



Greater Sage-grouse Status Review

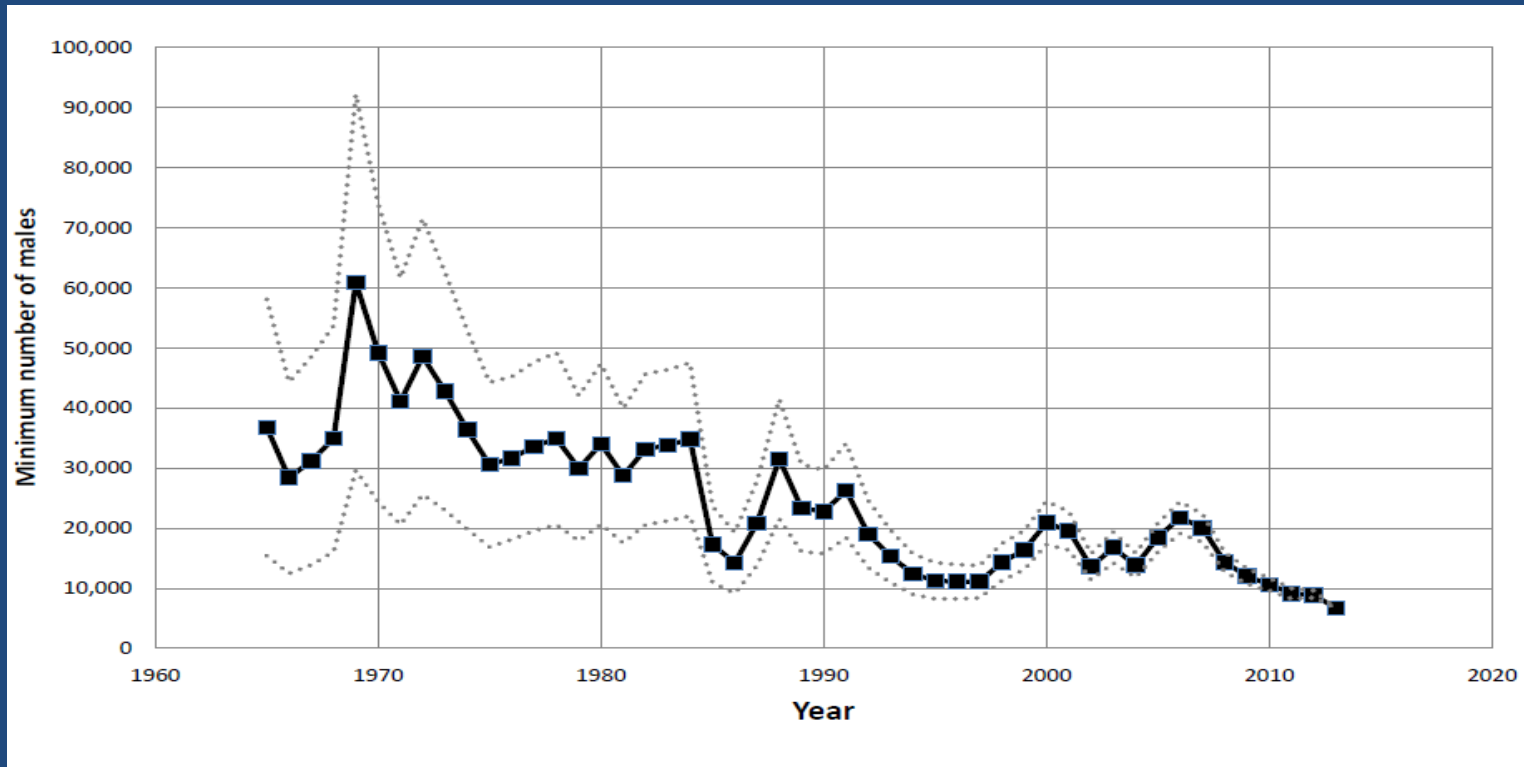
Cumulative Effects – MZ I

Management Zone I

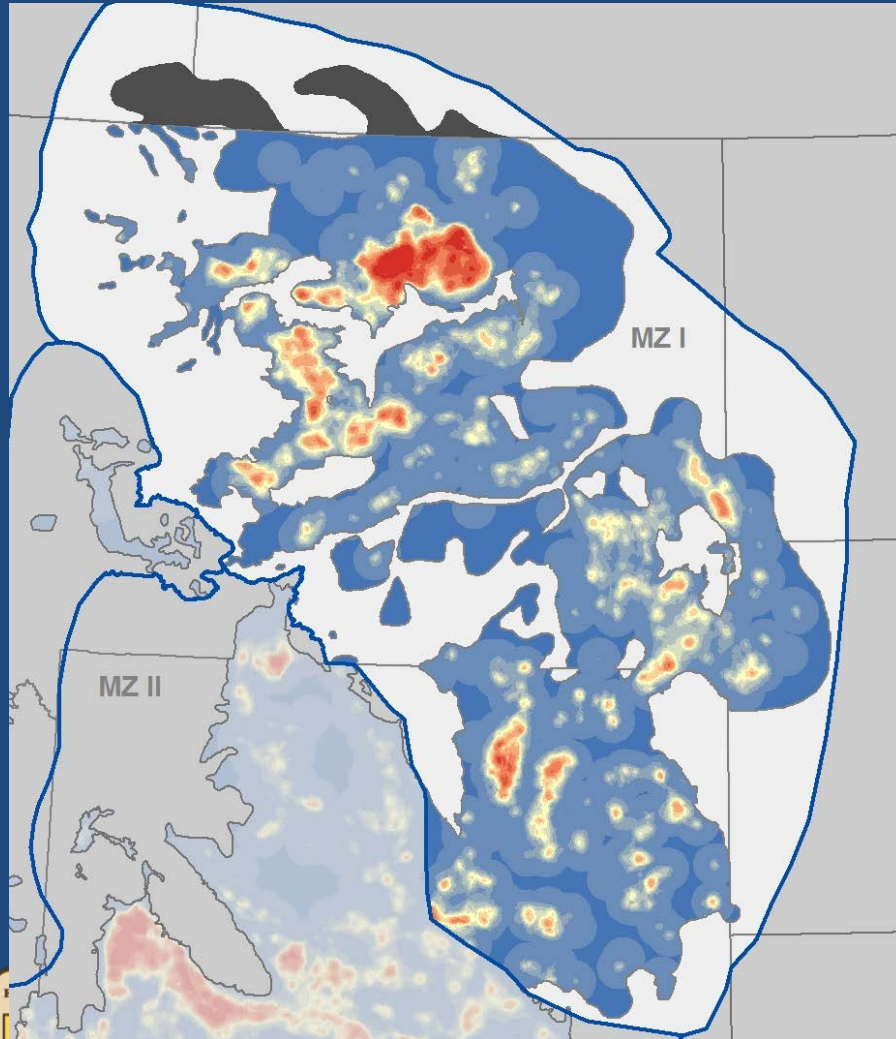
Land Ownership: Primarily Private (63% / 57%) and BLM (27% / 33%)

Relative Percent of Population Index: 12.7%

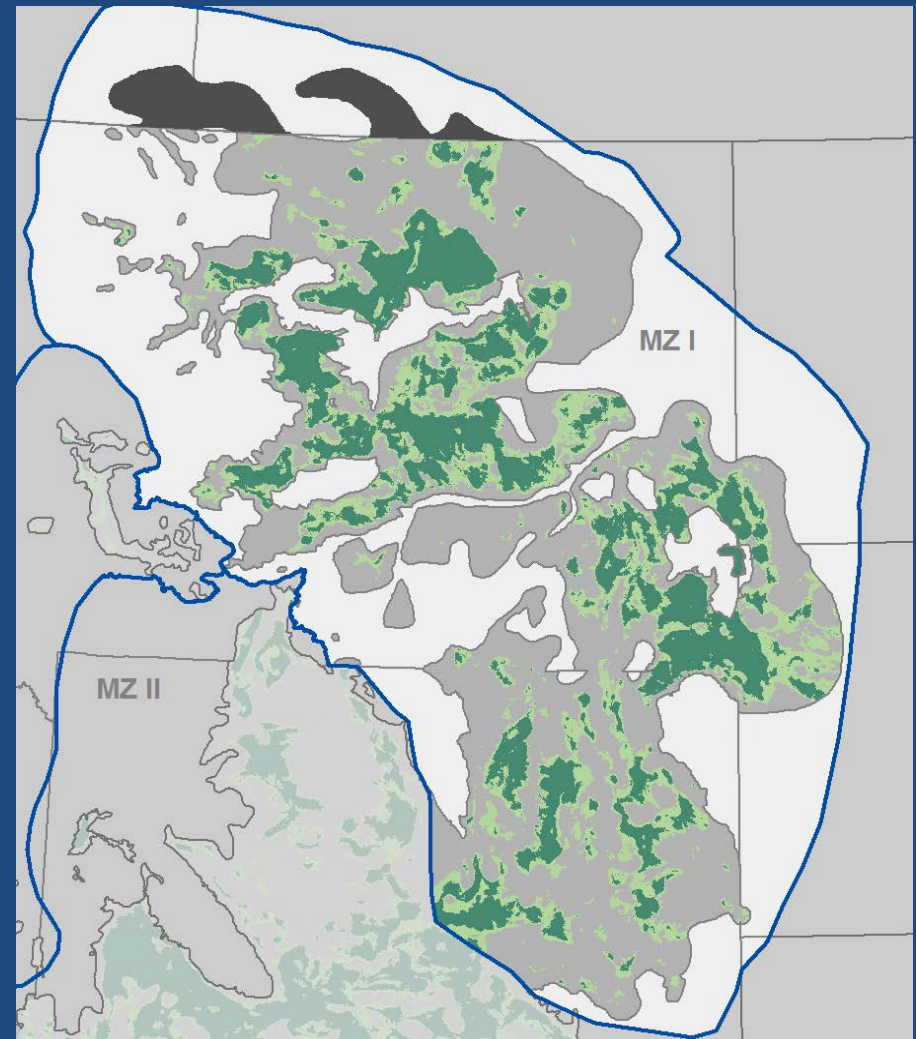
Population Trend: Long-term decline



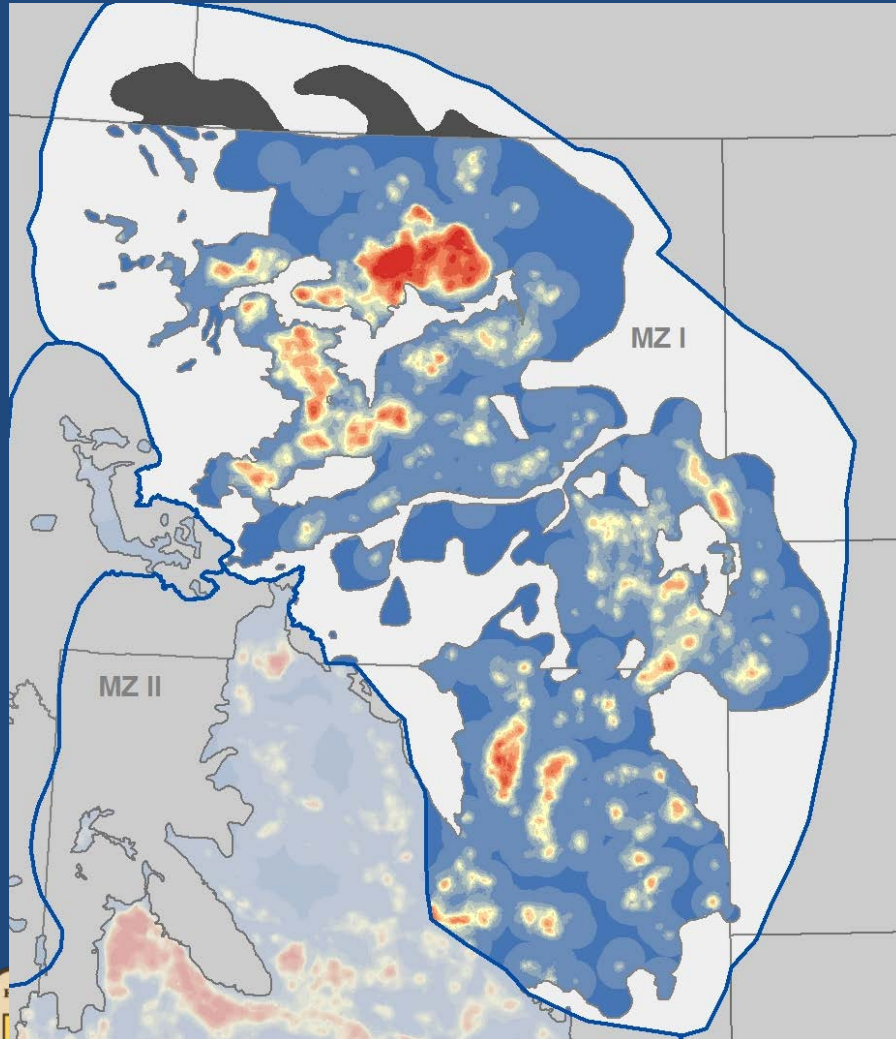
Population Index



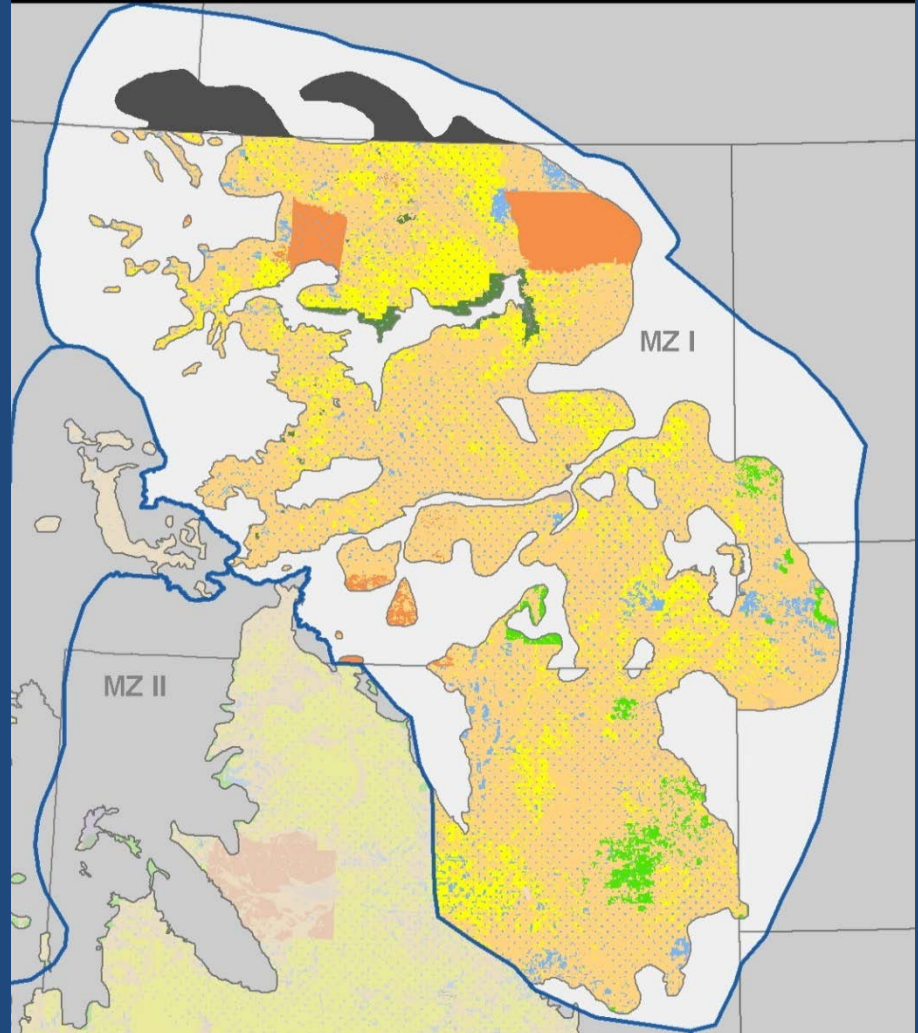
Breeding Habitat Distribution



Population Index



Land Ownership



Impacts in MZ I

Primary Impacts:

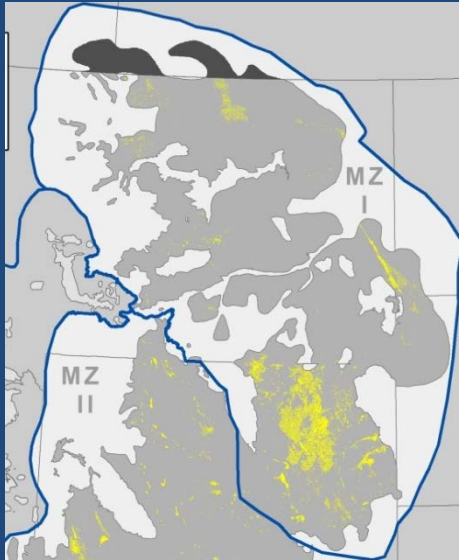
- Agricultural Conversion
- Oil and Gas Development

Other Impacts:

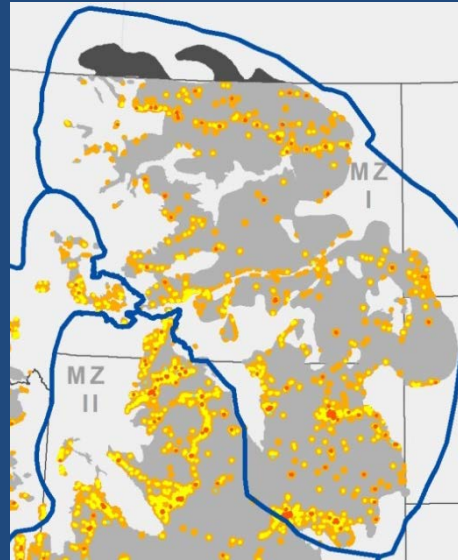
- Infrastructure
- Ex-Urban Development
- Mining
- Renewable Energy
- West Nile Virus
- Small Populations



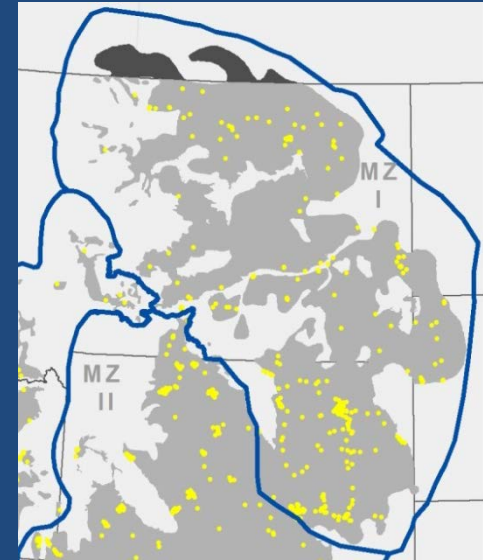
Management Zone I



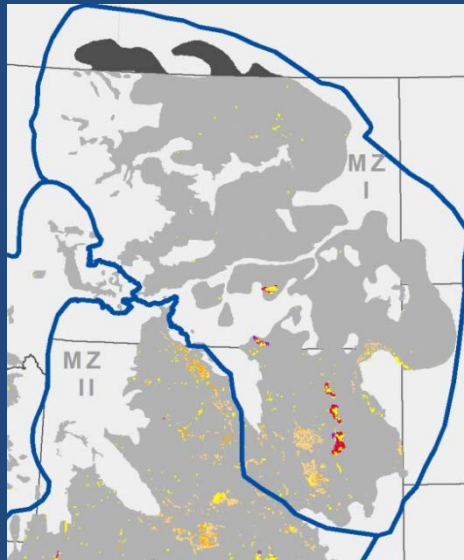
Oil & Gas



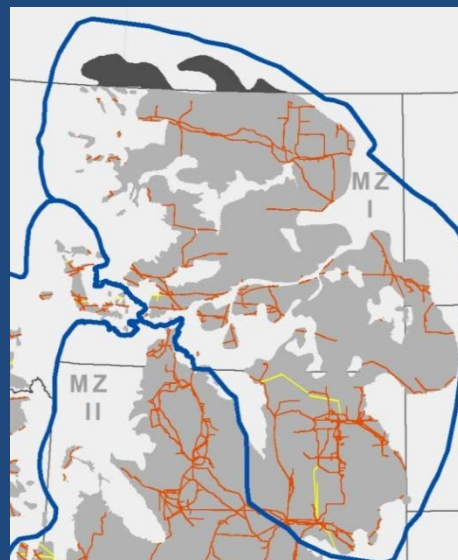
Urban & Ex-Urban



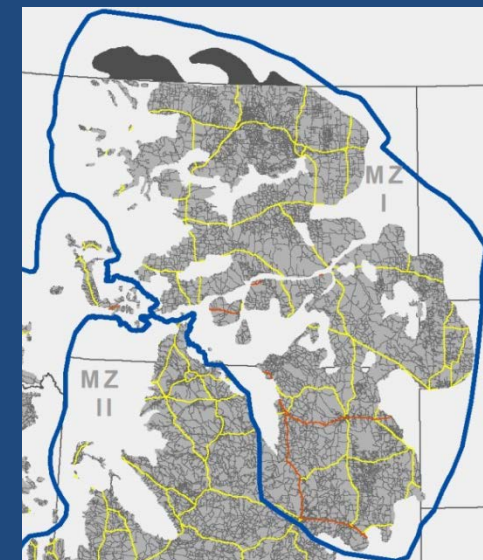
Vertical Towers



Mining



Power Lines



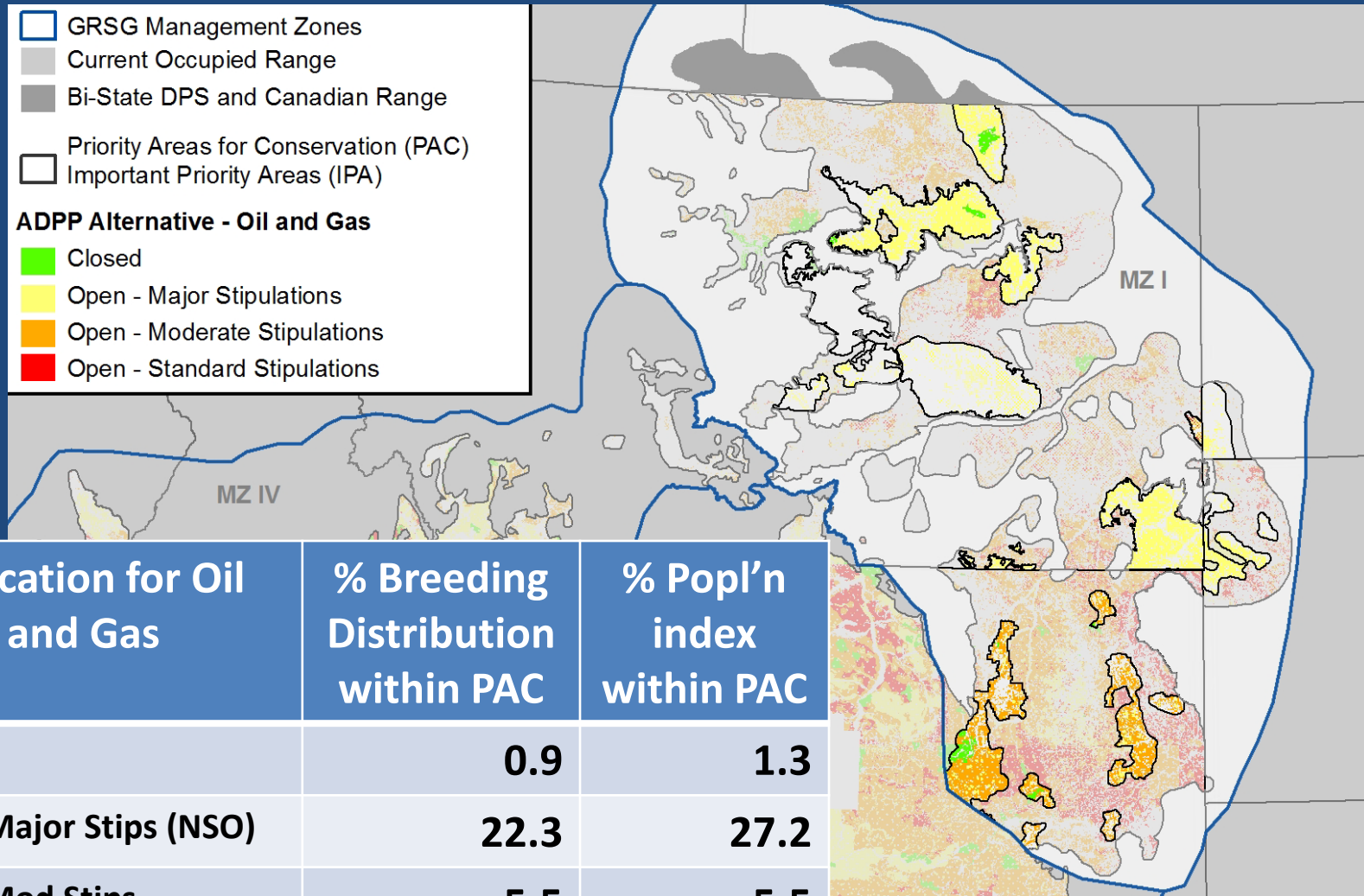
Roads

Regulatory Mechanisms

- Federal Land Use Plans in MZ I restrict oil & gas development at various levels in Priority Habitats.
- Wyoming Core Area Strategy minimizes disturbance through density limitations and disturbance caps.
- Only Wyoming Core Area Strategy applies to private lands.



Oil & Gas Land Use Allocations



Allocation for Oil and Gas	% Breeding Distribution within PAC	% Popl'n index within PAC
Closed	0.9	1.3
Open: Major Stips (NSO)	22.3	27.2
Open: Mod Stips	5.5	5.5
Open: Standard Stips	0.0	0.1

Management Zone I

Conservation Efforts

- Through Conservation Efforts Database and the NRCS, conservation partners reported ~374,000 acres of easements in MZ I and >1.3 million acres in improved grazing systems



MZ I - Summary

- Primary impacts in MZ I are agriculture conversion and energy development; conservation efforts have largely addressed the potential risk of agriculture conversion.
- Pending Executive Order in Montana may provide additional conservation certainty.
- Wyoming Executive Order currently undergoing revisions.



MZ I - Summary

- West Nile Virus has played a role in the decline and loss of leks in South Dakota (suspected in North Dakota).
- Oil & Gas development contributed to habitat loss and fragmentation in North Dakota
- Improper grazing and oil & gas development has contributed to severe decline in Canadian portion of the range.



MZ I - Questions



HEY GANG!





Greater Sage-grouse Status Review

Cumulative Effects – MZ II & VII

Management Zone II & VII

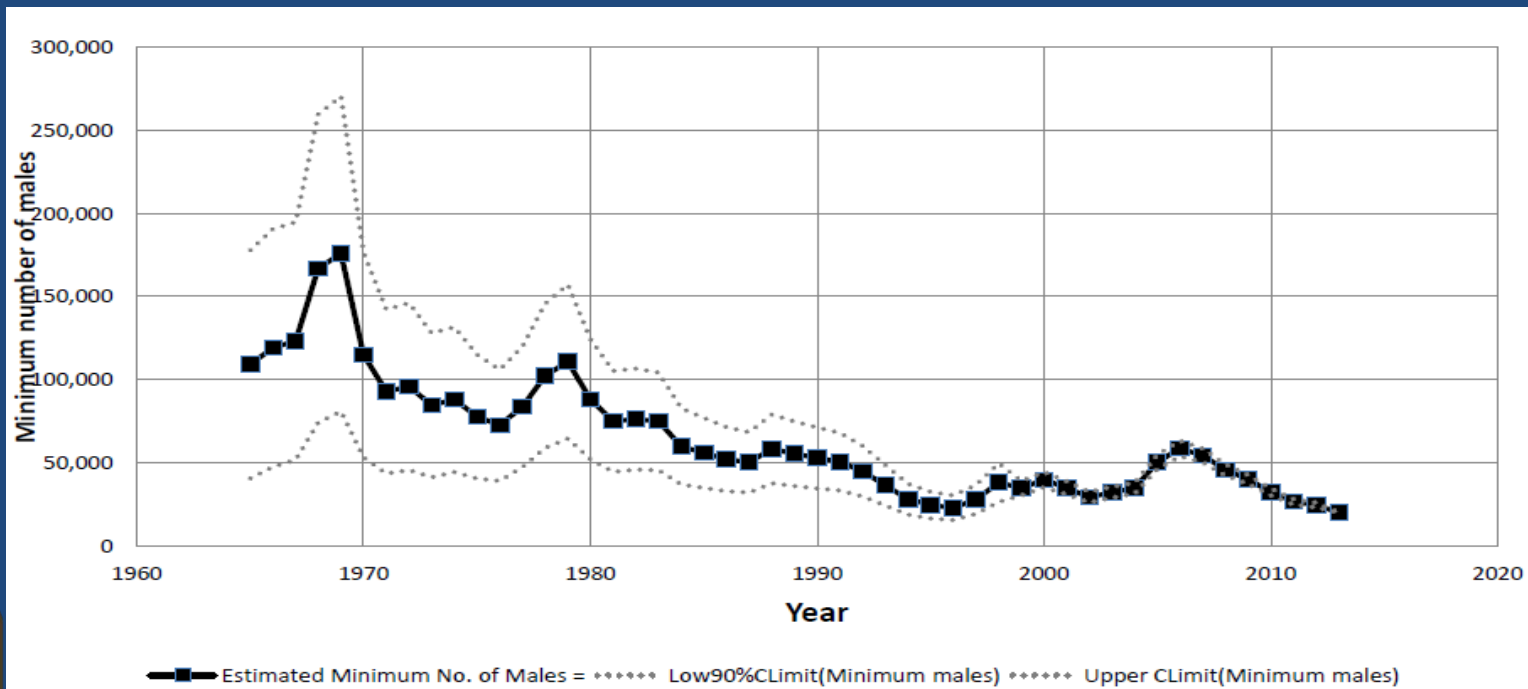
Land Ownership:

MZ II Primarily BLM (58% / 58%) and Private (34% / 33%)

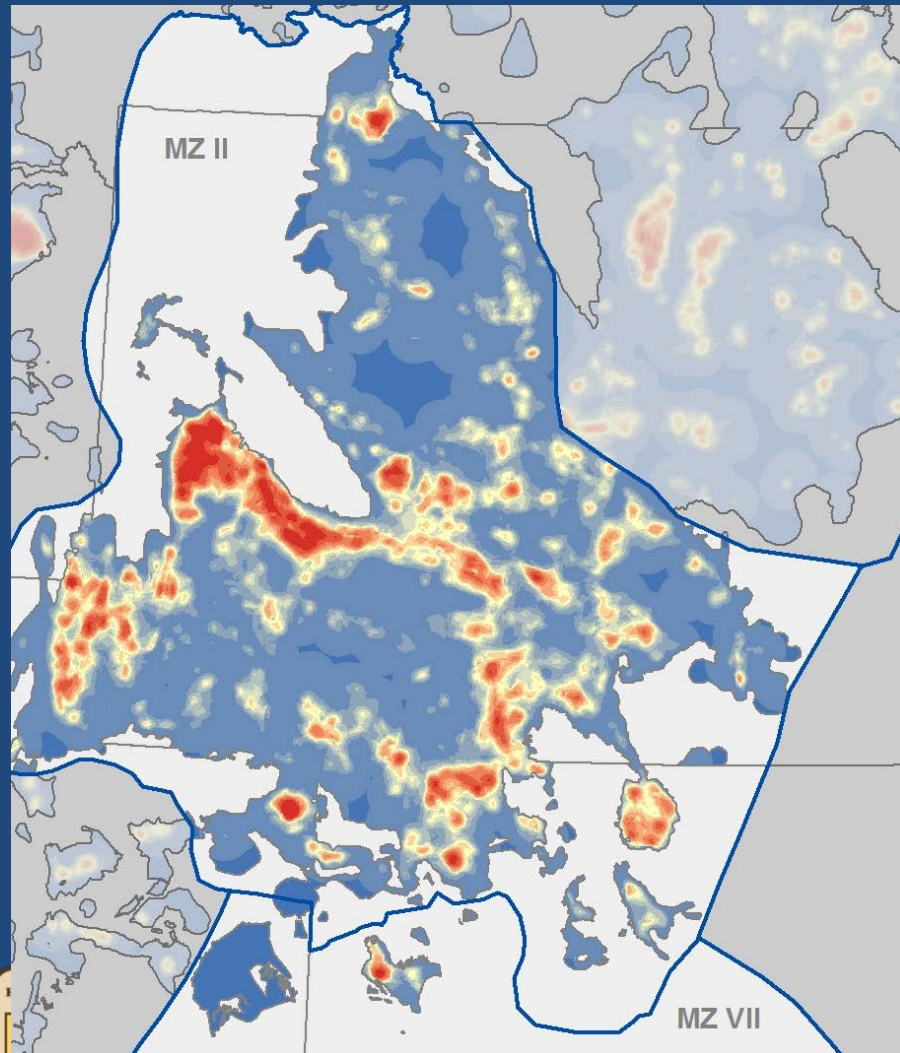
MZ VII Primarily Private (68% / 77%) and BLM (18% / 21%)

Relative Percent of Population Index: 37.5%

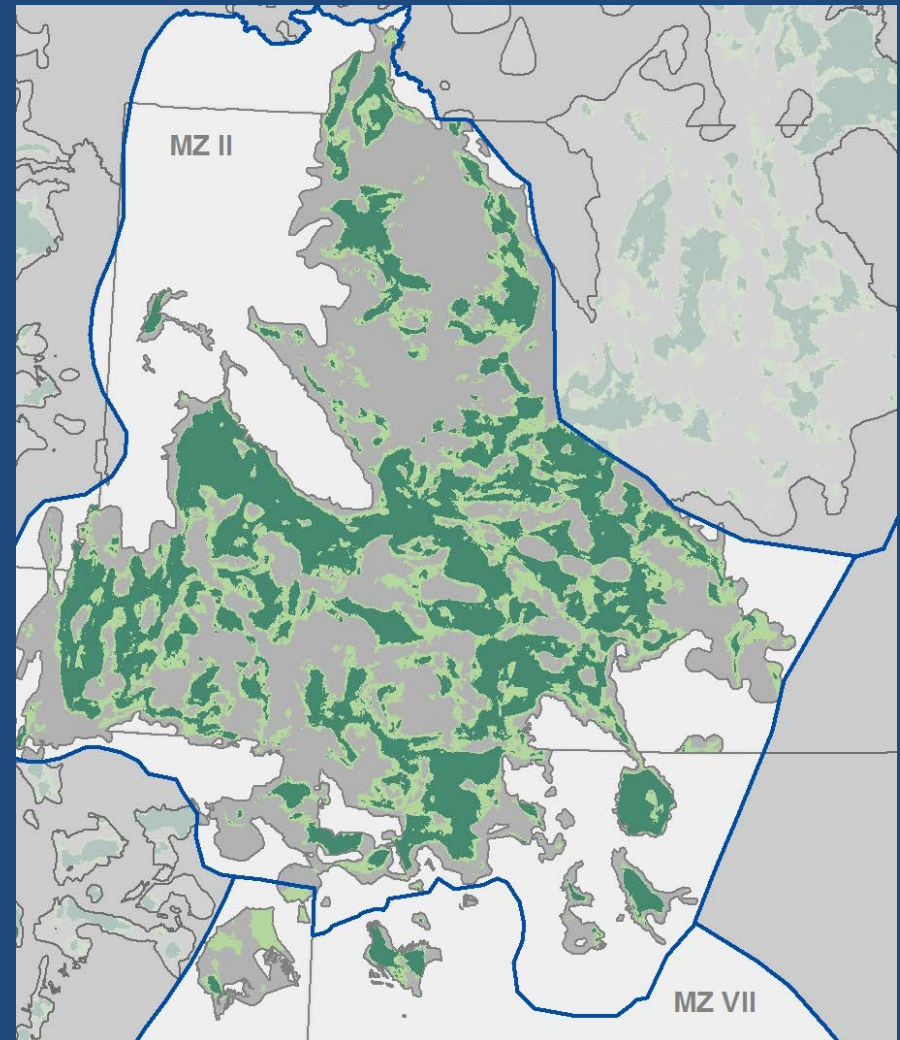
Population Trend: Long-term decline



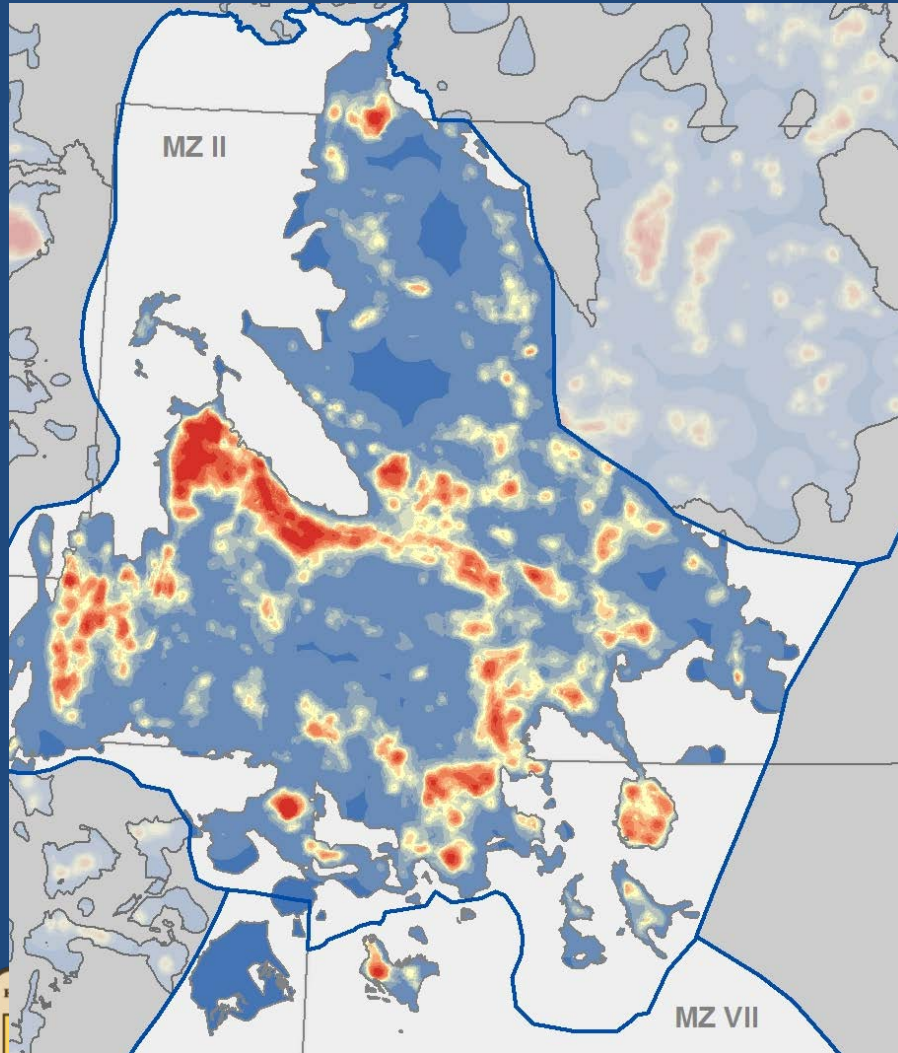
Population Index



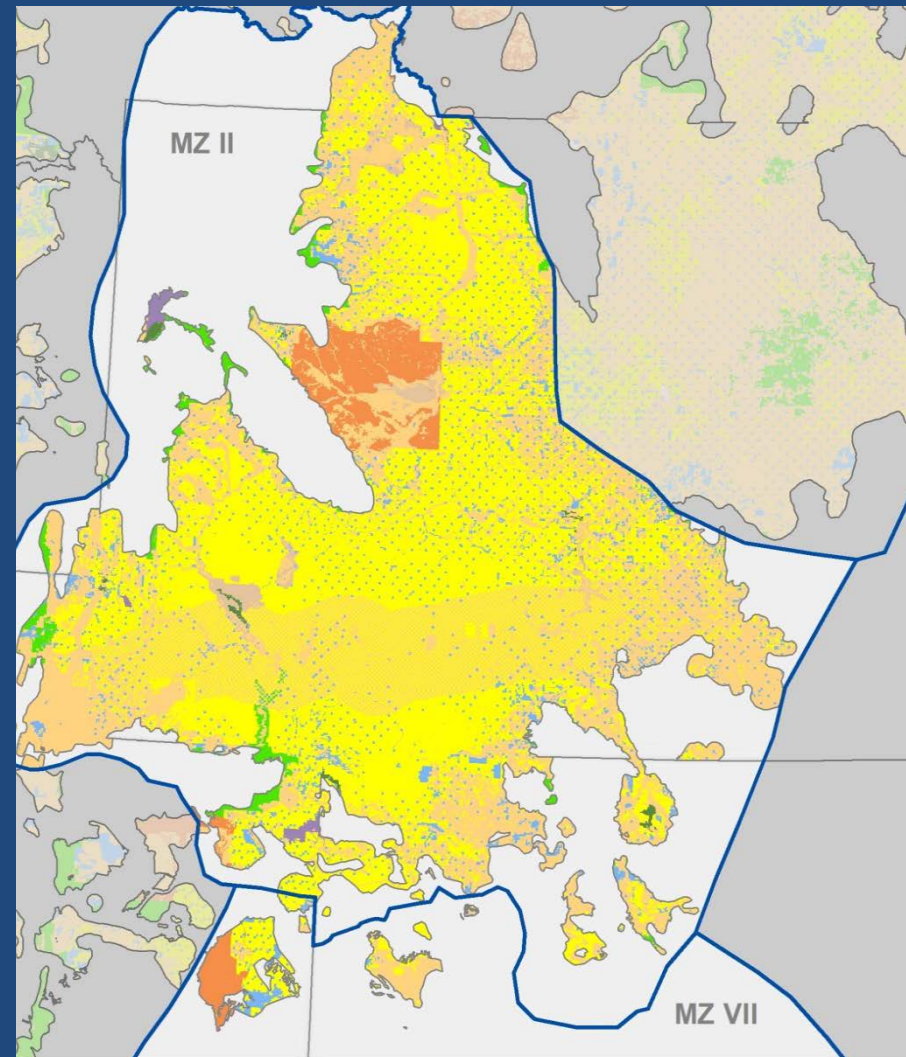
Breeding Habitat Distribution



Population Index



Land Ownership



Management Zone II & VII

Primary Impacts:

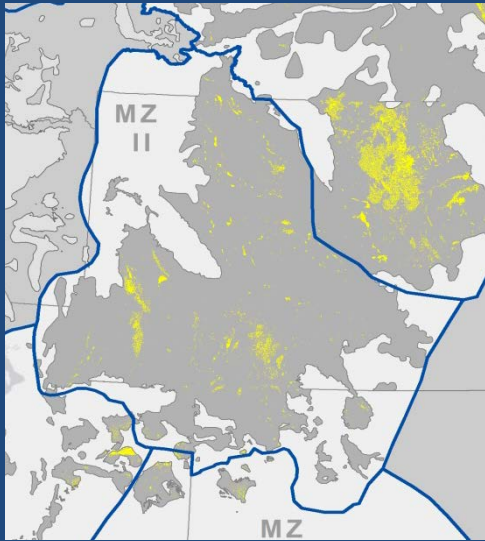
- Oil and Gas Development
- Infrastructure

Other Impacts:

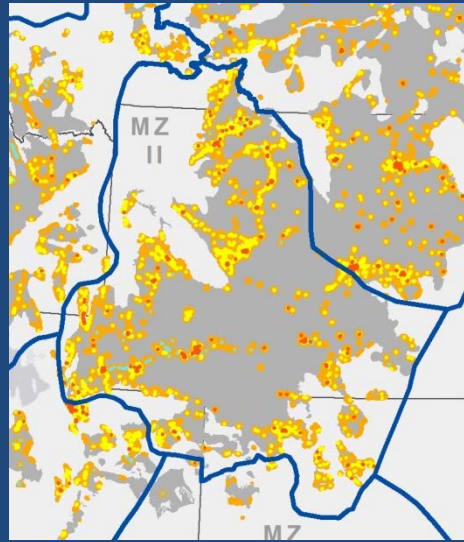
- Renewable Energy
- Invasives
- Mining
- West Nile Virus
- Grazing and Wild Horses
- Predators (synergistically)



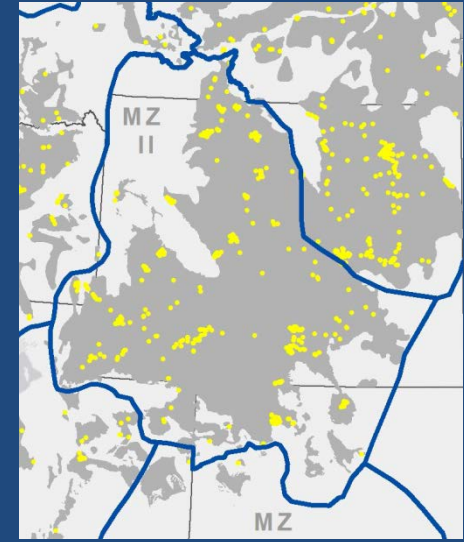
Management Zones II & VII



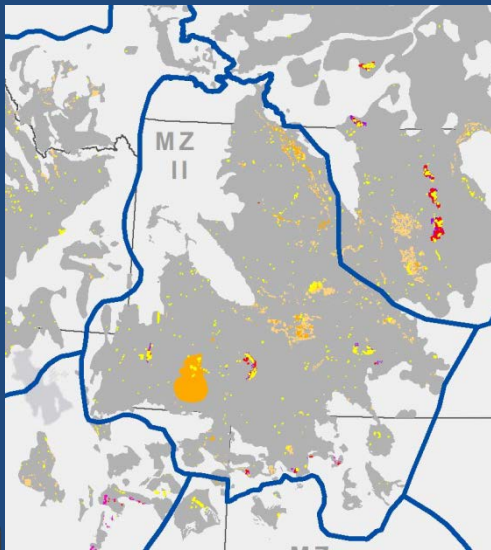
Oil & Gas



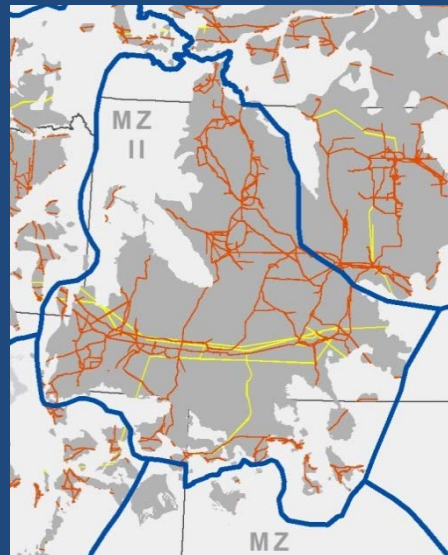
Urban & Ex-Urban



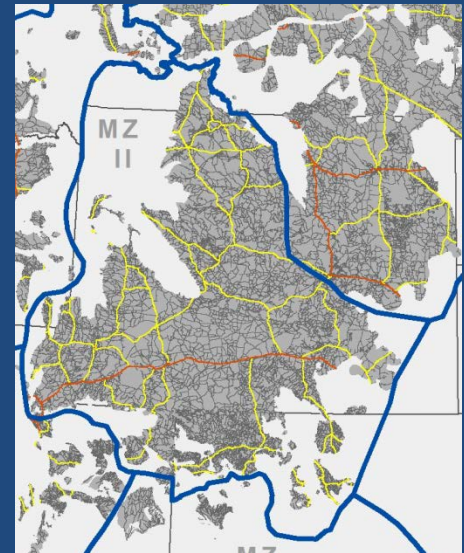
Vertical Towers



Mining



Power Lines



Roads

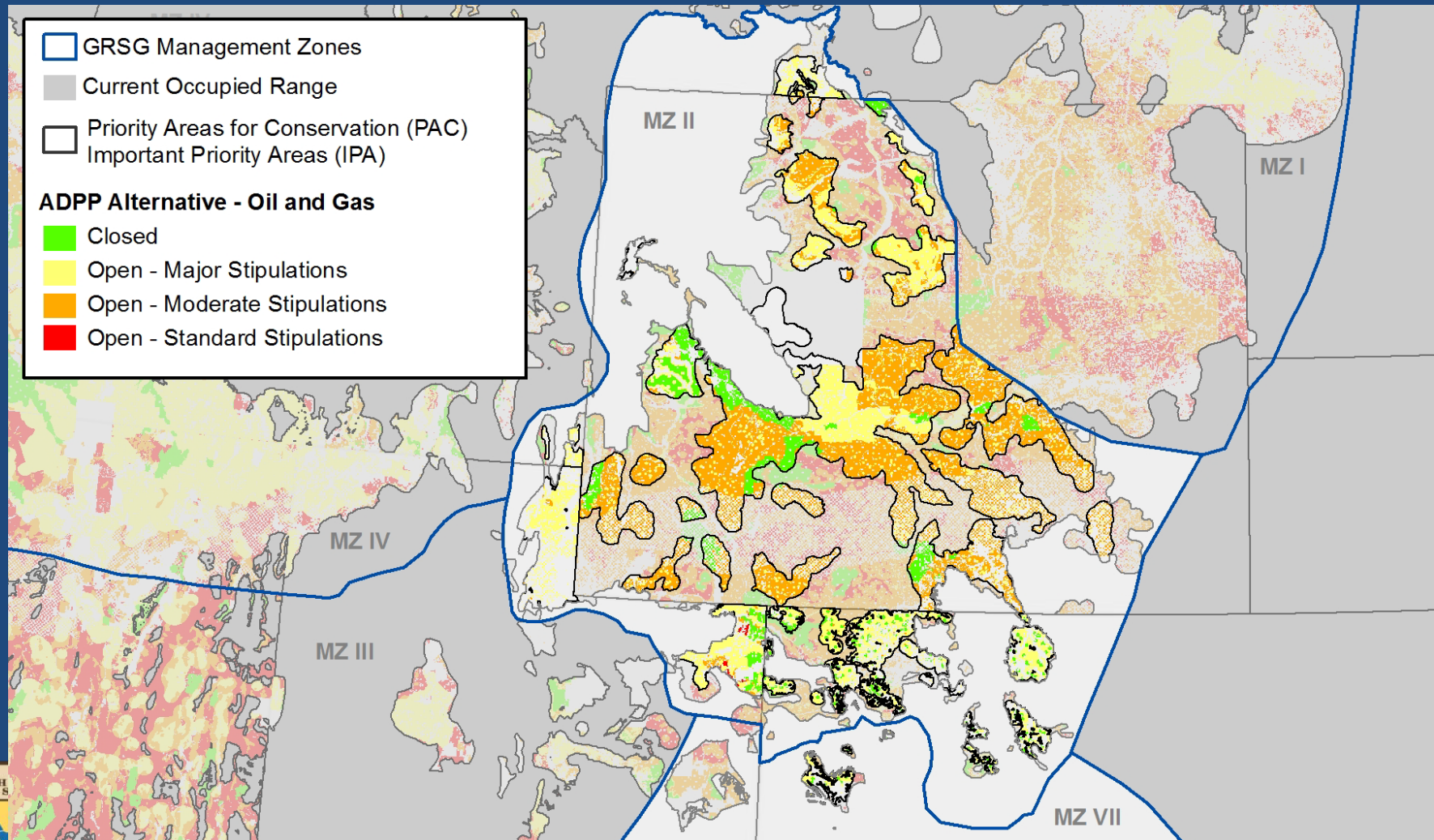


Regulatory Mechanisms

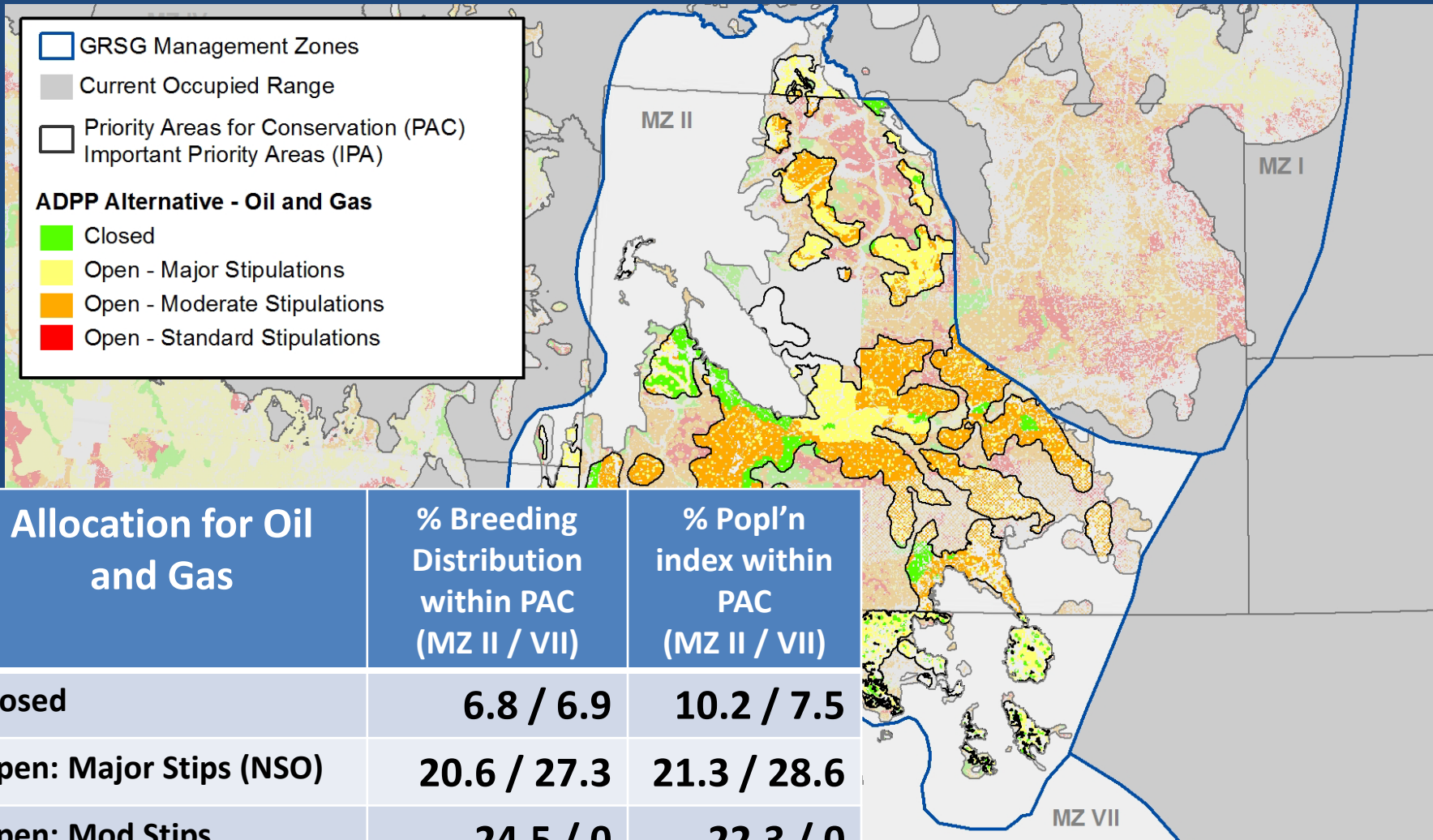
- Federal Land Use Plans in MZ II and VII apply No Surface Occupancy stipulations for oil & gas in Priority Habitats.
- Wyoming Core Area Strategy
 - Minimizes disturbance through density limitation and disturbance cap
 - Currently undergoing revision
- Only Wyoming Core Area Strategy applies to private lands.
- Colorado State Conservation strategy is not regulatory
- Utah state plan in concert with Governor's Executive Order has regulation for some impacts.



Oil and Gas Land Use Allocations



Oil and Gas Land Use Allocations



Management Zones II & VII

Conservation Efforts

- Regulatory Mechanisms
- Conifer Removal (MZ VII) (>2,700 acres)
- Conservation Easements (Urban & Ex-Urban Development, Agriculture; >220,000 acres)
- Improved Grazing Practices (>800,000 acres)
 - Most of the above are targeted to inside PACs



MZ II and VII - Summary

- Primary impacts in MZs II and VII are energy development and infrastructure.
 - Threat amelioration will largely be dependent on regulatory mechanisms, and successful restoration.



MZ II & VII - Questions

