SJ-15 Study Matrix – Working Draft - revised 2/20/14

	A. Identify Risks & Concerns *(June-Oct)*	B. Identify Desired Correction and/or Condition *(Sept-Oct)*	C. Identify Barriers Currently Preventing Correction *(Oct-Nov)*	D. Brainstorm & Explore Solutions *(Nov-March)*	E. Develop Action Items *(April-August)*	F. References ***References in bold italics*** added at request of Work Group members. References in plain text added by staff, as directed by WG, to provide more information about the topic.
1	INFRASTRUCTURE: Excessive wildfire fuel loads due to insect, disease, and/or lack of active management place infrastructure on or near federally managed lands at risk - including electrical transmission lines, transportation facilities, communication towers, water systems, and other utilities. Costs associated with damage repair.	Active, immediate vegetation management to protect transmission lines and other infrastructure from wildfire, post fire erosion and other risks that can be resolved via active vegetation management while maintaining a desirable ecologic composition and sustainable economic production where practical.	1. Unfavorable Laws, Policies, Rules 2. Obstructive Litigation 3. Unfavorable Priorities 4. Prolific flaws in NEPA documents 5. Lack of Funding/Personnel 6. Problematic Financial Order, Lack of priorities, performance incentives. 7. Federal agency rule making inconsistent with legislative intent 8. Need intensive state scrutiny and action to avert unfavorable federal actions 9. Lack of understanding root law and jurisdictional authorities 10. Lack of consistency with local government objectives. 11. Prohibitions on active management leads to intense fuel load and limited access for initial attack in some areas. 12. Burn & "let-burn" fire use causes unhealthy or undesirable levels of	1. Acknowledge emergency condition 2. Expand ROW for maintenance 3. Generate funds 4. MO between Counties, State, & USFS – 5. Employ HSW Jurisdiction 13. Education on benefits of fuel reduction and resource use vs. costs of repairing damage after intense wildfire 14. Controls on rule making process 15. Need local public land and resource management plans to allow local governments to enter coordinating status, insert local objectives into federal land plans and decisions, and ensure federal plans are consistent with local plans.		***USFS Region 1 Presentation to Montana Public Service Commission, 2013*** ***http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/FS-transmission-lines-presentation-to-psc.pdf*** Montana Legislature Fire Suppression Committee 2008 report: The Price of Flame http://leg.mt.gov/content/Committees/Interim/2007_2008/fire_suppression/FSC%20final%20report.pdf Government Accountability Office Reports on Wildland Fire Management http://www.gao.gov/key_issues/wildland_fire_management/issue_summary#t=0 Administrative Appeals in the Bureau of Land Management and the Forest Service, Congressional Research Service 2013 http://nationalaglawcenter.org/wp-content/uploads/assets/crs/R40131.pdf Relationships between moisture, chemistry, and ignition of Pinus contorta needles during the early stages of mountain pine beetle attack, Forest Ecology and Management, 2012 http://www.fs.fed.us/rm/pubs_other/rmrs_2012_jolly_w001.pdf Review of Fuel Treatment Effectiveness in Forests and Rangelands, USDA Rocky Mountain Research Station, 2011 http://www.fs.fed.us/rm/pubs/rmrs_gtr252.pdf Limited Data Available on USDA and Interior Attorney Fee Claims and Payments, Government Accountability Office, 2012 http://www.gao.gov/products/GAO-12-417R Information on Appeals, Objections, and Litigation Involving Fuel Reduction Activities, Fiscal Years 2006 through 2008, Government Accountability Office, 2010 http://www.gao.gov/products/GAO-10-337 Joint Science Fire Program, Fuel Treatment Effects and Effectiveness http://www.firescience.gov/JFSP_fuels_treatment.cfm

			smoke.			
2	NEIGHBORING COMMUNITIES: Excessive wildfire fuel loads due to insect, disease, and/or lack of active management on federally managed lands in Wildland-Urban Interface (WUI) place neighboring public and private property, facilities, infrastructure and communities at risk. Costs associated with damage repair.	Active, immediate vegetation management to prevent intense wildfire and related damages to communities, public and private property, infrastructure, and facilities, especially in wild urban interface (WUI), while maintaining a desirable ecologic composition and sustainable economic production where practical.		Consider enabling legislation that would include international WUI code.		***Request input from conservation district – Jeff Tiberi, State forester, firewise, feds.*** Montana Legislature Fire Suppression Committee 2008 report: The Price of Flame http://leg.mt.gov/content/Committees/Interim/2007_2008/fire_suppression/FSC%20final%20report.pdf Residential Wildfire Exposure Estimates for Western United States http://www.corelogic.com/about-us/researchtrends/asset_upload_file283_16407.pdf Government Accountability Office Reports on Wildland Fire Management http://www.gao.gov/key_issues/wildland_fire_management/issue_summary#t=0 USDA Office of Inspector General Audit: Forest Service Large Fire Suppression Costs, 2006 http://www.usda.gov/oig/webdocs/08601-44-SF.pdf
3	WATER: Excessive wildfire fuel loads and intense wildfires on federally managed lands threaten, poison, and/or physically impair municipal drinking water supplies as well as water supplies for residential, recreational, agricultural, natural, and other uses outside municipal watersheds. Watersheds are not being managed to maximize water yield. Costs associated with damage repair – municipal &	Active, immediate vegetation management to prevent damages from intense wildfire and optimize water yield in municipal water sheds as well as other waters outside municipal watersheds, including residential, agricultural, recreational, industrial, and fisheries, while maintaining a desirable ecologic composition and sustainable		Prioritize fuel reduction treatments in critical areas – a. municipal/people, b. agricultural, c. environmental, then prioritize those areas most susceptible to severe adverse effect.		***Sen. Greg Hinkle suggests looking at an Okanogan NF – Twisp logging project that significantly increased yields and stream flows*** ***Research on volume of water held by over-dense timber stands. Forests and Water in the Sierra Nevada: Sierra Nevada Watershed Ecosystem Enhancement Project, Sierra Nevada Research Institute, UC Merced http://ucanr.edu/sites/cff/files/146199.pdf*** Wildland fire in ecosystems: effects of fire on soils and water, USDA Rocky Mountain Research Station, 2005 http://www.fs.fed.us/rm/pubs/rmrs_gtr042_4.pdf Cumulative Watershed Effects of Fuel Management in the Western United States, USDA Rocky Mountain Research Station, 2010 http://www.fs.fed.us/rm/pubs/rmrs_gtr231.pdf Risk of Impaired Condition of Watersheds Containing National Forest Lands, USDA Rocky Mountain Research Station, 2010 http://www.fs.fed.us/rm/pubs/rmrs_gtr251.pdf

	agricultural.	economic production where practical.				
4	FISH & WILDLIFE: Large, intense fires on federally managed lands kill fish & wildlife, destroy habitat, poison water, and cause displacement which adversely impacts surviving populations of fish & wildlife beyond the burned area.	Vegetation management to prevent premature death of fish and wildlife and destruction of habitat caused by intense wildfires and to optimize water yield to provide for all needs including human life, economy, and natural environment, while maintaining a desirable ecologic composition and sustainable economic production where practical.		Assess quality of habitat in passive vs. active management areas. Assess quality of habitat in historic use vs current use patterns.		***Painted Rocks Reservoir - Documents submitted to WPIC*** ***http://leg.mt.gov/content/Committees/Interim/2011-2012/Water-Policy/Meeting-Documents/January-2012/saddle-creek.pdf*** ***http://leg.mt.gov/content/committees/interim/2011-2012/Water-Policy/minutes/January-10-2012/Exhibit05.pdf*** ***http://leg.mt.gov/content/committees/interim/2011-2012/Water-Policy/minutes/January-10-2012/Exhibit06.pdf*** ***Smoked Bear Report: 11 Western States Wildfire, Prescriptive, and Fire Use History*** ***http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/smoked-bear-fire-tables.pdf*** Wildland fire in ecosystems: effects of fire on fauna, USDA Rocky Mountain Research Station, 2000 http://www.fs.fed.us/rm/pubs/rmrs_gtr042_1.pdf
5	AIR QUALITY: Significant health risks, premature death, and other adverse impacts to Montana citizens and visitors due to high volumes of smoke/toxic air pollution generated by large, intense fires on federally managed lands. In addition to health dangers, prolific and lingering smoke restricts activities, displaces people from their homes and communities, impedes	Manage lands to ensure safe and healthy air quality levels. Actively manage vegetation to prevent catastrophic fire events and keep dangerous levels of pollutants from entering the air. Do not burn or let burn unless air quality standards can be met or it is necessary to prevent or contain destructive fires and no other means of		Prioritize fuel reduction treatments in areas most susceptible to severe adverse effect. Broaden opportunity and time frame for fuel treatments including burning. Coordinate and pre-plan to prevent intense wildfire.		***Smoked Bear Report: 11 Western States Wildfire, Prescriptive, and Fire Use History*** ***http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/smoked-bear-fire-tables.pdf*** ***Montana-Idaho Interagency Smoke Management Coordination Strategy (wildfire-focused):*** ***http://www.fs.fed.us/r1/fire/nrcg/Op_plans/2013SmokeStrategy_FINAL.pdf*** ***Montana-Idaho Airshed Group's Operations Guide (prescribed fire-focused):*** ***http://www.smokemu.org/docs/20100601OpsGuide.pdf*** Joint Science Fire Program, Smoke Management and Air Quality http://www.firescience.gov/JFSP_smoke_air.cfm Wildland Fire in Ecosystems Effects of Fire on Air, USDA Rocky Mountain Research Station, 2002 http://www.fs.fed.us/rm/pubs/rmrs_gtr042_5.pdf The relationship of respiratory and cardiovascular hospital admissions to the southern California wildfires of 2003 (Abstract only) http://www.ncbi.nlm.nih.gov/pubmed/19017694 California Wildfires of 2008: Coarse and Fine Particulate Matter Toxicity

	scenic views, and disrupts tourism.	doing so are available. Use fire to optimize environmental or economic productivity only when air quality standards are not exceeded.				http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2702402/ Estimated Global Mortality Attributable to Smoke from Landscape Fires http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3346787/ Particle size-dependent radical generation from wildland fire smoke (Abstract only) http://www.ncbi.nlm.nih.gov/pubmed/17482744 See notes.
6	MUTLIPLE USE ACCESS REDUCTIONS: Decommissioning and closing roads and trails severely diminishes access for desirable multiple use activities including resource management, sustenance and recreational uses, emergency ingress/egress, and commercial extraction of natural resources.	Keep access roads intact and available for multiple uses, resource management, and future resource extraction. Prioritize funding for maintenance and repairs of access roads. Allow enough public use to prevent roads from brushing in. Encourage and accommodate volunteerism for maintenance and repairs on roads and trails. Encourage fire wooding to remove downed trees and maintain fire breaks along roads. Increase or preserve multiple use access for all ages, abilities, interests, and classes. Protect RS2477 locally	1. Budget/Cost 2. Mngt classifications - compliance standards 3. Policy/Regulation 4. Paid/Stacked Collaboratives 5. Underappreciated value of access	1. Facilitate Volunteer maintenance contracts/workman's comp 2. RS 2477 Identification/Inventory and affirm local jurisdiction. 3. Prioritization system for roads necessary for initial attack, management of municipal watersheds, future generation timber sales, emergency ingress/egress, multiple use access component, etc. 4. Rotational uses 5. Verify/Modernize definition of multiple use. 6. Increase local authority 7. Consider S327 – HR2401 Good Neighbor Forestry Act		***Bruce and Nancy Mehaffie – Deep Creek*** ***Capitol Trail Riders Assoc – Townsend Ranger District, Helena National Forest*** See notes. RS2477 - Consent Decree for State of Utah, BLM, environmental groups Aug. 2013 http://earthjustice.org/sites/default/files/files/DeepCreekSettlement.pdf RS2477 Background - Government Accounting Office Opinion, Feb. 2004 http://www.gao.gov/decisions/other/300912.pdf RS2477 Background – Congressional Research Service Report, Nov. 2003 http://assets.opencrs.com/rpts/RL32142_20031107.pdf

		owned roads.				
7	INVASIVE PESTS, DISEASE, AND NOXIOUS WEEDS: Proliferation of invasive pests, disease, and noxious weeds is prevalent on federally managed lands and waters.	Control aquatic pests, specifically mussels, at point source. Treat point source. Actively manage to control, contain, and prevent devastating pests from spreading.		Map/inventory infestations Prioritize funding for most necessary and effective pest management. Promote statewide pest management consistency on all lands. Prioritize treatment areas to control, contain, and prevent devastating pests from spreading. Allow motorized access so land managers and private property owners can control pests on their lands.	Jurisdiction for control navigable waters	Testimony for Dr. K. George Beck, U.S. House Natural Resources Committee, 2013. Three percent of existing federal acres infested with invasive weeds were treated and restored in 2009. http://naturalresources.house.gov/uploadedfiles/becktestimony05-16-13.pdf Wildland Fire in Ecosystems: Fire and Nonnative Invasive Plants, USDA, Rocky Mountain Research Station, 2008 http://www.fs.fed.us/rm/pubs/rmrs_gtr042_6.pdf Invasive Forest Pests: Recent Infestations and Continued Vulnerabilities at Ports of Entry Place U.S. Forests at RiskGAO reports, 2006 http://www.gao.gov/products/GAO-06-871T Invasive Forest Pests: Lessons Learned from Three Recent Infestations May Aid in Managing Future Efforts, 2006 http://www.gao.gov/products/GAO-06-353 USDA Office of Inspector General Audit of FS Invasive species program 2010 http://www.usda.gov/oig/webdocs/08601-7-AT.pdf Congressional Research Service Report 2013 http://www.invasive.org/NAISN/Invasive_speciesmajorlaws_funding.pdf State of Montana references: http://fwp.mt.gov/fishing/guide/AIS/ http://agr.mt.gov/agr/Programs/Weeds/AquaticWeeds/ http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Meetings/September-2013/Exhibits/September-12-2013/Exhibit20.pdf Other references: http://www.fs.fed.us/foresthealth/publications/Framework_for_Invasive_Species_FS-1017.pdf http://www.invasivespeciesinfo.gov/index.shtml http://www.invasivespeciesinfo.gov/laws/main.shtml http://www.fs.fed.us/invasivespecies/policy.shtml See notes
8	PILT, SRS, ROYALTIES: The substitute funding sources counties rely upon are unreliable and unpredictable due to dependency on renewed congressional approval and the ability of the federal	Increase economic production Generate positive revenue flows like they used to Increase predictability of		Assess PILT vs. actual taxable value		***Wyoming study*** Public Land Management in 21st Century: Delegation of Responsibility to State and Local Governments ***http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/state-vs-fed-land-management-costs-baughman-presentation.pdf*** ***State Forests Management Superior to Federal Forests for Job Creation, Revenue Production, Local Economies and Fire Prevention, U.S. Rep. Doc Hastings*** ***http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/house-nat-resources-state-vs-federal-forests.pdf***

	government to pay. PILT & SRS equate to a very low percentage of actual taxable value & resource production capabilities. Fund restrictions.	funding Let willing states counties own/manage public lands, generate revues locally				See notes. An analysis of PILT-related payments and likely property tax liability of Federal resource management lands, Rocky Mountain Research Station, 1999 http://www.treesearch.fs.fed.us/pubs/4550 PILT (Payments in Lieu of Taxes): Somewhat Simplified, Congressional Research Service, 2012 http://www.fas.org/sgp/crs/misc/RL31392.pdf Forest Service Payments to Counties—Title I of the Federal Forests County Revenue, Schools, and Jobs Act of 2012: Issues for Congress, Congressional Research Service, 2012 http://nationalaglawcenter.org/wp-content/uploads/assets/crs/R42452.pdf Keeping the Commitment to Rural Communities, 2013, Jay O'Laughlin, University of Idaho http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=e11ece08-c8a2-4726-a6c5-d848a2b6581c Ideas for Reforming the Secure Rural Schools and Community Self-Determination Act (SRS) and Payments in Lieu of Taxes (PILT) , Headwaters Economics http://headwaterseconomics.org/land/county-payments-research
9	INADEQUATE FUNDING: Inadequate federal funding and/or prioritization for proper resource management, wildfire fuel reduction, wildfire rehabilitation, maintenance and repair of infrastructure, multiple-use access, and fire suppression.	Encourage prioritization toward situational prevention vs. post emergency repairs. Increase resource based economic productivity to generate positive revenue flows like they used to. Improve predictability of funding. Let willing states/counties own/manage public lands, implement local priorities and generate revenues locally. Encourage funding for work force commensurate		Assess State vs. Federal Economics		Chief Thomas Tidwell testimony, June 2013 http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=e59df65c-09c6-4ffd-9a83-f61f2822a075 Wildfire Management: Federal Funding and Related Statistics, Congressional Research Service, 2013 http://nationalaglawcenter.org/wp-content/uploads//assets/crs/R43077.pdf Government Accountability Office Reports on Wildland Fire Management http://www.gao.gov/key_issues/wildland_fire_management/issue_summary#t=0

		with land management goals and legal obligations.				
10	SCIENTIFIC INTEGRITY: Inaccurate, selective, biased, and/or outdated science and technology are being used in resource management plans, reports, administrative rules, federal policies, decisions, and enforcement.	Ensure scientific integrity. Require reports upon which policy decisions are based to follow scientific and statistical confidence standards and blind peer review typical of scientific journal publication. Remove bias, concentrate on facts instead of philosophy. Require minority report.				Information Quality Act of 2001: http://www.fws.gov/informationquality/section515.html Background and 2006 GAO report on the Information Quality Act: http://www.gao.gov/new.items/d06765.pdf Congressional Research Service reports from 2004 on Information Quality Act: http://www.fas.org/sgp/crs/RL32532.pdf; https://it.ojp.gov/documents/CRS_IQ_Act_OMB_Guidance_and_Implementation.pdf Guidelines from the Office of Management and Budget: http://www.whitehouse.gov/sites/default/files/omb/fedreg/reproducible2.pdf USFWS Ensuring the Quality and Credibility of Information: http://www.fws.gov/informationquality/ USFS Quality of Information: http://www.fs.fed.us/qoi/ BLM data quality: http://www.blm.gov/wo/st/en/National_Page/Notices_used_in_Footer/data_quality.html NPS Information quality: http://www.nps.gov/notices.htm Links to other agency information quality sites: http://www.whitehouse.gov/omb/inforeg_agency_info_quality_links/
11	MISSION CONFLICT: Several federal laws, executive orders, and rules are in conflict with the original purpose and authority related to federal land acquisitions, federal reservations, and the mission of managing agencies. This has resulted in contradictory policies and management constraints that are sometimes adversarial	Establish clarity of mission and purpose for being and consistency of laws and regulations in accordance with that mission.				

	to the environment, economy, as well as public health, safety, and welfare.					
12	HABITAT CAPACITY: USFWS does not consider range or carrying capacity of habitat on federal lands when determining target populations of predators and other wildlife.	Base decision on carrying capacity balanced with multiple use -not unscientific political decisions. Take a programmatic approach to landscape habitat capacity, range, and multiple uses to optimize health of environment, species success, and desirable human uses of land. Prioritize protection of local social and economic values, including public health and safety. Optimize production of lands by utilizing grazing. Keep in mind livestock is restricted from moving freely, while wildlife flows across landscape.		Comprehensive analysis of compatibility of target fish or wildlife population with other present species, range, carrying capacity of habitat, and multiple uses including grazing and timber management. Integrate valid, updated scientific information into land management and target population considerations.		
13	YPN BISON– populations expanding beyond Yellowstone National Park boundary into Montana, creating jurisdictional questions				(consult w/Dept. of Livestock, A.G., FWP, Tribes, Federal agencies – DOI/NPS)	Staff legal memo: http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Meetings/January-8-9-2014/legal-status-bison.pdf Interagency Plan and Agencies' Management Need Improvement to Better Address Bison-Cattle Brucellosis Controversy, Government Accountability Office, 2008 http://www.gao.gov/products/GAO-08-291 Interagency Bison Management Plan Library http://ibmp.info/index.php

	and management problems for the state of Montana.					
14	USFSW is not placing a priority on acknowledging adverse impacts of predators, invasive plant species, and wildfire on Sage Grouse populations. Comprehensive management considerations associated with multiple species seems lacking.	Retain state management of all fish and wildlife species. Recognize grazing's benefits to healthy plant communities. Need to recognize adverse impacts of cheat grass and other invasive species, wildfire, hunting, and predation on sage grouse.				***Jan 14-15-16 Sage Grouse Council*** ***Link to 30 year biologist's report***
15	TIMBER INDUSTRY VIABILITY: Although an over-abundance of timber exists in many national forests, the viability of timber and wood products industries and related jobs and infrastructure are threatened by bureaucratic impediments, declining forest health, and unpredictable supply due to federal policies, litigation and administrative costs, and management constraints.	Resource management which stimulates a viable timber industry and results in a broad distribution of mills across the state.				Forest Products Outlook 2013, Forest Products and Manufacturing, Bureau of Business and Economic Research http://www.bber.umt.edu/pubs/Forest/Outlook/forestproducts2013.pdf Timber Use, Processing Capacity, and Capability to Utilize Small-Diameter Timber Within USDA Forest Service, Region One Timber-processing Area, 2013, Bureau of Business and Economic Research http://www.bber.umt.edu/pubs/forest/capacity/R1_capacity_report_Final.pdf Trends in the Montana Forest Products Industry, 2013, Bureau of Business and Economic Research http://www.bber.umt.edu/pubs/forest/fidacs/COFE%20SWH%20final.pdf Montana Legislature Fire Suppression Committee 2008 report: The Price of Flame http://leg.mt.gov/content/Committees/Interim/2007_2008/fire_suppression/FSC%20final%20report.pdf
16	OWNERSHIP: Federally managed public lands might be sold or	Require state legislature's consent prior to sale,				77-2-401, MCA. Sale or transfer of federal land -- when hearing required. http://leg.mt.gov/bills/mca/77/2/77-2-401.htm 77-2-402, MCA. Hearing requirements.

	collateralized to private parties or foreign nations without state legislature's consent.	transfer, or acquisition of federally controlled public lands within Montana. Do not encumber public lands as collateral to lenders .				http://leg.mt.gov/bills/mca/77/2/77-2-402.htm 77-2-403, MCA. Action by director. http://leg.mt.gov/bills/mca/77/2/77-2-403.htm
17	OWNERSHIP: Checkerboard pattern of federal lands makes management and public access difficult.	Develop a fair and equitable system for consolidation of ownership to reduce difficulties in management, use, and access associated with land locked or limited access pieces.				***Economic Impact of Public Lands managed by the Federal Government, Pam Borda, Northeastern Nevada Regional Development Authority*** ***http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/economic-impact-of-public-lands.pdf***
18	UNFAVORABLE TIMBER MANGEMENT: Unmanaged, overpopulated timber stands contribute to insect infestations, declining timber health, drought, intense wildfire, reduced watershed yields, and adverse effects on wildlife habitat. Policies favoring weak, less useful timber like pine instead of stronger more useful fir and larch are bad for commercial supply. Not cutting in accordance with sustained yield	Optimize health, resiliency productivity, of timber stands and watersheds. Manage forest and harvest timber to sustain biological diversity at a regional scale. Consider /Emulate most favorable range of historic variation spatially and with regard of intensity of disturbance. Reduce over populated stands to prevent crown fires and increase wildlife				

	capabilities.	forage vegetation and increase water yields. Cut sustained yield volumes.				
19	ADVERSE IMPACTS OF ESA: Adverse impact on state, counties, private property, industry, lives, use permits, and livelihoods associated with protected species policies and the magnitude of unknown costs and consequences. Arbitrary listings. Slow-cumbersome delisting process.	Strive for viable populations of species while minimizing adverse impacts to local communities and counties. Reform ESA to reflect original intent of preventing species extinction versus expanding species abundance and distribution. Concentrate on protecting species as a whole instead of managing sub species and distinct populations.		More involvement by County Commissioners. State & local government engage in coordination with USF&W service.		Endangered Species Act: The U.S. Fish and Wildlife Service Has Incomplete Information about Effects on Listed Species from Section 7 Consultations, GAO report, 2009 http://www.gao.gov/products/GAO-09-550 Endangered Species Act: Many GAO Recommendations Have Been Implemented, but Some Issues Remain Unresolved, GAO report, 2008 http://www.gao.gov/products/GAO-09-225R U.S. Fish and Wildlife Service: Endangered Species Act Decision Making, GAO report, 2008 http://www.gao.gov/products/GAO-08-688T Endangered Species: Many Factors Affect the Length of Time to Recover Select Species, GAO report, 2006 http://www.gao.gov/products/GAO-06-730
20	NON-ESSENTIAL CLASSIFICATION: Lands, resources, and personnel assigned to mage these resources that are so critical to Montana's economy and environment , and	Access, use, and management of public lands must be recognized as a top priority.				

	many Montanan's way of life and happiness, have been deemed non-essential and shut down by the federal government.					
21	UNSUSTAINABLE ECONOMICS: Revenues generated by BLM go to DC Treasury. USFS no longer generates positive revenues. Mineral royalties vulnerable to national politics and Montana in the minority.	Sustainable economic management. Keep revenues generated locally on the unit or in the county.				FOREST SERVICE: Barriers to and Opportunities for Generating Revenue, General Accounting Office Testimony, 1999 http://www.gpo.gov/fdsys/pkg/GAOREPORTS-T-RCED-99-81/pdf/GAOREPORTS-T-RCED-99-81.pdf See Notes
22	PUBLIC INVOLVEMENT: Notification and decisions, policies, meeting formats, length of documents, and technical procedures favor paid participation and disenfranchise average citizens leaving local residents, land owners, forest users, and small communities feeling overwhelmed and powerless.	Increase ability of local public to influence decisions while still meeting efficient project management.	Lack of Local Accountability Difficulty of local participation Montanans are in the minority nationally and worldwide.	Provide adequate notification of proposed actions to local citizens, provide open public hearings where comments are recorded at local meetings and made part of record.		
23	OWNERSHIP: Unconstitutional acquisitions and contradictory retention policy versus enabling act/statehood compact.	Clarify ownership and under what jurisdiction it falls? Where does revenue go how is it divided and how is it		Facilitate DNRC being able to manage. Abandon Railroad Easement, who gets ownership when designated use is abandon (Brandt case)? Can state acquire		SJ15 Primer: http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Meetings/September-2013/SJ15-primer.pdf Taylor Grazing Act: http://www.law.cornell.edu/uscode/text/43/315 Federal Land Ownership: Constitutional Authority and the History of Acquisition, Disposal, and Retention, Congressional Research Service, 2007: http://www.law.umaryland.edu/marshall/crsreports/crsdocuments/RL34267_12032007.pdf

		decided? Ownership map and verify record of title/deed.		those abandon ROW's?		National Acquisition Plan for Departments of Agriculture and Interior, 2005: http://www.fs.fed.us/land/staff/LWCF/Final%20DOI-USDA%20Land%20Acquisition%20Report%20to%20Congress.pdf Marvin M. Brandt Revocable Trust v. United States, ownership of abandoned railroad right of way. Oral arguments U.S. Supreme Court, Jan. 2014 http://www.supremecourt.gov/oral_arguments/argument_transcripts/12-1173_7lh8.pdf
24	SHUTDOWN: Another shutdown of the public lands and treasured places controlled by the federal government.	No shutdown of public lands Contingency plan to protect MT interests in event of shutdown in future Higher priority in public lands ad resources in terms of essential status classification		What worked in other states? Logging Contracts? State takes over task until feds get back up and running. What can be closed and what can't		***http://www.opb.org/news/article/federal-judge-orders-logging-to-resume-immediately/*** DNRC/USFS Stewardship agreement, 2013
25	JURISDICTION: Confusion over jurisdiction.	Clarify jurisdiction over resource mngt and health, safety, welfare of the people.		Health, safety, welfare Inventory RS 2477 roads and ROW (Mark Lodine DOJ - USFS /Tony Rampton, Deputy A.G. - Utah)		***INVENTORY REPORT ON JURISDICTIONAL STATUS OF FEDERAL AREAS WITHIN THE STATES Compiled by GENERAL SERVICES ADMINISTRATION, 1962 http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Committee-Topics/sj-15/matrix-references/federal-land-jurisdiction-report.pdf***
26	PERMITS: Cabin sites leases, grazing AUMs outfitting, mineral extraction, oil & gas. Expense and length of time to secure permits; vulnerability to subjective approval, denial, classification, and/or revocation of permits. Complications – Grazing ESA, fencing	GRAZING: size of cow should be considered in carrying capacity, AUM should be based on sustainability per range science not politics. Existing lease owners should have reasonable		Explore historic trends AUM's associated with various political entities. Separate range science from political decisions. Limit lease fee increases to avert cost spike. Look at averages instead of spikes.		http://beefmagazine.com/genetics/0201-increased-beef-cows See notes Fact sheet on BLM grazing: http://www.blm.gov/wo/st/en/prog/grazing.html BLM Rangeland Reports, 1989-2012 http://www.blm.gov/wo/st/en/prog/more/rangeland_management/rangeland_inventory.html Criticism of BLM grazing program, Public Employees for Environmental Responsibility: http://www.peer.org/news/news-releases/2012/05/14/livestock%E2%80%99s-heavy-hooves-impair-one-third-of-blm-rangelands/ Federal Grazing Fee formula: http://www.archives.gov/federal-register/codification/executive-order/12548.html

	requirements, water,	opportunity to retain their lease.				Grazing Fees: Overview and Issues, Congressional Research Service, 2012 http://nationalaglawcenter.org/wp-content/uploads/assets/crs/RS21232.pdf Livestock Grazing: Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee Charged, U.S. Government Accountability Office, 2005 http://www.gao.gov/products/GAO-05-869 Montana state land grazing rules and study, 2011 http://dnrc.mt.gov/trust/agm/GrazingRateStudy/Default.asp
27	LACK OF PRODUCTION: – available resources not being utilized at an acceptable rate -- saw timber, small wood, oil, gas, and mineral resources not being utilized enough. Canadian subsidized timber effect on U.S.	Increased resource production.		(Look at national economy year by year compare extraction to commodity prices) Higher priority on production goals. Prioritize projects related to HSW (infrastructure). State manage a section of federal land to treat under state law, then rotate to next section. Manage certain areas under state law Streamline permitting Review the success of the cohesive strategy to prioritize and achieve desired condition in at risk areas.		US-Canada Softwood Lumber Agreement effective through 2015 http://www.uslumbercoalition.org/general.cfm?page=4 Softwood Lumber Imports from Canada: Issues and Events, Congressional Research Service 2006 http://research.policyarchive.org/3030.pdf General Accounting Office report on cabin site fees, Dec. 1996 http://www.gao.gov/assets/230/223486.pdf Press coverage of 2013 legislation to cap cabin site fees, Nov. 2013 http://www.rollcall.com/news/congress_looks_to_ease_fee_increases_for_national_forest_cabin_owners-229184-1.html?zkPrintable=true
28	FACTS - PUBLIC PERCEPTION – Lack of education and awareness about the benefits of sustained yield active mngt, utilization of natural resources, and related impacts on economy, jobs, environment, communities.	Increase public awareness Inform public about opportunities and benefits – pre & post project. Inform public about problems with obstructed management.		Active publicity of pre- project scoping Document and publicize post project benefits Schools, institutions, PBS, firewise		
29	HESITANCY: Some	Transparency		Protection of critics, seek		

	citizens, employees, permit holders, elected officials, etc. are hesitant to offer less than supportive or constructive criticism due to fear of offending federal decision makers, and/or suffering retribution via unfavorable funding and/or management outcomes.	Equal treatment High standard of recording actions, decisions, public interaction & comment, stream publicly.		recourse for mistreatment. Evaluation of fairness.		
30	CONGRESS: Ineffectiveness, complicated and contradictory policies, lack of: budget, financial security.	State would make decision on land management.				
31	BRINGING NON LOCAL COTRACTORS INTO AREAS WHERE LOCAL WORKERS WHO NEED WORK ARE AVAILABLE. Local employment opportunities are not emphasized.	Give more preference to local contractors.		Give consideration/preference to local small businesses. Allow chance for competitive bids vs 10 year contract on stewardship.		Standards used for awarding contracts in Region 1 Frank Preite – Director of Acquisitions Region 1 Dale Reckley -
32	BORDER SECURITY: Jeopardized by lack of access and denial of placement of communications equipment.	Allow proper access and placement of surveillance equipment to stop illegal entry and drug running.				Public and Private Land Ownership Maps: http://apps.msl.mt.gov/Geographic_Information/Maps/Land_Ownership/Default.aspx

Supplemental notes for SJ15 Study Matrix

2009 Fire Suppression Committee Legislation - Final Status

A. Homeowners

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	Final Status
1.	Amend the state fire policy statute (76-13-115) to make it clear that homeowners have responsibility for protecting their homes from wildland fires.	X	LC0479			Died

B. Wildland-Urban Interface: Land Use Planning, Insurance, Building Standards

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	Final Status
1.	Local agencies and state agencies should study and consider moving toward the Australian concept of evacuations and protection of properties within regions of Montana.					
Staff Comment: In Australia, residents in fire safe homes who do not choose to evacuate early are encouraged to stay and shelter in place as the fire front moves over the home. See Appendix E.						
2.	Create and fund pilot project for fuels reduction on state land in the wildland-urban interface -- use private contractors who then can be shifted to fire suppression when needed.	X	LC0477	X	X	Ch.289
Staff Comment: An appropriation of $3 million in HB 2 would be needed to implement the program.						
3.	Require insurance providers to offer discounts for insureds who maintain their homes and property to certain standards within a designated WUI.	X	LC0476			Died
Staff Comment: The standards under development in the rulemaking required to be completed by DNRC and DLI under 76-3-104(8) and 50-60-901, respectively, could be the standards for which incentives must be offered under this proposal.						
4.	Give the State Auditor the authority to review all property insurance policies to make sure that insurance companies have in place an ongoing education, training, or premium incentives aimed at protection of homeowners' properties from wildland fires. This may include educational material, home inspections, or discounts for proper hazard mitigation and fire protection activities.	X	LC0475			Died
5.	Require insurance companies to notify their insureds of the best practices developed during DNRC rulemaking pursuant to 76-13-104(8) and encourage their implementation.	X	LC0474			Died

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
Staff Comment: Use of best management practices for timber sales and logging are the inspiration for this proposal. Section 76-13-101(2) states: "To achieve the conservation of natural and watershed resources, the legislature encourages the use of best management practices in timber sale planning, associated road construction and reconstruction, timber harvesting, site preparation, and related activities and establishes a process to ensure that information on best management practices is provided to owners and operators engaged in forest practices on private land."						
6.	Send a letter to insurance providers authorized to operate in Montana that FSC encouraging them to educate homeowners who live in the WUI how to properly maintain their property to minimize wildland fire risks.					
7.	Create a Montana Fire Management Easement Program to create an incentive-based voluntary way for landowners who take a series of defined actions to reduce the risk of catastrophic fire and to be compensated for taking those actions. To comply, a landowner must live within a wildland-urban interface area described or identified through a Community Wildfire Protection Plan. To qualify for the program, the landowner must: (a) agree to limit further residential development on the property to a maximum of one additional residence; (b) agree to work with a land trust and a professional forester or designated local fire official to site any new residence based on conservation values and fire protection priorities; (c) participate in a Montana Extension Forestry Forest Stewardship Workshop or work with a professional forester to create a Forest Stewardship Plan for the property; (d) comply with defensible space standards spelled out in the DNRC "Fire Protection Guidelines for Wildland Residential Interface Development"; (e) build any new structures using firewise construction materials as adopted by the Montana Department of Labor and Industry. Structures must comply with Uniform Building Codes and Uniform Fire Codes. The enforcement of these construction/residential measures would be initially addressed by DNRC, the Montana Department of Labor and Industry and local fire officials. Land trusts would be responsible for annual monitoring and enforcement duties.	X	LC0473	X	X	Died

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
	A qualifying landowner would be eligible to receive an income tax credit.					
Staff Comment: There may be a need for FTE at DNRC and DLI to provide the enforcement and inspection. Local fire entities may also need funding to assist with these duties.						
8.	Require the Department of Labor and Industry to develop building standards for houses built within the WUI. DLI would have the inspection authority.	X	LC0472	X		Died
Staff Comment: (1) The rules being developed under 50-60-901 will provide a list of items for local governments to consider during subdivision review when determining whether wildfire hazards in a proposed subdivision can be overcome by construction techniques. (2) This proposal would also need to identify which entity would be responsible for delineating the WUI and require that delineation so everyone knows where this law is effective. The committee may want to consider the proposal applying to "high fire hazard areas" rather than the WUI, however, some entity will still need to be responsible for identifying those areas. (3) The committee may want to consider requiring modification and adoption of the International Urban Wildland Interface Code by DLI. This was among the original proposals considered by the WUI subcommittee.						
9.	Require definition of the WUI on a statewide level so that it is clear to all communities what constitutes a threat.	X	LC0480			Ch.397
10.	Change the state fire policy statute (76-13-115) to make it clear that homeowners have responsibility for their own home protection from wildland fires.	X	LC0479			Died
11.	Send a letter to the state fire units and local fire units that urges them to make clear to homeowners and landowners what their capabilities are to fight fires and the types of fires they will attempt to suppress.					
12.	Allow local regulation/enforcement of mitigation measures in the WUI. (a) Authorize a local government to regulate and enforce fire mitigation measures such as vegetation management, use of fire resistant building materials. (b) It would be discretionary for local governments.	X	LC0478			Died

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
	(c) If a local government chooses to implement this authority, it would be required to designate the area where these regulations would be in effect. (d) There would be no protest provision, but an appeals process and possible variance opportunity. (e) Incentives may encourage local governments to "opt in".					
Staff Comment: Standards required could be those implemented in rule under 76-13-104(8) and under 50-60-901 and 50-60-902, pursuant to SB 51(2007).						
13.	Grant funding for local prevention and mitigation programs. Appropriate money to DNRC from the general fund to use for a grant program. Local governments could apply for funding programs to: (a) help planning offices delineate the WUI; (b) target WUI homeowners with mitigation efforts; (c) establish and maintain prevention programs.	X	LC0482	X	X	Died
Staff Comment: The Western Wildlalnd Urban Interface Grant Program, administered by DNRC, uses State Fire Assistance funding provided by the federal government as part of the National Fire Plan to assist people and communities in mitigating wildlfire risk in the WUI. This proposal would use state funds for similar purposes.						
14.	Authorize local governments to form a taxing jurisdiction to pay for fuel reduction projects and tax either through sales or property tax to protect their homes. Authorize local governments to use the revenue from an existing sales tax or any new local option tax for fuel reduction projects around communities.	X	LC0481			Ch.38
15.	DNRC should provide regular updates of the list of communities at risk for wildfire (available on FSC's website at http://leg.mt.gov/fire) and identification of the top 10 highest-risk communities.					
16.	DNRC should institute a Montana Firewise month in June, during which special programs and educational events directed at property owners in the WUI would occur.					

C. Funding for Fire Protection, Suppression, Fuel Treatment

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
1.	The Appropriations and Finance and Claims committees should review this report, public comments made to FSC about DNRC's fire suppression program, and how the agency has responded to those comments as it reviews DNRC's budget.					
2.	State agencies that own or manage land should develop management plans for properties at risk of wildland fire.			X		
3.	Increase the statutorily-appropriated funding for emergencies and provide that the increase be used only for wildland fire; provide for ongoing fund transfers to the fire suppression account; remove the termination date for the fire suppression account; allow a certain amount in the account to be used for: (a) additional county co-op equipment; (b) fuels mitigation grant programs; (c) rural fire assistance matching grants for counties.	X	LC0503	X	X	Died
4.	Increase the statutorily-appropriated funding for emergencies and provide that the increase be used only for wildland fire; extend the termination date for the fire suppression account and the statutory appropriation of that account.	X	LC0504	X	X	Died
5.	Collection of fire protection funds should be made simpler and the collection problems associated with condominiums should be fixed.	X	LC0483	X		Ch.173
6.	Remove the requirement in 76-13-207 that the total amount of assessments received by DNRC from landowners not exceed one-third of the amount specified in the appropriation for fire protection costs.	X	LC0502	X	X	Died
Staff Comment: Revenue generated from assessments would continue to rise with increased parceling of forest land.						
7.	Create separate line item in HB 2 for the county co-op program, which should equal one-third of DNRC's fire program.				X	
Staff Comment: Based on FY 10-11, that would be about $800,000.						
8.	Fund acquisition of 25 more engines each year for the next 2 years of the biennium.			X	X	

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
9.	Allow tribal fire departments to participate in county co-op program.	X	LC0484	X	X	Died
10.	The Legislative Fiscal Analyst assigned to DNRC should provide the Finance Committee with regular updates on cost sharing agreements.					

D. Federal Forest and Wildfire Policy; State/Federal/Local Relations

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
1.	Allow DNRC, under certain circumstances pertaining to public health and safety, to engage in initial attack on all lands, regardless of jurisdiction, if a fire threatens to move onto state or private land.	X	LC0485			Ch.172
Staff Comment: DNRC does have an agreement with federal agencies that allow for IA under certain circumstances.						
2.	Require DNRC to establish NEPA coordinating agency status [76-13-702(5)].	X	LC0486	X	X	Ch.58
3.	Appropriate $200,000 to DNRC for the agency to establish NEPA cooperating and coordinating agency status.	X	LC0487	X		Died
4.	Resolution in support of the following NACo draft resolution (which was not adopted by NACo): "Adopted policy: The National Association of Counties calls on Congress to enact legislation granting a Governor authority to declare a crisis when the severity of fire danger from fuels on identified federal lands within that state pose a significant threat to public health and safety, or there would be a probable loss of homes and property if wildfires occur. Upon the declaration of a crisis, responsible federal agencies would fast-track a mitigation plan to reduce forest fuels. The mitigation planning would be excluded under the NEPA appeal process. Any claimant filing a court action against the plan would be required to post a damage bond of ten (10) percent of the value of the property that would be protected under the mitigation plan."	X	LC0488			Passed
5.	Amend provisions of 76-13-701 and 76-13-702(7) to allow the state to intervene on any fuel loading conditions that it considers to be a significant threat to public health and safety.	X	LC0489			Ch.115
6.	Amend the provisions of 77-5-216 to increase the percentage DNRC may exceed sustained yield on trust lands for forest health concerns from 5% to 10%.	X	LC0490			Ch.116
7.	An appropriate legislative committee should be notified when a transfer of land from a federal agency to the state occurs that will result in more direct protection acreage for DNRC.					
8.	An amount of $200,000 should be set aside as a line item in the Department of Justice's major litigation budget in HB 2 for the state to participate in certain lawsuits brought against federal agencies for forest management.			X	X	

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
Staff Comment: SB 293 (2007), sponsored by Sen. Laible, gave DNRC the authority to intervene in litigation or appeals on federal forest management projects that comply with forest management policy and in which local and state interests are clearly involved. This is codified in section 76-13-702.						
9.	Joint legislative resolution to be forwarded to Montana's congressional delegation that the legislature intends federal fire policy be modified so that: (a) there is safe and aggressive initial attack on all federal lands where there is a potential for the fire to move to state or private land; (b) there be active engagement of the state, local government, and landowners in land and fire management operations; (c) the federal government be responsible for costs and resource losses for large fires for which no direct suppression action was taken or where the federal government shifts control actions onto state or private land; and (d) Forest road closures should be limited if closure restricts access for wildfire suppression.	X	LC0491			Passed
10.	Prior to June 30, 2009, DNRC should develop an internal cost review process to ensure adequate review and concurrence on strategy and tactics for wildland fires for which the Wildland Fire Situation Analyses (WFSA) alternatives indicate potential expenditures of over $1 million.					
Staff Comment: According to the USFS website (http://www.fs.fed.us/fire/wfsa/wildland_situation%20analysis.htm), a WFSA "is required when the documentation of suppression decisions needs to occur – because one the following conditions have taken place: *Wildland fire escapes initial actions or is expected to exceed initial action. *A wildland fire being managed for resource benefits exceeds prescription parameters in the fire management plan. *A prescribed fire exceeds its prescription and is declared a wildland fire." "The purpose for completing a WFSA is to convey to an Incident Management Team (IMT) the critical objectives and priorities as defined by an Agency Administrator for a given incident."					
11.	The federal fire agencies and Montana's congressional delegation should review and comment on the information provided to the committee by members of the public and comments made by committee members regarding federal management of wildland fire and federal lands.					
12.	The federal fire agencies should meet with local and state fire agencies and entities of local and					

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2
	state government every spring and fall to discuss fire prevention, protection of homes and private property, land and wildfire management, cost sharing, and compensation to private entities and local fire and emergency response agencies. If federal agencies do not initiate the meetings, the local and state agencies and other entities should do so.				

E. Local Government; Volunteer Firefighters

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
1.	Provide for special license plates and tax credits for volunteer firefighters.	X	LC0492			Died
Staff Comment: The Montana State Council of Professional Firefighters and the Montana State Fire Chiefs' Association have license plate designs under the Generic Specialty License Plate act.						
2.	Provide tax incentives for volunteer firefighters and their employers	X	LC0493			Died
3.	Create grant program for volunteer fire departments.	X	LC0494			Died
4.	Allow leave for state employee volunteer firefighters for incident response.	X	LC0495			Died
5.	Allow a local government, through enforcement of a community decay ordinance, to engage in fuels treatment on land within the physical boundaries of the local government's jurisdiction but not under the local government's ownership.	X	LC0496			Died
Staff Comment: (1) A June 11, 1993, letter by Attorney General Joe Mazurek specifically addresses county commission authority to regulate land use upon federal or state lands (Appendix F). (2) Community decay is defined in 7-5-2110 and a local government's authority to control community decay is provided in 7-5-2111.						
6.	Allow volunteer firefighters to participate in county government health insurance pool provided there is no fiscal impact to the county.	X	LC0497			Died
Staff Comment: A bill draft to implement the above proposal would likely amend section 2-18-701 to include volunteer firefighters in the definition of "employee". The definition applies only to Title 2, chapter 18, part 7 -- Group Insurance Generally.						

F. Wood Products Infrastructure[3]

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
1.	Provide for a phased-in biomass tax credit, similar to Oregon's law, ORS Chapter 315.141 (Oregon Department of Revenue summary: Appendix G).	X	LC0498			Died
Staff Comment: The credit would go to the suppliers of biomass, not the purchasers (mills) of the biomass. The mills would receive the supply.						
2.	Amend 69-3-2003, definitions for the Montana Renewable Power Production and Rural Economic Development Act, to allow for a biomass generation facility with more total calculated nameplate capacity than is currently allowed.	X	LC0499			Died
Staff Comment: Section 69-3-2003(3) and (12) limit the megawatts in total calculated nameplate capacity and the location of the production facility. A biomass generation facility would use biomass collected from fuels reduction projects.						
3.	Revise license and registration fees for logging trucks so that they are the same as those for trucks used for agricultural purposes (61-10-206).	X	LC0505			Died
4.	Expand exemption on fuel tax for agricultural use to include logging trucks and other logging equipment.	X	LC0506			Died
5.	Allow oral (open) bidding on DNRC timber sales.	X	LC0507			Died
6.	Develop forest management plan for Fish, Wildlife and Parks land that includes mitigating beetle kill, wildland fire risk, and impacts to wildlife habitat.	X	LC0508			Ch.330
7.	FSC encourages more utilization of non-saw log material--such as pulp logs and other residue--made available through state timber sales.					

[3]Items #3 through #12 in Section F originated in "Montana Wood Products Industry Initiative: Recommendations for Action, September 11, 2008", prepared by the Missoula Area Economic Development Corporation. The Fire Suppression Committee reviewed the document and adopted ten of the 17 Recommendations for Immediate Action.

The FSC has recommended (p. 10) that the 2009 legislative leadership appoint a select committee or a subcommittee of a standing committee to meet during the session and review legislative options for preserving and maintaining the state's ailing wood products industry. If creation of this committee or subcommittee appears likely, items #3 through #12 may not be introduced.

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
8.	Reduce business equipment tax on equipment used to transport, process, and harvest forest products; consider temporary property tax exemption for existing forest products facilities.	X	LC0509			Died
9.	Index DNRC timber sales to the market.	X	LC0510			Died
10.	The workers compensation process for the forest products industry should be reviewed to find ways to reduce costs and adopt an apportionment system for workers with prior injuries who file claims and evaluate rates compared to other states.					
11.	State revolving loan fund program to supplements private sources of financing that timber harvesters and wood processors could use to obtain working capital needed to maintain and modernize existing operations.	X	LC0511			Died
12.	The Forest Service should develop pilot projects for resource recovery that include multi-year timber sales, thinning projects, and removal of dead and dying timber.					

G. Contracting

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2
1.	Recommend generally that the private contracting community and state, local, federal, and tribal fire suppression agencies maintain open communications and coordinate activities.				
2.	Recommend generally that the Northern Rockies Coordinating Group work with representatives from the private contracting community to increase the over-all efficiency of the equipment inspection process.				
Staff Comment: The subcommittee heard testimony that the state and federal fire suppression agencies will eliminate unnecessary inspections and that those agencies have pledged to increase the efficiency of the inspection process for future fire seasons.					
3.	Recommend that the Northern Rockies Coordinating Group work with representatives from the private contracting community where possible to conduct joint training sessions.				
4.	Recommend that Department of Labor coordinate with the Northern Rockies Coordinating Group to ensure that private contractors working on the fire lines are complying with the workers' compensation laws. Recommend that the State Fund and private insurance companies work with the fire suppression contracting community to ensure reasonable workers' compensation insurance rates. Recommend that the FSC write a letter to the Department of Labor and Industry and the State Fund requesting those agencies' involvement in solving these workers' compensation issues.				
5.	Recommend FSC support for the current Northern Rockies Coordinating Group dispatch system that utilizes the closest resource concept that involves local governments, state, federal and private contracting resources that is most cost effective and efficient for the taxpayers and local communities.				
6.	Recommend that the fire suppression contracting community form at most, one or two associations (including the aviation contractors) to represent private contractors across the state and to provide one voice before the legislature and state and federal fire suppression agencies.				
7.	Recommend that the Montana Legislature and the federal fire suppression agencies increase the number of incident business advisors that are deployed on fires throughout Montana in order to improve the efficiency of deploying private contractors and tracking costs.				

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2
8.	Recommend FSC support for the best value contracting process.				
9.	Recommend that the FSC send a letter to the Legislative Audit Committee requesting a performance audit of the Department of Natural Resources and Conservation's Aviation Program, including an evaluation of the need for additional helicopter managers.				
10.	DNRC should relay to the contracting section of the Northern Rockies Coordinating Group the concerns that contractors have expressed to the FSC.				

H. Miscellaneous Recommendations

	Recommendation	Bill Draft	Bill Draft #	Include in Legislative Budget Analysis	Include in House Bill 2	
1.	Extend time limit on an emergency related to wildfire	X	LC0011			Died
2.	Request that the Montana Department of Transportation mow and maintain highway rights-of-way under its jurisdiction to minimize wildfire starts from vehicles.					
3.	Require training on mechanized fire suppression and fuels reduction equipment at Fire Services Training School (Title 20, chapter 31).	X	LC0501			Died
4.	Continue Fire Suppression Committee through the 2009-2010 interim, with a general fund appropriation of $50,000, to follow up on recommendations contained in this report.	X	LC0500	X		Died

I. DNRC Budget Recommendations Provided by the Agency (in order of priority)

Priority # and Title	FTE	Annual Cost	One Time Only (OTO) Cost	Description	Projected Annual Savings or Benefits	Assumptions
1. Extend engine crews to 7-day coverage	7.0	$ 260,000	0	Add or extend seasonal positions on DNRC engines to achieve 7 day full coverage. Operations funds ($50,000) are included for equipment and fuel.	$3.0 M	Prevent two 1000+ acre wildfires per year.
Staff Comment: The committee requested that the above item be approved by the Governor's Office of Budget and Program Planning (OBPP) for implementation during the 2008 fire season (Appendix D). The approval was provided by OBPP and these positions were created as modified for the 2008 fire season. The executive approved this item for submission into the budget process.						
2. Extend aviation crews to 7 day coverage	6.79	$ 469,246	0	Staff all helicopters with manager, crew, and fuel truck driver. Operations and capital of $63,000	$3.0 M	Prevent two 1000+ acre wildfires per year.
Staff Comment: The committee requested that the above item be approved by the Governor's Office of Budget and Program Planning (OBPP) for implementation during the 2008 fire season (Appendix D). The approval was provided by OBPP and these positions were created as modified for the 2008 fire season. The executive approved this item for submission into the budget process.						
3. County Rural Fire Coordinators	2.0	$187,000	0	Add a Rural Fire Specialist at the Northeastern and Southern Land Offices. Includes $50,000 in capital and $20,000 in operations.	Fire safety and improved coordination	
4. Fire Business Specialists	4.0	$300,000	0	Two additional fire business staff for the Fire and Aviation Management Bureau and four half-time positions in field offices. Includes $10k operations each.	$750,000 in prevented expenditures.	Increased fiscal oversight during and after fire season operations, to work as incident business advisors and audit fire bills at fire season end.
Staff Comment: The committee requested that the above item be approved by the Governor's Office of Budget and Program Planning (OBPP) for implementation during the 2008 fire season (Appendix D). The item was not approved by OBPP.						
5. Operations Section Supervisor	1.0	$95,000	0	Operations Section Supervisor to assist Fire and Aviation Management Bureau Chief. Includes $20k	Firefighter safety and	

Priority # and Title	FTE	Annual Cost	One Time Only (OTO) Cost	Description	Projected Annual Savings or Benefits	Assumptions
				capital and $10k operations.	coordination of DNRC fire program.	
Staff Comment: The committee requested that the above item be approved by the Governor's Office of Budget and Program Planning (OBPP) for implementation during the 2008 fire season (Appendix D). The item was not approved by OBPP. However, through the re-direction of currently approved FTE, the position was filled in July of this year.						
6. Fire Safety Specialist	1.0	$85,000	0	Safety and investigation specialist for the Fire and Aviation Management Bureau. Includes $20k capital and $10k operation.	Firefighter safety	Increased focus on fire line and aviation safety and investigations.
Staff Comment: The above item was an action item resulting from a 2007 DNRC aviation safety investigation.						
7. Dispatch Center Staff	4.25	$160,000	0	Augment existing and add additional dispatch positions at all land offices.	Firefighter safety and equity with federal agencies	Increased representation in interagency dispatch centers to assure distribution of firefighting resources to state and local government fires.
Staff Comment: The committee requested that the above item be approved by the Governor's Office of Budget and Program Planning (OBPP) for implementation during the 2008 fire season (Appendix D). The item was not approved by OBPP.						
8. County Engines	0	0	$1,000,000	One-time additional development of 20 new county co-op engines to augment the Equipment Development Center's annual development of 15 engines.	$500,000	Prevent one 5,000+ acre fire in eastern Montana each year. Increased safety by removing old equipment from the field.

Priority # and Title	FTE	Annual Cost	One Time Only (OTO) Cost	Description	Projected Annual Savings or Benefits	Assumptions
9. Fuels Mitigation Fund	0	0	$1,000,000	Cost-share assistance to private landowners within the WUI to reduce fuels around home sites consistent with priorities in Community Wildfire Protection Plans. Estimated treatment of 1500 home sites.	$500,000	Prevent one 500 acre fire and one home from loss due to wildfire. Reduced extreme fire behavior, losses and cost from fire on treated private lands.
10. Aircraft Hangars	0	0	$700,000	Construct aircraft hangars in Kalispell and Missoula for DNRC aircraft. (Long Range Planning request)	$700,000	Security from weather and vandalism and adequate maintenance facility in the field.
Staff Comment: The above item is a Long Range Planning request.						
11. Communication System Support	2.0	$280,000	0	Two communication technicians to provide service to the current system. Includes purchase of vehicles, training, and operating costs.	Firefighter safety	Increase management of existing radio network to improve system reliability.
12. Type 3 Incident Management Team Development & Support	0	$300,000	0	Provide support via training, equipment and vehicles.	$500,000	Prevent one Type 2 IMT deployment per year. Improved success in extended attack, reduced costs and losses.

Priority # and Title	FTE	Annual Cost	One Time Only (OTO) Cost	Description	Projected Annual Savings or Benefits	Assumptions
13. Eastside Capital and Mobile Kitchen	0	$115,000	0	Increase in one additional truck purchase per year for eastside land offices and provide support of state mobile kitchens.	$250,000	Prevent one national caterer mobilization per year. Ensure readiness of state mobile kitchens.
14. Federal Excess Property Acquisition Staff	1.0	$135,000	0	One person to screen federal excess property as well as Department of Defense for parts and equipment.	$100,000	Cost savings from five federal excess vehicle vs. purchase of new vehicles. Increase capacity for state and local programs through excess equipment procurement.
15. Twenty Person Type 2 Initial Attack Crew	10.0	$680,000	0	Development of a Type 2 team for DNRC use. Includes vehicles, equipment and training costs.	$1.5 M	Prevent one 1500 acre fire by enhanced initial attack effectiveness and saving on contract or severity costs.
16. Additional helicopter and crew	4.0	$112,000	$325,000	Funding to develop a MT 205 helicopter, hire seasonal pilot and support crew.	$750,000	Prevent one 1500 acre fire per year by increased initial attack effectiveness.

J. DNRC Budget Recommendations Provided through Public Comment (not prioritized)

Recommendation # and Title	FTE	Annual Cost	One Time Only (OTO) Cost	Description	Projected Annual Savings or Benefits	Assumptions
1. Continued Support of Volunteer Fire and Rural Fire Assistance Grants	0	0	0	Pass through grants from federal sources.	Increased resources	Provides support for training and equipment to rural fire and volunteer fire departments.
Staff Comment: The above item is currently funded with federal dollars only. Should the legislature wish to expand the program by adding a state appropriation, the fiscal impact would be that amount.						
2. Helicopter for eastern Montana based in Miles City	4.0	$112,200	$325,000	Funding to develop a MT 205 helicopter and hire seasonal pilot and support crew for stationing in Miles City.	$500,000	Prevent one 5000 acre fire by enhanced initial attack effectiveness.
3. Additional staff in Northeastern and Eastern Land Offices	2.0	$210,000	$60,000	Funding to support two additional FTE for increased local support for fire prevention activities and training. OTO funding for vehicles for FTE.	Improved local coordination.	Increased state presence to aid in coordination of local resources with state and federal resources.
4. Eastern Montana Training Coordinator	1.0	$105,000	$30,000	Funding to provide a training coordinator for eastern Montana. OTO funding for vehicle.	Improved local coordination, firefighter safety.	Local training for local fire personnel

Montana Department of
ENVIRONMENTAL QUALITY

MEMO

TO: Jim Keane, Chair
Environmental Quality Council

FROM: Eric Merchant, Air Policy and Planning Section Supervisor
Air Resources Management Bureau

DATE: November 19, 2013

SUBJECT: Wildfire Smoke and Air Quality Discussion Materials

Attached for your consideration are materials in support of the discussion involving wildfire smoke and air quality. Questions regarding these materials may be directed to me at 444-1457 or by e-mail at emerchant@mt.gov.

MT DEQ Wildfire Smoke Program

- **Monitoring Current Wildfire Smoke**
- **Forecasting Future Wildfire Smoke**
- **Communicating Information to the Public**

Monitoring - Network of Ambient Samplers

- 13 State Local Air Monitoring Stations (SLAMS) for PM-2.5
- Communities with monitors are those already susceptible to air pollution
- Visibility Ranges by Health Effects Categories

Forecasting - Wildfire Smoke Update

- Daily report / current conditions / communities at risk
- Produced up to seven days per week / 2x per day (morning / afternoon)
- Smoke forecast using MET, Inciweb, satellite imagery, etc. next 12 hours

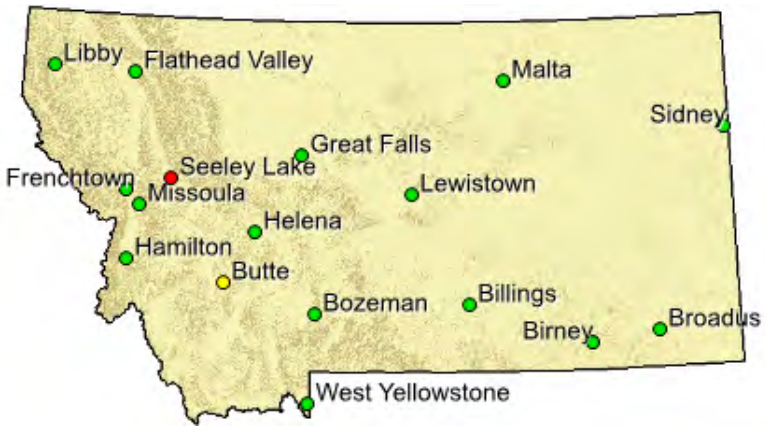
Communicating – Public and Media Outreach

- Today's Air web site – Dots on the map with associated Health Effects Categories
- Phone calls to DEQ staff from public & stakeholders
- Media contacts including television, radio, and newspaper
- DEQ outreach and coordination with stakeholders, FLMs, county health departments, etc
- Outdoor Sporting Events handout – cooperation with OPI, DPPHS, State Medical Physician
- Always emphasizing coordination with personal physicians / county health officers

Contact

Eric Merchant, Air Policy and Planning Section Supervisor
Department of Environmental Quality
444-1457 emerchant@mt.gov

Today's Air



HEALTH EFFECTS CATEGORIES

Air Quality Index (AQI) for BAM-2.5 24-Hour [1]			
Health Effects Categories		**Health Effects**	**Cautionary Statements**
	Hazardous	Serious aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; serious risk of respiratory effects in the general population.	Everyone should avoid any outdoor exertion; people with respiratory or heart disease, the elderly, and children should remain indoors.
	Very Unhealthy	Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant risk of respiratory effects in the general population.	People with respiratory or heart disease, the elderly, and children should avoid any outdoor activity; everyone else should avoid prolonged exertion.
	Unhealthy	Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in the general population.	People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion.
	Unhealthy for Sensitive Groups	Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.	People with respiratory or heart disease, the elderly and children should limit prolonged exertion.
	Moderate	Possibility of aggravation of heart or lung disease among persons with cardiopulmonary disease and the elderly.	None

[1] Guideline For Reporting Of Daily Air Quality – Air Quality Index (AQI), EPA-454/R-99-010, July 1999, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, 27711.

VISIBILITY RANGES

Health Effects Categories	Visibility Ranges (miles)[3]
Hazardous	< 1.3
Very Unhealthy	2.1 - 1.3
Unhealthy	5.0 - 2.2
Unhealthy for Sensitive Groups	8.7 - 5.1
Moderate	13.3 - 8.8
Good	> 13.4 +

The procedure for making personal observation to determine the forest fire smoke index value for local areas without National Weather Station (NWS) or Department of Environmental Quality (DEQ) monitors is:

1. Face away from the sun.

2. Determine the limit of your visible range by looking for targets at known distances (miles).

3. Visible range is that point at which even high contrast objects totally disappear.

4. Use the values above to determine the local forest fire smoke category.

Air Quality Resources For Wildfire Smoke

Today's Air Website: http://todaysair.mt.gov/

The public may go directly to this website, or may find a link from the DEQ home page. DEQ provides real-time PM2.5 monitoring for thirteen locations across the state. Cumulative PM2.5 exposures are reported as one hour, eight hour, and 24 hour averages.

Wildfire Smoke Update: http://svc.mt.gov/deq/smokereport/mostRecentUpdate.aspx

From the Today's Air web page, the link to the Wildfire Smoke Update home page is at the top-center. From here, one must click on the "Most Recent Smoke Update" link. This web page is updated every day during fire season by the state air quality meteorologist. The page includes a descriptive narrative of current smoke conditions around the state, wildfire activity, and a weather and smoke forecast.

Explanation of health effects categories: http://www.deq.mt.gov/FireUpdates/SmokeCategories.mcpx

Links to this page are provided on the Today's Air home page, the Wildfire Smoke Updates home page, and at the bottom of each Wildfire Smoke Update.

Visibility ranges to determine health effects categories:

http://www.deq.mt.gov/FireUpdates/VisibilityRanges.mcpx

Links to this page are provided on the Wildfire Smoke Updates home page, and at the end of the narrative description in each Wildfire Smoke Update. Using the visibility guidelines is suggested for anyone that does not live near one of the thirteen air monitors. One can determine the range of visibility wherever they are and then associate that visibility range with a health effect category to

better understand the air quality conditions and the general precautions they can use to protect themselves.

Recommendations for outdoor sporting events:

This PDF can be found on the Wildfire Smoke Updates home page. It was produced by Montana DPHHS, in conjunction with DEQ, and provides recommendations for outdoor physical activity under given visibility ranges and air quality health effects categories.

County Air Quality Programs: http://www.deq.mt.gov/AirQuality/coprograms.mcpx

This link can be found on the Today's Air home page. Some counties have their own air quality program, which may provide more specific and localized health-based information in times of poor air quality.

Decision making recommendations during wildfire season for

Outdoor Sporting Events

based on visibility and air quality

Health Effect Category*	Visibility†	Recommendation
Good	13.4 miles and up	Hold outdoor sporting events as usual. Athletes with asthma should keep rescue inhalers at hand. Athletes with other smoke related sensitivities should take precautions as symptoms dictate.
Moderate/ Unhealthy for Sensitive Groups	5.1 to 13.3 miles	Hold outdoor sporting events as usual. Athletes with asthma should have rescue inhalers readily available and pretreat before exercise as directed by their healthcare provider. All athletes with respiratory illness should limit outdoor activity, monitor symptoms and reduce/cease activity if symptoms arise.
Unhealthy	2.2 to 5.0 miles	Consider postponing/delaying outdoor sporting events, especially high exertion activities like soccer and track and field. If possible, move athletic practices indoors. If event/practice is held, athletes with asthma or other respiratory illnesses are advised not to participate. All athletes should limit their outdoor activity for prolonged periods of time.
Very Unhealthy	1.3 to 2.1 miles	Consider postponing/delaying all outdoor sporting events. Move all athletic practices indoors. All athletes with asthma and other respiratory illnesses are advised to stay indoors. All others should avoid prolonged exertion outdoors.
Hazardous	1.3 miles or less	Cancel all outdoor sporting events or relocate to an indoor location. Move all athletic practices indoors.
At all times, athletes experiencing respiratory symptoms should consult their personal healthcare provider		

*For more information on the health effect categories visit the "Today's Air" website run by the Department of Environmental Quality at http://todaysair.mt.gov Air monitoring stations exist in Billings, Bozeman, Butte, Great Falls, Hamilton, Helena, Kalispell, Libby, Missoula, and West Yellowstone. The Today's Air website has hourly updates on the health effect category at these sites based on measured particulate matter levels. All other locations must determine the health effect category at their location based on visibility.

† To determine visibility:
1. Face away from the sun
2. Determine the limit of your visible range by looking for targets at known distances
3. Visible range is that point at which even high contrast objects totally disappear

Use the values above to determine the local forest fire smoke category

MONTANA Department of Public Health & Human Services

For more information contact the State Medical Officer
Steven Helgerson, MD, MPH at shelgerson@mt.gov

http://todaysair.mt.gov

Montana Department of Environmental Quality

OPI

YEAR TO DATE WILDFIRE EMISSION INVENTORY

Year to date (November, 11 2013) pollutant emissions for wildfires in Montana (Table 1) and Idaho (Table 2) have been estimated at the request of Stephen Coe, Senior Planning Engineer, Air Resources Management Bureau, Montana Dept. of Environmental Quality. This document provides the wildfires estimates and describes the methodology used to derive the emission estimates.

Table 1. Montana 2013 Wildfire Emission Estimates (through Nov. 11, 2013)

	Forest	Rangeland	Total	Total
		Area Burned		
		(km^2)		(acre)
	287	6	293	72439
		Fuel Consumed		
		(Gg)		(short ton)
	953.05	1.51	954.56	1052219
		Emissions		
		(Gg)		(short ton)
Pollutant				
Carbon Dioxide (CO2)	1.52E+03	2.54E+00	1.53E+03	1683693
Carbon Monoxide (CO)	1.29E+02	9.49E-02	1.29E+02	141930
Methane (CH4)	6.98E+00	2.92E-03	6.98E+00	7693
Acetylene (C2H2)	2.79E-01	3.62E-04	2.80E-01	308
Ethylene (C2H4)	1.63E+00	1.24E-03	1.63E+00	1798
Propylene (C3H6)	9.15E-01	1.19E-03	9.16E-01	1010
Formaldehyde (HCHO)	2.48E+00	1.10E-03	2.48E+00	2733
Methanol (CH3OH)	2.99E+00	1.78E-03	2.99E+00	3301
Formic Acid (HCOOH)	2.48E-01	3.16E-04	2.48E-01	273
Acetic Acid (CH3COOH)	3.55E+00	5.35E-03	3.55E+00	3914
Phenol (C6H5OH)	9.72E-01	7.83E-04	9.73E-01	1072
Furan (C4H4O)	5.72E-01	2.56E-04	5.72E-01	631
Glycolaldehyde (C2H4O2)	9.82E-01	1.22E-03	9.83E-01	1083
Hydrogen Cyanide (HCN)	7.91E-01	6.18E-04	7.92E-01	873
Ammonia (NH3)	1.81E+00	7.83E-04	1.81E+00	1997
Nitrogen Oxides (NOx as NO)	1.84E+00	5.88E-03	1.85E+00	2034
PM2.5 (fine particulate matter)	2.46E+01	1.08E-02	2.46E+01	27116
Propane (C3H8)	2.51E-01	1.51E-04	2.51E-01	276
n-Butane (C4H10)	7.94E-02	2.41E-05	7.94E-02	88
Isoprene (C5H8)	7.09E-02	5.88E-05	7.10E-02	78
Benzene (C6H6)	5.28E-01	3.01E-04	5.28E-01	582
Toluene (C6H5CH3)	2.33E-01	1.21E-04	2.33E-01	256

Table 2. **Idaho 2013 Wildfire Emission Estimates** (through Nov. 11, 2013)

	Forest	Rangeland	Total	Total
		Area Burned		
		(km^2)		(acre)
	1405	1600	3006	742436
		Fuel Consumed		
		(Gg)		(short ton)
	4448	316	3006	3313341
		Emissions		
		(Gg)		(short ton)
Pollutant				
Carbon Dioxide (CO2)	7.12E+03	5.32E+02	7.65E+03	8432219
Carbon Monoxide (CO)	6.01E+02	1.99E+01	6.20E+02	683895
Methane (CH4)	3.26E+01	6.12E-01	3.32E+01	36569
Acetylene (C2H2)	1.30E+00	7.57E-02	1.38E+00	1520
Ethylene (C2H4)	7.61E+00	2.59E-01	7.87E+00	8670
Propylene (C3H6)	4.27E+00	2.49E-01	4.52E+00	4982
Formaldehyde (HCHO)	1.16E+01	2.30E-01	1.18E+01	13003
Methanol (CH3OH)	1.40E+01	3.72E-01	1.43E+01	15808
Formic Acid (HCOOH)	1.16E+00	6.63E-02	1.22E+00	1348
Acetic Acid (CH3COOH)	1.65E+01	1.12E+00	1.77E+01	19476
Phenol (C6H5OH)	4.54E+00	1.64E-01	4.70E+00	5183
Furan (C4H4O)	2.67E+00	5.37E-02	2.72E+00	3001
Glycolaldehyde (C2H4O2)	4.58E+00	2.56E-01	4.84E+00	5332
Hydrogen Cyanide (HCN)	3.69E+00	1.29E-01	3.82E+00	4213
Ammonia (NH3)	8.45E+00	1.64E-01	8.62E+00	9498
Nitrogen Oxides (NOx as NO)	8.59E+00	1.23E+00	9.82E+00	10821
PM2.5 (fine particulate matter)	1.15E+02	2.26E+00	1.17E+02	129006
Propane (C3H8)	1.17E+00	3.16E-02	1.20E+00	1324
n-Butane (C4H10)	3.71E-01	5.05E-03	3.76E-01	414
Isoprene (C5H8)	3.31E-01	1.23E-02	3.43E-01	378
Benzene (C6H6)	2.46E+00	6.31E-02	2.53E+00	2786
Toluene (C6H5CH3)	1.09E+00	2.52E-02	1.11E+00	1224

METHODOLOGY

Fire emission of pollutant X (E_X) may be estimated as the product of area burned (A; m^2), fuel load (F; kg-dry vegetation m^{-2}), combustion completeness (C; unitless), and specific emission factor for X (EF_X; [g-compound X] [kg-dry vegetation burned^{-1}]) (Urbanski et al., 2011 and references therein):

$$E_X = A \times F \times C \times 0.001 \times EF_X \quad (1)$$

We used Equation (1) to estimate 2013 year to date fire emissions of 22 pollutants from wildfires in Montana and Idaho. The methods and data sources used to estimate E_X are described in the following sections.

AREA BURNED, A

Shape files of incident fire perimeters were used to estimate area burned. Incident perimeters were downloaded through the GEOMAC Wildland Fire Support website (http://www.geomac.gov/index.shtml). Fire perimeters were downloaded on November 7, 2013. This analysis assigned emissions geospatially and as a result the burned area used here differs from that reported in the national fire statistics. The difference is largely due to the ~43,000 acre Gold Pan Complex which burned mostly Idaho but was assigned Montana ownership in the ISC-209 and the National Interagency Fire Center (NIFC) fire static reports.

FUEL LOAD, F

The fuel load for the area burned was estimated from an overlay of the fire perimeters with a USFS Remote Sensing Application Center (RSAC) / Forest Inventory Analysis Program (FIA) map of forest type group (REF) and a rangeland biomass developed by Matt Reeves of the USFS, Rocky Mountain Research Station, Missoula, MT (Reeves, 2013). The RSAC/FIA forest type map (hereafter FTG map) has a resolution of 250 m. Classification accuracy for the FTG map forest/non-forest product is approximately 90 percent. The overall classification accuracy for the forest type group was 65 percent for the western conterminous U.S. (Ruefenacht et al., 2008). Fuel loading for each forest type group was taken from a fuel loading model developed from ~13,000 FIA fuel loading plots (Keane et al., 2013). Rangeland fuel loading is estimated with a Normalized Differenced Vegetation Index (NDVI) based biomass product developed using a large set of field data from the USDA Soil Survey Geographic (SSURGO) database, NDVI from the MODIS sensor on the Terra satellite, and landscape attributes (Reeves, 2013). The NDVI based rangeland biomass product accounts for the inter-annual variability in fine fuel loading which can exceed the decadal mean loading by more than 100%. The FTG fuel loading model provided loadings for litter, duff, and down deadwood by size class (1-hr, 10-hr, 100-hr, 1000-hr). Due to the high uncertainty in estimating canopy fuel consumption without the benefit of post-fire remote sensing and/or ground based observations, we did not consider canopy fuels in our emission inventory estimates.

FUEL CONSUMPTION, C

Fuel consumption was estimated using the First Order Fire Effects Model (FOFEM; http://www.firelab.org/science-applications/fire-fuel/111-fofem). All simulations employed the following fuel moistures: 10-hour = 10%; 1000-hour = 15%; duff = 40%. The FOFEM simulations used FTG and FCCS fuel models as input to estimate the fuel load consumed (kg-dry vegetation m^{-2}), which is F × C in Eq. (1), for each fuel model class.

EMISSION FACTORS, EF_X

Emission factors for 22 pollutants based on EF published in the peer review literature and recent field measurements of EF for wildfires in the interior mountain west. The EF_X used in this emission inventory are provided in Table 3. For non-forest vegetation we used the 'savanna' EF_X reported by

Akagi et al. (2011). Most of the forest EF_X are from recent field measurements of wildfire emissions in Montana and Idaho (Urbanski et al., 2013), or were estimated using the combustion efficiency measured by Urbanski et al. (2013) and EF_X – combustion efficiency relationships reported by Burling et al. (2011). A few of the forest EF_X are from peer reviewed literature, as indicted in Table 3.

Table 3. Emission Factors

Pollutant	Forest EF[1] ($g\ kg^{-1}$)	Non-Forest EF[2] ($g\ kg^{-1}$)
MCE	0.883	0.945
Carbon Dioxide (CO2)	1600	1686
Carbon Monoxide (CO)	135	63
Methane (CH4)	7.32	1.94
Acetylene (C2H2)	0.29[3]	0.24
Ethylene (C2H4)	1.71	0.82
Propylene (C3H6)	0.96	0.79
Formaldehyde (HCHO)	2.6	0.73
Methanol (CH3OH)	3.14	1.18
Formic Acid (HCOOH)	0.26	0.21
Acetic Acid (CH3COOH)	3.72	3.55
Phenol (C6H5OH)	1.02	0.52
Furan (C4H4O)	0.6	0.17
Glycolaldehyde (C2H4O2)	1.03	0.81
Hydrogen Cyanide (HCN)	0.83	0.41
Ammonia (NH3)	1.9	0.52
Nitrogen Oxides (NOx as NO)	1.93	3.9
PM2.5 (fine particulate matter)	25.8	7.17
Propane (C3H8)	0.26[3]	0.1
n-Butane (C4H10)	0.083[3]	0.016
Isoprene (C5H8)	0.074[4]	0.039
Benzene (C6H6)	0.55[4]	0.2
Toluene (C6H5CH3)	0.24[4]	0.08

[1]All Forest EF_X are from Urbanski et al. (2012) unless otherwise noted

[2]All Non-Forest EF are from Akagi et al. (2011)

[3]EF from "Temperate Forest" column of Table 1 in Akagi et al. (2011)

[4]EF from Simpson et al. (2011)

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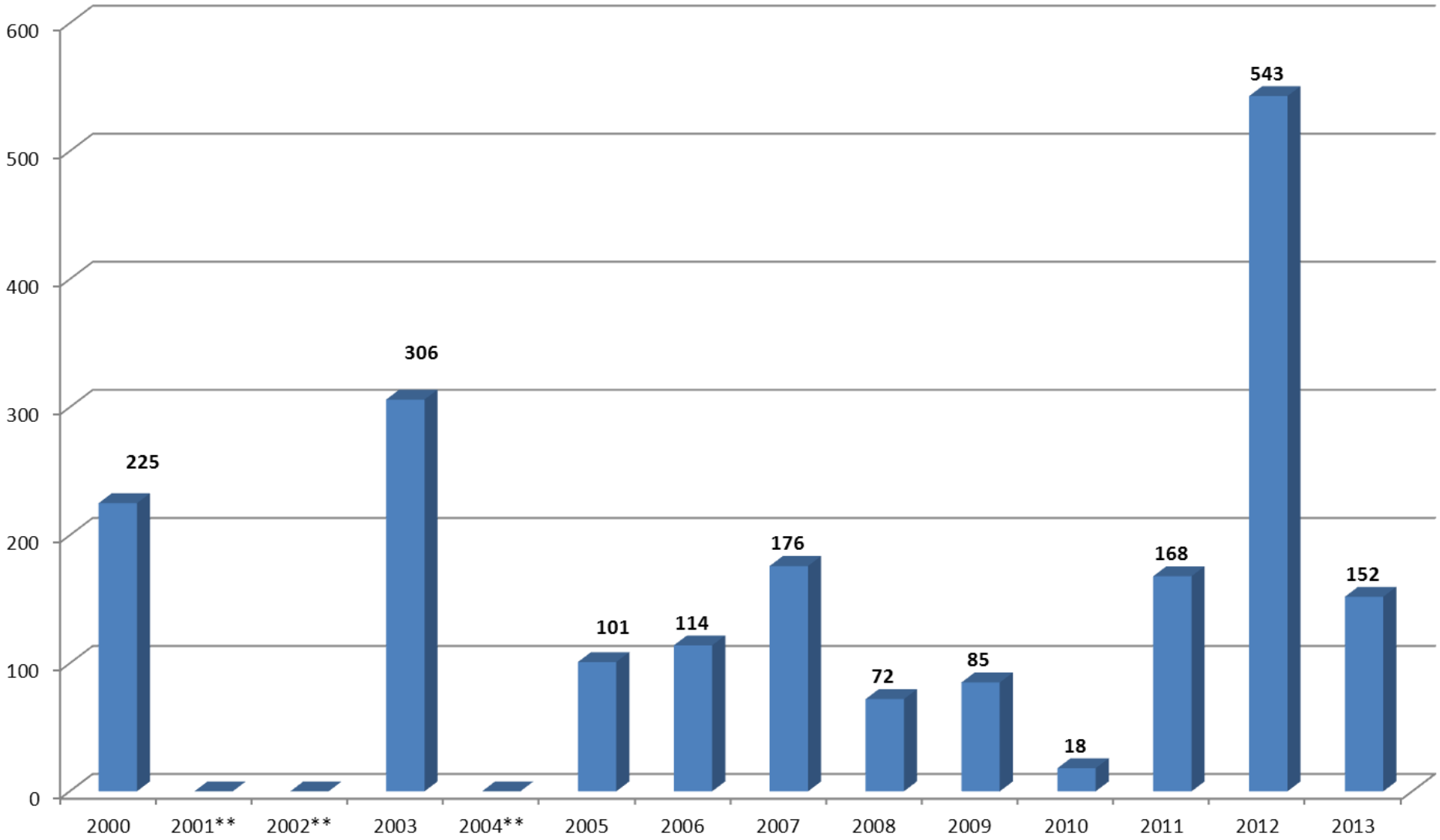
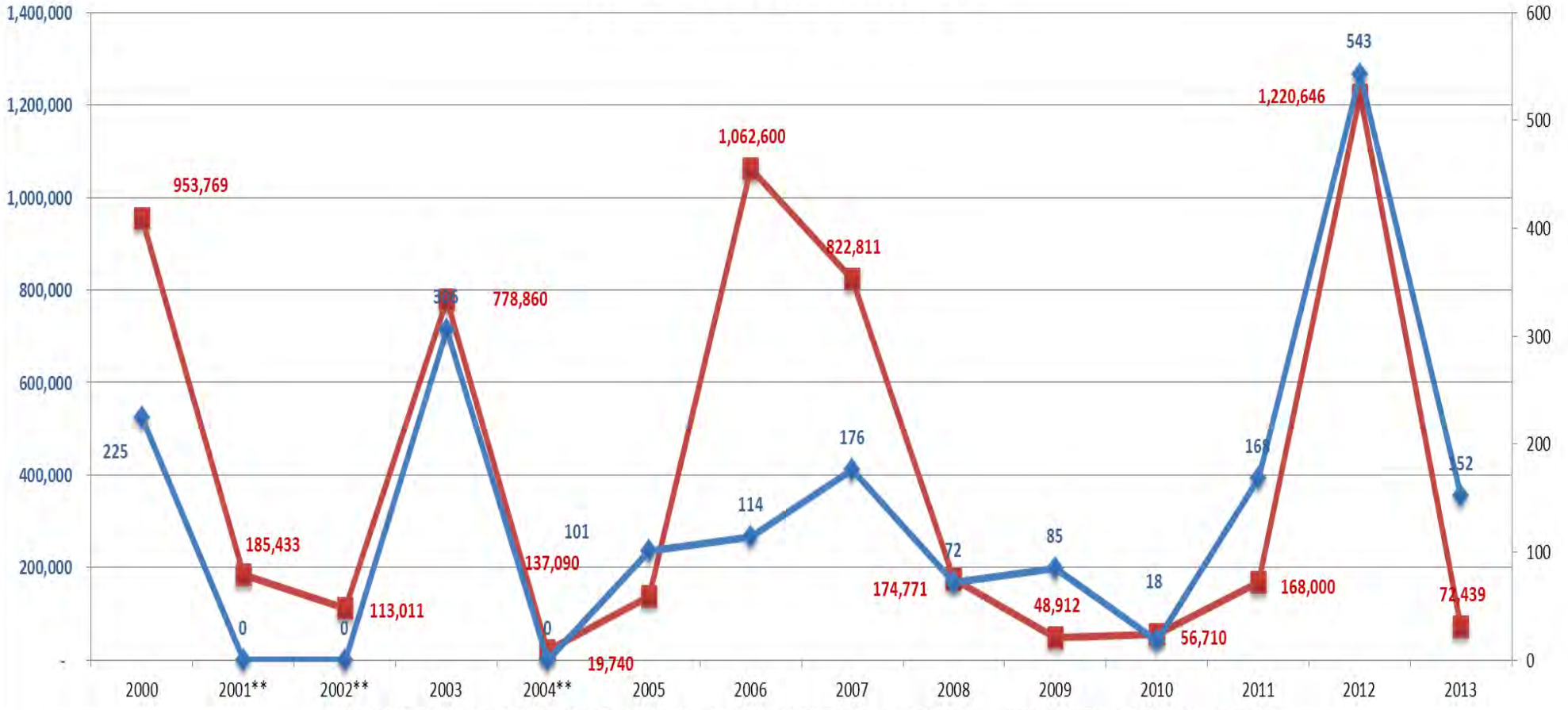
Total Flagged Monitored Days* Impacted by Wildfires



*A Flagged Monitored Day could include data from any and/or all monitors which, have been noted to be impacted by smoke from wildfires on any given day.

** 2001, 2002, and 2004 had no data flagged for fires.

Total Flagged Monitored Days* Impacted by Wildfires vs. Montana Wildfire Acres burned



*A Flagged Monitored Day could include data from any and/or all monitors which, have been noted to be impacted by smoke from wildfires on any given day.

** 2001, 2002, and 2004 had no data flagged for fires.

MONTANA 2012 WILDFIRE SMOKE EMISSIONS*

(as of) 9/9/2012

	Forest	Non-Forest	Total
Burned Area (acres)	408,789	404,716	813,505
Fuel Consumption (ton dry vegetation)	3,416,104	1,093,744	4,509,848
	Emissions (tons)		
Species			
Carbon Dioxide (CO2)	5,465,767	1,844,053	7,309,819
Carbon Monoxide (CO)	461,174	68,906	530,080
Methane (CH4)	25,006	2,122	27,128
Acetylene (C2H2)	991	262	1,253
Ethylene (C2H4)	5,842	897	6,738
Propylene (C3H6)	3,279	864	4,144
Formaldehyde (HCHO)	8,882	798	9,680
Methanol (CH3OH)	10,727	1,291	12,017
Formic Acid (HCOOH)	888	230	1,118
Acetic Acid (CH3COOH)	12,708	3,883	16,591
Phenol (C6H5OH)	3,484	569	4,053
Furan (C4H4O)	2,050	186	2,236
Glycolaldehyde (C2H4O2)	3,519	886	4,405
Hydrogen Cyanide (HCN)	2,835	448	3,284
Ammonia (NH3)	6,491	569	7,059
Nitrogen Oxides (NOx as NO)	6,593	4,266	10,859
PM2.5 (fine particulate matter)	88,135	7,842	95,978
Propane (C3H8)	888	109	998
n-Butane (C4H10)	284	17	301
Isoprene (C5H8)	253	43	295
Benzene (C6H6)	1,879	219	2,098
Toluene (C6H5CH3)	820	87	907
Mercury (Hg)	0.83	0.04	0.87

*** Source: Shawn Urbanski**
Research Phyical Scientist
Missoula Fire Sciences Laboratory
RMRS, US Forest Service

*** Methodology upon request from DEQ**

ENVIRONMENTAL QUALITY COUNCIL

PO BOX 201704
HELENA, MONTANA 59620-1704
(406) 444-3742

September 13, 2012

Senator Max Baucus
511 Hart Senate Office Building
Washington, D.C. 20510

Re: Management of federal forest lands to mitigate wildfire

Dear Senator Baucus:

The Montana Legislative Environmental Quality Council (EQC) is writing to urge you to support more aggressive timber management on federal forest lands in order to better mitigate wildfire and hopefully relieve our citizens from the smoky skies that have plagued Montana in 2012.

According to the Montana Department of Environmental Quality, state-operated air quality monitors are expected to record more than 175 days this year in which smoke from wildfires significantly impacts public health and welfare. These exceptionally smoky days are unhealthy for all Montanans, especially those with heart and respiratory problems, the elderly, and children. Citizens are advised to stay indoors and avoid outdoor exertion. That's no way to spend our short and special summer season in Montana.

While wildfires don't just burn on federal lands, we all need to do our part to be good neighbors and undertake land management practices that help mitigate the intensity and duration of fire. A lack of timber harvest on the national forests in recent years, combined with booming insect infestations, has contributed to heavy tree mortality, leaving these federal lands vulnerable to extreme fire behavior.

State timber resources in Montana are actively managed and harvested, resulting in improved forest health and greatly reduced mortality rates in the face of insect infestations and wildfires, especially when compared with neighboring federal lands. Montana's private landowners have aggressively implemented fire mitigation tactics in their timber stands to reduce the potential for catastrophic wildfires. Federal land managers can draw on these effective examples as well as those in other countries, such as New Zealand, where fire breaks are built into timber management practices.

Increased timber harvest on our federal lands would not only improve the health of our forests and help mitigate wildfire and air quality problems in the future, it would also create and keep jobs in our communities and boost local, state, and national economies.

Senator, the EQC asks you to do everything in your power to support more aggressive timber management on our federal forest lands in order to better protect our natural resources and boost our economy.

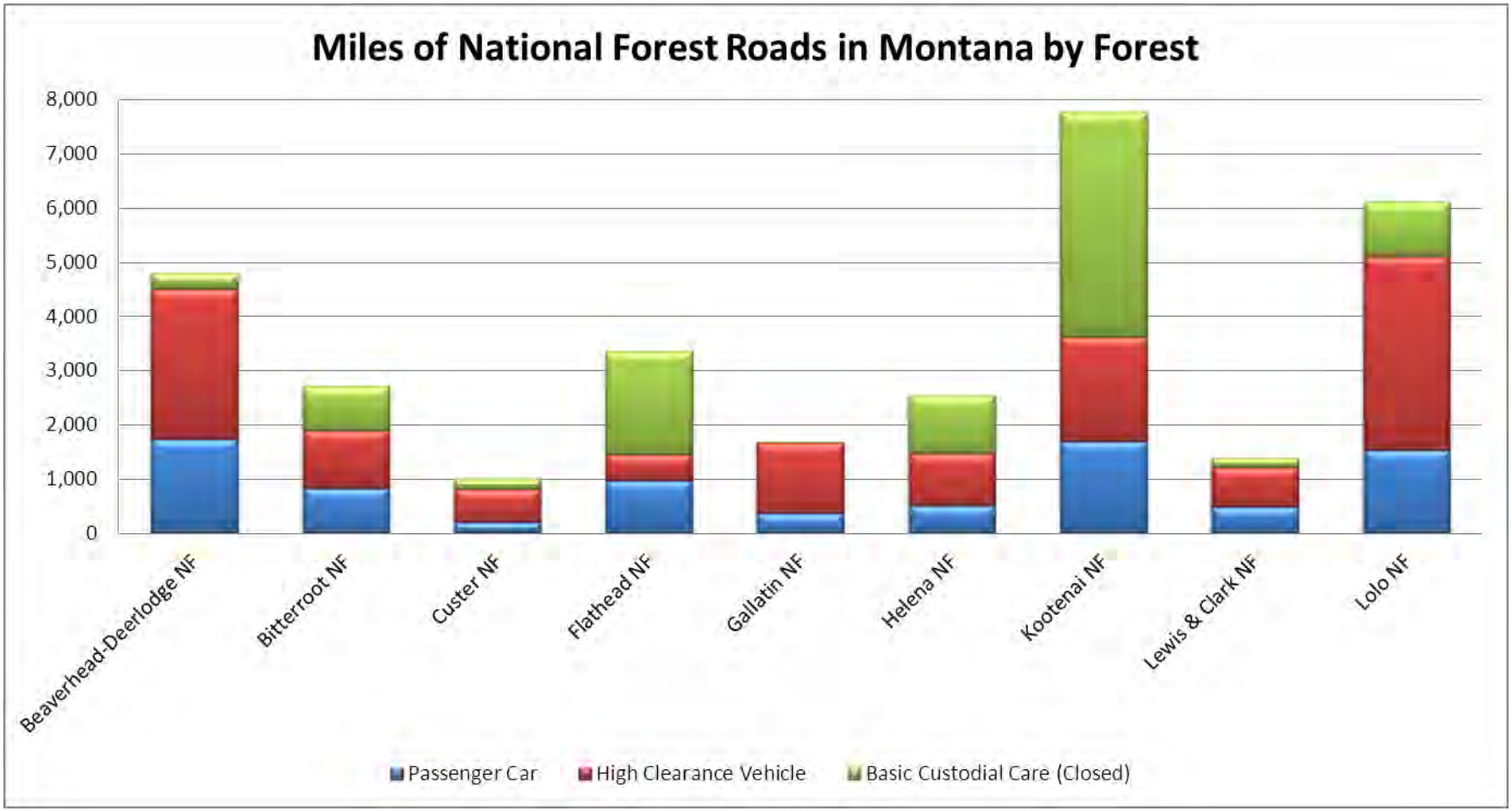
We eagerly await your reply on this matter. Please let me know if I or the EQC staff can be of assistance.

Sincerely,

Senator Jim Keane, Chairman

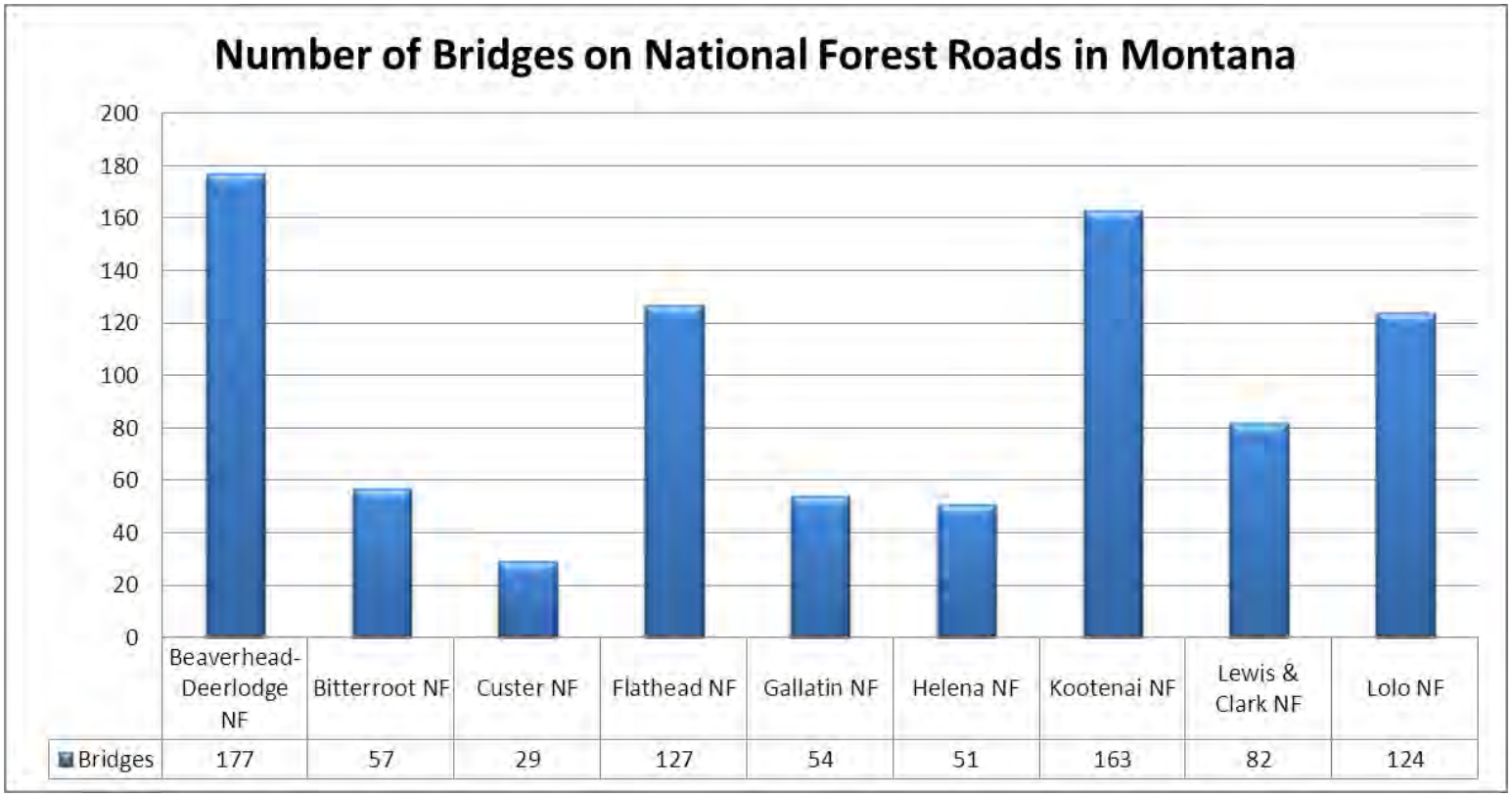
Encl.

The following information was compiled on June 6, 2013 at the request of the Montana Capital City Coordinator, John Hagengruber in anticipation of providing basic statistics/accomplishment information to the Montana legislature interim committee about National Forest Service Roads.

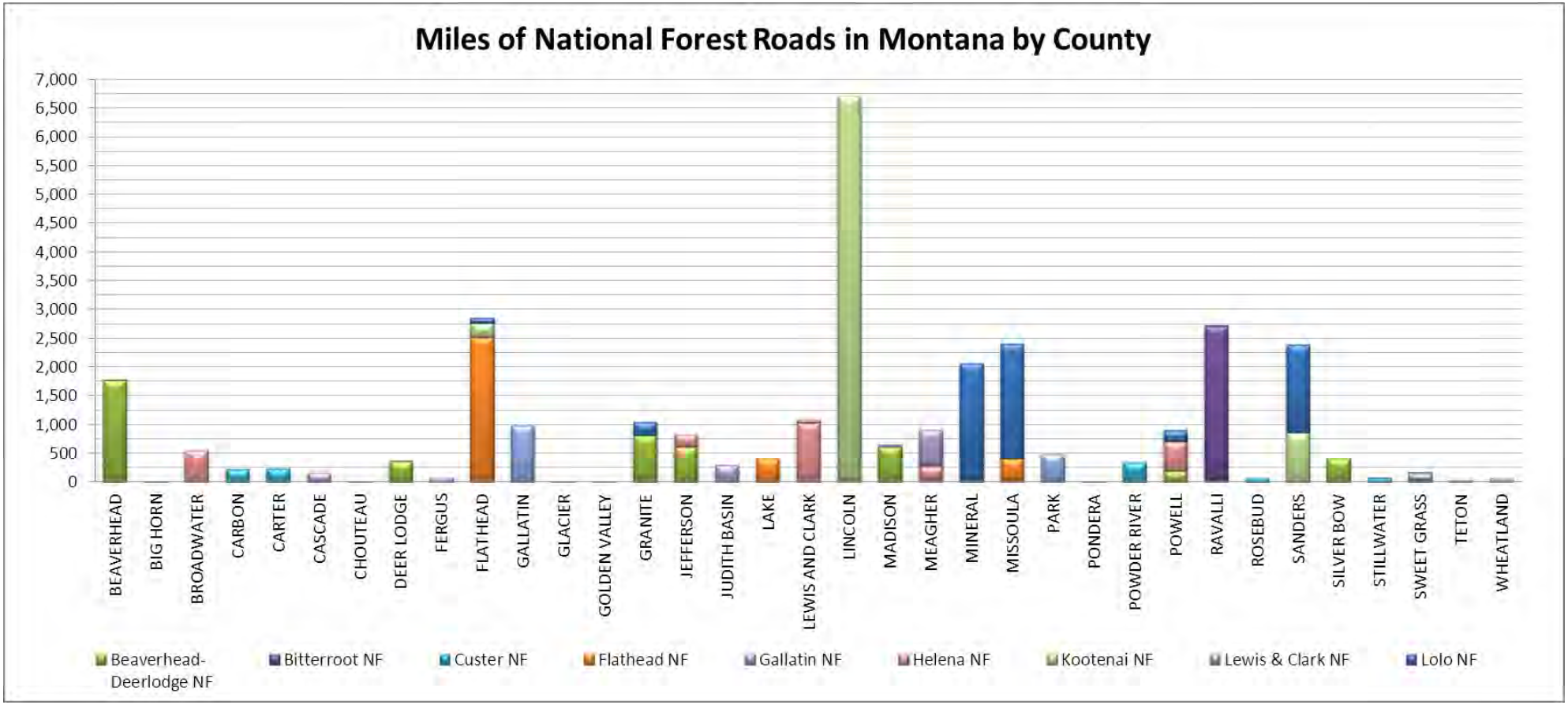


NOTE: Queried data from NRM/Infra Road User View: II_ROAD_CORE 10/1/2012 with ROUTE STATUS = EXISTING; JURISDICATION = FOREST SERVICE; SYSTEM=NATIONAL FOREST SYSTEM ROAD; OPERATIONAL MAINTENANCE LEVEL = 1, 2, 3, 4, 5; COUNTY = MT-%

Miles of National Forest Roads in Montana by Forest	Beaverhead-Deerlodge NF	Bitterroot NF	Custer NF	Flathead NF	Gallatin NF	Helena NF	Kootenai NF	Lewis & Clark NF	Lolo NF	Total Miles
Basic Custodial Care (Closed)	295	816	197	1,912	6	1,069	4,152	179	1,004	**9,631**
High Clearance Vehicle	2,767	1,079	619	494	1,292	958	1,935	732	3,575	**13,450**
Passenger Car	1,735	823	198	962	370	517	1,690	481	1,527	**8,302**
Total Miles	**4,797**	**2,718**	**1,014**	**3,367**	**1,669**	**2,543**	**7,777**	**1,391**	**6,106**	**31,383**

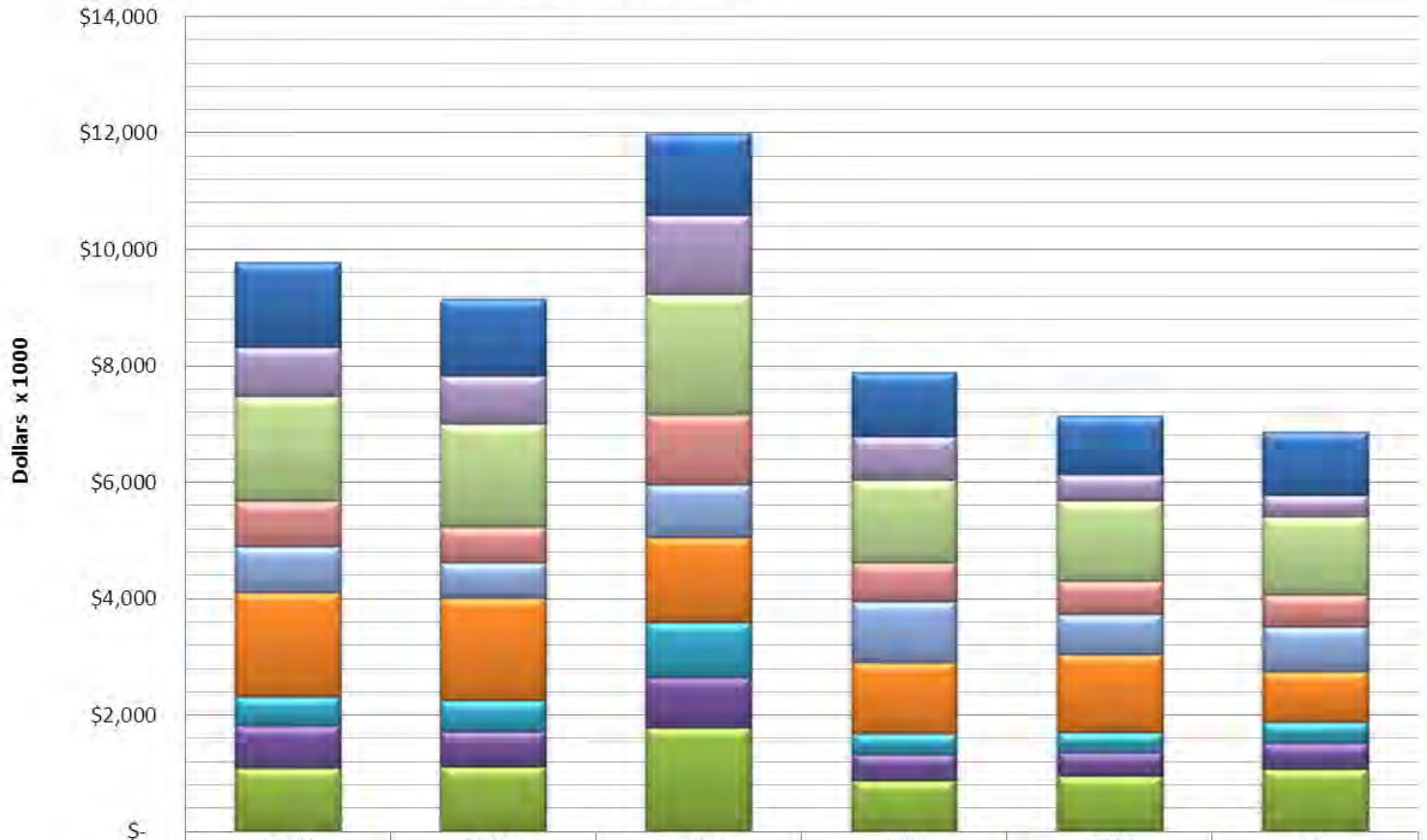


NOTE: Queried data from NRM/Infra ROAD BRIDGES SQL REPORT: with DEVELOPMENT STATUS = EXISTING -%; JURISDICATION = FOREST SERVICE; SECURITY ID = 0102, 0103, 0108, 0110, 0111, 0112, 0114, 0115, 0116.



Miles of National Forest Roads in Montana by County	BEAVERHEAD	BIG HORN	BROADWATER	CARBON	CARTER	CASCADE	CHOUTEAU	DEER LODGE	FERGUS	FLATHEAD	GALLATIN	GLACIER	GOLDEN VALLEY	GRANITE	JEFFERSON	JUDITH BASIN	LAKE	LEWIS AND CLARK	LINCOLN	MADISON	MEAGHER	MINERAL	MISSOULA	PARK	PONDERA	POWDER RIVER	POWELL	RAVALLI	ROSEBUD	SANDERS	SILVER BOW	STILLWATER	SWEET GRASS	TETON	WHEATLAND	Total Miles
Beaverhead-Deerlodge NF	1,765							367						807	618			0		610							200	17			413					4,797
Bitterroot NF	1													1									18					2,699								2,718
Custer NF		2		233	248																			4		345			78			76	30			1,014
Flathead NF										2,514							406		46				401													3,367
Gallatin NF											991									27	39			480								3	130			1,669
Helena NF			557					1							211			1,030			233						511									2,543
Kootenai NF										242									6,669											865						7,776
Lewis & Clark NF						163	6		75	0		8	14			296		64		0	638				12								5	44	67	1,391
Lolo NF										103				240								2,066	1,981				190	6		1,519						6,105
Total	1,767	2	557	233	248	163	6	368	75	2,860	991	8	14	1,047	829	296	406	1,094	6,715	637	910	2,066	2,400	484	12	345	901	2,721	78	2,384	413	79	165	44	67	31,382

Road (CMRD) Funding Allocation for Montana National Forests
FY 2008-2013

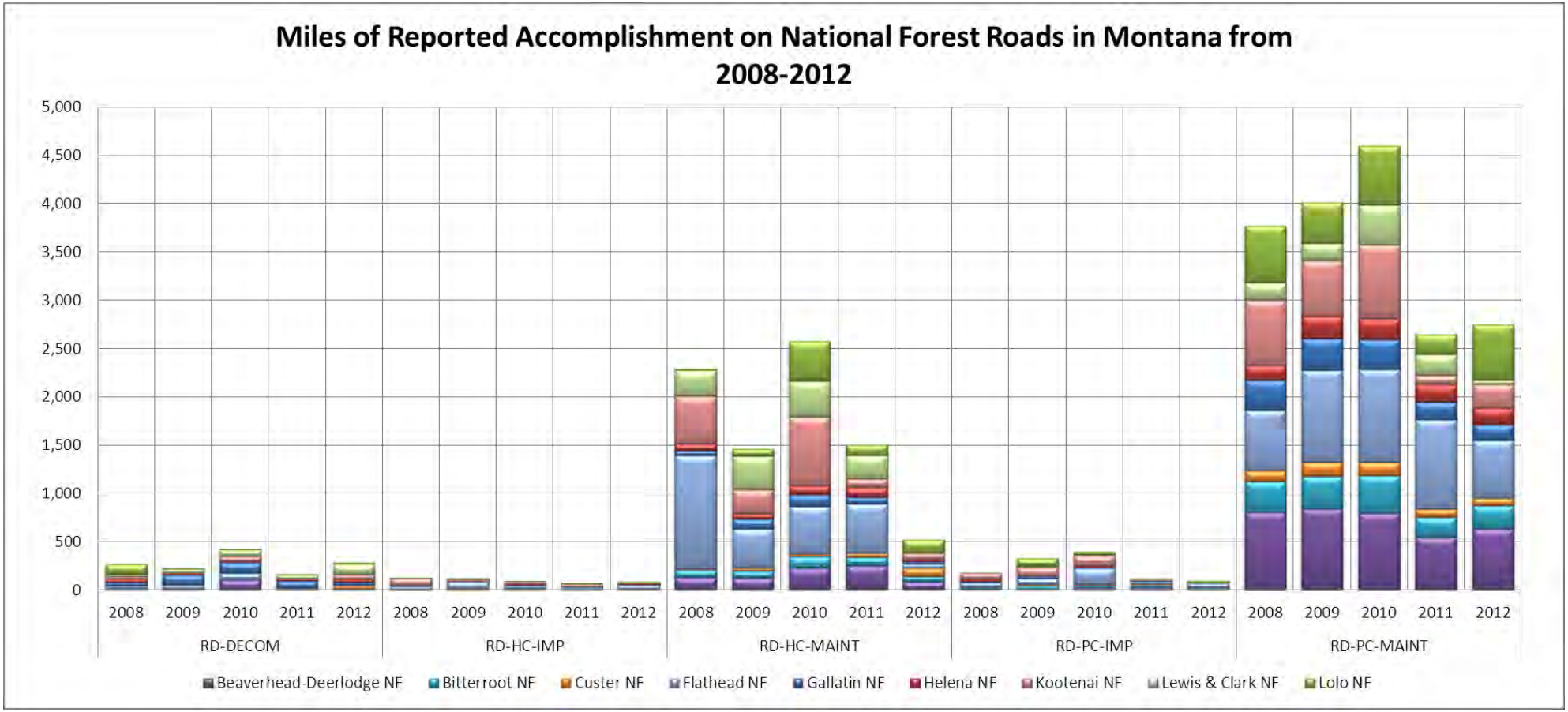


	2008	2009	2010	2011	2012	2013
Lolo NF	$1,454	$1,314	$1,393	$1,092	$998	$1,090
Lewis & Clark NF	$844	$833	$1,359	$756	$448	$375
Kootenai NF	$1,797	$1,771	$2,071	$1,420	$1,385	$1,339
Helena NF	$787	$611	$1,196	$659	$567	$558
Gallatin NF	$792	$606	$906	$1,057	$694	$767
Flathead NF	$1,781	$1,759	$1,465	$1,214	$1,337	$867
Custer NF	$500	$531	$933	$360	$341	$356
Bitterroot NF	$722	$604	$871	$452	$414	$441
Beaverhead-Deerlodge NF	$1,099	$1,116	$1,788	$877	$958	$1,082

NOTE: Queried data from final budget allocations from fiscal year 2008-2013.

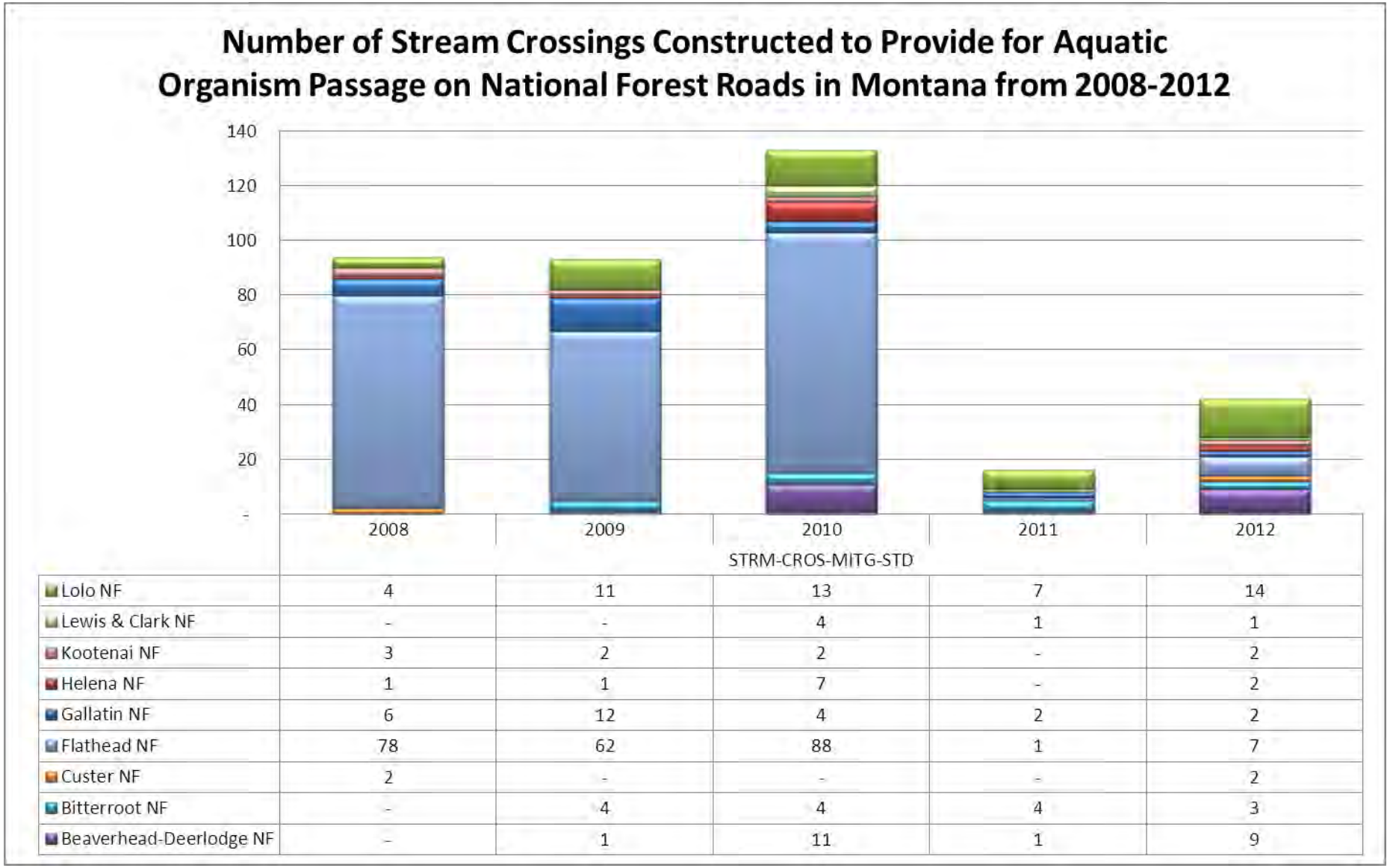
The following is a list of the performance measures used to track accomplishments on National Forest Roads.

Accomplishment Code	Measure Name	Definition
RD-DECOM	Miles of road decommissioned	To measure decreases in unneeded roads on national forest system lands, miles are measured without regard to width of road or number of lanes. Include mileage accomplished with all contracts and fund types (Appropriated, Non-Appropriated). Needs to be classified by Appropriated/Timber Sale/Stewardship. A record must be entered into the record of events in Infra Travel Routes to record the year it was decommissioned for only NFSR's. If there are un-authorized roads already recorded in Infra, it is encouraged to record the year the road was decommissioned.
RD-HC-IMP	Miles of high clearance system roads improved	Miles of high-clearance roads on which activities meeting the definition of "Construction" in 23 USC 101 are performed (relevant activities from 23 USC 101 shown below). (A) locating, surveying, and mapping (including the establishment of temporary and permanent geodetic markers in accordance with specifications of the National Oceanic and Atmospheric Administration of the Department of Commerce); (B) resurfacing, restoration, and rehabilitation; (E) elimination of hazards of railway grade crossings; (F) elimination of roadside obstacles.
RD-HC-MAINT	Miles of high clearance system roads receiving maintenance	Miles of Road on which at least one physical maintenance activity is performed to applicable standards for that activity during the fiscal year. Will be calculated using data in the INFRA Travel Routes data base on only Operational Maintenance Level 2 where Route Status = EX and Jurisdiction = FS and System = NFSR (Big 3). Miles are measured without regard to width of road or number of lanes. Simply performing a condition survey is not considered performance of maintenance for this item. Point Features - this work accomplished will be classified as .10 mile in length Record accomplishments in Infra, report based on Operational Maintenance Level. Completing repetitive maintenance items in a single year results in only the mileage of the route that it was performed over (Count the mileage once).
RD-PC-IMP	Miles of passenger car system roads improved	Miles of roads on which activities meeting the definition of "Construction" in 23 USC 101are performed (relevant activities from 23 USC 101 shown below): (A) locating, surveying, and mapping (including the establishment of temporary and permanent geodetic markers in accordance with specifications of the National Oceanic and Atmospheric Administration of the Department of Commerce); (B) resurfacing, restoration, and rehabilitation; (E) elimination of hazards of railway grade crossings; (F) elimination of roadside obstacles; (G) improvements that directly facilitate and control traffic flow, such as grade separation of intersections, widening of lanes, channelization of traffic, traffic control systems, and passenger loading and unloading areas.
RD-PC-MAINT	Miles of passenger car system roads receiving maintenance	Miles of road on which at least one physical maintenance activity is performed to applicable standards for that activity during the fiscal year. Will be calculated using INFRA Travel Routes Data Base on only Operational Maintenance Level 3, 4, 5 where Route Status = EX and Jurisdiction = FS and System = NFSR (Big 3) per Infra. Miles are measured without regard to width of road or number of lanes. Simply performing a condition survey is not considered performance of maintenance for this item. Point Features: this work accomplished will be classified as .10 mile in length. Record accomplishments in Infra, report based on Operational Maintenance Levels. Completing repetitive maintenance items in a single year results in only the mileage of the route that it was performed over (Count the mileage once).



NOTE: Queried data from Road Accomplishment Reports from fiscal year 2008-2012.

Miles of Reported Accomplishment on National Forest Roads in Montana from 2008-2012	RD-DECOM					RD-HC-IMP					RD-HC-MAINT					RD-PC-IMP					RD-PC-MAINT				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Beaverhead-Deerlodge NF	3	2	107	0	-	-	-	10	-	3	129	126	229	248	87	6	5	27	30	-	806	836	794	542	630
Bitterroot NF	13	5	-	8	10	1	4	7	1	-	76	70	116	91	56	21	37	20	22	15	323	339	387	207	241
Custer NF	5	2	-	-	34	2	6	2	3	1	15	31	25	40	86	2	12	9	8	-	106	147	144	86	83
Flathead NF	25	46	71	14	11	34	74	29	22	46	1,170	403	497	516	43	49	67	168	30	52	624	956	958	931	598
Gallatin NF	34	103	108	73	26	4	5	6	4	4	58	104	120	69	20	11	23	12	9	2	314	326	311	183	162
Helena NF	35	16	10	20	30	-	0	8	1	14	70	55	91	98	19	21	-	13	1	1	158	229	211	175	172
Kootenai NF	24	-	50	3	46	77	24	29	32	1	492	246	716	90	67	66	93	107	11	-	672	570	764	96	243
Lewis & Clark NF	23	43	69	39	108	-	-	-	-	-	263	352	370	241	1	1	6	8	1	6	177	188	414	214	45
Lolo NF	108	4	3	11	21	3	15	6	13	21	18	77	410	115	142	-	88	34	9	21	591	422	614	211	574
Total	**268**	**220**	**418**	**167**	**287**	**120**	**126**	**96**	**76**	**90**	**2,290**	**1,465**	**2,573**	**1,508**	**521**	**177**	**331**	**397**	**119**	**97**	**3,770**	**4,013**	**4,598**	**2,646**	**2,747**



Accomplishment Code	Measure Name	Definition
STRM-CROS-MITG-STD	Number of stream crossings constructed or reconstructed to provide for aquatic organism passage	The total number of road/stream crossings reconstructed or constructed with applicable regulations for providing aquatic organism passage. The objective of this measure is to count all installations or modifications on waterways with identified passage objectives or requirements.

	2008	2009	2010	2011	2012
Lolo NF	1	4	1	2	1
Lewis & Clark NF	-	1	1	-	4
Kootenai NF	2	4	4	-	1
Helena NF	1	-	4	-	2
Gallatin NF	3	-	3	-	-
Flathead NF	3	10	4	1	5
Custer NF	2	3	5	-	-
Bitterroot NF	1	4	4	-	1
Beaverhead-Deerlodge NF	2	4	3	2	-

Accomplishment Code	Measure Name	Definition
BRDG-CNSTR-RCNSTR	Bridges constructed or reconstructed	Number of road bridges constructed, rehabilitated or replaced. Constructed means new bridge where none existed before, rehabbed means a bridge that has undergone reconstruction to increase structure life or capacity, replaced means new bridge in place of an old bridge that was removed.

The Federal Highway Administration's (FHWA) recently enacted transportation bill, Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, authorized $300,000,000 in contract authority, with $30,000,000 of that authority to be shared between the U.S. Army Corps of Engineers, the USDA Forest Service, and the Bureau of Land Management. The FS submitted an investment strategy to the FHWA on January 24, 2013, outlining our intent to utilize the funds available. The FHWA is in the process of determining how these funds will be shared.

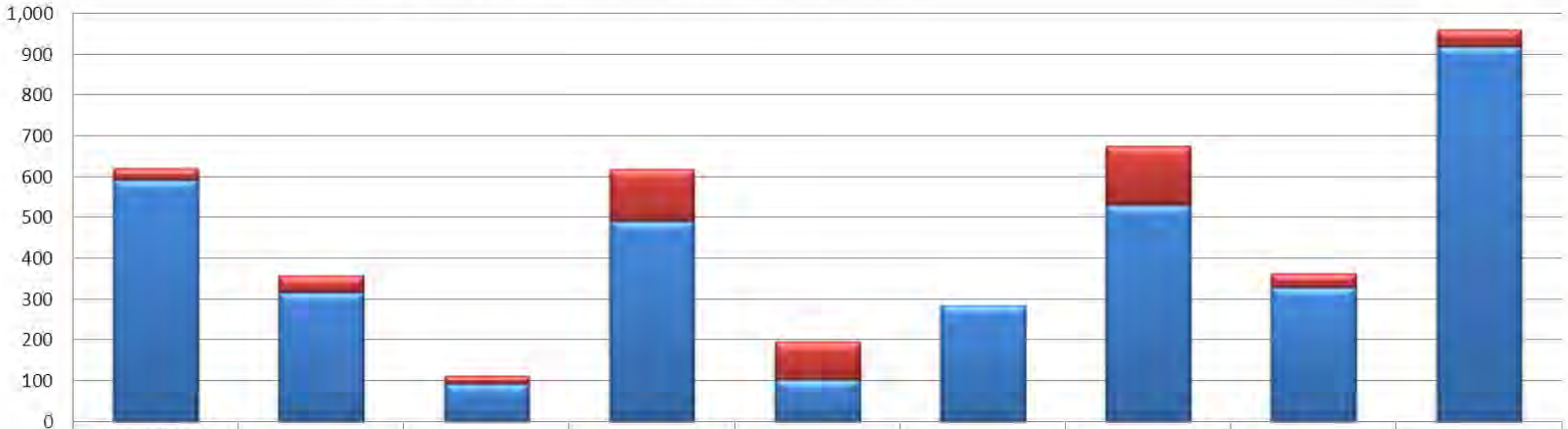
Per 23 U.S.C. 203(c), Federal Land Management Agencies (FLMAs) that are recipients of funding from the FLTP must designate and maintain a comprehensive national inventory of Federal land transportation facilities that provide access to high-use Federal recreation sites and Federal economic generators. Per the FHWA guidance "this system must be reasonable and manageable to optimize the use of limited funding."

To comply with MAP-21, the Region is in the process of designating a *Proposed* FLTP network of roads and bridges. This transportation network focuses on the Regions priority access needs. We recognize the $30,000,000 in shared allocations will not sufficiently address all of the FS requirements. With that in mind, each Region is in the process of identifying a *Subset* of miles of roads within its *Proposed* FLTP network upon which progress will be measured during this 2-year bill. All roads and bridges identified within this Subset will be required to have condition data collected and a baseline established.

The following data is tentative based on the criteria defined nationally. As the FHWA FLTP guidance indicates, the criteria definitions may be updated as the program matures, and such updates or changes to the network will not be considered a Federal action for purposes of review under the National Environmental Policy Act of 1969.

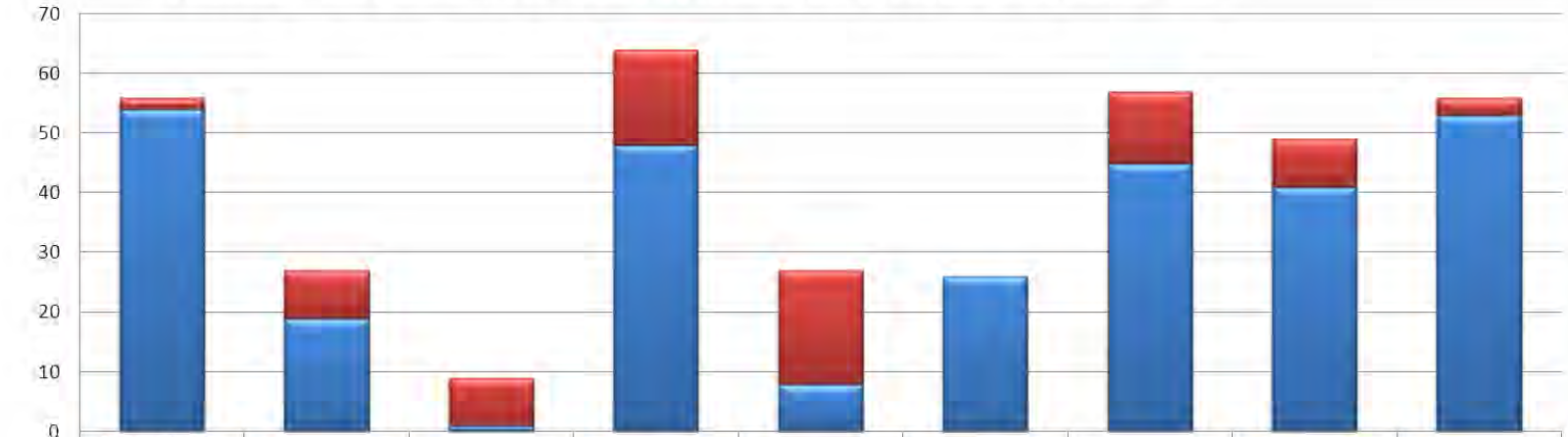
Federal Lands Transportation Program(FLTP) Network	Beaverhead-Deerlodge NF	Bitterroot NF	Custer NF	Flathead NF	Gallatin NF	Helena NF	Kootenai NF	Lewis & Clark NF	Lolo NF	Montana Total	Regional Total
Miles of Proposed FLTP Road Network	622	358	113	619	197	287	675	365	963	4,198	5,676
Number of Bridges on the Proposed FLTP Road Network	56	27	9	64	27	26	57	49	56	371	521

Miles of National Forest Roads Identified for the Federal Lands Transportation Program(FLTP) Network in Montana



	Beaverhead-Deerlodge NF	Bitterroot NF	Custer NF	Flathead NF	Gallatin NF	Helena NF	Kootenai NF	Lewis & Clark NF	Lolo NF
Subset	29	40	20	127	92		143	35	43
Proposed (minus Subset)	593	318	93	492	105	287	533	330	919

Number of Bridges on National Forest Roads Identified for the Federal Lands Transportation Program(FLTP) Network in Montana



	Beaverhead-Deerlodge NF	Bitterroot NF	Custer NF	Flathead NF	Gallatin NF	Helena NF	Kootenai NF	Lewis & Clark NF	Lolo NF
Subset	2	8	8	16	19		12	8	3
Proposed (minus Subset)	54	19	1	48	8	26	45	41	53

Kolman, Joe

From: Abrams, David <dabrams@blm.gov>
Sent: Wednesday, December 04, 2013 3:40 PM
To: Kolman, Joe
Subject: Fwd: Response from BLM to EQC on invasive species question
Attachments: Weeds_12032013.docx; Weeds_120313_MT_Overview.docx

Sent this to you earlier, but it bounced back due to the size of the attachments. I'm going to delete one of the attachments--a 1996 weed action plan. But if you would like a copy of that older document, I'll see what I can do to secure one for you.

David

---------- Forwarded message ----------
From: **Abrams, David** <dabrams@blm.gov>
Date: Wed, Dec 4, 2013 at 3:16 PM
Subject: Response from BLM to EQC on invasive species question
To: "Kolman, Joe" <jkolman@mt.gov>

Joe,

Here is the response I received from our BLM State Office regarding invasive species--in particular, weed control.

Sincerely,
David Abrams

---------- Forwarded message ----------
From: **Thompson, Floyd** <fthompso@blm.gov>
Date: Tue, Dec 3, 2013 at 12:02 PM

Hi David,

Since we don't have a budget yet, I'll use last fiscal year's figures. We had a budget of approximately $500,000 for on-the-ground weed control. This figure includes 6% of the range improvement funds which Field Offices are directed to spend on weed control. For this year, it will probably be on the order of 5 to 10% less given the sequestration reductions being discussed.

I am also attaching the latest overview of the Montana weed program, a briefing statement on the program, and the National weed strategy. The figures in the briefing statement and overview are from FY2012. I have not compiled the FY2013 numbers yet--I'm still awaiting input from some of the FOs.

Thanks,

Floyd

David Abrams
Public Affairs Specialist
BLM Western Montana District
Main: (406) 533-7617
Cell: (406) 490-0367
Fax: (406) 533-7660

December 3, 2013

NOXIOUS WEEDS

SUMMARY:
Noxious weeds continue to be the single largest biological threat to the nation's natural resources. Noxious weeds continue to spread on all lands, reducing natural biodiversity and vegetation production and leading to soil erosion. Noxious weeds infest approximately six percent of BLM lands in Montana.

In 2012, the Montana/Dakotas BLM treated 48,500 acres using integrated weed management (IWM) methods in cooperation with other landowners and managers. We monitored an additional 84,000 acres for weed infestations, and 13,800 acres for the effectiveness of weed management efforts.

The BLM's weed management program involves cooperative efforts with other federal and state agencies, universities, counties, high school agriculture science classes, and private landowners. There is heavy emphasis on prevention techniques to protect non-infested lands. The BLM in Montana uses early detection and rapid response to reduce new infestations and to use existing funds in the most cost-efficient manner. The magnitude of our weed program, particularly our cooperative agreements with counties and private cooperators, exceeds specifically earmarked weed funding in our annual budget. Discretionary funding from other programs that benefit from weed management has been used to augment the program, but total funding is still short of what is needed to meet the program needs. The Montana/Dakotas staff have been very active in leveraging funds through Challenge Cost Share and seeking grants such as Pulling Together and Rocky Mountain Elk Foundation for additional funding.

The BLM cooperates in prevention and education programs, including producing noxious weed videos, brochures, posters and other materials; certified weed seed free forage programs; biological weed control demonstration sites; IWM tours; and weed workshops. The Montana/Dakotas BLM staff will continue to provide training and technical assistance to various resource and weed management staffs. The BLM supports and incorporates the guidelines in the May 2008 Montana Weed Management Plan in conjunction with other county, state, and federal agencies. The Montana staff also incorporates management direction from national "Partners Against Weeds" strategy, the management plan from the National Invasive Species Council, and the Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic EIS, September 2007.

BACKGROUND:
We are committed to doing the best job possible with available funding and will work cooperatively with our partners to set priorities. Montana BLM is also committed to IWM, which includes prevention, education, awareness, biological agents (insects and plant diseases), cultural practices, chemicals, physical, mechanical, re-vegetation, and the use of domestic animals. To comply with both federal and state law, the BLM will continue to use an IWM approach and encourage all resource management disciplines to participate in active IWM. It is imperative that the BLM and other cooperators continue their efforts or the weed battle will be lost.

Weed management will continue to be a high priority. Our staff has expended considerable effort to apply for, or assist cooperators in applying for, outside source funding. Often these funds have stipulations preventing their use on public lands, which again limits our ability to meet the weed challenge.

The Montana staff is working in cooperation with Montana Fish, Wildlife and Parks to increase staff and public awareness of aquatic invasive species. This will move the BLM in the direction of management of all types of invasives on public lands and waters.

PUBLIC INTEREST:
Because BLM's weed program is a cooperative effort involving many counties as well as other state and federal agencies, high schools and universities, and private landowners, any reduced capability by one partner adds to the funding or treatment burden on the others. There is a universal concern about the spread of noxious weeds and efforts to control them. Weed management cooperative groups and individuals will continue to petition congressional representatives for assistance with this problem.

CONTACT:
Floyd Thompson, Rangeland Management and Invasive Species, (406) 896-5025

INVASIVE SPECIES MANAGEMENT
USDA FOREST SERVICE – REGION 1

The Forest Service (FS) manages 25 million acres on 13 National Forests and Grasslands in Region 1, which extends from northeastern Washington to eastern North Dakota. There are 16.9 million acres of FS land in Montana, comprising nine National Forests and 40 Ranger Districts. Noxious weeds have been mapped on approximately 534,000 acres (3%) of the FS land area in Montana, although the actual infested acreage is likely closer to 10%.

The FS annually treats about 5% of the mapped noxious weed infestations on National Forest lands in Region 1, depending on funding levels. The treated acreage in Montana ranges from 5 to 8% annually, and 40,784 acres were treated in 2013 (see the table below for a summary by National Forest). Funding for weed treatments comes from a variety of agency and external funds, and partnerships are critical to the accomplishment of shared weed management objectives. Internal funding allocations to invasive weed management in Region 1 have ranged from $1.5 to 2 million over the last several years.

Invasive species management on FS lands is guided by a national strategic framework that focuses on four key elements: 1.) prevention; 2.) detection; 3.) control and management; and 4.) restoration and rehabilitation. Early detection and rapid response is a top priority, with yellow starthistle, rush skeletonweed, and tansy ragwort being some of the priority target weed species in Montana. Region 1 is also participating with state and local agencies in the detection and management of aquatic invasive species, including Eurasian water milfoil, zebra mussels and quagga mussels.

Program costs have been rising in order to accommodate other invasive species program components, such as inventory, education and awareness, and restoration efforts. Implementation of corporate databases for inventory and treatment has also led to increasing costs.

The Forest Service has two other agency branches supporting the invasive species program:

1) State and Private Forestry, which provides technical support associated with pesticide training, aerial applications and compliance with pesticide regulations. State and Private Forestry also supports the Montana Weed Management Plan by providing annual grants to the Montana Department of Agriculture.

2) Rocky Mountain Research Station, which conducts dedicated research on biological control, restoration ecology, and invasive plant effects on wildlife populations.

Partnerships are also a key component of the regional program. Region 1 is a funding partner with the Montana and Idaho noxious weed education campaigns. In addition, the field units have partnerships with state and local weed managers and collaborative watershed working groups, and are committed to weed management across ownerships.

NATIONAL FOREST	MAPPED ACRES OF INVASIVE WEEDS	ACRES TREATED IN 2013
Beaverhead-Deerlodge	115,169	5,542
Bitterroot	44,976	5,201
Custer	25,303	3,922
Flathead	25,264	2,570
Gallatin	34,962	2,322
Helena	101,561	6,036
Kootenai	56,228	2,169
Lewis & Clark	26,749	9,750
Lolo	103,327	3,272

Compiled by:
Steve Shelly, Regional Botanist/Invasive Species Program Coordinator *January 3, 2014*

PILT/SRS additional information

Appendix F of the SJ 15 background paper provided to the EQC in September 2013 is county by county report of federal land payments. The report starts on page 40.

http://leg.mt.gov/content/Committees/Interim/2013-2014/EQC/Meetings/September-2013/SJ15-primer.pdf

Contained in the report are explanations of the various payments, summaries of which are included here.

Federal land payments: These are federal payments that compensate state and local governments for non-taxable federal lands within their borders. Payments are funded by federal appropriations (e.g., PILT) and from receipts received by federal agencies from activities on federal public lands (e.g., timber, grazing, and minerals).

Payments in Lieu of Taxes (PILT): These payments compensate county governments for non-taxable federal lands within their borders. PILT is based on a maximum per-acre payment reduced by the sum of all revenue sharing payments and subject to a population cap. Congress authorized PILT in 1976 in recognition of the volatility and inadequacy of federal revenue sharing payment programs to compensate counties for non-taxable federal lands within their borders (Public Law 94-565). A low average per-acre PILT payment may indicate significant revenue sharing payments from the previous year or that the county's population is below the population cap that limits the base per acre payment. PILT is permanently authorized, but congress must appropriate funding on an annual basis. PILT was typically not fully funded until FY 2008 when counties received a guarantee of five years at full payment amounts (FY 2008 to FY 2012 payments).

There are five components to calculating a PILT payment.[1]

1. How many acres of eligible lands are in the county?

2. What is the population of the county?

3. What were the previous year's payments, if any, for all of the eligible lands under the other payment programs of federal agencies?

4. Does the state have any laws requiring the payments from other federal agencies to be passed through to other local government entities, such as school districts, rather than staying with the county government?

5. What was the increase in the Consumer Price Index during the year?

[1] http://www.fas.org/sgp/crs/misc/RL31392.pdf

Forest Service Revenue Sharing: These are payments based on USFS receipts and must be used for county roads and local schools. Payments include the 25% Fund, Secure Rural Schools & Community Self-Determination Act, and Bankhead-Jones Forest Grasslands.

U.S. Forest Service 25 Percent Fund: The 25% Fund, established in 1908, shares revenue generated from the sale of commodities produced on public land with the county where the activities take place. Twenty-five percent of the value of public land receipts are distributed directly to counties and must be used to fund roads and schools. States determine how to allocate receipts between these two local services.

The Secure Rural Schools and Community Self-Determination Act of 2000 (SRS), or Public Law 106-393: SRS was enacted in FY 2001 to provide 5 years of transitional assistance to rural counties affected by the decline in revenue from timber harvests on federal lands. *For counties that chose the SRS payments, the program provided payments at the average of the three highest payments between FY1986 and FY1999. SRS was reauthorized for a single year in 2007, and again in 2008 for a period of four years.* The SRS Act has three titles that allocate payments for specific purposes. **On October 2, 2013 Congress passed a one year reauthorization of the Secure Rural Schools and Community Self Determination Act as part of HR 527 Helium Stewardship Act.**

- **Title I -** these payments to counties make up 80 to 85 percent of the total SRS payments and must be dedicated to funding roads and schools. States determine the split between these two services, and some states let the counties decide.

- **Title II** - these funds are retained by the federal treasury to be used on special projects on federal land. Resource advisory committees (RACs) at the community level help make spending determinations and monitor project progress.

- **Title III** - these payments may be used to carry out activities under the Firewise Communities program, to reimburse the county for search and rescue and other emergency services, and to develop community wildfire protection plans.

What is the Relationship Between the 25% Fund and SRS? Counties elect to receive Secure Rural Schools Payments, or to continue with 25% Fund payments. Most counties have elected to receive Secure Rural Schools payments. Some counties, particularly in the East, continue to prefer 25% Fund payments to Secure Rural Schools.

Forest Grasslands: Forest Grasslands are lands acquired by the Forest Service through the Bankhead-Jones Farm Tenant Act of 1937 (P.L. 75-210). The Act authorized acquisition of damaged lands to rehabilitate and use them for various purposes. Receipts from activities on Forest Grasslands are shared directly with county governments.

BLM Revenue Sharing: The BLM shares a portion of receipts generated on public lands with state and local governments, including grazing fees through the Taylor Grazing Act and timber receipts generated on Oregon and California (O & C) grant lands. Payments are derived from a variety of

revenue-generating activities on BLM land, including revenue from the sale of land and materials, grazing, and minerals leasing.

Proceeds of Sales: These include receipts from the sale of land and materials.

Mineral Leasing Act: These include Oil and Gas Right of Way lease revenue and the National Petroleum Reserve - Alaska Lands. Royalties from mineral leasing on BLM lands are distributed by the Office of Natural Resources Revenue.

Taylor Grazing Act: The Taylor Grazing Act, June 28, 1934, established grazing allotments on public land and extended tenure to district grazers. In 1936 the Grazing Service (BLM) enacted fees to be shared with the county where allotments and leases are located. Funds are restricted to use for range improvements (e.g., predator control, noxious weed programs) in cooperation with BLM or livestock organizations.

- **Section 3** of the Taylor Grazing Act concerns grazing permits issued on public lands within grazing districts established under the Act.

- **Section 15** of the Taylor Grazing Act concerns issuing grazing leases on public lands outside the original grazing district established under the Act.

National Grasslands: Revenue derived from the management of National Grasslands under the Bankhead-Jones Farm Tenant Act (7 U.S.C. 1012), and Executive Order 10787, November 6, 1958.

USFWS Refuge: Twenty-five percent of the net receipts collected from the sale of various products or privileges from Refuge lands, or three-quarters of one percent (0.75%) of the adjusted purchase price of Refuge land, whichever is greater, is shared with the counties in which the Refuge is located.

Federal Mineral Royalties: These payments are distributed to state governments by the U.S. Office of Natural Resources Revenue. Royalties, rents, and bonus payments from mining activities on federal land are shared with the state of origin (49% of revenue is returned to states and 51% is retained by the federal government). In Montana, 25% of the state share is dedicated to county governments based on the proportion that the total amount of revenue generated by mineral extraction in an eligible county bears to the total amount of money received by the state. 17-3-240, MCA.

Use of Federal Funds

Some federal land payments provided to counties are restricted. Appendix F contains this description of uses:

Unrestricted: Consist of (1) PILT, (2) U.S. Fish and Wildlife Service Refuge Revenue Sharing, and (3) any distributions of federal mineral royalties from the state government.

Restricted--County Roads: Consist of (1) Secure Rural Schools and Community Self-Determination Act (SRS) Title I, (2) Forest Service 25% Fund, (3) Forest Service Owl payments (between

1993 and 2000 only), and (4) Forest Grasslands. Federal law mandates payments be used for county roads and public schools. Each state determines how to split funds between the two services.

Restricted--Special County Projects: Consist of (1) SRS Title III funds that are distributed to county government for use on specific projects, such as Firewise Communities projects, reimbursement for emergency services provided on federal land, and developing community wildfire protection plans.

Other Information Sources

PILT somewhat simplified 2012 http://www.fas.org/sgp/crs/misc/RL31392.pdf

Payments to Counties 2012 http://new.nationalaglawcenter.org/wp-content/uploads/assets/crs/R42452.pdf

Kolman, Joe

From: Hagengruber, John -FS <jhagengruber@fs.fed.us>
Sent: Monday, January 06, 2014 3:38 PM
To: Kolman, Joe
Subject: FW: receipts summary thru FY13
Attachments: SummaryFY05thruFY13.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Joe – The attached doc contains the Regional revenue information you were looking for. It provides regional total timber receipts (broken down into the various trust funds that the Forest Service manages – Knutson-Vandenberg fund, Salvage sale fund, etc) as well as an aggregate total of all regional receipts that come in at a regional level (including special use permits, etc).

To the attached document, you can compare the Region's following total budget (see immediately below), the first cell is for fiscal year 2006, up to fiscal year 2013 at the end of the row.

Northern Region Total Budget	$235,940.8	$226,130.4

You might also check out the testimony of the United States General Accounting Office before the Subcommittee on Interior and Related Agencies, U.S. House Committee on Appropriations. http://www.gpo.gov/fdsys/pkg/GAOREPORTS-T-RCED-99-81/pdf/GAOREPORTS-T-RCED-99-81.pdf Not an endorsement and the document is dated - but the first few pages provide a broad legal/policy review of USFS mission relative to revenue.

John

From: Niccolucci, Michael -FS
Sent: Monday, January 06, 2014 11:01 AM
To: Hagengruber, John -FS
Cc: Campbell, Kim L -FS
Subject: FW: receipts summary thru FY13

John,

Attached is a spreadsheet that shows receipts tied to the timber program from fy2005-2013. Row 9 shows total receipts from all programs. For FY 2013 total receipts to all programs was $13,472,823.75 (cell J9). The timber related receipts for FY 2013 was $8,636,342.60 (cell J6). I hope this help. Call if you have questions.

Mike

Michael J. Niccolucci
USDA Forest Service, Northern Region
Renewable Resource Management Staff
Budget / Trust Funds / Appraisals
Phone: 406-329-3352
Fax: 406-329-3132

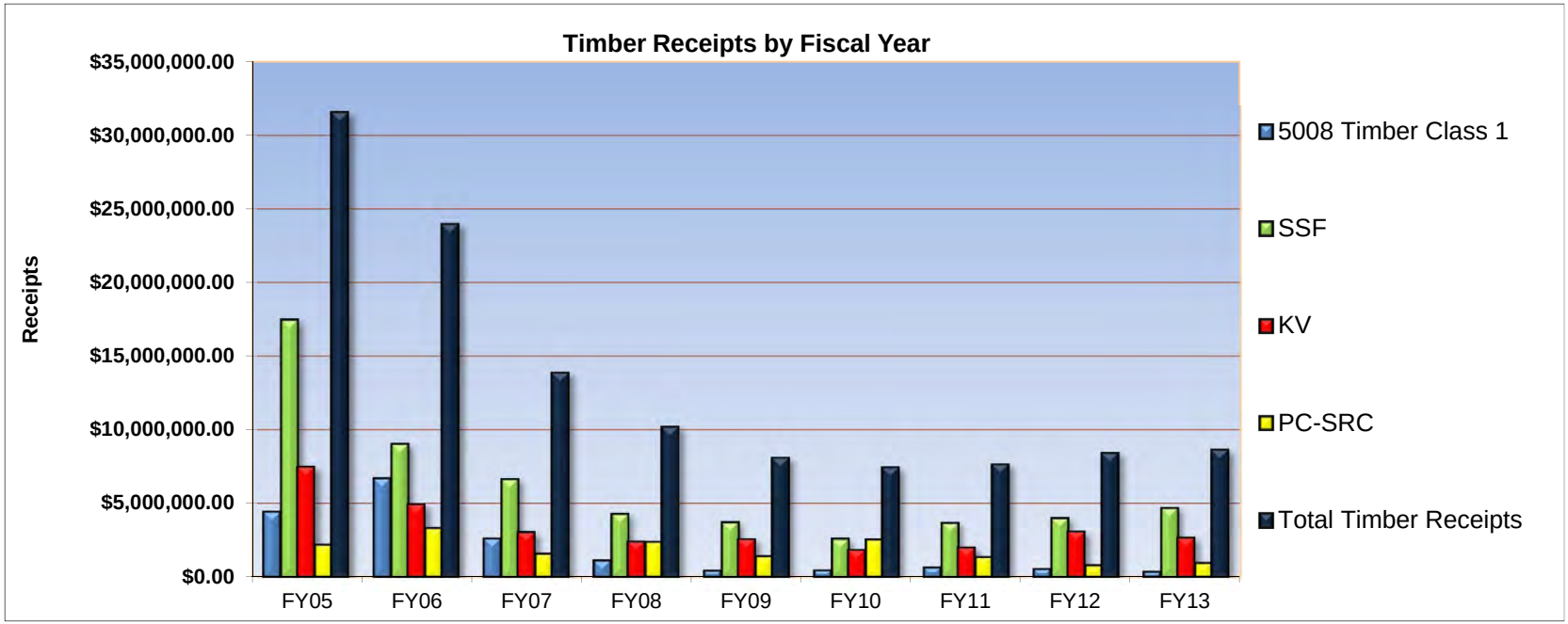
From: Campbell, Kim L -FS
Sent: Monday, January 06, 2014 10:31 AM
To: Niccolucci, Michael -FS
Subject: receipts summary thru FY13

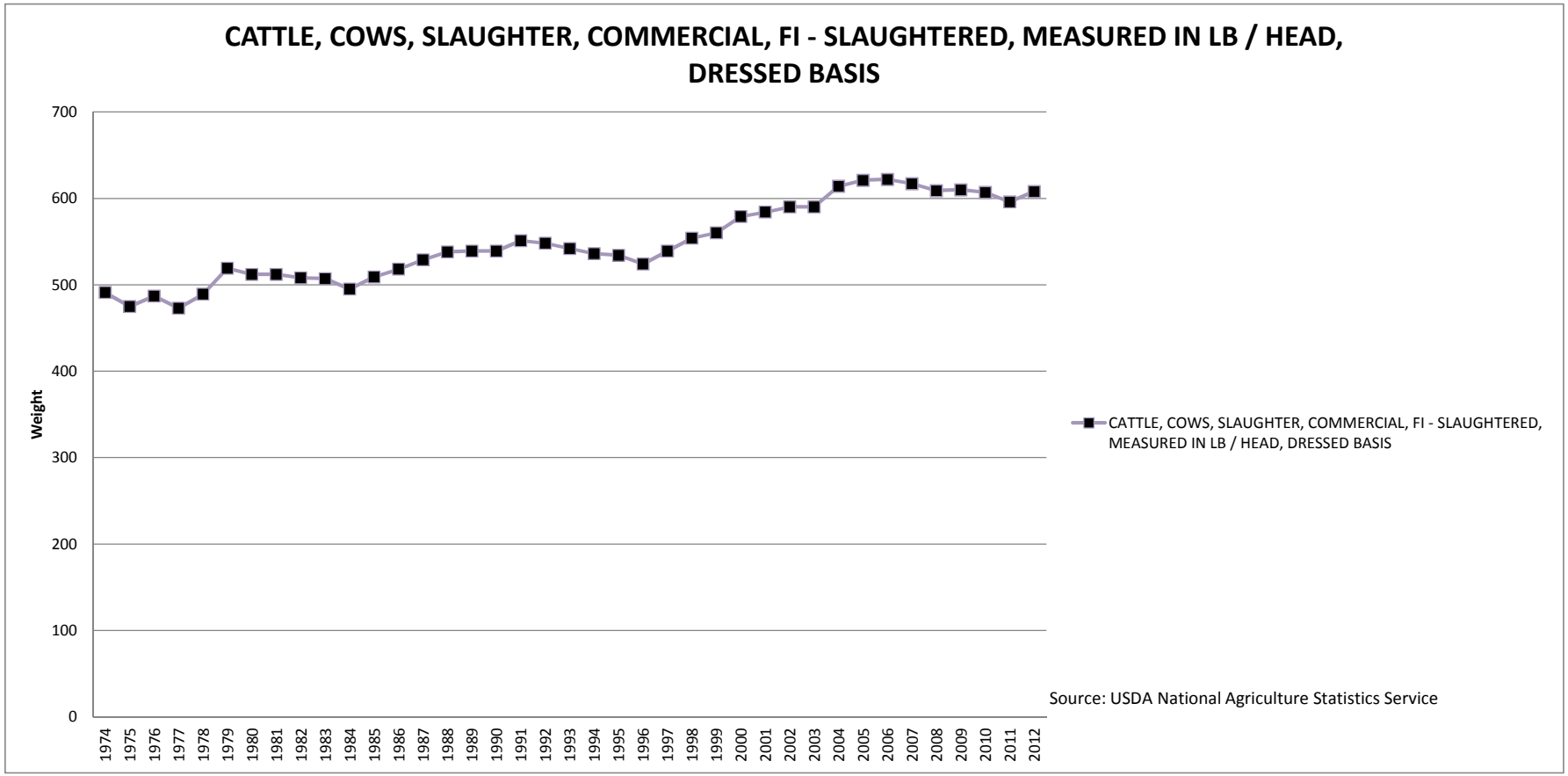
Here's the summary spreadsheet…

Kim Campbell
Region One TSA Coordinator
USDA Forest Service - Missoula, MT
(406) 329-3386 klcampbell@fs.fed.us

25% FUND PAYMENT OBLIGATION
FY05-FY13

	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
5008 Timber Class 1	$4,425,584.98	$6,694,536.11	$2,611,959.07	$1,111,968.27	$419,785.71	$452,577.21	$638,302.35	$544,880.93	$331,501.68
SSF	$17,495,307.16	$9,048,003.36	$6,653,982.98	$4,288,580.38	$3,713,145.14	$2,603,363.61	$3,675,998.09	$4,008,810.29	$4,679,750.55
KV	$7,477,546.59	$4,940,237.72	$3,037,289.32	$2,401,355.61	$2,579,634.00	$1,831,316.53	$2,004,319.54	$3,095,736.96	$2,661,393.19
PC-SRC	$2,178,751.29	$3,302,108.50	$1,570,244.34	$2,395,744.54	$1,396,417.08	$2,553,717.12	$1,336,796.38	$784,778.81	$963,697.18
Total Timber Receipts	**$31,577,190.02**	**$23,984,885.69**	**$13,873,475.71**	**$10,197,648.80**	**$8,108,981.93**	**$7,440,974.47**	**$7,655,416.36**	**$8,434,206.99**	**$8,636,342.60**
Total All Receipts (All classes 5008, SSF, KV, PC-SRC)	$34,720,342.34	$27,141,215.67	$17,058,116.60	$13,630,987.63	$11,603,653.72	$11,371,654.84	$11,877,870.30	$12,518,609.72	$13,472,823.75
Excess Balance Returned to Treasury	$5,654,271.61	$4,297,522.08	$680,653.01	$412,827.40	$350,772.02	$831,812.33	$1,141,762.80	$784,332.49	$1,056,781.55




CATTLE, COWS, SLAUGHTER, COMMERCIAL, FI - SLAUGHTERED, MEASURED IN LB / HEAD, DRESSED BASIS
Weight
700
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400
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2012
CATTLE, COWS, SLAUGHTER, COMMERCIAL, FI - SLAUGHTERED, MEASURED IN LB / HEAD, DRESSED BASIS
Source: USDA National Agriculture Statistics Service

B. Cumulative Accomplishments /a/

	Category A. Rangelands meeting all standards or making significant progress toward meeting the standards /b/		Category B. Rangelands not meeting all standards or making significant progress toward meeting the standards, but appropriate action has been taken to ensure significant progress toward meeting the standards (livestock is a significant factor) /c/		Category C. Rangelands not meeting all standards or making significant progress toward meeting the standards, and no appropriate action has been taken to ensure significant progress toward meeting the standards (livestock is a significant factor) /d/		Category D. Rangelands not meeting all standards or making significant progress toward meeting the standards due to causes other than livestock grazing /e/		Category E. Total number of allotments that have been assessed /f/		Category F. Total number of allotments that have not been assessed /g/		Category G. Total number of allotments /h/	
STATE	Allotments	Acres	Allotments	Acres	Allotments	Acres	Allotments	Acres	Allotments	Acres	Allotments	Acres	Allotments	Acres
ARIZONA	669	8,327,843	11	461,751	21	273,413	13	155,617	714	9,218,624	106	2,196,926	820	11,415,550
CALIFORNIA	377	2,651,503	72	1,812,594	18	353,911	60	601,521	527	5,419,529	154	1,783,461	681	7,202,990
COLORADO	1,748	4,445,525	193	1,623,695	21	98,048	255	1,087,980	2,217	7,255,248	199	622,816	2,416	7,878,064
IDAHO	1,065	3,113,735	298	4,107,820	48	633,676	219	1,094,342	1,630	8,949,573	545	2,556,439	2,175	11,506,012
MONTANA/DAKOTAS	4,322	6,638,979	346	885,678	39	124,999	316	459,298	5,023	8,108,954	199	80,541	5,222	8,189,495
NEVADA	313	14,922,843	112	10,624,076	31	3,159,072	66	11,954,572	522	40,660,563	276	2,715,763	798	43,376,326
NEW MEXICO	1,151	5,191,540	76	458,147	15	9,534	80	213,847	1,322	5,873,068	960	6,965,759	2,282	12,838,827
OREGON/WASHINGTON	825	6,032,979	134	2,466,885	22	98,419	130	644,020	1,111	9,242,303	917	4,335,217	2,028	13,577,520
UTAH	949	12,176,245	147	2,673,807	11	412,662	72	1,523,749	1,179	16,786,463	214	4,852,857	1,393	21,639,320
WYOMING	1,278	6,479,726	265	5,668,252	72	582,882	225	1,409,156	1,840	14,140,016	1,691	3,428,803	3,531	17,568,819
BLM TOTAL	12,697	69,980,918	1,654	30,782,705	298	5,746,616	1,436	19,144,102	16,085	125,654,341	5,261	29,538,582	21,346	155,192,923

/a/ Cumulative Accomplishments are numbers of allotments, and their BLM acreage, that are in various stages of achieving Standards for Rangeland Health, over the entire time span that Standards for Rangeland Health have been assessed. Although Standards for Rangeland Health are now called Land Health Standards and apply to all BLM lands rather than just rangelands and just allotments, the evaluation of Standards for Rangeland Health began on BLM lands within grazing allotments and still primarily has been operationally focused on BLM lands within grazing allotments. Eventually, cumulative accomplishments will reflect achievements on any BLM lands rather than just BLM lands within allotments.

/b/ The number of allotments, and their BLM acreage, that are either meeting all land health standards or are making significant progress toward meeting all land health standards. Source of these data is field office records.

/c/ The number of allotments, and their BLM acreage, that are not meeting all land health standards, or are not making significant progress toward meeting all land health standards, and existing livestock grazing has been determined to be the cause of this non-achievement, and management action has been taken to change livestock grazing to ensure that significant progress toward meeting land health standards will occur. Source of these data is field office records.

/d/ The number of allotments, and their BLM acreage, that are not meeting all land health standards, or are not making significant progress toward meeting all land health standards, and existing livestock grazing has been determined to be the cause of this non-achievement, and management action has not yet been taken to change livestock grazing to ensure that significant progress toward meeting land health standards will occur. Source of these data is field office records.

/e/ The number of allotments, and their BLM acreage, that are not meeting all land health standards, or are not making significant progress toward meeting all land health standards, and existing livestock grazing is not the cause of the non-achievement. Source of these data is field office records.

/f/ The number of allotments, and their BLM acreage, which have been assessed for achievement of land health standards over the entire time span that land health standards have been assessed (1998 to present). Source of these data is field office records.