

Stribley, Sara

From: Stribley, Sara
Sent: Tuesday, February 13, 2007 2:40 PM
To: 'mhowery@zoo.odwc.state.ok.us'
Subject: Keystone Biological Surveys

Mark,
Just wanted to let you know that we received your signed concurrence forms. Thank you very much for providing us with those. We will keep you posted on any changes in the Project, and as always, if you have any questions or concerns at any point, please do not hesitate to give us a call.
Sincerely,
Sara

Sara Stribley
Environmental Coordinator
ENSR | AECOM
1601 Prospect Pkwy
Ft. Collins, Colorado 80525
P: 970.493.8878
F: 970.4930213
sstribley@ensr.aecom.com
www.ensr.aecom.com

**Keystone Pipeline Project
Survey Schedule Concurrence Form**

<input checked="" type="checkbox"/> CONCUR	Signature: <i>Mark D. Howery</i>
	Name: <i>Mark D. Howery</i>
<input type="checkbox"/> DO NOT CONCUR	Title: <i>Wildlife Biologist</i>
	Date: <i>7 February 2007</i>

If you checked "DO NOT CONCUR," please provide reasons and specific directions in the space provided below on how survey schedule should be changed to meet your acceptance:

Stribley, Sara

From: Mark Howery [mhowery@zoo.odwc.state.ok.us]
Sent: Tuesday, January 30, 2007 10:00 AM
To: Stribley, Sara
Subject: RE: Keystone Survey Package

Hi Sara,
Yes the survey package arrived last Tuesday I believe. It looks complete and includes a letter from Charles Johnson and two concurrence/non-concurrence forms for me to review and sign. I have not yet reviewed these, but I don't anticipate any problems. I should have this completed and in the mail either Friday or next Monday. If I have any questions, I'll send you an e-mail. If you have any questions, please feel free to call or e-mail me.
See you later,
Mark

405/424-2728
mhowery@zoo.odwc.state.ok.us

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

From: Stribley, Sara [mailto:sstribley@ensr.aecom.com]
Sent: Tuesday, January 30, 2007 8:57 AM
To: mhowery@zoo.odwc.state.ok.us
Subject: Keystone Survey Package

Hi Mark,
Just wanted to follow up to make sure you have received the survey package ENSR sent out last week? Please let me know if you have not received anything yet, or if you have any questions regarding the information!
Thanks Mark,
Sara

Sara Stribley
Environmental Coordinator
ENSR | AECOM
1601 Prospect Pkwy
Ft. Collins, Colorado 80525
P: 970.493.8878
F: 970.4930213
sstribley@ensr.aecom.com
www.ensr.aecom.com

Stribley, Sara

From: Stribley, Sara
Sent: Tuesday, January 30, 2007 7:57 AM
To: 'mhowery@zoo.odwc.state.ok.us'
Subject: Keystone Survey Package

Hi Mark,
Just wanted to follow up to make sure you have received the survey package ENSR sent out last week? Please let me know if you have not received anything yet, or if you have any questions regarding the information!
Thanks Mark,
Sara

Sara Stribley
Environmental Coordinator
ENSR | AECOM
1601 Prospect Pkwy
Ft. Collins, Colorado 80525
P: 970.493.8878
F: 970.4930213
sstribley@ensr.aecom.com
www.ensr.aecom.com

CONFIDENTIAL

FOR INTERNAL KEYSTONE PROJECT USE ONLY

TransCanada – Keystone Pipeline Contact Summary Form

Location of Meeting ENSR
Date/Time of Meeting January 16, 2007
Keystone Team Member(s) Sara Stribley

Contact Information:

Name	Mark Howery
Title	Conservation Supervisor
Organization	Oklahoma Department of Wildlife Conservation
Address	P.O. Box 53465 Oklahoma City, OK 73152-3465
County	
Phone	405-424-2728
E-mail address	mhowery@zoo.odwc.state.ok.us

Meeting Information:

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

Issue: Scheduling Meeting in February to Review 2007 Biological Surveys

Concern Level: High Moderate Low

Description:

I had left Mark a message last week regarding scheduling a time to meet with the OKDWC in February to review the 2007 biological surveys. I called Mark again today to follow up with that message. Mark stated that he did not feel a need to meet at this time. The project mainly passes through agriculture fields and the OKDWC does not have many sensitive species concerns in the Project vicinity. He may also be gone the week that we are trying to schedule our meetings. I informed Mark that I would still be sending him the information regarding the Keystone biological surveys, and that if he did have any concerns, we would be more than willing to set up a conference call to discuss any issues. I told Mark I would follow up with him at a later date to confirm receipt of the survey packages.

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

Description:

ENSR

1601 Prospect Parkway, Fort Collins, Colorado 80525
T 970.493.8878 F 970.493.0213 www.ensr.aecom.com

January 17, 2007

Mark Howery
Oklahoma Department of Wildlife Conservation
P.O. Box 53465
Oklahoma City, Oklahoma 73152-3465

Dear Mr. Howery:

At this time, ENSR Corporation (ENSR) is providing you with information regarding the implementation of the 2007 biological survey program for the Keystone Cushing Extension Pipeline Project in Oklahoma, and requesting your feedback and concurrence on certain proposed actions.

Project Description

As provided in previous communications, TransCanada is planning to construct and operate an approximately 1,845-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada, to destinations in the Midwestern United States (U.S). The proposed Project would consist of approximately 1,078 miles of new pipeline constructed from the U.S.-Canada border in Cavalier County, North Dakota, to terminals and refineries in Wood River (Madison County) and Patoka (Marion County), Illinois. This pipeline is referred to as the Keystone Mainline. Approximately 283 miles of the Keystone Mainline would parallel the proposed Rockies Express Pipeline - West (REX-West) Project in Kansas and Missouri. In addition, TransCanada proposes to construct a 292-mile pipeline extension (Cushing Extension) that would extend from the Keystone Mainline south from the Nebraska/Kansas border to Cushing, Oklahoma. TransCanada proposes to begin construction of the Keystone Mainline in early 2008, with the system in-service by the end of 2009. Work on the Cushing Extension will begin in late 2009 or early 2010, with a Cushing Extension in-service date of 2010. The project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations, though these facilities will be constructed by local utility companies, not Keystone.

Biological Survey Program

In 2006, biological surveys were initiated for several species potentially located along the Keystone Mainline Project route. Additional surveys are planned throughout 2007 for the majority of remaining sensitive species that may be located within the Keystone Mainline and Cushing Extension Project vicinity (see attached survey schedule). Sensitive species and survey locations have been determined through consultation with the Oklahoma Department of Wildlife Conservation (ODWC), the Oklahoma Natural Heritage Program, and the U.S. Fish and Wildlife Service. To facilitate your review of the 2007 Keystone Cushing Extension biological survey program, ENSR is providing you with the following materials, and asking for your signed concurrence on several proposed actions:

- Proposed Threatened and Endangered Species Survey Schedule (2007) – This document is provided to give an overview of when and where species specific surveys will be conducted in Oklahoma. Please sign and return the survey schedule concurrence form as “concur” or “do not concur.” Please also provide specific comments in the area provided if you “do not concur,” in order for ENSR to promptly address concerns.

Mark Howery
January 17, 2007
Page 2

- Biological Survey March-Charts (2007) – These charts are provided as a visual tool to guide your assessment of the proposed Threatened and Endangered species surveys. The y-axis provides information on approximate survey windows. This axis shows the general timeframe in which ENSR proposes to complete the surveys for a specific species (based on nesting, spawning, flowering periods, etc.) The x-axis provides information on the Cushing Extension milepost marker where appropriate habitat has been determined to exist for a species. This axis shows where ENSR proposes to complete species specific surveys.
- Survey Protocols – These documents provide detailed information on how specific surveys will be conducted for Threatened and Endangered species. Wherever possible, survey protocols were produced directly from state or federal agency feedback. Please sign and return the survey protocol concurrence form as “concur” or “do not concur.” Please also provide specific comments in the area provided if you “do not concur,” in order for ENSR to promptly address concerns.
- 1:100k U.S. Geological Survey (USGS) Topographic Maps of the Cushing Extension in Oklahoma – Provided for geographic reference to the Project.

Copies of these materials also have been sent to John Cochnar (Nebraska USFWS – Project Lead). ENSR would like to meet with you in early February to discuss this material in further detail, and you should have already been contacted by ENSR regarding a meeting date and time. If you have any questions regarding the enclosed materials, please contact me at (970) 493-8878 ext. 181 or email cjohnson@ensr.aecom.com.

Sincerely,



Charles Johnson
Senior Wildlife Biologist

CJ/ss

Ref: 10623-004

Enc: Proposed Threatened and Endangered Species Survey Schedule
Biological Survey March-Charts
Survey Protocols
1:100k USGS Topographic Maps

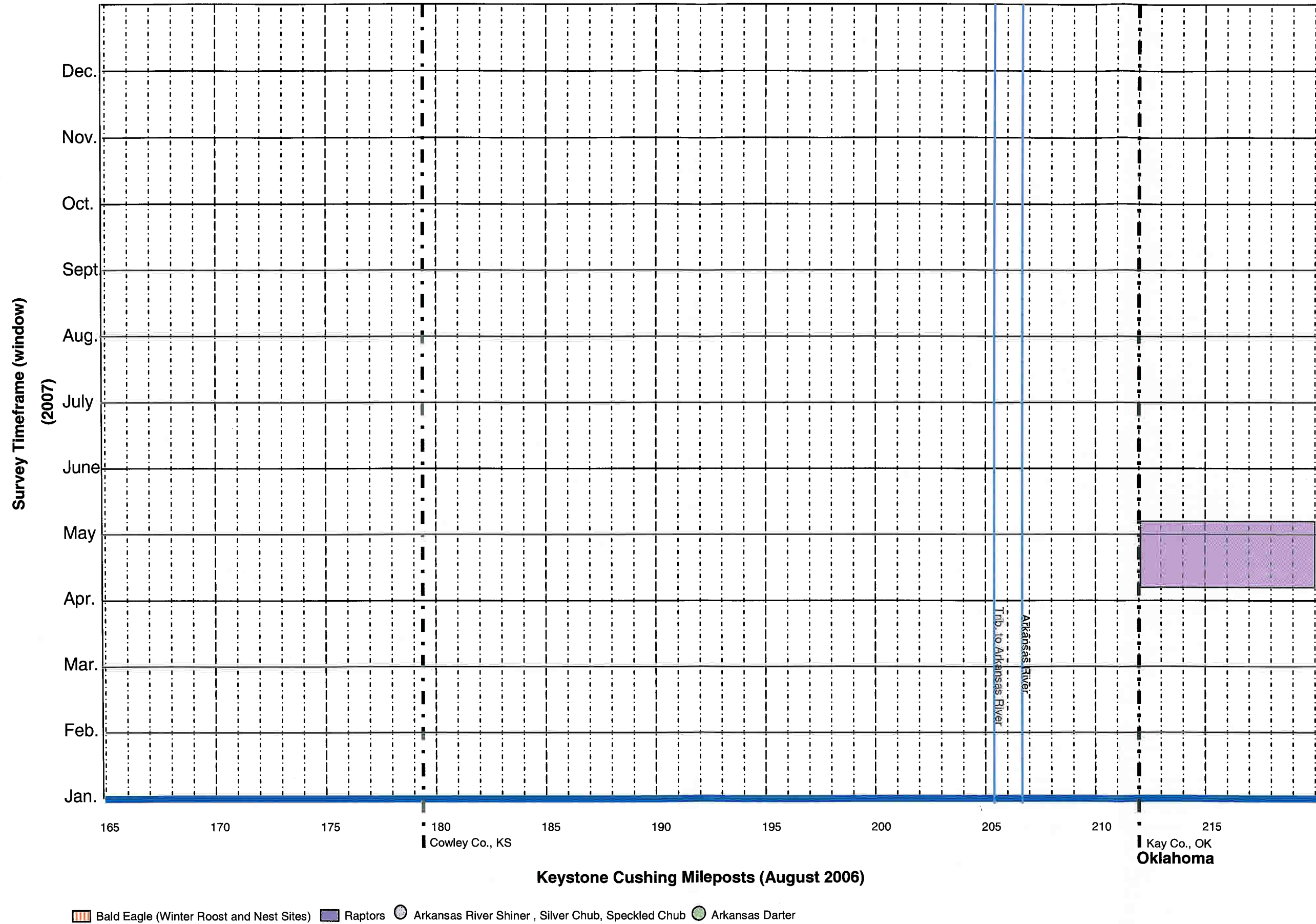
**Keystone Pipeline Project
Proposed Survey Schedule for Oklahoma – Cushing Extension
2007**

Proposed 2007 Surveys					
Species & Status	Approximate Survey Dates	Specific Survey Areas (by County & MP)	Survey Description	Surveyor	Comments
Bald eagle <i>Haliaeetus leucocephalus</i> FT; OK-T	January/February	Kay: 238.9 (Salt Fork Arkansas River). Noble: 253.3 (Sooner Lake). Payne: 289.5 (Cimmaron River).	Aerial survey to locate winter roosts and eagle nests along major river crossings in ROW. Survey will be conducted 1-mile from the construction ROW.	Mike Phelan, Karen Caddis – ENSR wildlife biologists	See attached survey protocol. 2009 pre-construction surveys will not be required if construction occurs outside of the breeding/ winter roost seasons for this species.
Raptors	April	MP: 212-292 (Kay, Noble, Payne).	Aerial survey to locate occupied nest sites and breeding territories within at least 0.25 miles of the proposed ROW.	Mike Phelan – ENSR wildlife biologist.	See attached survey protocol. 2009 pre-construction surveys will not be required if construction occurs outside of the breeding season.
Interior Least Tern <i>Sterna antillarum athalassos</i> FE; OK-E	Nesting period: 15-April to 15-Sept.	Noble: 253.3 (Sooner Lake). Payne: 289.5 (Cimmaron River).	One ground survey or aerial survey conducted 0.25 from the construction ROW.	Qualified ENSR biologist and/or contractor.	See attached survey protocol. 2009 pre-construction surveys will not be required if construction occurs outside of the breeding season.
Arkansas River shiner <i>Notropis girardi</i> FE-T; OK-T	Spawning season: 1-June to 15-Aug.	Payne: 289.5 (Cimmaron River).	Habitat surveys will be conducted to document habitat suitability; intermittent/perennial flow; and spawning habitat. One sampling survey to determine species presence at stream crossings, if needed.	Qualified ENSR aquatic biologist or contractor.	See attached survey protocol.

**Keystone Pipeline Project
Proposed Survey Schedule for Oklahoma Cushing Extension
2007**

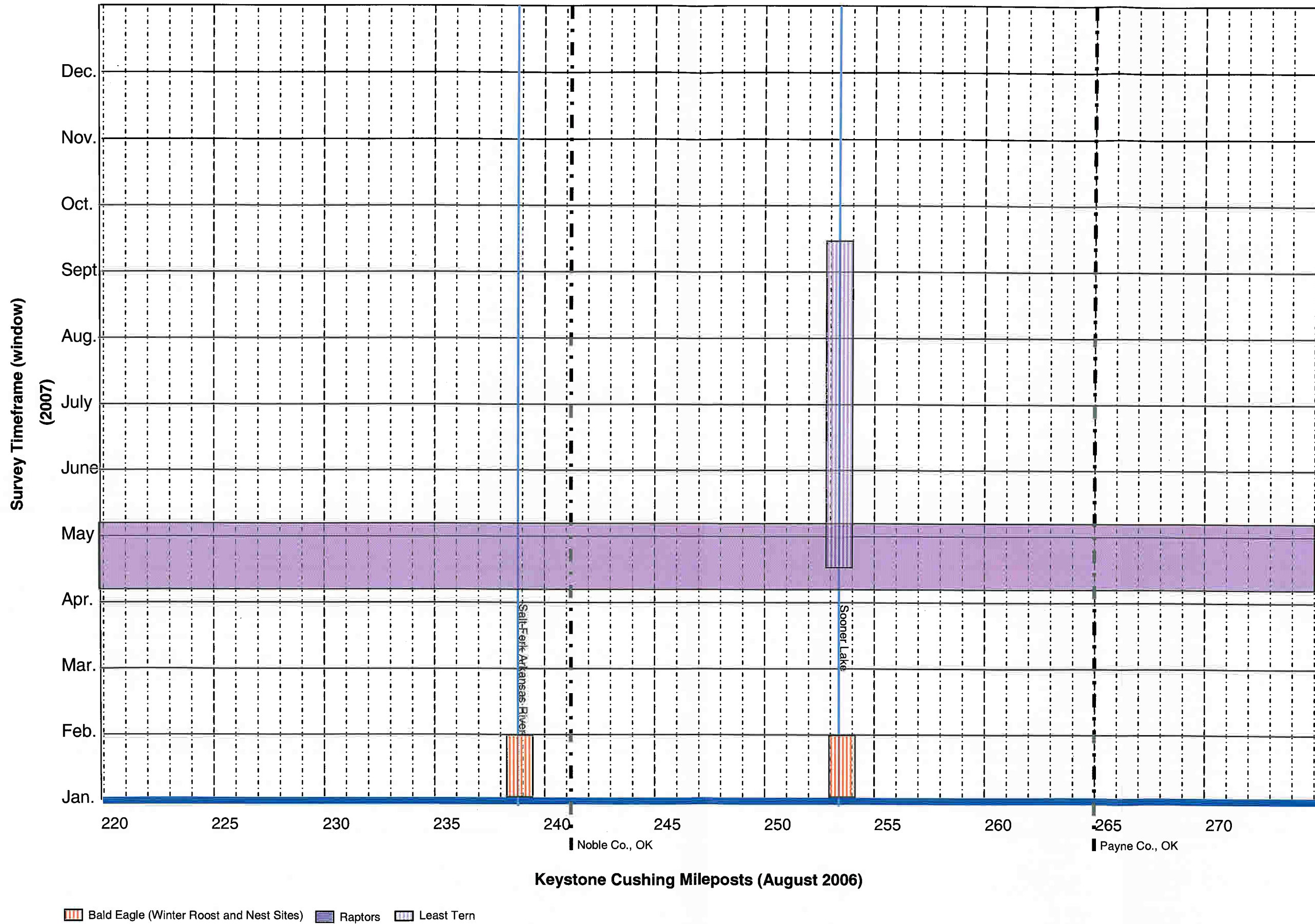
ID	Task Name	Qtr 1, 2007		Qtr 2, 2007			Qtr 3, 2007			Qtr 4, 2007			
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	Bald Eagle Winter Roost & Nest Surveys - Cushing			1/29	2/10								
				Bald Eagle Winter Roost & Nest Surveys - Cushing									
2	Raptor Surveys - Cushing					3/16		5/1					
						Raptor Surveys - Cushing							
3	Least Tern Surveys - Cushing						4/16					9/15	
							Least Tern Surveys - Cushing						
4	Arkansas River Shiner - Cushing							6/1			8/15		
								Arkansas River Shiner - Cushing					

CONFIDENTIAL
Keystone Pipeline Project – Cushing Extension
Biological Survey March-Chart 2007

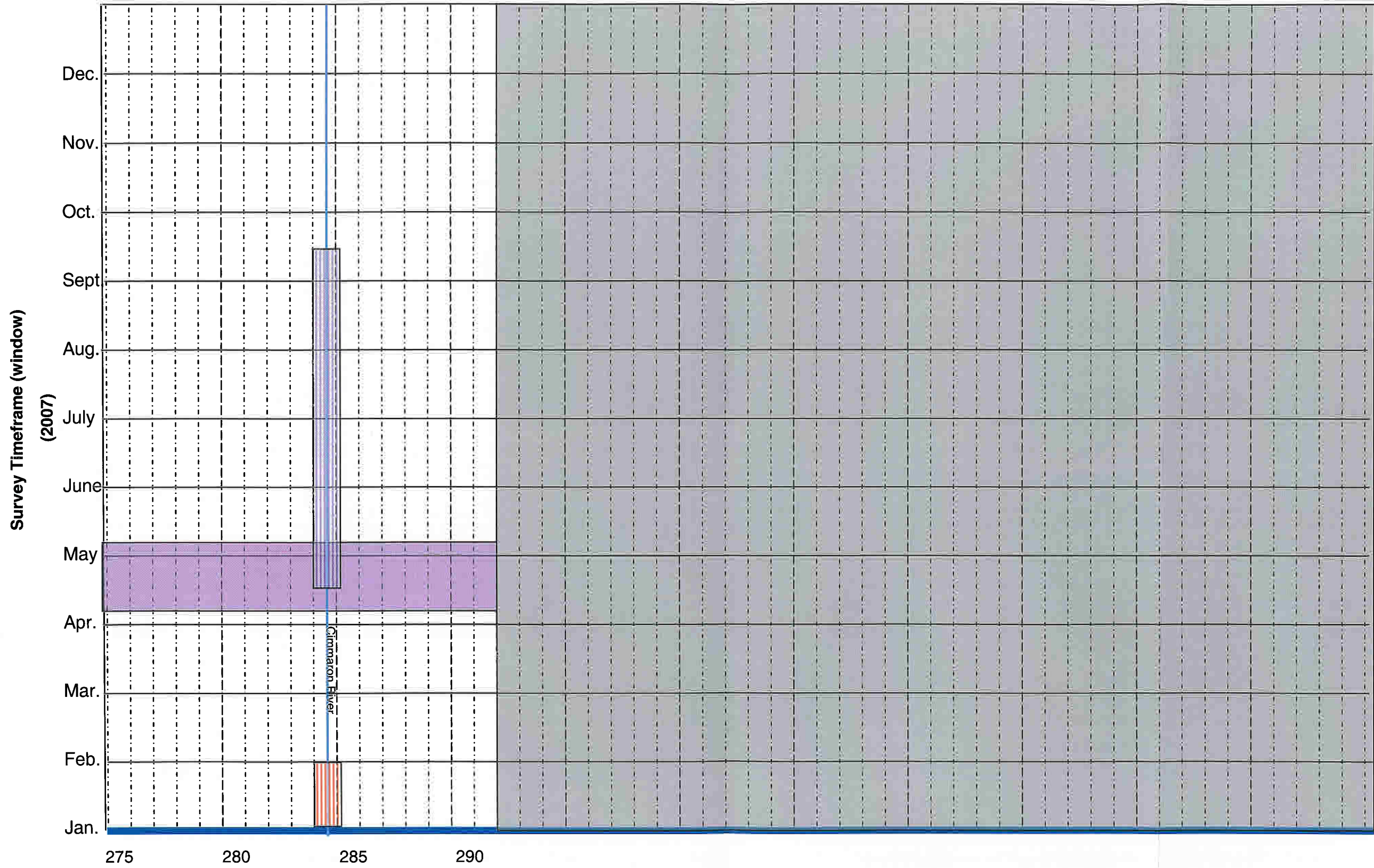


Note: Survey timeframe represents window biological surveys should be completed within, not the actual time it will take to complete surveys.

Biological Survey March-Chart 2007



Note: Survey timeframe represents window biological surveys should be completed within, not the actual time it will take to complete surveys.



Keystone Cushing Mileposts (August 2006)

Legend: Bald Eagle (Winter Roost and Nest Sites) | Raptors | Least Tern

Note: Survey timeframe represents window biological surveys should be completed within, not the actual time it will take to complete surveys.

**Keystone Pipeline Project- Cushing Extension
Survey Protocols for Oklahoma Special Status Species**

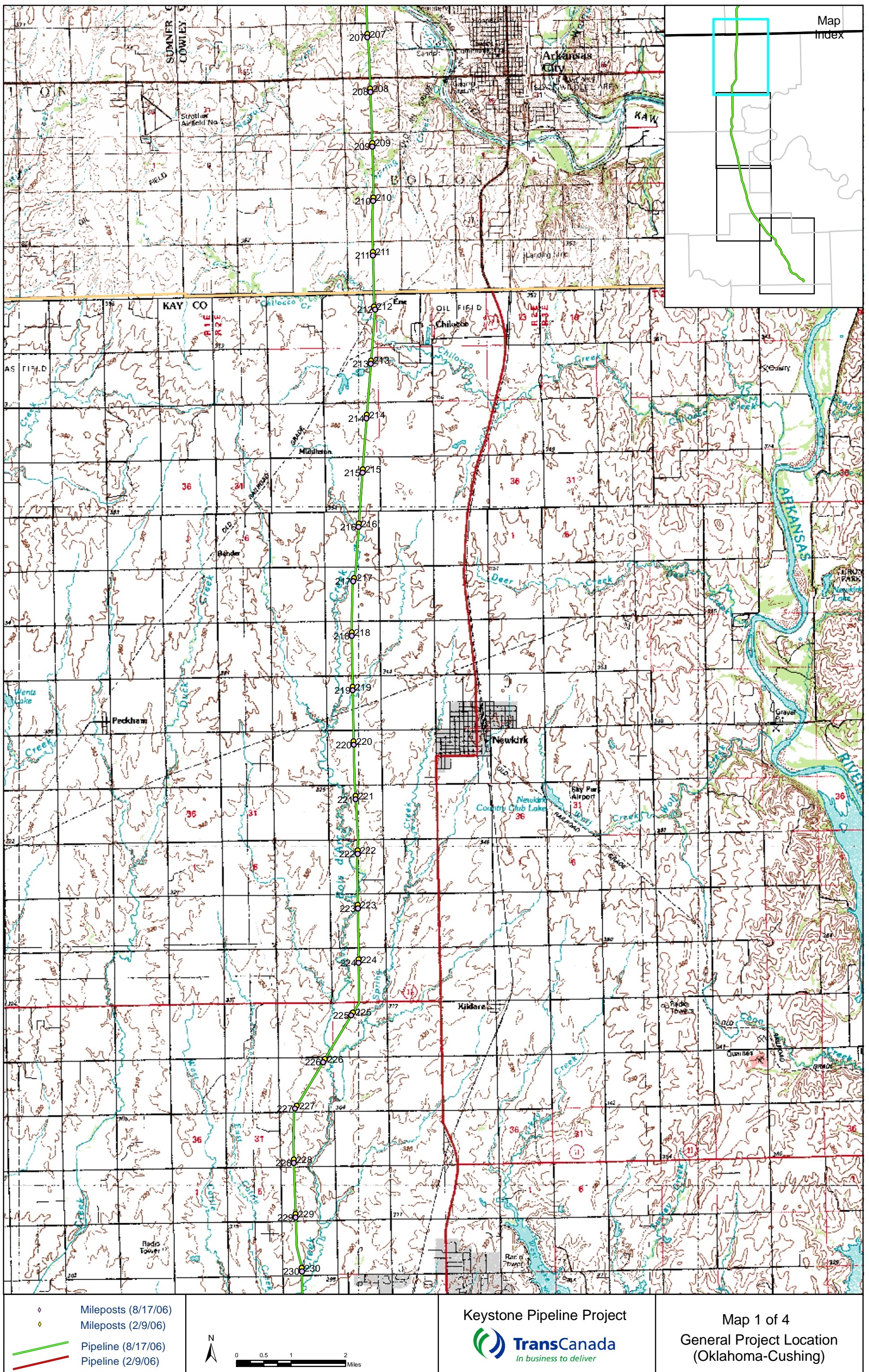
Species & Status	Survey Protocol
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> FT; OK-T</p>	<p>Survey Frequency: Aerial bald eagle surveys will be conducted for nest sites and winter roost sites along the Cushing Extension in 2007. Surveys may also be required prior to construction in 2009, if pipeline construction occurs during the breeding season (1-February through 15-August) or winter roosting season (1-November through 1-April).</p> <p>Procedures:</p> <ol style="list-style-type: none"> 1. The bald eagle surveys will be conducted along river corridors or historical bald eagle nest/winter roosting sites that occur within 1-mile from the project Right-of-Way (ROW). Stands of coniferous or deciduous trees will be surveyed for active nest sites during the breeding season 2. Stands of coniferous or deciduous trees will be surveyed for active winter roost sites from 1 hour before sunrise or sunset to 1 hour after sunrise or sunset. 3. A helicopter will be used for the surveys. Whenever possible, two observers will be used to conduct the surveys. 4. Observations of individual eagles, nests, or roosting eagles will be recorded using Global Positioning Systems (GPS). The date, location, nest condition, activity status, nest condition, and habitat will be recorded for each sighting. 5. Qualifications of the surveyor, method of survey, and results of the survey will be submitted to the ODWC and the appropriate U.S. Fish and Wildlife Service (USFWS) field office.
<p>Raptors</p>	<p>Survey Frequency: A raptor survey effort will be conducted along the Cushing Extension prior to leaf-out in the spring of 2007. The focus of this survey is to identify nest sites that would be directly impacted from construction activities.</p> <p>Procedures:</p> <ol style="list-style-type: none"> 1. Raptor surveys will be conducted along the entire proposed Project route, focusing on active and inactive nest sites that occur within the construction ROW. 2. A helicopter will be used for the raptor surveys. Whenever possible, two observers will be used to conduct the surveys.

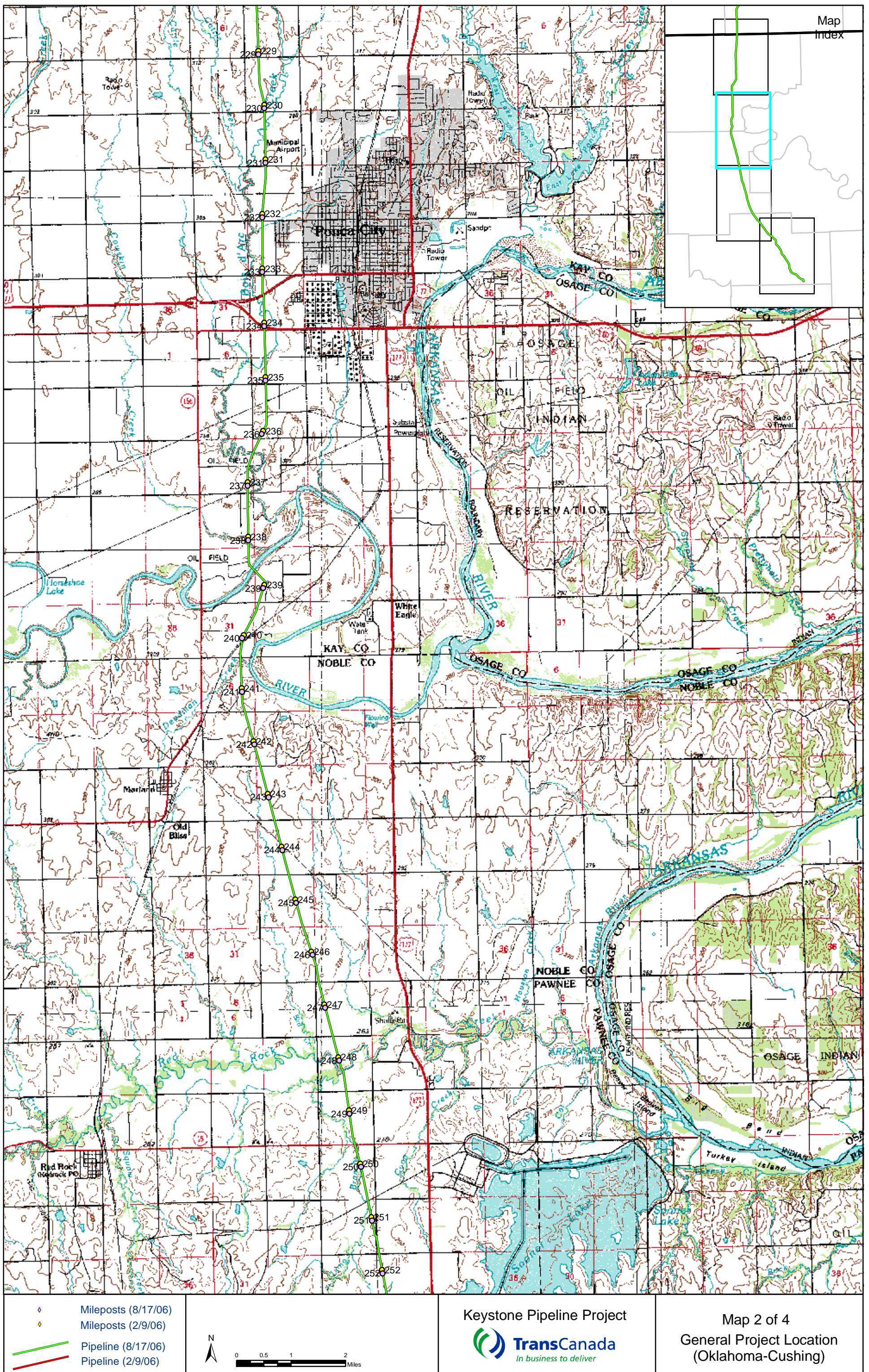
**Keystone Pipeline Project- Cushing Extension
Survey Protocols for Oklahoma Special Status Species**

Species & Status	Survey Protocol
<p>Interior Least Tern <i>Sterna antillarum</i> <i>athalassos</i> FE; OK-E</p>	<p>3. Observations of raptors and nest sites will be recorded using GPS. The date, location, nest condition, activity status, raptor species, and habitat will be recorded for each sighting.</p> <p>4. Qualifications of the surveyor, method of survey, and results of the survey will be submitted to the ODWC and the appropriate USFWS field office.</p> <p>Survey Frequency: Surveys will be conducted in 2007 at Sooner Lake and the Cimmaron River crossing during the breeding season (15-April to 15-September) to identify occupied nest sites. Surveys may also be required prior to construction in 2009, if pipeline construction occurs during the breeding season.</p> <p>Procedures:</p> <ol style="list-style-type: none"> 1. Surveys will be conducted between April 15 and September 15 at Sooner Lake and the Cimmaron River crossings in Oklahoma. Surveys will extend 0.25-mile on either side of the construction ROW. 2. Surveys will be conducted by a biologist familiar with the species and familiar with identifying tern nests. 3. Surveys will be conducted from sunrise to approximately 1000, or approximately 1700 to sunset 4. All terns located within the survey area will be observed long enough to determine if the area is occupied by the species and if a nest is present. 5. Observations of terns will be recorded using GPS. Date, time, observations, and habitat type will be recorded for each sighting. 6. Surveys will not be conducted in poor weather (i.e., high wind, precipitation, etc). 7. During the 2009 pre-construction surveys, if an active nest is located, a 0.25-mile buffer area will be established to prevent direct loss of the nest, or indirect impacts from human-related disturbance. If an active nest is found in the survey area, the planned activity will be delayed at least 37 days, or seven days post-hatching. If a brood of flightless chicks is observed, activities will be delayed at least seven days. 8. Initiation of the project will occur as near to completion of the survey as possible. 9. Qualifications of the surveyor, method of survey, and results of the survey will be submitted to the ODWC and the appropriate USFWS field office.

**Keystone Pipeline Project- Cushing Extension
Survey Protocols for Oklahoma Special Status Species**

Species & Status	Survey Protocol
<p>Arkansas River Shiner <i>Notropis girardi</i> FT; OK-T</p>	<p>Survey Frequency: Surveys will be conducted in 2007 at the Cimmaron River crossing along the Cushing Extension to document habitat suitability, stream characteristics (intermittent/perennial flow, water quality, substrate, etc.), and spawning habitat. If appropriate habitat conditions are present, occurrence surveys will be conducted to determine potential presence of this species at the project crossing.</p> <p>Procedures:</p> <ol style="list-style-type: none"> 1. Sampling surveys will be conducted only at locations identified as suitable habitat for this species during the habitat analysis. 2. Surveys will be conducted within a 200-m site that includes 100m both upstream and downstream of the pipeline crossing, depending on access. 3. Fish should be collected with the appropriately sized seine. 4. All fish collected should be identified to species to establish presence/absence of the Arkansas River shiner. 5. Fish collected in the seine should be transferred immediately into a bucket of freshwater or live cage placed in a suitable part of the stream to minimize injuries and mortalities to fish during processing. 6. If this species is present, 1 to 3 voucher specimens should be retained by fixing in 10% formalin and preserving in 70% ethanol and identification verified by ODWC staff. 7. GPS coordinates, detailed locality information, date, collector, and habitat information will be collected for each voucher specimen. 8. If sampling permit is needed, other documentation and data management protocols will be followed in accordance with collection permit requirements. 9. Qualifications of the surveyor, method of survey, and results of the survey will be submitted to the ODWC and the appropriate Service field office.
Migratory Birds	TBD

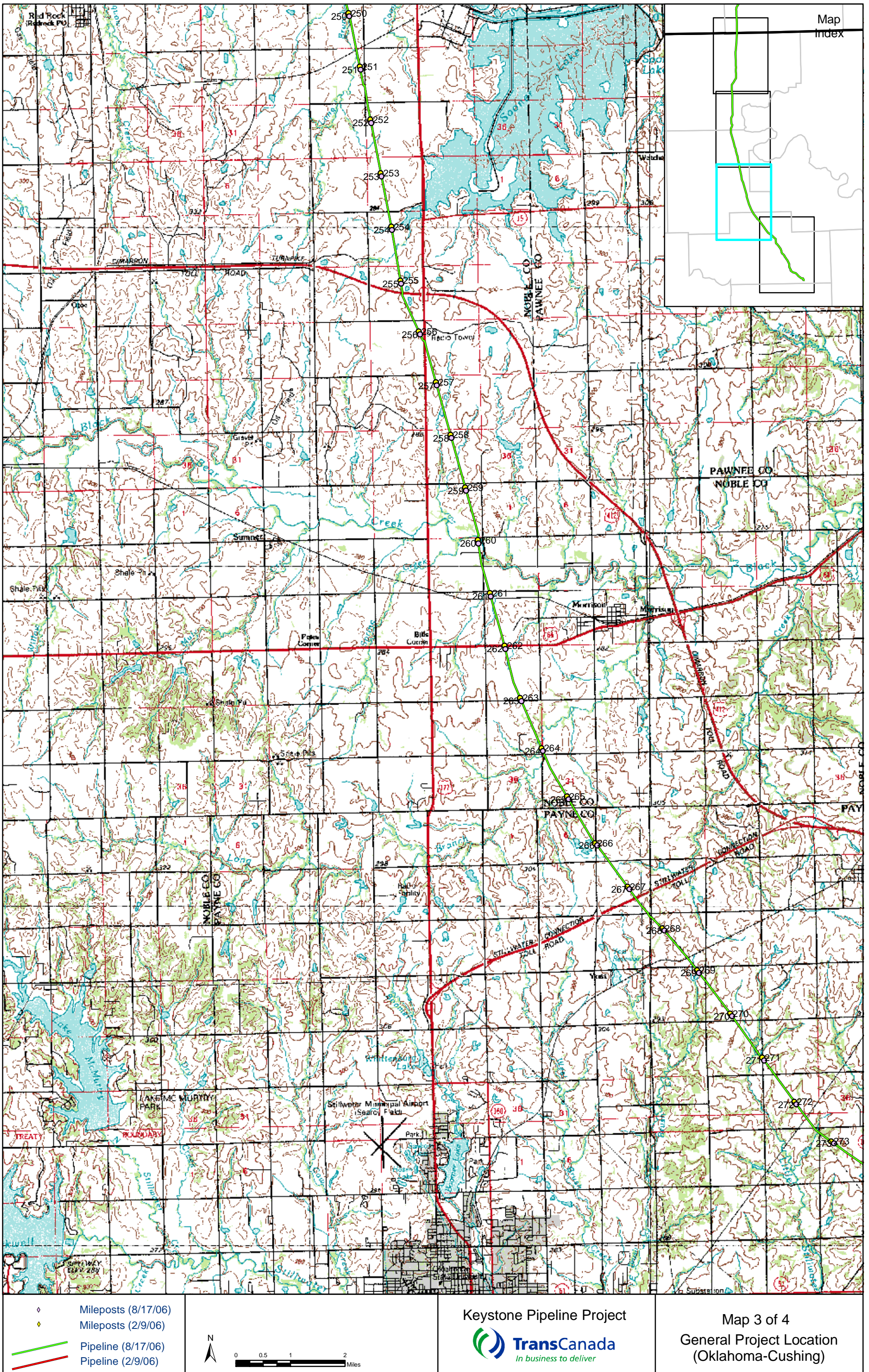


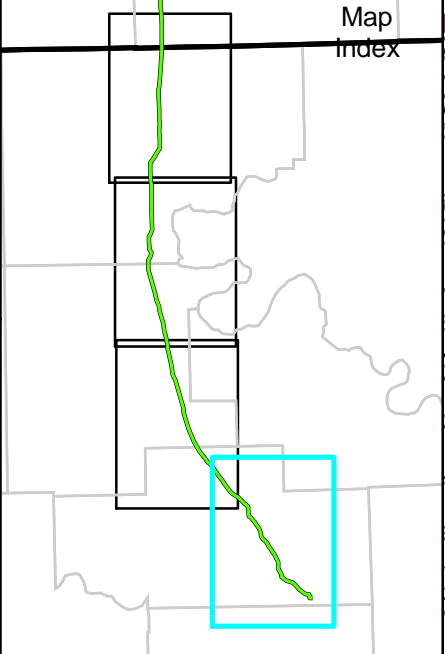


Keystone Pipeline Project



Map 2 of 4
General Project Location
(Oklahoma-Cushing)





- ◆ Mileposts (8/17/06)
- ◆ Mileposts (2/9/06)
- Pipeline (8/17/06)
- Pipeline (2/9/06)

N

0 0.5 1 2 Miles

Keystone Pipeline Project

Map 4 of 4
General Project Location
(Oklahoma-Cushing)