Sanders County Community Fire Protection Plan

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Sanders County Community Wildfire Protection Plan

APPROVED BY

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Commissioner Chair- Sanders County

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Commissioner- Sanders County

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Commissioner- Sanders County

Developed In Collaboration With

Sanders County - Office Of Emergency Management

Sanders County - Planning Office

Sanders County Sheriff's Office

Dixon Rural Fire District

Heron Rural Fire District

Noxon Rural Fire District

Plains/Paradise Rural Fire District

Plains Municipal Fire Department

Thompson Falls Rural Fire District

Thompson Falls Municipal Fire Department

Trout Creek Rural Fire District

Plains Unit – Montana Department of Natural Resources

Southwest Lands Office GIS Support – Montana Department of Natural Resources

Confederated Salish & Kootenai Tribes – Fire Management

Cabinet Ranger District – Kootenai National Forest

Plains/Thompson Falls Ranger District – Lolo National Forest

PURPOSE

The Northwest Resource Conservation and Development Area, Inc. received a grant from the USDI Bureau of Land Management – State & Private Forestry to facilitate the development of a Community-based Wildland Fire Risk Mitigation Plan, or "Community Fire Plan" for Sanders County.

Diverse groups of Sanders County residents, including representatives from the fire protection agencies, collaborated to prioritize potential actions to address the most pressing issues that affect the County's ability to reduce the risks associated with wildland fires. The strategy is a cooperative effort of volunteer fire chiefs, county officials, conservationists, community-based non-profit organizations, realtors, tourism, and timber industry leaders, federal and state land managers, business people and interested residents. Reference Appendix B1.

The purpose of this plan is to position fire protection agencies, county leaders, rural communities, county residents, and forest owners and managers to be better prepared to protect the County's residents and its natural resources from the potentially devastating impacts of wildfire and promote the natural role of fire in the ecosystem.

This plan is intended to meet the requirements of the Healthy Forest Restoration Act (HFRA), and serve as an annex to the Sanders County Pre-disaster Mitigation Plan.

The Community Wildfire Protection Plan (CWPP) identifies and serves the following At-Risk Sanders County communities (as published in the 2001 Federal Register): Heron, Noxon, Trout Creek, Thompson Falls, Plains/Paradise, Hot Springs, Dixon, and other areas where numerous residents live in the Wildland Urban Interface in Sanders County. The resulting revised CWPP reflects consensus among those who participated in its development, updates and among those who, by signing, support the approaches outlined within.

Issues and actions fit into one or more of four primary areas of emphasis. These four primary areas of emphasis are also the main emphasis items identified in the National Fire Plan 10 year Comprehensive Strategy and in the Healthy Forest Restoration Act of 2004:

- **Fire Prevention and Suppression**
- **Hazardous Fuel Treatment**
- **Restoration of Fire-adapted Ecosystems**
- **Community Assistance**

Our plan is founded on, and will guide the implementation of, the National Fire Plan and the related 10 Year Comprehensive Strategy and Implementation Plan, in Sanders County. This plan is intended to be an adaptive document; one that will continue to be updated as needed, to reflect our accomplishments and the newly emerging needs, issues, and opportunities surrounding wildland fire management in Sanders County. The Sanders County Commissioners, Sanders County Fire Planning Committee, Sanders County Fire Fighters Association, State of Montana DNRC, Confederated Kootenai & Salish Tribes,

Kootenai National Forest, Lolo National Forest, and the Northwest RC&D will share responsibility for facilitation of annual updates. Our CWPP will be updated to reflect the accomplishments of our collaborative efforts this past year, our community's most current priorities for the coming year, and also, the guidance provided by Congress in the Healthy Forest Restoration Act.

Also, this plan will meet the following FEMA requirements so that it co-qualifies as a FEMA approved Fire Mitigation Plan.

- Adoption by the Local Government Body
- Multi-Jurisdictional Planning
- Identification of Hazards and Risk Assessment by:
  1. Profiling Hazard Events
  2. Mapping Juxtaposition of Hazards, Structures, Infrastructure
  3. Potential Dollar Losses to Vulnerable Structures (B/C Analysis)
- Documented Planning Process
- Assessing Vulnerability
- Mitigation Goals
- Analysis of Mitigation Measures
- Monitoring, Evaluation, and Updating the Plan (5 year cycles).
- Implementation through Existing Programs
- Documented Public Involvement

The chronological participatory development of this plan is outlined in Appendix B-2.

CHALLENGE

Few areas in the West have been harder hit in recent years by wildfire than western Montana. Millions of dollars were spent on the suppression efforts with more than 10,000 people supporting our firefighting efforts. Suppressing the fires is only the beginning. Rehab and recovery can take a decade or more and require additional financial resources.

While catastrophic, the magnitude of wildfire in 2000, again in 2002, and 2003 was not entirely unexpected. According to the Federal Wildland Fire Management Policy and Program Review adopted by the Federal land management agencies in December 1995, "nearly every state has experienced wildland urban interface fire losses." The Federal Fire Policy further states that the wildfire hazard "has become a major fire problem that will escalate as the nation moves into the 21st century…it is clear from recent episodes that losses will increase in the future".

Fires originating in relatively remote areas can be driven by winds for long distances in a short time. The east-west orientation of many of the drainages in the County coupled with the prevailing westerly winds and the historic lightning patterns often support fires that start on State, Federal, and Tribal Forest lands, and when the conditions are right, move into the wildland-urban interface where they may threaten private property. Reference Appendix D Maps #2 and #3 to see patterns of historic large fires, and fire starts.

Census data from 2000 establish that Sanders County has increased in population by 18% since 1990, with many of the new residents being retirees. Many of the new homes in the County are being constructed in the wildland-urban interface and as more people move into the interface, the potential impacts from wildland fires increase, as does the complexity of protection issues faced by fire protection agencies. Map #4 in Appendix D illustrates the proximity of populated areas within the county and the Wildland Urban Interface Boundary.

Because of the large fire activity in western Montana within the last three years, many County residents better understand the potential risks associated with living in a fire-dependent ecosystem. Many anticipate that it is a matter of time before another serious wildfire season again threatens homes and communities in Sanders County. In order to protect lives and property when the fires do occur, residents and community leaders developed this strategy to identify the proactive actions which can be taken to mitigate the risks as much as possible, thus better preparing people in Sanders County for the potential of future wildland fires.

STRATEGIC ACTIONS

The issues and actions developed by our community teams, fit into one or more of the four primary areas of emphasis.

Within each area of emphasis, one or more actions are designed to address the need or the opportunity identified. None of the collaborating entities, which have signed this document, are formally required to support these actions, but rather are agreeing that as resources can be secured, these actions are worth pursuit.

Leadership to guide the implementation and monitoring of this strategic plan will be provided by the Sanders County Fire Planning Committee. Information about how to become more involved with this strategic plan and with the Sanders County Fire Planning Committee can be secured from the Northwest Regional RC&D

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The areas for which we emphasize action for Sanders County relate directly to one or more of the four goals established in National Fire Plan's 10-Year Comprehensive Strategy & Implementation Plan. Refer to Appendix A, Frequently Asked Question #8 for a further discussion of the relationships between our goals and those of the National Fire Plan.

A. Improve Wildland Fire Prevention and Suppression

Fire Protection Responsibilities in Sanders County are divided into three areas of responsibility. Reference Appendix A Frequently Asked Question #8, and Appendix D Maps #'s 5, 6, and 7 Fire Protection Boundaries.

Nonstructural Wildland Only – There are three agencies in the county that provide this fire protection within their jurisdictions. These agencies are the Confederated Salish & Kootenai Tribes, the Montana Department of Natural Resources & Conservation, and the U. S. Forest Service.

Wildland & Structural – Located within portions of the wildland agencies protection boundaries, Sanders County has 7 Volunteer Fire Departments serving 7 Fire Districts. The Sanders County Fire Fighters Association (acting as the Rural Fire Council), a cooperative organization with representatives from each of the volunteer departments, works to resolve issues common to all of the members. The Sanders County Office of Emergency Management Officer acts as the County Rural Fire coordinator and the main coordinating agent between the volunteer fire departments, county officials, and other fire agencies.

Municipal – These departments are responsible for providing fire suppression within the communities of Plains and Thompson Falls

Public and firefighter safety is the first priority in all wildland fire management activities. The intent of the Community Fire Plan is to improve Federal, State, Tribal, and local firefighting resource capability and readiness to protect Sanders County communities from wildland fires. There is a need to reduce the risks to homes and private property by expanding outreach and education to homeowners and communities about fire prevention and "FIREWISE" principles. The DNRC, USFS, and CS&KT have most of the wildland fire prevention education and suppression responsibilities in the County. The Montana DNRC Unit Office, each Ranger District, and the Confederated Tribes have a prevention technician and fire suppression personnel on staff.

2004 Accomplishments:

- Training conducted and accomplished for VFD's in Sanders County.
- Several VFD's applied for and secured grants for equipment purchase and/or replacement.
- Emergency Operations Guidelines are being completed for Sanders County.
- The Pre-disaster Mitigation Plan for Sanders County is being worked on and due to be completed by 2005.
- An effort is being made to develop a single Mutual Aid agreement for the County.

Action Item A-1 **Communication between Sanders County Association of Firefighters and County Commissioners**			
Description	During the development of this strategic plan, members of the County Association of Firefighters realized they should discuss several topics with the County Commissioners. A primary need is to discuss the status of the properties and Residences* that are not in a fire district, and approaches to communicate with the landowners and achieve broader coverage	**Resources Needed**	**Who is responsible**
Tasks	Work with the County Commissioners to add statement "No Structural Fire Protection" to tax statement for residents who are not located within a fire district nor served by a volunteer fire department. ********** Send a letter from County Commissioners to unprotected property owners explaining their "non-protected" status, ramifications of the status, and process for changing status if desired. ********** Develop a long term RFD plan for placement of sub-stations or additional RFD's to encompass areas of the county currently lacking in structural fire protection.	Support to prepare materials for presentations.	The OEM Coordinator with support from the RC&D Forester. The OEM Coordinator and the Sanders County Firefighters Association
Notes & Updates			

Each Fire District needs to identify potential sites and priorities for water sources (pump

stations, more tenders, dry hydrants, and/or wet hydrants); map existing water sources; identify needs where water sources are not adequate, and negotiate with landowners to secure access to water or develop new water sources.

In order to attract new volunteers, incentives such as exemption from jury duty or state tax exemption need to be explored. Nearly all of the volunteer fire departments have a continuous need to recruit additional fire fighter**s.**

Volunteers need to be trained to meet ICS standards and their training and qualifications entered into
the ICS system as appropriate. The goal is to qualify and make available more instructors within departments to teach basic and intermediate wildland fire classes up through engine and crew boss.
Most volunteers spend 2 to 4 hours a week in training at their department, not counting weekends and outside classes. Classes need to be scheduled to meet the volunteer's schedules, and compensation should be considered for missed work during the week. Many higher level classes, Strike Team Leader and above, are only scheduled during the week. Where internal instructors cannot be found, grants should be requested to bring in outside instructors. An additional goal is to qualify more fire fighters at Strike Team Leader and IC3 levels. Explore options to send and compensate fire fighters to higher-level wildland classes (Strike Team Leader and above).

Each fire district should have an urban interface engine to be able to respond to fires that may be inaccessible to larger equipment. There is a continual need to upgrade or replace PPE(fire shelters, hand radios, etc.).

Action Item A-2 **Volunteer Fire Department Needs**			
Description	Each fire district operates on tax monies generated by a mill levy, donations, and grants. The need for training, equipment, resources, and public education is continuous.	**Resources Needed**	**Who is responsible**
Tasks	Identify and develop additional water sources in each fire district to protect resources. ********** Improve VFD wildland fire and structural training opportunities. ********** Develop an outreach strategy to attract & recruit additional volunteer fire fighters. ********** Upgrade VFD firefighting equipment. **********	Funding source to support the activities. Unify grant writing capability within VFD's	Each Fire Chief using his/her VFD with staff support from RC&D grant writer as available if needed.

	Continue to provide grant research and writing assistance to VFD's. Capture the expertise of individual VFD's that have successfully procured grants or other sources of funding and share this with the other VFD's in the county. ********** Provide technical Tools to allow VFD's to access County GIS data. ********** Allow for more opportunities for local VFD's to participate in prescribed fire opportunities in support of private land fuel reduction activities with the USFS on projects adjacent to private land on National Forest.		
Notes & Updates	Several Fire Departments are independently applying for training grants.		

Action Item A-3 **Monitor and update County Pre-disaster Mitigation Plan**			
Description	While there are many organizations with their own policy and procedures, there is a continuing need for one coordinated plan for the County. A coordinated approach with clear roles and expectations would enable all emergency response units to work more efficiently together.	**Resources Needed**	**Who is responsible**
Tasks	Identify all potential participants. ********** Keep state and local emergency response plans on file. ********** Work with Local Emergency Planning Committee (LEPC) to guide coordination for Sanders County. ********** Review Sanders County Disaster and Emergency Services plans for operating procedures and/or standards. ********** Incorporate the Community Fire Plan into the County Pre-disaster Mitigation Plan		County OEM Coordinator

Notes & Updates	OEM is nearing publication of a Pre-Disaster Mitigation Plan for Sanders County.		

Action Item A-4 **Review and Revise the Mutual Aid Agreements.**			
Description	Mutual aid agreements exist between many of the cooperators in the county. There is a need to combine these into one comprehensive Mutual Aid Agreement which would improve initial attack and extended attack capability in the County.	**Resources Needed**	**Who is responsible**
Tasks	Identify all mutual aid agreements. ********** Review to determine status and need for updates. ********** Coordinate the combining of these agreements into one county wide agreement.		OEM Coordinator, VFD's, CS&KT, FS, DNRC, County Commissioners
Notes & Updates			

More than a dozen organizations and agencies can be involved in emergency responses in Sanders County yet there is no centralized communication strategy for the County. Each organization has communication and coordination needs and capabilities that don't always mesh with other groups. Each group has been meeting its needs the best it can but all recognize that sharing resources and defining responsibilities is critical in the event of another catastrophic wildland fire in the County.

Action Item A-5 **Initiate efforts to develop a Communication Plan for Sanders County**			
Description	Initiate a comprehensive review of communication capabilities among emergency responders throughout the county.	**Resources Needed**	**Who is responsible**
Tasks	Identify communication problems, players involved, and the communication coverage presently in place and what is needed. ********** Explore grant funds to support additional needs.	Single organization or small task force to take lead and coordinate this effort.	The 911 committee in coordination with the OEM

	********** Enable all emergency services to communicate with 911 dispatch from anywhere in the County at any time. ********** Replace and/or repair 911 system. ********** Identify equipment or personnel needs in the County and seek ways to meet those needs, and especially on fire, need to work with the Sheriff on evacuation and security in fire camps. ********** Clearly identify roles and responsibilities of all those involved in emergency response. ********** Get enhanced 911 up and running		
Notes & Updates			

B. Reduce Hazardous Fuels

Treatment of hazardous fuels is one of the most proactive ways to reduce the potential impacts from wildland fire. Treating fuels reduces the fire risk in an area, while increasing the chance that fire protection agencies can control a fire before it gets out of hand. Defensible space practices and forest fuel treatments are effective ways of protecting residential homes, neighborhoods, communities, and watersheds.

Tens of thousands of acres of fuel treatment have occurred on private, state, and federal lands over the past decade but there is much more to do. One study done by the Montana DNRC and the Forest Service estimated over 162,000 acres of high-risk forested areas within the County's interface need some kind of treatment to adequately lower fire risk and protect area residents. Once treated, regular maintenance is necessary to maintain the conditions that contribute to lower fire risks.

An analysis process was developed for this plan to give guidance to land managers in identifying wildland urban interface areas that are most in need of treatment in the county. This process also aids the land management agencies that adjoin these areas in establishing a priority for their fuel treatment projects. Initial prioritization was done by all the wildland fire protection agencies in the County (Appendix B Attachment B-3). These areas were mapped (Appendix D Maps 8, 9, and 10) and analyzed by the process outlined in (Appendix B Attachment B-4) with the results shown in (Appendix B Attachment B-4A and Attachments B-4B). Site specific analysis for all areas of the county including those outside the mapped wildland urban interface can be done on an as needed basis by utilizing the process outlined in (Appendix B Attachment B-5). This is a dynamic process and should be reevaluated on at least a biannual basis or when new or updated information becomes available.

This analysis process is designed as a guideline only. Final selection of areas to be treated will be the responsibility of the landowner or land manager, but the decision will be guided by collaborative input generated by this process. This process will be particularly instrumental in determining where potential grant dollars or funds allocated to agencies should be invested.

2004 Accomplishments:

- Mapped all high fire risk areas in Sanders County. (Appendix D Maps 8, 9, & 10)
- Have received about $214,000 to treat hazardous fuels on private lands in Sanders County.
- Recently received approximately $1 million dollar grant for hazardous fuel treatment that will cover 3+ counties in Montana.
- Have held public meetings on treating hazardous fuels on private lands.
- Secured a $5,000 grant from the BLM to complete a draft Community Fire Plan for the county by September 30.
- Hired a community forester for the county to provide technical assistance to landowners in Sanders County to reduce hazardous fuels around there homes.

Action Item B-1 **Identify, Maintain & Update High Risk/Hazard areas for Hazardous Fuel Treatment and revise as needed.**			
Description	The VFD's, State, Tribal, and Federal agencies should work together to identify hazardous fuels projects in high-risk areas within the county.	**Resources Needed**	**Who is responsible**
Tasks	Continue identifying and updating the high risk/hazard areas in Sanders County. ********** Utilize GIS technology to map & display the high risk/hazard areas. ********** Establish criteria to guide prioritization of high risk/hazard areas for hazardous fuels treatment. ********** Continue to apply the criteria to guide prioritization of areas to be considered for treatment.	Personnel to evaluate and identify high-risk areas; GIS technical assistance to map the areas;	VFD's, DNRC, CS&KT, USFS, & RC&D Community Forester.
Notes & Updates	High Risk areas within Sanders County were identified and mapped in 2004. This effort was coordinated with the DNRC, CS&KT, and USFS.		

Action Item B-2 **Support Hazardous Fuel Treatment Projects Within the Interface.**			
Description	Support expansion of hazardous fuel treatment projects in the high risk/hazard areas in Sanders County with emphasis on private landownership. (i.e., Western States, Stevens money, and other grant opportunities)	**Resources Needed**	**Who is responsible**
Tasks	Continue developing and maintain a list of hazardous fuel treatment contractors and forestry consultants. Set requirements ********** Improve contractor/cooperator effectiveness and fire qualifications through training and sign-up. Develop and put on a workshop for contractors that want to perform hazardous fuel	Field personnel with forestry or fuels mgmt knowledge. Skilled	RC&D Community Forester & OEM Coordinator

	treatment work. ********** Develop and maintain a list of fuel treatment techniques and costs. ********** Provide landowner/manager training pertaining to fuels management methods and techniques (including the use of grazing to keep fuels at low levels), forestry skills, utilization of wood products, accounting, and record keeping skills. ********** Develop and use Hazardous Fuel Treatment Grant Application procedures. ********** Secure matching grants to provide financial assistance to private landowners (i.e. Stevens money). ********** Concentrate fuel reduction work in areas of highest priority and effectiveness (highest values, greatest hazards, highest population density, high fire occurrence frequency) and where the negative impacts of wildland fire would be greatest. ********** Secure services of an additional community forester for expanding the hazardous fuel program	grant writer to research and secure grant funds. Money for salaries, mileage, materials, and supplies.	
Notes & Updates	List of contractors/consultants has been developed. Needs updating and implement additional requirements (insurance, license, etc.). List of fuel treatment techniques/costs and grant application procedures have been developed.		

Action Item B-3 **Coordinate hazardous fuel treatment projects between private landowners, state, and federal land managers.**			
Description	Ensure the effectiveness of hazardous fuel treatments is maximized by coordinating efforts across private-public landownership boundaries and supporting hazardous fuels treatment programs on public lands within and near the interface.	**Resources Needed**	**Who is responsible**

Tasks	Coordinate, at a minimum, semi-annual discussions regarding hazardous fuel treatment programs with DNRC, CS&KT, USFS, and Sanders County Fire Plan Steering Committee (pursue grants, i.e., Steven's money, etc.) where appropriate on cross boundary projects ********** Engage volunteer fire departments and neighborhood groups in identifying desirable cross-boundary projects. ********** USFS Forest Health Protection group to provide information to contractors and homeowners on minimizing tree damage and mortality in conjunction with fuels reduction treatments and slash disposal.	Commitment of DNRC, CS&KT, and USFS fire managers.	RC&D Community Forester RC&D Community Forester in coordination w/local fire chiefs/managers.
Notes & Updates	Several cross boundary hazardous fuel projects are on going in Sanders County.		

Action Item B-4 **Update and encourage use of Fuel Treatment Guidelines for New Subdivisions in Sanders County.**			
Description	Fuel treatments may vary on each individual property, depending on owner's goals, but should be compatible across boundaries.	**Resources Needed**	**Who is responsible**
Tasks	Update and provide support for high priority "defensible space" designs and regulations for new developments. ********** Work with County Commissioners on encouraging guidelines for new subdivisions. ********** Designate road names & addresses to developers. Require signing of roads & lots prior to sale. Require as part of long range planning the set aside of acreage for future RFD substations.		RC&D Community Forester & OEM Coordinator
Notes & Updates	Draft guidelines were developed several years ago. These need review and possible updating.		

Action Item B-5 **Mitigate the Slash Disposal Problem.**

Description	Reducing the standing fuel is just part of the job. Using fire to remove the fuels is usually the most cost effective method but air quality guidelines may limit the use of fire to dispose of the slash. The slash may have commercial value if there is enough quantity and at the right location.	**Resources Needed**	**Who is responsible**
Tasks	Tie into the Thompson River Co-Gen Plant and Fuels for Schools and address alternative methods as well as working with State agencies/legislators in discussing options regarding Air Quality Issues. ********** Identify chipping costs (contract vs. buying a chipper). ********** Identify other equipment and techniques to assist in mitigating the burning issue (i.e., air curtain burner – EPA approved, designated disposal sites, etc.)	List of chippers available.	Fire Plan Steering Committee
Notes & Updates			

Action Item B-6 **Implement a year-end Reporting System to show accomplishments.**			
Description	A good example of a year-end reporting system is the State of Idaho report.	**Resources Needed**	**Who is responsible**
Tasks	Explore similar guidelines in place in other areas. ********** Craft guidelines specifically for residents in Sanders County. ********** Ensure coordination with key local, county, state, & federal entities that will have an interest. ********** Develop funding for a dedicated GIS technician for the County. ********** GIS all of the previous fuel treatments on private lands that have been accomplished through grants and other individual efforts.		Volunteer or staff person to facilitate discussions, conduct research and development guidelines for Sanders County

	********** Explore ways to fund GIS capabilities w/other agencies (FS) and resource organizations.		
Notes & Updates	Currently conduct annual review of Community Fire Plan accomplishments. Currently responsible to report private land hazardous fuel accomplishments quarterly for each grant.		

C. Restoration of Fire-Adapted Ecosystems

The guiding principles to restore fire-adapted ecosystems are to:

- Prevent invasive species and restore watershed function and biological communities through short-term rehabilitation.

- Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically severe fires on a priority watershed basis through long-term restoration. Eradicate or minimize the rate of spread of invasive species that negatively impact natural fire cycles and fire-adapted ecosystems.

- Promote the development and use of the best available science along with local and indigenous knowledge.

- Monitor restoration and rehabilitation projects for effectiveness and share the results in order to facilitate adaptive implementation.

2004 Accomplishments:

- Insect and Disease aerial photo flights have occurred over much of the forested lands in Sanders County. This information will be used in assessing the I&D situation in Sanders County in coordination/cooperation with the State of Mt. Reference Appendix D Insect & Disease Map #11.
- Pre-disaster mitigation planning has started and will be completed by 2005.
- Sanders County Emergency Operations Guidelines have been completed.
- Northwest RC&D continues to work with DNRC to implement Hazard Reduction Agreements (HRA's), BMP's, and SMZ guidelines on all applicable hazardous fuel treatment projects.

Action Item C-1: **Insect and Disease Assessment (mapping) in the county.**			
Description	Mapping of Insect and Disease infestations in Sanders County will assist land management agencies and private landowners in trying to concentrate forest health practices in those areas.	**Resources Needed**	**Who is responsible**
Tasks	Conduct an I&D flight and map areas with current I&D infestations. ********** Coordinate assessment of I&D infestations between agencies to begin understanding the I&D problems and issues facing Sanders County.		
Notes & Updates	I & D flights have been accomplished by DNRC, The Confederated Tribes, and Lolo and Kootenai National Forests.		

Action Item C-2: **Develop post-wildland fire disaster mitigation guidelines for private landowners.**			
Description	As a result of the 2003 fire seasons, it has become evident that post-fire disaster mitigation guidelines are needed to assist landowners with rehabilitation efforts on private lands.	**Resources Needed**	**Who is responsible**
Tasks	Assign an interagency task force to begin organizing efforts to put together draft post-fire disaster mitigation guidelines. ********** Develop the final guidelines for approval. ********** Advertise that the guidelines exist and make them known to Valley residents.		RC&D
Notes & Updates	Statewide effort currently being accomplished by the DNRC and RC&D's.		

Action Item C-3: **Help landowners identify and understand how noxious weeds affect the ecosystem.**			
Description	This is an effort to help private landowners start or continue dealing with the noxious weed problems in Sanders County. Provide information on the spread of noxious weeds from disturbance activities (hazardous fuels work, wildfire, etc.).	**Resources Needed**	**Who is responsible**
Tasks	Work with the County Weed Board in identifying the high risk and highly infested areas within the County. ********** Continue developing ways, like, brochures and pamphlets that help the County landowners better deal with the weed infestations. ********** Develop other educational efforts to get the word out on landowner responsibilities in dealing with noxious weeds on their properties.		County Weed Board. & RC&D Forester
Notes & Updates	The Sanders County Weed Board has developed many helpful guides to assist landowners. They have also provided invaluable assistance and advice to landowners on how to deal with noxious weed problems on their lands.		

Action Item C-4: **Work with private landowners on Hazardous Fuel Reduction projects to incorporate Best Mgmt Practices, Streamside Management Zone Guidelines as well as addressing Forest Health issues.**			
Description	Hazardous fuel treatment projects need to incorporate HRA's, BMP laws, SMZ guidelines and address forest health issues.	**Resources Needed**	**Who is responsible**
Tasks	Ensure HRA's, BMP laws and SMZ guidelines are used in applicable hazardous fuel treatment projects. ********** Address Forest Health issues when designing hazardous fuel treatment prescriptions on private lands. ********** Provide information, engage and coordinate with private landowners as to their responsibilities regarding HRA's, BMP's, SMZ guidelines and Forest Health. Demonstrate how fire risk is tied into forest health issues.		DNRC Service Forester & Community Forester
Notes & Updates	This has been accomplished on hazardous fuel projects in the county.		

D. Community Assistance

As residents' understanding of the risks associated with wildland fire increases, their interest in learning more about living in a fire- dependent ecosystem and actions that can be taken to reduce the risk to lives and property expands.

Through this strategic planning effort, we want to expand our collective abilities to meet these growing interests. An emphasis will be placed on sharing information that enables valley residents and community leaders to understand actions they can take to reduce the "ignitability of structures" and other potential negative impacts of wildfires.

Our **target audiences** include:

- Wildland Urban Interface property owners
- Students and Educators
- Industry Specific Groups such as realtors, contractors, landscapers, insurance agents, and power companies & cooperatives.
- Non-Interface homeowners, conservation groups, Non-Government Organizations, and local, county, state, and federal government agencies.
- Tourists traveling through/to the Valley.

As we work with each of these groups, we will focus on **four goal**s:

- Engage people in learning more about the intricacies of, and the benefits and risks of living in, fire dependent ecosystems.
- Increase awareness and understanding of what landowners can do to enhance their enjoyment and reduce the risks, and how we can collectively work together to accomplish some of these things.
- Develop support for hazardous fuels treatments on all lands.
- Encourage utilization of traditionally un-merchantable material.

2004 Accomplishments:

- Expanded awareness of hazardous fuel programs and projects through community, neighborhood, public and individual landowner meetings.
- Secured the services of a community forester/fire plan coordinator.
- Produced news releases and other notifications to public about hazardous fuel treatment programs.
- Monitored and participated in local planning efforts with the Montana Department of Natural Resources and Conservation, Kootenai and Lolo National Forests, and The Confederated Salish & Kootenai Tribes.
- Secured grant funds and implemented nationally acclaimed Fuels for Schools Pilot Project.

Action Item D-1: **Establish A Fire Plan website to disseminate information**			
Description	It is essential to have one website that people can go to for correct, current, relevant information.	**Resources Needed**	**Who is responsible**
Tasks	Utilize Northwest Regional RC&D website www.nwrcd.org, adding links to www.cybernet1.com/fire, www.fs.fed.us/r1/lolo, www.fs.fed.us/r1/kootenai, www.cskt.org, and www.state.mt.us, ********** Create links to all Community Fire Plan partners' sites to ensure easy access to "Living with Fire" information. ********** Develop goals and objectives for website. ********** Arrange for design and maintenance. Consider student involvement in this task. ********** Review and update as needed the Communities-at-Risk List for Sanders County		RC&D
Notes & Updates			

Action Item D-2: **Expand awareness of need for hazardous fuels treatment and defensible space programs, and encourage engagement of community leaders and landowners, especially in high-risk areas.**			
Description	Community Fire Plan partners will work to expand community understanding and engagement for an active hazardous fuels treatment program in Sanders County.	**Resources Needed**	**Who is responsible**
Tasks	Expand awareness of areas in need of treatments among neighboring landowners ********** Invite community/neighborhood champions (local landowners) to assist in gaining support for hazardous fuels treatments in high-risk areas. ********** Coordinate with signatory partners and others to	Coordinator for task(s)	VFD's. & RC&D Community Forester

	develop options for cross-boundary projects RC&D		
Notes & Updates			

Action Item D-3: Cooperatively Develop, Staff, Operate, and Maintain A "Living on the Edge" FIRE SMART Wagon patterned off of the one developed by the Bitterroot RC&D.			
Description	This mobile display would be used cooperatively by all counties in the Northwest Region RC&D's area of responsibility. The Fire SMART wagon is an excellent tool to use at school and other functions to help spread the word about wildland fire.	**Resources Needed**	**Who is responsible**
Tasks	Develop a FIRE SMART Wagon. **********	Coordinator for task(s)	RC&D & County Fire Protection Agencies
Notes & Updates			

Action Item D-4: Work with Realtors, Building Contractors, Insurance Industry, and Landscaping Companies to ensure they have knowledge and resources to support FIREWISE projects and actions.			
Description	There is much information available to assist industry in addressing building in the WUI.	**Resources Needed**	**Who is responsible**
Tasks	Engage and share information, presentations, landscaping ideas, and building design ideas with local businesses/contractors. ********** Work with Insurance Companies to encourage their involvement in private landowners' defensible space efforts. ********** Outreach to new county residents – involving the real estate and insurance industry for assistance. ********** Encourage direct communication between the Sanders County Association of Firefighters and area realtors to ensure property protection is well understood.		Sanders County Association of Firefighters, and RC&D.

	********** Sanders County Association of Firefighters develops and sends a letter to the Board of Realtors, the C of C, and the Home Insurance Underwriter industry (i.e., State Auditor's Office) urging this action.		
Notes & Updates			

Action Item D-5: **Produce and disseminate information products such as newsletters and news articles on a regular basis.**			
Description	Develop a regular series of information articles on the wildland fire risks, ongoing projects, and any other pertinent topics.	**Resources Needed**	**Who is responsible**
Tasks	Develop schedule, topics, and venue for information sharing on a quarterly basis. ********** Coordinate creation of articles - person responsible would not have to write the articles but would be responsible to schedule who would write them, when the articles would be due, and arrange for them to be distributed.		County Fire Plan Committee RC&D Community Forester
Notes & Updates	U.S. Forest Service Forest Health Protection will be involved in the creation of articles, new publications, etc.		

Action Item D-6: **Produce, Improve, Maintain and Deliver environmental education curriculum to students and increase awareness/knowledge of students and teachers in these areas.**			
Description	Develop curriculum for variety of grades and classes, integrating information about "living on the edge" in a fire dependent ecosystem with school-based classes.	**Resources Needed**	**Who is responsible**
Tasks	Produce an interactive curriculum for students. ********** Establish a schedule for presentations, exhibits, tours, and field classes for as many schools in the County as possible. ********** Work with teachers to get acceptance. Develop lesson plan & process for student to assess the	Grant funds to support position, and to purchase supplies and equipment	VFD's take the lead with assistance from DNRC, CS&KT, & FS Education coordinator s

	fire risks associated with their own homes.		
Notes & Updates			

Action Item D-7: **Engage local Real Estate Developers in homeowner's awareness campaign.**			
Description	There are many products available that would reduce the risk to a home in the WUI from a wildfire. A model home in a new subdivision is a good source of the latest technology in home construction materials that would reduce the chance of the home burning in a wildland fire and an open house would be an excellent forum to demonstrate defensible space practices.	**Resources Needed**	**Who is responsible**
Tasks	Work with Developers to encourage interest in becoming engaged. ********** Coordinate with builder and landscaper to have a defensible space home on a Model Home.	Handouts, displays, and lists of fire resistant materials	VFD's in conjunction with RC&D.
Notes & Updates			

Action Item D-8: **Communicate about Fire Plan accomplishments.**			
Description	There will be many successful accomplishments after the fire plan is adopted. We need to provide information about these successes to everyone.	**Resources Needed**	**Who is responsible**
Tasks	Design self-guided information to address public concerns/questions about what hazardous fuel treatments will look like. ********** Engage other groups/individuals to tell our story.		RC&D Community Forester
Notes & Updates			

Action Item D-9:

Continue support of Small Diameter Utilization and Biomass Utilization Opportunities.			
Description	Push for increased utilization of small diameter wood and biomass products.	**Resources Needed**	**Who is responsible**
Tasks	Target markets for increased utilization of wood products and by-products (Thompson River Co-Gen fuels for schools, Stone Container, etc.) ********** Educate contractors and landowners about ways to better utilize wood products and by-products. ********** Conduct local and regional workshops on utilization, encouraging attendance.		Sanders County Economic Development RC&D Forester
Notes & Updates			

The Kootenai and Lolo National Forests are revising their Forest plans. Various agencies and entities are developing organizational strategic plans to guide their work in coming months. With the variety of planning efforts occurring at any given time throughout our County, there is a critical need to ensure that issues relevant to community fire planning are visible and integrated in the various planning efforts.

Action Item D-10: **Monitor and Coordinate local Policies & Planning Efforts.**			
Description	Monitor and Coordinate local policies and planning efforts to insure issues relevant to Community Fire Planning efforts are considered effectively.	**Resources Needed**	**Who is responsible**
Tasks	Address Key issues & coordinate cross boundary projects as much as possible. ********** Tie public awareness/engagement efforts into other related meetings (Forest Plan Revision meetings, County Planning, etc.) ********** Increase our capabilities to meet the full range of opportunities.		Small Task Force??
Notes & Updates			

There are many worthwhile endeavors outlined in our Community Fire Plan and we greatly appreciate the generosity of volunteers who are willing to provide leadership for specific aspects or action items of this Plan. We also recognize the value in having a staff person who is assigned the responsibility of coordinating all of these efforts, and providing leadership in areas that require specific knowledge and skills.

Many homes in the wildland-urban interface do not have ingress/egress suitable for fire protection vehicles. Bridges are inadequate; roads can be too narrow or too steep and may not be plowed in the winter; and turn-around space near the Residences* may be inadequate to accommodate the emergency vehicles. Often, landowners are not aware of these problems until they need protection assistance. Guidelines explaining access standards could benefit all interface landowners. While Volunteer Fire Departments may consider acquiring fire equipment that can access tough places, the real incentive needs to be placed on the shoulders of the landowners to improve the condition of their access.

There is also a need to address the efficiency of sharing access information needs among agencies/groups. Sharing will help control costs and will complement the enhanced 911system.

APPENDICES

APPENDIX A

Frequently Asked Questions

Questions ~ and answers ~ pertaining to the following subjects can be found in this section.

1. Wildland-Urban Interface and Communities at Risk
2. Defensible Space vs. Hazardous Fuels Treatments
3. "Good" and "Bad" fire
4. Vegetative Condition Class
5. Fire Behavior
6. Values at Risk
7. Wildland Fire Protection Agencies
8. National Fire Plan
9. Permits for Burning

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1. What is the Wildland-Urban Interface and At-Risk Communities?
For the purposes of the CWPP, the Wildland Urban Interface (WUI) is defined as the zone where structures or other human development meet to intermingle with undeveloped wildland or vegetative fuels. The width of the zone is determined on a site-specific basis to protect values at risk from wildland fire.

At-Risk Communities are those communities identified and addressed in the CWPP that are considered at risk by wildland fire. At-Risk Communities, as defined in the Healthy Forest Restoration Act 2004, are comprised of:

- An interface community as defined in the notice "Wildland Urban Interface Communities Within the Vicinity of Federal Lands That Are at High Risk FromWildfire" issued by the Secretary of Agriculture and the Secretary of Interior in accordance with Title IV of the U.S. Dept. of Interior and Related Agencies Appropriations Act, 2001. **OR**
- A group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) within or adjacent to Federal land **AND**
- In which conditions are conducive to large-scale wildland fire disturbance event **AND**
- For which a significant threat to human life or property exists as a result of a wildland fire disturbance event.

At-Risk Sanders County communities include: Heron, Noxon, Trout Creek, Thompson Falls, Plains, Paradise, Hot Springs, Dixon, and other areas where numerous residents live in the Wildland Urban Interface in Sanders County that meet the above mentioned criteria.

2. Is it necessary to treat fuels throughout the Interface or can we limit hazardous fuel treatments and focus more on creating defensible space within 120 feet of homes? U.S. Forest Service research has studied how structures are ignited during a wildfire, with particular attention given to the home ignition zone. One researcher suggests that in order to protect structures it is only necessary to establish defensible space within 120 feet of a house. Is this a viable option?

A persistent question relates to the need to treat extensive forest areas beyond the immediate vicinity of about 120 feet adjacent to a structure. It is very important that forest county residents understand the needs for maintaining healthy forests in their neighborhood. (Forest Health and Fire. NAFSR 2002)

In the long run one of the major strategies for dealing with destructive fire in our forests is to endeavor to re-establish forest conditions that facilitate the natural role of fire in the forest ecosystems. It is easy to become fixated on the idea that the entire objective of the Fire Plan is to reduce fire losses to human structures. Focusing exclusively on protecting human structures ignores the values that a healthy forest provides to our communities and our quality of life. Severely burnt forests are not sustainable forests and healthy sustainable communities need sustainable forests for life, health, social comfort and mental equanimity. Sustainable, healthy forest values include stable watersheds, pleasant and productive habitat for humans and wildlife, scenic vistas that not only are pleasant to view but that contribute to a healthful air shed and that contribute to the role of the forest in carbon sequestration and climate moderation. Very intense fires fed by excessive hazardous fuel build-ups and dried by lingering drought destroy these values for extended periods of time. It is essential that we treat extensive areas so that fires of moderate to low intensity can be tolerated without contributing to excessive soil movement and unacceptable loss of native plants. We must also keep in mind that the invasion and establishment of noxious weed species often is accelerated by intensive wildfire that destroys the pre-fire existing vegetation.

Another factor that must be borne in mind in this plan is that many land and property owners expect this plan to provide information on the most effective methods of protecting their lives and property. This plan cannot, in all good conscience, recommend protective measures that are not the most effective measures known at the time of the plan preparation. Whereas, providing “defensible space” areas around structures may indeed prevent some structures from ignition, and indeed there are no guaranteed “safe” techniques to provide to people who chose to live in the Wildland/Urban Interface (WUI) this plan must provide the most effective measures that are known to the authors. In any case, there are no guarantees. Living in the WUI involves accepting a measure of risk of loss due to wildfire. As seasons and forest conditions evolve, that risk varies. Where there are forests in the inland west there is fire. Our challenge is to deal with that natural factor in the most positive manner possible. Strong agreement was reached during the development of our Community Wildfire Protection Plan that simply preserving a structure

provides a very limited and unacceptable approach to protecting the attributes of the interface that county resident's value so strongly.

Our values include:

- Firefighter and public safety
- Homes and community
- Healthy watersheds and forests

Firefighter and Public Safety: Few of us – and certainly none of the agencies charged with providing fire protection – would be comfortable allowing a wildfire to move off the mountain ridges and burn towards our communities without attempting to deploy firefighters; instead, trusting that the defensible space created around individual structures would be all that is necessary to ensure the safety of homes, communities and people. Without hazardous fuels treatments on lands near and within the interface, the potential intensity of wildfires create such dangerous conditions that it becomes difficult to engage in effective firefighting strategies and tactics. With our expanded understanding of the already dangerous job of firefighting, we, as a community, are unwilling to not take prudent steps to reduce the fuels thus giving firefighters a safer and more likely chance to successfully protect us.

Homes and Communities: During the fires of 2000 and 2003, we heard from many people who felt that their homes are much more than simply a house or a structure. The setting in which the home exists is as important to some as the structure itself. Fewer are choosing to live in a landscape highly susceptible to fire when it is possible to reduce the fuel loads and thus the fire danger without compromising too greatly, the aesthetic values of the forests surrounding their homes.

Healthy Watersheds and Forests: Many in western Montana can attest to the trials of surviving the wildfires of 2000 and 2003 only to be threatened by post-fire mudflows near streams and overland sediment flows which clog access roads, irrigation ditches and ponds. Others are concerned about changing patterns in water storage and run off in drainages heavily burned and the potential impacts this will have on wells and irrigation systems. Some, looking further out in time, view the tens of thousands of acres of standing dead as tinder for the next wildfire that may roar off the mountain and into the interface and our communities. Businesses and residents in Sanders County value the health of the forests and watersheds, which as established in recent research, contribute importantly, to our quality of life and the quality of our economy.

3. How can we distinguish between “good fire” and “bad fire” or balance the negative impacts with the positive benefits of returning fire to this ecosystem?

The difference between “good fire” and “bad fire” relates to a subjective judgment based on values at risk and the intensity of fires.

The Sanders County ecosystem is fire dependent. Prior to 1900 fire occurred unsuppressed on a regular cycle cleaning the litter mat, down woody material and under story in ponderosa pine stands. Some of these same fires would either reduce fuels or completely replace stands in Douglas fir and lodge pole pine. From about 1940, humans started effectively suppressing fire, thus trying to eliminate fire, a natural change agent in the county’s forest ecosystem. The results of effectively removing fire from the ecosystem are that the ecosystem is no longer naturally cleaned by fire and fuel continues to build up to the point of becoming hazardous. Unsuppressed fire no longer plays its traditional cleaning role in much of our ecosystem but now produces lethal stand replacement rather than non-lethal under burning or mixed severity fires. Because of the build up of hazardous fuels, fires are also much larger (1,000’s of acres rather than 100’s of acres) than occurred historically in the ponderosa pine and Douglas fir habitats. Fires of these intensities and sizes cause greater damage to the natural resources within these ecosystems and threaten lives and property within the Wildland Urban Interface. Wildland fires under these conditions are termed as “bad” fires because of their negative impacts. When these fires occur, they are controlled by fire protection agencies.

The use of fire as a tool is called prescribed fire. Prescribed fire is used to return fire into the ecosystem under controlled conditions. Fire introduced back into these ecosystems is done during times of the year and weather conditions that do not give the high intensities that an uncontrolled wildland fire would give under normal summer fire season conditions. Prescribed fire or “good” fire cleans up the forest floor of the downed woody debris that accumulates over a period of years, reduces the ladder fuels that cause high intensity fires, rejuvenates plant species used by a multitude of animal species for food, recycles nutrients back into the soil, and puts fire back into an ecosystem that always had fire prior to man’s intervention through fire suppression.

It is important to note that a combination of wildland fire suppression (controlling of “bad” fire) and application of prescribed fire (“good” fire) will allow the proper balance of fire into the ecosystem, over time. Fire is a force of nature that will never be eliminated. We need to understand fire and work toward “Living with fire” in order to reduce the negative impacts of fire and reap the positive benefits of fire in the ecosystem.

4. How can I better understand "Vegetative Condition Class" and what this means to forest health and fire risk?

The vegetative Condition Class is one approach to define and interpret the importance of fire frequency in ecosystems. Current "Condition Class" is defined in terms of departure from the historic fire regime, as determined by the number of missed fire return intervals. Fire has always been a part of the wildland, changing and shaping the structure and composition of vegetation in an area.

Many of the Wildland Urban Interface areas in Sanders County were historically maintained by fire. Because of the predominance of Ponderosa Pine on these sites, fire helped maintain them. Low intensity surface fires burned, keeping ground vegetation from becoming ladder fuels. As fire became less of a factor (fire suppression) in maintaining the vegetation in these areas, the vegetation has changed. As a result, there are more vegetation, ladder fuels, and ground fuels (litter mat and down woody materials) that contribute to higher intensity fires than occurred historically. This has increased the risks, hazards and threats to today's growing population within the Wildland Urban Interface.

There are three "Condition Classes" that have been developed to categorize the current condition with respect to each of the five historic Fire Regime Groups. The relative risk of fire-caused losses of key components that define the system increases for each respective higher numbered condition class, with little or no risk at Condition Class 1 level.

The following table describes each Condition Class. Maps of the Condition Classes in Sanders County can be found in Appendix D maps # 8, 9, & 10. Careful study of these maps shows how the lower elevations, adjacent to and within the Wildland Urban Interface have changed and are currently in Condition Class 2 and/or 3.

Condition Class	Description
1	Forested areas with a historically short fire return interval which usually have frequent fires of low intensity.
2	One or more fire return intervals have been missed, possibly resulting in increased fire sizes and intensities and decreased landscape mosaics and diversity.
3	Multiple fire return intervals have been missed resulting in dramatic departure from historical conditions.

Condition Class 3 would normally be stands classified as "high-risk".

5. How does Fire Behavior influence wildland fires in Sanders County?

Fire Behavior describes the way fires ignite and spread. Topography, fuel conditions, and weather all influence fire behavior and how wildland fires burn in Sanders County. Fuel is the only factor influencing fire behavior that we have the ability to manage. The following fire behavior assessment shows fire intensities and fire spread rates in different fuel types/models that are found in Sanders County. It is important to understand this information to determine what areas contribute to the fire protection problems in the County and thus may need treatment.

The following fuel types/models were used for analyzing potential fire behavior:

Fuel Model	Fuel Model Description
1	Grass that is dominated by short grass where very little shrubs or timber is present over less than 1/3 rd of the area. The fine, porous, and continuous fuels that have cured or are nearly cured govern fire spread. This model represents the harvested or recently burned over land that is now covered with grasses and/or newly regenerated timber, the high mountain meadows, and low lands covered with short grass.
2	Grass with open timber overstory that cover 1/3 rd to 2/3 rd's of the area. This model represents the open grass and ponderosa pine/Douglas fir stands and harvested areas where an overstory of timber remains. Fire spread is primarily by surface fire through the curing or dead grasses with the litter and dead down wood from the open shrub or timber overstory contributing to fire intensity.
5	Predominantly shrubs with an overstory of timber. The live fuel moisture in the shrubs normally has a dampening effect on any surface fire. Surface fire normally burns in the dead and downed woody fuels on the forest floor. Under drought conditions, live fuel moistures are less than normal, causing shrubs to be more flammable.
8	A closed canopy timber stand of short-needled conifers with a compact litter layer of needles, leaves, and twigs that has little undergrowth present in the stand. This model is represented in the areas of immature lodgepole pine, Douglas fir stands that have little down-dead ground fuels and the higher elevation stands of whitebark pine. Slow burning ground fires with low flame lengths are generally the case, although a fire here may encounter an occasional "jackpot" or heavier fuel buildup that can flare up. Late season fires in drought years may cause this fuel type to burn with stand replacement intensities.
10	Older mature timber stands that have large loads of dead material on the forest floor. This would include areas that are insect and disease ridden, wind-thrown stands, and over mature situations with dead fall or heavy accumulations of debris. Ladder fuels are usually present. Fires burn in the surface and ground fuels with greater intensity than the other timber types. Crowning, spotting, and torching of individual trees are more frequent in this fuel type. **This is typical of some Condition Class 2 stands and most Condition Class 3 stands.**

Fire behavior calculated for these five fuel types/models were made using the fuels, weather, and topographic conditions prevalent for Sanders County. Two scenarios were developed. One for normal August fire season conditions, called Normal Case, and one for extreme August fire season conditions, called Most Severe Case. The most severe case also takes into consideration severe drought conditions. These conditions would be present in August and September when all the vegetation has cured and dried.

Weather	Normal Case	Most Severe Case
High Temperature	**80 degrees**	**90 degrees**
Low Relative Humidity	**20%**	**10%**
Mid Flame Wind Speed	**5 mph**	**15 mph**
Fuel Moistures		
Fine Fuels, 0-1/4 in. dia.	**6%**	**3%**
Small Fuels, ¼-1 in. dia.	**9%**	**4%**
Medium Fuels, 1-3 in. dia.	**10%**	**5%**
Large Fuels, >3 in. dia.	**14%**	**8%**
Shrubs, Live Fuel Moisture	**80%**	**50%**
Trees, Live Crown Moisture	**100%**	**60%**

The following table shows the fire behavior interpretations that should be used for the fire behavior outputs.

Flame Length	Fireline Intensity	Interpretation
Less than 4 feet	Less than 100 Btu/ft/s	Persons using hand tools can generally attack fire at the head or flanks. Handline should hold the fire.
4-8 feet	100 - 500 Btu/ft/s	Fires are too intense for direct attack on the head by persons using hand tools. Handline can't be relied on to hold line. Equipment such as plows, dozers, pumpers, and retardant can be effective.
8-11 feet	500 – 1000 Btu/ft/s	Fires may present serious control problems – torching, crowning and spotting. Control efforts at the fire head will probably be ineffective.
Greater than 11 ft.	Greater than 1000 Btu/ft/s	Major fire runs are probable. Control efforts at the head of the fire are ineffective.

Fires are classified according to the fuels they are burning in; ground fires, surface fires, and crown fires. Each burns with different intensities and spread rates depending on fuel, wind, and topography. The following fuel types/models were used for analyzing potential fire behavior:

Fire Behavior Outputs
Normal and Most Severe Cases

Fuel Type/ Model	Rate of Spread (Miles/hour)		Flame Length (Feet)		Fire Size after 1 hour (Acres)	
	Normal	Most Severe	Normal	Most Severe	Normal	Most Severe
1	1.3	5.6	5	10	385	4812
2	.5	4.6	7	20	61	2333
5	.4	2.7	7	18	57	752
8	.025	.1	1	2	<1	2
10	.125	.9	6	15	4	77

The transition from a fire burning in the surface fuels on the forest floor to a fire that burns in the crowns of the trees is determined by the amount of available fuel, the fire intensity or flame length, the presence of ladder fuels to carry the fire into the standing trees, and the wind. A fire may start out torching a single tree or small group of trees. When a fire becomes established in the tree crowns, the wind will usually carry the fire in the crowns creating fire intensities that cannot be dealt with by fire suppression forces.

Crown fires are normally driven by the wind but, as experienced in western Montana in 2000 and 2003 fire season, the dryness of the fuels and tree crowns caused what is known as a plume dominated crown fire. These kinds of crown fires take off because of the dry, explosive, and drought conditions present in the forest. A plume dominated crown fire does not necessarily need wind to keep it sustained.

Spot fires are caused by burning embers carried aloft by the wind and smoke column and dropped ahead of the main fire front. Spot fires need a dry fuel bed to ignite and it is not uncommon for these fires to start ¼ to ¾ of a mile ahead of the main fire front. These fires create serious problems for fire suppression forces trying to protect lives and property well ahead of an advancing fire. As spot fires start and gain intensity, they can become as active as the main fire front. This was experienced during the fires in western Montana in both 2000 and 2003. Some fires traveled so quickly through a combination of crowning and spotting that there was

absolutely no way for fire suppression forces to gain control of them before they did their damage.

Many of the timber stands in Sanders County are ripe for crown fires because of the presence of ladder fuels and heavy, down woody debris on the forest floor. These high-risk stands are shown on Condition Class Maps #8, 9, & 10 in this plan. This is exactly why private landowners, county, city, state and federal agencies in the county need to implement a hazardous fuels treatment program.

6. What are the "Values at Risk" or those things which are important to Sanders County residents which are most threatened by wildfire?

The whole intent of fire protection is to protect the values at risk and maintain healthy forests. The purpose of a successful fire management program is to reduce the risks associated with values that are important to communities, people, and the natural resources. Values at risk will be used to assist fire protection agencies in prioritizing areas for hazardous fuels treatments.

Some of the values at risk in Sanders County are:

- Health & Safety – Public & Firefighters
- Air Quality
- Endangered Species
- Recreation
- Property, Improvements & Facilities – Private & Public
- Community Impacts – Economic & Social
- Forest/Ecosystem Health
- Historical
- Aesthetics/Scenery
- Soils
- Timber/Lumber
- Water Quality
- Wildlife

There are multiple threats from a wildland fire occurring in Sanders County. The **immediate threats** are to:

- **Homes and other Infrastructure** – Few wildfires burn where there is not some threat to homes, structures, fences, power lines, communication sites, or some other type of infrastructure. Treatments in the immediate area around structures, designed to reduce fire intensity, can dramatically improve their survival potential. However, restricting treatments to these areas does little to protect other values-at-risk, some of which may be equally or more important from a neighborhood and/or a community standpoint.

- **Public Fear** – Wildfires can induce fear, concern, and panic. This can result in a marked increase in call volume at the local dispatch center, thereby reducing the ability to service other emergency calls. In addition, access routes into an incident may be clogged as people either flee the scene, attempt to return home to protect their property, or remove other family members or pets.
- **Public Health** – During the 2000 and 2003fire season, western Montana provided dramatic evidence of the danger of living in a fire-zone. Besieged by numerous fires, residents of the area were exposed to heavy smoke for several weeks during August and into early September. This resulted in a dramatic increase in both doctor visits and hospital admissions during and immediately after the fires. Many of those affected lived miles from the actual fires.
- **Firefighter Safety** – In 1997, the "TriData Study: Wildland Firefighter Safety Awareness Study" was commissioned to find ways to improve firefighter safety. Of the 114 recommendations, the #1 was to "Implement a large-scale, long-range fuel management program." Fire protection agencies, county officials, and the public must insist on hazardous fuel reduction efforts on a landscape-basis if they are truly serious about improving safety of not only firefighters but the public in general. Treating small areas do not provide the level of protection necessary.

The **secondary threats** from a wildfire occurring in Sanders County are:

- **Financial** – Every fire season, stories emerge about the loss of revenue suffered by local businesses attributed to an ongoing fire in the area. This can be particularly acute during the height of a summer tourist season. Multiplied throughout a community, the result can be very serious.
- **Transportation –** Fires can disrupt travel corridors. This may involve air or vehicle routes. After fire effects can also impact vehicle travel from debris flows crossing roadways.
- **Recreation** – Opportunities to enjoy the outdoor recreation activities can also be severely hampered by wildfire. Areas can become closed to the public because of fire activity or fire danger. After fire effects include impacts to popular recreation sites from the fire leaving areas "blackened" which reduces visitor popularity.
- **Rebuilding –** For most areas, structures and infrastructure damaged or destroyed during a wildfire will need to be repaired or replaced. For many communities, this involves re-zoning requests, public hearing, issuance of new permits, and necessary work-related inspections. Building and engineering Departments can be quickly overtaxed.
- **Environmental –** A devastating wildfire can affect a variety of environmental concerns. One of the most obvious is wildlife and plant habitat. Some of the sites most at risk are home to various Threatened and Endangered Species. Watershed values can be severely damaged by wildfire. Soil erosion can be a major impact after a wildfire along with the rehabilitation work that needs to take place to prevent further damage. After a wildfire increased insect and disease activity can impact forest health.
- **Public Confidence/Support –** Following a major incident, public review of officials and programs can occur. Confidence in individuals, institutions, and activities may be questioned and or supported. This can also be directed to private groups who have

either opposed or advocated a particular course of action contrary to the public's desire. These examinations should focus on how to constructively improve programs.

- **Scenic –** Picturesque long-distance vistas are an important component of our landscape; many travel great distances to partake of experiencing Sanders County. Wildfires impact the aesthetics of an area, which can further impact individual landowner property values. Many moved into Sanders County and bought property for the view.
- **Emotional/Spiritual –** Many individuals and groups may have intense bonds to a particular site or area. This bond is often overlooked and under appreciated; nonetheless, it is true and powerful. Damage, real or perceived, to these sites/areas can cause mental or even physical pain.

7. Who are the "Wildland Fire Protection Agencies" and how are their efforts coordinated?

There are four kinds of wildland fire protection agencies in Sanders County; Sanders County Fire Departments, Montana DNRC, Confederated Salish & Kootenai Tribes, Kootenai National Forest, and Lolo National Forest. Through mutual aid agreements, firefighters from each of these agencies are able to unify and assist each other with wildfires in the Valley. Every effort is made to stop wildfires before they reach housing areas, but only county volunteer departments are qualified to provide direct structure fire suppression. Maps of the fire protection boundaries for each agency are included in Appendix D. The wildland fire protection agencies are:

- **Sanders County City and Rural Fire Districts** – Sanders County has an all-volunteer fire fighting force. There are nine fire districts and nine fire companies or departments. All fire departments train in both Wildland and Structural fire fighting and maintain mutual aid agreements through the Sander County Association of Firefighters.
  - Dixon Rural Fire Department
  - Heron Rural Fire Department
  - Hotsprings Rural Fire Department
  - Noxon Volunteer Fire Department
  - Plains City Fire Department
  - Plains/Paradise Rural Fire Department
  - Thompson Falls City Fire Department
  - Thompson Falls Rural Fire Department
  - Trout Creek Rural Fire Department

- **State of Montana** – Department of Natural Resources and Conservation. The Montana DNRC is responsible for fire protection on state and private lands statewide. The Plains Unit of the Northwestern Land Office (NWLO) – Montana DNRC has two major wildfire responsibilities in Sanders County.
  - Direct protection of 275,000 acres of forested lands.
  - Management of the State/County Cooperative Wildfire Management Program.

  The Plains Unit has a fire prevention specialist, who promotes public fire awareness. The DNRC's primary mission is to manage School Trust Land. The Plains Unit has a fire prevention specialist, who promotes public fire awareness. The DNRC's primary mission is to manage School Trust land to generate long-term income to the School Trust. The Plains Unit provides forestry staff support to the county fire plan committee

- **Confederated Salish & Kootenai Tribes** – The CS&KT is responsible for direct protection to certain lands within the boundaries of the Flathead Indian Reservation. About one third of the Reservation lies in Sanders County.
  Lands on the Reservation that the CS&KT is responsible by congressional mandate to protect include all lands owned by the Tribes as well as Trust and Allotment lands. In addition, the State has contracted the CS&KT to protect all State owned lands on the Reservation, as well as all privately owned forested lands (non-tribal forest landowners pay a fire protection assessment to the State, which then contracts with CS&KT for protection services). The only areas of the Reservation that they are not responsible for

fire protection on are the privately owned non-forested lands, and lands within incorporated city limits. In the past, however, the CS&KT has responded to all wildfires on the Reservation, because of the intermingled land ownership patterns. These actions are taken because almost any wildfire on the Reservation constitutes a threat to lands under CS&KT protection.

- **U. S. FOREST SERVICE** – There are portions of two National Forest lying within Sanders County:
  Kootenai NF – Administered by the Cabinet Ranger District office in Trout Creek.
  Lolo NF – Administered by the Plains Thompson Falls Ranger District office in Plains. And a small portion where the Clark Fork River enters the county is administered by The Superior Ranger District in Superior.

  Both Forests provide direct fire protection within their respective protection boundaries. The Forest Services primary protection responsibility is National Forest Land, whether forested or not. But it also protects state and private forested lands within its jurisdictional boundary through a protection exchange with the State of Montana. Both the Kootenai and the Lolo also each support fire prevention specialists who work individually and cooperatively with the Northwest R C & D and the Sanders County Fire Planning Committee.

8. Over the past few years, we've heard a great deal about the National Fire Plan and the related 10-Year Comprehensive Strategy and Implementation Plan. What are these? Does our Community Wildfire Protection Plan follow the guidelines established in these national documents? And how do they affect what can or may occur in Sanders County?

The planning process for this plan was guided by direction in the National Fire Plan, the National Fire Plan Comprehensive Strategy and 10-Year Implementation Strategy/Action Plan, and the March 2004 Handbook for Wildland-Urban Interface Communities entitled "Preparing a Community Wildfire Protection Plan as follows:

The Core Principles for the comprehensive strategy:

- **Collaboration:** Facilitate a collaborative approach at the local, regional, and national levels.
- **Priority Setting:** Emphasize the protection of communities, municipal, and other high-priority watersheds at risk. Long-term emphasis is to maintain and restore fire prone ecosystems at the landscape scale.
- **Accountability:** Establish uniform and cost–effective measures, standards, reporting processes, and budget information in implementation plans that will fold into the Government Performance and Results Act process.

The goals and guiding principles for the 10- year Comprehensive Strategy:

1. Improve Prevention and Suppression efforts and reduce the threat to lives and property due to wildfire.
    - Firefighting Readiness – Public and firefighter safety is the first priority in all fire management activities.
    - Prevention through Education – Reduce risks to homes and private property through prevention education.

2. Reduce Hazardous Fuels and concentrate fuel reduction work in areas of highest priority and effectiveness (highest values, greatest hazards, highest population density, high fire occurrence frequency)
    - Prioritize hazardous fuels reduction where the negative impacts of wildland fire are greatest.
    - Concentrate fuel reduction work in areas of highest priority and effectiveness (highest values, greatest hazards, highest population density, and high fire occurrence frequency).

3. Restore Fire-adapted Ecosystems
    - Rehabilitation: Prevent invasive species and restore watershed function and biological communities through short-term rehabilitation.
    - Restoration: Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically severe fires on a priority watershed basis through long-term restoration.
    - Using science and information: Promote the development and use of the best available science along with local and indigenous knowledge.

- Monitoring: Monitor restoration and rehabilitation projects for effectiveness and share the results in order to facilitate adaptive implementation.

4. Promote Community Assistance by providing for seamless cooperation between agencies and individuals.
   - Increase Local Capacity: Where appropriate, stimulate local capacity to accomplish hazardous fuels reduction and rehabilitation work.
   - Incentives: Promote better fire prevention planning and actions in local communities through technical assistance and cost-sharing incentives.
   - Biomass Utilization: Employ all appropriate means to stimulate industries that will utilize small-diameter, woody material resulting from hazardous fuel reduction activities, such as for biomass electric power,
   - Provide for seamless cooperation between agencies and individuals

Priorities for Restoration within the 10-year Comprehensive Strategy:

- **Wildland Urban Interface.** WUI areas include those areas where flammable wildland fuels are adjacent to homes and communities.

- **Readily accessible municipal watersheds.** Clean water is the most critical resource in many western states. Watersheds impacted by uncharacteristic wildfire effects are less resilient to disturbance and unable to recover as quickly as those that remain within the range of ecological conditions characteristic of the fire regime under which they developed.

- **Accountability:** Establish uniform and cost–effective measures, standards, reporting processes, and budget information in implementation plans that will fold into the Government Performance and Results Act process.

- **Threatened and endangered species habitat.** The extent of recent fires demonstrates that in fire-adapted ecosystems few areas are isolated from wildfire. Dwindling habitat for many threatened and endangered species will eventually be impacted by wildland fire. The severity and extent of fire could eventually push declining populations beyond recovery.

- **Maintenance of existing low risk Condition Class 1 areas.** This is especially important in the Ponderosa Pine habitat types where invasion by more shade tolerant species can eliminate the effects of treatment in 5-12 years. Recent droughts have caused severe wildland fire problems in the forestlands of the Western United States.

Preparing a Community Wildfire Protection Plan

This Sanders County Community Wildfire Protection Plan meets the minimum requirements for a Community Wildfire Protection Plan as described in the Healthy Forest Restoration Act. These requirements are:

1) **Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
2) **Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.
3) **Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures.

9. If I treat the hazardous fuels on my property and want to burn them, do I need a burn permit, and if I do, how do I get one?

Because of poor smoke ventilation no burning is allowed from December 1 through April 30 of each year. The general open burning season starts March 1 and runs through November 31. Montana State law requires burning permits during the fire season; from May 1 to September 31 (fire season may be extended depending upon conditions). This law states that "During the forest fire season or an expansion thereof, a person may not ignite or set a forest fire, slash-burning fire, land-clearing fire, debris-burning fire, or an open fire within forest lands without an official written permit to ignite or set the fire from the recognized protection agency for that protection area."

Although permits are not required during the entire open burning season, contacting your local fire protection agency can provide information on drought and fire conditions and may help avoid an escaped fire and potential liability. It also allows local protection agencies to know where burns are taking place and avoid false alarm callouts to non-emergency situations. Before you burn at any time you should call the non-emergency Sheriff's Office phone number (827-3584) to let them know you will be burning.

APPENDIX B
(Attachment B-1)

SANDERS COUNTY
FIRE PLANNING COMMITTEE MEMBERS

Gail Patten – Sanders County Commissioner and committee chair.

Carol Brooker – Sanders County Commissioner.

Dan Miles – Sanders County Planner.

Gene Arnold – Sanders County Sheriff.

Steve Simonson – Sanders County Community Development Executive Director

Bill Naegeli – Sanders County Director Office Of Emergency Management

Rick Carlson – Sanders County Community Forester.

Tony Harwood – Fire Management Director Confederated Salish & Kootenai Tribes.

Calvin Minemyer – Fire Manager Plains Unit Montana Department Of Natural Resources and Conservation.

Everett Young – Service Forester Plains Unit Montana Department Of Natural Resources and Conservation.

Harold Hudson – Chief Trout Creek Rural Volunteer Fire Department

Jim Inman – Chief Thompson Falls Rural Volunteer Fire Department.

Kert Werst – Fire Management Officer Cabinet Ranger District Kootenai National Forest

Dave Petteys – Fire Management Officer Plains/Thompson Falls Ranger District Lolo National Forest.

Howard Page – Director Green Mountain Conservation District.

Judy Woolley – Ranchettes Homeowners Representative.

Greg Larson – Director Northwest RC&D.

(Attachment B-2)

SANDERS COUNTY COMMUNITY FIRE PLAN CHRONOLOGY

- August 12 2004, Rick Carlson, Sanders County Community Forester, assigned to write the Sanders County CFPP. Funded by Agreement #ESA04T021 USDI, Bureau of Land Management.

- September 14 2004, Plains Public Meeting for Western States Fuels Mitigation Grants and development input on the Sanders County CFPP.

- September 16 2004, Collaboration meeting with Tony Harwood Fire Manager Confederated Salish & Kootenai Tribes, Jack Athern Dixon Rural Volunteer Fire Department, and Randy Woods Hot Springs Rural Volunteer Fire Department.

- September 21 2004, Collaboration meeting with Calvin Minemyer Fire Management Officer Plains Unit Montana Department of Natural Resource and Conservation, Dave Petteys Fire Management Officer Plains/Thompson Falls Ranger District Lolo National Forest, John Holland Fire Chief Plains/Paradise Rural Volunteer Fire Department, and Jim Inman Fire Chief Thompson Falls Rural Volunteer Fire Department.

- September 27 2004, Collaboration meeting with Kert Werst Fire Management Officer Cabinet Ranger District Kootenai National Forest, Howard Hudson Fire Chief Trout Creek Rural Volunteer Fire Department, Martin Dickerson Fire Chief Noxon Rural Volunteer Fire Department, Pete Lilly Fire Chief Heron Rural Volunteer Fire Department, and Jim Inman Fire Chief Thompson Falls Rural Volunteer Fire Department.

- September 30 2004, Sanders County Fire Planning Committee Meeting.

- October 14, Thompson Falls Public Meeting for Western States Fuels Mitigation Grants and development input on the Sanders County CFPP.

- October 27, Presentation of Sanders County CFPP to the Sander County Firefighters Association.

- November 10, Collabortive meeting with Sanders County Planner and GIS specialists from MT DNRC, Kootenai NF, and Lolo NF.

- November 30, Sanders County Fire Planning Committee Meeting. Draft Plan presentation.

- December 15, Trout Creek Public Meeting for Western States Fuels Mitigation Grants and development input on the Sanders County CFPP.

- March 15, Public Meeting for input on the County Disaster Mitigation Plan and Sanders County CFPP. Plains.

- March 16, Public Meeting for input on the County Disaster Mitigation Plan and Sanders County CFPP. Thompson Falls.

- March 24, Public Meeting for Stevens Funds Fuels Mitigation Grant for the Game Range Area and development of the Sanders County CFPP. Thompson Falls.

- April 12, Public Meeting for input into the Sanders County CFPP at Hot Springs.

- April 14, Public Meeting for input into the Sanders County CFPP at Noxon.

- May18th Formal Approval of the Sanders County CFPP by the Sanders County Commissioners.

(Attachment B-3)

Initial Results of Priority Fuel Treatment Identification

Protection Agency	Priorities within Fire Protection Areas			
Dixon Rural Fire Department	Revais Creek	Magpie Creek		
Heron Rural Fire Department	Heron Interface			
Hotsprings Rural Fire Department	Hot Springs Interface	Camus Interface		
Noxon Rural Fire Department	Bull River South	Noxon South	Noxon North	
Plains/Paradise Volunteer Fire Department	Ranchettes	Buffalo Bill	Cedar Creek	River Road E.
	Swamp Creek	Henry - Deemer		
Thompson Falls Rural Fire Department	Cherry Creek	Webber	Blue Slide	Beaver
	Prospect	Thompson River	Eddy Flats	
Trout Creek Rural Fire Department	Trout Creek North	Trout Creek South	White Pine	
*Confederated Salish & Kootenai Tribes				
*MT Department of Natural Resources	McLaughlin			
*Kootenai National Forest	Bull River North			
*Lolo National Forest	River Road West	Cutoff		

Priority areas within Rural Fire Districts are a consensus between State, Tribal, and Federal Agencies that have co-protection with the rural fire department.

*Areas of private lands protected outside Rural Fire District Boundaries.

(Attachment B-4)

SANDERS COUNTY
WILDLAND/URBAN INTERFACE AREA
RATING GUIDE

WILDLAND URBAN INTERFACE AREAS – Areas identified as specific areas at risk from wildfire by Rural, State, Tribal, and Federal agencies with fire protection responsibilities in Sanders County. Once identified these areas were tied into the Wildland Urban Interface Boundary as established by the Healthy Forests Restoration Act. The municipalities of Thompson Falls, Paradise, and Hot Springs were not included in the analysis even though they are within WUI boundaries because sufficient fuel breaks surround them to put them at a lower risk of wildfire incursion. Heron, Noxon, and Trout Creek were treated as a part of the WUI.

VALUES AT RISK:

- Residences* – Residences* as per County Data as of 6/2004. Valued at an average value of $82,900 per residence (Sanders County Census 2000).
- Business Structures – Valued at $250,000 per business.
- Historic Structures/Sites – Those registered in the National Register of Historic Places. No $ value assigned.
- *Private Commercial Forestland* – Valued at an average of $742/Acre as per 2004.
- *High Value Improvements – Regional Powerlines & Electronic Sites. No $ value assigned.

**Final rating numbers were reduced by 50% for these values to reflect the higher social value for the loss of a residence or business.*

FIRE RISK:

- Acres of each Fire Regime Condition Class (FRCC) by % within each WUI Area.
  FRCC 0 – Nonforest (Rocks, clearings, etc.).
  FRCC 1 – Low departure from historic fire frequency. (indicative of low fire hazard).
  FRCC 2 – Moderate departure from historic fire frequency. (indicative of moderate fire hazard).
  FRCC 3 – High departure from historic fire frequency. (indicative of high fire hazard).
- Miles of perimeter of each FRCC adjacent and exterior to each WUI area.
- Topography – Effect of topography on prevailing westerly winds to each WUI area by percentage of area unsheltered, partially sheltered, or sheltered.
- Access – General difficulty of ingress or egress for each WUI area in the event of a wildfire.

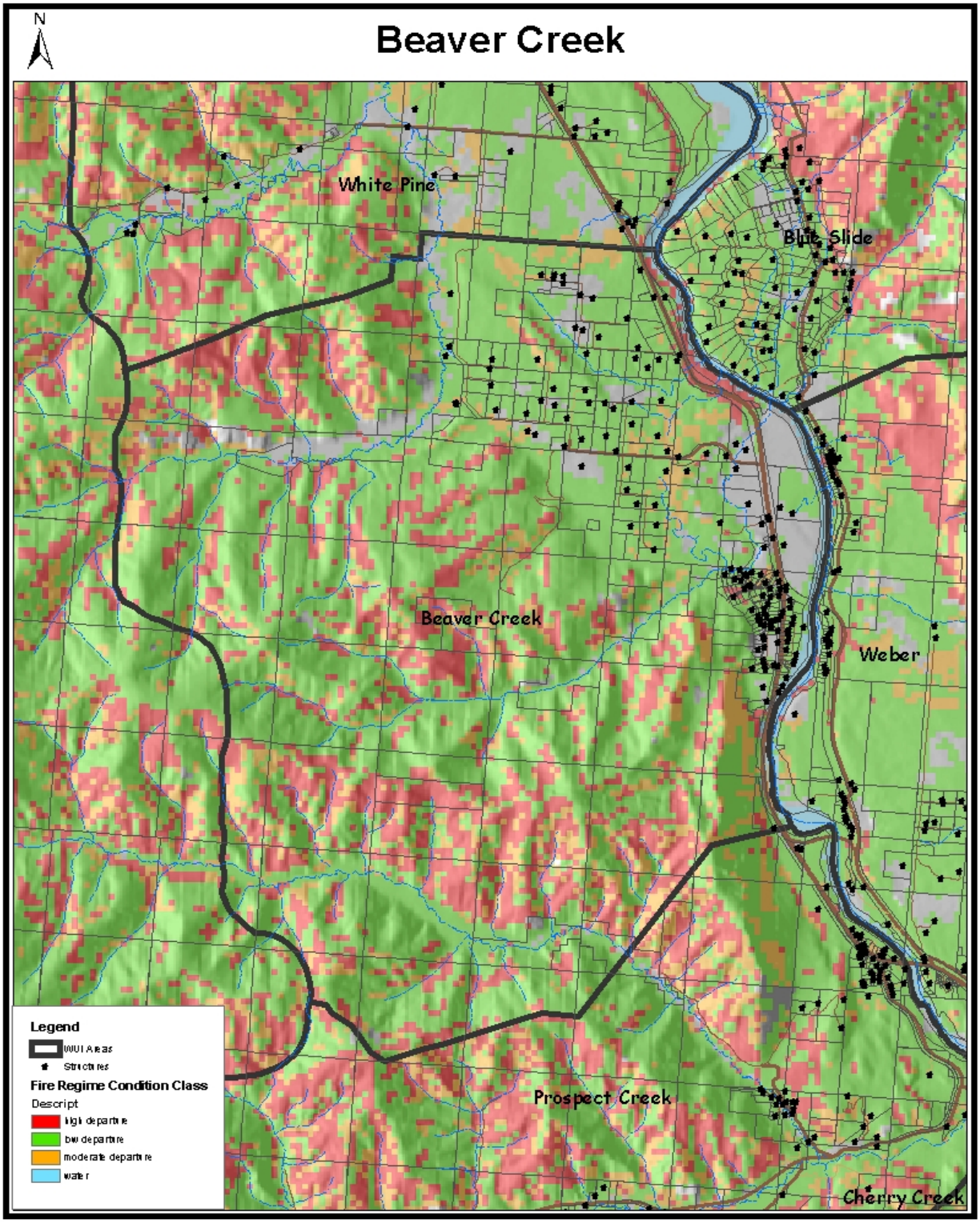
$ VALUE AT RISK: This is the sum of residence, business, and private commercial timber land value in each WUI.

(Attachment B-4A)

Overall Rating
2005 Sanders County WUI Areas
High Score = Higher Risk

Ranking	Area	Fire Risk Score	Value Risk Score	Total Risk Score	$ Values At Risk
1	Trout Creek South	16	24	40	$35,743,492
2	Noxon South	21	17	38	$22,135,270
3	Cedar Creek	29	8	37	$13,569,036
4	Heron Interface	20	17	37	$38,885,794
5	Ranchettes	31	4	35	$8,166,826
6	Trout Creek North	18	17	35	$32,929,274
7	Noxon North	15	20	35	$25,956,428
8	Buffalo Bill	27	7	34	$12,629,310
9	Paradise-McLaughlin	26	6	32	$9,271,088
10	Swamp Creek	21	11	32	$16,601,866
11	Prospect Creek	18	14	32	$15,755,166
12	Henry Deemer	25	6	31	$11,285,194
13	Cherry Creek	19	11	30	$20,047,646
14	Magpie Creek	27	2	29	$834,602
15	River Road East	21	8	29	$14,679,918
16	Cutoff	21	7	28	$10,160,494
17	Bull River South	19	9	28	$6,523,020
18	Weber	17	11	28	$14,438,052
19	Hot Springs	23	4	27	$9,176,746
20	White Pine	14	13	27	$20,149,782
21	River Road West	19	7	26	$5,754,176
22	Blue Slide	17	9	26	$13,302,622
23	Beaver Cr.	16	10	26	$15,699,084
24	Thompson River	16	5	21	$4,715,616
25	Eddy Flats	15	6	21	$4,591,948
26	Revais Creek	17	3	20	$1,804,194
27	Bull River North	15	3	18	$4,067,480
28	Camas	14	2	16	$1,454,562

Beaver Creek



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 23 of 28

AREA NAME: Beaver Creek **TOTAL ACRES:** 23,918
FIRE PROTECTION DISTRICT: T. Falls VRFD, Kootenai NF, Lolo NF **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

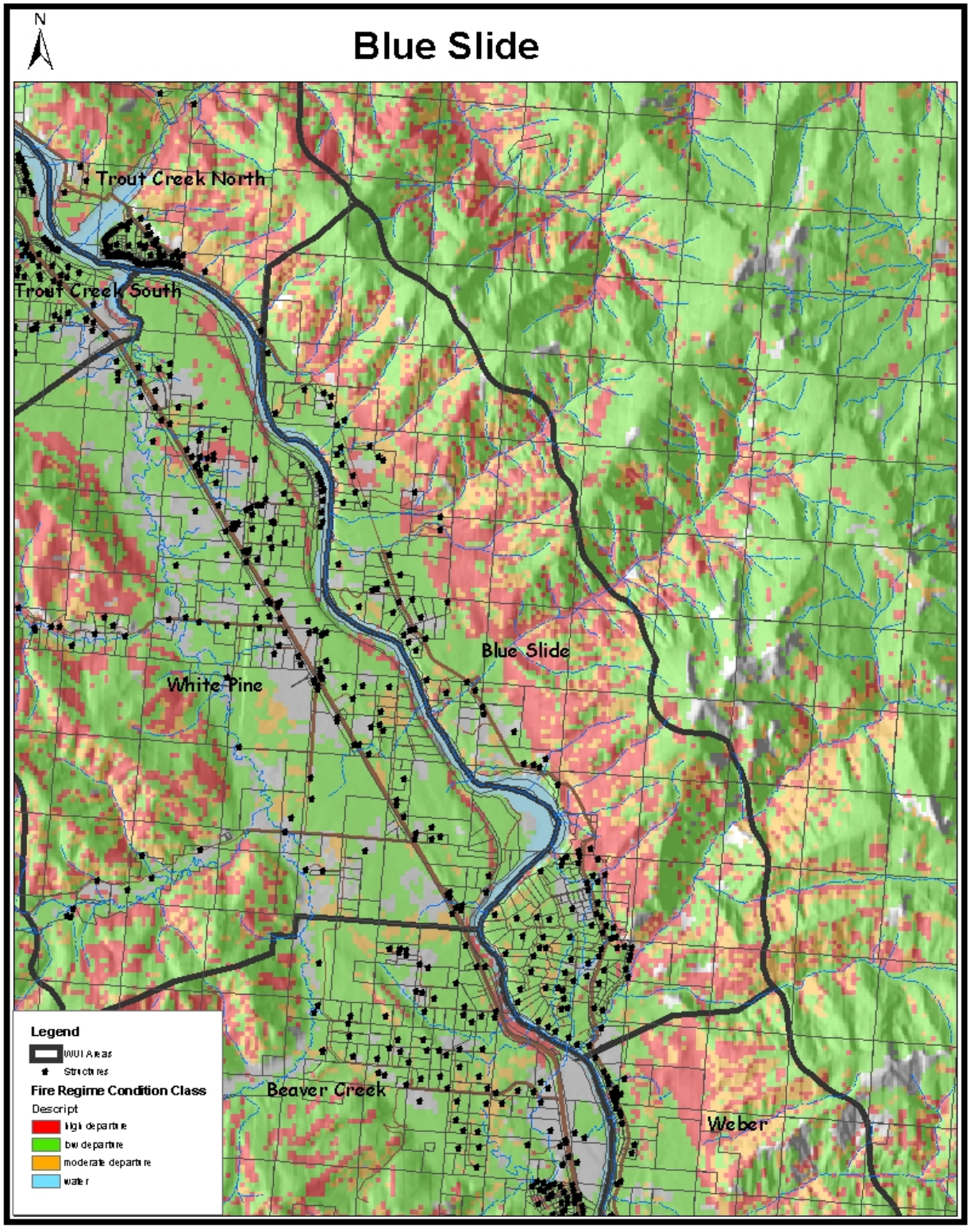
Value	Unit of Measure	Amount	Rating
Residences**	Each	134	4
Other structures (Businesses)**	Each	5	2
Historical Sites	Each	0	0
Private Commercial Forestland**	Acres	4502	2
High Value Improvements • Regional Powerline – 3.5 miles • Electronic Site •	Each	1 1	2
TOTAL VALUE AT RISK			**10**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 392 – 2% 14924 – 62% 3739 – 16% 4859 – 20%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 6.1 – 31% 6.6 – 33% 1 – 5% 6.1 – 31%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 70% 20% 10%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 0% 10% 90%	2
TOTAL FIRE RISK			**16**
GRAND TOTAL ALL RISK			**26**
$ VALUE AT RISK:			***$15,699,084**

COMMENTS:

Blue Slide


N
Trout Creek North
Trout Creek South
Blue Slide
White Pine
Beaver Creek
Weber
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 22 of 28

AREA NAME: Blue Slide — **TOTAL ACRES:** 17,664
FIRE PROTECTION DISTRICT: T. Falls VRFD, Kootenai NF, Lolo NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

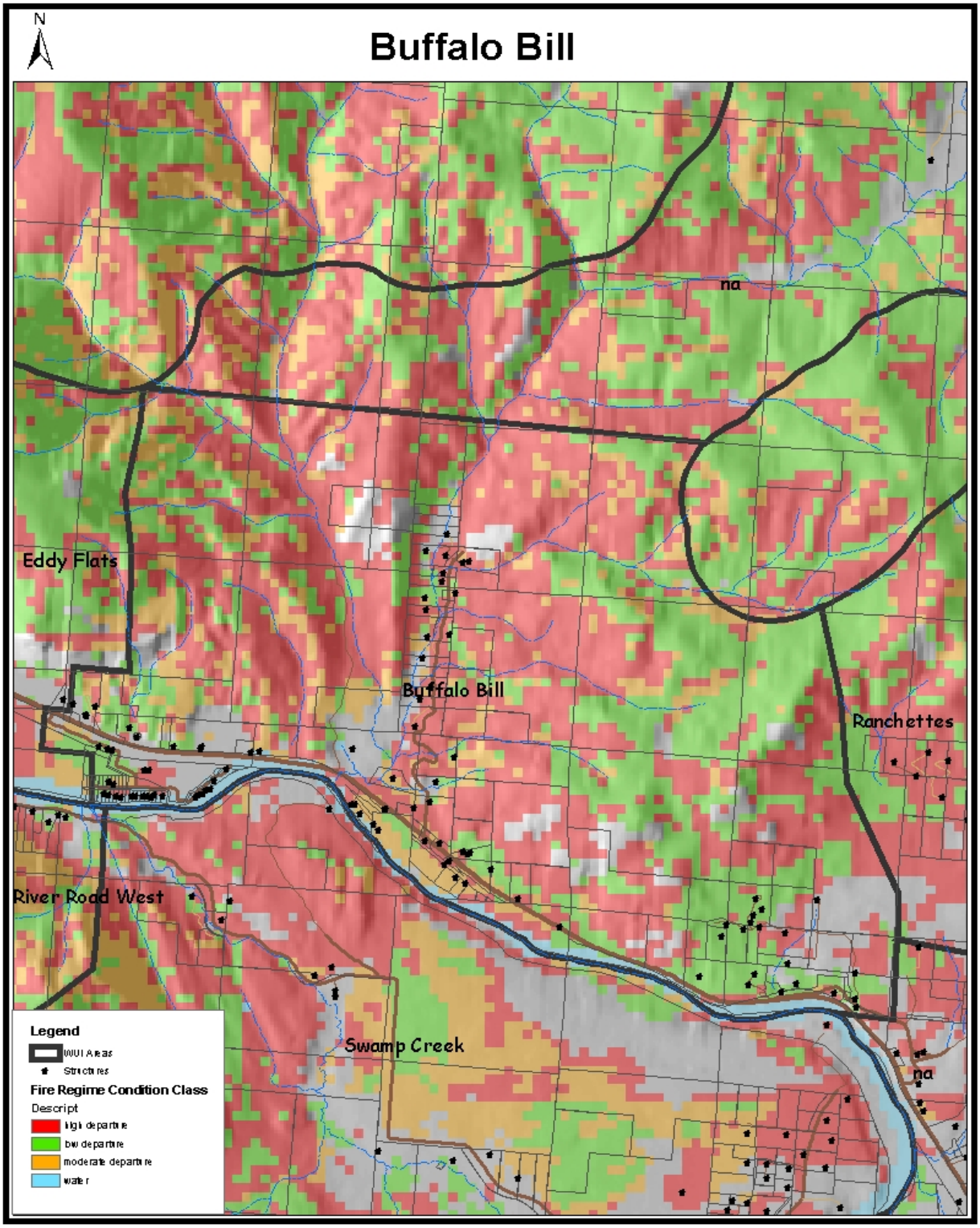
Value	Unit of Measure	Amount	Rating
Residences**	Each	112	3
Other structures (Businesses)**	Each	2	3
Historical Sites	Each	0	0
Private Commercial Forestland**	Acres	4741	3
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**9**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 664 – 4% 8712 – 49% 3482 – 20% 4799 – 27%	6
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 11 - 50% 8 - 37% 1 – 5% 2 – 8%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 20% 70% 10%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 20% 70%	3
TOTAL FIRE RISK			**17**
GRAND TOTAL ALL RISK			**26**
$ VALUE AT RISK:			***$13,302,622**

COMMENTS: Spring Valley School

Buffalo Bill



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 8 of 28

AREA NAME: Buffalo Bill — **TOTAL ACRES:** 7,952
FIRE PROTECTION DISTRICT: Plains VRFD, MT DNRC — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

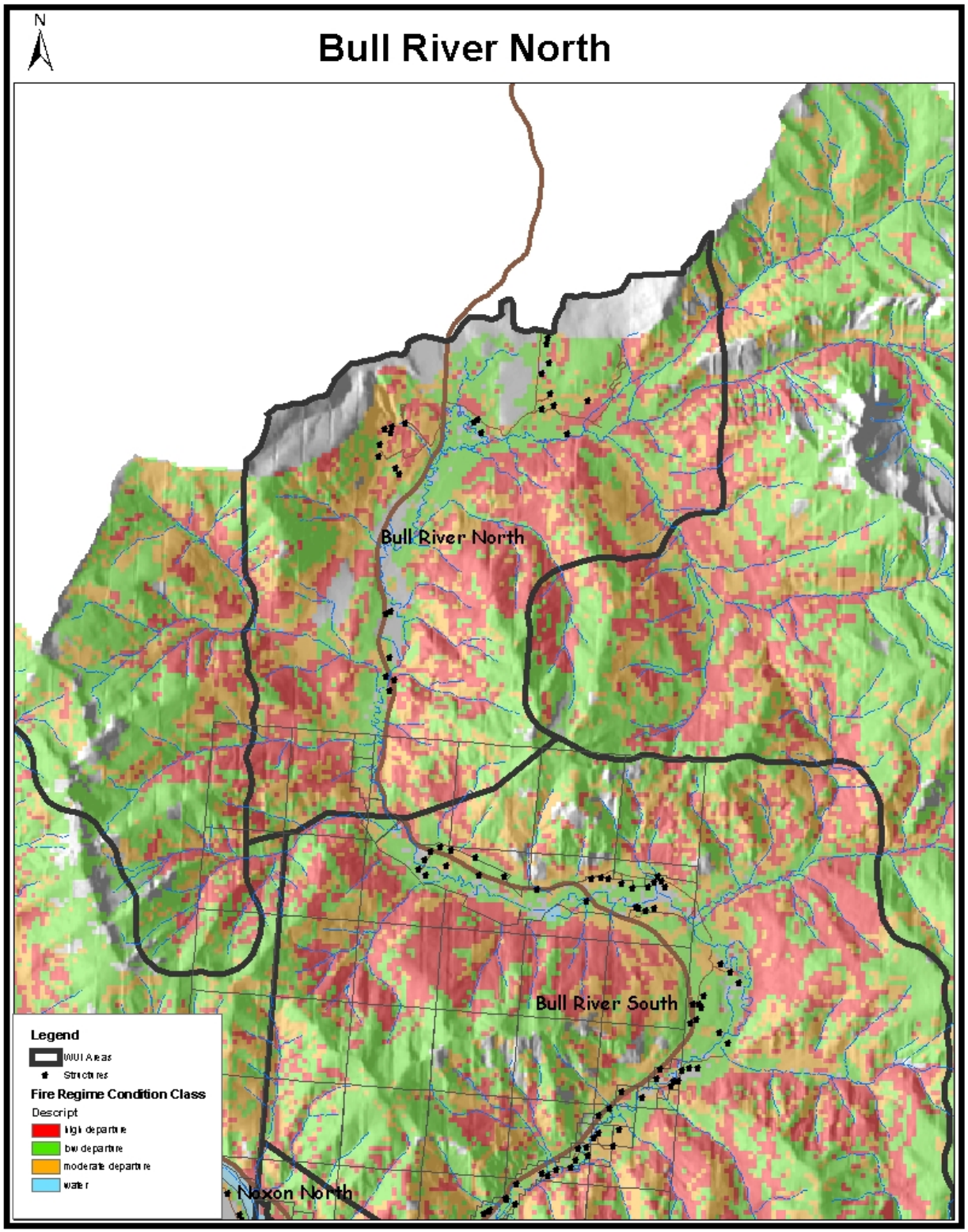
Value	Unit of Measure	Amount	Rating
Residences**	Each	92	3
Other structures (Businesses)**	Each	1	1
Historical Sites	Each	0	0
Private Commercial Forestland**	Acres	6405	3
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**7**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 320 – 4% 2179 – 27% 1622 – 20% 3821 – 48%	9
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 5 – 38% 1.7 – 13% .7 – 5% 5.6 – 43%	4
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 50% 40% 10%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 80% 10% 15%	8
TOTAL FIRE RISK			**27**
GRAND TOTAL ALL RISK			**34**
$ VALUE AT RISK:			***$12,629,310**

COMMENTS:.

Bull River North



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 27 of 28

AREA NAME: Bull River North — **TOTAL ACRES:** 16,512
FIRE PROTECTION DISTRICT: Kootenai NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

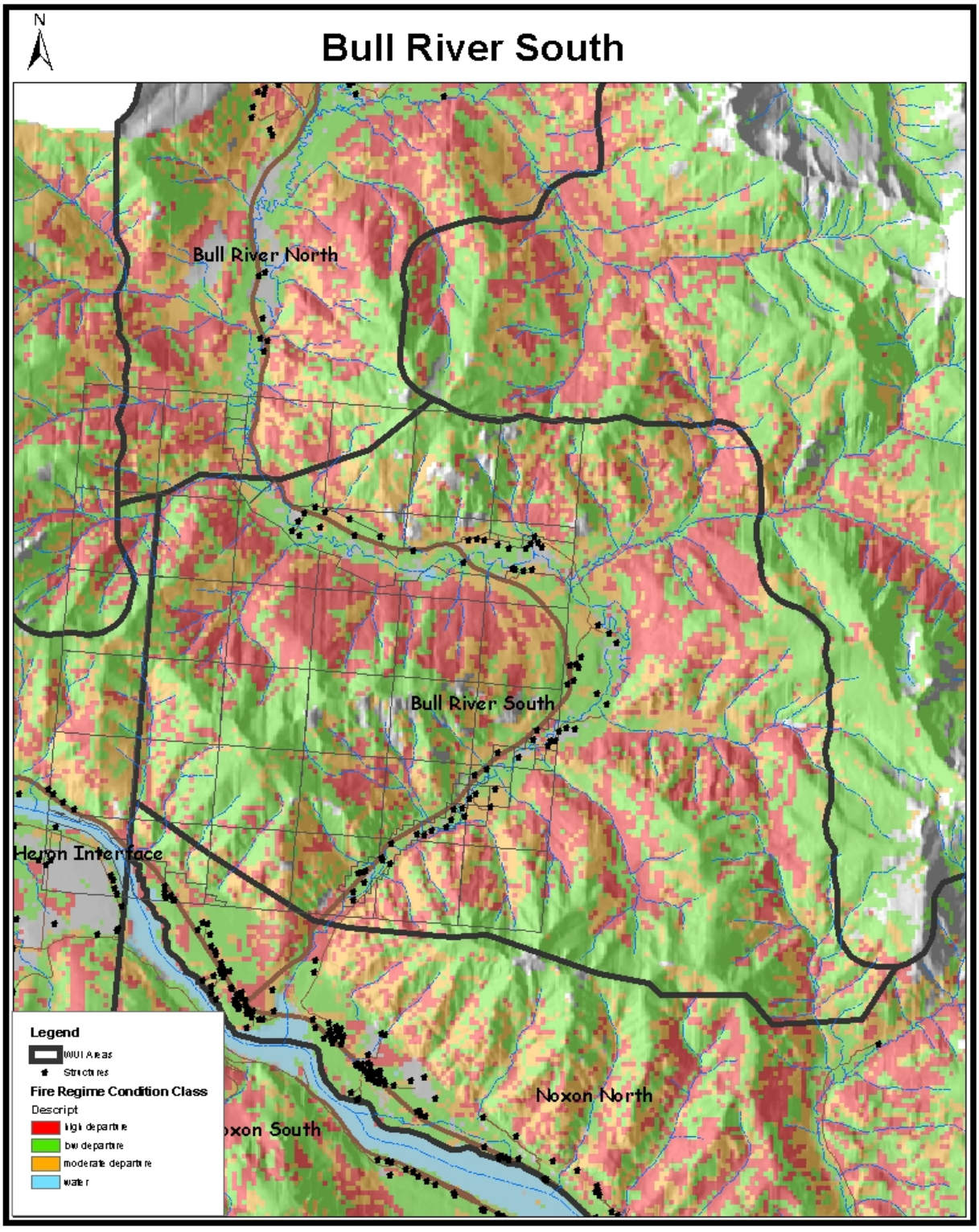
Value	Unit of Measure	Amount	Rating
Residences*	Each	26	1
Other structures (Businesses)*	Each	1	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	2240	1
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**3**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 3302 – 20% 6439 – 39% 2807 – 17% 3964 – 24%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 7 – 36% 5 – 28% 3 – 13% 4 – 23%	2
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 10% 50% 40%	4
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 20% 60% 20%	5
TOTAL FIRE RISK			**15**
GRAND TOTAL ALL RISK			**18**
$ VALUE AT RISK:			***$4,067,480**

COMMENTS:

Bull River South



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RATING

OVERALL RATING 17 of 28

AREA NAME: Bull River South **TOTAL ACRES:** 30,846
FIRE PROTECTION DISTRICT: Noxon VRFD**,** Kootenai NF **YEAR RATED:** 2004

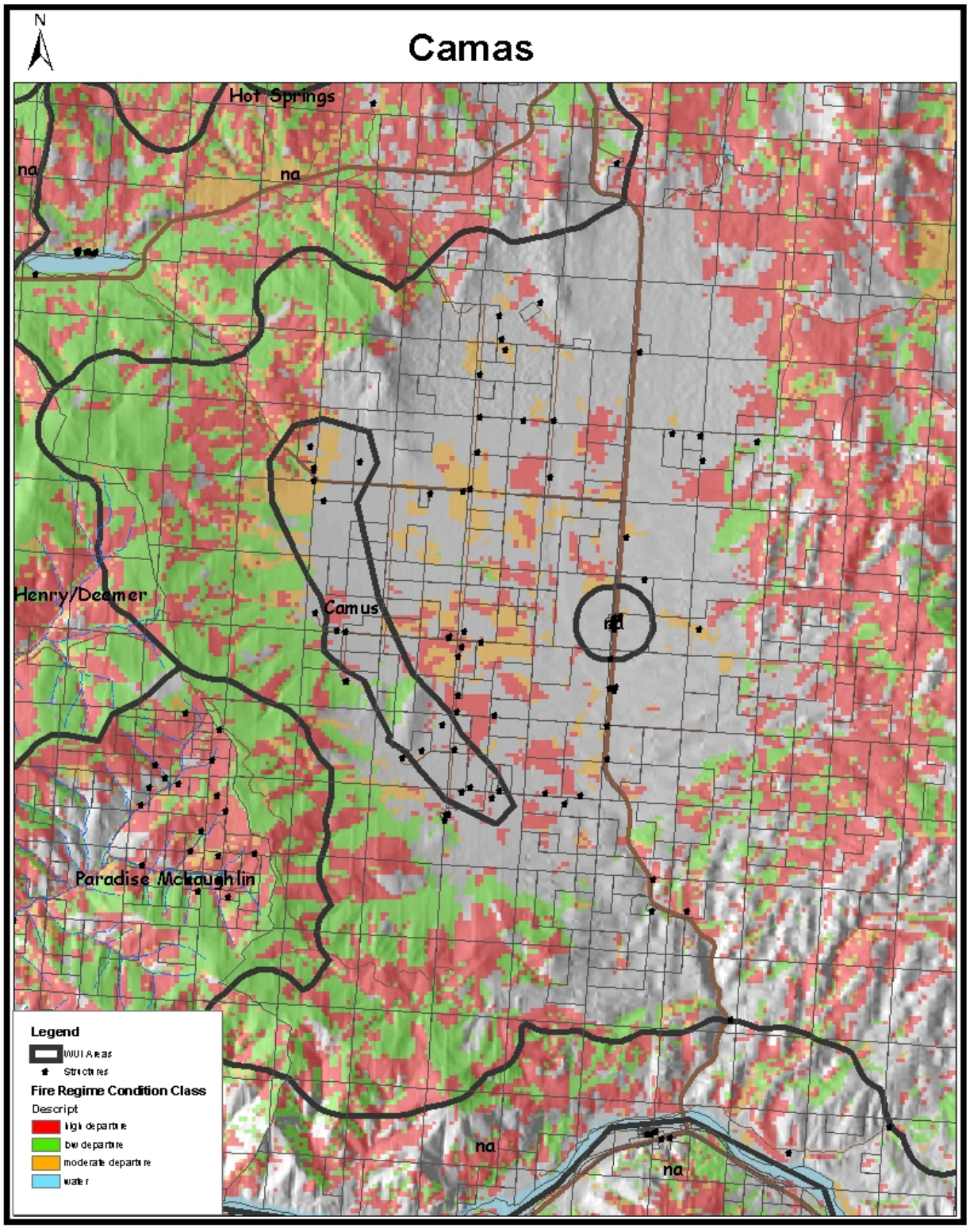
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	72	2
Other structures (Businesses)*	Each	1	1
Historical Sites	Each	1	5
Private Commercial Forestland*	Acres	410	1
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**9**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 498 – 2% 13639 – 44% 7329 – 24% 9362 – 30%	6
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 .3 – 2% 11 – 58% 4 – 23% 3 – 18%	2
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 50% 30% 20%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 30% 60%	5
TOTAL FIRE RISK			**19**
GRAND TOTAL ALL RISK			**28**
$ VALUE AT RISK:			***$6,523,020**

COMMENTS:


N
Camas
Hot Springs
na
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Henry/Deemer
Camus
na
Paradise Mcknaughlin
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
High departure
low departure
moderate departure
water
na
na

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 28 of 28

AREA NAME: Camas **TOTAL ACRES:** 3,213
FIRE PROTECTION DISTRICT: Hot Springs RVFD, CS&KT **YEAR RATED:** 2004

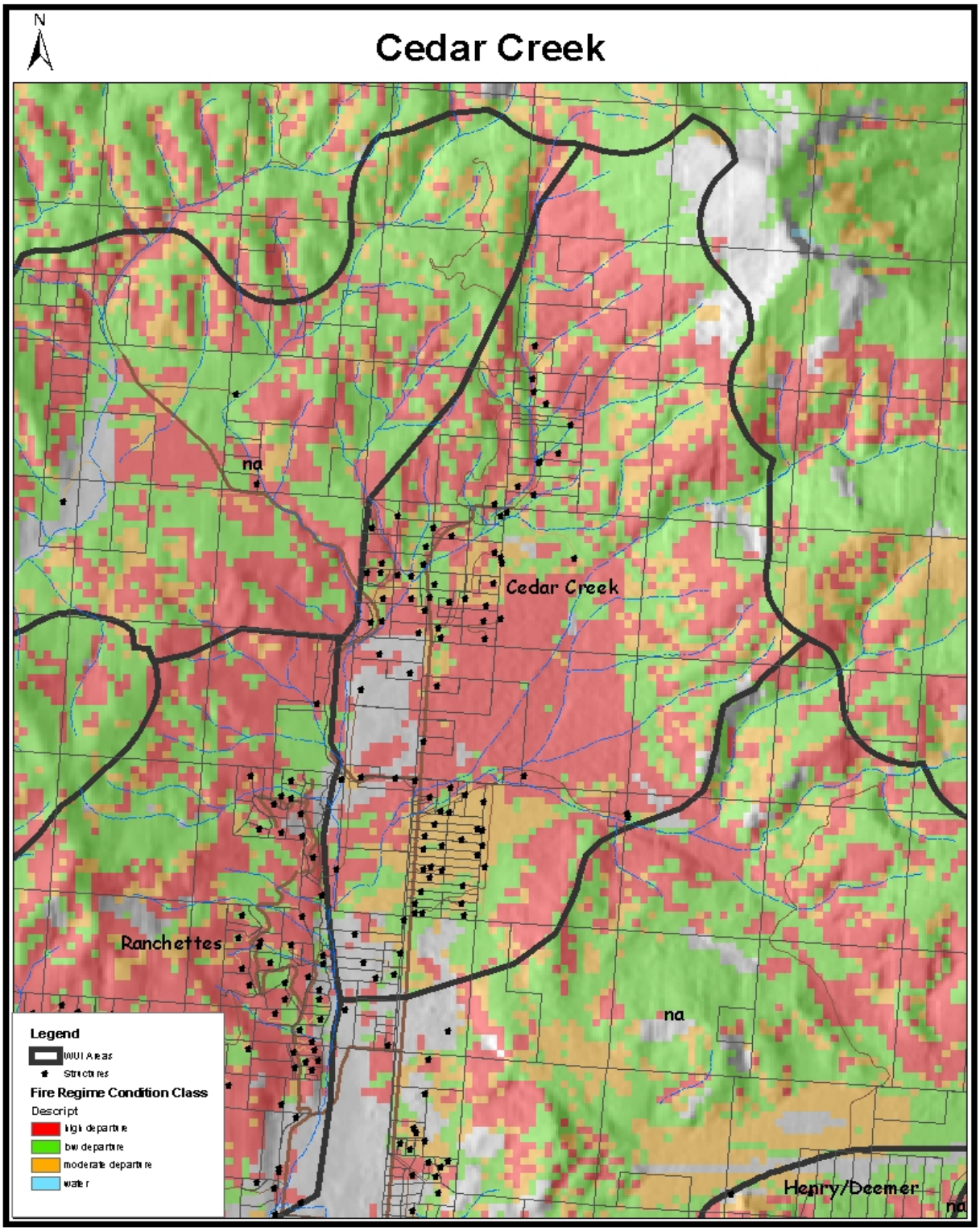
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	17	1
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	61	1
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**2**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 1009 – 31% 248 – 8% 1725 – 54% 236 – 7%	2
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 7 – 71% 1 – 10% .6 – 6% 1 – 13%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 100% 0% 0%	8
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 0% 20% 80%	3
TOTAL FIRE RISK			**14**
GRAND TOTAL ALL RISK			**16**
$ VALUE AT RISK:			*** $1,454,562**

COMMENTS:


N
Cedar Creek
na
Cedar Creek
Ranchettes
na
Henry/Deemer
na
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 3 of 28

AREA NAME: Cedar Creek **TOTAL ACRES:** 8,441
FIRE PROTECTION DISTRICT: Plains RFVD, MT DNRC, Lolo NF **YEAR RATED:** 2004

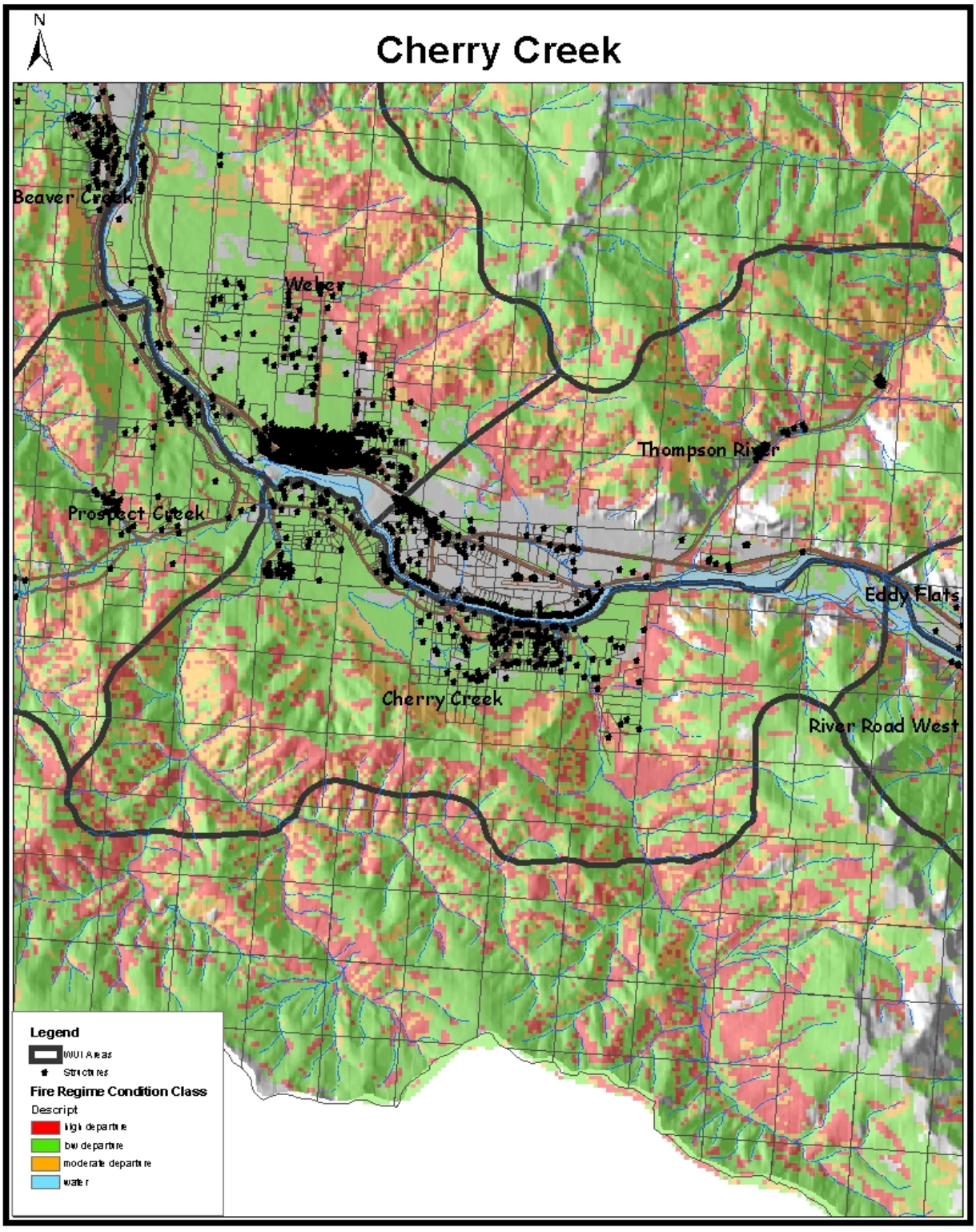
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	90	3
Other structures (Businesses)*	Each	2	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	7558	4
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**8**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 284 – 3% 2490 – 30% 1709 – 20% 3955 – 47%	9
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 3 – 28% 3 – 29% 1 – 7% 4 – 36%	4
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	9
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 30% 50% 20%	7
TOTAL FIRE RISK			**29**
GRAND TOTAL ALL RISK			**37**
$ VALUE AT RISK:			*** $13,569,036**

COMMENTS:


N
Cherry Creek
Beaver Creek
Weber
Thompson River
Prospect Creek
Eddy Flats
Cherry Creek
River Road West
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 13 of 28

AREA NAME: Cherry Creek **TOTAL ACRES:** 19,820
FIRE PROTECTION DISTRICT: T. Falls VRFD, Lolo NF **YEAR RATED:** 2004

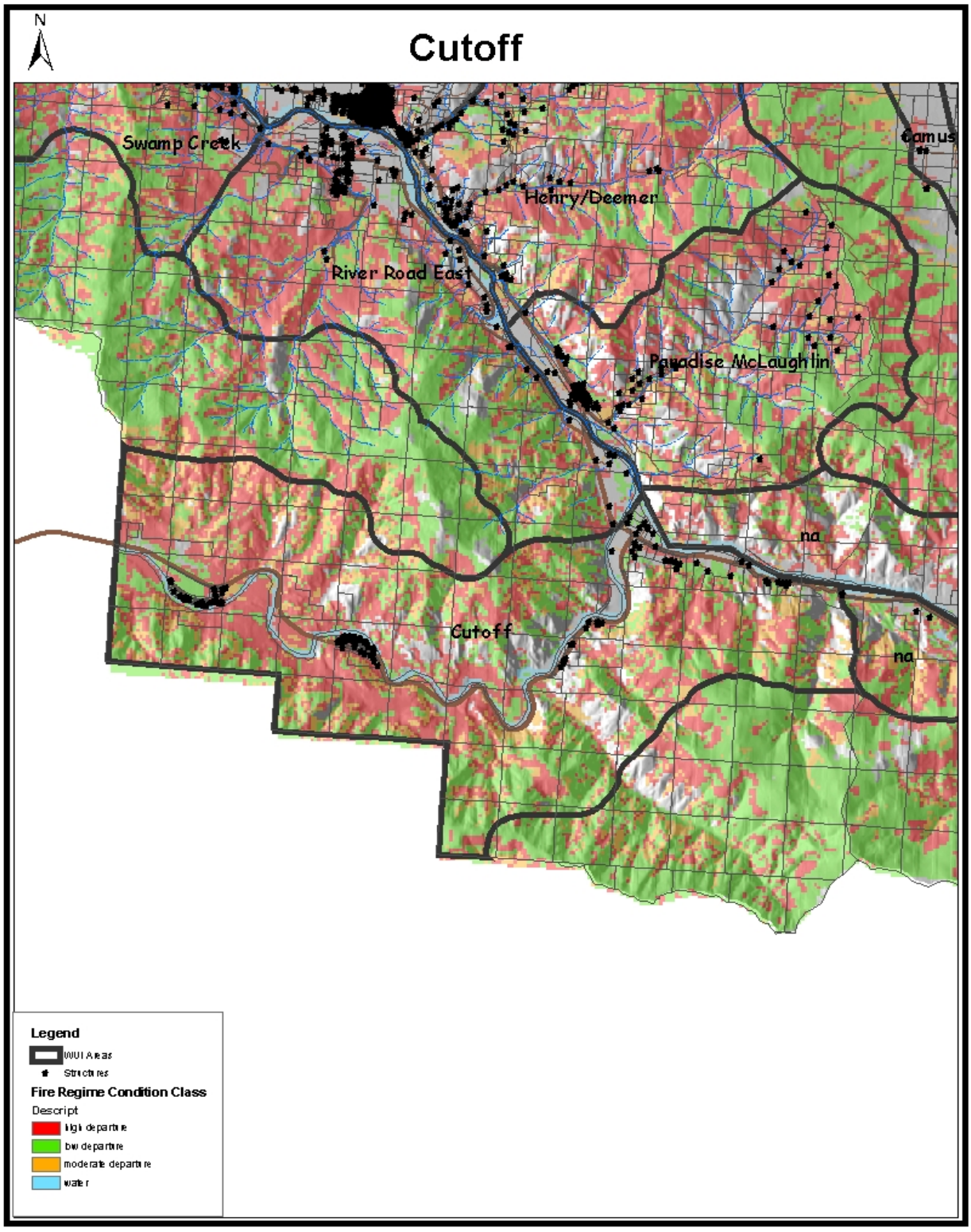
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	202	7
Other structures (Businesses)*	Each	1	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	4413	2
High Value Improvements • Regional Powerline – 1.5 miles • Yellowstone Petroleum Pipeline Site • Electronic Site	Each	1 1 1	1
TOTAL VALUE AT RISK			**11**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 774 – 4% 11055 – 56% 3226 – 16% 4787 – 24%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 9.5 – 37% 6 – 23% 1.6 – 6% 8.8 – 34%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 10% 70% 20%	5
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 20% 70% 10%	7
TOTAL FIRE RISK			**19**
GRAND TOTAL ALL RISK			**30**
$ VALUE AT RISK:			*** $20,047,646**

COMMENTS:


N
Cutoff
Swamp Creek
Henry/Deemer
River Road East
Paradise McLaughlin
Cutoff
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 16 of 28

AREA NAME: Cutoff — **TOTAL ACRES:** 30,111
FIRE PROTECTION DISTRICT: Lolo NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	96	3
Other structures (Businesses)*	Each	3	2
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	1957	1
High Value Improvements • Electronics Site • •	Each	1	1
TOTAL VALUE AT RISK			**7**

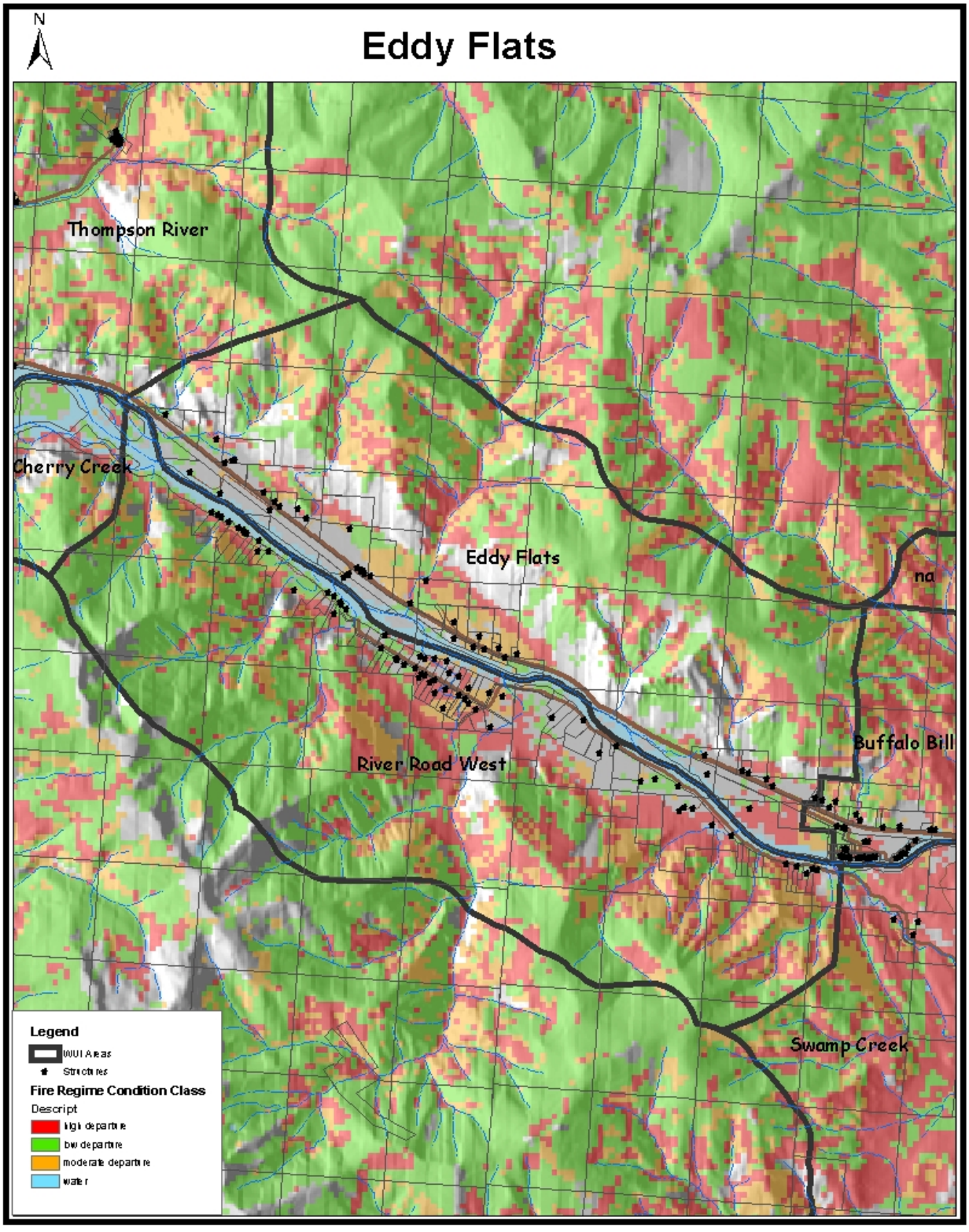
FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 2586 – 9% 9196 – 31% 6813 – 23% 11434 – 38%	8
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 5.9 – 22% 10.3 – 38% 2 – 7% 8.9 – 33%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 20% 70%	3
TOTAL FIRE RISK			**21**
GRAND TOTAL ALL RISK			**28**

$ VALUE AT RISK:	***$10,160,494**

COMMENTS:

Eddy Flats


N
Thompson River
Cherry Creek
Eddy Flats
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Buffalo Bill
River Road West
Swamp Creek
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 25 of 28

AREA NAME: Eddy Flats — **TOTAL ACRES:** 10,562
FIRE PROTECTION DISTRICT: T. Falls RVFD, Lolo NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

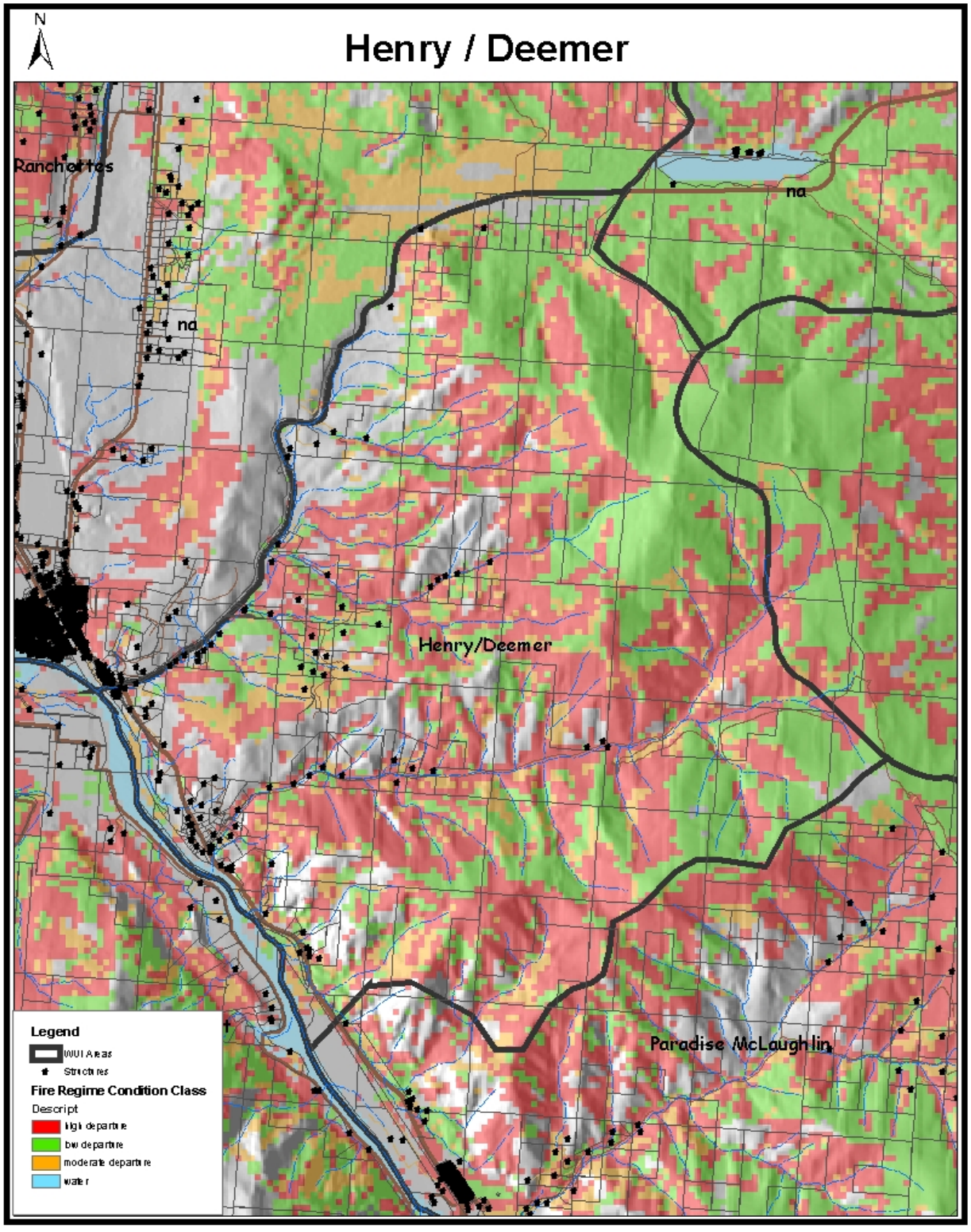
Value	Unit of Measure	Amount	Rating
Residences*	Each	37	1
Other structures (Businesses)*	Each	3	2
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	1044	1
High Value Improvements • Regional Powerline – 7 miles • •	Each	1	2
TOTAL VALUE AT RISK			**6**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 2299 – 22% 4135 – 39% 2310 – 22% 1815 – 17%	3
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 8.2 – 51% 4.6 – 29% 1.2 – 7% 2.1 – 13%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	8
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 0% 20% 80%	3
TOTAL FIRE RISK			**15**
GRAND TOTAL ALL RISK			**21**
$ VALUE AT RISK:			***$4,591,948**

COMMENTS:

Henry / Deemer



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 12 of 28

AREA NAME: Henry/Deemer — **TOTAL ACRES:** 19,385
FIRE PROTECTION DISTRICT: Plains RVFD, MT DNRC — **YEAR RATED:** 2004

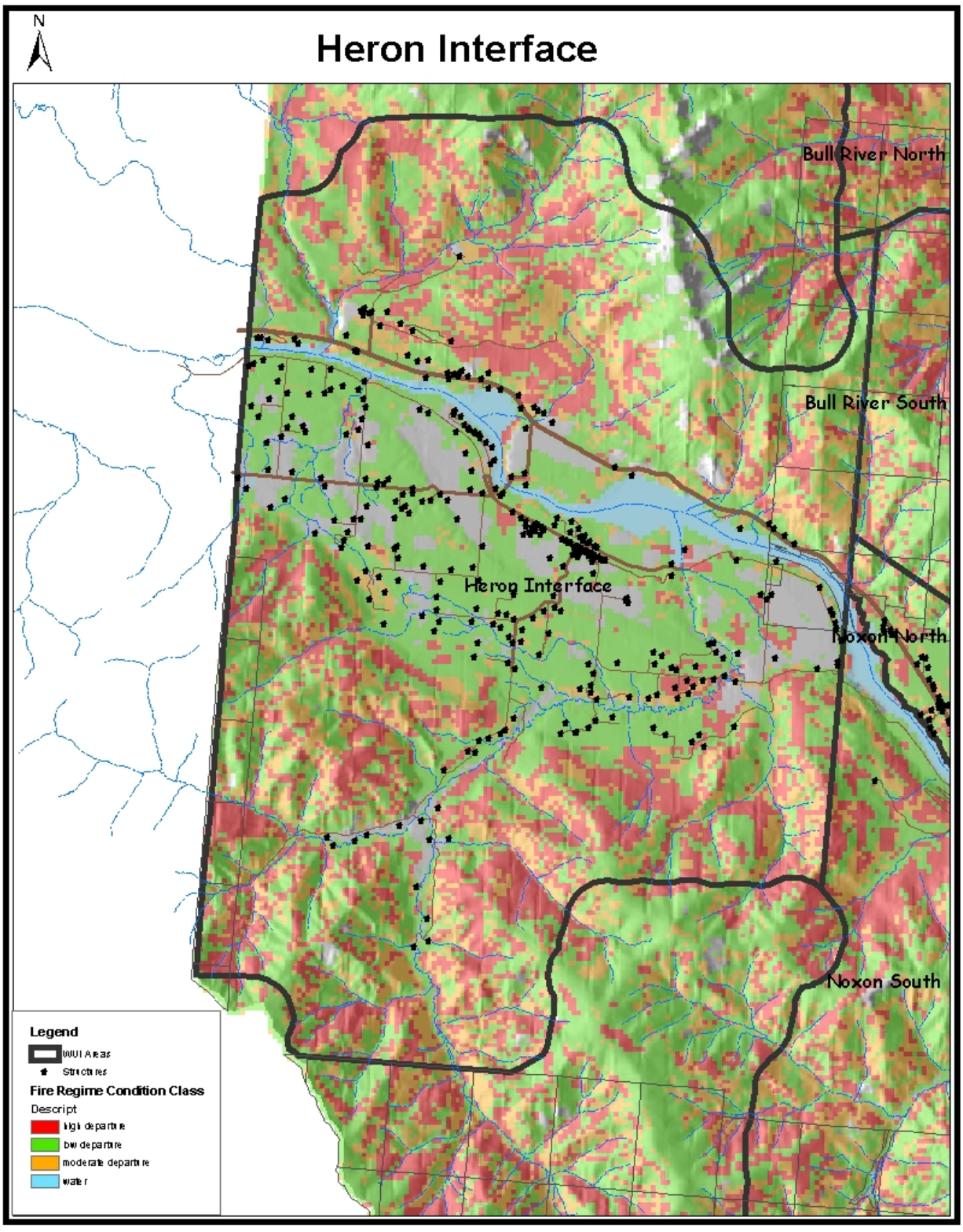
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	94	3
Other structures (Businesses)*	Each	0	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	4707	2
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**6**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 404 – 2% 6006 – 31% 5091 – 26% 7917 – 41%	8
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 9 – 46% 3 – 16% 1 – 6% 6 – 32%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	8
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 50% 40% 10%	6
TOTAL FIRE RISK			**25**
GRAND TOTAL ALL RISK			**31**
$ VALUE AT RISK:			***$11,285,194**

COMMENTS:


N
Heron Interface
Bull River North
Bull River South
Heron Interface
Noxon North
Noxon South
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 4 of 28

AREA NAME: Heron Interface **TOTAL ACRES:** 45,081
FIRE PROTECTION DISTRICT: Heron VFD, Kootenai NF **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

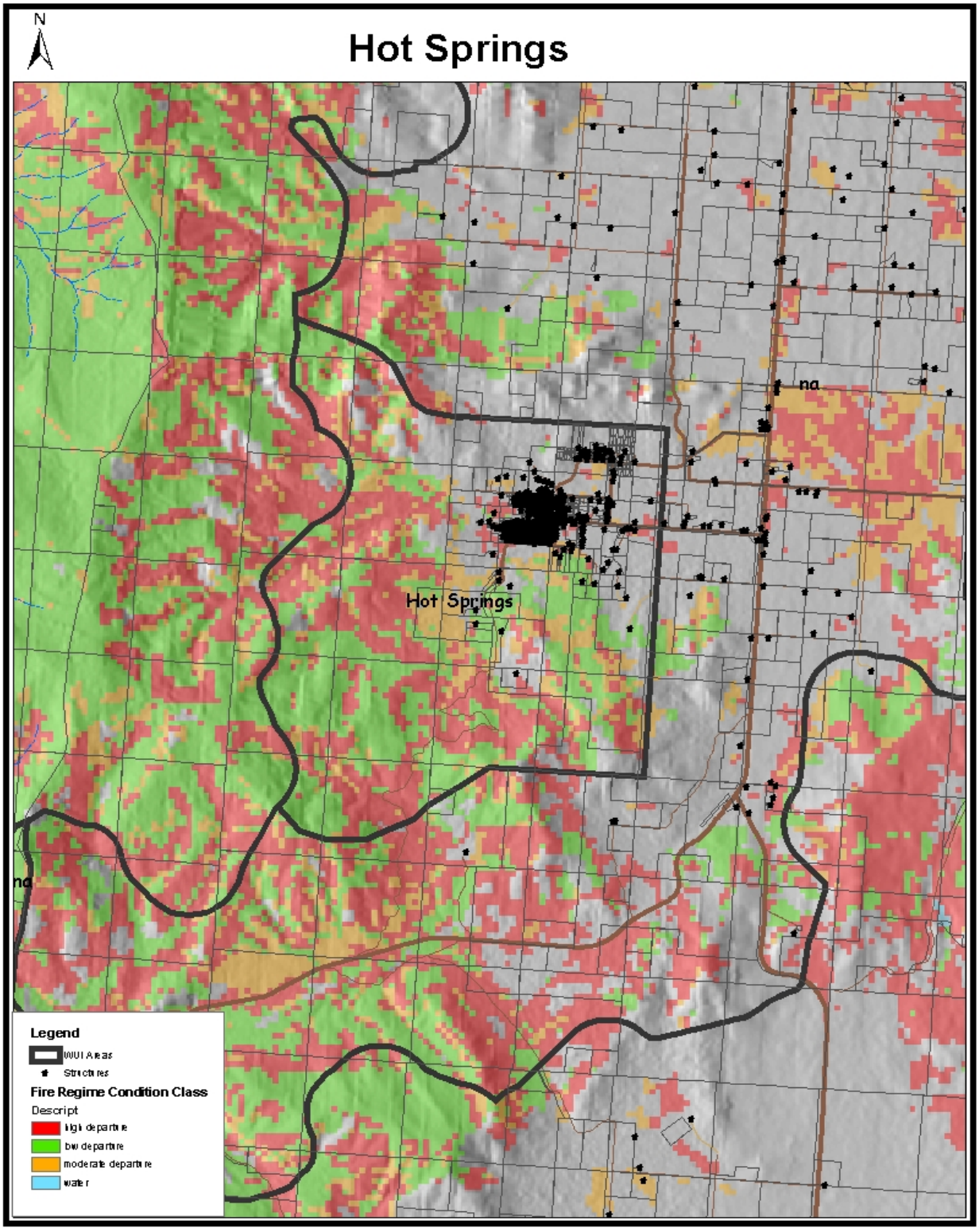
Value	Unit of Measure	Amount	Rating
Residences*	Each	328	9
Other structures (Businesses)*	Each	15	6
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	10707	5
High Value Improvements • Regional Powerlines – 16 miles • •	Each	2	3
TOTAL VALUE AT RISK			**17**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 2198 – 5% 21188 – 47% 11003 – 24% 10687 – 24%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 2 – 7% 12 – 43% 6 – 21% 8 – 28%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 40% 50% 10%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 5% 60% 35%	6
TOTAL FIRE RISK			**20**
GRAND TOTAL ALL RISK			**37**
$ VALUE AT RISK:			***$38,885,794**

COMMENTS:

Hot Springs


N
Hot Springs
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
High departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 19 of 28

AREA NAME: Hot Springs — **TOTAL ACRES:** 8,931
FIRE PROTECTION DISTRICT: Hot Springs RVFD, CS&KT — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

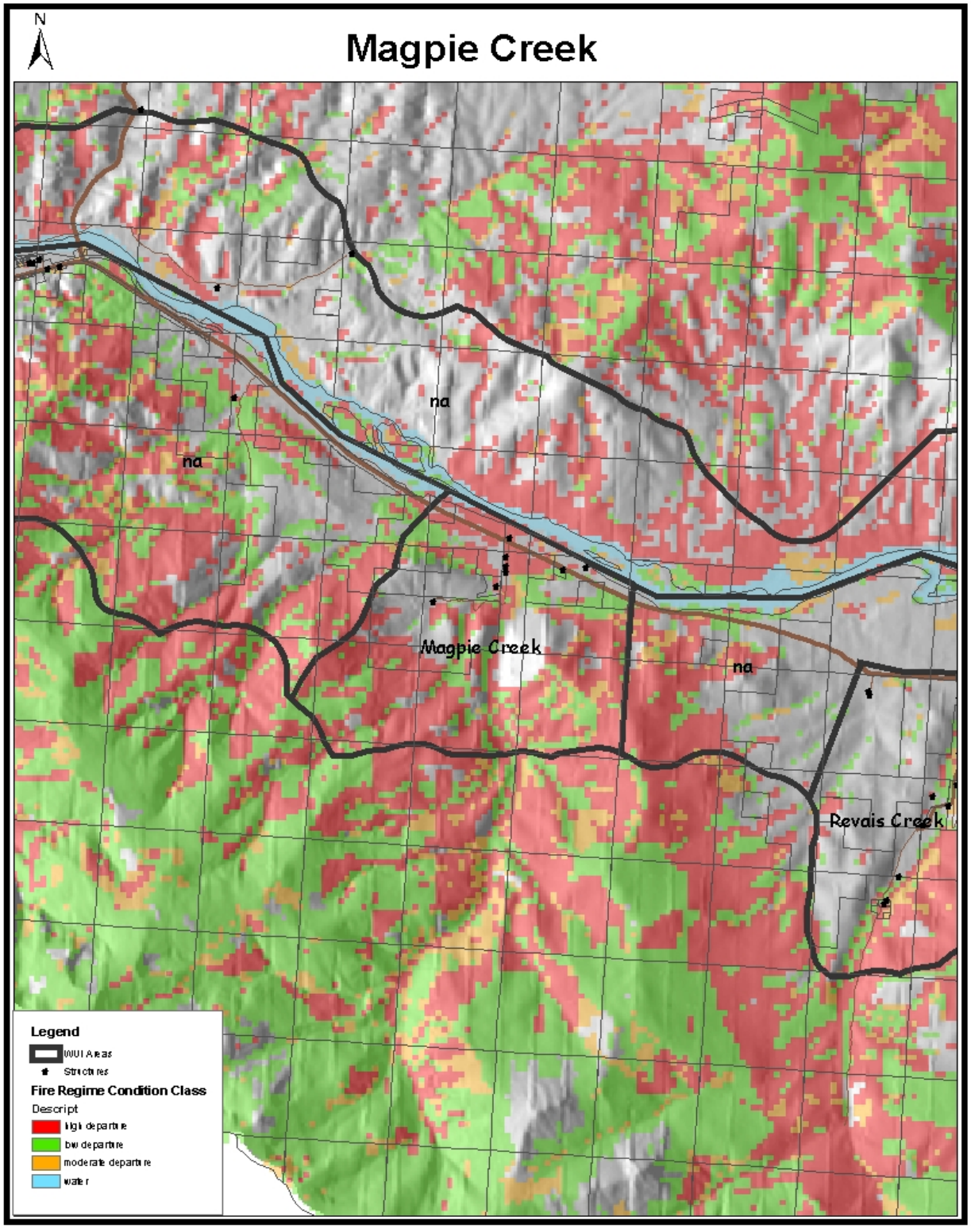
Value	Unit of Measure	Amount	Rating
Residences*	Each	107	3
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	413	1
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**4**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 750 – 8% 2698 – 30% 2942 – 33% 2542 – 28%	6
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 5 – 42% 2 – 19% 0 – 0% 5 – 39%	4
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	8
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 20% 50% 30%	5
TOTAL FIRE RISK			**23**
GRAND TOTAL ALL RISK			**27**
$ VALUE AT RISK:			***$9,176,746**

COMMENTS:

Magpie Creek



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 14 of 28

AREA NAME: Magpie Creek **TOTAL ACRES:** 3,884
FIRE PROTECTION DISTRICT: Dixon RVFD, CS&KT **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

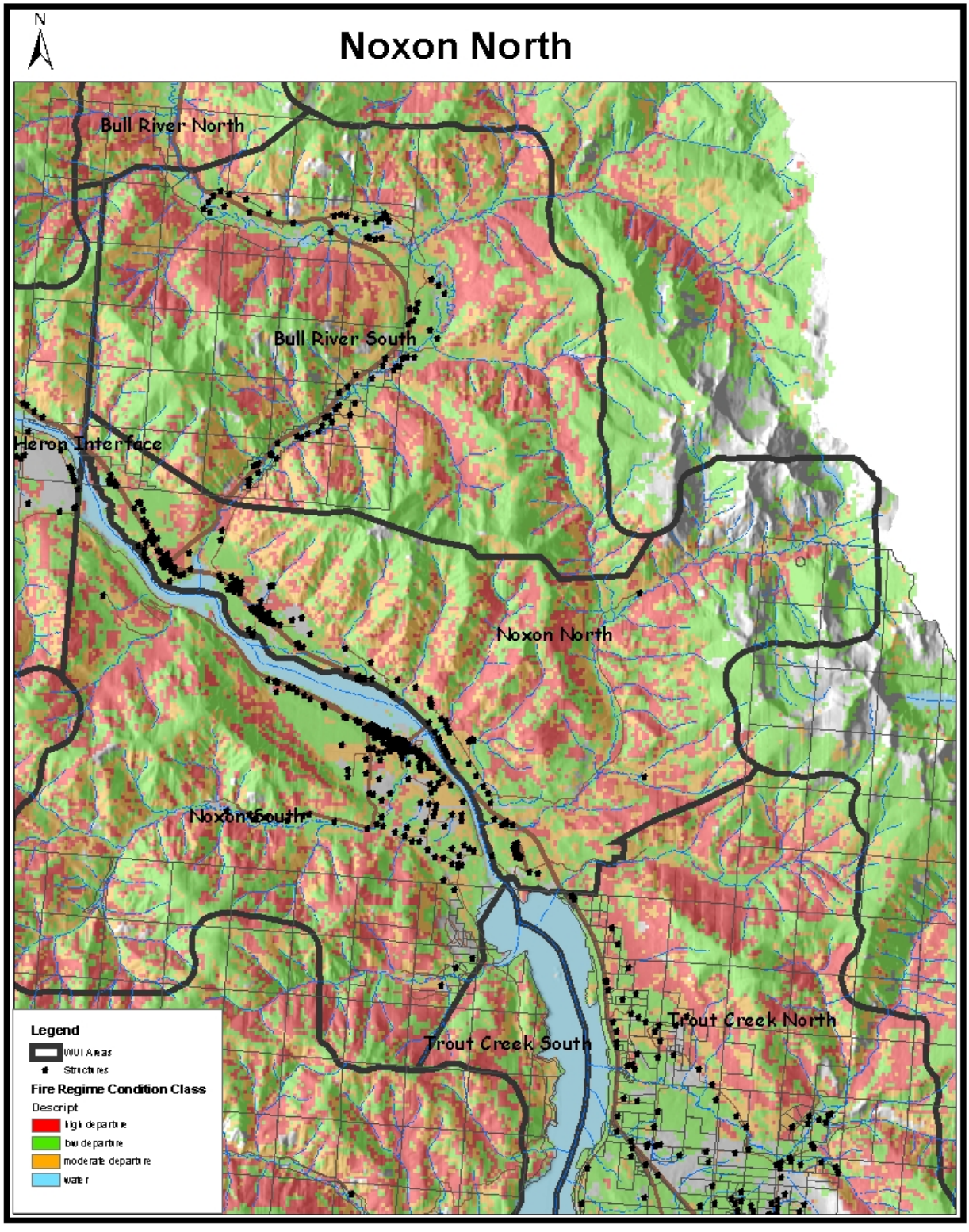
Value	Unit of Measure	Amount	Rating
Residences*	Each	8	1
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	231	1
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**2**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 278 – 7% 805 – 21% 929 – 24% 1857 – 48%	9
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 2.1 – 25% 1.4 – 17% .2 – 2% 4.6 – 55%	5
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 0% 100% 0%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 80% 10%	7
TOTAL FIRE RISK			**27**
GRAND TOTAL ALL RISK			**29**
$ VALUE AT RISK:			***$834,602**

COMMENTS:

Noxon North


N
Bull River North
Bull River South
Heron Interface
Noxon North
Noxon South
Trout Creek South
Trout Creek North
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 7 of 28

AREA NAME: Noxon North — **TOTAL ACRES:** 26,884
FIRE PROTECTION DISTRICT: Noxon RVFD, Kooetenai NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

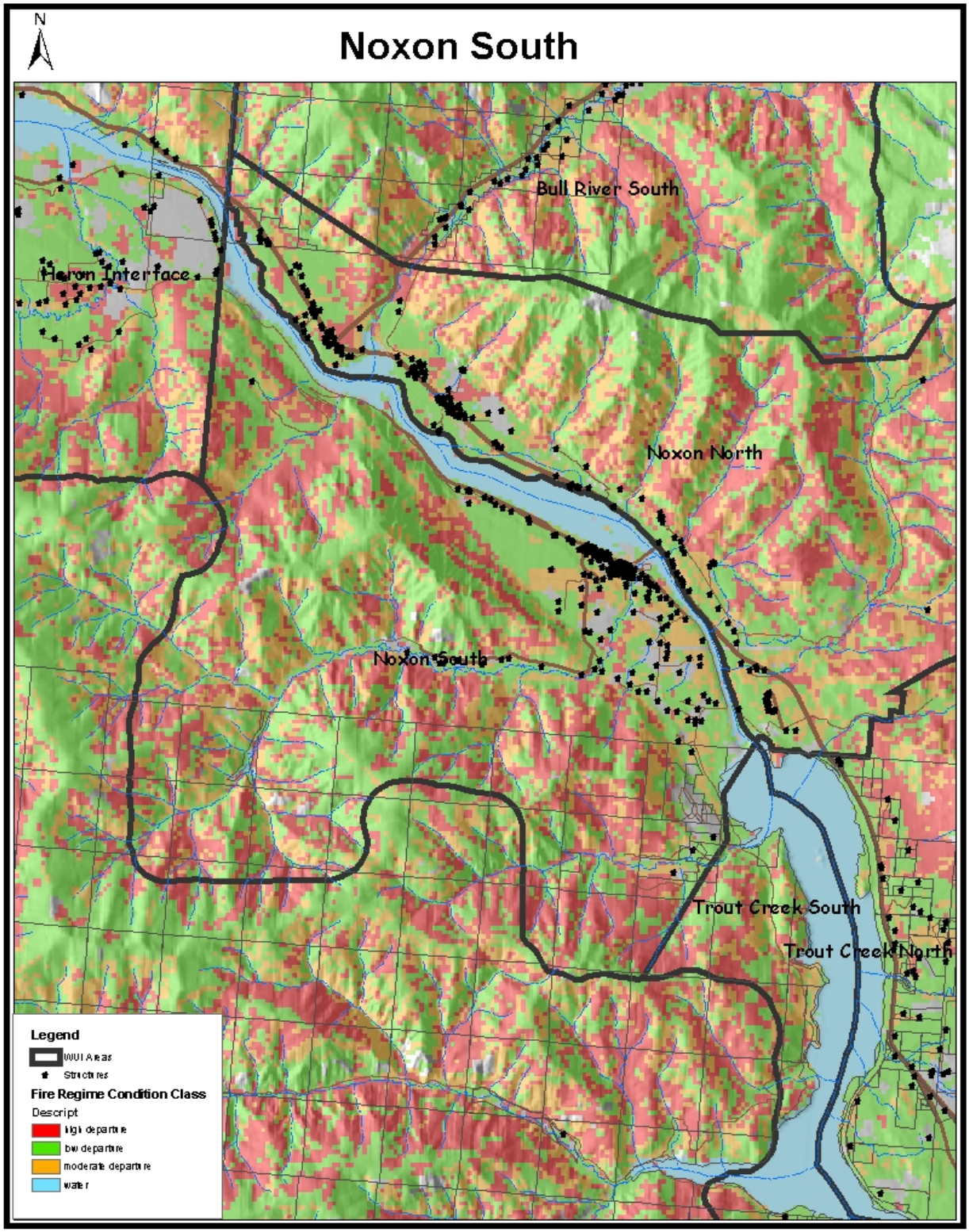
Value	Unit of Measure	Amount	Rating
Residences*	Each	214	7
Other structures (Businesses)*	Each	20	8
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	4334	2
High Value Improvements • Regional Powerline – 9.75 miles • Electronic Site •	Each	1 1	3
TOTAL VALUE AT RISK			**20**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 2490 – 9% 11974 – 44% 5890 – 22% 6556 – 24%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 16 – 53% 9 – 29% 2 – 6% 4 – 12%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 40% 50% 10%	5
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 30% 40% 30%	5
TOTAL FIRE RISK			**15**
GRAND TOTAL ALL RISK			**35**
$ VALUE AT RISK:			***$25,956,428**

COMMENTS:

Noxon South


N
Bull River South
Heron Interface
Noxon North
Noxon South
Trout Creek South
Trout Creek North
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 2 of 28

AREA NAME: Noxon South **TOTAL ACRES:** 2,6375
FIRE PROTECTION DISTRICT: Noxon RVFD, Kootenai NR **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

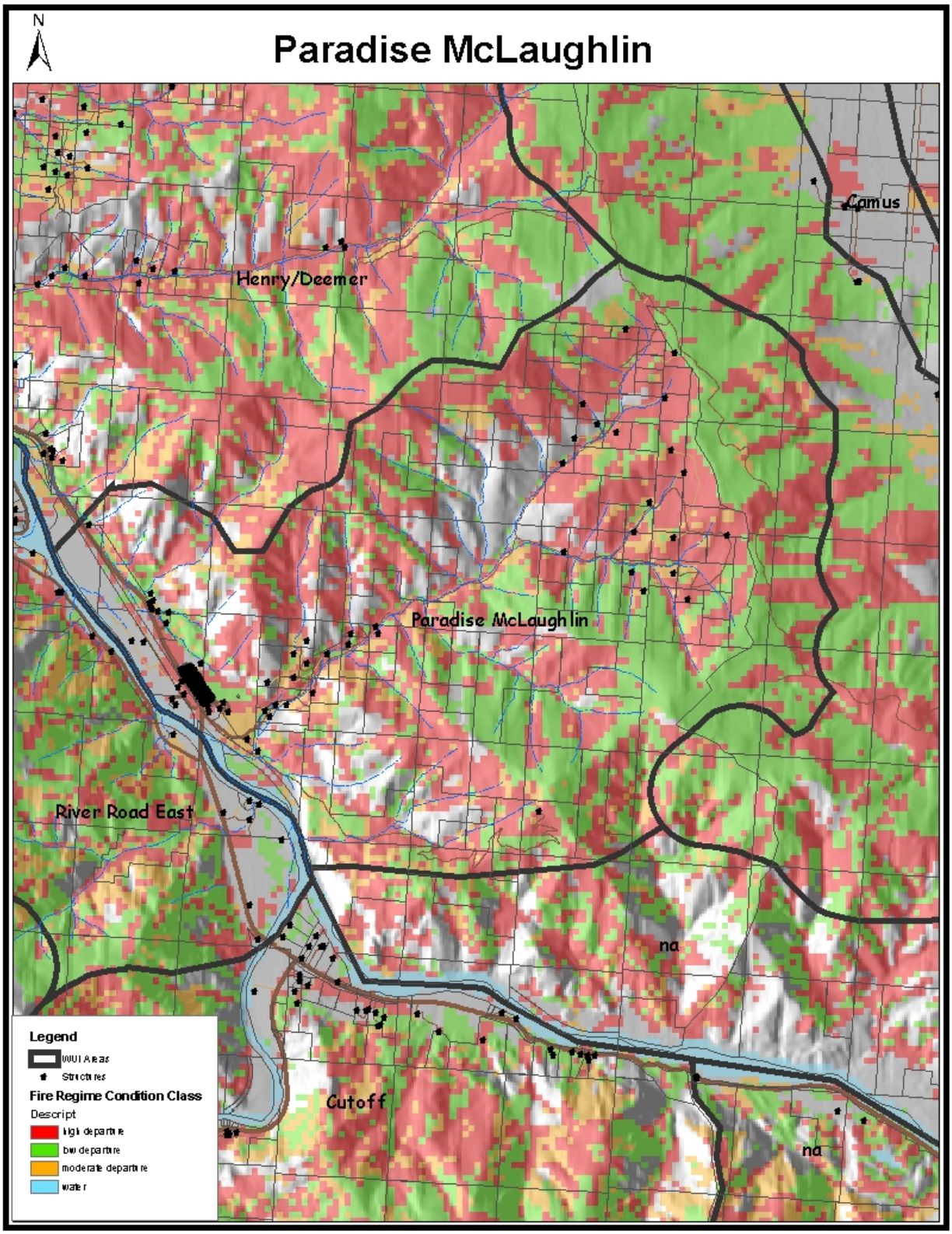
Value	Unit of Measure	Amount	Rating
Residences*	Each	185	6
Other structures (Businesses)*	Each	17	7
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	3435	2
High Value Improvements • Regional Powerline – 6.5 miles • •	Each	1	2
TOTAL VALUE AT RISK			**17**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 1909 – 7% 10979 – 42% 5772 – 22% 7719 – 29%	6
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 10 – 40% 5 – 20% 2 – 8% 8 – 32%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 50% 40% 10%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 50% 40%	5
TOTAL FIRE RISK			**21**
GRAND TOTAL ALL RISK			**38**
$ VALUE AT RISK:			***$22,135,270**

COMMENTS:

Paradise McLaughlin



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 9 of 28

AREA NAME: Paradise- McLaughlin **TOTAL ACRES:** 15,707
FIRE PROTECTION DISTRICT: Plains/Paradise RVFD, MT DNRC **YEAR RATED:** 2004

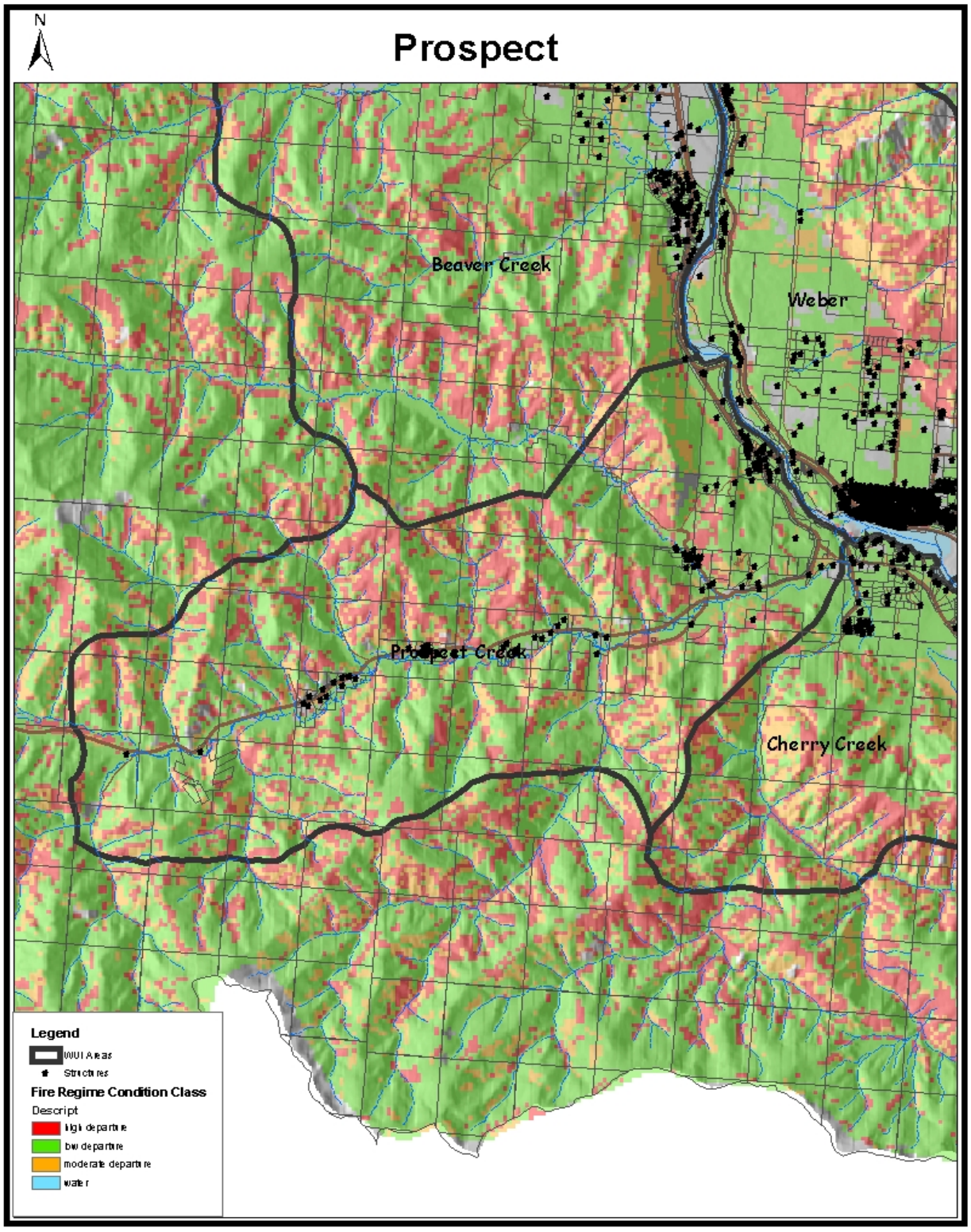
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	41	2
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	7914	4
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**6**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 955 – 6% 4917 – 31% 3000 – 19% 6821 – 43%	8
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 4 – 24% 5 – 32% .5 – 3% 6 – 41%	4
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	8
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 60% 30% 10%	6
TOTAL FIRE RISK			**26**
GRAND TOTAL ALL RISK			**32**
$ VALUE AT RISK:			***$9,271,088**

COMMENTS:


N
Prospect
Beaver Creek
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Prospect Creek
Cherry Creek
Legend
WUI Areas
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high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 11 of 28

AREA NAME: Prospect Creek **TOTAL ACRES:** 2,4171
FIRE PROTECTION DISTRICT: T. Falls RVFD **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

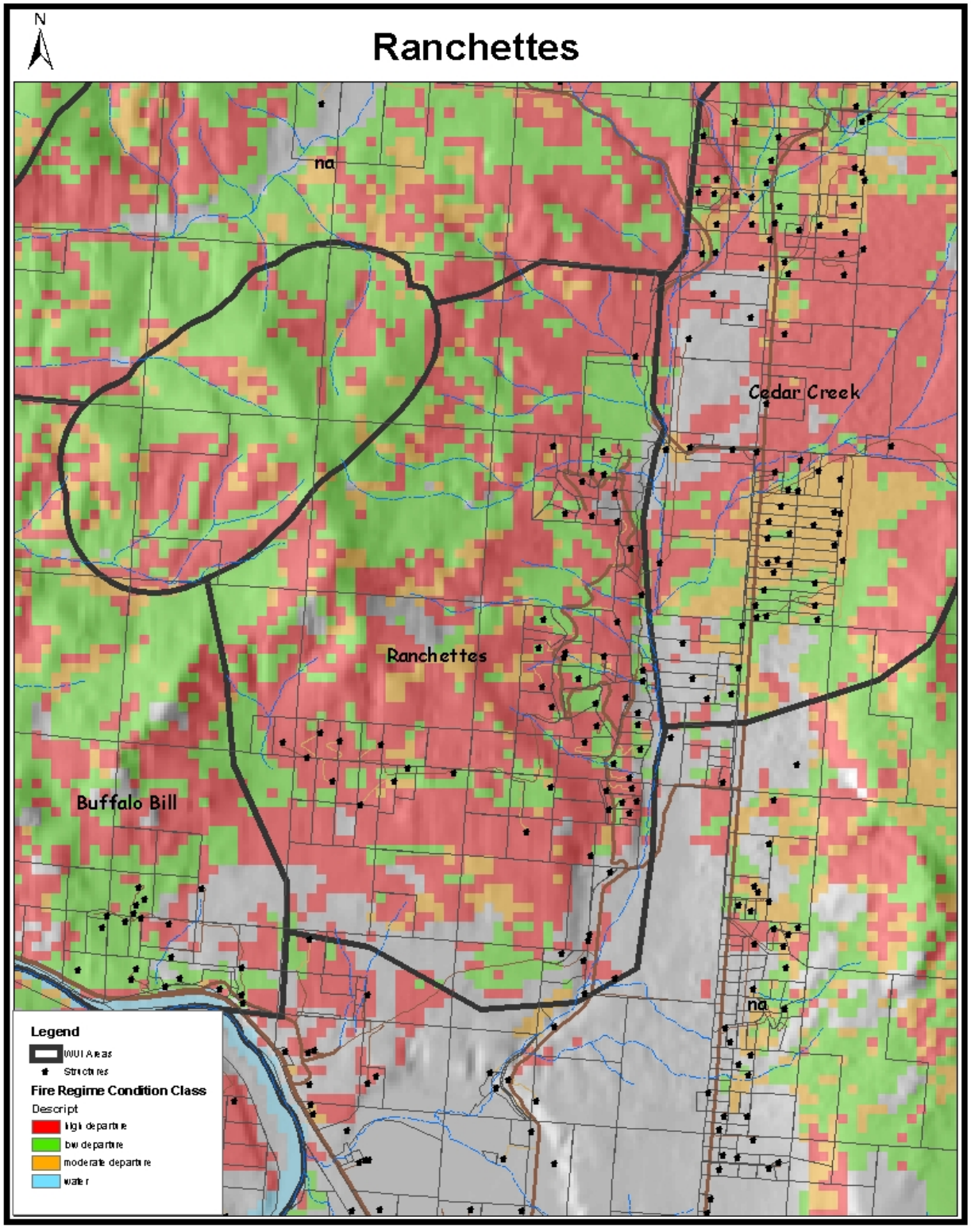
Value	Unit of Measure	Amount	Rating
Residences*	Each	109	3
Other structures (Businesses)*	Each	9	4
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	6023	3
High Value Improvements • Regional Powerlines – 25 miles • Yellowstone Pipeline Access Points • Electronic Site	Each	3 2 1	4
TOTAL VALUE AT RISK			**14**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 88 – 1% 14554 – 59% 3882 – 16% 5638 – 23%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 2.1 – 25% 1.4 – 17% .2 – 2% 4.6 – 55%	4
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 50% 40% 10%	5
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 30% 60%	5
TOTAL FIRE RISK			**18**
GRAND TOTAL ALL RISK			**32**
$ VALUE AT RISK:			***$15,755,166**

COMMENTS:

Ranchettes


N
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Cedar Creek
Ranchettes
Buffalo Bill
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Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 5 of 28

AREA NAME: Ranchettes **TOTAL ACRES:** 5,268
FIRE PROTECTION DISTRICT: Plains/Paradise RVFD, MT DNRC **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

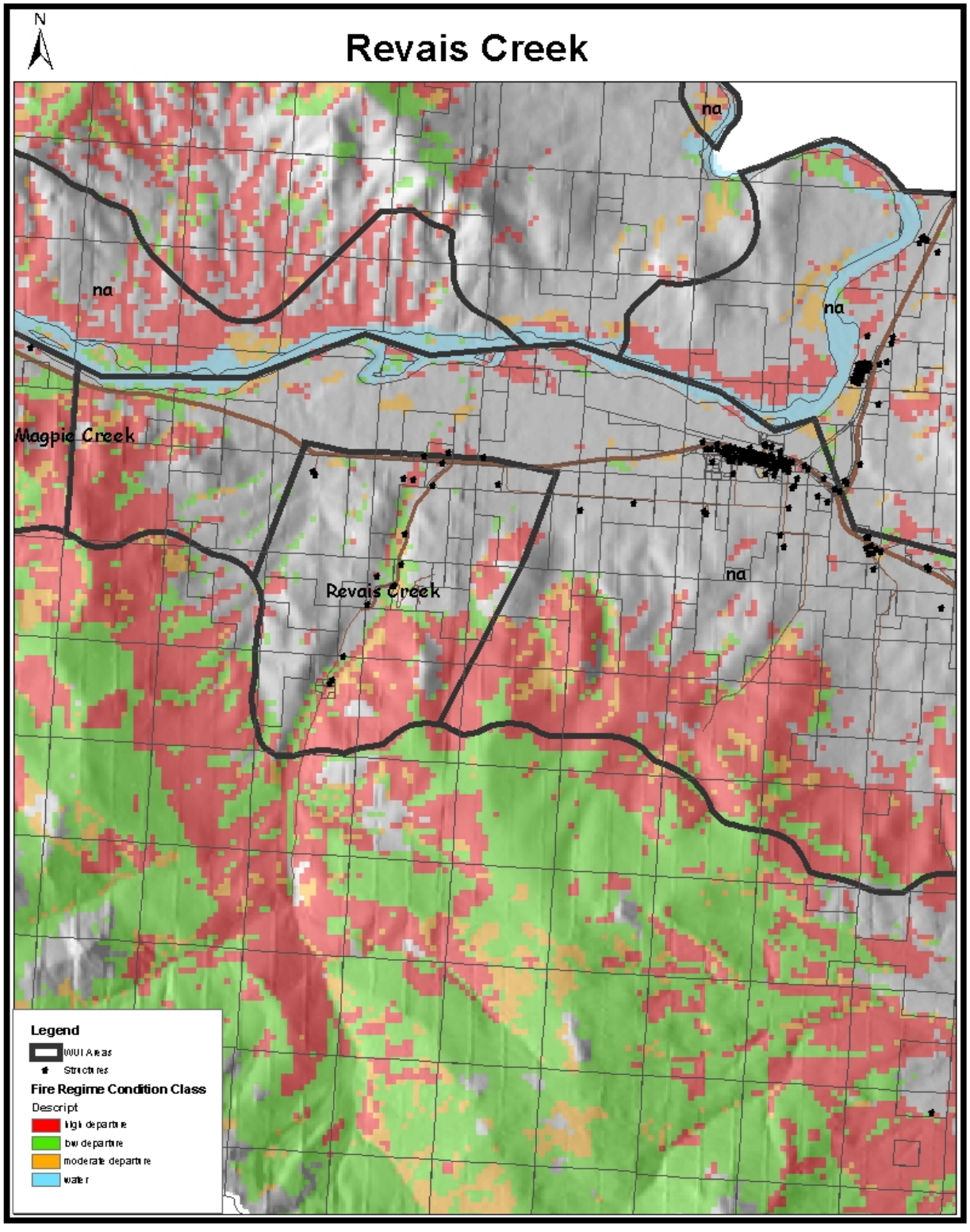
Value	Unit of Measure	Amount	Rating
Residences*	Each	60	2
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	4303	2
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**4**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 120 – 2% 1467 – 28% 842 – 16% 2834 – 54%	9
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 3.5 – 32% 2.1 – 19% .4 – 4% 5.1 – 46%	5
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 50% 50% 0%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 50% 30% 20%	6
TOTAL FIRE RISK			**27**
GRAND TOTAL ALL RISK			**31**
$ VALUE AT RISK:			***$8,166,826**

COMMENTS:

Revais Creek



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 26 of 28

AREA NAME: Revais Creek **TOTAL ACRES:** 4,255
FIRE PROTECTION DISTRICT: Dixon RVFD, CS%KT **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

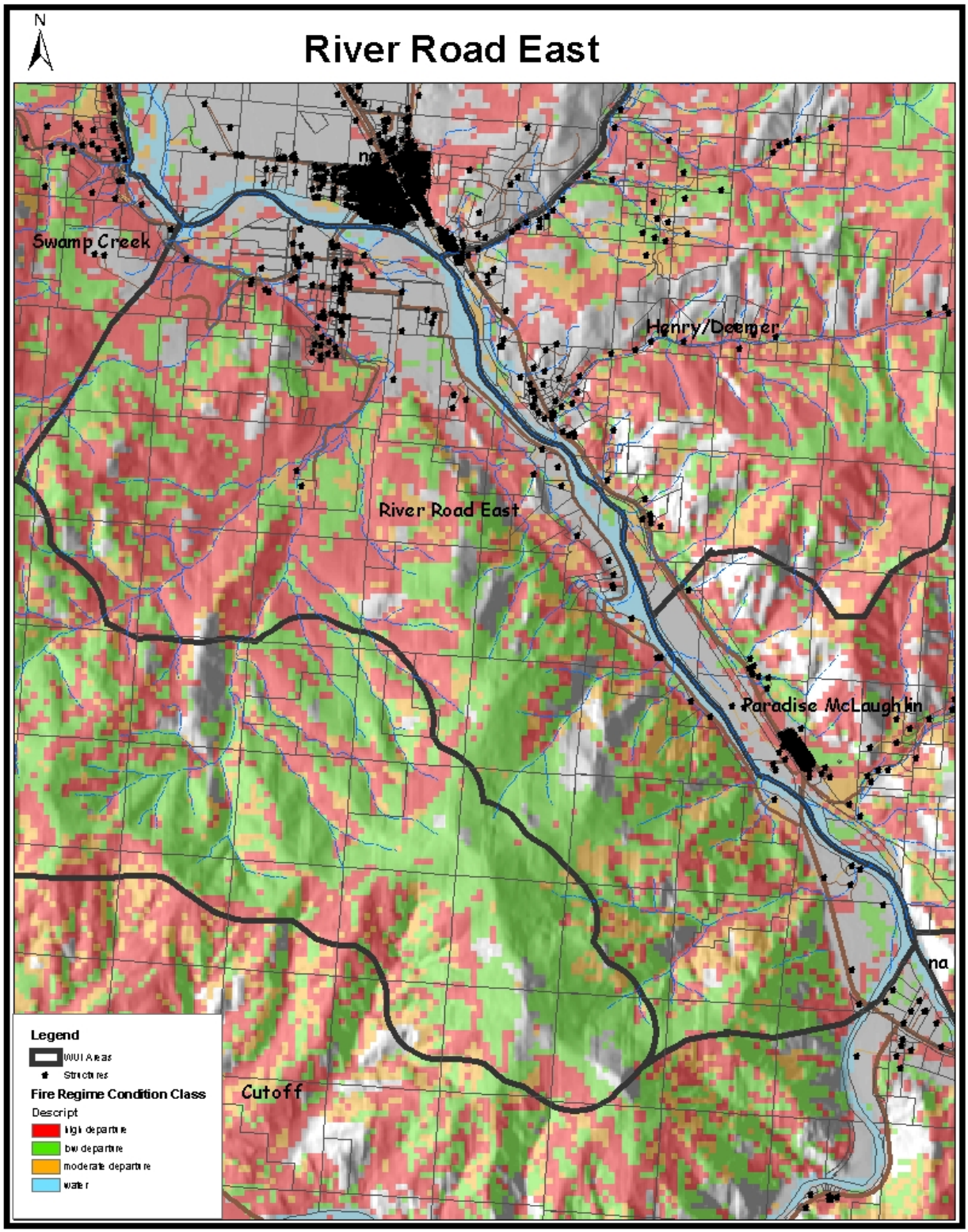
Value	Unit of Measure	Amount	Rating
Residences*	Each	16	1
Other structures (Businesses)*	Each	1	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	307	1
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**3**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 144 – 3% 402 – 9% 2682 – 63% 1025 – 24%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 4.6 – 53% 1.3 – 15% .2 – 2% 2.5 – 29%	3
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 0% 90% 10%	5
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 50% 40% 10%	5
TOTAL FIRE RISK			**17**
GRAND TOTAL ALL RISK			**20**
$ VALUE AT RISK:			***$1,804,194**

COMMENTS:

River Road East



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING
15 of 28

AREA NAME: River Road East **TOTAL ACRES:** 15,630
FIRE PROTECTION DISTRICT: Plains/Paradise RVFD, MT DNRC, Lolo NF **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

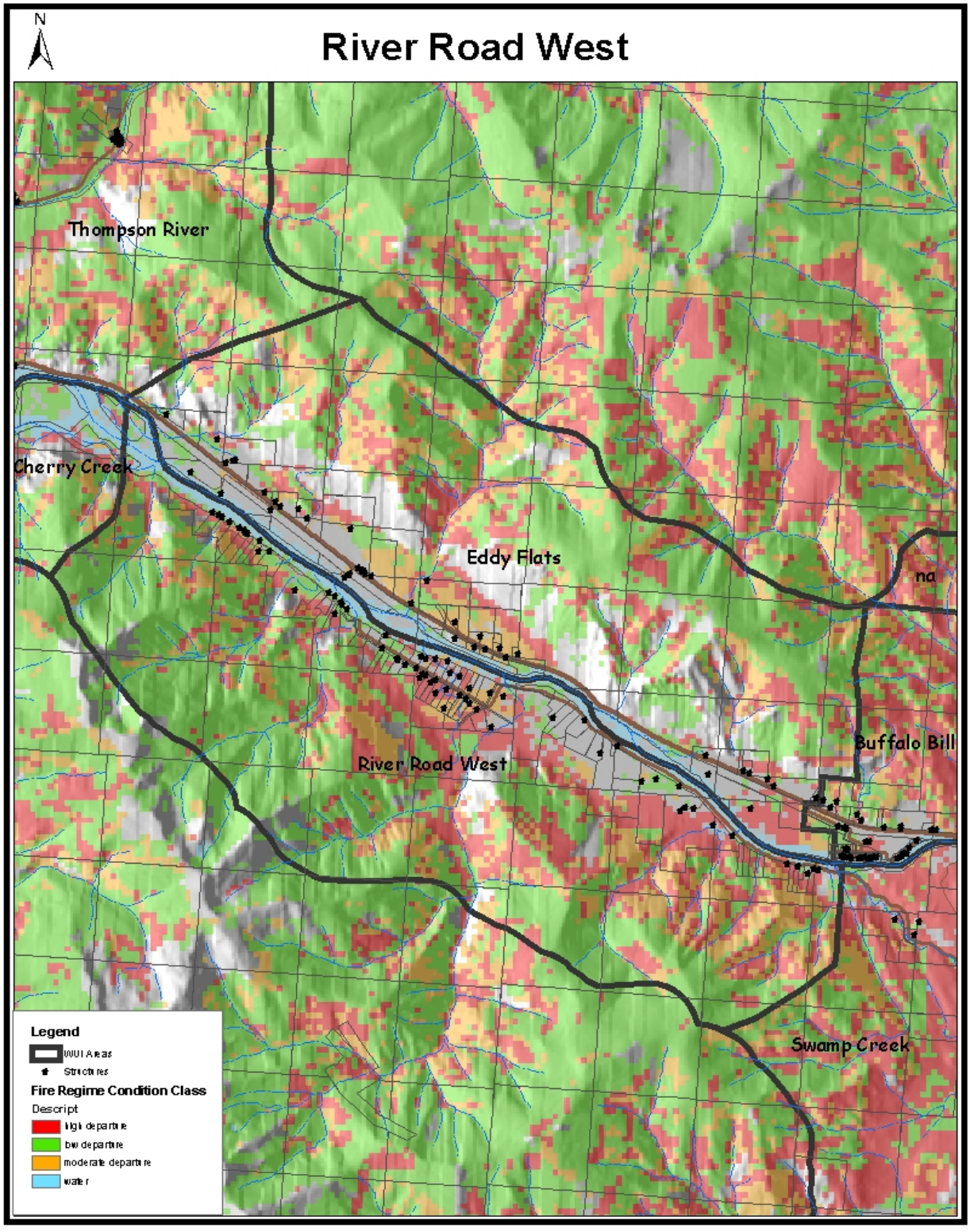
Value	Unit of Measure	Amount	Rating
Residences*	Each	90	3
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	9729	5
High Value Improvements • • •	Each	0	0
TOTAL VALUE AT RISK			**8**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 1352 – 9% 4965 – 32% 3482 – 22% 5830 – 37%	8
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 11.3 – 56% 4 – 20% .5 – 2% 4.3 – 21%	2
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 30% 70% 0%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 40% 50%	5
TOTAL FIRE RISK			**21**
GRAND TOTAL ALL RISK			**29**
$ VALUE AT RISK:			***$14,679,918**

COMMENTS:

River Road West



(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 21 of 28

AREA NAME: River Road West — **TOTAL ACRES:** 11,471
FIRE PROTECTION DISTRICT: Lolo NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

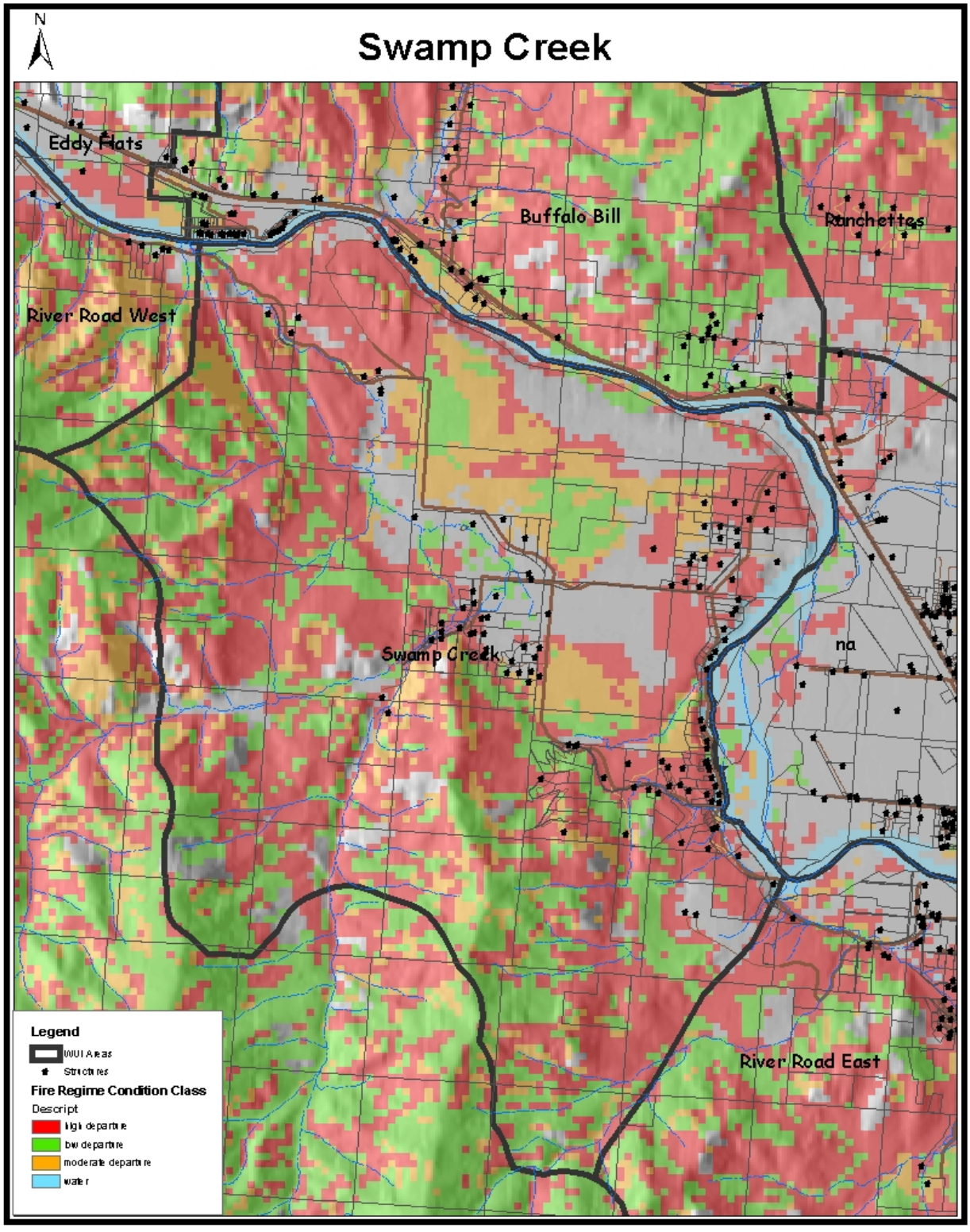
Value	Unit of Measure	Amount	Rating
Residences*	Each	62	2
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	828	1
High Value Improvements • Regional Powerlines – 21.5 miles • •	Each	3	4
TOTAL VALUE AT RISK			**7**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 1056 – 9% 5304 – 46% 2377 – 21% 2740 – 24%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 9.5 – 49% 7.3 – 38% 1.3 – 7% 1.2 – 6%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 20% 70% 10%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 80% 20% 0%	8
TOTAL FIRE RISK			**19**
GRAND TOTAL ALL RISK			**26**
$ VALUE AT RISK:			***$5,754,176**

COMMENTS:

Swamp Creek


N
Eddy Flats
Buffalo Bill
Ranchettes
River Road West
Swamp Creek
na
River Road East
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 10 of 28

AREA NAME: Swamp Creek **TOTAL ACRES:** 15,938
FIRE PROTECTION DISTRICT: Plains/Paradise RVFD, MT DNRC, Lolo NF **YEAR RATED:** 2004

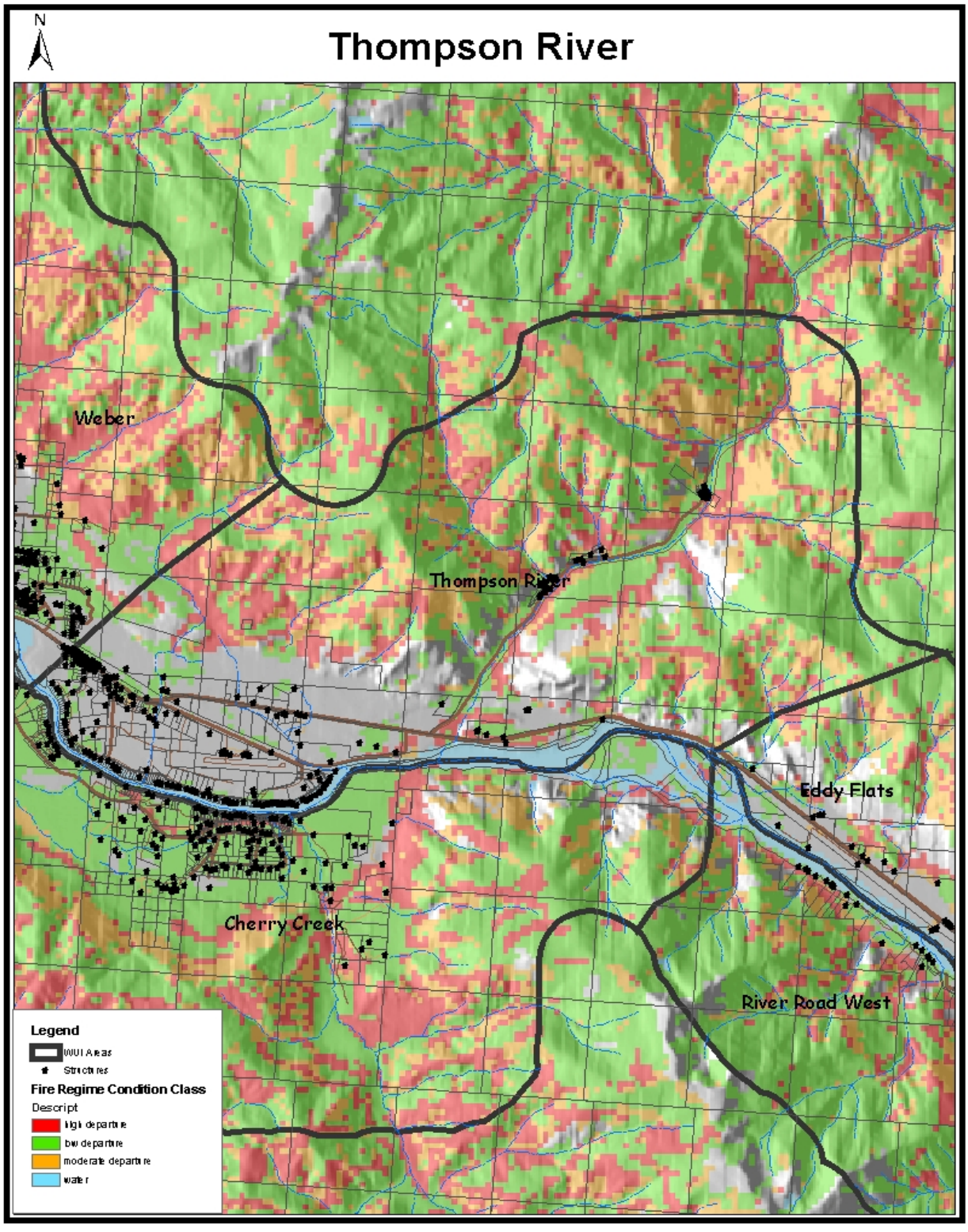
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	111	3
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	9973	5
High Value Improvements • Regional Powerlines – 10.6 miles • •	Each	3	3
TOTAL VALUE AT RISK			**11**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 526 – 3% 3743 – 23% 4543 – 28% 7133 – 45%	8
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 8.9 – 48% 4.9 – 27% 1 – 5% 3.6 – 20%	2
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 60% 40% 0%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 30% 60%	5
TOTAL FIRE RISK			**21**
GRAND TOTAL ALL RISK			**32**
$ VALUE AT RISK:			***$16,601,866**

COMMENTS:


N
Thompson River
Weber
Thompson River
Eddy Flats
Cherry Creek
River Road West
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 24 of 28

AREA NAME: Thompson River — **TOTAL ACRES:** 17,020
FIRE PROTECTION DISTRICT: T. Falls RVFD, Lolo NF — **YEAR RATED:** 2004

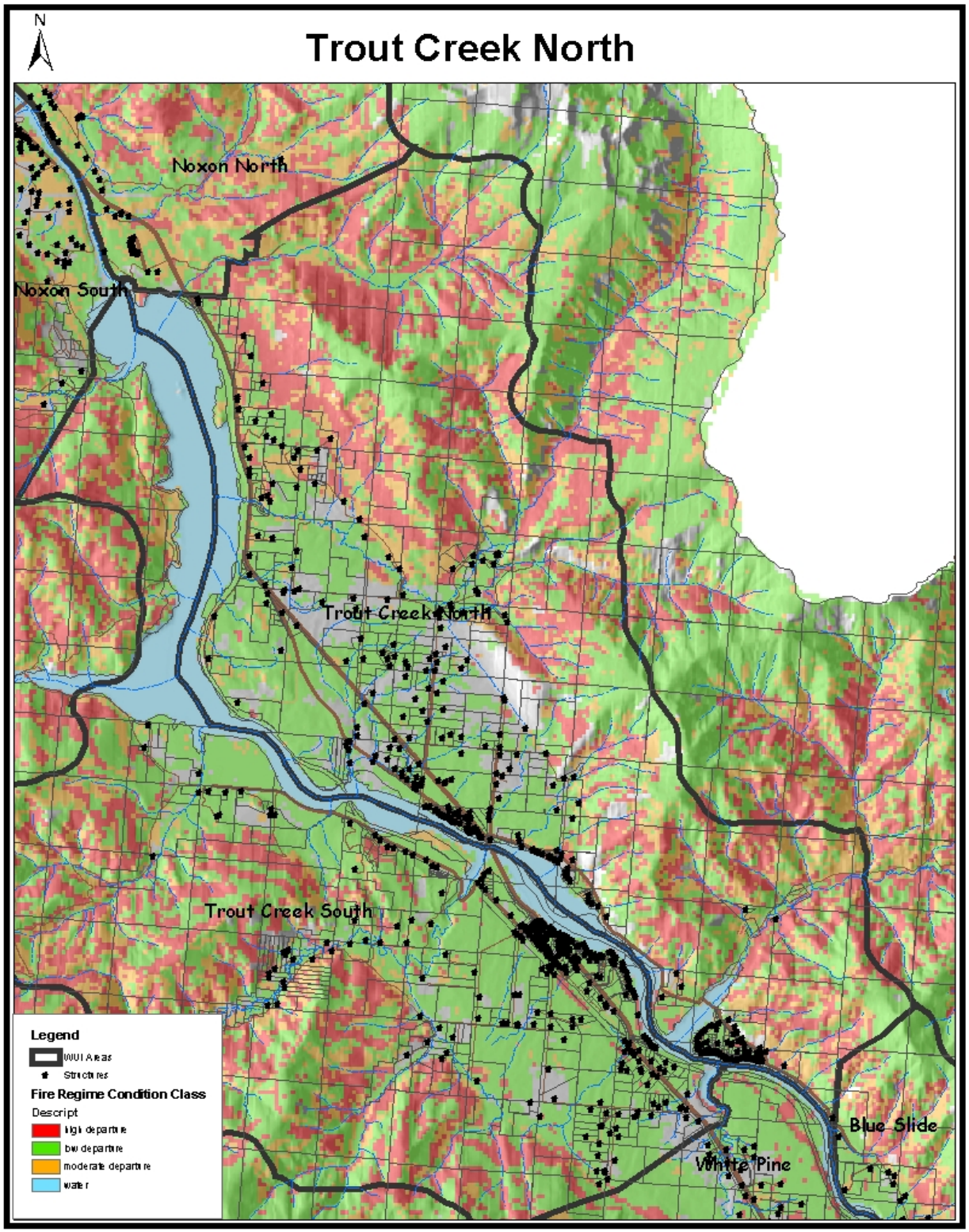
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	39	1
Other structures (Businesses)*	Each	0	0
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	1998	1
High Value Improvements • Regional Powerlines – 15 miles • Electronics Site •	Each	3 1	3
TOTAL VALUE AT RISK			**5**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 1861 – 11% 6538 – 38% 5556 – 33% 3064 – 18%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 8.4 – 40% 7.8 – 37% 1.9 – 9% 3 – 14%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 80% 20% 0%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 10% 30% 60%	4
TOTAL FIRE RISK			**16**
GRAND TOTAL ALL RISK			**21**
$ VALUE AT RISK:			***$4,715,616**

COMMENTS:


N
Trout Creek North
Noxon North
Noxon South
Trout Creek North
Trout Creek South
Blue Slide
White Pine
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 6 of 28

AREA NAME: Trout Creek North **TOTAL ACRES:** 38,316
FIRE PROTECTION DISTRICT: Trout Cr. RVFD, Kootenai NF **YEAR RATED:** 2004

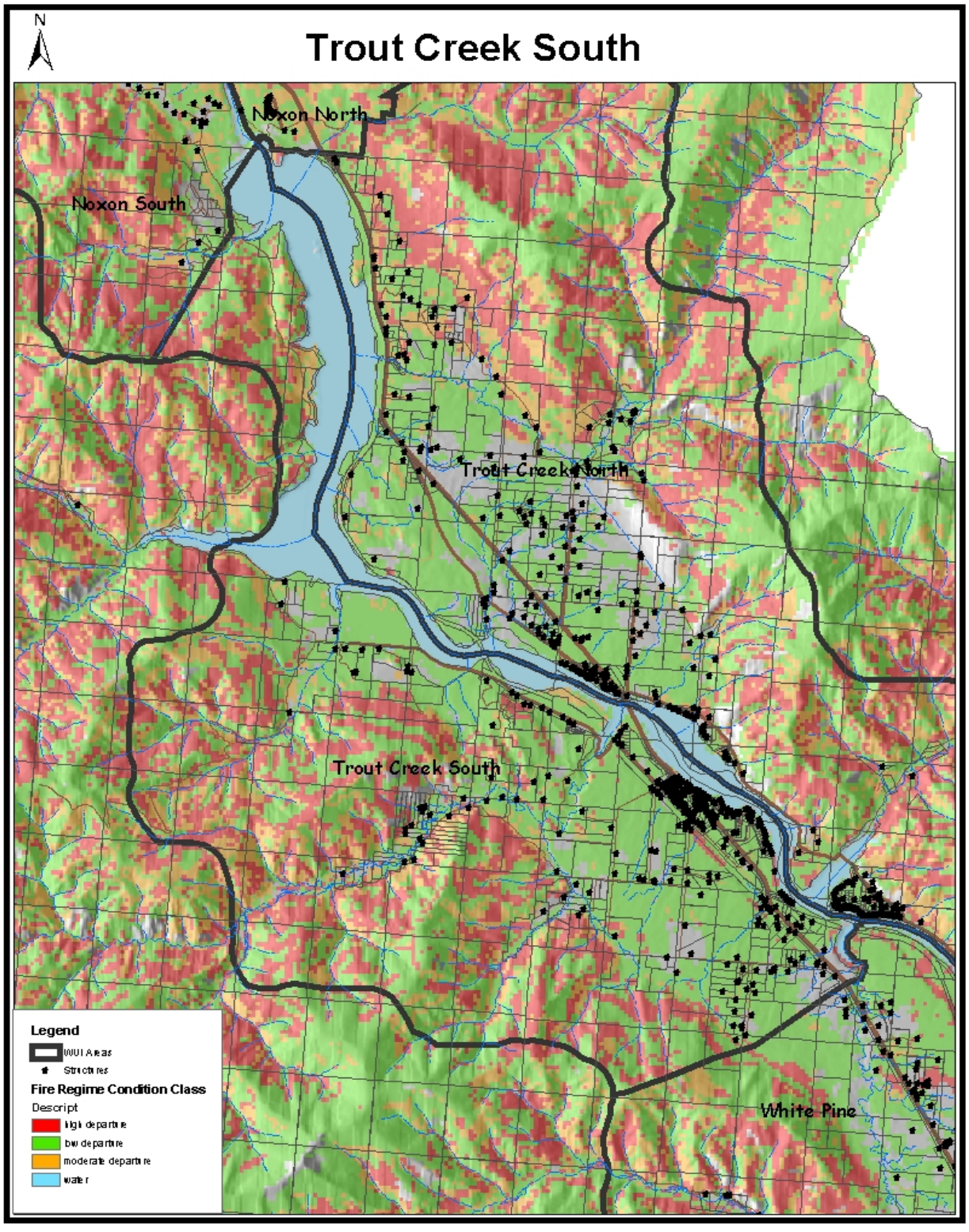
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	312	9
Other structures (Businesses)*	Each	2	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	8847	4
High Value Improvements • Regional Powerline – 12.5 miles • Electronic Site •	Each	1 1	3
TOTAL VALUE AT RISK			**17**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 3535 – 9% 16561 – 43% 8636 – 23% 9622 – 25%	5
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 17 – 53% 8 – 25% 2 – 5% 5 – 17%	2
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 70% 30% 0%	7
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 5% 15% 80%	4
TOTAL FIRE RISK			**18**
GRAND TOTAL ALL RISK			**35**
$ VALUE AT RISK:			***$32,929,274**

COMMENTS:


N
Trout Creek South
Noxon North
Noxon South
Trout Creek North
Trout Creek South
White Pine
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 1 of 28

AREA NAME: Trout Creek South **TOTAL ACRES:** 33,184
FIRE PROTECTION DISTRICT: Trout Creek RVFD, Kootenai NF **YEAR RATED:** 2004

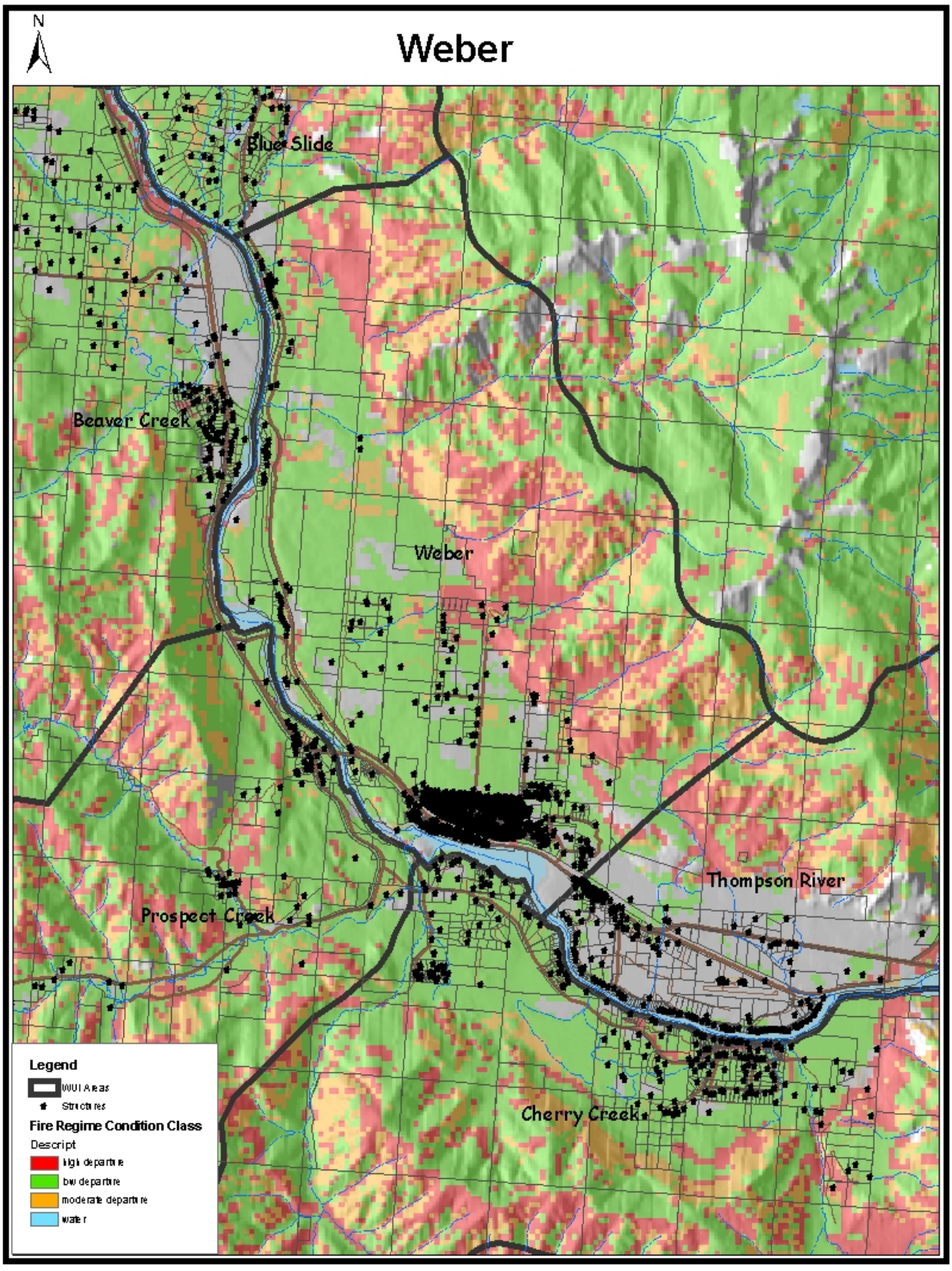
VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	278	8
Other structures (Businesses)*	Each	24	9
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	9026	4
High Value Improvements • Regional Powerlines – 15.5 miles • •	Each	2	3
TOTAL VALUE AT RISK			**24**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 3706 – 11% 16437 – 50% 5238 – 16% 7793 – 23%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 17 – 53% 8 – 24% 2 – 6% 6 – 18%	2
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 30% 55% 15%	5
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 15% 15% 70%	5
TOTAL FIRE RISK			**16**
GRAND TOTAL ALL RISK			**40**
$ VALUE AT RISK:			***$35,743,492**

COMMENTS:


N
Weber
Blue Slide
Beaver Creek
Weber
Thompson River
Prospect Creek
Cherry Creek
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 17 of 28

AREA NAME: Weber — **TOTAL ACRES:** 17,169
FIRE PROTECTION DISTRICT: T. Falls RVFD, Lolo NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

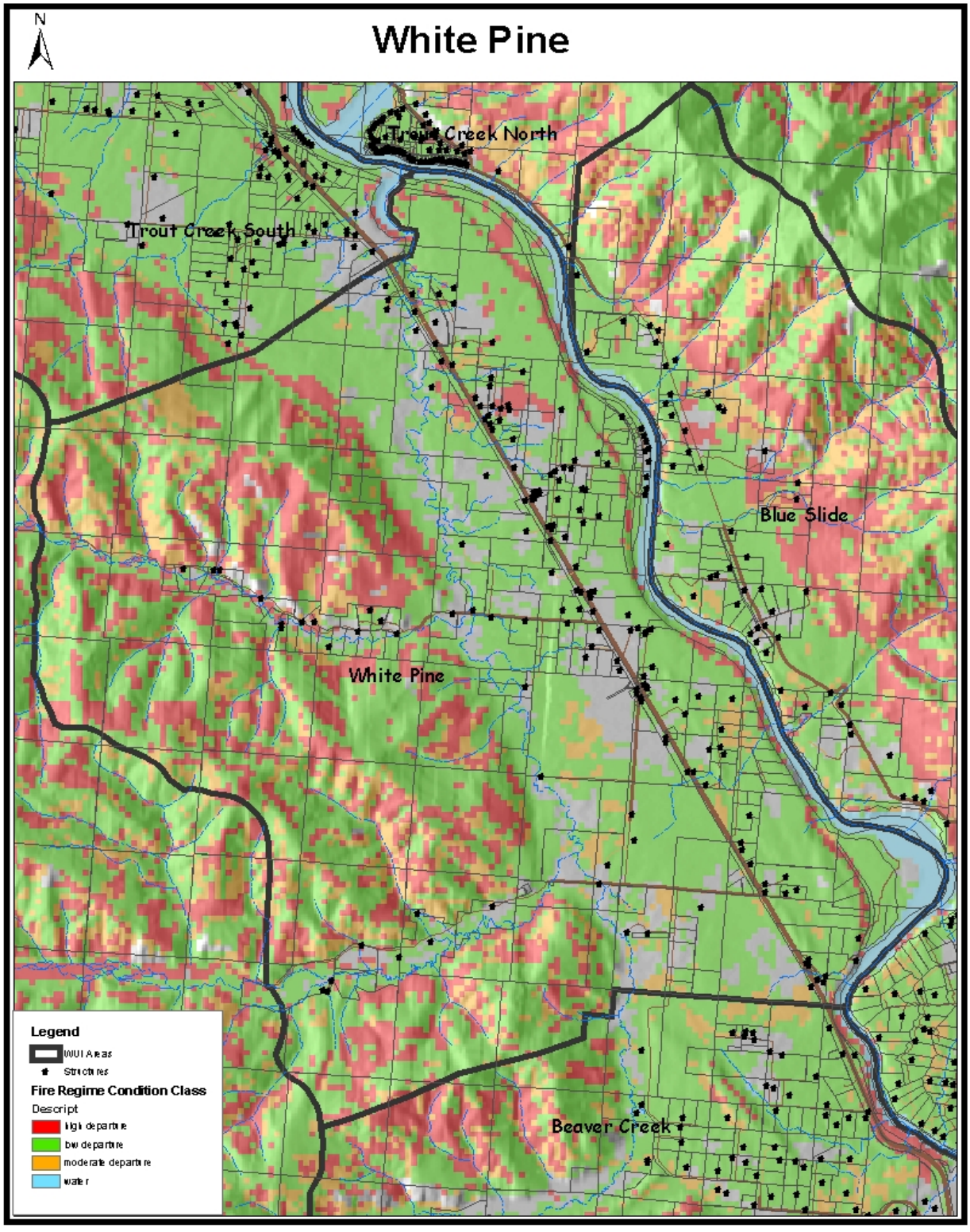
Value	Unit of Measure	Amount	Rating
Residences*	Each	107	3
Other structures (Businesses)*	Each	4	2
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	6156	3
High Value Improvements • Regional Powerlines – 11.5 miles • •	Each	2	3
TOTAL VALUE AT RISK			**11**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 1250 – 7% 8566 – 50% 3727 – 22% 3630 – 21%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 8.8 – 51% 6.5 – 38% 1 – 6% 1 – 6%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 60% 30% 10%	6
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 40% 40% 20%	6
TOTAL FIRE RISK			**17**
GRAND TOTAL ALL RISK			**28**
$ VALUE AT RISK:			***$14,438,052**

COMMENTS:

White Pine


N
Trout Creek North
Trout Creek South
Blue Slide
White Pine
Beaver Creek
Legend
WUI Areas
Structures
Fire Regime Condition Class
Descript
high departure
low departure
moderate departure
water

(ATTACHMENT B4-B)
SANDERS COUNTY WILDLAND/URBAN INTERFACE AREAS
RISK RATING

OVERALL RATING 20 of 28

AREA NAME: White Pine — **TOTAL ACRES:** 26,719
FIRE PROTECTION DISTRICT: Trout Creek RVFD, Kootenai NF — **YEAR RATED:** 2004

VALUES AT RISK: *Numerical Rating 1=lowest value risk, 10=highest value risk*

Value	Unit of Measure	Amount	Rating
Residences*	Each	163	5
Other structures (Businesses)*	Each	2	1
Historical Sites	Each	0	0
Private Commercial Forestland*	Acres	8271	4
High Value Improvements • Regional Powerlines – 16 miles • •	Each	2	3
TOTAL VALUE AT RISK			**13**

FIRE RISK: *Numerical Rating 1=lowest fire risk, 10=highest fire risk*

Value	Unit of Measure	Amount	Rating
Condition Class Within Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Acres - % Acres - % Acres - % Acres - %	 862 – 3% 15667 – 59% 5312 – 20% 4855 – 18%	4
Condition Class Perimeter Adjacent To Area • Condition Class 0 • Condition Class 1 • Condition Class 2 • Condition Class 3	 Miles - % Miles - % Miles - % Miles - %	 12 – 56% 6 – 29% 1 – 6% 2 – 9%	1
Topography • Unsheltered Prevailing Winds • Partially Sheltered To Prevailing Winds • Sheltered From Prevailing Winds	 % % %	 20% 50% 30%	4
Access (Ingress/Egress) • Difficult • Difficult/Easy Combination • Easy	 % % %	 20% 20% 60%	5
TOTAL FIRE RISK			**14**
GRAND TOTAL ALL RISK			**27**
$ VALUE AT RISK:			***$20,149,782**

COMMENTS:

(**Attachment B-5)**

FIRE RISK/HAZARD AREA RATING FORM

Landowner_____ Fire District_____ Total Acres to Treat _____			
Values At Risk (*Check all that apply. Add up # for total score*)			
Principle landowner residence/home present	7		
Multiple landowners within 1/8th mile	5		
Protect adjacent high value improvements (utilities, etc)	3		
Other structures present such as businesses, barns, second home	3		
Known historic/cultural site present on land	2		
Landowner merchantable timber value at risk	2		
Water quality/SMZ/riparian areas at risk on land	2		
Fire Risk (*Choose only one from Fire History Map)*			
50 years since area burned	10		
Area burned within last 25 years	7		
Area burned in last 5 years	1		
Access (*Choose only one*)			
Most of area is difficult to access with high fire risk	10		
Combination of difficult and easy access with high fire risk	7		
Most of area is easy to access with high fire risk	5		
Home Density (*Choose only one*)			
More than 6 homes within 1 mile	10		
Three to five homes within 1 mile	7		
Less than 3 homes within 1 mile	3		
Previous Fuel Treatment (*Choose only one*)			
Some of area treated with thinning in past 5 years	10		
Some of area treated with thinning in past 10 years	7		
No previous fuel treatment	0		
Possible Joint Projects (*Choose only one*)			
Multi-agency/private cross boundary project(s)	10		
Multiple private landowner project	7		
Single landowner project (only landowner in area)	0		
Community Buy-In (*Choose only one)*			
Area landowners have shown strong interest in program	10		
Area landowners have shown some interest in program	5		
Area landowners have shown no interest/opposed to the program	0		
Willing to meet treatment specifications (*Choose only one)*			
Wholeheartedly	10		
Somewhat, with reservations	5		
Not at all, skeptical	0		
Distance to adjacent untreated fuels (*Choose only one)*			
Less than 100 feet	10		
Between 100 to 300 feet	5		
Greater than 300 feet	0		

Low Hazard = <33, Moderate Hazard = 34 – 57, High Hazard = 58 – 81, Extreme Hazard = >81	Total Points	

Attachment B-6

PROCEDURE FOR INCLUDING YOUR PROPERTY IN A RURAL FIRE DISTRICT

1. Determine if your home/property is currently included in a Rural Fire District
.

a. Find the location of your property on a map of the Rural Fire Districts. (Maps can be viewed at the Rural Fire District stations or at the Sanders County Courthouse.)
If your property is clearly within the mapped boundaries of a Rural Fire District, the job is finished. You can check by following the subsequent procedure.

OR

b. Check your latest property tax bill.
Under "School District" you'll find a code.

Example:
1C - City of Plains.
1MR - Plains rural fire.
1R – Plains rural with no rural fire.

Except in Hot Springs If your tax bill does not have a code with an M
(This means you have no structural fire protection)

<u>On lands that are outside the boundaries of the Rural Fire Protection Districts:</u>

The Confederated Salish & Kootenai Tribes, Forest Service or the MT Dept of Natural Resources often respond, and are trained and equipped to fight grass and wildland fires, but they are not trained to fight structural fires.

If conditions permit and they are not otherwise committed within their Rural Fire District or on a Mutual Aid response, the appropriate Rural Fire District *may* respond to a fire outside their District but, although rare, *may* leave a fire that is outside their Rural Fire district to respond to a fire that is within their Rural Fire District Area or to Mutual Aid commitments. Homeowners located outside the Rural Fire District may be billed for the costs incurred by the responding Rural Fire Company.

2. If you are in doubt about your rural fire protection situation, check with the Clerk and Recorders' Office in the Sanders County Courthouse. **DO NOT TAKE YOUR RURAL FIRE PROTECTION FOR GRANTED.**

(**Attachment B-7)**

IF YOU ARE NOT IN A RURAL FIRE DISTRICT AND WANT TO BE IN A RURAL FIRE DISTRICT:

Contact the Chief of your Rural Fire District. Then:

1. Prepare a request of intent for annexation into the local rural Fire District.
   (This is simply a letter stating your desire to be included within the appropriate Rural Fire District.)
2. Contact neighbors and adjacent landowners. Get names in writing and legal description of properties. They may wish to include in the proposed action.
3. Lands must be contiguous. (Lands must be adjacent and also adjacent to the Rural Fire District boundary).
4. Take this written request to the local District Rural Fire Chief.
5. He or she approves the request or identifies needed changes.
6. The Fire Chief then presents the request to the County Commissioners.
7. The County Commissioners act on the request.

Our Fire Districts are VOLUNTEER fire districts. The volunteer members of our rural fire districts are anxious to provide the maximum level of protection of life and property to residents within their respective Fire Districts. This unselfish purpose is the reason that they have volunteered to serve their community through your local Fire District.

We as landowners, residents and property owners owe them the safest and best opportunity to do their job at minimum risk to their lives and safety.

In working with the rural Fire Chief to have your property included in his/her fire district, they are thinking about your safety as well as that of your neighbors and of the members of his/her Rural Volunteer Fire Company. They have the best interests of our community at heart. Please work with them with understanding and cooperation. You'll be glad you did.

BE FIREWISE!

(Attachment B-8)
CODE FOR SCHOOL DISTRICTS

CODE SCHOOL DISTRICT

1 - City of Plains
1C – Plains City fire.
1MR - Plains, rural fire
1R - Plains , with no rural fire

2 - City of Thompson Falls
2C - Thompson Falls City fire.
2MR - Thompson Falls, rural fire.
2R - Thompson Falls, with no rural fire
2AM2 – White Pine / Thompson Falls rural fire
2AM6 - Whitepine / Trout Creek rural fire

3 – Town of Heron

6-2 – Trout Creek/Thompson Falls
6MR – Trout Creek, rural fire
6M10 – Trout Creek rural fire

8 – Town of Paradise
8M – Plains/Paradise rural fire

9 - Town of Dixon
9M – Dixon rural fire

10 – Town of Noxon
10M – Noxon rural fire

11 – Camas Prairie

14 – City of Hot Springs
14C – Hot Springs City fire
14R – Hot Springs Rural

(There are small portions of the county where county residents are in school districts outside the county **7J – Charlo Elem/Joint w/Lake County** & **8J – Arlee**). These areas have no structural fire protection.

(**Attachment B-9)**
NORTHWEST REGIONAL RC&D
HAZARDOUS FUEL REDUCTION PROGRAM

List of Hazardous Fuel Reduction Contractors/Forestry Consultants

A list of private forestry consultants and contractors will be kept and maintained with the Northwest Regional RC&D. This list will be made available to any landowner for work involving the reduction of fire risk through the treatment of hazardous fuels on their property. Northwest Regional RC&D does not endorse any one contractor over another on this list and this list is certainly not all-inclusive. There are probably other contractors who would do this kind of work that have not been contacted and have not been put on this list. Northwest Regional RC&D will strive to update this list several times annually in order to list new contractors and add names missed during previous updates.

It is each individual landowner's responsibility to select a contractor that will accomplish the work to their satisfaction and meet the grant program fuel treatment standards/requirements. It is recommended that landowners evaluate the past work of these contractors before deciding on a contractor and using them on their project. This can be done by asking for references and calling other landowners who have had work done by a specific contractor. It is also important to ensure that the contractor is licensed, bonded and provides for OWCP benefits for all employees if needed.

To help the contractors or cooperators be more effective, the RC&D will work to improve their fire qualifications through training and sign-up.

When implementing fuel reduction projects through grants, cooperators will normally work on a cost-share basis meaning they will be responsible for a percentage of the costs, either through cash or work-in kind.

(Attachment B-10)
Range of Costs per Acre of
HAZARDOUS FUEL TREATMENT PRACTICES

Fuel Management Practice	Range of Cost Per Acre	
	Low	High
Pre-commercial Thinning	$120	$300
Pruning	$50	$300
Lop and Scatter Slash	$35	$70
Handpiling	$200	$600
Dozer Piling	$50	$100
Handpiled or Dozer Piled Burning	$20	$100
Slash Pullback from Residential Trees	$35	$70
Chipping	$300	$550
Mulching	$200	$500
Prescribed Underburning	$50	$200
Fireline Construction	$20	$100
Holding and Mop-up	$15	$200

The difference between the low and high cost for each of these practices depends on many factors such as:

- Accessibility - The less accessible the area, generally the higher the cost
- Percent slope - The greater the average slope of the area the higher the cost
- Density of trees - Generally the greater the density of trees the higher the cost
- Amount of downed fuel - The greater amount of down fuel on forest floor the higher the cost
- Size of area to be treated - Generally the larger the area to be treated the less cost per acre
- Amount of cleanup -The more thorough cleanup that needs to be done the higher the cost
- Weather conditions - The dryer the weather conditions the higher the costs will be for burning because more protection measures will need to be used (i.e. pumps, engines, extra personnel, etc.)

(**Attachment B-11)**

DRAFT EXAMPLE

MUTUAL AID AGREEMENT

The Cooperative Fire Management Annual Operating Plan (AOP) is made and entered into by and between the Montana Department of Natural Resources - Northwest Land Office (DNRC), Sander's County Fire Districts (Dixon, Heron, Hotsprings, Noxon, Plains/Paradise, Thompson Falls, and Trout Creek), Hotsprings, Plains, and Thompson Falls City Volunteer Fire Departments, Kootenai National Forest, Lolo National Forest, and the Confederated Salish & Kootenai Tribes under the provisions of the Cooperative Fire Management Agreement executed March 31, 1998. The purpose of the AOP is to document the relationship and define the details of implementing the Cooperative Fire Management Agreement. The plan defines Structure Protection, Structure Suppression, Mutual Response Zone and the Mutual Aid Zone. The AOP is developed, updated and approved annually by May 1st . Billing is discussed in operating procedures. Fire notification, command, support actions, communication and equipment availability are discussed in Mutual Aid In Wildland Fire Protection. Fire protection – Wildland/Residential Interface issues, training and out of area mobilization are also addressed in the document. Copies of the AOP are maintained by each of the above listed parties.

The following exhibits are attached as part of the AOP:

- Protection Zone Map
- Forest Service Equipment
- Sanders County Inventory Guide
- Southwest Montana Zone Equipment Mobilization Board
- Principal Contacts

(Attachment B-12)
ACTIVITY MONITORING

A. Fire Prevention and Suppression Action Items			
	Who Takes the Lead	Timeframe Agreed To	Monitoring Notes
A-1. Communication between the Sanders County Association of Fire Fighters and County Commissioners			
A-2. Volunteer Fire Department needs			
A-3. Monitor and update County Pre-disaster Mitigation Plan			
A-4. Review and Revise the Mutual Aid Agreements.			
A-5. Initiate efforts to develop a Communication Plan for Sanders County			

B. Hazardous Fuel Treatment Action Items			
	Who Takes the Lead	Timeframe Agreed To	Monitoring Notes
B-1. Identify, Maintain, & Update High Risk/Hazard areas for Hazardous Fuel Treatment and revise as needed.			
B-2. Support Hazardous Fuel Treatment Projects Within the Interface.			
B-3. Coordinate hazardous fuel treatment projects between private landowners, state, and federal land managers.			
B-4. Update and encourage use of Fuel Treatment Guidelines for New Subdivisions in Sanders County.			
B-5. Mitigate the Slash Disposal Problem.			
B-6. Implement a year-end Reporting System to show accomplishments.			
B-7. Conduct Home Evaluations for FIREWISE construction techniques.			

C. Restoration of Fire-adapted Ecosystems Action Items			
	Who Takes the Lead	Timeframe Agreed To	Monitoring Notes
C-1. Insect and Disease Assessment (mapping) in the Valley.			
C-2. Develop post-wildland fire disaster mitigation guidelines for private landowners.			
C-3. Help landowners identify and know how noxious weeds affect the ecosystem.			
C-4. Work with private landowners on Hazardous Fuel Reduction projects to incorporate Best Mgmt Practices, Streamside Management Zone Guidelines as well as addressing Forest Health issues.			

D. Community Assistance Action Items			
	Who Takes the Lead	Timeframe Agreed To	Monitoring Notes
D-1. Maintain the Fire Plan website to disseminate information			
D-2. Expand awareness of need for hazardous fuels treatment programs and encourage engagement of landowners, especially in high-risk areas.			
D-3. Cooperatively Staff, Operate, and Maintain the “Living on the Edge” FIRE SMART Wagon with adjoining counties.			
D-4. Work with Realtors, Building Contractors, Insurance, and Landscaping Companies.			
D-5. Produce and disseminate information products such as newsletters and news articles on a regular basis.			
D-6. Continue to Produce, Improve, and Maintain curriculum for students..			
D-7. Engage Sander County Builders in homeowner’s awareness campaign..			
D-8. Communicate better about Fire Plan accomplishments.			
D-9. Continue support of Small Diameter Utilization and Biomass Utilization Opportunities.			

D-10. Monitor and Coordinate local Policies & Planning Efforts.			

APPENDIX C

Reference Materials

The following documents were used or referenced in the writing of this community fire plan. If you would like a copy of one or all of these documents please contact the Northwest Regional RC&D, 905 West 9th Street , Libby, MT, 59923, (406) 293-8885 and they will either be able to provide you with a copy or direct you to a website that has the information.

1. Fire Protection Guidelines for Wildland Residential Interface Development – Montana DNRC & Department of Justice Fire Prevention & Investigation

2. A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment – 10-Year Comprehensive Strategy

3. A Cohesive Strategy – To Protect People and Sustain Resources in Fire-Adapted Ecosystems

4. Healthy Forests – An Initiative for Wildfire Prevention and Stronger Communities

5. A Report to the President In Response to the Wildfires of 2000

6. Kootenai National Forest Fire Management Plan - Appendix K-11 to the Kootenai National Forest Plan (revised yearly).

7. Lolo National Forest Fire Management Plan - Appendix K-11 to the Lolo National Forest Plan (revised yearly).

8. Confederated Salish & Kootenai Tribes Fire Management Plan

7. Preparing a Community Wildfire Protection Plan – A Handbook for Wildland-Urban Interface Communities – March 2004

8. Healthy Forest Restoration Act – 2003

APPENDIX D

Maps

#1 - County Vicinity Map

#2 - Large Fire History

#3 - Fire Starts 1970 – 1999

#4 - Population Density & WUI Boundary

#5 – Structural Fire Protection Boundaries

#6 – Wildland Fire Protection Boundaries

#7 – Structural and Wildland Protection Boundaries

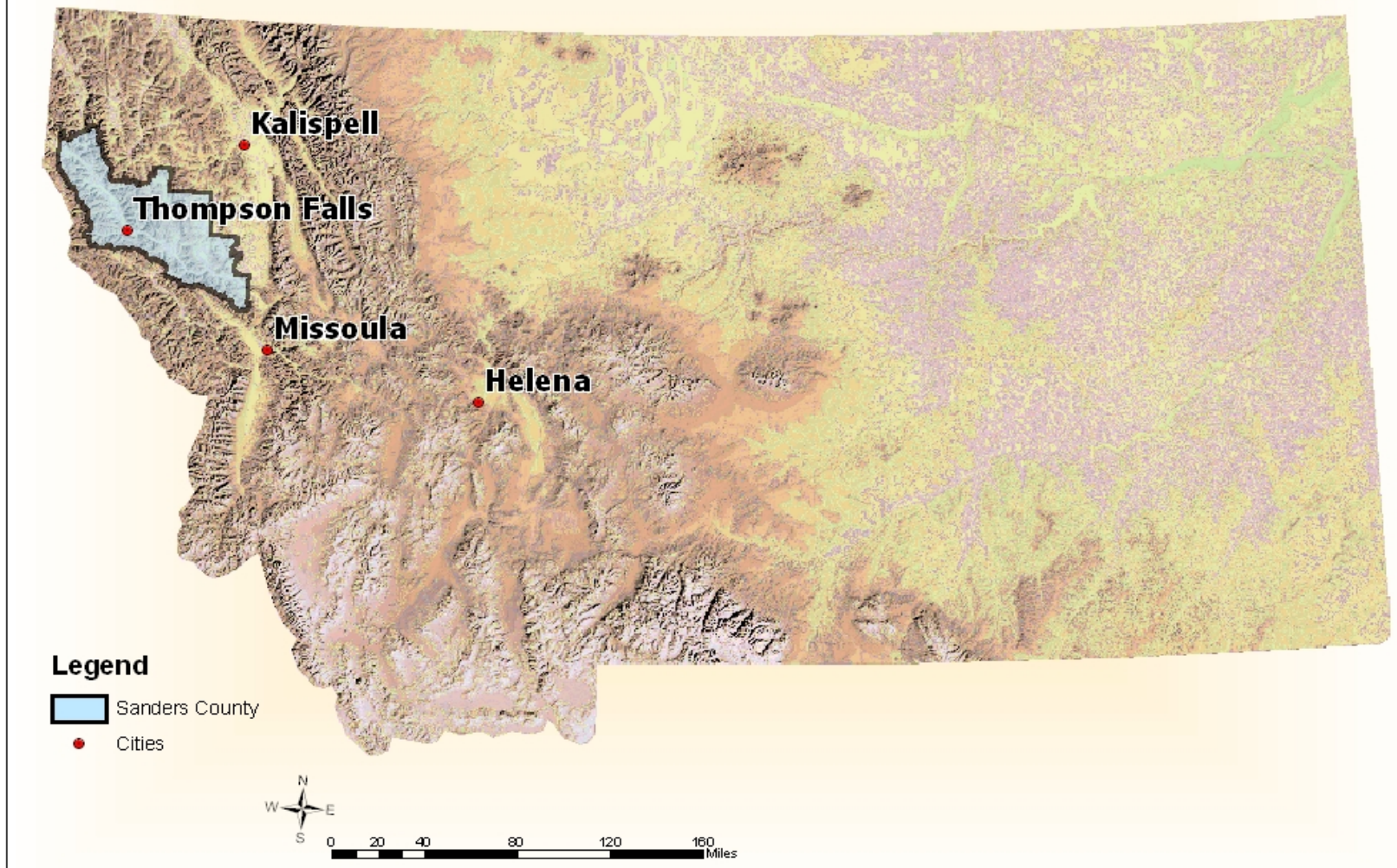
#8 – West Zone WUI's

#9 – Mid Zone WUI's

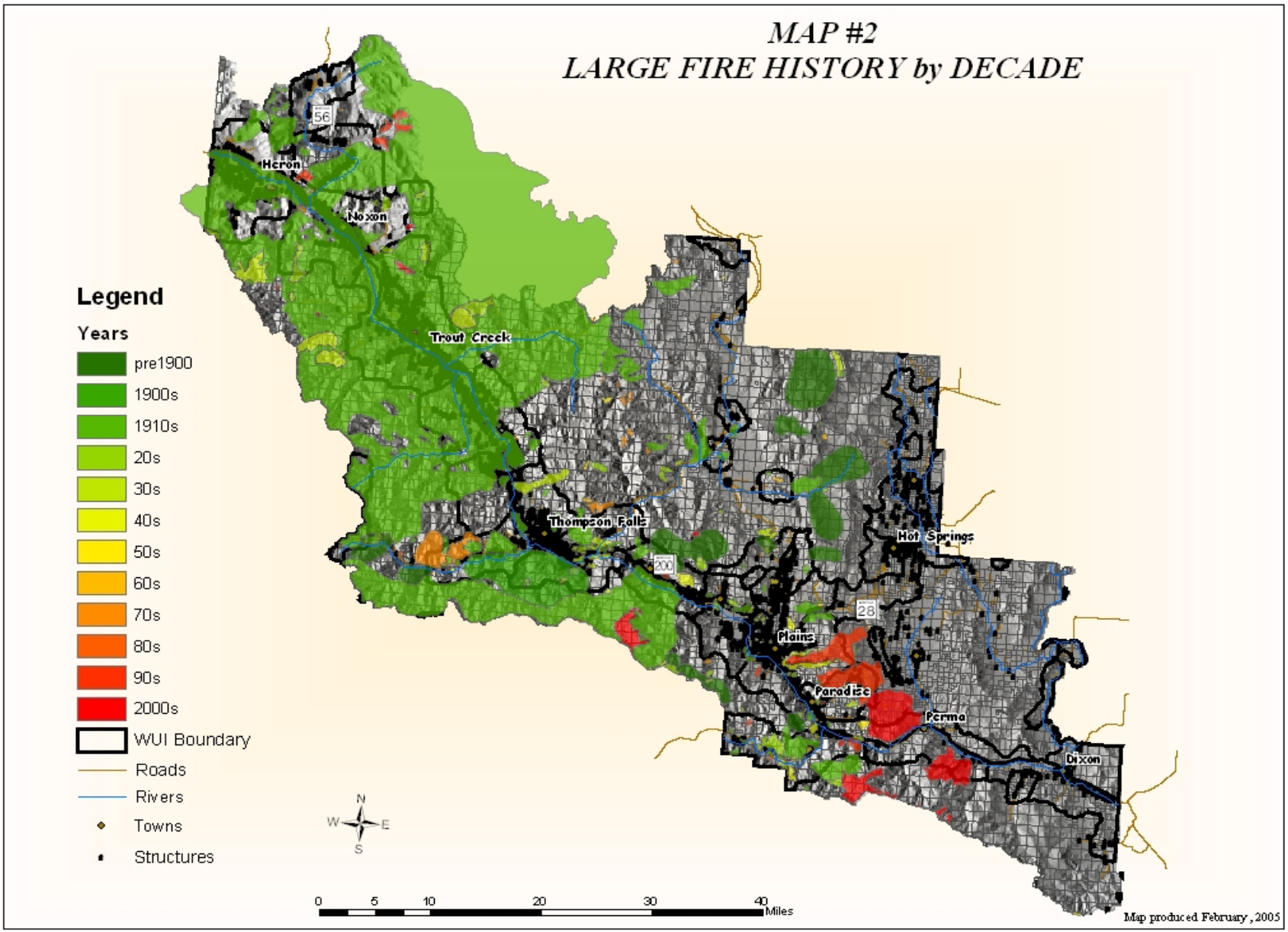
#10 – East Zone WUI's

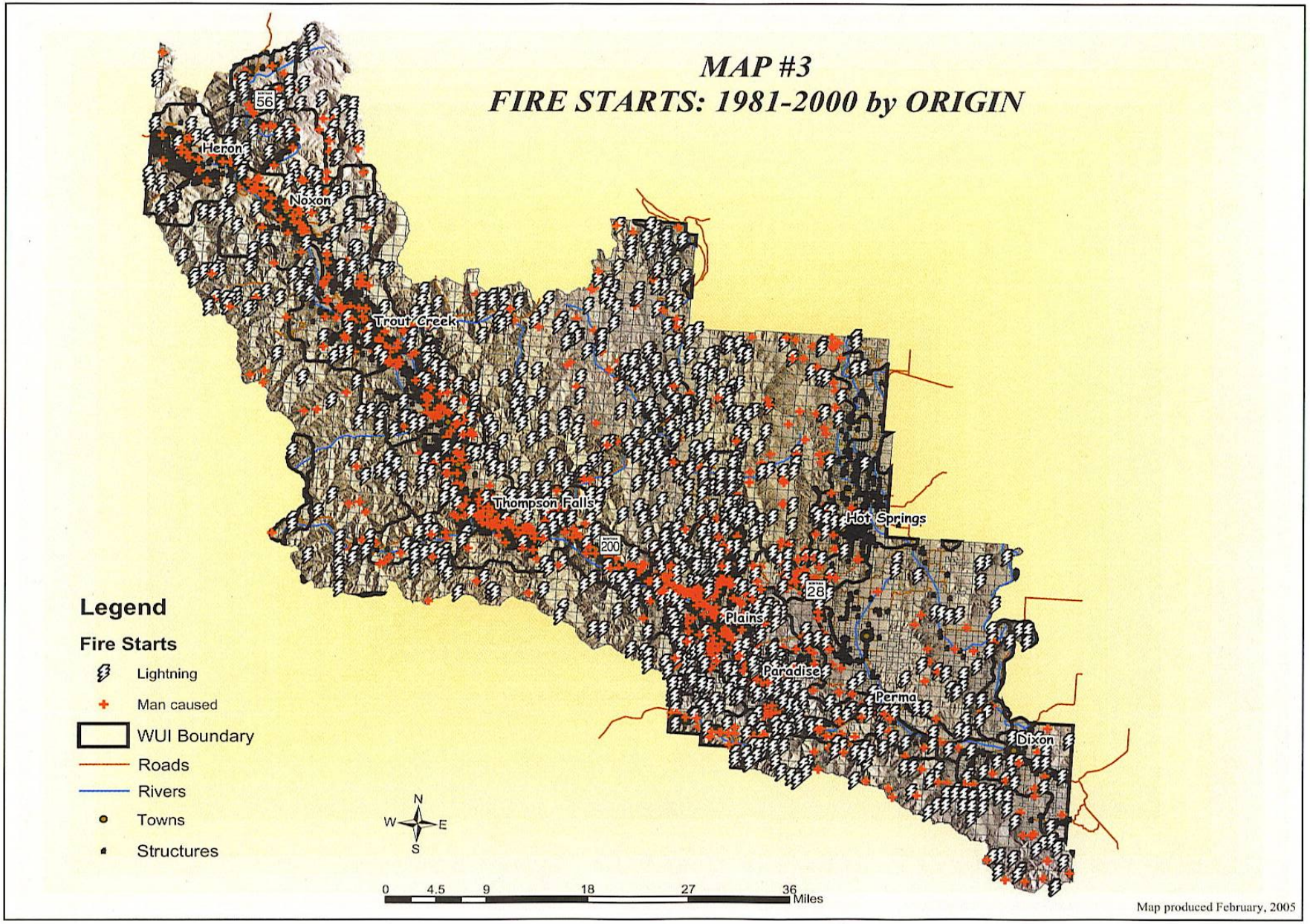
#11 – I & D Map

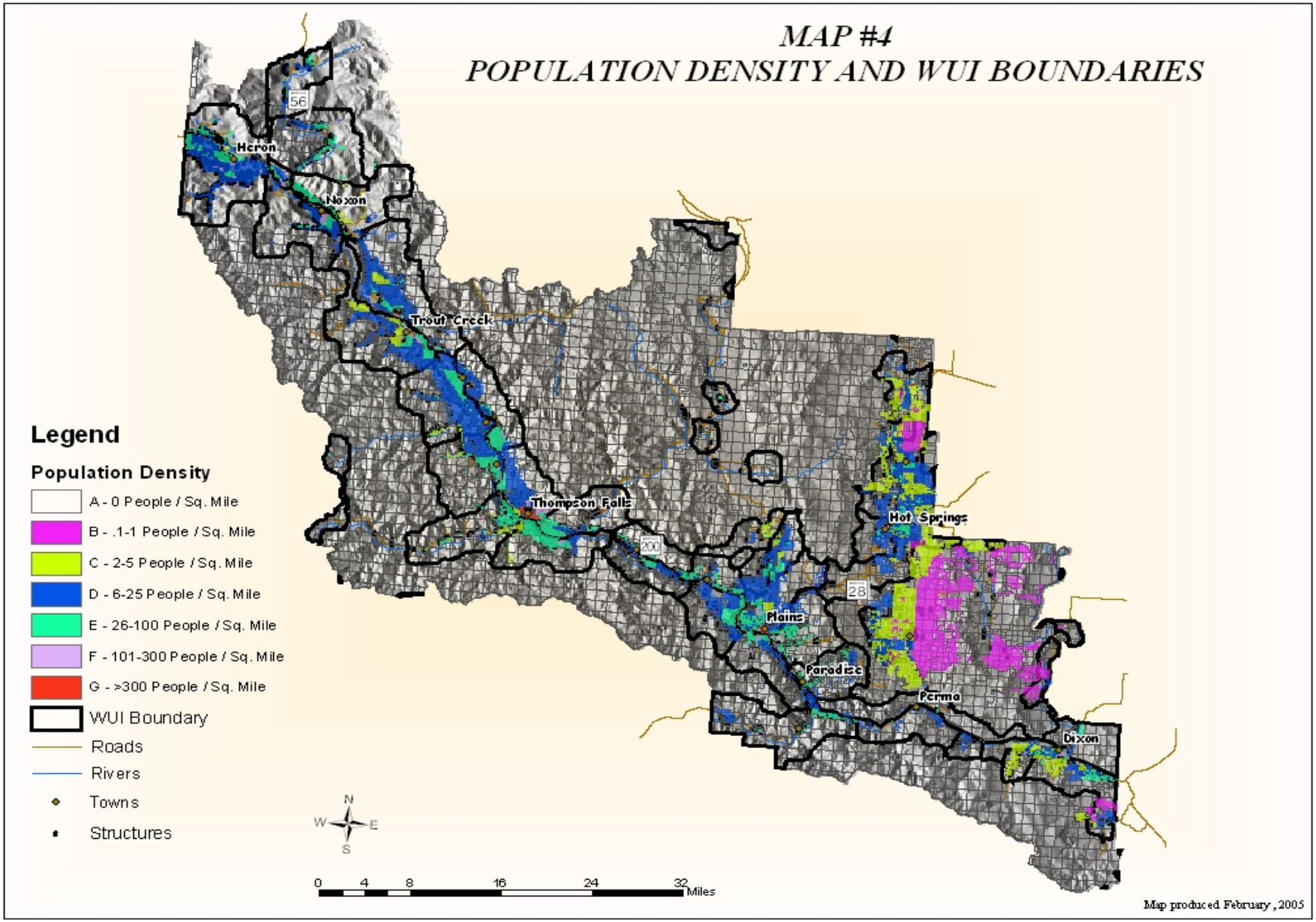
MAP #1
SANDERS COUNTY VICINITY

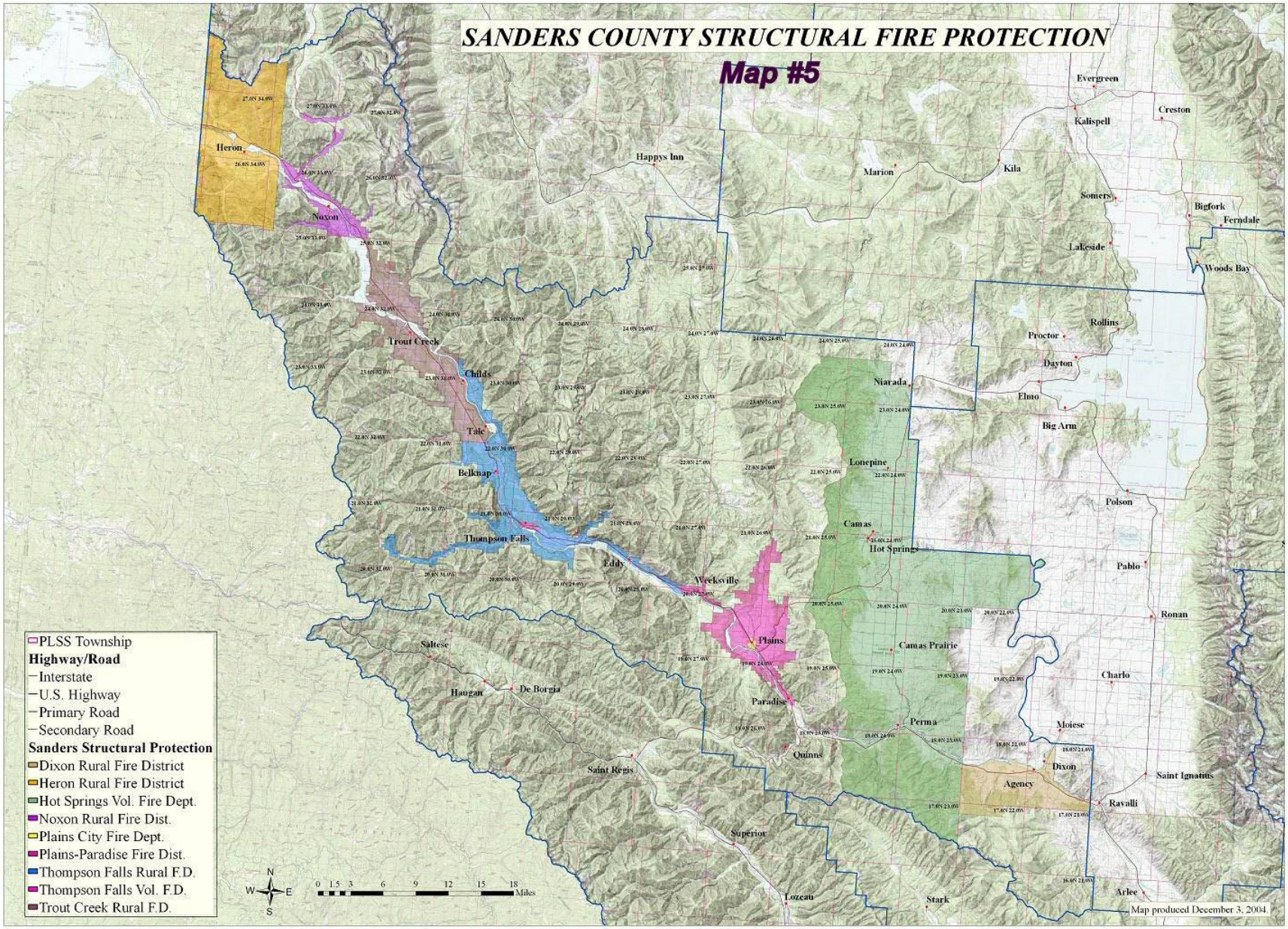


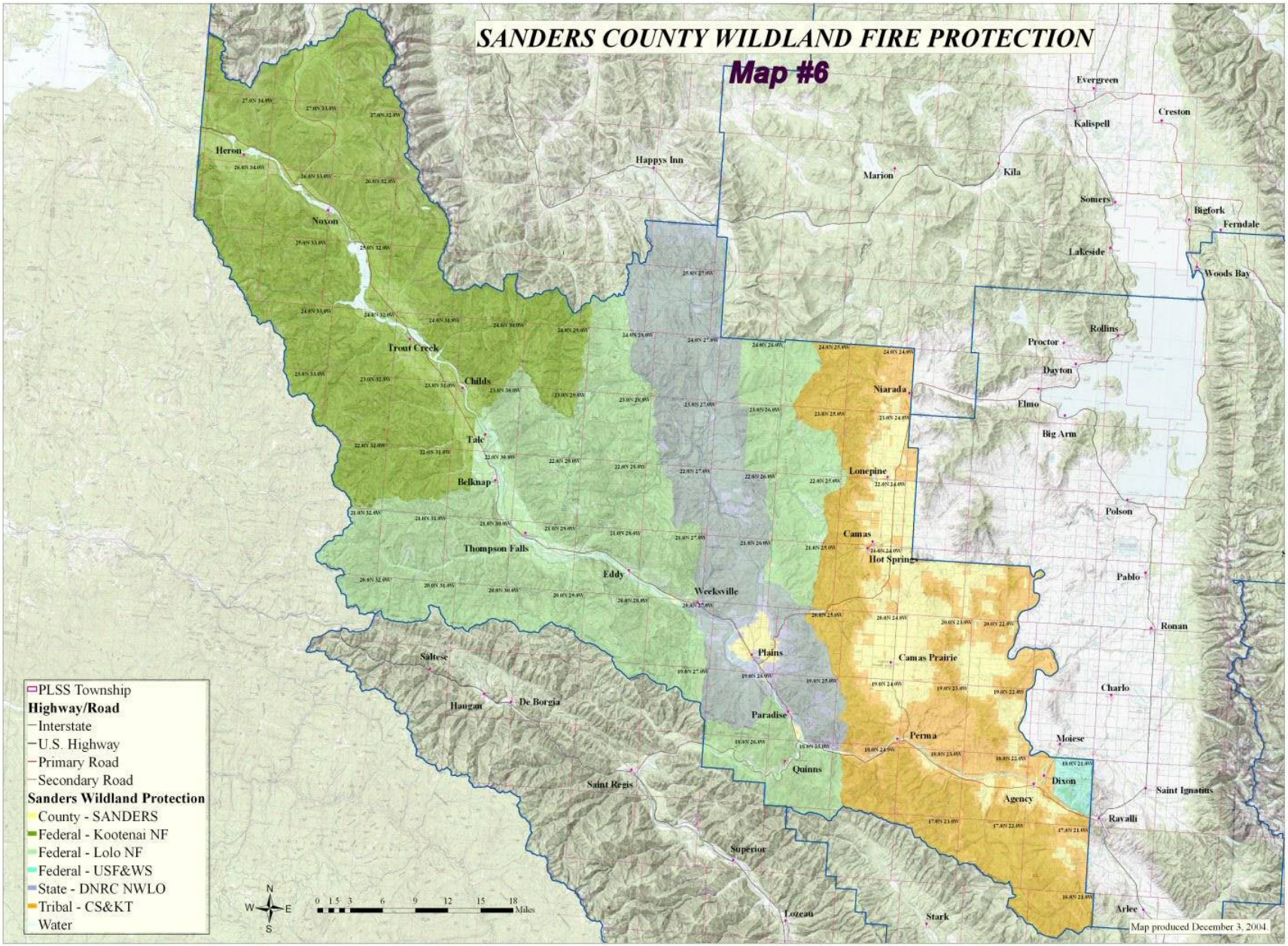
Map produced February, 2005

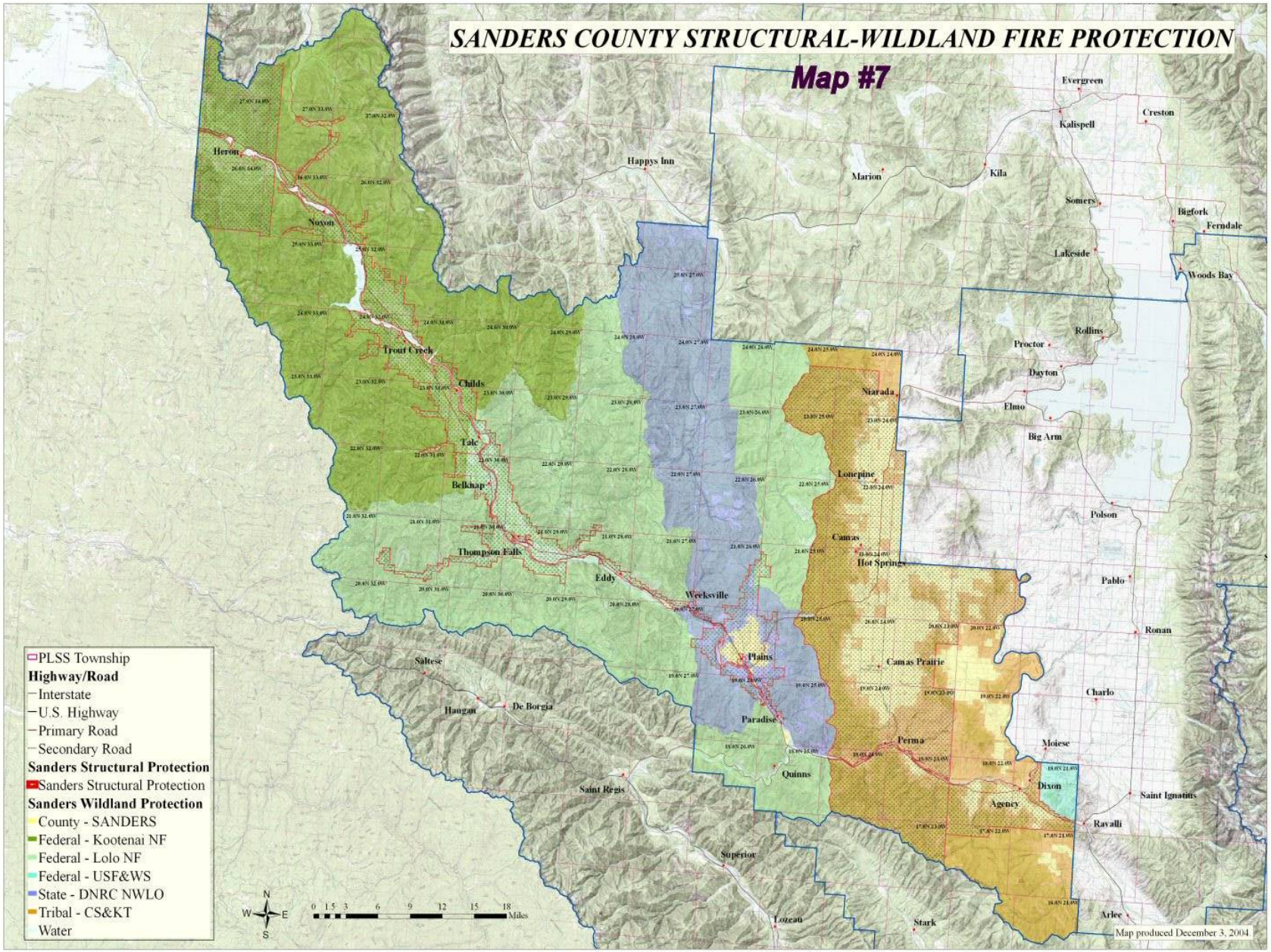

MAP #2
LARGE FIRE HISTORY by DECADE
Legend
Years
pre1900
1900s
1910s
20s
30s
40s
50s
60s
70s
80s
90s
2000s
WUI Boundary
Roads
Rivers
Towns
Structures
Heron
Noxon
Trout Creek
Thompson Falls
Hot Springs
Plains
Paradise
Perma
Dixon
56
200
28
N
W
E
S
0 5 10 20 30 40
Miles
Map produced February, 2005


MAP #3
FIRE STARTS: 1981-2000 by ORIGIN
Heron
Noxon
Trout Creek
Thompson Falls
Hot Springs
Plains
Paradise
Perma
Dixon
56
200
28
Legend
Fire Starts
Lightning
Man caused
WUI Boundary
Roads
Rivers
Towns
Structures
N
W
E
S
0
4.5
9
18
27
36
Miles
Map produced February, 2005

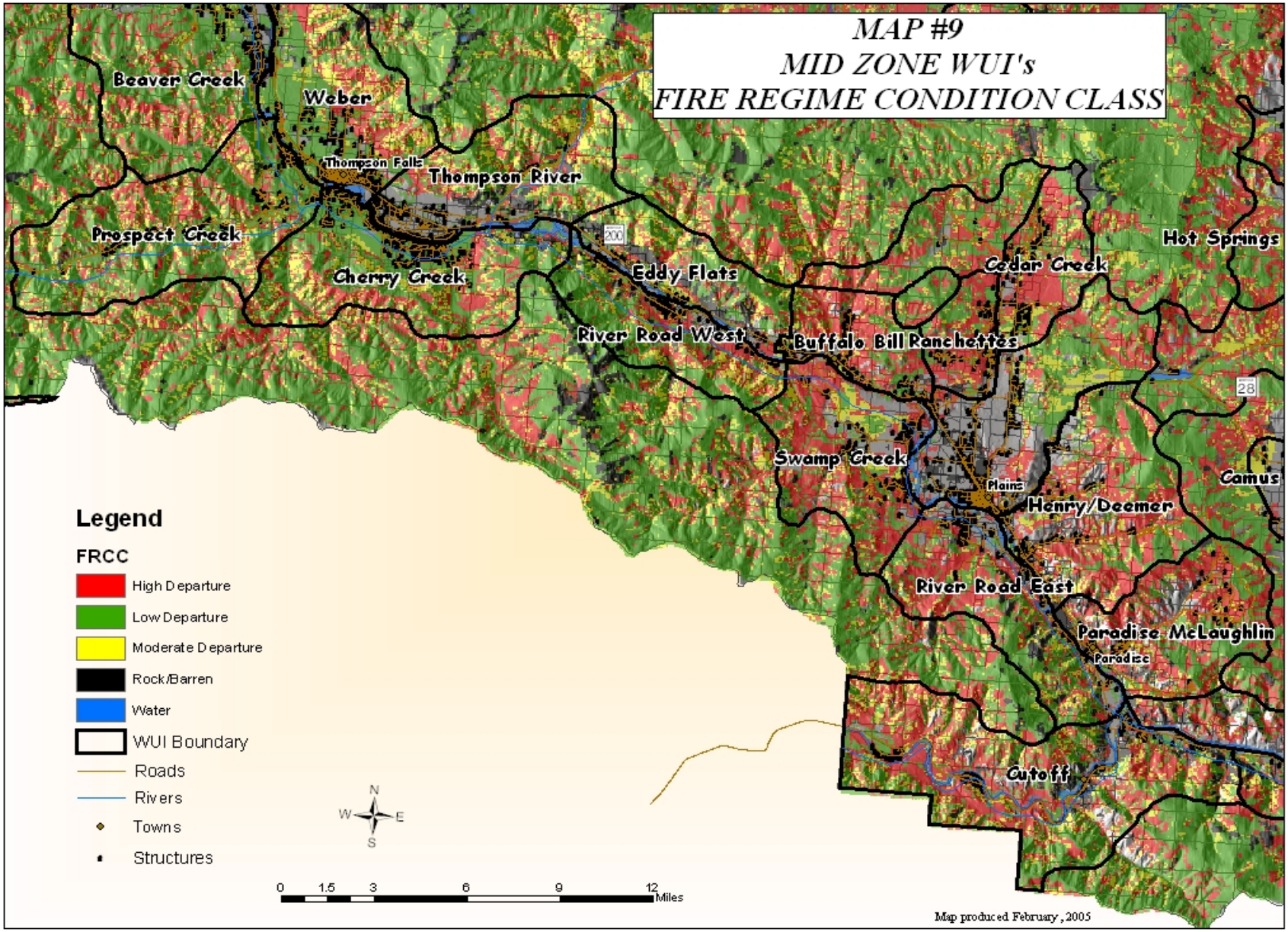

MAP #4
POPULATION DENSITY AND WUI BOUNDARIES
Heron
Noxon
Trout Creek
Thompson Falls
Hot Springs
Plains
Paradise
Perma
Dixon
56
200
28
Legend
Population Density
A - 0 People / Sq. Mile
B - .1-1 People / Sq. Mile
C - 2-5 People / Sq. Mile
D - 6-25 People / Sq. Mile
E - 26-100 People / Sq. Mile
F - 101-300 People / Sq. Mile
G - >300 People / Sq. Mile
WUI Boundary
Roads
Rivers
Towns
Structures
N
W
E
S
0 4 8 16 24 32
Miles
Map produced February , 2005

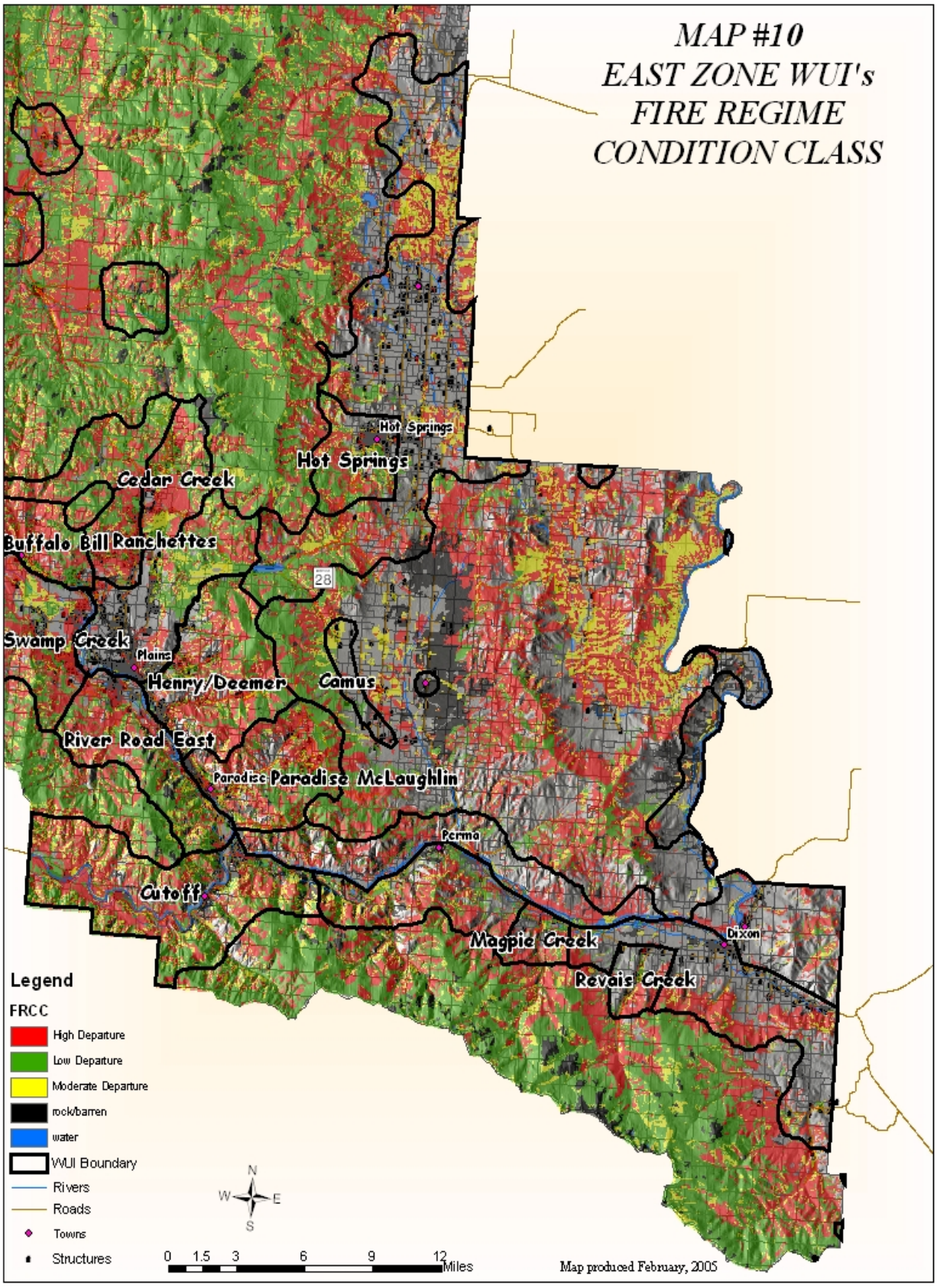

SANDERS COUNTY STRUCTURAL FIRE PROTECTION
Map #5
PLSS Township
Highway/Road
Interstate
U.S. Highway
Primary Road
Secondary Road
Sanders Structural Protection
Dixon Rural Fire District
Heron Rural Fire District
Hot Springs Vol. Fire Dept.
Noxon Rural Fire Dist.
Plains City Fire Dept.
Plains-Paradise Fire Dist.
Thompson Falls Rural F.D.
Thompson Falls Vol. F.D.
Trout Creek Rural F.D.
N
W
E
S
0 1.5 3 6 9 12 15 18 Miles
Heron
Noxon
Trout Creek
Childs
Tale
Belknap
Thompson Falls
Eddy
Weeksville
Plains
Paradise
Quinns
Saint Regis
Superior
Lozeau
Stark
Arlee
Ravalli
Saint Ignatius
Dixon
Agency
Perma
Moiese
Charlo
Ronan
Pablo
Polson
Hot Springs
Camas
Camas Prairie
Lonepine
Niarada
Elmo
Big Arm
Dayton
Proctor
Rollins
Woods Bay
Lakeside
Ferndale
Bigfork
Somers
Kila
Marion
Happys Inn
Kalispell
Creston
Evergreen
Haugan
De Borgia
Saltese
Map produced December 3, 2004.

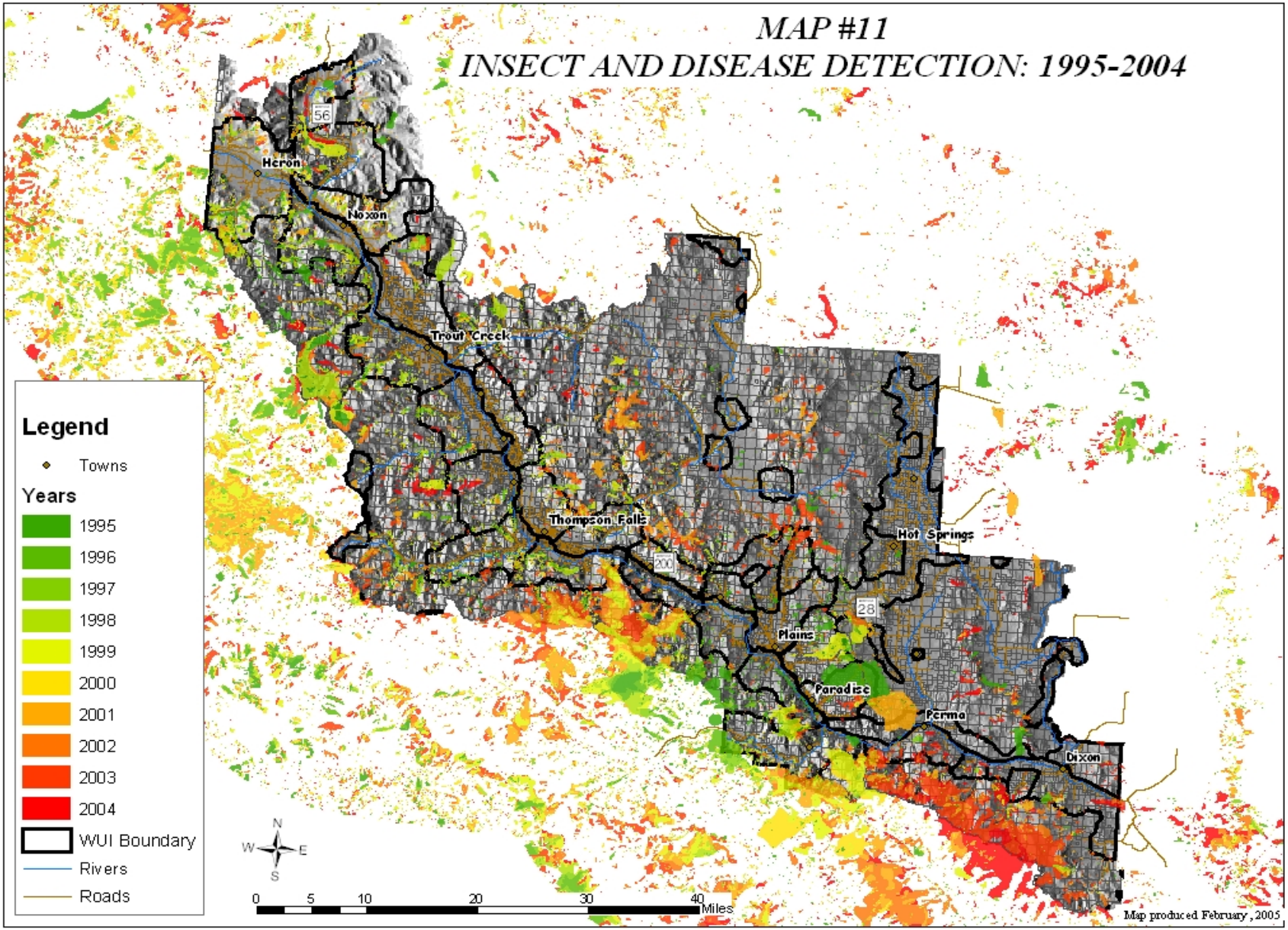

SANDERS COUNTY WILDLAND FIRE PROTECTION
Map #6
Evergreen
Kalispell
Creston
Heron
Happys Inn
Marion
Kila
Somers
Bigfork
Ferndale
Noxon
Lakeside
Woods Bay
Rollins
Proctor
Trout Creek
Dayton
Childs
Niarada
Elmo
Big Arm
Talc
Lonepine
Belknap
Polson
Camas
Thompson Falls
Hot Springs
Eddy
Pablo
Weeksville
Ronan
Plains
Camas Prairie
Saltese
Charlo
Haugan
De Borgia
Paradise
Perma
Moiese
Quinns
Dixon
Saint Regis
Agency
Saint Ignatius
Ravalli
Superior
Lozeau
Stark
Arlee
PLSS Township
Highway/Road
Interstate
U.S. Highway
Primary Road
Secondary Road
Sanders Wildland Protection
County - SANDERS
Federal - Kootenai NF
Federal - Lolo NF
Federal - USF&WS
State - DNRC NWLO
Tribal - CS&KT
Water
N
W
E
S
0 1.5 3 6 9 12 15 18
Miles
Map produced December 3, 2004


SANDERS COUNTY STRUCTURAL-WILDLAND FIRE PROTECTION
Map #7
Evergreen
Creston
Kalispell
Happys Inn
Marion
Kila
Somers
Bigfork
Ferndale
Heron
Noxon
Lakeside
Woods Bay
Rollins
Proctor
Dayton
Trout Creek
Childs
Niarada
Elmo
Big Arm
Talc
Lonepine
Belknap
Polson
Canas
Thompson Falls
Hot Springs
Eddy
Pablo
Wecksville
Ronan
Plains
Camas Prairie
Saltese
Charlo
Haugan
De Borgia
Paradise
Perma
Moiese
Quinns
Dixon
Saint Regis
Agency
Saint Ignatius
Ravalli
Superior
Lozeau
Stark
Arlee
PLSS Township
Highway/Road
Interstate
U.S. Highway
Primary Road
Secondary Road
Sanders Structural Protection
Sanders Structural Protection
Sanders Wildland Protection
County - SANDERS
Federal - Kootenai NF
Federal - Lolo NF
Federal - USF&WS
State - DNRC NWLO
Tribal - CS&KT
Water
N
W
E
S
0 1.5 3 6 9 12 15 18
Miles
Map produced December 3, 2004


MAP #8
WEST ZONE WUI's
FIRE REGIME
CONDITION CLASS
Bull River North
56
Bull River South
Heron
Heron Interface
Noxon North
Noxon
Noxon South
Trout Creek North
200
Trout Creek South
Trout Creek
White Pine
Blue Slide
Beaver Creek
Weber
Thompson Falls
Legend
FRCC
High Departure
Low Departure
Moderate Departure
rock/barren
water
WUI Boundary
Rivers
Roads
Towns
Structures
N
W
E
S
0 1.5 3 6 9 12 Miles
Map produced February, 2005


MAP #9
MID ZONE WUI's
FIRE REGIME CONDITION CLASS
Beaver Creek
Weber
Thompson Falls
Thompson River
Prospect Creek
Cherry Creek
Eddy Flats
River Road West
Buffalo Bill Ranchettes
Cedar Creek
Hot Springs
Swamp Creek
Plains
Henry/Deemer
Camus
River Road East
Paradise McLaughlin
Paradise
Cutoff
200
28
Legend
FRCC
High Departure
Low Departure
Moderate Departure
Rock/Barren
Water
WUI Boundary
Roads
Rivers
Towns
Structures
N
W
E
S
0 1.5 3 6 9 12
Miles
Map produced February, 2005


MAP #10
EAST ZONE WUI's
FIRE REGIME
CONDITION CLASS
Hot Springs
Hot Springs
Cedar Creek
Buffalo Bill Ranchettes
28
Swamp Creek
Plains
Henry/Deemer
Camus
River Road East
Paradise
Paradise McLaughlin
Perma
Cutoff
Magpie Creek
Dixon
Revais Creek
Legend
FRCC
High Departure
Low Departure
Moderate Departure
rock/barren
water
WUI Boundary
Rivers
Roads
Towns
Structures
N
W
E
S
0 1.5 3 6 9 12
Miles
Map produced February, 2005


MAP #11
INSECT AND DISEASE DETECTION: 1995-2004
Heron
Noxon
Trout Creek
Thompson Falls
Hot Springs
Plains
Paradise
Perma
Dixon
56
200
28
Legend
Towns
Years
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
WUI Boundary
Rivers
Roads
N
W
E
S
0 5 10 20 30 40
Miles
Map produced February, 2005