka shiner:

Topeka shiner sampling protocol for Keystone Pipeline Project
Doug Novinger, July 13, 2006

Surveys should be conducted within a 200-m site that includes 100 m both upstream and downstream of the pipeline crossing. Fish should be collected throughout the site using a 20x6-ft drag seine with 1/4-inch mesh netting (a 6x6-ft drag seine may be used in confined habitats with widths < 20 ft. All fish collected should be identified to species to establish presence/absence. Fish collected in the seine should be transferred to a bucket that is maintained with freshwater or to a live cage placed in a suitable part of the stream to minimize injuries and mortalities to fish during processing. If Topeka shiners are captured, 1 to 3 voucher specimens should be retained by fixing in 10% formalin and preserving in 70% ethanol and identification verified by MDC staff. Information to be recorded with each voucher includes detailed locality information and GPS coordinates (UTM NAD83 15N preferred), date, collector and project name, and habitat notes. Other documentation and data management protocols should follow collection permit requirements.

CONFIDENTIAL

Stribley, Sara

From: Doug Novinger [Doug.Novinger@mdc.mo.gov]
Sent: Monday, July 17, 2006 12:48 PM
To: Doyle Brown
Cc: Harold Kerns; Jerry Wiechman
Subject: Re: Fwd: Keystone Pipeline Project, Wildlife consultation meeting with the Missouri Dept. of Conservatio



Topeka shiner
sampling protoco...

Doyle,

Attached is a Topeka shiner survey protocol that Harold Kerns, Jerry Wiechman, and I have agreed on. I will bring hard copy to the meeting.

Thanks,
Doug

>>> Doyle Brown 07/12/06 10:14 AM >>>
Hello,

Some of you are aware of the upcoming meeting (July 19th) that I have regarding this project. For those of you I am including on this email, the consultant (ENSR) would like some additional information for the NEPA documents. This information that they would like to include is the survey protocol for MO and Federal species of concern (listed below). Some of you have the route information, and for those that do not, please let me know. Roughly the route enters Missouri south of St. Joseph (Buchanan Co.) travels to and exists just north of the Missouri / Mississippi River Confluence in St. Charles County.

We will have the consultants to fill out the forms provided in Missouri Species of Conservation Concern Checklist and if any take is required, a permit. Peggy indicated that for some species there is survey protocol already in place (USFWS), and some do not. If you could provide with the protocol that would be great, even if it a paragraph or two for the ones not done yet. Anything is appreciated.

For example, Max Alleger has provided me with a basic survey protocol for the consultant to use for Greater Prairie Chicken that includes courtship and breeding time frames (late Feb/Mid March to April 15), a fall period when males may be congregating (Sept-Oct), preferred daytime survey hours (early morning and late afternoon), and a simple landowner query about the absent/presence of booming grounds and birds, along with simple instructions. See attached (PC Survey Details). Thanks Max.

Species that they need information on are the following:

Indiana Bat
Plains Spotted Skunk
Eastern Spotted Skunk
Bald Eagle
Greater Prairie Chicken
King Rail
Interior Least Tern
Barn Owl
Northern Harrier

Pallid Sturgeon
Lake Sturgeon
Sturgeon Chub
Sicklefin Chub
Western Silvery Minnow
Topeka Shiner

Western Fox Snake

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Eastern Massasauga
Western Massasauga

Decurrent False Aster
Running Buffalo Clover

Thank you and if you have any questions, please give me a call.

Doyle

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Topeka shiner sampling protocol for Keystone Pipeline Project
Doug Novinger, July 13, 2006

Surveys should be conducted within a 200-m site that includes 100 m both upstream and downstream of the pipeline crossing. Fish should be collected throughout the site using a 20x6-ft drag seine with 1/4-inch mesh netting (a 6x6-ft drag seine may be used in confined habitats with widths < 20 ft). All fish collected should be identified to species to establish presence/absence. Fish collected in the seine should be transferred to a bucket that is maintained with freshwater or to a live cage placed in a suitable part of the stream to minimize injuries and mortalities to fish during processing. If Topeka shiners are captured, 1 to 3 voucher specimens should be retained by fixing in 10% formalin and preserving in 70% ethanol and identification verified by MDC staff. Information to be recorded with each voucher includes detailed locality information and GPS coordinates (UTM NAD83 15N preferred), date, collector and project name, and habitat notes. Other documentation and data management protocols should follow collection permit requirements.

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TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR

Date/Time of Meeting 7/13/06

Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Doyle Brown
Title	Policy Coordinator
Organization	Missouri Dept. of Conservation
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County	
Phone	573-751-4115
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Meeting Information:

Type of Contact (phone, in-person, etc.): E-mail

Issue: Decurrent False Aster and Running Buffalo Clover Survey Protocol

Concern Level: High ___ Moderate ___ Low ___

Description:

Doyle sent an email containing the following attachment on survey protocols for the Decurrent False Aster and Running Buffalo Clover:

MO Survey Protocols for: **Decurrent False Aster** – *Boltonia decurrens*
 Running Buffalo Clover – *Trifolium stoloniferum*

Useful References: *Missouri Plants of Conservation Concern*, 47 pp. color illustrated booklet published by MO Dept. of Conservation (2000)

Running Buffalo Clover, 4 pp. illustrated pamphlet printed by MO Dept. of Conservation (1990?)

Decurrent False Aster

Most likely Missouri occurrence would be in Mississippi River/Missouri River floodplain in the eastern half of St. Charles Co. Flowering probable from late August through Sept. but has been documented from July through October. An expert could identify the species without flowers but most efficient surveying should be conducted during the flowering period. Found in low areas subject to periodic flooding. This could include agricultural fields; ruderal sites; roadside ditches; base

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of levees near standing water; sloughs; pond margins; wet prairies; edges of, or openings within, floodplain forests.

Running Buffalo Clover

Most likely occurrence would be on first terraces above banks of larger streams or rivers. This clover formerly occurred in the southern two-thirds of Missouri and in recent years has appeared in several Ozark and Ozark Border counties. It's appearance within the state has been unpredictable. Flower heads would normally be present in May but can also be found from mid-April to June. Fruiting heads may persist into July. The species is superficially similar to several, very common, introduced clovers from Europe. It is recommended that surveyors develop a search image for running buffalo clover based on field observation at a known site. The species grows best in partial sun under a high canopy or in small canopy gaps or near edges of riparian forests. It can occur in mowed areas such as lawns, picnic areas or other somewhat shaded sites. Periodic disturbance from flooding, game trail usage, logging, grazing or mowing can benefit the plant by reducing competition and providing exposed soil where stolons can root.

Issue: _____

Concern Level: High__Moderate__Low__

Description:

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