Sage-Grouse and Natural Gas Development: Lessons Learned

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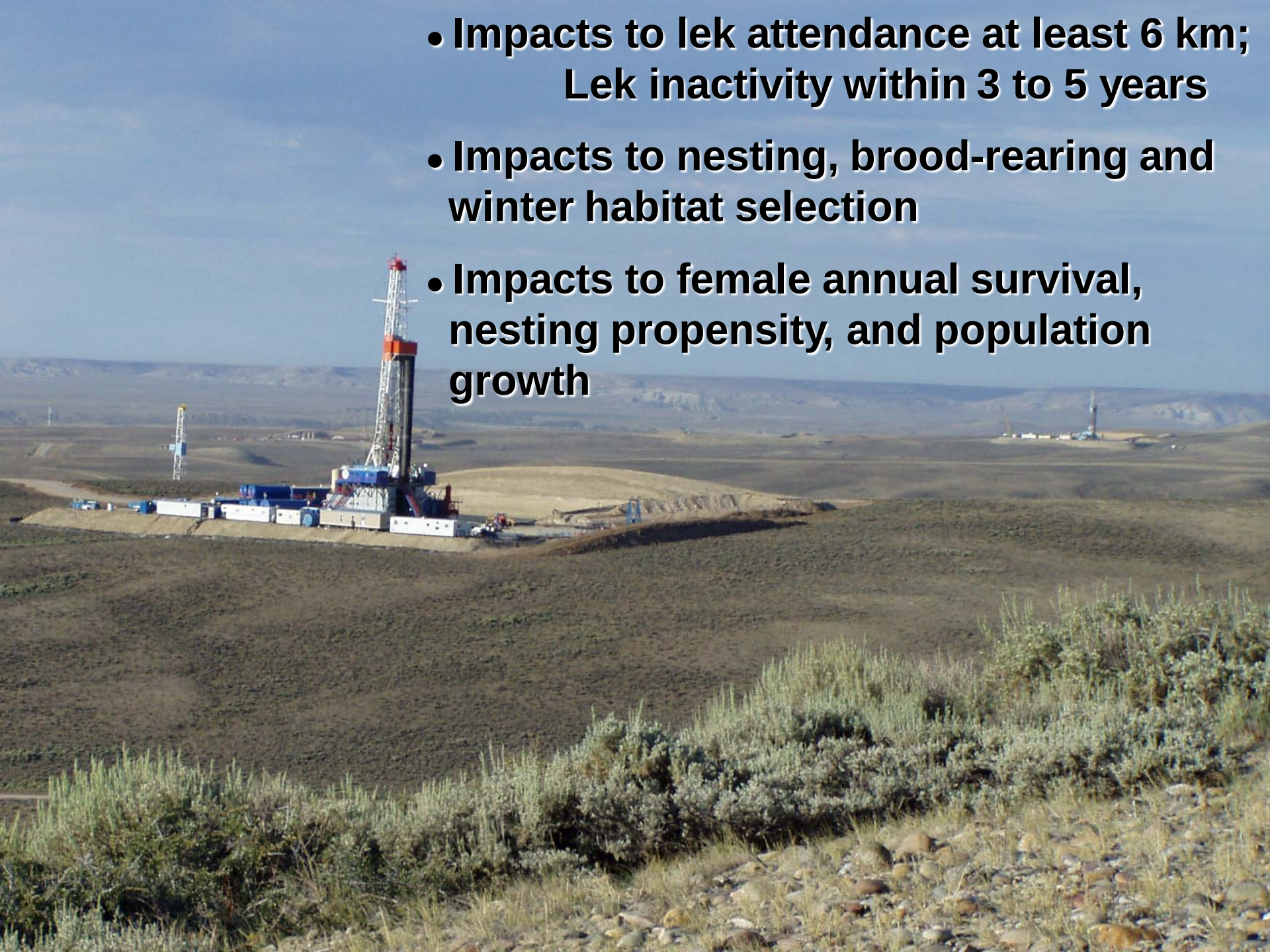
M. Gocke



- Impacts to lek attendance at least 6 km; Lek inactivity within 3 to 5 years
- Impacts to nesting, brood-rearing and winter habitat selection
- Impacts to female annual survival, nesting propensity, and population growth

Reason for Lag…?

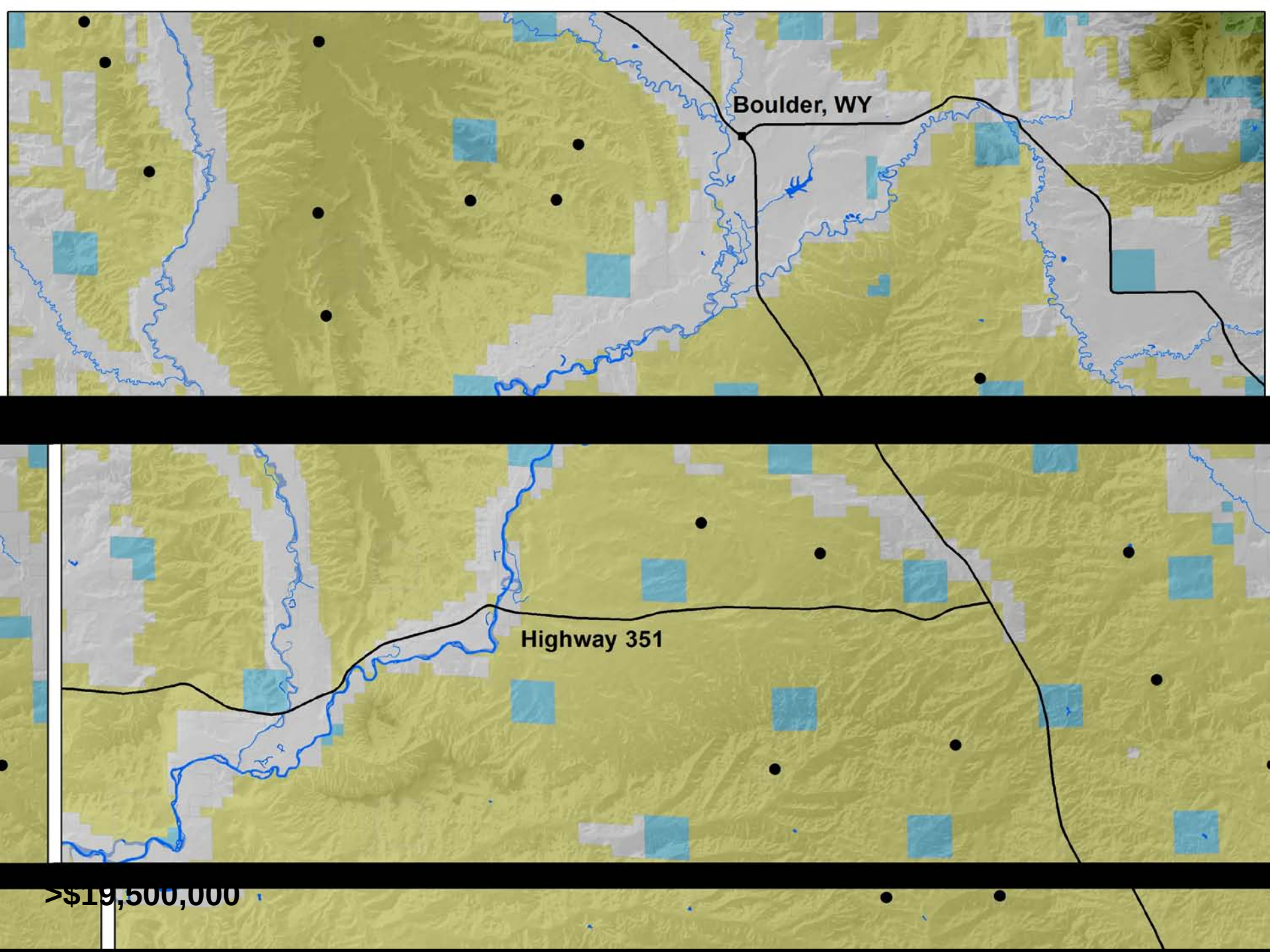
Response Similarities…

- No surface disturbance with 0.4 km of a lek;
- No activity within a 0.8-km radius of active leks between 0000 and 0900 hrs during the breeding season;
- No construction or drilling activities during the breeding season within 1.6 km of active leks;
- Restricted construction activity during the breeding and nesting seasons in suitable nesting habitat within 3.2 km of active leks;

A suitable habitat designation requires that an active nest be located during an on-site review of the proposed development area.

D. Showalter

Effectiveness of Offsite Mitigation…?


Boulder, WY
Highway 351
>$19,500,000

- **Predict long-term, population-level responses of wildlife to energy development**
- **Quantify seasonal habitat quality**
- **Assess the effectiveness of mitigation**

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Empirically-based predictive models of sage-grouse habitat selection and demographic response to infrastructure

- Time-lag
- Population Growth


Did the mitigative efforts implemented offset the impacts incurred?

T. Matsui

K. Kirk