

**BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

**IN THE MATTER OF THE APPLICATION OF DAKOTA ACCESS, LLC FOR  
AN ENERGY FACILITY PERMIT TO CONSTRUCT THE DAKOTA ACCESS  
PIPELINE**

**DOCKET NO. HP14-002**

**Direct Testimony of Tom Kirschenmann  
On Behalf of the Staff of the South Dakota Public Utilities Commission  
July 6, 2015**



1 **Q: State your name.**

2  
3 A: Tom Kirschenmann

4  
5 **Q: State your employer.**

6  
7 A: State of South Dakota, Department of Game, Fish, and Parks

8  
9 **Q: State the program for which you work.**

10  
11 A: Division of Wildlife, Terrestrial Resources Chief

12  
13 **Q: State the program roles and your specific job with the department.**

14  
15 A: The role of the Terrestrial Resources section is to study, evaluate, and assist  
16 in the management of all wildlife and associated habitats. Management includes  
17 game and non-game wildlife populations, habitat management on public lands  
18 and technical assistance and habitat development on private lands, population  
19 and habitat inventory, and environmental review of local and landscape projects.  
20 As Chief of the Terrestrial Resources Section, I oversee all wildlife management  
21 and research, as well as habitat management consisting of the department's  
22 public lands and private lands programs.

23  
24 **Q: Explain the range of duties you perform.**

25  
26 A: Duties include leading the Terrestrial Resources section that includes three  
27 program administrators (Wildlife, Habitat, Wildlife Damage), 21 wildlife biologists,  
28 and two secretaries; oversee all wildlife research, management, and the  
29 establishment of hunting seasons for game species; oversee all private lands  
30 habitat programs; coordinate environmental review evaluations and responses  
31 related to terrestrial issues; serve as the Department's liaison for several state  
32 and federal agencies; and represent the Department on state and national  
33 committees.

34  
35 **Q: On whose behalf was this testimony prepared?**

36  
37 A: This testimony was prepared on behalf of the Staff of the South Dakota Public  
38 Utilities Commission.

39  
40 **Q: Have you reviewed the Application and its amendments?**

41  
42 A: Yes, the relevant sections.

43  
44 **Q Are there any sensitive wildlife areas crossed by the pipeline?**

45  
46 A: Game Production Areas

1 Four Game Production Areas are in close proximity to the pipeline route and  
2 could be considered as sensitive areas especially if the final route is immediately  
3 adjacent to or potentially need to cross these properties. All Game Production  
4 Areas contain extensive wetland resources, native and reestablished upland  
5 habitat for resident and migratory wildlife, and high public recreation use and  
6 value. Three of the four are Federal Aid acquired properties, so would require  
7 additional actions (NEPA driven) in order to grant any necessary easements that  
8 affect title.

#### 9 10 Native Prairie

11 Native prairie remnants exist throughout eastern South Dakota, in particular in  
12 the northcentral portion of the state within the Missouri Coteau ecoregion. Native  
13 prairie habitats provide unique habitat due to the diversity of plant species for a  
14 multitude of wildlife species. The fragmentation of native prairie resulting from  
15 infrastructure is a concern and the potential affect it would have on a number of  
16 grassland dependent bird species. It would be recommended to consult range  
17 and prairie experts on appropriate seeding mixtures to complete restoration  
18 efforts if native prairie tracts are included in the pipeline route and necessary  
19 methods to minimize noxious weed infestation within the disturbed area.

#### 20 21 Waterfowl Production Areas & Private Lands under Conservation Easements

22 Waterfowl Production Areas are federal wildlife management areas found  
23 throughout eastern South Dakota with some close to or possibly crossed pending  
24 final route. These areas consist of wetland and grassland habitats providing  
25 needed habitat for both resident and migratory wildlife to meet necessary  
26 components of their annual life cycle.

27  
28 There are also private lands enrolled in wetland and grassland conservation  
29 easements through the Fish and Wildlife Service. These properties, like  
30 Waterfowl Production Areas, provide quality wildlife habitat especially for  
31 grassland dependent species.

32  
33 Dakota Access would need to contact the US Fish and Wildlife Service for  
34 appropriate mitigation and approval steps.

#### 35 36 Riparian & Stream Habitats

37 Streams and rivers of all sizes could be considered sensitive areas. Small  
38 streams are especially sensitive and stream fish species are sensitive to habitat  
39 impairment. Underground directional boring is one method of minimizing impacts  
40 to riparian/stream habitats.

41  
42 A few known tributaries and rivers that could potentially be impacted, in particular  
43 when considering Topeka shiner, is Shue Creek, Pearl and Middle Pearl Creeks,  
44 Redstone Creek, Rock Creek, West Fork of the Vermillion, East Fork of the  
45 Vermillion, and the James River.

46

1 **Q: Will any State or Federal threatened or endangered species be impacted**  
2 **by the route?**

3  
4 A: Topeka Shiner

5 The pipeline would go directly through the central part of the Topeka shiners  
6 known and largest remaining population across its range. Listed below are some  
7 general strategies and guidelines to minimize impacts.

- 8  
9 1. Avoid construction activities within waterways from May 15 - July 15,  
10 which is the optimal spawning period for Topeka Shiner.  
11  
12 2. Methods that block a stream should not be constructed for extended  
13 periods of time. If temporary blocks are necessary, flexible water barriers  
14 should be used.  
15  
16 3. Disturbance to channel, streambank, and riparian areas should be kept to  
17 an absolute minimum and restored to pre-project evaluation. We suggest  
18 that strict criteria be used to prevent the use of option borrow areas that  
19 result in impacts to riparian and wetland areas.  
20  
21 4. Removal of vegetation and soil should be confined to those areas  
22 absolutely necessary to construction and should be accomplished in a  
23 manner to reduce soil erosion.  
24  
25 5. Riparian vegetation losses should be quantified and replaced on site.  
26 Grading operations and reseeded of indigenous species should begin  
27 immediately following construction to reduce sediment and erosion  
28 potential.  
29  
30 6. A post construction sediment and erosion control plan should also be  
31 implemented in order to provide interim control prior to re-establishment of  
32 permanent vegetative cover on the disturbed site.  
33

#### 34 Other Fish Species

35 Additional state listed species that could be impacted by construction include  
36 Banded killfish, Northern redbelly dace, Blacknose shiner, Sicklefing chub, and  
37 Sturgeon chub. Mitigation measures to be considered are those listed under the  
38 Topeka shiner section.

#### 39 Bald Eagle

40 The Bald eagle is currently listed as a state threatened species, but has recently  
41 been proposed to be removed from the state list by the Game, Fish and Parks  
42 Commission. There is potential for bald eagles to establish nests close to the  
43 pipeline route. Provisions of the Bald and Golden Eagle Protection Act should be  
44 followed to avoid disturbance of nesting or wintering birds. General guidance to  
45 minimize impacts includes monitoring for active nests prior to and during  
46

1 construction and the utilization of a 1 mile buffer consideration during the nesting  
2 season (Feb. 1 – Aug. 15).

3

4 **Butterflies**

5 The primary range of the Dakota Skipper and Poweshiek Skipperling occurs  
6 northeast of the pipeline route, however there are records of other rare butterflies  
7 dependent on native prairie closer to the proposed route. If the pipeline crosses  
8 native prairies it is recommended to minimize soil disturbance associated with  
9 construction activities and use appropriate native seed if any restoration or  
10 replanting is required.

11

12 **Whooping Cranes**

13 Whooping Cranes have been documented during spring and fall migration  
14 throughout most of the counties in the project area and may use some of the  
15 sensitive areas as migratory stop overs. Construction workers should be made  
16 familiar with the appearance of whooping cranes and consideration of temporarily  
17 suspending work if cranes choose to roost near pipeline work.

18

19 **Sprague's Pipit**

20 The Sprague's pipit is currently a federal candidate species. The recently  
21 completed South Dakota Breeding Bird Atlas included no confirmed records of  
22 this species. However, the northern portion of the pipeline crosses counties that  
23 likely support nesting for this species. Destruction of native habitats should be  
24 mitigated for by replacement with grassland plantings using native species.

25

26 **Q: Does this conclude your testimony?**

27

28 **A: Yes.**

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**Profile:** 19 years as a professional wildlife biologist.

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**Education:** Eureka High School, Eureka, SD, 1989  
BS: Wildlife and Fisheries Sciences, South Dakota State University, May 1993  
MS: Wildlife Management, South Dakota State University, May 1996

Certifications:  
Certified Wildlife Biologist, The Wildlife Society, July 2000  
Level III Career Development Training, SD GF&P, 2007

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**Experience:**

SOUTH DAKOTA GAME, FISH, AND PARKS, Pierre, SD  
Chief of Terrestrial Resources (11/08 - present)  
Supervisor: Tony Leif, Director, Division of Wildlife, 605-773-4518

- Coordinate the management and research of game and non-game species statewide.
- Coordinate the management of the Department's habitat programs, including the private lands programs, public lands management, access programs, terrestrial environmental assessments, and programs related to the federal Farm Bill.
- Oversee a staff that includes a Program Administrator for Wildlife, Habitat and Wildlife Damage programs, 21 biologists, and three secretaries in these sections.
- Serve as the Department's liaison or representative for several state and federal agencies and associated committees.
- Coordinate with non-government organizations, constituency groups, and agricultural groups on resource management programs, projects, and issues.
- Manage an annual budget of approximately \$14.5M which includes research, direct payments to landowners for habitat, hunting access, and wildlife damage, and contracts to complete surveys, programs, and projects.
- Lead rules promulgation process for respective duties by presenting to the GFP Commission and assisting in writing administrative rules.

SOUTH DAKOTA GAME, FISH, AND PARKS, Pierre, SD  
Wildlife Program Administrator, Game Management (12/07 - 11/08)  
Supervisor: George Vandell, Assistant Director, Division of Wildlife, retired

- Coordinate the management and research of all game species statewide.
- Coordinate the accumulation and organization of data and regional suggestions in the development of hunting season recommendations.
- Draft action sheets and present season recommendations to GF&P Commission.
- Assist with the development and a team member that reviews hunting season applications and the Hunting Handbook.
- Supervise 9 biologists and 1 secretary stationed in five locations across the state.

- Serve as department representative on committees (wildlife disease boards and poultry advisory board) and liaison to the SDSU Diagnostic Lab and APHIS Wildlife Services for Avian Influenza monitoring.
- "Press Release" review team member.
- Oversee the Game Budget, including the contractual research projects with SDSU Wildlife and Fisheries Department and other academic institutions.
- Work with the media addressing game and related issues, including live interviews, newspaper articles, and the writing of short articles.
- Team member in the development and implementation of the Mentored Hunting Program.
- Present research and management information at regional meetings, Commission meetings, and to conservation organizations.

SOUTH DAKOTA GAME, FISH, AND PARKS, Huron, SD

Sr. Wildlife Biologist (1/05 – 12/07)

Supervisor: Tony Leif, Director, Division of Wildlife, 605-773-4518

- Oversee management and research of upland game species statewide.
- Direct internal upland game research, analyses, and reports.
- Part of game staff committee that provides recommendations on all game seasons and license allocations.
- Serve as Office Manager at the Huron GF&P District Office: directing day to day activities of Resource Biologist and Secretary within the Upland Game Section.
- Serve as field co-leader with waterfowl biologist in the coordination of statewide Avian Influenza (AI) sampling.
- Work with regional game staff on management, survey, research, and mortality projects.
- Administered the departments Wildlife Partnership Program for two years and continue to provide guidance and direction upon request.
- Assist with the coordination of meetings and trainings, including serving as chair person of the Prairie Grouse Technical Council (PGTC) meeting in October 2007.
- Serve as department representative on several committees such as Midwest Pheasant Study Group, PGTC, Sage Grouse Council, Poultry Advisory Board (AI matters), and the National Wild Turkey Federation Technical Representative.
- Write management and scientific reports, as well as magazine and newspaper articles.
- Conduct presentations internally, as well as landowner and sportsmen club meetings.

PHEASANTS FOREVER, INC., St. Paul, MN

Regional Wildlife Biologist

South Dakota & Wyoming (4/00 – 1/05)

Illinois & Indiana (7/95 – 4/00)

Supervisor: Richard Young, VP Field Operations, 877-773-2070

- Establish and maintain chapters comprised of grassroots volunteers and guide them in the development of habitat programs, fundraising efforts, and youth programs.
- Work with chapters to develop wildlife habitat programs designed to fit the needs for both local and regional areas.
- Direct and assist chapters with annual fund-raising events. Wrote grants to support local and state habitat efforts.
- Built partnerships between Pheasants Forever (both chapters and national) with local, state, and federal conservation agencies. Primary PF representative in developing SD Wildlife Habitat Extension Biologist (WHEB) program with SD GF&P and SD NRCS.
- Developed reporting system, submitted reports to GF&P, NRCS, and PF national, wrote grants, and some supervisory duties related to the WHEB program.
- Served on several state and federal habitat committees (State Technical Committee for both SD and WY, SD CRP sub-committee, WHIP sub-committee for SD and WY, SD School and

Public Lands, Northern Great Plains Joint Venture, Great Lakes and Upper Mississippi Joint Venture, IL Pheasant Fund Committee, IN DNR Gamebird Partnership Committee, IL DNR Conservation Congress).

- Organized and conducted wildlife habitat workshops for chapters, landowners, and other agency personnel.
- Established agenda, budget, and organized annual meeting for subgroup of co-Regional Wildlife Biologists, while serving as Mentor Group Leader.
- Wrote newspaper articles, interviewed for radio and TV shows, conducted presentations, and distributed newsletters.
- Educated volunteers about wildlife biology, habitat, wildlife interactions, and counsel on current, upcoming, and changes to state and federal conservation programs.

SOUTH DAKOTA STATE UNIVERSITY; Brookings, SD  
Graduate Research Assistant (4/93 - 7/95; graduated 1996)  
Supervisor: Dr. Daniel Hubbard, Professor, 605-688-4780  
Graduate Research Project.

- Research involved the comparison of avian and aquatic invertebrate abundances on conventional, organic, and no-till farming systems.
- Efforts included breeding waterfowl pair counts, waterfowl brood counts, wetland bird surveys, upland bird surveys, and aquatic invertebrate sampling.
- Other duties included surveying aquatic plants and collecting soil seed bank samples.
- Prepared bi-annual reports for USDA and EPA.

SOUTH DAKOTA STATE UNIVERSITY; Brookings, SD  
Research Technician (3/92 - 8/92)  
Supervisor: Diane Granfors, Graduate Research Assistant  
Seasonal position.

- Assisted with wood duck study determining brood habitat and survival.
- Built, repaired, and placed wood duck nesting structures.
- Candled eggs, web tagged ducklings, banded hens, placed radio telemetry collars and acquired locations.

SOUTH DAKOTA STATE UNIVERSITY; Brookings, SD  
Research Technician (10/90 - 3/91; 10/91 - 3/92)  
Supervisor: Todd Bogenschutz, Graduate Research Assistant  
Seasonal position.

- Aided on the research study that evaluated corn and sorghum as a winter food source for the ring-neck pheasant.
- Shared duties to feed pen birds on restricted diets.
- Sampled winter food plots.
- Assisted in extracting intestinal organs and taking anatomical measurements and weights.

SOUTH DAKOTA STATE UNIVERSITY; Brookings, SD  
Research Technician (5/91 - 8/91)  
Supervisor: John Lott, Graduate Research Assistant, 605-773-4508  
Seasonal position.

- Worked on yellow perch food habit study.



- Used various equipment to sample fish and zooplankton. Aged fish and processed stomach contents. Sorted and tabulated zooplankton samples.

THE NATURE CONSERVANCY, Ordway Prairie, Leola, SD

Intern/Preserve Worker (5/90 - 8/90)

Supervisor: Andy Schollett, Preserve Manager

Seasonal position.

- Monitored grazing leases and rotations, conducted brome and prairie plant surveys, spraying of noxious weeds, fencing and general maintenance.