ROADS, LAND, & BIG GAME HARVEST

THE ENVIRONMENTAL QUALITY COUNCIL

HOUSE JOINT RESOLUTION NO. 13

2015-2016
Executive Summary

The Environmental Quality Council assembled an immense amount of information previously unavailable in one place as a result of the House Joint Resolution 13 study. The council examined information on federal roads, parcels of public land with no public access, and harvest rates for elk and deer. The EQC heard from a variety of experts as well as numerous members of the public. The council also toured Forest Service and Bureau of Land Management (BLM) roads and lands around Helena to see road and access issues firsthand.

Roads
There are approximately 32,000 miles of Forest Service system roads in Montana. Of those, 9,784 miles are only available for administrative use, meaning they are effectively closed to motorized use.

Other roads may be closed and returned to a natural state. There are 5,976 miles of decommissioned roads no longer in the system. Unauthorized roads, mostly created by users, are not within the Forest Service system and are closed to motorized use. The Forest Service estimates there are 6,191 miles of unauthorized roads in Montana.

Since the mid-1990s, about 21,951 miles of road on land managed by the Forest Service have been closed to motorized use.

There are almost 1,800 miles of documented roads under the jurisdiction of the Bureau of Land Management that are open year round for motorized use. Another 886 miles are open at least part of the year. About 1,700 miles of BLM roads are closed to motorized use. More than 1,500 miles of road are considered open until a travel planning decision is made.

Inaccessible Public Parcels
About 10% of public lands in Montana are probably inaccessible by a public road or waterway. In many cases, the parcel may be surrounded by private land. Although the private landowner may grant permission to cross, access to the public land for the general public is not guaranteed.

Nearly all of the inaccessible land is owned by either the state of Montana or the BLM. State trust lands account for 2,429 square miles of inaccessible parcels. The BLM owns 2,179 square miles of inaccessible land.
**Big Game Harvest**

While the number of elk in Montana rose over the last few years, the highest elk harvest over the last 16 years was in 2003. Hunters killed more than 25,000 elk in 2014, the highest number since 2008. However, many areas in the state remain over the population goals set by the Department of Fish, Wildlife and Parks (DFWP).

Mule deer and whitetailed deer populations are rebounding after recent rough winters and disease outbreaks, but harvest numbers over the last decade were highest in 2006, when almost 134,000 deer were harvested. Hunters bagged just under 76,000 deer in 2014.

**Findings and Recommendations**

1) The EQC examined roads currently managed by the Forest Service and compiled available information on decommissioned Forest Service roads and unauthorized roads created on Forest Service lands. Not all unauthorized roads were documented prior to closure, and the agency has inadequate records to document roads decommissioned prior to 1990.

   a) The EQC found that since 1995, almost 22,000 miles of roads on Forest Service lands were closed.

   b) The EQC examined roads on land managed by the Bureau of Land Management. About 1,700 miles of roads are closed to motorized use. In addition, almost 900 miles of road are closed to motorized use at least part of the year.

2) While the EQC did not study rights-of-way across unreserved public lands granted by a provision in the 1866 Mining Act, some of these roads may exist in Montana and may provide public access to public lands. The 1866 law, Revised Statute 2744, was repealed in 1976. However RS2477 roads in existence at the time were grandfathered.

3) The EQC recommends that the DFWP and the State Parks and Recreation Board identify off-highway vehicle roads and trails that connect to state parks.

4) The EQC examined data in various formats for Forest Service roads dating back in some cases to the 1970s as well as the laws and policies that affected road policy. The council also analyzed elk and deer harvest data and academic studies that address the relationship between roads and wildlife.

5) Over a period of more than a century, road management on federal land has evolved from a laissez-faire approach, allowing roads to be built as needed, to active management of a complicated road system serving a wide array of objectives.

6) Contemporary management of state and federal roads incorporates intensive public involvement. Environmental analysis on federal travel management plans that comply with the National Environmental Policy Act requires meaningful engagement with individuals and agencies that have a site-specific and/or a general interest.

7) A 2013 analysis by the Department of Fish, Wildlife and Parks found that 3,116,800 acres (4,870 square miles) of public land cannot be accessed by a legal road or water access. Of the inaccessible land:
a) Forest Service parcels account for about 5%, or 232 square miles. Almost 95% of the inaccessible public land in the state, about 4,600 square miles, is managed by either the Bureau of Land Management or the state of Montana with the inaccessible lands divided about evenly between the two entities.

b) A total of 978,647.6 acres (1,529.13 square miles) lies in areas elk may inhabit. Without more information and analysis, the EQC is unable to determine if road closures across private lands created isolated public parcels.

8) Elk distribution on private land increased by 17% between 2004 and 2015.

9) As of 2015, 80 hunting districts had elk populations that exceeded target populations determined to be sustainable based on habitat. Two of those districts had elk populations that were more than ten times the objective population.

10) The EQC compiled information on roads, public land, inaccessible public land, and hunter success rates for every hunting district in the state. Given the scope of the HJR13 study and the knowledge that a variety of factors may influence hunter success, the EQC is unable to determine if hunter success in a specific district was influenced by road closures or inaccessible public land.

At far left, Sen. Rick Ripley and EQC Chairman Sen. Gene Vuckovich listen to a presentation about a Forest Service land purchase that increased public access to land east of Helena.
<table>
<thead>
<tr>
<th>Sen. Gene Vuckovich, Presiding Officer</th>
<th>Rep. Jerry Bennett, Vice Presiding Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third Term</td>
<td>Third Term</td>
</tr>
<tr>
<td>1205 West 3rd St.</td>
<td>784 Taylor Rd.</td>
</tr>
<tr>
<td>Anaconda, MT 59711-1801</td>
<td>Libby, MT 59923-8458</td>
</tr>
<tr>
<td>(406) 563-2313</td>
<td>(406) 293-7012</td>
</tr>
<tr>
<td><a href="mailto:mt.sd43@gmail.com">mt.sd43@gmail.com</a></td>
<td><a href="mailto:jbenhd1@hotmail.com">jbenhd1@hotmail.com</a></td>
</tr>
<tr>
<td>Sen. John Brenden, Third Term</td>
<td>Rep. Willis Curdy, First Term</td>
</tr>
<tr>
<td>P.O. Box 970</td>
<td>11280 Kona Ranch Rd</td>
</tr>
<tr>
<td>Scobey, MT 59263-0970</td>
<td>Missoula, MT 59804-9790</td>
</tr>
<tr>
<td>(406) 783-8394</td>
<td>(406) 546-0523</td>
</tr>
<tr>
<td><a href="mailto:senatorbrenden@gmail.com">senatorbrenden@gmail.com</a></td>
<td>(406) 728-0981</td>
</tr>
<tr>
<td>5522 Billy Casper Dr.</td>
<td>1355 Lion Mountain Dr.</td>
</tr>
<tr>
<td>Billings, MT 59106-1029</td>
<td>Whitefish, MT 59937-8072</td>
</tr>
<tr>
<td>(406) 698-9307</td>
<td>(406) 471-2082</td>
</tr>
<tr>
<td><a href="mailto:Sen.Cary.Smith@mt.gov">Sen.Cary.Smith@mt.gov</a></td>
<td><a href="mailto:rep.elieser@legmt.gov">rep.elieser@legmt.gov</a></td>
</tr>
<tr>
<td>Sen. Mike Phillips, First Term</td>
<td>Rep. Theresa Manzella, First Term</td>
</tr>
<tr>
<td>9 West Arnold St.</td>
<td>640 Gold Creek Loop</td>
</tr>
<tr>
<td>Bozeman, MT 59715-6127</td>
<td>Hamilton, MT 59840-9742</td>
</tr>
<tr>
<td>(406) 599-5857</td>
<td>(406) 546-9462</td>
</tr>
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<td><a href="mailto:mikephillips@montana.net">mikephillips@montana.net</a></td>
<td>(406) 363-2898</td>
</tr>
<tr>
<td>2131 Wall St.</td>
<td>703 Breckenridge St.</td>
</tr>
<tr>
<td>Butte, MT 59701-5527</td>
<td>Helena, MT 59601</td>
</tr>
<tr>
<td>(406) 723-8378</td>
<td>(406) 431-9157</td>
</tr>
<tr>
<td>8920 MT Highway 200</td>
<td></td>
</tr>
<tr>
<td>Wolf Creek, MT 59648-8639</td>
<td></td>
</tr>
<tr>
<td>(406) 562-3502</td>
<td></td>
</tr>
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<td></td>
</tr>
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</tr>
<tr>
<td>2960 Anderson Ln.</td>
<td>Dillon, MT 59725-8384</td>
</tr>
<tr>
<td>(406) 925-9991</td>
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<td><a href="mailto:erbbrooke@gmail.com">erbbrooke@gmail.com</a></td>
</tr>
<tr>
<td>Mr. Roy Morris, Public Member, Second Term</td>
<td>P.O. Box 3839</td>
</tr>
<tr>
<td>P.O. Box 3839</td>
<td>Butte, MT 59702</td>
</tr>
<tr>
<td>(406)491-4255</td>
<td>(406)491-4255</td>
</tr>
<tr>
<td><a href="mailto:roy@montana.com">roy@montana.com</a></td>
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</tr>
<tr>
<td>Mr. Tim Baker, Governor’s Representative, Second Term</td>
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</tr>
<tr>
<td>P.O. Box 200801</td>
<td>Helena, MT 59620-0801</td>
</tr>
<tr>
<td>(406) 444-3111</td>
<td>(406) 444-3111</td>
</tr>
<tr>
<td><a href="mailto:tbaker@mt.gov">tbaker@mt.gov</a></td>
<td><a href="mailto:tbaker@mt.gov">tbaker@mt.gov</a></td>
</tr>
</tbody>
</table>

* This information is in compliance with 2-15-155, MCA.
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POLICY OVERVIEWS

Roads

The EQC examined more than a century of road policy on lands managed by the BLM and the Forest Service. The Forest Service Organic Administration Act of 1897 stated that the purpose of forests was to “improve and protect” the forest, secure favorable water flows, and furnish a “continuous supply of timber.” A settler residing in a forest could construct wagon roads or other improvements to access a home and to utilize the settler’s property. Anyone could enter the national forests for lawful purposes, including mineral exploration or development, provided that rules and regulations covering the forest were followed.

In the mid-1970s, the federal government took several actions that attempted to limit certain motorized travel on federal lands. President Nixon ordered that off-highway use be relegated to designated areas and trails. President Carter expanded that order to require that agencies immediately close areas or trails if off-highway vehicle use could cause considerable adverse effects on soil, vegetation, wildlife, wildlife habitat, or cultural or historic resources.

The Forest Service also started to inventory all wheel tracks regardless of how developed.

Significant road policy decisions were made in the early 2000s. New Forest Service rules at the time:

- sought to balance safe and efficient access for all users and to maintain healthy ecosystems;
- prohibited road construction, reconstruction, and timber harvesting on inventoried roadless areas;
- found that the existing road system in national forests is mostly complete and shifts focus from new road development to managing access according to the capability of the land and to decommissioning unneeded roads; and
- pledged to keep decisions on road management at the local level.

The BLM and the Forest Service issued a record of decision for off-highway vehicle travel on federal lands in Montana and the Dakotas. The decision sought to minimize further resource damage, user conflicts, and related problems, including new user-created roads. Cross-country travel was prohibited.

The BLM started designating specific roads and trails for motorized use on a site-specific basis. Montana field offices started work on travel management plans. Additional Forest Service rules required the agency to designate trails and roads open to motorized use. Although a road or trail may exist on the ground, if it is not designated on the map, it is closed to motorized travel.

A longer history of federal road policy can be found here.

FOREST SERVICE ROADS IN MONTANA

There are several types of roads in the Forest Service vernacular. System roads are those managed by the Forest Service and categorized by use, vehicle clearance, and road quality. One category of system road is closed to motorized travel for at least a year between intermittent uses. Basic maintenance is performed to prevent damage to adjacent resources and to allow the road to be used in the future for land management needs. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level.
The EQC analyzed Forest Service Roads by hunting district and identified roads closed except for maintenance and those open to general motorized traffic.

### Miles of National Forest Roads for Montana Forests

[Bar chart showing miles of national forest roads for different districts with categories: Passenger Car, High Clearance Vehicle, Basic Custodial Care (Closed).]

### Miles of National Forest Roads in Region 1 by Forest

<table>
<thead>
<tr>
<th>Miles of National Forest Roads in Region 1 by Forest</th>
<th>Beaverhead-Deerlodge NF</th>
<th>Bitterroot NF</th>
<th>Custer NF</th>
<th>Flathead NF</th>
<th>Gallatin NF</th>
<th>Helena NF</th>
<th>Kootenai NF</th>
<th>Lewis &amp; Clark NF</th>
<th>Lolo NF</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Custodial Care (Closed)</td>
<td>295</td>
<td>863</td>
<td>178</td>
<td>2,089</td>
<td>6</td>
<td>1,018</td>
<td>4,225</td>
<td>178</td>
<td>931</td>
<td>9,784</td>
</tr>
<tr>
<td>High Clearance Vehicle</td>
<td>2,758</td>
<td>1,121</td>
<td>709</td>
<td>506</td>
<td>1,289</td>
<td>906</td>
<td>1,944</td>
<td>746</td>
<td>3,709</td>
<td>13,688</td>
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<tr>
<td>Passenger Car</td>
<td>1,728</td>
<td>849</td>
<td>226</td>
<td>962</td>
<td>376</td>
<td>511</td>
<td>1,714</td>
<td>468</td>
<td>1,526</td>
<td>8,360</td>
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<tr>
<td>Total Miles</td>
<td>4,782</td>
<td>2,833</td>
<td>1,113</td>
<td>3,557</td>
<td>2,435</td>
<td>7,883</td>
<td>1,391</td>
<td>6,167</td>
<td>31,831</td>
<td></td>
</tr>
</tbody>
</table>

Data was downloaded from Infra user view II ROAD_CORE October 3, 2014 by bahrtensen
Query: Route Status = Existing, Jurisdiction = FS, System = NFSR, OpenML=1,2,3,4,or5
The Forest Service also closes roads by a process called decommissioning. In general, roads are decommissioned because they are no longer of use or pose an environmental threat. Roads were being decommissioned in the early 1990s and before, but the Forest Service does not have adequate records to document the activity. Decommissioning a
road may include blocking the entrance to, revegetating, or fully obliterating the road and recontouring the slopes.

Some roads were created over the years by repeated use but were never built or maintained to an agency standard. In 2005, the Forest Service examined all roads and designated some as part of the transportation system for each forest. While some of these user-created roads were made part of the system, those that were not are closed to further motorized use. Some forests have a partial inventory of unauthorized roads, but the actual number is not known.

More Montana Forest System Road Information Online
- Forest-specific information including maintenance and funding.
- A list of every forest system road closed to motorized use except for administrative uses.
- Historic Forest Service travel maps dating back to the late 1970s.

<table>
<thead>
<tr>
<th>Forest</th>
<th>Documented Unauthorized Miles</th>
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<tbody>
<tr>
<td>Beaverhead-Deerlodge</td>
<td>2,168</td>
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<tr>
<td>Bitterroot</td>
<td>327</td>
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<tr>
<td>Custer</td>
<td>9</td>
</tr>
<tr>
<td>Flathead</td>
<td>12</td>
</tr>
<tr>
<td>Gallatin</td>
<td>1</td>
</tr>
<tr>
<td>Helena</td>
<td>166</td>
</tr>
<tr>
<td>Kootenai</td>
<td>548</td>
</tr>
<tr>
<td>Lewis &amp; Clark</td>
<td>36</td>
</tr>
<tr>
<td>Lolo</td>
<td>2,924</td>
</tr>
<tr>
<td><strong>Total Documented Unauthorized Miles</strong></td>
<td><strong>6,191</strong></td>
</tr>
</tbody>
</table>

MONTANA BUREAU OF LAND MANAGEMENT ROADS
Each field office of the BLM adopts travel plans.

The Butte travel plan, which covers much of the area between Butte and Helena as well as the BLM lands surrounding Helena, had about 417 miles of road open to public use as of the 2005 planning analysis.

In response to the EQC, the BLM provided a list of roads closed in the management area in 2014. That total was 390 miles of closed roads.

In Missoula, the list provided to the EQC included almost 112 miles of closed roads.

The Dillon travel plan has no areas open to cross-country travel. More than 800,000 acres are managed as limited travel on designated routes, including 1,342 miles of road open to public travel, of which 159 miles are open seasonally. Roads on the ground that are closed permanently are not delineated on travel maps.

In the Upper Missouri River Basin plan, there are about 207 miles of closed roads.

Public Access and Public Lands
A 2013 analysis by the Department of Fish, Wildlife and Parks found that about 10% of land owned by local, state, and federal entities is probably inaccessible by a public road or waterway. State trust lands
and property managed by the Bureau of Land Management account for almost all of the inaccessible lands.\(^1\)

<table>
<thead>
<tr>
<th>Owner</th>
<th>No Access in Square Miles</th>
<th>Access in Square Miles</th>
<th>Total Square Miles</th>
<th>Percent No Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montana State Trust Lands</td>
<td>2,429</td>
<td>5,553</td>
<td>7,982</td>
<td>30%</td>
</tr>
<tr>
<td>US Bureau of Land Management</td>
<td>2,179</td>
<td>10,287</td>
<td>12,466</td>
<td>17%</td>
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<tr>
<td>US Forest Service</td>
<td>232</td>
<td>26,050</td>
<td>26,282</td>
<td>1%</td>
</tr>
<tr>
<td>US Fish and Wildlife Service</td>
<td>10</td>
<td>1,358</td>
<td>1,368</td>
<td>1%</td>
</tr>
<tr>
<td>Unknown - Conflicting Data Sources</td>
<td>8</td>
<td>47</td>
<td>55</td>
<td>15%</td>
</tr>
<tr>
<td>US Bureau of Reclamation</td>
<td>4</td>
<td>182</td>
<td>186</td>
<td>2%</td>
</tr>
<tr>
<td>Montana Fish, Wildlife and Parks</td>
<td>3</td>
<td>626</td>
<td>629</td>
<td>1%</td>
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<tr>
<td>State of Montana</td>
<td>1</td>
<td>34</td>
<td>35</td>
<td>4%</td>
</tr>
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<td>US Department of Defense</td>
<td>1</td>
<td>13</td>
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<td>Local Government</td>
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<td>County Government</td>
<td>0</td>
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<td>19</td>
<td>0%</td>
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<tr>
<td>Montana Department of Corrections</td>
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<td>National Park Service</td>
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<tr>
<td>US Army Corps of Engineers</td>
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<tr>
<td>US Department of Agriculture</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>4,870</strong></td>
<td><strong>4,4476</strong></td>
<td><strong>4,9346</strong></td>
<td><strong>10%</strong></td>
</tr>
</tbody>
</table>

Analysis performed by FWP, 2013

\(^1\) In this analysis, “inaccessible lands” are characterized as unknown access. Distance from an access point is not considered a limitation to access. Corner crossings are not considered valid access. Public roads are those identified using data provided by the Montana Department of Transportation. Waterways are assumed to be navigable streams, lakes over 1,000 acres, or any lake containing a MT FWP fishing access site. Areas not considered are “non-hunting” areas such as parks, preserves, and land within city limits. Land ownership and access within Indian reservations were not evaluated.
The EQC further analyzed the data to identify what percentage of public land in each hunting district was inaccessible.

Of the 3.1 million acres of inaccessible public land, the EQC found that about one third lies within elk distribution areas.

Access to public land is not an emerging issue. In 1986, a flock of public officials, landowners, recreationists, and others descended on Helena for a conference titled, "Access in Montana: A Historical Issue!"

"Clearly, access is a complicated problem," said Gov. Ted Schwinden, "one that bears out the philosophy that "For every problem, there is one solution which is simple, neat, and wrong.""\(^2\)

The Legislature in 1993 passed House Joint Resolution 24, which acknowledged the "increasingly strained" relations between landowners and recreationists and urged parties to, among other things, achieve optimum hunter access, minimize impacts to landowners, and provide tangible benefits to landowners who allow hunter access.

The next session, the Legislature expanded the block management program and required the governor to create a committee of people interested in private land and public wildlife issues. The Private Land/Public Wildlife (PL/PW) Council has met fairly regularly over the last two decades.

The 1999 Legislature passed a bill that included a provision barring a county commission from abandoning a highway, road, or right-of-way used to access public land unless another road, highway, or right-of-way provides substantially the same access.³

In its January 2015 report, the PL/PW Council recommended increasing access to public lands by creating an Interagency Access Committee that would oversee an inventory of public roads and public lands where access is restricted or not available and offering voluntary corner crossing agreements to private landowners next to public land.

The 2015 Legislature expanded a program that provided tax credits to landowners who granted access across private land to state land. Senate Bill 309 increased the credit from $500 to $750, allowed the credit for access to federal land, and clarified that providing a corridor at a corner crossing also qualified for the credit.

Wildlife Management

The Department of Fish, Wildlife and Parks manages wildlife in the state. Since most elk and deer habitat is owned by federal and private entities, this means the agency works with federal and private land managers to implement statutory requirements and management recommendations.

State management plans for elk and deer as well as management plans for national forests and lands managed by the BLM rely on studies that generally conclude elk and deer mortality increases in connection with higher road densities and less hiding cover. A team of elk researchers in Oregon summarized knowledge learned over a half century of studies on the direct impacts of roads and traffic on elk:

- Elk die in collisions with vehicles.
- Elk avoid areas near open roads, resulting in temporary or permanent reduction in effective habitat.
- As open road density increases, elk are more vulnerable to legal and illegal harvest. Closing roads may reduce hunter density because some legal hunters are unwilling to hunt without vehicles. Poaching losses may decrease when roads are closed.
- Elk exhibit higher stress levels and increased movement in response to road density and traffic, although elk may conserve energy by traveling on closed roads.⁴

In more recent discussions, state and federal officials acknowledge that other factors influence elk distribution and mortality, including forage, distance from roads, and migration between public and private lands, some of which may not be accessible to the general hunting public.

ELK POPULATION AND DISTRIBUTION

In 1978 an estimated 55,000 elk called Montana home.

⁵ Today, FWP estimates the state has more than 167,000 elk.

³ House Bill 352 (1999)
⁴ M. M. Rowland, M. J. Wisdom, B. K. Johnson, and M. A. Penninger, Effects of Roads on Elk: Implications for Management in Forested Ecosystems, 2005
⁵ Statewide Elk Management Plan, 2004
With that higher population has come not only a wider distribution but also an increased movement onto private land. Elk distribution in this context means the overall range of elk. Elk may move seasonally or even more frequently within a distribution area. Elk distribution on private land increased 17%, more than 2 million acres, between 2004 and 2015.6

State law directs the Fish and Wildlife Commission to determine the number of elk that can be viably sustained based on habitat acreage.7 The statewide Elk Management Plan directs the DFWP to “maintain elk population numbers at levels producing a healthy and productive condition of elk, vegetation, soil, and water and that also reduces elk conflicts on private and public lands.”8

The objective of the law and the plan is to keep populations at or below the sustainable population. In 2015, 80 hunting districts, more than half, were over objective. Another 29% were at objective, and 17% were below objective.9 The area containing Districts 411E and 530 in the Big Snowy and Bull

6 FWP Distribution Maps and Population Charts. Distribution areas represent land that elk may inhabit. Given that elk may roam in response to a variety of factors, it cannot be inferred that elk inhabit all lands in the distribution map equally or at all times.
7 87-1-323, MCA.
8 Statewide Elk Management Plan, 2004
9 2015 Population Status Chart
Mountains is nearly 10 times over objective with an estimated 5,082 elk in the area.

The next highest, at about five times over objective with 547 elk, is District 450, which lies between the Teton and Sun Rivers.
HARVEST

Over the last 16 years, the number of elk killed in Montana ranged from a low of 18,209 in 1999 to a high of almost 29,000 in 2003.\textsuperscript{10}

In terms of success rates, the low was again in 1999, when 16\% of hunters filled a tag.\textsuperscript{11} For the rest of the period examined, in most years at least one out of every five hunters shot an elk. Nonresident hunters, at least some of whom likely hired guides and hunted on private land, fared better than residents.

ANNUAL ELK HARVEST

\begin{figure}
\centering
\includegraphics[width=\textwidth]{annual_elk_harvest_chart.png}
\caption{Annual Elk Harvest}
\end{figure}

\textsuperscript{10} The statistics in this subsection are derived from Fish, Wildlife, and Parks harvest reports. For the years 1999-2002, numbers were not broken out between residents and nonresidents.

\textsuperscript{11} For this analysis, the success percentage is the number of elk divided by the number of hunters.
Of the more than 25,000 elk killed by hunters in 2014, about half died on public land. Another 19% were killed either on private land in the block management program or by hunters who did not have a relationship with the landowner. The remaining 31% were harvested on private land by outfitted hunters, family and friends of the landowner, or those who paid an access fee.

Regions 4, 5, and 7, which have less land in elk habitat than the three westernmost regions, had the lowest percentages of harvest on public land.

While most elk were killed on public or block management lands, hunters on those lands in 2014 had much lower success rates than those on private land. Fourteen percent of elk hunters on public land were successful. Of those who hunted on private block management land, 8% got their elk. The success rates rose on private land and were highest on private land that was either outfitted or subject to access fees.¹²

¹² FWP, HD Unit Research Summary No. 38, September 2014.
Elk Harvest by Landowner and Access

Elk Harvest by Landowner and Access 2014

Elk Harvest by Landowner and Access 2015
DEER POPULATION AND HARVEST
Almost 300,000 mule deer and about 200,000 white-tailed deer are estimated to live in Montana. After recent rough winters and disease outbreaks, the populations are starting to rebound. The total deer harvest and success rates also declined from a high in 2006.¹³

### 2015 WHITE TAILED DEER STATUS

<table>
<thead>
<tr>
<th>Region</th>
<th>White Tailed Deer Population Estimates</th>
<th>Years Used for 10-Year Average</th>
<th>2015 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGION 1</td>
<td>75,920</td>
<td>2005-2014</td>
<td>84,655</td>
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<tr>
<td>REGION 2</td>
<td>33,791</td>
<td>2005-2014</td>
<td>35,872</td>
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<tr>
<td>REGION 5</td>
<td>18,297</td>
<td>2005-2014</td>
<td>12,520</td>
</tr>
<tr>
<td>REGION 6</td>
<td>13,216</td>
<td>2005-2014</td>
<td>11,110</td>
</tr>
<tr>
<td>REGION 7</td>
<td>12,154</td>
<td>2005-2014</td>
<td>14,350</td>
</tr>
<tr>
<td><strong>Statewide Total</strong></td>
<td><strong>207,577</strong></td>
<td></td>
<td><strong>208,151</strong></td>
</tr>
</tbody>
</table>

The estimates for white-tailed deer populations are based upon population modeling with survey and harvest inputs. White-tailed deer estimates are not comprehensively validated with site-specific research or enhanced monitoring efforts. White-tailed deer estimates are not framed with confidence intervals and are subject to adjustment.

### 2015 MULE DEER STATUS

<table>
<thead>
<tr>
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<tbody>
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<td>15,260</td>
<td>16,722</td>
<td>13,915</td>
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<td>13,095</td>
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<td>14,226</td>
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<td>33,293</td>
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<td>65,826</td>
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<td>38,199</td>
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<td>69,213</td>
<td>65,549</td>
<td>47,424</td>
<td>53,934</td>
<td>79,287</td>
<td>103,812</td>
<td>77,617</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>314,541</strong></td>
<td><strong>344,142</strong></td>
<td><strong>346,870</strong></td>
<td><strong>334,717</strong></td>
<td><strong>300,895</strong></td>
<td><strong>247,224</strong></td>
<td><strong>249,320</strong></td>
<td><strong>211,361</strong></td>
<td><strong>232,312</strong></td>
<td><strong>263,623</strong></td>
<td><strong>297,231</strong></td>
<td><strong>284,501</strong></td>
</tr>
</tbody>
</table>

Mule deer estimates are not comprehensively validated with site-specific research or enhanced monitoring efforts. Mule deer estimates are not framed with confidence intervals and are subject to adjustment. The method used to make mule deer population estimates was changed in 2015. The estimates above are based on the new methodology.

¹³ Statewide success for deer harvest is the total harvest estimate divided by the number of licenses and permits issued.
EXPERT TESTIMONY, PUBLIC COMMENT, AND EQC DISCUSSION

September 9, 2015, EQC Meeting

FEDERAL ROAD MANAGEMENT

- George Bain, the Region 1 Director of Recreation, Lands, Minerals, Heritage and Wilderness for the U.S. Forest Service, explained the evolution of road policy in the agency.
- Jamie Connell, the State Director for the Bureau of Land Management, explained how the agency does travel planning.
- Russ Ehnes, the Executive Director of the National Off-Highway Vehicle Conservation Council, discussed the priorities of off-highway vehicle recreationists.
- Clayton Elliott, Policy Director for the Montana Wilderness Association, discussed how the group participates in travel planning.

PUBLIC ACCESS TO FEDERAL LAND

- Chuck Denowh of the United Property Owners of Montana discussed the role of private property owners and suggested ideas to encourage landowners to allow access to private land.
- Ray Marxer, a former board member of the Montana Stockgrowers Association, discussed public access, private land, and road management.
- Nick Gevock, the Conservation Director for the Montana Wildlife Federation, said the organization supports the acquisition of land that provides public access.
• George Bain, the Region 1 Director of Recreation, Lands, Minerals, Heritage and Wilderness for the U.S. Forest Service, said the agency considers access as part of any land acquisition.
• Jamie Connell, State Director for the BLM, said access is a major issue for BLM lands.

January 13, 2016 EQC Meeting
• Quentin Kujala, FWP Wildlife Bureau Coordinator said the agency aims to evaluate the amount of road access consistent with management prescriptions so that elk displacement does not reduce harvest.
• Eric Johnston, Region 1 USFS Deputy Director for Renewable Resources, discussed the distinction between access to national forest system lands and open roads that provide opportunities for motorized travel. He explained the coordination between the Forest Service and the state regarding elk management.
• Rick Hotaling, BLM Western District Manager, explained BLM policy on access and roads.
• Mark Lambrecht, Director of Government Affairs for the Rocky Mountain Elk Foundation, discussed issues affecting hunting opportunities in Montana.
• Marshall Johnson, Eastern Montana Regional Director for the Mule Deer Foundation, explained the organization’s views on public and private land and block management.

Additional Information
• Background on state elk management
• Summaries of big game management in plans for each national forest in Montana and each BLM Field Office
• Summaries of ongoing FWP elk research
TOUR
The EQC toured BLM and Forest Service lands near Helena with federal officials.

At the BLM Ward Ranch trailhead, officials discussed travel planning that closed the area between the trailhead and Canyon Ferry Reservoir to motorized use.

Ward Ranch


At far left: Scott Haight, a BLM field manager from Butte, explains the BLM acquisition of the Ward Ranch property and the travel planning process the agency uses to determine the closure of certain roads. To his right are USFS state liaison John Hagengruber, Rep. Ed Lieser, and Mr. Bert Lindler.
York Gulch

The EQC also toured a 200-acre Forest Service land acquisition in the York Gulch that provided permanent access to public land.

At right: Jeanne Holmgren, Forest Service realty specialist, explains the York Gulch land acquisition.

Below: The map shows the parcels acquired and the public access secured.
MAP OVERVIEW

The EQC gathered a large amount of data during the HJR13 study that is best displayed with an online map.

Getting Started

Click on the link:  http://arcg.is/1OiyF1G

The map comes up showing Elk Hunter Success by hunting district (the antlered icon) and the percentage of inaccessible public land by hunting district (the darker the color the higher the percentage).

Explore

Click on the Content tab.

The Content tab shows all of the layers available for viewing. By checking and unchecking the boxes in Content, layers turn on and off in the map. (Note: If too many layers are on at once, it will be hard to read the map.)

- Elk Success is the number of elk harvested by district from 2004-2012 and 2014 divided by the number of hunters. (An estimate for the number of hunters by district is not available for 2013.)
- Elk Distribution shows the general area elk inhabit in Montana. Keep in mind that elk may move in response to seasons or for other reasons, so elk are not distributed evenly across the distribution area at any one time.
- Elk Objective shows the population of each district in relation to the desired objective population.
- Elk Harvest per HD square mile is the density of the historic elk harvest in relation to the area of the district.
- White Tail Success 2013 is the number of deer harvested in 2013 divided by the estimated hunters in each district. (District estimates are not done annually.)
- Mule Deer Success 2013 is the number of deer harvested in 2013 divided by the estimated hunters in each district. (District estimates are not done annually.)
- Percent Inaccessible Public Lands by HD is the percent of public lands in the district that do not have legal access by road or water. (The lands may be accessed by permission of an adjoining landowner, but that information is not available.)
- Percent Public Land Ownership by Hunting District shows how much of the district is publicly owned.
- No Access Public Lands. These parcels with no legal road or water access show up as the map is zoomed into a specific area.
- Miles of open FS Roads by HD shows the total mileage in each district of roads open to motorized travel in the national forests.
- Miles of closed FS roads by HD shows the total mileage in each district of roads closed except for administrative use (Level 1).
- National Forest System Roads closed to motorized uses will appear as the map is zoomed into a specific area. Roads will appear in red.
- BLM Roads shows roads that are open, closed, temporarily closed, and without designation.
• FWP administrative regions shows the districts contained in each region.
• National Forest System Roads will appear as the map is zoomed in.
• Montana Cadastral Parcels will appear as the map is zoomed in. Clicking on the parcel will show the ownership.
• Vegetation Analysis shows how vegetation changed between 1990 and 2010.

Tips
• The map can be zoomed in and out with the cursor.
• Clicking on the words in a layer (not the box) will bring up the legend for that layer.
• Only turn on one of the Success layers at a time and view it in conjunction with the information sought, for example, Elk Success and Objective. Or turn off Objective and turn on Percent Inaccessible Lands to see how those relate.
• Clicking anywhere on the map will open a pop-up box that shows information about the layers that are checked. In the upper left, it will show how many layers are open. Click the right arrow to move through the boxes.
LINK ADDRESSES FOR FOOTNOTES


8 Statewide Elk Management Plan, 2004


8 Fish, Wildlife, and Parks harvest reports http://fwp.mt.gov/hunting/planhunt/harvestReports.html


WRITTEN MATERIALS RELATED TO HJ13 STUDY

EXPERT TESTIMONY, PUBLIC COMMENT, AND DISCUSSION

Federal Road Management

Public Access To Federal Land

Discussion of Roads and Wildlife
http://montanalegislatu.re.granicus.com/MediaPlayer.php?view_id=10&clip_id=18614&meta_id=139542

PUBLIC COMMENT
The EQC solicited public comment prior to adopting the final report. Those comments are attached.
Dear Members of the Environmental Quality Council:

Thank you for the opportunity to comment on your HJ 13 study on public-land roads, access, and wildlife distribution.

There are several things that we suggest you include in your Findings & Recommendations for the final version of the report.

**Inaccessible Public Parcels**

First, the report identifies “3,116,800 acres of public land (that) cannot be accessed by a legal road or water access,” nearly all of which is owned either by the state of Montana or the BLM.

Our organization supported legislation to create tax credits for landowners who allow access across their property to landlocked public parcels. However, if there is a policy objective of substantially increasing access to public land, the most effective means to achieve that is to take a serious look at land exchanges.

In our experience there has been very little cooperation from state and federal agencies to work with landowners in exchanging landlocked parcels. One policy recommendation from your report should be to make it a priority for state land managers to look for exchange opportunities.

Second, your report findings should give a clear understanding of the scope of this problem. While 3 million acres is a lot of land, in perspective it is only 10% of all public lands in Montana. The public has access to the vast majority of public land—contrary to the anti-landowner political narrative we so often hear about the public being locked out of their land.
This is especially true to for land with elk habitat. Of the 3 million acres of inaccessible public land, less than 1 million acres is identified as land that elk may inhabit.

These facts should remain prominent findings in your report.

**Elk Distribution**

Third, the report findings note increasing elk distribution on private land, but fails to elaborate much on that point. While more of our elk have moved onto private land, the overall hunter success rate has remained relatively steady over that time, indicating that access is increasing on private land.

The chart titled “Elk Harvest by Landowner and Access” bears out this fact by showing that the vast majority of landowners allow some form of public access—less than 10% charge an access fee or outfit their property.

The facts that nearly all Montana landowners allow public access and that the data indicates that access on private land is increasing should be included in the report’s findings.

In closing, it is unrealistic and unfair to expect private landowners to continue to offer more and more access for hunting, in response to a problem that FWP has created by using limited permits to grow the elk herd. The problem is an expansion of elk where they never existed, not a “loss” of access. As the elk numbers increase on private land this will continue to be a conflict.

Each time FWP has proposed a “solution” for access, they always approach it with an element of control over the landowner. FWP wants to control who is allowed access, how many are allowed, etc. A true effort to address the problem must include FWP returning to the Elk Management Plan and implementing liberal seasons when and where elk populations indicate, without discrimination.

Sincerely,

CHARLES DENOWH
Policy Director
Aug. 10, 2016

Montana Environmental Quality Council
P.O. Box 201706
Helena, MT 59620-1706

RE: Draft HJ 13 report comments

Dear Chairman Vuckovich,

The Montana Wildlife Federation is our state’s oldest wildlife conservation organization. We were founded in 1936 when hunters joined landowners to restore depleted wildlife in our state. For eight decades we have worked to ensure abundant wildlife, healthy habitat and public opportunity to enjoy our public wildlife resources. We take great interest in our federal and state public lands and the opportunities they offer for hunting, angling and other recreation.

The HJ 13 study presented an opportunity to look at how the public land road management and decommissioning affects public access, wildlife habitat and public hunting opportunity. Although the report contains an assortment of individual data points, it does not provide adequate context for understanding this information. Numerous factors affect wildlife distribution on the landscape and hunter success rates, and a solid body of research exists on how roads and other development activities impact wildlife populations and hunter opportunity. By not referencing this research, the data in the report are provided in a vacuum. This leaves the data available to be used for further political criticism of federal land agencies rather than constructive policy development.

As a result, some of the draft report’s findings and conclusions also lack necessary context:

1. “The EQC examined roads currently managed by the Forest Service and compiled available information on decommissioned Forest Service roads and unauthorized roads created on Forest Service lands. Not all unauthorized roads were documented prior to closure, and the agency has inadequate records to document roads decommissioned prior to 1990.”

We agree with this finding, based on comments from the U.S. Forest Service. However, there could be some data available on road decommissioning implemented prior to 1990. A Forest Service representative explained early in the HJ 13 process that there could be paper records on some of these located in individual Forest Service offices, but it would take a great deal of staff time to compile that data statewide.
a. “The EQC found that since 1995, almost 22,000 miles of roads on Forest Service lands were closed.”
We agree with this finding. However, understanding why a road has been closed is critical if we are to determine if the road closure achieved its objective. In many cases, Forest Service roads have been closed because they were causing natural resource damage, including impacts to soils, water quality, wildlife security and scenic values. And many of these roads were user-created routes that were causing resource damage.
In addition, many roads in western Montana are closed for grizzly bear security (road density standards) based on extensive science. Maintaining grizzly bear security will be critical for moving to delisting under the Endangered Species Act.
Also, as noted, roads are a primary source of stream sediments. Many roads in western Montana are closed to reduce sediments in spawning streams used by bull trout, an ESA Threatened species. Improving stream habitat will be critical to eventual delisting and returning the fish to state management.
Road closures are also driven by a lack of funds for road maintenance. Because the Forest Service has a mandate to manage for multiple use, it must maintain roads to minimize impacts on soil erosion, water quality, fisheries and other resources. The Forest Service continues to have fewer and fewer funds to maintain roads, forcing the agency to close routes rather than let them degrade other resources. The report does acknowledge a large backlog ($2.9 billion nationally) in deferred maintenance.

b. The EQC examined roads on land managed by the Bureau of Land Management. About 1,700 miles of roads are closed to motorized use. In addition, almost 900 miles of road are closed to motorized use at least part of the year.
We agree with this finding. Again, this section does not provide context for why the Bureau of Land Management closed these routes.

2. While the EQC did not study rights-of-way across unreserved public lands granted by a provision in the 1866 Mining Act, some of these roads may exist in Montana and may provide public access to public lands. The 1866 law, Revised Statute 2744, was repealed in 1976. However RS2477 roads in existence at the time were grandfathered.
There is no discussion at all in the body of the report about RS 2477 roads, so the finding that RS 2477 “may provide public access to public lands” is unsubstantiated.

3. The EQC recommends that the DFWP and the State Parks and Recreation Board identify off highway vehicle roads and trails that connect to state parks.
We agree with this recommendation.

4. The EQC examined data in various formats for Forest Service roads dating back in some cases to the 1970s as well as the laws and policies that affected road policy. The
council also analyzed elk and deer harvest data and academic studies that address the relationship between roads and wildlife. The science on the impact of roads on elk distribution is extensive and clear. Decades of peer-reviewed research shows that elk avoid open roads and will look for more secure habitat, particularly during hunting season. While this finding references the “academic studies,” the draft report does not discuss how this research should inform our understanding of these issues.

In addition, it’s important to note that Montana currently offers the most liberal (5 week) general hunting season in the West due, in part, to road closures providing some wildlife security. If road access is increased, wildlife security would have to be provided by other means such as reducing season length or restricting hunter numbers. More roads on public lands likely means elk will move to more secure private lands.

5. Over a period of more than a century, road management on federal land has evolved from a laissez-faire approach, allowing roads to be built as needed, to active management of a complicated road system serving a wide array of objectives. We agree with this finding, and we note that the change in federal road management to a more thoughtful, planned approach has been positive for wildlife and public use.

6. Contemporary management of state and federal roads incorporates intensive public involvement. Environmental analysis on federal travel management plans that comply with the National Environmental Policy Act requires meaningful engagement with individuals and agencies that have a site-specific and/or a general interest. We agree with this finding.

7. A 2013 analysis by the Department of Fish, Wildlife and Parks found that 3,116,800 acres (4,870 square miles) of public land cannot be accessed by a legal road or water access. Of the inaccessible land: 4 a) Forest Service parcels account for about 5%, or 232 square miles. Almost 95% of the inaccessible public land in the state, about 4,600 square miles, is managed by either the Bureau of Land Management or the state of Montana with the inaccessible lands divided about evenly between the two entities. b) A total of 978,647.6 acres (1,529.13 square miles) lies in areas elk may inhabit. Without more information and analysis, the EQC is unable to determine if road closures across private lands created isolated public parcels. The issue of landlocked public lands is of crucial importance to public access. We believe there is evidence that private land road closures impact this issue, and we recommend rewording the final sentence into a positive recommendation for more information and analysis. We further suggest that this recommendation call for future investigation of how programs like the federal Land and Water Conservation Fund and the Montana Block Management Program can make landlocked public lands accessible to the public. Additional access programs include the federal Open Fields Program (Farm Bill) and in Montana the Unlocking Public Lands Program (tax credit, MCA 87-1-294), Upland Game Bird Enhancement Program and Habitat Montana.
8. **Elk distribution on private land increased by 17% between 2004 and 2015.**
This finding does not address why elk numbers have increased by 17 percent on private land. Some research suggests that the increase is related to the lack of access for public hunters. This is also a likely indicator that the elk objectives are too low because private landowners apparently are becoming more accepting of elk. MWF urges the EQC to recommend future analysis of how private land access/tolerance issues drive elk distribution on private lands. We further suggest future analysis of how private lands leased to hunting outfitters corresponds with elk distribution on private lands.

9. **As of 2015, 80 hunting districts had elk populations that exceeded target populations determined to be sustainable based on habitat. Two of those districts had elk populations that were more than ten times the objective population.**
Elk population quotas are based on both habitat capacity and social carrying capacity (landowner tolerance). Most populations are below habitat capacity.

10. **The EQC compiled information on roads, public land, inaccessible public land, and hunter success rates for every hunting district in the state. Given the scope of the HJR13 study and the knowledge that a variety of factors may influence hunter success, the EQC is unable to determine if hunter success in a specific district was influenced by road closures or inaccessible public land.**
There is a big difference between public lands closed to motorized access but open to the public and public lands inaccessible to the public.

Thank you for the opportunity to comment on this draft report. MWF supports smart public management and road planning to provide security habitat, hunting opportunity, and hunting success. Federal land managers are given the difficult task of balancing the need to reach blocks of public land while maintaining security habitat, water quality, scenic values and soils protection, among other things. While this report does compile some relevant data points, we believe that it does not provide useful recommendations for helping federal land managers strike the right balance on public lands.

Sincerely,

Dave Chadwick
Executive Director