

SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

CASE NO. EL05-022

IN THE MATTER OF THE APPLICATION BY OTTER TAIL POWER COMPANY

ON BEHALF OF THE BIG STONE II CO-OWNERS

FOR AN ENERGY CONVERSION FACILITY SITING PERMIT FOR THE

CONSTRUCTION OF THE BIG STONE II PROJECT

PREFILED REBUTTAL TESTIMONY

OF

DANIEL JONES

ENVIRONMENTAL SCIENTIST

BARR ENGINEERING CO.

JUNE 9, 2006



PREFILED REBUTTAL TESTIMONY OF DANIEL JONES

TABLE OF CONTENTS

I. INTRODUCTION1

BEFORE THE SOUTH DAKOTA UTILITIES COMMISSION

PREFILED REBUTTAL TESTIMONY OF DANIEL JONES

I. INTRODUCTION

Q: Please state your name and occupation.

A: Daniel Jones, Environmental Scientist, Barr Engineering Co.

Q: Did you provide direct testimony in this proceeding?

A: Yes. My direct testimony is marked as Applicants' Exhibit 17.

Q: What is the purpose of this rebuttal testimony?

A: This testimony is being provided to respond to a comment in the May 19, 2006 Direct Testimony of Dr. Olesya Denney of QSI Consulting, Inc., on behalf of the Staff of the Public Utilities Commission of South Dakota. Specifically, in Table 2 on page 7 of Dr. Denney's testimony, she indicated a need to provide additional information on breeding times and migratory pathways.

Q: Has the requested additional information been provided through the discovery process?

A: Yes. I compiled information on migratory bird pathways and an overview of the phenology of representative bird species to respond to the Staff's Second Data Requests dated March 1, 2006. The information included two maps showing major migratory pathways in a regional and local context, and a table of the arrival, peak breeding and departure times of eight bird species representing waterfowl, wetland species, perching birds, birds of prey and grassland birds that are relatively common and widespread in the area around the Big Stone property. A copy of the two maps and the table referred to above are attached as Applicants' Exhibits 37-A, 37-B, and 37-C.

1 **Q: Can you summarize the information that you compiled?**

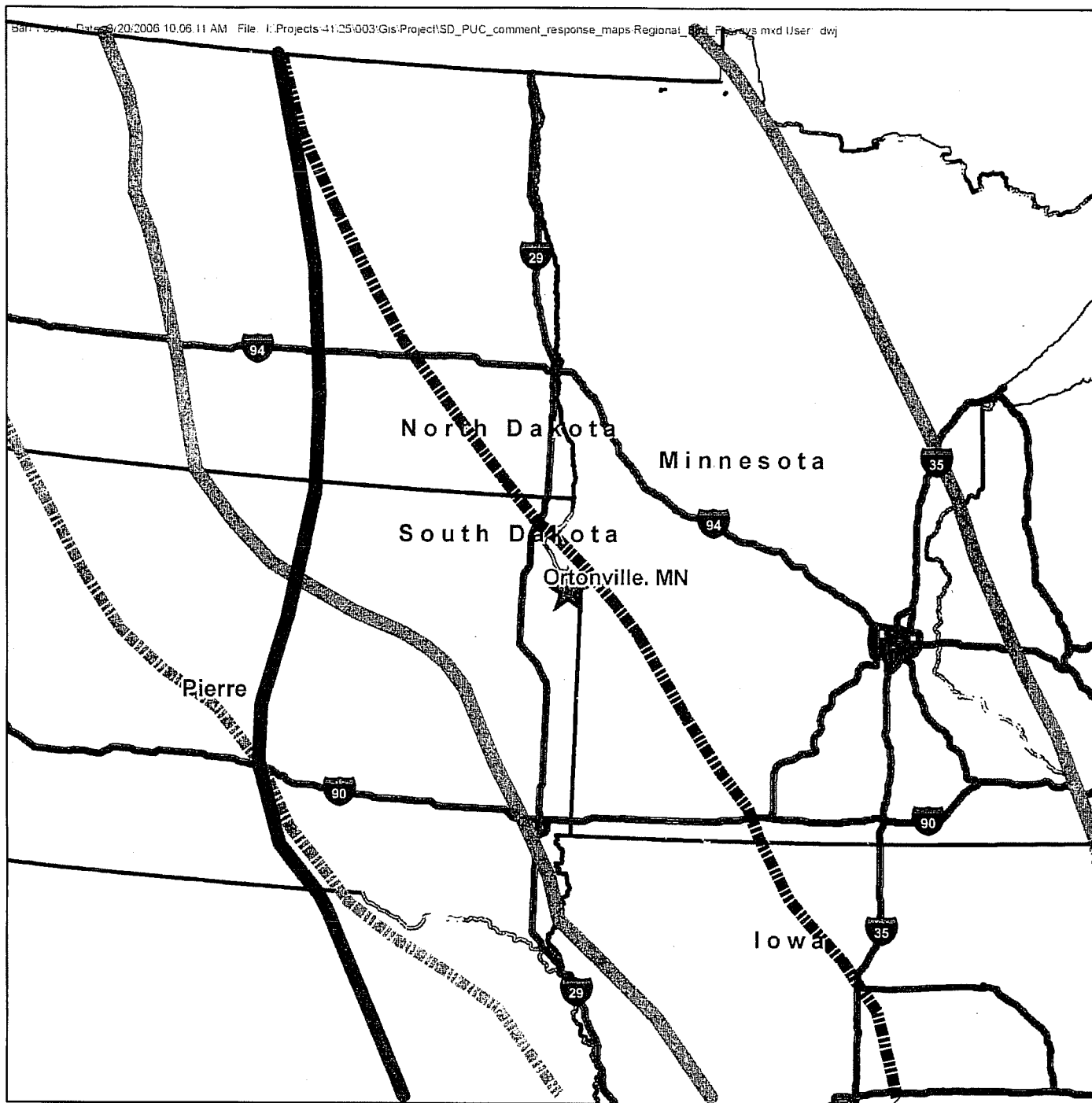
2 A: As indicated on Applicants' Exhibit 37-A, the principal and merging legs of the
3 Mississippi Flyway pass within approximately 75 miles of the Big Stone property. A principal
4 leg of the Mississippi Flyway runs roughly 75 miles to the west-southwest. Also, as indicated on
5 Applicants' Exhibit 37-B, a route that merges the Mississippi Flyway with the Atlantic Flyway
6 runs approximately five miles to the northeast of the Big Stone property. Mapped migratory
7 flyways are not absolute, but are approximations of the general migratory paths that birds follow
8 during seasonal migrations. These paths tend to follow major rivers, and/or pass through areas
9 with frequent wetland and open water stopover opportunities. It is likely that migratory birds,
10 especially waterfowl, utilize the numerous small wetlands in the surrounding Big Stone area, as
11 well as the existing ponds, during seasonal migrations. Applicants' Exhibit 37-C illustrates the
12 variation in the timing of seasonal migrations between species. In general, birds migrate through
13 the Big Stone area northward in the early spring, and southward in early autumn. Peak breeding
14 times vary with species and with habitat types, but in general, species in the vicinity of the Big
15 Stone property breed between April and July. Waterfowl and birds of prey tend to breed near the
16 early end of that range, and perching birds tend to breed near the later end of the range.

17 **Q: How did you obtain and analyze information relevant to your work?**

18 A: The flyways shown on the maps that I prepared were digitized from North American
19 Flyway maps available at www.birdnature.com, and from information obtained from the US Fish
20 & Wildlife Service (USFWS) Region 6 website. Information on the timing of seasonal
21 migrations and peak breeding periods was obtained from the US Geological Service (USGS)
22 Northern Prairie Wildlife Research Center.

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

1 A: Yes.



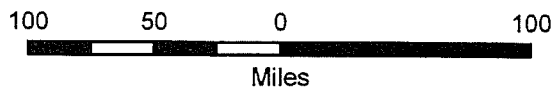
Legend

- merging w/Atlantic Flyway
- merging w/ Central Flyway
- principal Mississippi Route
- principal Central Route
- Interstate Highway
- Plant Site

Exhibit SDR-15a Regional Bird Flyways

Big Stone II Project
Big Stone Co-owners

Responses to SD PUC
Second Data Request
March 2006



**Table SDR-15. Breeding Phenology of Representative Bird Species
near the Big Stone Property**

Common Name	Scientific Name	Habitat	Arrival	Peak breeding	Departure
Western meadowlark	<i>Sturnella neglecta</i>	Grassland, perching	Mid-March to mid-May	Early May to mid-July	Mid-October to Mid - November
Bobolink	<i>Dolichonyx oryzivorus</i>	Grassland	Late April to mid-May	Early June to mid-July	July to September
Savannah sparrow	<i>Passerculus sandwichensis</i>	Perching, grassland	Late March to early May	Early June to mid-July	Early September to October
Sora rail	<i>Porzana carolina</i>	Wetland	Mid-March to June	Early June to late July	Late July to early December
Blue-winged teal	<i>Anas discors</i>	Waterfowl	April-May	Late May	Late August to September
Red-tailed hawk	<i>Buteo jamaicensis</i>	Bird of prey	Late February to early March	March to June	Early October
Northern harrier	<i>Circus cyaneus</i>	Wetland, bird of prey	Late March to early April	April through July	August to November
Horned lark	<i>Eremophila alpestris</i>	Grassland	Late February to early March	Late April to late July	Late October to late November

Source: USGS Northern Prairie Wildlife Research Center

