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Proposed Survey Schedule For [South Dakota]

2006 Surveys					
Species & Status	Approximate Survey Dates	Specific Survey Areas (by County & MP)	Survey Description	Surveyor	Comments
<p>Dakota Skipper <i>Herperia dacotae</i></p> <p>FC; SD-SC</p>	<p>Late-Summer/Fall</p>	<p>Clark: 277.5 - 302.6. (Reroute from 276.5-286; Don Hazlet to conduct native grassland reconnaissance surveys along probable re-route for suitable Dakota skipper/western fringed orchid habitat)</p> <p>Day: 250.6 - 268.1. (Reroute from 257-270; Don Hazlet to conduct native grassland reconnaissance surveys along probable re-route for suitable Dakota skipper/western fringed orchid habitat)</p> <p>Marshall: 215.0 - 222.8. (Reroute from MP 215 – 223; Don Hazlet to conduct native grassland reconnaissance surveys along probable re-route for suitable Dakota skipper/western fringed orchid habitat)</p> <p>Yankton: 415.0 - 425.1.</p>	<p>Habitat evaluations will be conducted within the construction ROW to determine potential habitat for this species.</p>	<p>Qualified ENSR biologist and/or contractor.</p>	<p>Survey areas will be refined based on habitat surveys.</p>
<p>Topeka shiner <i>Notropis Topeka</i></p> <p>FE; SD-SC</p>	<p>Late-Summer/Fall</p>	<p>Beadle: 305.7, 307.4, 308.0, 309.4, 310.1, 311.4 (Shue Creek), 311.9 (Pearl Creek), 314.0, 314.9, 315.8, 316.6 (Middle Fork Pearl Creek). Clark: 294.3, 295.3 (Clark Creek), Tributaries to Pearl, Middle Pearl, Shue, and Redstone creeks in SW Clark Co. 1300.4, 300.5, 301.4</p>	<p>Habitat surveys will be conducted to document habitat suitability; intermittent/perennial flow; and spawning habitat</p>	<p>Topeka shiner expert and ENSR biologist.</p>	<p>See attached survey protocol.</p>

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		Miner: 339.4 (Redstone Creek), 357.7, 358.4, 358.6 (Rock Creek). Yankton: 417.9-418.0 (James River), 431.9-432.3 (Missouri River).			
Higgins'-eye pearly mussel <i>Lampsilis higginsii</i> Scaleshell mussel <i>Leptodea leptodon</i> Winged mapleleaf <i>Quadrula gragosa</i> FE; SD-SC	Late-Summer/Fall	Yankton: 417.9-418.0 (James River).	Habitat and occurrence surveys will be conducted to determine potential presence at the James River crossing.	Qualified ENSR biologist and/or contractor.	If sensitive mussels are identified within the project vicinity, ENSR will coordinate with the USFWS.
2007 Surveys					
Species & Status	Approximate Survey Dates	Specific Survey Areas (by County & MP)	Survey Description	Surveyor	Comments
Dakota Skipper <i>Herperia dacotae</i> FC; SD-SC	Emergence: mid-June to 1-Aug. Peak – 1 st week of July.	Clark: 277.5 - 302.6. (Reroute from 276.5-286) Day: 250.6 - 268.1. (Reroute from 257-270) Marshall: 215.0 - 222.8. (Reroute from MP 215 – 223) Yankton: 415.0 - 425.1. <i>(Survey areas will be refined based on the 2006 habitat surveys)</i>	One survey will be conducted during the appropriate survey period to determine presence within the construction ROW.	Qualified ENSR biologist and/or contractor.	See attached survey protocol. <i>(2008 pre-construction surveys would only be required in areas where this species was observed in 2007)</i>
Topeka shiner <i>Notropis Topeka</i> FE; SD-SC	Late-Summer/Fall	Beadle: 305.7, 307.4, 308.0, 309.4, 310.1, 311.4 (Shue Creek), 311.9 (Pearl Creek), 314.0, 314.9, 315.8, 316.6 (Middle Fork Pearl Creek). Clark: 294.3, 295.3 (Clark Creek), Tributaries to Pearl,	One sampling survey to determine species presence at stream crossings, if	Topeka shiner expert and ENSR biologist.	See attached survey protocol.

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		(South Fork Pearl Creek). McCook: 380.3, 380.5, 380.8 (Wolf Creek). Miner: 339.4 (Redstone Creek), 357.7, 358.4, 358.6 (Rock Creek). Yankton: 417.9-418.0 (James River), 431.9-432.3 (Missouri River).			
Western Fringed Orchid <i>Platanthera praeclara</i> FT; SD-SC	Flowering period: 15-June to 15-July.	Clark: 277.5 - 302.6. (Reroute from 276.5-286) Day: 250.6 - 268.1. (Reroute from 257-270) Marshall: 215.0 - 222.8. (Reroute from MP 215 – 223) Yankton: 415.0 - 425.1. (Survey areas will be the same as determined for the Dakota skipper)	One survey will be conducted during the flowering period to determine presence within the construction ROW.	Qualified ENSR biologist and/or contractor	See attached survey protocol. (2008 pre-construction surveys would only be required in areas where this species was observed in 2007)

2008 Surveys (Pre-construction)					
Species & Status	Approximate Survey Dates	Specific Survey Areas (by County & MP)	Survey Description	Surveyor	Comments
Bald eagle <i>Haliaeetus leucocephalus</i> FT; SD-T	Nesting period: 1-Feb to 15-Aug. Winter roosting period: 1-Nov. to 1-April.	Yankton: 417.9-418.0, 431.9-432.3 (James River, Missouri River).	One ground survey or aerial survey prior to construction. Survey will be conducted 1-mile from the construction ROW.	Qualified ENSR biologist and/or contractor.	This survey will not be required if construction occurs outside of the breeding/ winter roost seasons for this species. See attached survey protocol.
Interior Least Tern <i>Sterna antillarum athalassos</i>	Nesting period: 15-April to 15-Sept.	Yankton: 431.9-432.3 (Missouri River).	One ground survey or aerial survey prior to construction. Survey will be conducted 0.25	Qualified ENSR biologist and/or contractor.	This survey will not be required if construction occurs outside of the breeding season for these

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<p>Dakota Skipper <i>Herperia dacotae</i></p> <p>FC; SD-SC</p>	<p>Emergence: mid-June to 1-Aug. Peak – 1st week of July.</p>	<p>Clark: 277.5 - 302.6. (Reroute from 276.5-286) Day: 250.6 - 268.1. (Reroute from 257-270) Marshall: 215.0 - 222.8. (Reroute from MP 215 – 223) Yankton: 415.0 - 425.1.</p> <p><i>(Surveys will only occur in areas where this species was observed in 2007, prior to construction)</i></p>	<p>One survey will be conducted during the appropriate survey period to determine presence within the construction ROW.</p>	<p>Qualified ENSR biologist and/or contractor.</p>	<p>See attached survey protocol.</p>
<p>Topeka shiner <i>Notropis Topeka</i></p> <p>FE; SD-SC</p>	<p>Spawning Season: 15-May to 31-July</p>	<p>Beadle: 305.7, 307.4, 308.0, 309.4, 310.1, 311.4 (Shue Creek), 311.9 (Pearl Creek), 314.0, 314.9, 315.8, 316.6 (Middle Fork Pearl Creek). Clark: 294.3, 295.3 (Clark Creek), Tributaries to Pearl, Middle Pearl, Shue, and Redstone creeks in SW Clark Co. [300.4, 300.5, 301.4, 301.9, 302.5]. Hanson: 371.9, 373.9 (Wolf Creek). Hutchinson: 387.2, 387.6 (Wolf Creek). Kingsbury: 322.2, 322.4 (South Fork Pearl Creek). McCook: 380.3, 380.5, 380.8 (Wolf Creek). Miner: 339.4 (Redstone Creek), 357.7, 358.4, 358.6 (Rock Creek). Yankton: 417.9-418.0 (James River), 431.9-432.3 (Missouri River).</p>	<p>One sampling survey to determine species presence at stream crossings, if needed.</p>	<p>Topeka shiner expert and ENSR biologist.</p>	<p>If stream section is dry, no surveys would be required. If stream is wet, consult with state and federal agencies.</p> <p>Construction would not be permitted during the spawning period (May 15 to July 31) if the crossing is wet.</p> <p>Obtain necessary permits from the state and federal agencies if salvage and relocation is conducted prior to construction.</p>
<p>Western Fringed Orchid <i>Platanthera praeclara</i></p>	<p>Flowering period: 15-June to 15-July.</p>	<p>Clark: 277.5 - 302.6. (Reroute from 276.5-286) Day: 250.6 - 268.1. (Reroute from 257-270) Marshall: 215.0 - 222.8.</p>	<p>One survey will be conducted during the flowering period to determine</p>	<p>Qualified ENSR biologist and/or contractor</p>	<p>See attached survey protocol.</p>

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Migratory Birds (including raptors)	TBD based on John Cochnar's correspondence with USFWS meeting with USFWS Special Agents and MBTA Office.	TBD	TBD	TBD	TBD
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