

# Wyoming Game and Fish Department

February 2019



## RECOMMENDATIONS FOR OIL AND GAS LEASING IN THE UNGULATE DESIGNATED MIGRATION CORRIDORS

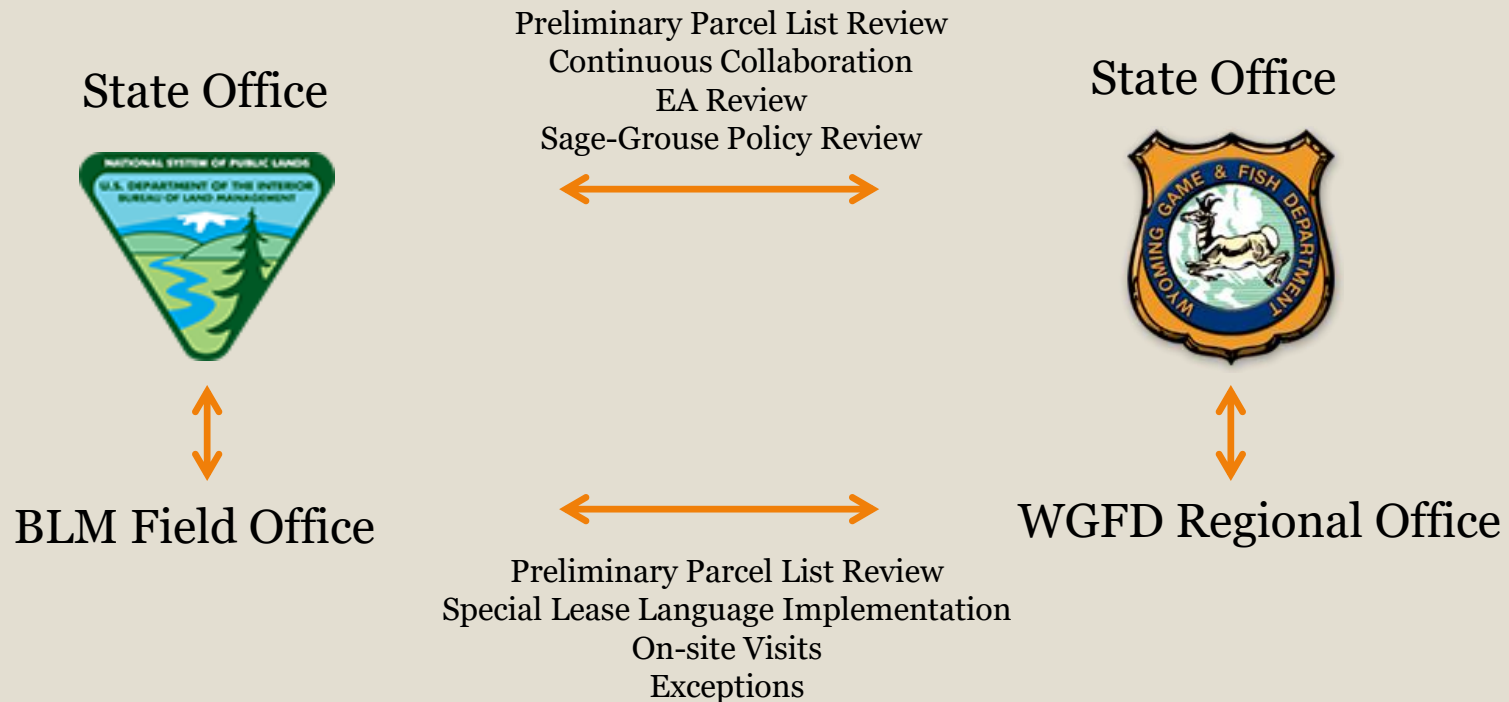


# Wyoming Game and Fish Department

## Oil and Gas Leasing in Designated Migration Corridors



### Bureau of Land Management (BLM) and Department's Collaborative Process Memorandum of Understanding



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## Oil and Gas Leasing in Designated Migration Corridors



- Strategy for Recommendations
  - ✦ Reviewed each parcel on a case-by-case basis
  - ✦ Reviewed and applied the best available science
  - ✦ Goal is not to limit the lease of parcels. Rather it is to limit infrastructure development in the migration corridor.

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## Oil and Gas Leasing in Designated Migration Corridors



- Reviewed the best science available
  - Coalbed Methane Wells
    - A framework for Understanding Semi-permeable Barrier effects on Migratory Ungulates, H. Sawyer, et. al., 2013. Journal of Applied Ecology
      - Found that given an increase in disturbance, ungulates may modify the timing of migration, constrict the size of the area used for migration and move through areas of increased development faster
  - Deep Gas Wells
    - Unpublished research in the Pinedale Anticline (2003-2007) by H. Sawyer reported mule deer expected levels of use given availability of winter habitat significantly declined with the construction of 1 pad/mile<sup>2</sup> and negative trends continued over the 5 year period with densities varying from 1 to 14 pads/mile<sup>2</sup>

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- The Department is currently working with the University of Wyoming and WEST, Inc. to review 17 years of data in the Pinedale Anticline, to determine if a migration corridor disturbance threshold could be established.
- If a scientific based threshold can be developed, we will use this in our future recommendations to land management agencies.

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## Oil and Gas Leasing in Designated Migration Corridors



- Lease Parcel Review Process

- Step 1

- ✦ The Department's field personnel review the preliminary lease parcels

- Step 2

- ✦ The Department's state office reviews the preliminary lease parcels and provides recommendations based on the following analysis:
  - If the parcel (or one part of the parcel) is 90% or greater in the corridor, it is recommended for deferral.
  - If the parcel (or one part of the parcel) includes vital stopover habitat, it is recommended for deferral.

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### ○ Step 2 continued

- The parcel space outside the corridor is analyzed for other limiting land use restrictions. If additional restrictions limit the space available for infrastructure, the parcel (or one part of the parcel) is recommended for deferral.
- For all remaining parcels that intersect a designated migration corridor, a specific Special Lease Notice for designated migration corridors is recommended.

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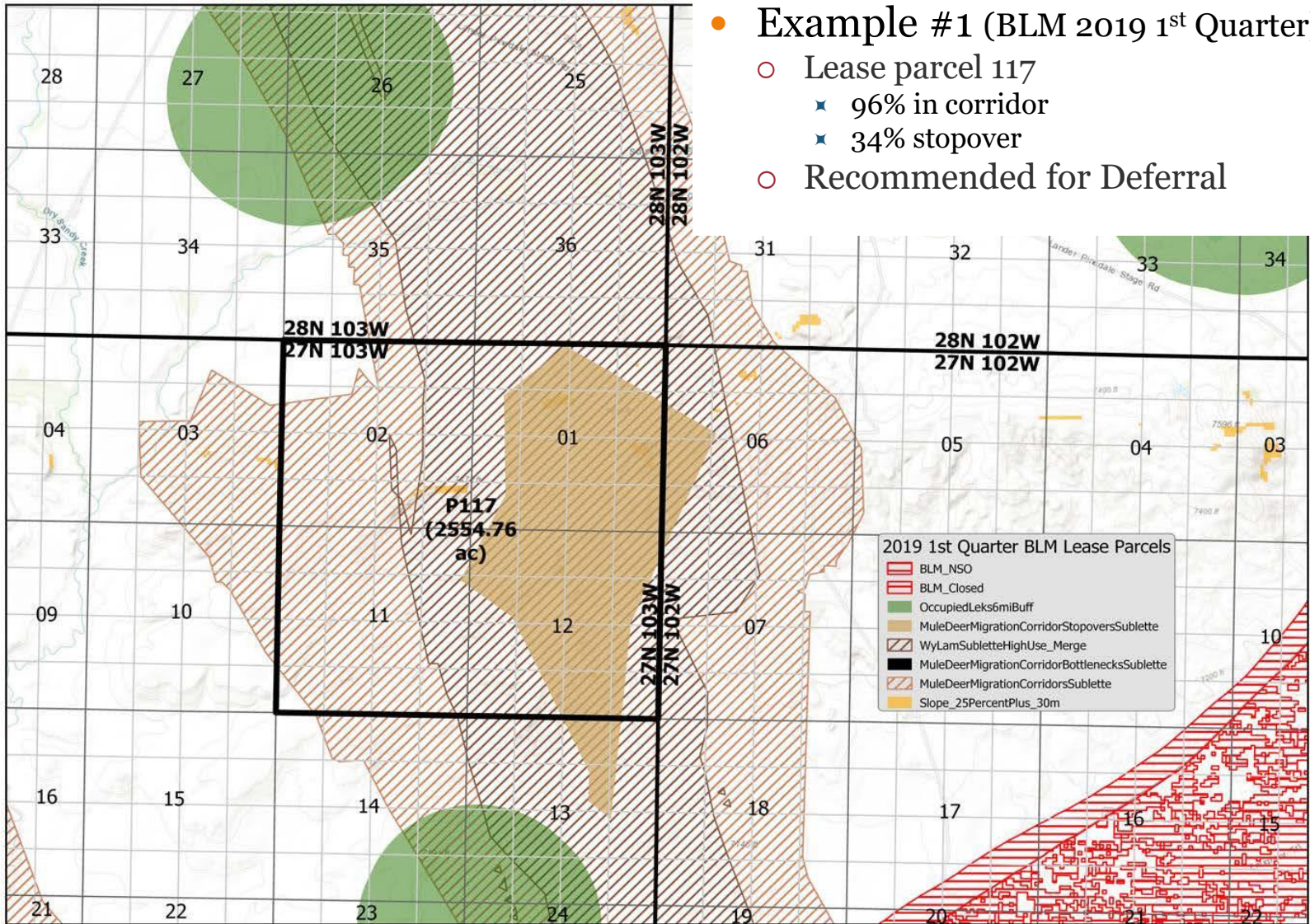


- Step 3

- Implementation of the Special Lease Notice

- ✦ If the lessee applies for an Application for Permit to Drill the Department's field personnel work with the BLM field office staff and the proponent to provide an on-site analysis.
- ✦ The goal of the analysis is to site development infrastructure outside the vital migration corridor habitat and avoid bottlenecks, stopovers and high use areas.

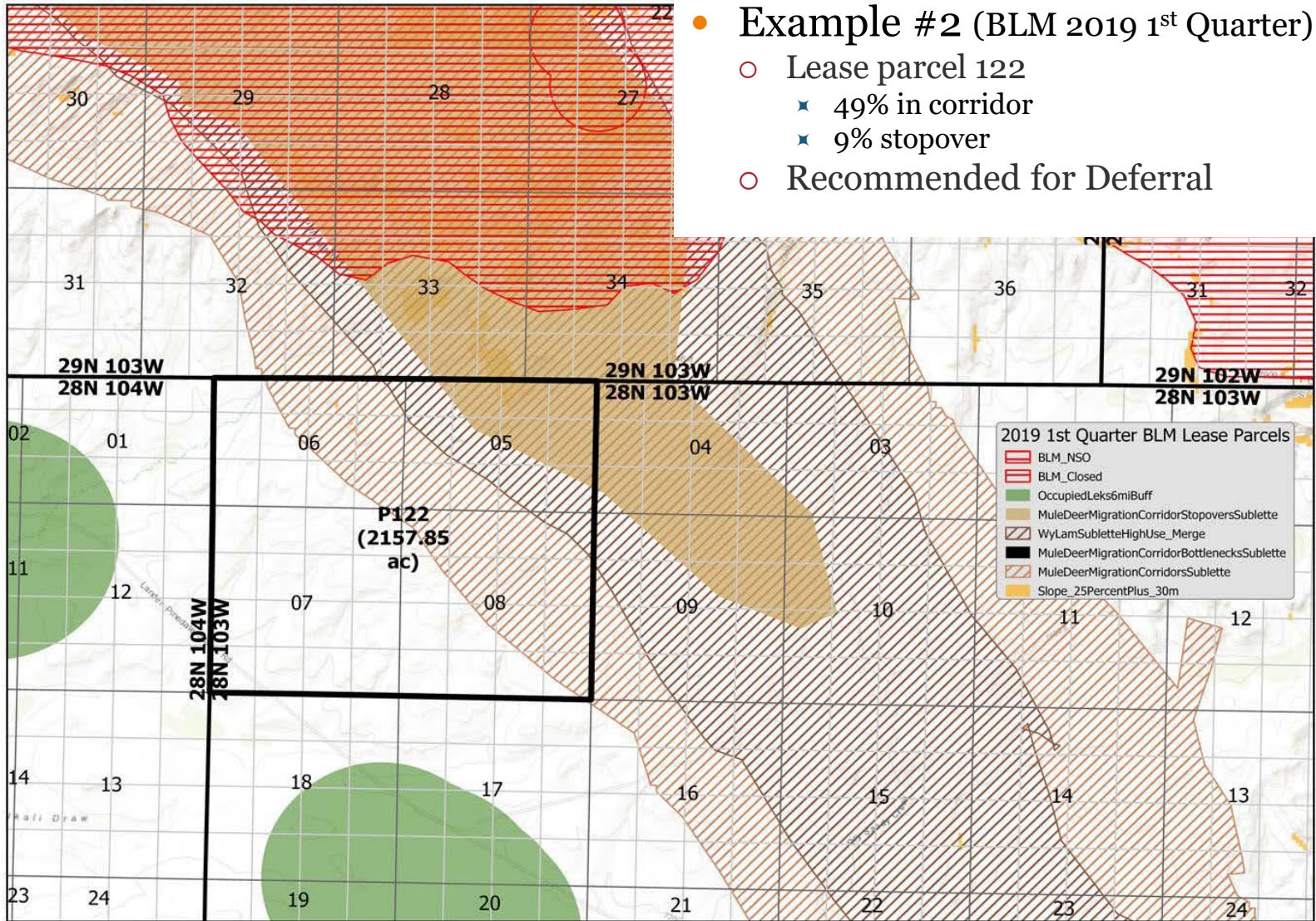




● Example #1 (BLM 2019 1<sup>st</sup> Quarter)

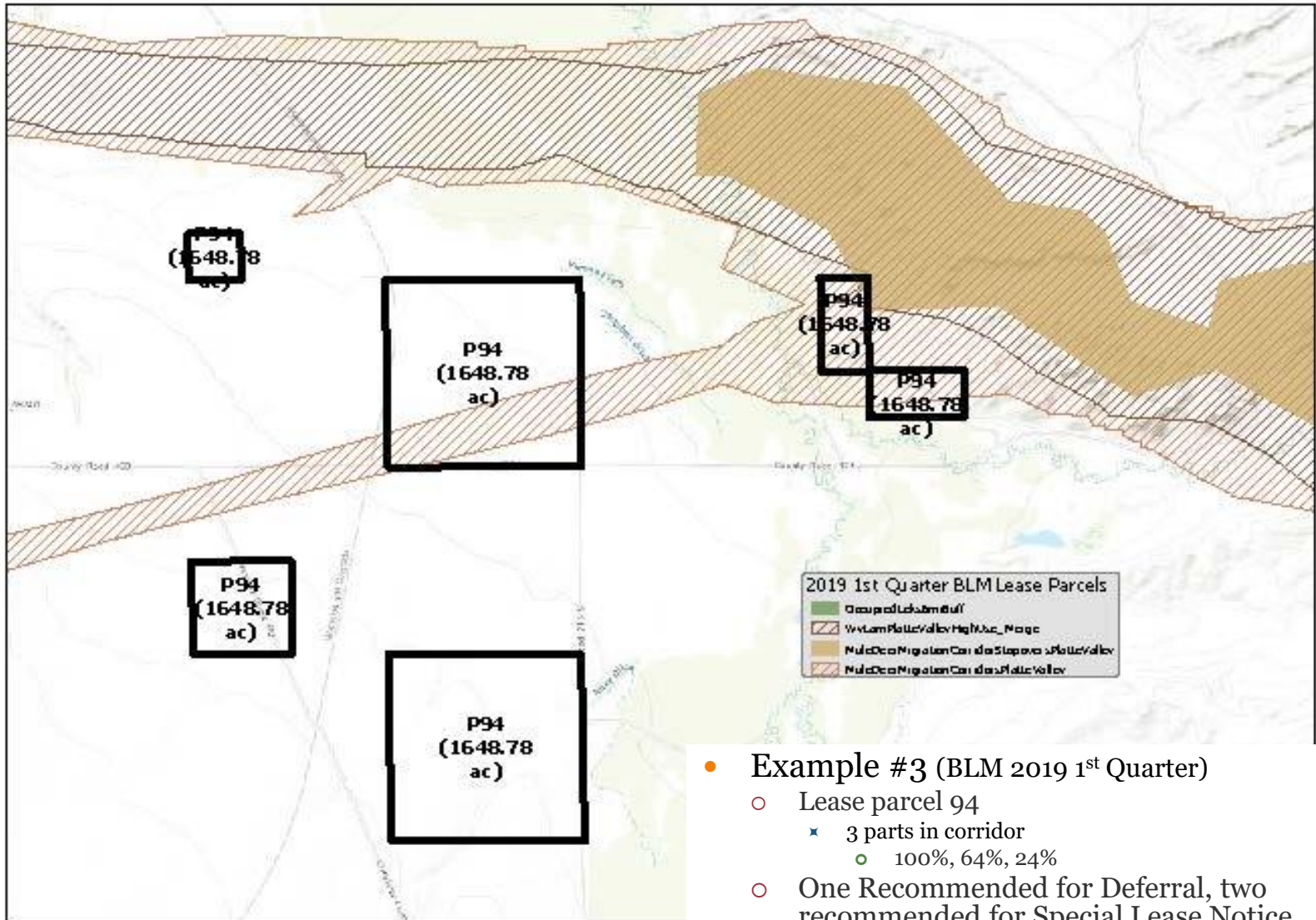
- Lease parcel 117
  - ★ 96% in corridor
  - ★ 34% stopover
- Recommended for Deferral





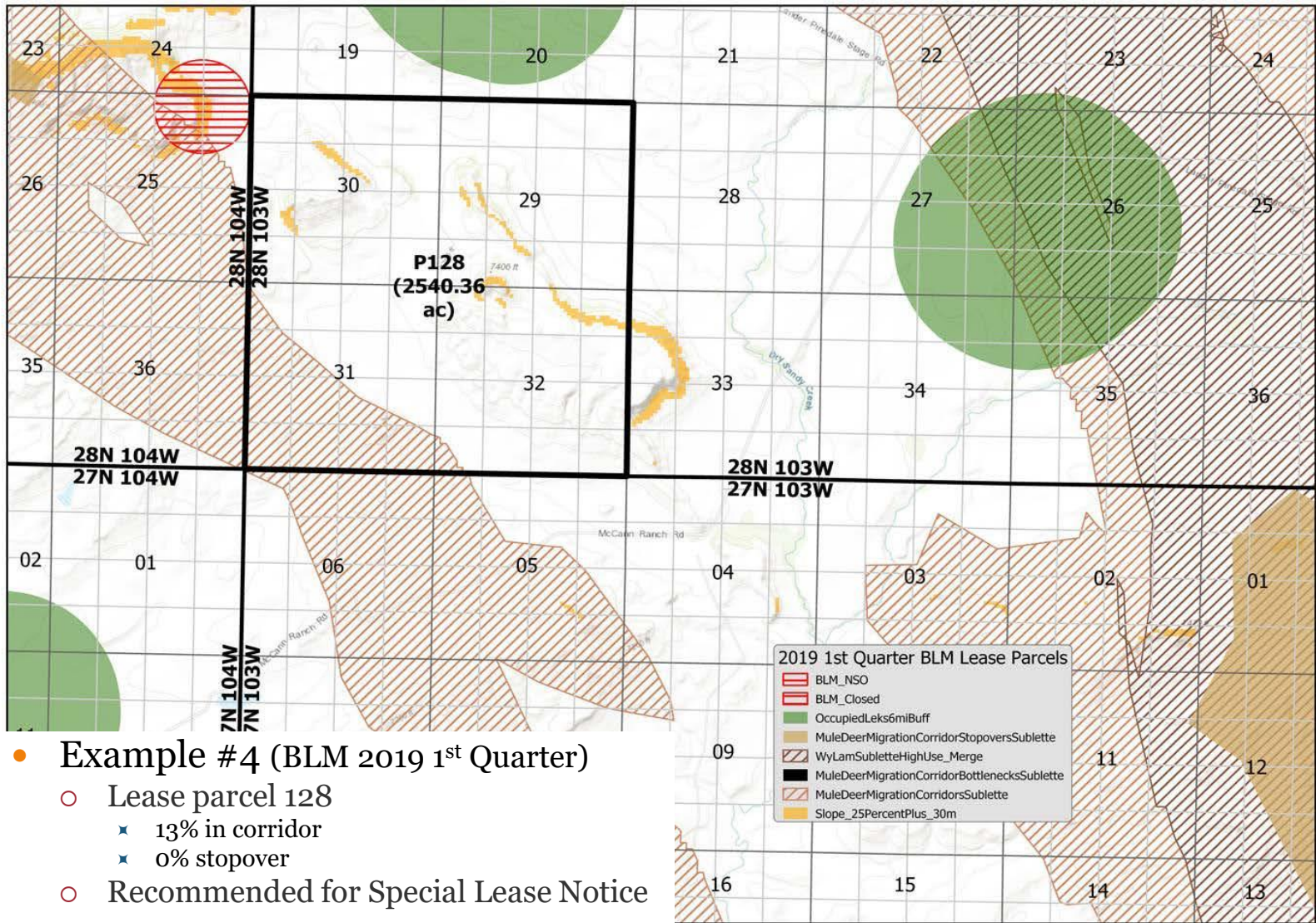
- Example #2 (BLM 2019 1<sup>st</sup> Quarter)

- Lease parcel 122
  - ✦ 49% in corridor
  - ✦ 9% stopover
- Recommended for Deferral



- Example #3 (BLM 2019 1<sup>st</sup> Quarter)
  - Lease parcel 94
    - ✦ 3 parts in corridor
      - 100%, 64%, 24%
  - One Recommended for Deferral, two recommended for Special Lease Notice





- Example #4 (BLM 2019 1<sup>st</sup> Quarter)
  - Lease parcel 128
    - ✦ 13% in corridor
    - ✦ 0% stopover
  - Recommended for Special Lease Notice

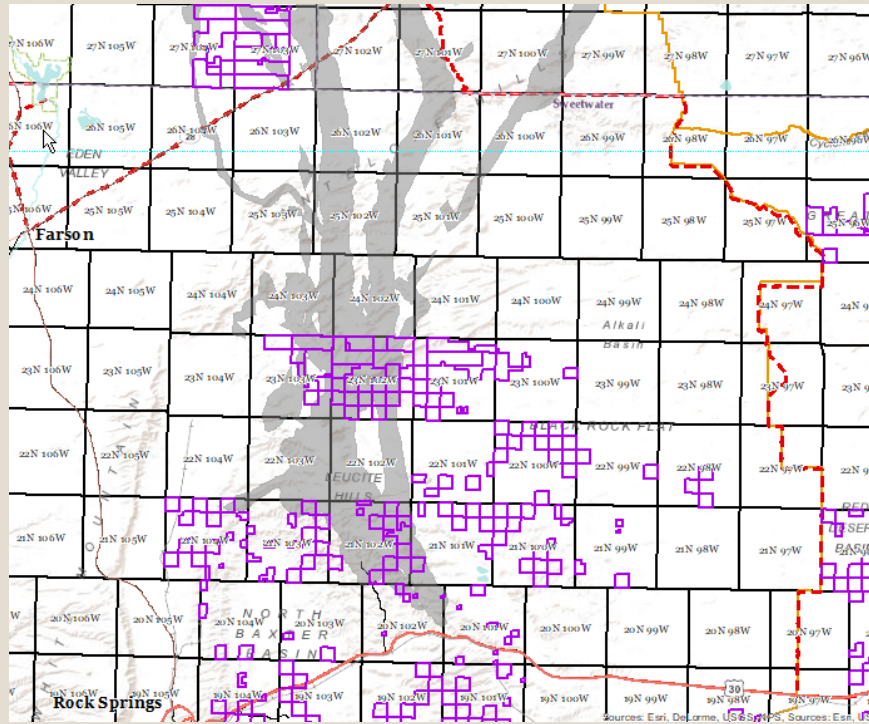
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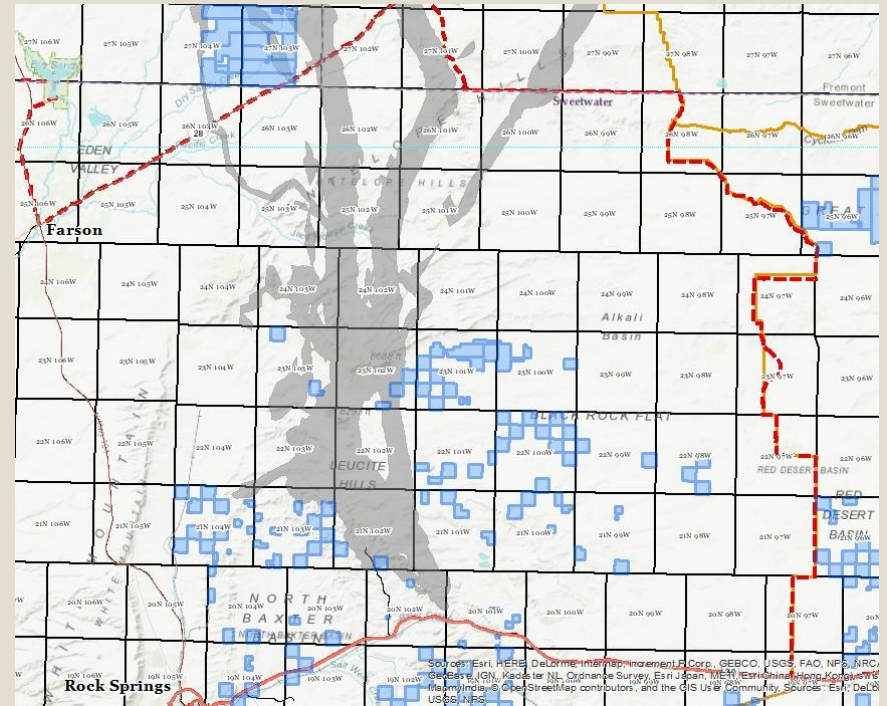


### Map of 2018, 4<sup>th</sup> Quarter Lease Sales (Feb. sale) Sublette Mule Deer Migration Corridor

#### Preliminary Lease Parcels



#### Recommendations Applied Lease Parcels



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### Summary of Recommendations

| Year        | Sale                                  | Designated Migration Corridor | Defer all of Lease | Defer Part of Lease | Total Defer | Total Leases in Corridor |
|-------------|---------------------------------------|-------------------------------|--------------------|---------------------|-------------|--------------------------|
| <b>2018</b> | 4 <sup>th</sup> Quarter<br>(Feb Sale) |                               |                    |                     |             |                          |
|             |                                       | Sublette                      | 4                  | 6                   | 10          | 26                       |
|             |                                       | Baggs                         | 16                 | 3                   | 19          | 30                       |
|             |                                       | Total                         | 20                 | 9                   | <b>29</b>   | 56                       |
| <b>2019</b> | 1 <sup>st</sup> Quarter               |                               |                    |                     |             |                          |
|             |                                       | Sublette                      | 6                  | 1                   | 7           | 20                       |
|             |                                       | Platte Valley                 | 0                  | 1                   | 1           | 1                        |
|             |                                       | Total                         | 6                  | 2                   | <b>8</b>    | 21                       |



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## Oil and Gas Leasing in Designated Migration Corridors



- Review how the Strategy was applied to the Office of State Lands and Investments' (OSLI) Oil and Gas Lease Parcel Sale
  - Used the best science available to review each parcel on a case-by-case basis.
  - OSLI developed a new stipulation (#146) to be applied to all lease parcels in designated ungulate migration corridors.

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## Oil and Gas Leasing in Designated Migration Corridors



- Next Steps

- Collaborating with BLM to complete Resource Management Plan amendments to address the Department's designated migration corridors.
- Provide guidance to BLM and Department staff and proponents on the application of the Special Lease Notice language at the Application for Permit to Drill stage.



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