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BIA WILDFIRE PREVENTION
TECHNICAL GUIDE # 1
Version 1.2

BUREAU OF INDIAN AFFAIRS
WILDFIRE PREVENTION
RISK ASSESSMENT TECHNICAL GUIDE

OFFICE OF TRUST SERVICES
DIVISION OF FORESTRY AND WILDLAND FIRE MANAGEMENT
Branch of Wildland Fire Management

FOREWORD

This Bureau of Indian affairs (BIA) Wildfire Prevention Guide provides standards, background, and guidance, for Wildfire Prevention Planning and plans.

Human activity causes many wildfires on Indian Lands each year. Many of these fires are preventable with better education, engineering and enforcement actions. Planning an effective prevention program requires a thorough analysis of the risks, hazards and values to be protected.

The contents of this Guide are largely based on the BIA's RAMS Users Guide and the Wildfire Prevention Spatial Analysis and Planning Software (WPSAPS) User's Guide. The authors gratefully acknowledge these sources.

The intended users of this guide are any Tribal or BIA Agency personnel developing wildfire risk assessments for prevention planning.

This version of this guide supports WPSAPS Version 1.1.0.

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I. INTRODUCTION

This Guide is one in a series of Wildfire Prevention Guides that are designed to be used as a tool to enhance the delivery of the wildfire prevention program.

The information here provides guidance in developing effective wildfire risk assessments that are used in a BIA Wildfire Prevention Plan (WFPP). A good risk assessment will help steer the Agency/Tribal Prevention Program to address its highest risks and protect its most important values.

PURPOSE

Having an approved WFPP is a requirement for all BIA funded prevention programs in Indian Country. The BIA has a standard outline and format for WFPPs that has a proven track record. The standard outline requires risk assessments for communities, prevention units (PUs), fuels, and structural ignitability.

The purpose of this guide is to provide step by step instructions for developing a solid risk assessment for the WFPP.

WILDFIRE PREVENTION RISK ASSESSMENT STANDARDS

Standards are an effective way to communicate what is essential and important for any activity. Conducting a risk assessment is so vitally important to developing the WFPP, a solid foundation, expressed as standards, is necessary.

Standardized:

It is necessary to have standardized risk categories, standard definitions, and uniform parameters to use when conducting the assessment. Having standards prevents prevention planners from arriving at unrealistic results.

Realistic:

Risk assessments must be realistic. The ignition risks, fuels hazards and values to be protected should all be based on documented studies, research, and field surveys. The results of the assessment should reflect actual conditions.

Scientific:

Risk assessments must be based on the best available science. Datasets should be reviewed to ensure they are current and factual. Input received from informal sources should be verified.

Comprehensive:

The risk assessment must be comprehensive. It must cover a full analysis of the wildfire risks.

Collaborative:

The risk assessment must be developed collaboratively with the primary stakeholders. Typically, these are Natural Resources (Forestry and Range), Fire Management, the Tribe or Tribes (if an Agency program), and any interagency partners.

II. USING WPSAPS TO DEVELOP A BIA WFPP

The BIA has a standard outline for WFPPs. This outline is found in the Branch of Wildfire Management's (BWM) [Prevention Resource Library](https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library/bia-prevention-handbook) at:

<https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library/bia-prevention-handbook>.

Additionally, a standard template has been developed for WFPP's prepared after 2022, that covers the required elements of the planning process. This template produces a WFPP with no expiration date. It can be obtained by contacting a Regional WUI/Prevention Specialist.

The results of the WPSAPS Risk Assessment module can be used to complete the Situational Analysis portion of the WFPP. A step by step template the Situational Analysis is provided in the final chapter of this guide.

III. THE PLANNING MODEL

WFPPs from 2004 to 2019 were based in the Risk Analysis and Mitigation Strategies (RAMS) software. While adequate for developing those early WFPPs, RAMS had several issues. It was eventually unable to be updated to operate in the 64-bit operating systems.

The BIA and the US Forest Service jointly developed a new prevention planning model called Wildfire Prevention Spatial Analysis and Planning Strategies (WPSAPS). This software uses updated prevention effectiveness algorithms from research conducted by Karen L. Abt, David T. Butry, and Jeffrey P. Prestemon, and the National Wildfire Coordinating Group (NWCG) publication *Wildfire Prevention Strategies, PMS 451*.

NAVIGATION

When using WPSAPS, there are several features and definitions the user will need to understand.

WPSAPS uses **dropdown inputs** to enter standardized inputs into the database.

Dropdown inputs usually appear in a **dialog box**. Dialog boxes are also used to enter custom inputs such as names of communities and prevention units (PUs).

Management Unit (MU) is the term used for the overall area covered in a WFPP.

Prevention Unit (PU) is the term used for a smaller area within an MU. These were formerly called compartments.

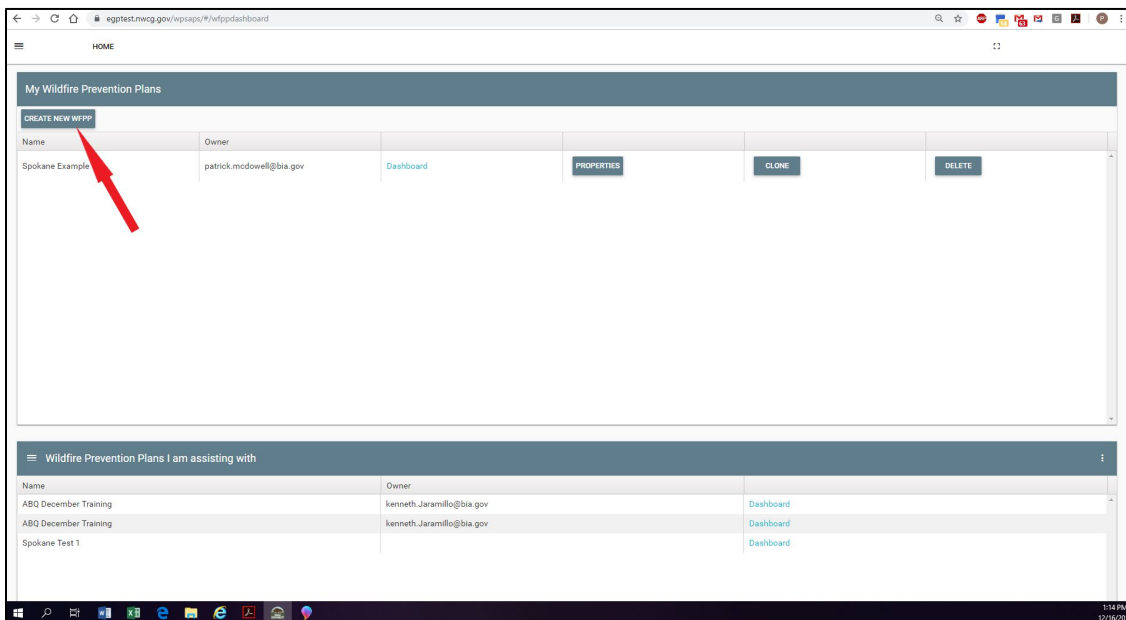
IV. RISK ASSESSMENT

The WPSAPS Risk Assessment module provides most of the outputs and maps required to complete the Situation Analysis.

STEP ONE: DEFINE THE MANAGEMENT UNIT

The first step in WPSAPS is to define the MU and PUs.

1. To get started, login in to WPSAPS. (**Note:** if a user needs to get access to the WPSAPS program, they should contact their WUI/Prevention Specialist).
2. Click on “CREATE NEW WFPP”, at the upper left of the “My Wildfire Prevention Plans” screen.



3. At the top of the “Create New WFPP” screen, select the Agency (BIA) the WFPP will be created for from the list.

The screenshot shows a mobile application interface for creating a new Wildfire Protection Plan (WFPP). At the top, there is a hamburger menu icon and the word 'HOME'. Below this is a dark blue header with the text 'Create New WFPP'. The main content area is a form with two input fields. The first field is labeled 'Agency' and contains the text 'BIA'. The second field is labeled 'WFPP Name' and contains the text 'Practice'. At the bottom left of the form, there is a dark blue button with the text 'CREATE NEW WFPP'. A red arrow points to this button.

4. Give the WFPP a name.
5. Click on “CREATE NEW WFPP”, at the lower left of the screen.
6. At this point the user is returned to the “Home” screen.

Collaboration

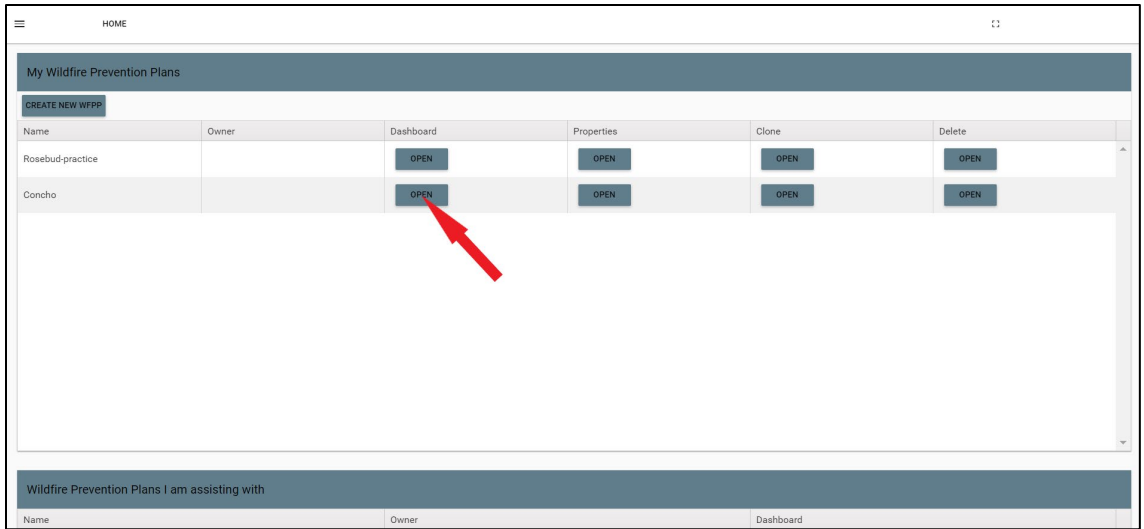
When developing prevention plans, there is significant value in collaborating with partners. This allows the planners to avoid duplicated efforts and confused or conflicting efforts.

Collaboration is a key feature in preparing Community Wildfire Protection Plans (CWPPs). It offers the user several advantages. Collaborating partners can help identify communities of interest to the planning process; help determine prevention unit boundaries; and help develop and implement a workload that most effectively addresses the fire prevention needs.

To add collaborators to the plan, click the OPEN button beneath PROPERTIES for the plan. Choose a collaborator in the collaborator’s dropdown or type in the e-mail address of the collaborator and click update. **Note:** The collaborator needs to have a current WPSAPS user profile.

The Dashboard

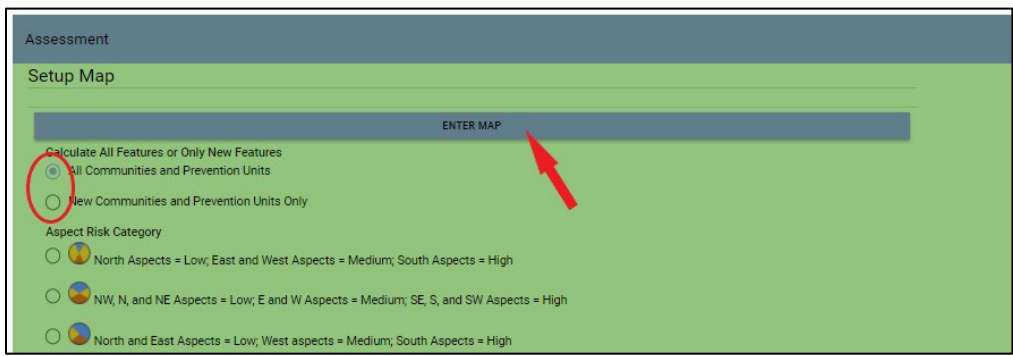
1. Click on “OPEN” beneath “Dashboard” for the newly created WFPP to begin the planning process.



- Clicking on OPEN for the WFPP brings up the “Dashboard” screen. The “Dashboard” screen displays the modules in WPSAPS. The module names are across the top, left to right. They are: “Assessment”, “Prevention Actions”, “Planning”, “Accomplishments”, “Planning Map”, and “Reports”. There are icons above each.

The dashboard is designed to be completed in a workflow. The user first creates the assessment. Second, the prevention actions are defined. The user then enters the planning section to schedule the prevention actions throughout the year. Finally, the accomplishments section allows the user to document when and which prevention actions were performed. There are two other sections of the dashboard that are not tied to the workflow: the planning map and reports. The planning map becomes active when the assessment is complete. It can be used as reference for identifying prevention actions and planning. It also allows the user to print maps in PDF format. The reports section allows the user to print reports for the WFPP.

- Click on the icon above “Assessment”.
- From the “Assessment” screen, below “Setup Map”, click on “ENTER MAP”.



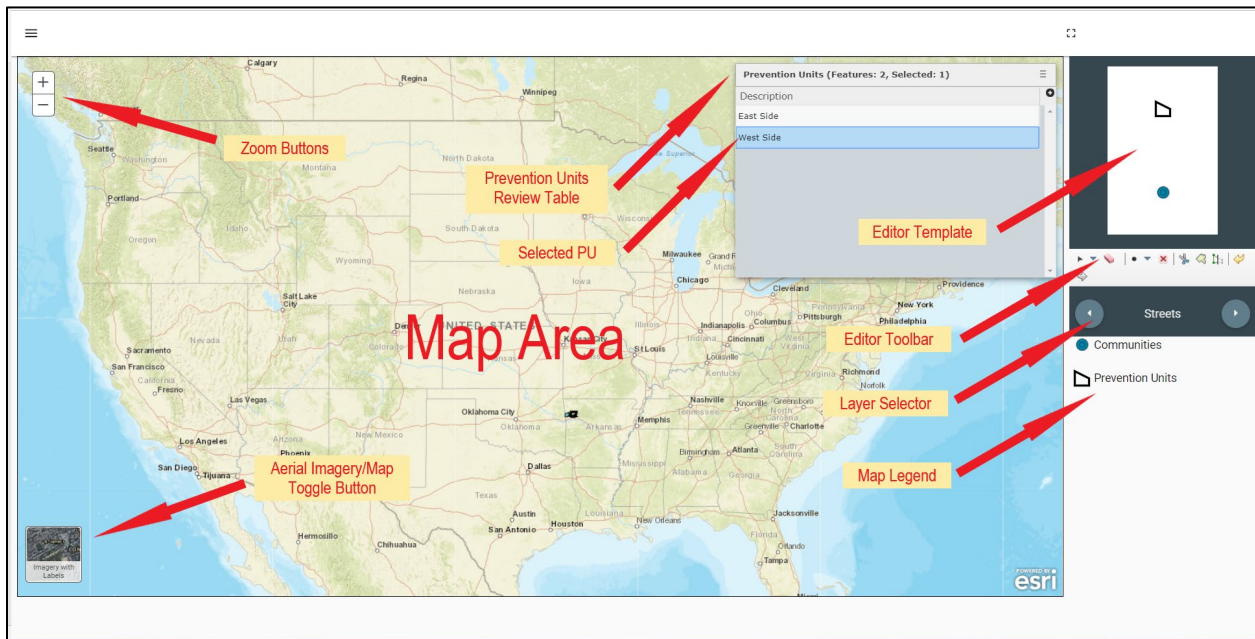
This will open the Setup Map.

Note the buttons immediately beneath the “ENTER MAP” bar. The default is for “All Communities and Prevention Units”. This allows the user to create all new entries in the risk assessment. The second button, “New Communities and Prevention Units Only” is useful when editing a previously started risk assessment. It will save the attributes previously entered so the user does not have to re-enter the entire risk assessment.

- 5. Zoom in to the general area for the MU.

Setup Map Features

The “Assessment Setup Map” screen has several features and areas. The map contains three major sections: the map area, editor template, and legend. The map area is an interactive map. The user can pan the map by clicking, holding the click down, and dragging the map. The user can zoom in on the map with the mouse wheel, or the plus and minus buttons on the map. The map background can be switched to aerial imagery by clicking the Aerial Imagery Map Toggle Button. The map has areas and features with unique names that will be used throughout this Guide. Refer to the image and definitions below, if a term seems unclear.

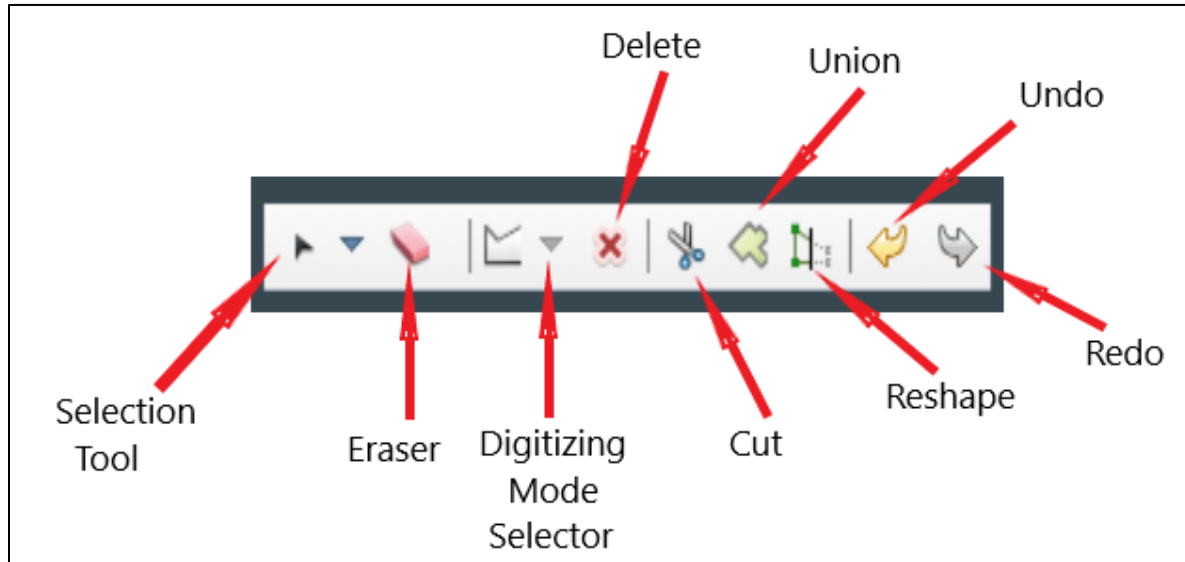


Prevention Unit Review Table:

This box in the upper right-hand corner of the Assessment Setup Map shows the prevention units that have been created. It is useful for identifying accidentally created units, when digitizing. The accidental PU appears as a blank line in the Prevention Unit Review Table’s list and can be selected and deleted. To delete the unit, select it and click on the red “X” in the Editor Toolbar.

Editor Toolbar:

The Editor Toolbar is a feature in WPSAPS that allows the user to perform various tasks on the Assessment Map. Not all tools are active in both the Prevention Units and Communities. The icons are not intuitive and require some explanation.



Selection Tool: This tool allows the user to select PUs. It has a drop-down menu to select choices from. The choices are “New Selection”, “Add to Selection”, and “Subtract from Selection”. To activate the “Add to Selection”, and “Subtract from Selection”, choose one, and place the mouse pointer in the PU to add or subtract. Click and hold the mouse button down and move the pointer to draw a rectangle that includes the PUs to be added or subtracted. This can also be done in the “Prevention Unit Review Table” by using the Shift and Ctrl keys to add and subtract PUs.

Eraser: This tool unselects any features that are currently selected.

Digitizing Mode Selector: This tool allows the user to select the digitizing mode. There is a drop-down menu with two choices for PUs and one for Communities. When Prevention Unit is selected from the Editor Template, the choices are: “Polygon” and “Auto Complete”. Polygon is the default digitizing mode. Auto complete allows the user to seamlessly join two PUs. Instructions for how to use it are provided later. Communities has only one mode, “Point”.

Delete: This tool does what it says. It allows the user to delete a selection, PU or Community.

Cut: The Cut tool allows the user to divide an MU or PU into two smaller PUs. After selecting the tool, the user sets a point outside the MU or PU to be divided. Then the mouse pointer is used to digitize the new boundary through the MU or PU and exit outside of it. Double clicking outside the unit divides it into two.

Union: The Union tool joins two PUs into a single PU. To use the tool, select two or more PUs, using the Prevention Unit Review Table. Multiple units can be selected by holding down the “Ctrl” key on the keyboard and then clicking the PU names from the list of PUs in the Prevention Unit Review Table. Then click on the “Union” tool from the Editor Toolbar and the selected PUs will be merged. **Note:** The PUs do not have to be adjacent to each other to be merged.

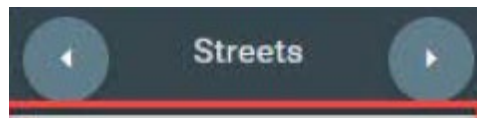
Reshape: The Reshape tool allows you to “prune off parts of the MU or PU. It always prunes clockwise from the starting point. If a line is drawn, using the tool, across the PU, from north to south; everything in the PU to the east of the line is deleted. If a line is drawn, using the tool, across the PU, from east to west; everything in the PU to the south of the line is deleted.

Undo: This tool does just what it says. It undoes the last action. It has a limit of up to 10 actions it can undo.

Redo: This tool does just what it says it does. It redoes the last action. It has a limit of up to 10 actions it can redo. It only works on the undone actions.

Layer Selector

WPSAPS maps have multiple layers that may be viewed. To change the layers, use the left and right arrows in the “Layer Selector”. Note that the name of the active map layer appears between the arrows. Streets is a default background layer present in all of the map layers.



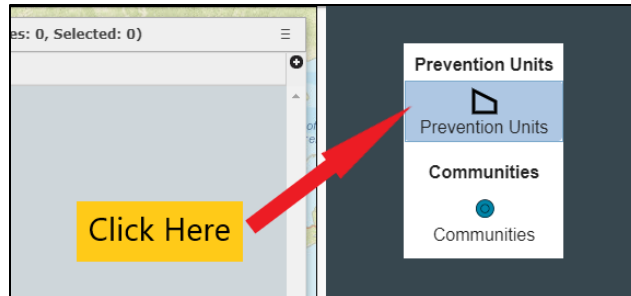
Layer Legend

The layer legend identifies the unique or highlighted elements present in the selected layer. It changes with the layers. Most layer legends are fixed. Some of those dealing with fire occurrence have selectable features for the year and cause.

Digitizing the MU

The MU will usually be formed by an administrative boundary. It may be a Reservation, Tribal Jurisdictional Area, or an Agency jurisdiction.

1. On the layer selector use the small “left and right arrows” to explore the different layers in the map. These different layers can be used to assist you in deciding on PUs and digitizing PU boundaries. The layers are defined in [WPSAPS Map Layers](#).
2. **Zoom in on the MU.**
3. In the editor template **click the polygon icon** labeled “Prevention Units”.



4. Move the cursor back over to the map. The mouse icon will now be in digitizing mode. Locate a corner of the MU. **Hint:** the reservation boundary will be more visible by selecting the “Land Ownership” layer from the Layer Selector.
5. Single click a corner of the MU on the map. Follow along the reservation boundaries and click the map to create points of the polygon. It’s only necessary to click a point when the line changes direction; however, for very long lines, it may be worthwhile to click intermediate locations. Click and hold the map to pan it as you are digitizing, if needed. **Hint:** take care to actually enter polygon points. Moving the mouse and clicking too quickly can result in simply panning the map and not entering in a point.
6. When the polygon is complete, double click the last point of the polygon. This will finalize and create the MU. At this point the MU does not need to be named in the dialog box provided.
7. Click in an open area of the map to unselect the polygon.

Determining the Criteria for the PUs

At this point the user has a choice. WPSAPS provides fifteen map layers to help the user determine the best way to create PUs. The PUs can be based on fire causes, fuels, values to be protected or terrain. Users are encouraged to seriously consider using the fire causes as the basis for their PUs. As a last resort, when no other option makes sense, a user might consider basing PU’s on administrative or geo-political boundaries.

They should be reviewed prior to deciding how to divide the MU. This may require some thought and consultation with others. When creating the PUs, also consider how the prevention personnel will be able to recognize their boundaries using ground level features.

WPSAPS Map Layers

WPSAPS provides several map layers to help the user decide how to best divide the MU into PUs.

Streets

This map is a base layer that shows streets, roads, and highways. It also shows features such as communities, railroads, rivers, streams and lakes. It also shows federal ownerships, terrain and other PUs.

Landownership

This map is basically the Streets layer with the federal ownerships colorized for easier identification.

Fire Regime

This map displays the Fire Regimes layer over the Streets layer. It uses LANDFIRE data to display the five nationally recognized fire regimes. Water features stand out very clearly on this map. The Fire Regimes are described below.

Fire Regime I: Historically, fires returned at a 35 year or less interval, with low to mixed severity (non-stand replacing).

Fire Regime II: Historically, fires returned at a 35 year or less interval, with high severity (stand replacing).

Fire Regime III: Historically, fires returned at a 35 to 200-year interval, with low to mixed severity (non-stand replacing).

Fire Regime IV: Historically, fires returned at a 35 to 200-year interval, with high severity (stand replacing).

Fire Regime V: Historically, fires returned at greater than a 200-year interval, with any severity (non-stand and stand replacing).

Fuel Type

This map shows the Fuel Types layer over the Streets layer. It uses LANDFIRE data to show the fuels in the 13 Anderson Fire Behavior Fuel Models. The 13 fuel models shown are:

FBFM1: Commonly referred to as “Short Grass”. Surface fires that burn fine herbaceous fuels, cured and curing fuels, little shrub or timber present, primarily grasslands and savanna.

FBFM2: Commonly referred to as “Timber (grass and understory)” or “Grass With Timber/Brush Overstory”. Burns fine, herbaceous fuels; stand is curing or dead; may produce fire brands on oak or pine stands.

FBFM3: Commonly referred to as “Tall Grass”. Most intense fire of grass group, spreads quickly with wind, one third of stand dead or cured, stands average 3 ft. tall.

FBFM4: Commonly referred to as “Chaparral (6 feet)” or “Mature Brush”. Fast spreading fire, continuous overstory, flammable foliage and dead woody material, deep litter layer can inhibit suppression.

FBFM5: Commonly referred to as “Brush (2 feet)” or “Young Brush”. Low intensity fires, young, green shrubs with little dead material, fuels consist of litter from understory.

FBFM6: Commonly referred to as “Dormant Brush, Hardwood Slash” or “Intermediate Brush”. Broad range of shrubs, fire requires moderate winds to maintain flame at shrub height, or will drop to the ground with low winds.

FBFM7: Commonly referred to as “Southern Rough”. Foliage highly flammable, allowing fire to reach shrub strata levels, shrubs generally 2 to 6 feet high.

FBFM8: Commonly referred to as “Closed Timber Litter”. Slow burning surface fires, closed canopy stands with short needle conifers or hardwoods, litter consists mainly of needles and leaves, with little undergrowth, occasional flares with concentrated fuels.

FBFM9: Commonly referred to as “Hardwood Litter” or “Hardwood or Long Needle Pine Timber Litter”. Longer flames, quicker surface fires, closed canopy stands of long-needles or hardwoods, rolling leaves in fall can cause spotting, dead-down material can cause occasional crowning.

FBFM10: Commonly referred to as “Timber (litter and understory)” or “Mature/Overmature Timber and Understory”. Surface and ground fire more intense, dead-down fuels more abundant, frequent crowning and spotting causing fire control to be more difficult.

FBFM11: Commonly referred to as “Light Logging Slash” or “Light Slash”. Fairly active fire, fuels consist of slash and herbaceous materials, slash originates from light partial cuts or thinning projects, fire is limited by spacing of fuel load and shade from overstory.

FBFM12: Commonly referred to as “Medium Logging Slash” or “Medium Slash”. Rapid spreading and high intensity fires, dominated by slash resulting from heavy thinning projects and clearcuts, slash is mostly 3 inches or less.

FBFM13: Commonly referred to as “Heavy Logging Slash” or “Heavy Slash”. Fire spreads quickly through smaller material and intensity builds slowly as large material ignites, continuous layer of slash larger than 3 inches in diameter predominates, resulting from clearcuts and heavy partial cuts, active flames sustained for long periods of time, fire is susceptible to spotting and weather conditions.

Wildfire Hazard Potential

The Wildfire Hazard Potential (WHP) map depicts the relative potential for wildfire that would be difficult for suppression resources to contain. Areas mapped with higher WHP values

represent fuels with a higher probability of experiencing torching, crowning, and other forms of extreme fire behavior under conducive weather conditions, based primarily on landscape conditions at the end of 2012. It was produced by the USDA Forest Service, Fire Modeling Institute to help inform evaluations of wildfire risk or prioritization of fuels management needs across very large landscapes (millions of acres). WHP is also not a forecast or wildfire outlook for any particular season, as it does not include any information on current or forecasted weather or fuel moisture conditions.

Fire Occurrence

The Fire Occurrence map provides a generalized depiction of number of wildfires over time using the Karen Short dataset. USDA Forest Service Research Ecologist Karen Short acquired, standardized, error-checked, compiled, and evaluated the completeness of wildfire records for the period 1992-2011 from federal, state, and local wildfire reporting systems for this dataset. It is updated annually but is always two years behind the current year to allow for data checking and management. **Note:** This dataset is heavily reliant on federal, tribal, and state sources. It does not contain much data on areas where rural fire departments are the primary wildfire suppression forces. Areas noticeably underrepresented are in the Great Plains and Midwest.

Fire Density

This map is a WPSAPS derived product that shows the number of acres burned per unit area. It shows the relative frequency of wildfire in an area. It is based on the Karen Short dataset and is subject to the same limitations described above.

Human Caused Fires

This map, based on the Karen Short dataset, is an actual depiction of the human caused fires, by cause. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. **Note:** The causes go beyond the eight standard human fire cause categories. It is also subject to the same data limitations as the Fire Occurrence map.

Human Caused Fire Size

This map, based on the Karen Short dataset, is a depiction of the size class of human caused fires. It uses the standard fire size classes recommended by the National Wildfire Coordinating Group (NWCG). The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the Map Layer Switcher. The Cause selection allows the user to view the size class of fires for a particular cause category. **Note:** The causes go beyond the eight standard human fire cause categories. It is also subject to the same data limitations as the Fire Occurrence map.

NWCG Size Classes:

Class A - one-fourth acre or less;

Class B - more than one-fourth acre, but less than 10 acres;

Class C - 10 acres or more, but less than 100 acres;

Class D - 100 acres or more, but less than 300 acres;

Class E - 300 acres or more, but less than 1,000 acres;

Class F - 1,000 acres or more, but less than 5,000 acres;

Class G - 5,000 acres or more.

Lightning Caused Fires

This map, based on the Karen Short dataset, is an actual depiction of the lightning caused wildfire occurrence. It is not customizable. It is also subject to the same data limitations as the Fire Occurrence map.

Wildland Urban Interface

The Wildland Urban Interface (WUI) map shows both wildland urban interface and intermix as a single WUI layer. It is based on the University of Wisconsin's SILVIS dataset. The SILVIS dataset shows the WUI and Intermix WUI separately. Intermix WUI are areas where housing and vegetation intermingle; interface WUI are areas with housing in the vicinity of contiguous wildland vegetation. The [SILVIS](http://silvis.forest.wisc.edu/data/wui-change/) data set can be viewed online at: <http://silvis.forest.wisc.edu/data/wui-change/>.

WUI and Human Caused Fire

This map combines the Human Caused Fires layer with the Wildland Urban Interface Layer. The Human Caused Fires layer is based on the Karen Short dataset. It is an actual depiction of the human caused fires, by cause. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. **Note:** The causes go beyond the eight standard human fire cause categories. It is also subject to the same data limitations as the Fire Occurrence map.

WUI and Wildfire Hazard Potential

This map combines the Wildland Urban Interface layer with the Wildfire Hazard Potential layer. It shows the potential for wildfires beyond the capability of local suppression forces in relationship to where people live.

WHP and Human Caused Fire

This map combines the Wildfire Hazard Potential layer with the Human Caused Fire layer. It shows fire history in relationship to an areas potential to have a wildfire that is beyond the suppression capability of local resources. The Human Caused Fires layer is based on the Karen Short dataset. It is an actual depiction of the human caused fires, by cause. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. **Note:** The causes go beyond the eight

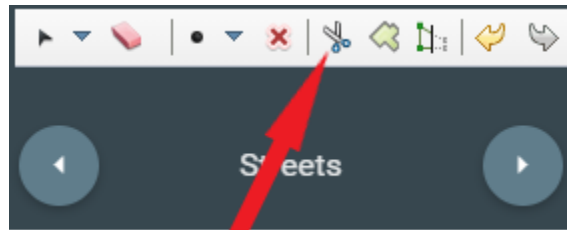
standard human fire cause categories. It is also subject to the same data limitations as the Fire Occurrence map.

Other Prevention Units

This map layer shows where other Management Units have been created. It does not identify who owns the map or created the unit. However, with local knowledge, the user should be able to determine the owner. It is useful for identifying potential partners and collaborators.

Digitizing the Prevention Units

1. To create the PUs, the Cut tool is used. This allows the user to split the existing MU into the smaller prevention units. On the Editor Toolbar, click the scissors icon (fifth icon to the right).



Move the mouse onto the map. Click a point outside the existing MU near where it will be split. Now move the mouse into the MU and begin tracing out the boundary for the new PU. Anchor changes in direction by clicking the mouse. Continue to form the new boundary and exit the MU. Once the MU is exited, double click the mouse to “cut” the unit into two.

TIP: It may be useful to change the map layer prior to this process to a layer that best shows the basis for creating the PUs.

TIP: Remember to try to use features that prevention personnel can see on the ground, as boundaries.

2. The user clicks on the new PU and names it.
3. This process is repeated until all of the desired PU’s are digitized
4. If the PU was not created correctly, it can be joined back to the MU using the Union tool. Then, it can be reestablished using the Cut tool.
5. When all of the PUs are digitized, stop and verify that no unintentional artifact PUs were created. Search for these using the Prevention Unit Review Table. If there are any blank rows, these may be artifacts and should be deleted. To identify the artifact, select it in the

Prevention Unit Review Table, then if it is an artifact, click on “Delete” in the Editor Toolbar. The blank row and its artifact on the map should disappear. If it isn’t an artifact and is an unnamed PU, it should be named.

6. Move on to identifying communities.

STEP TWO: SELECT COMMUNITIES

The next step in setting up the risk assessment is to select the communities that will be part of the WFPP. This is done by using the “Communities’ Template” in WPSAPS. The application shows many of the communities for possible inclusion, and also allows users to establish communities that are not pre-identified in the mapping function.

NOTE: It is possible to skip adding communities to one or all of the PUs. However, the user sacrifices the ability to satisfy the Structural Flammability Assessment and Fuel Treatment Needs Assessment when communities are not entered. Leaving communities out is an entirely acceptable option for some PUs, such as those in remote timber production areas or wilderness areas.

Community Selection Standards

The selection of communities is a complicated process. It is recommended that users apply some screening standards when selecting communities, to ensure the community is a viable community and of interest to the prevention planning process. The basic screening process is: Evaluate Jurisdiction; Determine Viability; and include Communities at Risk.

Note: Unless the user is intimately familiar with all of the communities in the MU, it will be necessary to conduct field surveys of the communities prior to digitizing the communities. This may include making some screening decisions about which communities to include in the WFPP. There is a copy of the [BIA Community Risk Assessment Tool](#) for use in this process. It is included as [Attachment 1](#) to this Guide and can be printed out and used for documentation as well as conducting any field surveys. The Community Risk Assessment Tool can also be completed entirely or partially by using tools such as “GoogleEarth” or Bing Maps.

It is strongly recommended that users document their decision-making process to avoid confusion and be better able to respond to questions. The Community Risk Assessment Tool is also useful for documentation.

The following community screening standards are recommended but may not apply to all situations. Users should evaluate if these standards fit their needs, and then apply them consistently throughout the selection process.

Jurisdictional:

Most Reservations and Tribal Jurisdictional Areas contain significant fee lands. In some cases, the area in fee land ownership may be significantly larger than the lands held in Trust or Restricted status (called “Trust Lands” in this document). It is recommended the user establish a proximity standard for screening communities. The recommended standard is 3 kilometers (1.9 miles) from the boundary of the community to Trust Lands.

Boundary Communities.

The question of what to do with boundary communities frequently comes up across Indian Country. A community, adjacent to the MU boundary, that isn't within the selected buffer distance for jurisdiction, may be so important to the Tribe that it needs to be included in the risk assessment. This is an acceptable choice the user can make; however, the reasons for including it should be documented.

Viable:

The question of what constitutes a community is debatable. The National Association of State Foresters defines it loosely as a “place where people live”. Their screening process leaves the question of criteria up to local discretion. When screening communities for prevention planning, it is important to consider how the user would work with the community to lower their risk. In most cases, this requires the community to have some sort of infrastructure or coordinating entity. The following standards are recommended but are not absolute.

If the community as any of the following within the selected buffer, include it in the assessment:

Government

If the community has any formal government, it should be included in the assessment. Governments can include municipal governments with elected officials, community councils, housing authorities, Tribal government offices, or community services such as a local water district.

Schools

If a community has a school, including Head Starts, include it in the assessment.

Fire Department

If the community has a municipal, rural, or volunteer fire department or association; it should be included.

Business

If the community has any public business, such as a gas station, convenience store, visitor center, restaurant, or casino; it should be included in the assessment.

Industry

If the community has an industry, such as a factory, processing plant, or sawmill; it should be included in the assessment.

Community Center/Tribal Facility

If the community has a community building or tribal center; it should be included.

If none of the above are present, reconsider the viability of the community. It may not be useful to include it in this risk assessment.

Communities at Risk

All communities listed on the Communities at Risk List, published in the Federal Register on August 17, 2001 (Volume 66 Number 160), with BIA jurisdiction lands within 3 kilometers of their boundaries, should be included in the risk assessment. **This should be done whether they meet a “viability” standard or not.** The [Communities at Risk List](https://www.federalregister.gov/documents/2001/01/04/01-52/urban-wildland-interface-communities-within-the-vicinity-of-federal-lands-that-are-at-high-risk-from) can be found at the following link: <https://www.federalregister.gov/documents/2001/01/04/01-52/urban-wildland-interface-communities-within-the-vicinity-of-federal-lands-that-are-at-high-risk-from>. This demonstrates action under the National Fire Plan and National Cohesive Strategy.

TIP: Prior to beginning to enter communities into WPSAPS, it may be useful to make a list of communities that the user knows will need to be included. Then other communities can be added as the user explores the WUI layer and while conducting field surveys. It is also recommended that users complete the [BIA Community Risk Assessment Tool](#) and any field surveys prior to entering communities into WPSAPS.

Adding Communities to WPSAPS

1. The first step to adding communities is to use the “Layer Selector” to select the Wildland Urban Interface layer. This allows the user to see WUI areas that might not appear on the map as named communities, but that are of interest to the user.
2. Click on the Communities Tool in the Editor Template.
3. Using the mouse, move the pointer onto a community to be added. (Zooming in very tightly on the community is a good idea, to ensure the correct boundaries are used.)

Note: When WPSAPS relates a community with GIS data, it will first buffer the community by 3 kilometers (km). If there is a WUI boundary within that 3 km buffer, it

will use that boundary to select human caused fire data, and other GIS data, for the assessment. If no WUI boundary is found, then the 3 km buffer is used for the summary. WUI boundaries also must be at least 4 SqKm in size or the 3 km buffer will be used instead.

4. Click on the community.
5. A dialog box appears with a list of drop-down boxes.
6. The first one, "Description", is for the name of the community. (Note: the user can use the small square at the upper right of the dialog box to enlarge the box and view all of the inputs at one time.)
7. There is a series of inputs about *generalized* structural flammability for the community. These inputs can come from the user's personal experience or from field surveys conducted to gather the information.

Note: These are highly generalized choices. It is impractical to conduct counts for every factor of every structure. For larger communities, it may be a good idea to only consider those structures along the interface with the wildlands.

The inputs and choices are:

Roofing Material:

Good: No wood roofs.

Fair: Less than 50% of structures have wood roofs.

Poor: 50% or more of the structures have wood roofs.

Roof Hygiene:

Good: Roofs clean.

Fair: Some debris on roofs.

Poor: Lots of debris on roofs.

Survivable Space (distance between structures):

Good: More than 100 ft.

Fair: 30 to 100 ft.

Poor: Less than 30 ft.

Landscaping Materials:

Good: Low combustion risk plants in the Home Ignition Zone (HIZ).

Fair: Higher combustion risk plants in the HIZ, but not adjacent to structures.

Poor: High combustion risk plants in the HIZ and adjacent to structures.

Landscape Maintenance:

- Good: Maintained
- Fair: Mixed
- Poor: Little to no maintenance

Siding:

- Good: Siding is bricks, logs or metal
- Fair: Clapboard or shingle
- Poor: Vinyl

Structural Hygiene:

- Good: Maintained
- Fair: Repairs needed
- Poor: Abandoned

Flammables:

- Good: Stored at least 30 ft. away from structures
- Fair: Stored within 30 ft. of structures, but not adjacent to them
- Poor: Stored adjacent to structures

8. Next there are a series of choices regarding fuels treatment needs around the community. These choices are *optional* but are useful for establishing treatment priorities; meeting a requirement for the WFPP to be CWPP equivalent. **Note:** It is recommended to involve the Fuels Specialist or land manager when making these selections. These selections can be postponed until all of the communities have been created. If the Fuels Treatment inputs will be entered later, skip to step 9.

These fuel treatment inputs relate to BIA jurisdiction lands within 3 kilometers of the community boundary.

Fuels Treatment Needed:

- Yes
- No

Fuels Treatment Priority:

- Low
- Medium
- High

Machine Mechanical:

- Yes
- No

Prescribed Fire Treatment Needed:

- Yes
- No

Hand Mechanical Treatment Needed:

- Yes
- No

Chemical Treatment Needed:

- Yes
- No

9. Close the dialog box using the “X” at the top right.
10. Repeat the process for the next community.

Once all of the communities have been entered; and, the structural flammability, and the fuel treatment needs are completed for each; close out the map tab, and return to the “Assessment Screen”.

STEP THREE: FINALIZE MU MAP

From the assessment screen, review the three global choices for the “Setup Map”.

Global Settings

There are three “global” criteria that will be applied to the Communities and Prevention Units. Enter values for aspect ranges, elevation ranges, and initial attack time ranges. This will tell the program how to rank the aspect and elevation values of the prevention units and communities, when they are overlaid with a digital elevation model.

Aspect

If the MU is in a mountainous region in the Western US, then the most likely choice would be the first option for the Aspect Category. This would classify all north facing aspects with a low risk rating, east and west aspects with a medium rating, and south aspects with a high rating. The second option is more typical of conditions in the southwest, from west Texas through Arizona, including southern Utah and Colorado. The third option best describes conditions in the states east of the Rocky Mountains.

Elevation

The elevation categories describe the risk at different elevation ranges. In the western mountains, lower elevations will generally have a higher risk rating. The Elevation Risk categories follow a pattern of north to south on the “Setup Map” screen.

If the MU is in a northern mountainous state in the west, the best choice will be the one that has “5001 feet plus” as a low risk level.

If the MU is in Utah or Colorado, the best choice may be the one with “8501 feet plus” as having lowest risk.

If the MU is in the Southwest, elevation risk will be more accurately depicted by the option with “9001 feet plus” as having the lowest risk.

NOTE: These guidelines are highly generalized. Local knowledge should be used when selecting this risk factor. This is especially true for MUs in Nevada and California.

For the states east of the Rocky Mountains/Black Hills; the impact of elevation isn’t as pronounced. For these eastern states, the best results will be using the option showing “5001 feet plus” is low. If the MU has relatively little topography and is below 3500 feet, WPSAPS will assign a risk level of “High” to the MU, regardless of the option is used.

Initial Attack Response Time

The initial attack response time category is a range that users set, that defines the initial attack criteria used by WPSAPS for the selections that users will apply to their PUs and Communities in the next sections. A couple of considerations go into making this choice. They are values at risk and typical rates of spread in the dominant fuels for the MU.

For MUs with lighter fuels and high rates of spread, and/or significant values at risk; the option with 0-20 minutes Initial Response Time as low, is the better choice.

For MUs where the fuels have a more moderate typical rate of spread and/or moderate values at risk, the option with 0-30 minutes Initial Response Time is better.

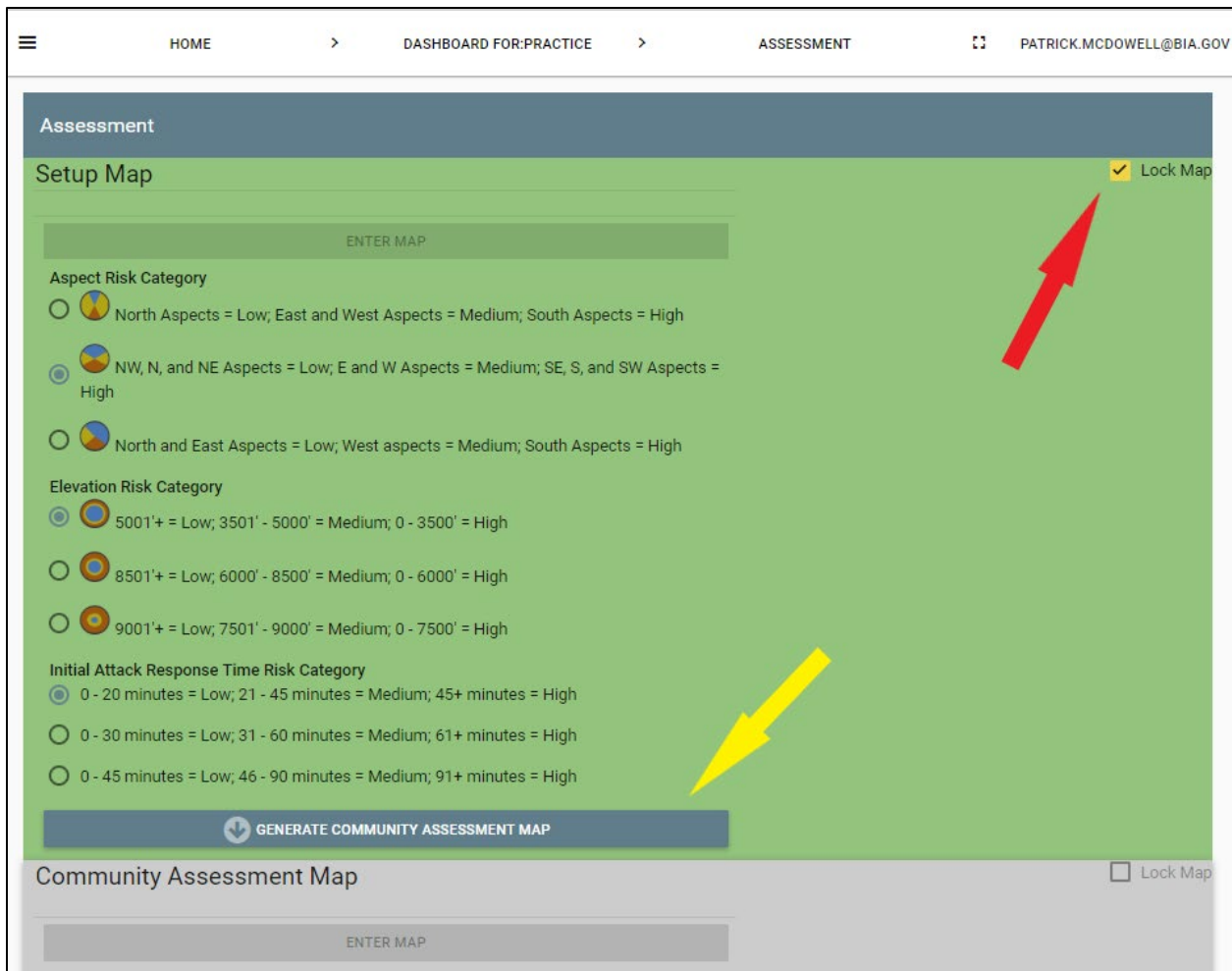
For MUs where the fuels have a relatively low rate of spread, and/or low values at risk; the option with 0 to 45 minutes Initial Response Time as low, is best.

Generating the Community Risk Assessment Map

Once the communities and PUs have been created, and the Global Settings selected, users may generate the Community Risk Assessment Map.

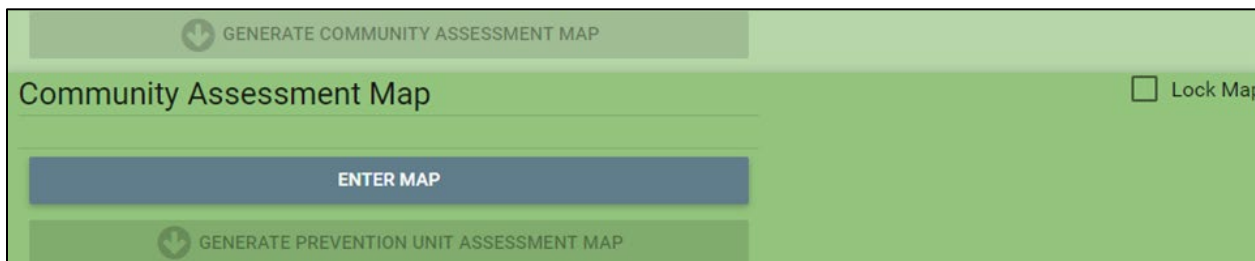
To generate the Community Risk Assessment Map:

1. Click the Lock Map check box, in the upper right corner of the section (red arrow).
2. Click the Generate Community Assessment Map button (yellow arrow).
3. Then click on “calculate” in the pop-up box.



STEP FOUR: COMMUNITY RISK ASSESSMENT

When the processing completes, the **Enter Map** button, in the Community Assessment Map section becomes active. Clicking on the **Enter Map** button opens the Community Assessment Map.

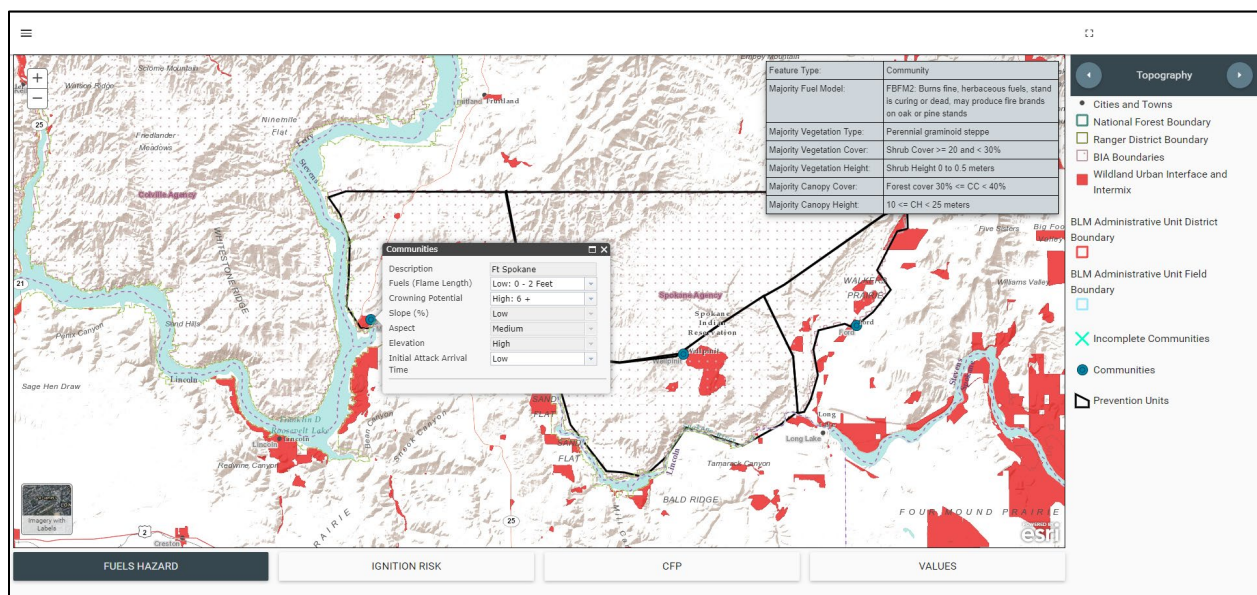


The Community Assessment Map allows the user to complete the community risk assessment.

There are a number of risk factors that must be reviewed and selected for each community in the WFPP. For many of these, WPSAPS loads in data from background layers. The data that

WPSAPS has automatically loaded, should be reviewed. If incorrect, it can be changed. Others, auto-load from choices the user has previously defined. These are greyed out and can't be changed from the community risk data entry screens. The information for the remaining community risk assessment comes from a variety of sources. The user's personal knowledge of a community, a field survey, or remote sensing are all valid sources of information.

There are four tabs across the bottom of the map, each tab brings up a different set of risk factors to be evaluated. Also, different map backgrounds are provided with each tab, to assist the user. These backgrounds can be changed using the small arrows in the **Layer Selector**. The WUI area is set to permanently display through all four tabs and all of their background maps. The assessment map defaults to the **Fuels Hazard** tab.



Fuels Hazard

There are three background maps under **Fuels Hazard**. These are Topography, Vegetation Height, and Canopy Cover.

To enter a community's fuels risk information, zoom in to the community and click on it. A dialog box will open along with a separate grey table in the upper right corner of the map window. In the community's dialog, some values such as slope, aspect, and elevation have already been filled in. Values for Fuels, Crowning Potential, and Initial Attack Arrival Time need to be selected from the drop-down boxes. The grey table shows information on the fuels and vegetation. This can be used to assist in choosing a Fuels and Crowning Potential value.

Communities	
Description	Ft Spokane
Fuels (Flame Length)	Low: 0 - 2 Feet
Crowning Potential	High: 6 +
Slope (%)	Low
Aspect	Medium
Elevation	High
Initial Attack Arrival Time	Low

Feature Type:	Community
Majority Fuel Model:	FBFM2: Burns fine, herbaceous fuels, stand is curing or dead, may produce fire brands on oak or pine stands
Majority Vegetation Type:	Perennial graminoid steppe
Majority Vegetation Cover:	Shrub Cover >= 20 and < 30%
Majority Vegetation Height:	Shrub Height 0 to 0.5 meters
Majority Canopy Cover:	Forest cover 30% <= CC < 40%
Majority Canopy Height:	10 <= CH < 25 meters

The risk factors to complete are:

Fuels (Flame Length):

The grey table shows the anticipated fire behavior for the majority fuel model surrounding the community. The choices are:

Low: 0 – 2 feet.

Medium: 4 – 6 feet.

High: 8 feet or greater.

Crowning Potential:

Low: 0 – 2.

Medium: 3 – 5.

High: greater than 6.

Initial Attack Arrival Time:

The definitions for these choices were selected when choosing the global settings in [Step Three](#). However, the user still has to apply the best estimate for each community based on the proximity and availability of initial attack resources.

This entire process will have to be repeated for each community.

Ignition Risk

Selecting the Ignition Risk tab brings up the four background maps available in ignition risk. These are: Transportation, Disturbance, Recreation, and Ignition Risk Layers. These backgrounds can be changed using the small arrows at the top of the area immediately to the right of the map.

WPSAPS places a blue “X” over any community that still as incomplete information.

By clicking on the community again, a new dialogue box for Ignition Risk appears. Several of the choices have been provided by WPSAPS, using background geospatial layers. Most of these

are still open to the user to change, if needed. The ignition risks list is a long list, with choices in the dropdown format. The process will have to be repeated for each community.

The name of the community is automatically filled, as is the number of households.

The risk factors to complete are:

Population Risk:

This choice allows the user to determine the risk from the population assigned to the community by the number of households. WPSAPS auto-fills this risk factor, but it can be changed.

When considering a change to this risk factor, consider the community in relation to the other communities in the MU and immediately surrounding it. The larger communities should be rated as “High”, and the smaller ones as “Low”, with the remainder as “Medium”.

The choices are:

- Low
- Medium
- High

Ignition Risk Standards:

The following ignition risk standards will help users determine if an ignition risk is either “Present” or “Absent” in the community. They also provide definitions and explanations to help the user better understand what is being evaluated.

Transmission Lines:

Transmission lines are the high voltage power lines, usually on tall steel towers. They are also occasionally on very tall wood or steel poles or on dual wood pole towers. They carry electricity from the source to a sub-station.

WPSAPS auto-fills this risk factor. It is often incorrect. As a general rule, transmission lines are paired with sub-stations. They are not present in every community and should be changed to “Absent”, if they are not located within or adjacent to the community’s boundaries.

Distribution Lines:

Distribution lines carry electricity from the substation to the users. WPSAPS does not auto-fill this risk factor. As a general rule, distribution lines will **ALWAYS** be present in a community. The only exception to this would be in a rare community that has underground electrical lines from the substation to the customer. Otherwise, this risk factor should **ALWAYS** be set to “Present”.

Sub-stations:

Sub-stations take the high voltage carried by transmission lines and step it down to lower voltages carried by distribution lines to transformers. They are not present in every community. WPSAPS auto-fills this risk factor. It should always be field verified.

As a general rule, if the community has more than 1,000 households, there will be a sub-station. This rule is not absolute, as smaller communities may also have sub-stations, if they are relatively far from the generation source. The sub-station serving a community may not be located in that community and may be some distance away. If the substation is within the community's WUI boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Active Timber Sale:

Timber sales are generally temporary, lasting no more than a year. If the community is in an active timber sale market, with significant timber stands within or adjacent to its boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Construction Project:

Construction projects, like timber sales, are usually temporary, lasting no more than one to three years. If the community is experiencing significant growth and expansion, select "Present" for this risk factor. Otherwise, select "Absent".

Wind Energy Production:

WPSAPS auto-fills this risk factor. Wind energy production is typically very visible on remote sensing platforms as well as from the ground. The large wind generators are seldom allowed near a community; however, there are exceptions. If a wind generator is within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Debris and Trash Burning:

Debris and trash burning are transient activities; however, there is typically a history or pattern of debris burning in a community where this occurs. If there is a history or pattern of debris or trash burning within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Agriculture Burning:

Agriculture burning consists of pasture and range burning as well as crop residue disposal. It generally occurs when a community is in a mostly agricultural area. If there are ranch or farm lands around the community, that burn as part of their operation, and are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Forest Range Burning:

Forest range burning occurs when forestlands are burned for silvicultural or range improvement purposes. If forestlands are regularly burned within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Mining:

The type of mining associated with wildfire activity is surface and pit mining. Underground mining, is not often associated with surface wildfires, except around coal mines. Mining would include operations such as gravel/cinder pits, quarries, and "rock plants" as well as traditional heavy metal placer mines. If a mining operation is within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Oil and Gas Production:

Oil and gas production is any of the myriad activities associated with drilling, pumping and processing crude oil or natural gas. While drilling is a temporary activity, the drilling normally results in a gas well head or pump jack to recover the gas or crude oil. Other facilities such as collection batteries, storage tanks and refineries are also included. However, abandoned wells are not included. WPSAPS auto-fills this risk factor and it needs to be verified. If any of the included facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Maintenance/Service Contracts:

These are contracted activities including road right of way maintenance, powerline clearance and similar contracted activities. They are present for most communities. However, their presence is not always visible. The user may need to ask someone knowledgeable in the community to make a determination. If there are maintenance/service contracts within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Dispersed camping areas, party areas, hunters, water-based [recreation], hiking:

These are a group of loosely regulated to unregulated activities that may occur in proximity to a community. If any of the included activities are occurring within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Developed Camping Areas:

These are campsites, with facilities such as toilets, showers, picnic tables and fire rings or grates. They may be staffed or unstaffed. If campsites or day use areas with any of these facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Off highway vehicle use:

This is more than casual use of a road or open area by off highway vehicles. This is for moto-cross tracks, obstacle courses, and recreation areas specifically designated for off highway vehicle use. Off highway vehicles include motorcycles, all-terrain vehicles, utility task vehicles, 4-wheelers, dune buggies, and off road 4-wheel drive trucks and SUVs. If any of these sites are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Oil & Gas Transmission:

Oil and gas transmission is more than just the pipelines carrying oil and gas. It includes the injection or supply stations, regulation stations, valves, and outlet stations. It can also include the supply stations for trucking and railroad distribution. WPSAPS auto-fills this risk factor, it should be verified. If any of these facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Gas Pumps or Storage:

Gas pumps or storage refers to retail filling stations, above ground storage tanks, and liquefied propane gas storage and delivery stations. If any of these facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Alternative Fuel Cells:

Alternative fuel cells include the delivery, storage and use of any alternative fuel such as hydrogen, propane, methane, or any other "alternative" fuel that is stored and sold in reusable, replaceable containers. If any of these facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Powder Magazines:

Powder magazines include military and civilian storage facilities. Examples are military bases, explosive storage for use in mining or construction, and ammunition or fireworks manufacturing plants. If any of these facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Dump:

Dumps include formal, legal dumps as well as the informal, illegal roadside dumps. Both types have associated ignition risks. If either type of dump is within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Fireworks:

Fireworks use is common on many reservations and in many communities in Indian Country; however, their use is prohibited on most other federally managed lands. If fireworks are allowed and used within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Children with matches:

Nearly all communities have children. Whether the children have matches is difficult to define. If there is a history of children caused wildfires within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Electronic Installations:

Electronic installations do not include sub-stations, since they were previously accounted for. Electronic installations include cell towers, microwave towers, large transformer banks, and power generation facilities. If any of these facilities are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Woodcutting area, power equipment:

Nearly all communities have lawnmowers, weed trimmers, and tree pruning. This risk factor does not automatically include those. If there is a wood yard, or a history of equipment caused fires within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Shooting, Exploding Targets, etc.:

This risk factor refers to both formal and informal gun ranges as well as frequently used shooting areas. It does not include hunting areas. If there are areas like this, or there is a history of firearms caused wildfires within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Government Operations:

Government Operations includes parks, forests, range lands, public use areas and "superfund" sites operated by federal, tribal, state, county or local governments. It does not include roads or office buildings but may include a county barn or work center. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Military Operations:

Military operations are sites such as military bases and forts operated by any branch of the US Armed Forces or National Guard. They can also include areas used by these organizations for training. They do not include paramilitary or militia operations. If any military operations are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Festivals, Special Events:

If there are festivals, or special events held annually within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Incendiary:

If there is a history of incendiary caused wildfire within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Cultural Activities:

Indian Country will have many communities with cultural activities. These include sweat lodges, powwow grounds and dance grounds. They may also include any other ceremonial site used by a tribe for cultural or religious rites that involves the use of fire outdoors. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Welding/Cutting/Grinding:

There will be occasional welding, metal cutting, and grinding in almost every community. These occasional activities are not included in this risk factor. This risk factor refers to locations where these activities are common, such as salvage yards, off-site construction and fabrication facilities, and metal recycling centers. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Railroads:

WPSAPS auto-fills railroads from a background layer. It needs to be verified. Abandoned railroad tracks are not included. Only include actively used (even if infrequently) tracks. If there are actively used tracks within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

State or Federal Highways:

WPSAPS auto-fills highways from a background layer. It needs to be verified. Highways also include paved BIA or Tribal roads. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

County Roads:

WPSAPS auto-fills this risk factor. It should be verified. WPSAPS has a bias for selecting "absent" for these, based on the data source. Nearly all communities will have county roads. They may be paved or unpaved. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Public Access Roads:

Public access roads are roads, open to public use. These are generally unpaved roads such as timber industry, oil field, or Forest Service roads. They also include the un-paved BIA or Tribal roads. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Non-Motorized Trails & OHV Trails:

WPSAPS auto-fills this risk factor. It needs to be verified. These are trails such as equestrian, and mountain bike trails. They also include trails specifically for off-highway vehicles such as 4-wheelers and all-terrain vehicles. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Camps, Resorts, Stables:

These are commercial facilities operated by either a non-profit organization such as Boy Scouts of America, or a for profit owner. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Businesses, Agriculture/Ranching:

Most communities will have some form of a business. Businesses include convenience stores, restaurants, smoke shops, taverns, casinos, or any other commercial entity open to public commercial transactions. Agriculture includes row crops such as wheat, rice, corn or any other. It also includes raising livestock or poultry in a confined area. Ranching includes raising livestock (cattle, bison, horses, sheep, and other domesticated animals) in an open setting (including but not limited to open range). Nearly all communities will have at least one of these. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

Schools:

WPSAPS auto-fills this risk factor. It needs to be verified. Schools include head starts as well as kindergarten, elementary and secondary schools. If any of these are within or adjacent to the community's boundaries, select "Present" for this risk factor. Otherwise, select "Absent".

CFP (Catastrophic Fire Potential)

Select the CFP tab. WPSAPS provides four new background maps to help inform the user. These are: Topography, Fire Occurrence, Fire Density, and Wildfire Hazard Potential. Scroll through these, looking at the various communities.

Then click on the community again, a new dialogue box for catastrophic fire potential appears. This risk assessment category rates the potential for a wildfire to result in loss of life, property or tribally important resources. It has only one user definable risk factor. To select it, requires extensive knowledge of the community. WPSAPS auto-fills this selection from the Forest Service Wildfire Hazard Potential (WHP) layer; however, it should be reviewed carefully. The process will have to be repeated for each community. The following definitions will help the user consistently apply this risk factor.

The choices are:

High: Heavy fuels present (Heavy fuel loadings, storm damaged timber, young plantations, heavy logging slash, tall grasses and weeds, etc.) **plus all** of the following are present: limited ingress/egress routes, vulnerable populations (nursing homes, day cares, etc.), and a majority of the housing that is vulnerable to ignition.

Medium: Fuels plus **any two** of the other conditions from above are present.

Low: Fewer than two of the conditions from above are present.

Values

Select the Values tab. WPSAPS provides six new background maps to help inform the user. These are: Transportation, Land Ownership, Vegetation Height, Soil Survey, Recreation, and Sage Grouse Habitat. Scroll through these, looking at the various communities.

Then click on the community again, a new dialogue box for values appears. This risk assessment category evaluates the presence and significance of the values to be protected. The process will have to be repeated for each community. There are several values to be considered, not all will be present or significant. The user may want to consult with others that have expertise in a specific value prior to starting to complete this category.

Each value being considered has a choice of three conditions. The values approximate a rating of “Low”, “Medium”, and “High” value for each. The user should select the one that best describes the conditions for the community.

Recommended Value Standards:

Recreational Value:

This value rates the potential for recreational use. The choices are:

Undeveloped average recreation use: This is equivalent to “Low” value. It means there are no special features associated with the community for recreation.

Undeveloped high recreation use: This is equivalent to “Medium” value. It means the area in and around the community is used for recreation but is not developed (includes unimproved camping, ATV Tracks, horseback riding, hunting and fishing areas)

Developed recreation site: This is equivalent to “High” value. The area in or around the community has campgrounds, RV Parks, public parks, resorts, golf courses, casino complexes, etc.

Administrative Sites:

Administrative sites are government or Tribal facilities such as: equipment barns, field offices, office complexes, and visitor’s centers. The choices are:

Few or no administrative sites: This is equivalent to “Low” value. It means there is a very limited risk to important government/tribal facilities.

Administrative sites are present: This is equivalent to “Medium” value. It means the area in and around the community has an important government/tribal facility.

Special use or high values sites: This is equivalent to “High” value. The area in and around the community has several government/tribal facilities or has irreplaceable and critically important government/tribal facilities.

Wildlife and Fisheries

This refers to the habitat conditions within the community. The choices are:

Relatively insignificant habitat: This is equivalent to “Low” value. It means there is little habitat for wildlife or fisheries. No streams or lakes are in the buffer zone. The vegetation surrounding the community is primarily cropland or pasture.

Moderately significant habitat: This is equivalent to “Medium” value. It means the area in and around the community has some potential for wildlife or fisheries. A small stream,

or pond may exist. Some rangeland or forest land may exist within the community's boundaries.

Highly significant habitat: This is equivalent to "High" value. The area in and around the community is mostly rangeland or forestland. There may be large streams, rivers, ponds or lakes within the community's boundaries.

Range Use

Range use refers to the suitability of the land within the community for use by livestock. The choices are:

Little or no range use: This is equivalent to "Low" value. It means there is little range use or potential for range use. This can occur when the community is surrounded by forest or croplands.

Range allotment within area, normal/average use: This is equivalent to "Medium" value. It means the area in and around the community has some rangelands being managed or leased.

Range allotment within area, significant use: This is equivalent to "High" value. The area in and around the community is mostly rangeland under lease or tribal management.

Watersheds

Watershed refers to the conditions within the community's boundaries for providing clean drinking water. WPSAPS auto-fills this selection; however, it should be reviewed carefully. The choices are:

Low Drinking Water Importance: This is equivalent to "Low" value. It means there is little potential for drinking water. Streams are mostly dry, with little riparian vegetation.

Medium Drinking Water Importance: This is equivalent to "Medium" value. It means the area within the community's boundaries has streams that are ephemeral and there is no designated water use. There is some potential for water use if the stream is impounded.

High Drinking Water Importance: This is equivalent to "High" value. The streams or lakes within the community's boundaries are used for drinking water.

Forest and Woodland

WPSAPS auto-fills this selection using remote sensing data (LANDFIRE). However, it should be verified on the ground carefully, since the remote sensing data does not easily identify seedling and sapling stands. It applies to all forest and woodlands within and adjacent to the community. The following definitions from 53 IAM Chapter 5 will help clarify what these terms are intended to mean for Indian Country.

Forest or forest land means an ecosystem of at least one acre in size, including timber land and woodland, which is characterized by a more or less dense and extensive tree cover; contains, or once contained, at least 10% tree crown cover, and is not developed or planned for exclusive non-forest resource use.

Woodland means forest land not included within the timberland classification, stocked or capable of being stocked, with tree species of such form and size to produce forest products that are generally marketable within the region for products other than lumber, pulpwood, or veneer.

It is important to note that both of these definitions also include seedling and sapling stands.

The choices are:

Standing timber/woodland on 25% or less of area. This is equivalent to “Low” value.

Standing timber/woodland on 26-50%. This is equivalent to “Medium” value.

Standing timber/woodland on 51%+ of area. This is equivalent to “High” value.

Plantations

Plantations are trees planted, normally of the same species, at regular intervals. They are often recognizable since the trees appear in rows. Due to their high early investment cost, plantations are often considered to be some of the most valuable forest stands. Plantations are normally found in areas with short rotation highly valuable conifers, near stable, active timber markets. They can be difficult to identify on satellite imagery but can be seen on most aerial photography or from ground surveys. Plantations are generally uncommon within a community; however, they do occur, primarily in the Southeast, Pacific Northwest, and to a lesser degree the Midwest (Great Lakes area). This value also includes lands where plantations are being planned.

The choices are:

15% or less of area in or programmed for plantations. This is equivalent to “Low” value.

16 - 30% of area in or programmed for plantations. This is equivalent to “Medium” value.

31%+ of area in or programmed for plantations. This is equivalent to “High” value.

Private Property

Private property refers to the threat to homes and businesses within and around the community. Since this is a community risk assessment, it is likely that this will always be rated as “High” or “Medium”.

The choices are:

Little or no threat or loss potential. This is equivalent to “Low” value. While uncommon, this might be possible for a very small community, or a community with mostly cropland in the WUI buffer zone.

Threat to structures and property. This is equivalent to “Medium” value. This might be used for a relatively small community, in grassy fuels or croplands.

High loss and threat potential due to numbers and placement. This is equivalent to “High” value. For most communities of any size, this is the correct choice.

Cultural Resources

Indian Country has literally thousands of historically and archeologically significant sites. Some of these are open to the public and very well known. Others are closely guarded tribal secrets for security and religious reasons. While it is unlikely that associating a site in WPSAPS with a community will result in a security breach, users must respect the need to protect cultural resources from looting or vandalism.

When assessing risk to the site as a value to be protected, it is important to remember the threat is from a wildfire. If the site is one that would not be damaged by a wildfire, such as a cave or cliff dwelling; it shouldn't be included.

If there are sites within the community's boundaries that could be damaged by a wildfire include them. If the user is uncertain about the presence of cultural sites, consult the Regional Archeologist or the Tribal Cultural Resources Office.

The choices are:

No archaeological/historical findings, little potential for Native American Use. This is equivalent to “Low” value. It should be used if the community is not located near a perennial stream, quarry, fossil bed or other known site.

Minimal archaeological/historical findings, potential for Native American use. This is equivalent to “Medium” value. It should be used if the community is located near a

perennial stream, river or lake; and there are no known sites. It should also be used when there are sites where the location is not public.

Archaeological/historical findings of high significance. This is equivalent to “High” value. Use this selection when there are significant publicly known sites within and adjacent to the community. This selection can also be used for very significant sites that aren’t widely known, where security is not a concern.

Special Interest

Special interest areas are any area within and around the community that is significantly important to the Tribe, public or for employment. Examples include casinos, tribal hunting or fishing areas, culturally important plant gathering areas, orchards, or tribally significant employers.

The choices are:

No special interest area within or adjacent to the area. This is equivalent to “Low” value. It means there are no special interest areas in the community, or adjacent to it.

Area is adjacent to a special interest area. This is equivalent to “Medium” value. It should be used if there are special interest areas adjacent to the community.

A majority of the area is classified as special interest area. This is equivalent to “High” value. Use this selection when there are special interest areas within the community’s boundaries.

Visual Resources

Visual resources are essentially the view from the community. The user needs to consider what the view would look like following a damaging wildfire and make a selection.

Complete this sentence “A damaging wildfire would have [blank] “.

The choices are:

Little Impact on Viewshed. This is equivalent to “Low” value. It means there will be little change in the view following a wildfire. This situation would be most likely in prairie and desert communities. It could also be used where a surface fire could be expected to burn through the viewshed beneath a mature timber stand, such as mature ponderosa or southern pine.

Short Term Impacts to Viewshed (1-3 yrs). This is equivalent to “Medium” value. Use this selection when a damaging wildfire has the potential to make short term changes to the view. Also, use this choice for areas where regrowth is rapid following a fire.

Long Term Impacts to the Viewshed (4 yrs +). This is equivalent to “High” value. Use this selection when the view from the community would be damaged for 4 years or more. This could also be used for areas that under “natural” fire regimes would not be extensively damaged, but currently have significant fuel accumulations with high potential for extreme fire behavior.

Threatened and Endangered Species

This value selection refers to animals (fauna). It is auto filled by WPSAPS. It should be reviewed and confirmed based on local knowledge. For the purposes of this risk assessment, it is not necessary to consult with the US Fish and Wildlife Service (the official source of Threatened and Endangered Species information).

The [Threatened and Endangered Species List](https://www.fws.gov/endangered/species/us-species.html) can be found online at: <https://www.fws.gov/endangered/species/us-species.html>.

The choices are:

Absent. This is equivalent to “Low” value. Use this selection if there are no sensitive, threatened or endangered species known to be within the community’s boundaries.

Present Sensitive. This is equivalent to “Medium” value. Use this selection if sensitive, but not threatened or endangered, species are known to exist within the community’s boundaries.

Present Threatened/Endangered. This is equivalent to “High” value. Use this selection if threatened or endangered species are known to exist within the community’s boundaries.

Soils (Erosion)

Soils are an important value to be protected before and after a wildfire. The value question to ask here is, “If a wildfire burns off the surface vegetation and exposes the soil within the community’s boundaries, what is the potential for significant erosion?”

In general, soils with a higher clay content are less susceptible to erosion; however, several other environmental factors impact this. These include degree and length of slope; frequency, intensity and duration of wind or rain events; and chemical characteristics.

WPSAPS provides a map layer that can be viewed for the Soil Types. The Natural Resources Conservation Service (NRCS) maintains Soil Surveys that may be consulted for a more definitive selection. The [Soil Surveys](https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/) can be found online at: <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/>

The choices are:

Low Significance (EHR < 4). This is equivalent to “Low” value. It may include Histisols, Oxisols, Ultisols, and Vertisols. Alfisols on gently sloping lands may also fit this description.

Moderately erodible (EHR 4-12). This is equivalent to “Medium” value. It may include Alfisols, Gelisols, and Mollisols.

Highly Erodible (EHR 13+). This is equivalent to “High” value. It may include Andisols, Aridisols, Entisols, Inceptisols, and Spodosols. It may also include Mollisols on steeper slopes.

Soils (Organic)

Most soils originally included an organic layer; however, an organic soil is a soil composed of organic layers throughout its horizon. Organic soils are important to consider as a value, since they have the potential to ignite, burn and lose their ability to support the ecosystem. They form from decaying animal and plant material, normally in the presence of water. Organic soils can be found in every state but are more common along the East Coast and around the Great Lakes. These soils include peat bogs, and mucks.

The NRCS Soil Surveys may be consulted for a more definitive selection. The [Soil Surveys](https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/) can be found online at: <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/>

The choices are:

Not applicable - no organic soils exist. This is equivalent to “Low” value. This will be the most common selection in Indian Country.

Moderate susceptibility to fire damage. This is equivalent to “Medium” value. Use this selection if the soil is subject to occasional or periodic drought episodes, severe enough for it to dry out at the surface.

High susceptibility to fire damage. This is equivalent to “High” value. Use this selection if the soil is subject to frequent drought episodes, severe enough for it to dry out at the surface. Also use this selection if the soil has been artificially drained.

Airshed

The airshed is determined by the shape of the land and the prevailing winds. However, nearly all airsheds in the US have been assessed for air pollution compliance using the [National Ambient Air Quality Standards \(NAAQS\)](https://www.epa.gov/naaqs). These standards are found online at: <https://www.epa.gov/naaqs>. For the purposes of this risk assessment, the air quality in the

airshed is the value being protected in this selection. It is primarily being protected from particulate matter in smoke from a wildfire.

The choices are:

Attainment. This is equivalent to “Low” value. It means the airshed has acceptable air quality, per the NAAQS and can absorb some decreased quality due to wildfire smoke.

Non-Attainment. This is equivalent to “Medium” value. It means the airshed has worse than the NAAQS for air quality for a particular pollutant. In most cases, adding smoke from a wildfire will negatively affect the efforts to move towards attainment status.

Class 1. This is equivalent to “High” value. Class 1 airsheds have been legislatively designated as airsheds where the goal is to preserve, protect and enhance air quality. National Parks larger than 6,000 acres and federally designated wilderness areas larger than 5,000 acres are examples. Tribal lands may also be designated as Class 1 airsheds. As of 2008, the following were designated as Class 1 airsheds:

- The Northern Cheyenne Indian Reservation, Montana (The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation);
- The Flathead Indian Reservation, Montana (The Confederated Salish and Kootenai Tribes of the Flathead Reservation);
- The Fort Peck Indian Reservation, Montana (The Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation); and
- The Spokane Indian Reservation, Washington (The Spokane Tribe of the Spokane Reservation) ; and
- Forest County Potawatomi Reservation, Wisconsin (The Forest County Potawatomi Community).

The user should check with the tribal government to verify the status for other tribal jurisdictions.

Threatened and Endangered Vegetation Species

This value selection refers to plants (flora). For the purposes of this risk assessment, it is not necessary to consult with the US Fish and Wildlife Service (the official source of T & E Species information). However, it is recommended that someone knowledgeable in the tribe be consulted.

The [Threatened and Endangered Species List](https://www.fws.gov/endangered/species/us-species.html) can be found online at:
<https://www.fws.gov/endangered/species/us-species.html>.

The choices are:

Absent. This is equivalent to “Low” value. Use this selection if there are no sensitive, threatened or endangered species known to be within the community’s boundaries.

Present Sensitive. This is equivalent to “Medium” value. Use this selection if sensitive, but not threatened or endangered, species are known to exist within the community’s boundaries.

Present Threatened/Endangered. This is equivalent to “High” value. Use this selection if threatened or endangered species are known to exist within the community’s boundaries.

Community Risk Assessment Processing

Once the assessment information is entered for all of the communities, the user will need to process the Community Risk Assessment.

To process the Community Risk assessment, close the assessment map. Lock the map using the checkbox at the upper right of the Community Assessment Map section. Then select Generate Prevention Unit Assessment Map. When the “pop up” window appears, select “Calculate”. (This may take a few minutes.)

STEP FIVE: PREVENTION UNIT RISK ASSESSMENT

When the Prevention Unit Assessment Map becomes available (as indicated when the “Enter Map” bar is dark green with white lettering), click on the bar.

The Prevention Unit Assessment Map allows the user to complete the Prevention Unit Risk Assessment. There are a number of risk factors that must be reviewed and selected for each PU in the WFPP. This process is similar to the Community Risk Assessment, with a few subtle differences. Now the focus is on the PU. For many of these, WPSAPS loads in data from the Community Risk Assessment and background layers. The data that WPSAPS has automatically loaded, should be reviewed. If incorrect, it can be changed. Others, auto-load from choices the user has previously defined. These are greyed out and can’t be changed from the PU risk data entry screens. A [Prevention Unit Risk Assessment Tool](#) is provided as Attachment 2. It is useful when entering the attributes, to create a record and ensure better accuracy. The information for the evaluating the Prevention Unit Risk Assessment comes from a variety of sources. The user’s personal knowledge of a PU, a field survey, or remote sensing are all valid sources of information.

There are the same four tabs across the bottom of the map as in the Community Risk Assessment. Each tab brings up a different set of risk factors to be evaluated. Also, different map layers are provided with each tab, to assist the user. These map layers can be changed using the

small arrows in the Layer Selector. The WUI area is set to permanently display through all four tabs and all of their map layers. The assessment map defaults to the Fuels Hazard tab.

Fuels Hazard

There are three map layers available in Fuels Hazard. These are Topography, Vegetation Height, and Canopy Cover.

To enter a PU's fuels risk information, zoom in to the PU and click on it. A dialog box will open along with a separate table in the upper right corner of the map window. This process will have to be repeated for each PU. In the PU's dialog box, some values such as Slope, Aspect, and Elevation have already been filled in. Values for Fuels, Crowning Potential, and Initial Attack Arrival Time need to be selected from the drop-down boxes. The grey table shows information on the fuels and vegetation. This can be used to assist in choosing a Fuels and Crowning Potential value.

The risk factors to complete are:

Fuels (Flame Length):

The grey table shows the anticipated fire behavior for the majority fuel model in the PU. The choices are:

Low: 0 – 2 feet.

Medium: 4 – 6 feet.

High: 8 feet or greater.

Crowning Potential:

Low: 0 – 2.

Medium: 3 – 5.

High: greater than 6.

Initial Attack Arrival Time:

The definitions for these choices were selected when choosing the global settings in [Step Three](#). However, the user still has to apply the best estimate for each PU based on the proximity and availability of initial attack resources.

Ignition Risk

Select the Ignition Risk tab. There are three map layers available in ignition risk. These are: Vegetation Height, Canopy Cover, and Topography. These map layers can be changed using the small arrows in the Layer Selector.

By clicking on the PU again, a new dialogue box for Ignition Risk appears. Most of the choices have been provided by WPSAPS, using background layers and Community Risk Assessment choices. These are still open to the user to change, if needed. The ignition risks list is a long list, with choices in the dropdown format. The process will have to be repeated for each PU.

The name of the PU is automatically filled, as is the number of households.

The risk factors to complete are:

Population Risk:

This choice allows the user to determine the risk from the population assigned to the PU by the number of households. WPSAPS auto-fills this risk factor, but it can be changed.

When considering a change to this risk factor, consider the PU in relation to the other PUs in the MU. The higher population PUs should be rated as “High”, and the smaller ones as “Low”, with the remainder as “Medium”.

The choices are:

- Low
- Medium
- High

Ignition Risk Standards:

The following ignition risk standards will help users determine if an ignition risk is either “Present” or “Absent” in the PU. They also provide definitions and explanations to help the user better understand what is being evaluated. In most cases they are the same as those used in the Community Risk Assessment.

Transmission Lines:

Transmission lines are the high voltage power lines, usually on tall steel towers. They are also occasionally on very tall wood or steel poles or on dual wood pole towers. They carry electricity from the source to a sub-station.

WPSAPS auto-fills this risk factor. As a general rule, transmission lines are paired with sub-stations. They are not present in every PU and should be changed to “Absent”, if they are not located within the PU.

Distribution Lines:

Distribution lines carry electricity from the substation to the users. Distribution lines will nearly *ALWAYS* be present in a PU. The only exception to this would be in a rare PU that is a wilderness area. Otherwise, this risk factor should *ALWAYS* be set to “Present”.

Sub-stations:

Sub-stations take the high voltage carried by transmission lines and step it down to lower voltages carried by distribution lines to transformers. While present in most PUs, they are not present in all.

As a general rule, if the PU has more than 1,000 households, there will be a sub-station. This rule is not absolute. The sub-station serving a PU may not be located in that PU and may be some distance away. If the substation is within the PU’s boundaries, select “Present” for this risk factor. Otherwise, select “Absent”.

Active Timber Sale:

Timber sales are generally temporary, lasting no more than a year. If the PU is in an active timber sale market, with significant timber stands within it, select “Present” for this risk factor. Otherwise, select “Absent”.

Construction Project:

Construction projects, like timber sales, are usually temporary, lasting no more than one to three years. If the PU is experiencing significant growth and expansion, select “Present” for this risk factor. Otherwise, select “Absent”.

Wind Energy Production:

WPSAPS auto-fills this risk factor. It may be incorrect. Wind energy production is typically very visible on remote sensing platforms as well as from the ground. If a wind powered generator is within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Debris and Trash Burning:

Debris and trash burning are transient activities; however, there is typically a history or pattern of debris burning in a PU where this occurs. If there is a history or pattern of debris or trash burning within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Agriculture Burning:

Agriculture burning consists of pasture and range burning as well as crop residue disposal. It generally occurs when a PU is in a mostly agricultural area. If there are ranch or farm lands in

the PU, that burn as part of their operation, select “Present” for this risk factor. Otherwise, select “Absent”.

Forest Range Burning:

Forest range burning occurs when forestlands are burned for silvicultural or range improvement purposes. If forestlands are regularly burned within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Mining:

The type of mining associated with wildfire activity is surface and pit mining. Underground mining is not often associated with surface wildfires, except around coal mines. Mining would include operations such as gravel/cinder pits, quarries, and “rock plants” as well as traditional heavy metal mines. If a mining operation is within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Oil and Gas Production:

Oil and gas production is any of the myriad activities associated with drilling, pumping, and processing crude oil or natural gas. While drilling is a temporary activity, the drilling normally results in a gas well head or pump jack to recover the gas or crude oil. Other facilities such as collection batteries, compressors, storage tanks, and refineries are also included. However, abandoned wells are not included. WPSAPS auto-fills this risk factor and it needs to be verified. If any of the included facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Maintenance/Service Contracts:

These are contracted activities including road right of way maintenance, powerline clearance and similar contracted activities. They will be present in most PUs. However, their presence is not always visible. If there are maintenance/service contracts within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Dispersed camping areas, party areas, hunters, water-based [recreation], hiking:

These are a group of loosely regulated to unregulated activities that may occur in the PU. Given the love people have for open spaces, it is very likely these will be present in every PU. If any of the included activities are known to occur in the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Developed Camping Areas:

These are campsites, with facilities such as toilets, showers, picnic tables and fire rings or grates. They may be staffed or unstaffed. If campsites with any of these facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Off highway vehicle use:

This is more than casual use of a road or open area by off highway vehicles. This is for moto-cross tracks, obstacle courses, and recreation areas specifically designated for off highway vehicle use. Off highway vehicles include motorcycles, all-terrain vehicles, utility task vehicles, 4-wheelers, dune buggies, and off road 4-wheel drive trucks, and SUVs. If any of these sites are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Oil & Gas Transmission:

Oil and gas transmission is more than just the pipelines carrying oil and gas. It includes the injection or supply stations, regulation stations, valves, and outlet stations. It can also include the supply stations for trucking and railroad distribution. If any of these facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Gas Pumps or Storage:

Gas pumps or storage refers to retail filling stations, above ground storage tanks, and liquefied propane gas storage and delivery stations. If any of these facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Alternative Fuel Cells:

Alternative fuel cells include the delivery, storage and use of any alternative fuel such as hydrogen, methane or any other “alternative” fuel that is stored in reusable, replaceable containers. If any of these facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Powder Magazines:

Powder magazines include military and civilian storage facilities. Examples are military bases, explosive storage for use in mining or construction, and ammunition or fireworks manufacturing plants. If any of these facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Dump:

Dumps include formal, legal dumps as well as the informal, illegal roadside dumps. Both types have associated ignition risks. If either type of dump is within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Fireworks:

Fireworks use is common on many reservations in Indian Country; however, their use is prohibited on most other federally managed lands. If fireworks are allowed and used within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Children with matches:

Nearly all PUs will have children present. Whether the children have matches is difficult to define. If there is a history of children caused wildfires within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Electronic Installations:

Electronic installations do not include sub-stations, since they were previously accounted for. Electronic installations include cell towers, microwave towers, large transformer banks, and power generation facilities. If any of these facilities are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Woodcutting area, power equipment:

Nearly all PUs will have lawnmowers, weed trimmers, and tree pruning. This risk factor does not automatically include those. If there is a wood yard, or a history of equipment caused fires within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Shooting, Exploding Targets, etc.:

This risk factor refers to both formal and informal gun ranges, as well as frequently used shooting areas. It does not include hunting areas. If there are areas like this, or there is a history of firearms caused wildfires within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Government Operations:

Government Operations includes parks, forests, range lands, public use areas, and “superfund” sites operated by federal, tribal, state, county or local governments. It does not include roads or office buildings but may include a county barn or work center. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Military Operations:

Military operations are sites such as military bases and forts, operated by any branch of the US Armed Forces, or National Guard. They can also include areas used by these organizations for training. They do not include para-military operations. If any military operations are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Festivals, Special Events:

If there are festivals, or special events held annually within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Incendiary:

If there is a history of incendiary caused wildfire within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Cultural Activities:

Indian Country will have many locations with cultural activities. These include sweat lodges, powwow grounds, and dance grounds. They may also include any other ceremonial site used by a tribe for cultural or religious rites that involves the use of fire outdoors. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Welding/Cutting/Grinding:

There will be occasional welding, metal cutting, and grinding in almost every PU. These occasional activities are not included in this risk factor. This risk factor refers to locations where these activities are common, such as salvage yards, off-site construction and fabrication facilities, and metal recycling centers. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Railroads:

WPSAPS auto-fills railroads from a background layer. It needs to be verified. Abandoned railroad tracks are not included. Only include actively used (even if infrequently) tracks. If there are actively used tracks within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

State or Federal Highways:

WPSAPS auto-fills highways from a background layer. It needs to be verified. Highways also include paved BIA or Tribal roads. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

County Roads:

WPSAPS auto-fills this risk factor. It should be verified. Nearly all PUs will have county roads. They may be paved or unpaved. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Public Access Roads:

Public access roads are roads, open to public use. These are generally unpaved roads such as timber industry, oil field, or Forest Service roads. They also include the un-paved BIA or Tribal roads. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Non-Motorized Trails & OHV Trails:

WPSAPS auto-fills this risk factor. It needs to be verified. These are trails such as equestrian, and mountain bike trails. They also include trails specifically for off-highway vehicles such as 4-wheelers and all-terrain vehicles. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Camps, Resorts, Stables:

These are commercial facilities operated by either a non-profit organization, such as Boy Scouts of America, or a for profit owner. If any of these are within the PU, select “Present” for this risk factor. Otherwise, select “Absent”.

Businesses, Agriculture/Ranching:

Most PUs will have some form of a business. Businesses include convenience stores, restaurants, smoke shops, taverns, casinos, or any other commercial entity open to public commercial transactions. Agriculture includes row crops such as wheat, rice, corn or any other. It also includes raising livestock or poultry in a confined area. Ranching includes raising livestock (cattle, bison, horses, sheep, and other domesticated animals) in an open setting (including but not limited to open range). Nearly all PUs will have at least one of these. If any of these are within or adjacent to the PU’s boundaries, select “Present” for this risk factor. Otherwise, select “Absent”.

Schools:

WPSAPS auto-fills this risk factor. It needs to be verified. Schools include head starts as well as kindergarten, elementary and secondary schools. If any of these are within or adjacent to the PU’s boundaries, select “Present” for this risk factor. Otherwise, select “Absent”.

CFP (Catastrophic Fire Potential)

Select the CFP tab. Four new map layers are available in this category to help inform the user. These are: Topography, Fire Occurrence, Fire Density, and Wildfire Hazard Potential. Scroll through these, looking at the PUs.

Then click on the PU again, a new dialogue box for catastrophic fire potential appears. This risk assessment category rates the potential for a wildfire to result in loss of life, property or tribally important resources. It has only one user definable risk factor. To select it, requires extensive knowledge of the PU. WPSAPS auto-fills this selection; however, it should be reviewed carefully. The process will have to be repeated for each PU. The following definitions will help the user consistently apply this risk factor.

The choices are:

High: Heavy fuels present (Heavy fuel loadings, storm damaged timber, young plantations, heavy logging slash, tall grasses and weeds, etc.) **plus all** of the following are present: communities with limited ingress/egress routes, vulnerable populations (nursing homes, day cares, etc.), and a majority of the housing that is vulnerable to ignition.

Medium: Fuels plus **any** of the other conditions from above are present.

Low: One or fewer of the conditions from above are present.

Values

Select the Values tab. WPSAPS provides six new background maps to help inform the user. These are: Transportation, Land Ownership, Vegetation Height, Soil Survey, Recreation, and Sage Grouse Habitat. Scroll through these, looking at the PUs.

Then click on the PU again, a new dialogue box for values appears. This risk assessment category evaluates the presence and significance of the values to be protected. The process will have to be repeated for each PU. There are several values to be considered, not all will be present or significant. The user may want to consult with others that have expertise in a specific value prior to starting to complete this category.

Each value being considered has a choice of three conditions. The values approximate a rating of “High”, “Medium”, and “Low” value for each. The user should select the one that best describes the conditions for the PU.

Recommended Value Standards:

Recreational Value:

This value rates the potential for recreational use. The choices are:

Undeveloped average recreation use: This is equivalent to “Low” value. It means there are no special features associated with the PU for recreation.

Undeveloped high recreation use: This is equivalent to “Medium” value. It means the area in, and around the PU is used for recreation but not developed (includes unimproved camping, ATV Tracks, horseback riding, hunting and fishing areas)

Developed recreation site: This is equivalent to “High” value. The area in, or around the PU has campgrounds, RV Parks, public parks, resorts, golf courses, casino complexes, etc.

Administrative Sites:

Administrative sites are government or Tribal facilities such as: equipment barns, field offices, office complexes, and visitor’s centers. The choices are:

Few or no administrative sites: This is equivalent to “Low” value. It means there is a very limited risk to important government/tribal facilities.

Administrative sites are present: This is equivalent to “Medium” value. It means the PU has government/tribal facilities.

Special use or high values sites: This is equivalent to “High” value. The PU has numerous and significant government/tribal facilities or has irreplaceable and critically important government/tribal facilities.

Wildlife and Fisheries

This refers to the habitat conditions within the PU. The choices are:

Relatively insignificant habitat: This is equivalent to “Low” value. It means there is little habitat for wildlife or fisheries. There are few streams or lakes in the PU. More than 75% of the vegetation in the PU is cropland, pasture, or developed.

Moderately significant habitat: This is equivalent to “Medium” value. It means the PU has some potential for wildlife or fisheries. Streams, lakes, or ponds exist. Twenty-five to fifty percent of the PU is rangeland or forest land.

Highly significant habitat: This is equivalent to “High” value. The area in and around the PU is mostly rangeland or forestland (greater than 50%). There are numerous streams, rivers, ponds or lakes within the PU.

Range Use

Range use refers to the suitability of the land within the PU for use by livestock. The choices are:

Little or no range use: This is equivalent to “Low” value. It means there is little range use or potential for range use. This can occur when the PU is mostly forest or croplands.

Range allotment within area, normal/average use: This is equivalent to “Medium” value. It means the PU has some rangelands being managed or leased.

Range allotment within area, significant use: This is equivalent to “High” value. The PU is mostly rangeland under lease or tribal management.

Watersheds

Watershed refers to the conditions within the PU for providing clean drinking water. The choices are:

Low Drinking Water Importance: This is equivalent to “Low” value. It means there is little potential for drinking water. Streams are mostly dry, with little riparian vegetation.

Medium Drinking Water Importance: This is equivalent to “Medium” value. It means the PU has streams that are ephemeral and there is no designated water use. There is some potential for water use if the stream is impounded.

High Drinking Water Importance: This is equivalent to “High” value. The streams or lakes within the PU are used for drinking water.

Forest and Woodland

WPSAPS auto-fills this selection using remote sensing data (LANDFIRE). However, it should be verified carefully, since the remote sensing data does not easily identify seedling and sapling stands. It applies to all forest and woodlands within the PU. The following definitions from 53 IAM Chapter 5 will help clarify what these terms are intended to mean for Indian Country.

Forest or forest land means an ecosystem of at least one acre in size, including timber land and woodland, which is characterized by a more or less dense and extensive tree cover; contains, or once contained, at least 10% tree crown cover, and is not developed or planned for exclusive non-forest resource use.

Woodland means forest land not included within the timberland classification, stocked or capable of being stocked, with tree species of such form and size to produce forest

products that are generally marketable within the region for products other than lumber, pulpwood, or veneer.

It is important to note that both of these definitions also include seedling and sapling stands.

The choices are:

Standing timber/woodland on 25% or less of area. This is equivalent to “Low” value.

Standing timber/woodland on 26-50%. This is equivalent to “Medium” value.

Standing timber/woodland on 51%+ of area. This is equivalent to “High” value.

Plantations

Plantations are trees planted, normally of the same species, at regular intervals. They are often recognizable since the trees appear in rows. Due to their high early investment cost, plantations are generally considered to be some of the most valuable forest stands. Plantations are normally found in areas with short rotation, highly valuable conifers; near stable, active timber markets. They can be difficult to identify on satellite imagery but can be seen on most aerial photography or from ground surveys. Plantations primarily occur in the Southeast, Pacific Northwest, and to a lesser degree the Midwest (Great Lakes area). This value also includes lands where plantations are being planned.

The choices are:

15% or less of area in, or programmed for plantations. This is equivalent to “Low” value.

16 - 30% of area in, or programmed for plantations. This is equivalent to “Medium” value.

31%+ of area in, or programmed for plantations. This is equivalent to “High” value.

Private Property

Private property refers to the threat to homes and businesses within the PU. It is likely that this will always be rated as “High” or Medium”.

The choices are:

Little or no threat or loss potential. This is equivalent to “Low” value. While uncommon, this might be possible for a very small PU, or one with mostly cropland or forest.

Threat to structures and property. This is equivalent to “Medium” value. This might be used for a PU in grassy fuels or croplands and relatively few communities.

High loss and threat potential due to numbers and placement. This is equivalent to “High” value. For most PUs with WUI and communities, this is the correct choice.

Cultural Resources

Indian Country has literally thousands of historically and archeologically significant sites. Some of these are open to the public and very well known. Others are closely guarded tribal secrets for security and religious reasons. While it is unlikely that associating a site in WPSAPS with a PU will result in a security breach, users must respect the need to protect cultural resources from looting or vandalism.

When assessing risk to the site as a value to be protected, it is important to remember the threat is from a wildfire. If the site is one that would not be damaged by a wildfire, such as a cave or cliff dwelling; the value being protected is low.

If there are sites within the PU that could be damaged by a wildfire include them. If the user is uncertain about the presence of cultural sites, consult the Regional Archeologist.

The choices are:

No archaeological/historical findings, little potential for Native American Use. This is equivalent to “Low” value. It should be used if the PU doesn’t have a perennial stream, quarry, fossil bed or other known site.

Minimal archaeological/historical findings, potential for Native American use. This is equivalent to “Medium” value. It should be used if the PU has a perennial stream, river, or lake; and there are no known sites. It should also be used when there are sites where the location is not public.

Archaeological/historical findings of high significance. This is equivalent to “High” value. Use this selection when there are significant publicly known sites within the PU. This selection can also be used for very significant sites that aren’t widely known, where security is not a concern.

Special Interest

Special interest areas are any area within the PU that is significantly important to the Tribe, public or for employment. Examples include casinos, tribal hunting or fishing areas, culturally important plant gathering areas, orchards, or tribally significant employers.

The choices are:

No special interest area within or adjacent to the area. This is equivalent to “Low” value. It means there are no special interest areas in the PU, or adjacent to it.

Area is adjacent to a special interest area. This is equivalent to “Medium” value. It should be used if there are special interest areas adjacent to the PU.

A majority of the area is classified as special interest area. This is equivalent to “High” value. Use this selection when there are special interest areas within the PU.

Visual Resources

Visual resources are essentially the view within the PU. The user needs to consider what the view would look like following a damaging wildfire and make a selection.

Complete this sentence: “A damaging wildfire would have [blank] in this PU”.

The choices are:

Little Impact on Viewshed. This is equivalent to “Low” value. It means there will be little change in the view. This situation would be most likely in PUs dominated by prairie, cropland, or desert. It could also be used where a surface fire could be expected to burn through the view shed, beneath a mature timber stand, such as mature ponderosa or southern pine.

Short Term Impacts to Viewshed (1-3 yrs). This is equivalent to “Medium” value. Use this selection when a damaging wildfire has the potential to make short term changes to the view. Also, use this choice for areas where regrowth is rapid following a fire.

Long Term Impacts to the Viewshed (4 yrs +). This is equivalent to “High” value. Use this selection when the view within the PU would be damaged for 4 years, or more, if a wildfire burns through it. This could also be used for areas that under “natural” fire regimes would not be extensively damaged, but currently have significant fuel accumulations with high potential for extreme fire behavior.

Threatened and Endangered Species

This value selection refers to animals (fauna). It is auto filled by WPSAPS. It should be reviewed and confirmed based on local knowledge. For the purposes of this risk assessment, it is not necessary to consult with the US Fish and Wildlife Service (the official source of T & E Species information).

The [Threatened and Endangered Species List](https://www.fws.gov/endangered/species/us-species.html) can be found online at: <https://www.fws.gov/endangered/species/us-species.html>.

The choices are:

Absent. This is equivalent to “Low” value. Use this selection if there are no sensitive, threatened or endangered species known to be within the PU.

Present Sensitive. This is equivalent to “Medium” value. Use this selection if sensitive, but not threatened or endangered, species are known to exist within the PU.

Present Threatened/Endangered. This is equivalent to “High” value. Use this selection if threatened or endangered species are known to exist within the PU.

Soils (Erosion)

Soils are an important value to be protected before and after a wildfire. The value question to ask here is, “if a wildfire burns off the surface vegetation and exposes the soil within the PU, what is the potential for significant erosion?”

In general, soils with a higher clay content are less susceptible to erosion; however, several other environmental factors impact this. These include degree and length of slope; frequency, intensity and duration of wind or rain events; and chemical characteristics.

WPSAPS provides a background layer that can be viewed for the Soil Types. The NRCS Soil Surveys may be consulted for a more definitive selection. The [Soil Surveys](https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/) can be found online at: <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/>

The choices are:

Low Significance (EHR < 4). This is equivalent to “Low” value. It may include Histisols, Oxisols, Ultisols, and Vertisols. Alfisols on gently sloping lands may also fit this description.

Moderately erodible (EHR 4-12). This is equivalent to “Medium” value. It may include Alfisols, Gelisols, and Mollisols.

Highly Erodible (EHR 13+). This is equivalent to “High” value. It may include Andisols, Aridisols, Entisols, Inceptisols, and Spodosols. It may also include Mollisols on steeper slopes.

Soils (Organic)

Most soils originally included an organic layer; however, an organic soil is a soil composed of organic layers throughout its horizon. Organic soils are important to consider as a value, since they have the potential to ignite, burn and lose their ability to support the ecosystem. They form from decaying animal and plant material, normally in the presence of water. Organic soils can be found in every state but are more common along the East Coast and around the Great Lakes. These soils include peat bogs, and mucks.

The NRCS Soil Surveys may be consulted for a more definitive selection. The [Soil Surveys](https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/) can be found online at: <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/>

The choices are:

Not applicable - no organic soils exist. This is equivalent to “Low” value. This will be the most common selection in Indian Country.

Moderate susceptibility to fire damage. This is equivalent to “Medium” value. Use this selection if the soil is subject to occasional or periodic drought episodes, severe enough for it to dry out at the surface.

High susceptibility to fire damage. This is equivalent to “High” value. Use this selection if the soil is subject to frequent drought episodes, severe enough for it to dry out at the surface. Also use this selection if the soil has been artificially drained.

Airshed

The airshed is determined by the shape of the land and the prevailing winds. However, nearly all airsheds in the US have been assessed for air pollution compliance using the [National Ambient Air Quality Standards \(NAAQS\)](https://www.epa.gov/naaqs). These standards are found online at:

<https://www.epa.gov/naaqs>. For the purposes of this risk assessment, the air quality in the airshed is the value being protected in this selection. It is primarily being protected from particulate matter in smoke from a wildfire.

The choices are:

Attainment. This is equivalent to “Low” value. It means the airshed has acceptable air quality, per the NAAQS and can absorb some decreased quality due to wildfire smoke.

Non-Attainment. This is equivalent to “Medium” value. It means the airshed has worse than the NAAQS for air quality for a particular pollutant. In most cases, adding smoke from a wildfire will negatively affect the efforts to move towards attainment status.

Class 1. This is equivalent to “High” value. Class 1 airsheds have been designated as airsheds where the goal is to preserve, protect and enhance air quality. National Parks larger than 6,000 acres and federally designated wilderness areas larger than 5,000 acres are examples. Tribal lands may also be designated as Class 1 airsheds. As of 2008, the following were designated as Class 1 airsheds:

The Northern Cheyenne Indian Reservation, Montana (The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation);

The Flathead Indian Reservation, Montana (The Confederated Salish and Kootenai Tribes of the Flathead Reservation);

The Fort Peck Indian Reservation, Montana (The Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation);

The Spokane Indian Reservation, Washington (The Spokane Tribe of the Spokane Reservation); and

The Forest County Potawatomi Reservation, Wisconsin (The Forest County Potawatomi Community).

The user should check with the tribal government to verify the status for other tribal jurisdictions.

Threatened and Endangered Vegetation Species

This value selection refers to plants (flora). For the purposes of this risk assessment, it is not necessary to consult with the US Fish and Wildlife Service (the official source of T & E Species information). However, it is recommended that someone knowledgeable in the tribe be consulted.

The [Threatened and Endangered Species List](https://www.fws.gov/endangered/species/us-species.html) can be found online at: <https://www.fws.gov/endangered/species/us-species.html>.

The choices are:

Absent. This is equivalent to “Low” value. Use this selection if there are no sensitive, threatened or endangered species known to be within the PU.

Present Sensitive. This is equivalent to “Medium” value. Use this selection if sensitive, but not threatened or endangered, species are known to exist within the PU.

Present Threatened/Endangered. This is equivalent to “High” value. Use this selection if threatened or endangered species are known to exist within the PU.

Prevention Unit Processing

Once the assessment information is entered for all of the PUs, the user will need to process the Prevention Unit Risk Assessment.

To process the Prevention Unit Risk Assessment, close the assessment map. Lock the map using the checkbox at the upper right of the Prevention Unit Assessment Map section. Then select Generate Assessment Results Map. When the “pop up” window appears, select “Calculate”. (This may take a few minutes.)

STEP SIX: REVIEW THE RESULTS

WPSPAPS will display “Assessment Results” in a dark green space with an even darker green box below it. That box has “View Results Map” in white letters. By clicking on “View Results Map”, the user is given an opportunity to see the results of the assessment and conduct a quality review.

There are a series of maps to review. Check each map. Some maps display results, while others display background data that may help understand the results. If after review, the user determines there are data entry errors, or biases occurred in the assessment, this review provides an opportunity to make corrections.

Making Corrections

Once the results are reviewed, and needed corrections have been identified, the user will need to unlock the assessment. The assessments unlock in reverse order of how they were created. Each must be unlocked progressively back in time. Once the correct assessment is unlocked, and the edits are made, the assessments will need to be locked again. This causes the assessment process to repeat. When complete, the results will need to be reviewed, again.

To preserve selections made for fuel hazard, ignition risks, catastrophic fire potential and values, this will open the Setup Map. select the radio button for “New Communities and Prevention Units Only”. This will preserve the attributes previously entered so the user does not have to re-enter the entire risk assessment. Then additions, corrections and edits can be made to the prevention units and communities.

Results Maps

Overall Priority Ranking Map

This map displays the overall ranking results of both risk assessments. The results are displayed relative to each other and is useful for prioritization. The “hotter” colors reflect higher risk. So red (or orange) reflects higher risk and priority. Yellow reflects medium risk. Blue reflects lower risk and priority. This priority is carried over to the prevention actions section of the plan. Higher priority communities and PUs will receive more resources in the prevention actions.

Note: Users can click on any of the communities or PUs to change the priority if needed. Also included in the attribute display is the most frequent or primary cause for that prevention unit or community. If a different primary cause was expected the user may want to adjust the prevention unit boundaries and rerun the assessment results.

In addition to the color coding, there are numbers that reflect the risk ranking of both the communities and the PUs.

Assessment Rating Map

This map displays the actual Overall Risk ratings. These results are not relative to each other. They are based on the actual Overall Risk scores. It is useful when reviewing the overall assessment results but may not be as useful in the WFPP.

It uses the same color scheme as described in the Overall Priority Ranking Map.

Fuels Rating Map

This map displays the actual Fuels Risk ratings. These results are not relative to each other. They are based on the actual Fuels Risk scores. It is useful when reviewing the overall assessment results but may not be as useful in the WFPP.

It uses the same color scheme as described in the Overall Priority Ranking Map.

Ignition Risk Rating Map

This map displays the actual Ignition Risk ratings. These results are not relative to each other. They are based on the actual Ignition Risk scores. It is useful when reviewing the overall assessment results, but may not be as useful in the WFPP.

It uses the same color scheme as described in the Overall Priority Ranking Map.

History Rating Map

This map displays the actual Fire History ratings. These results are not relative to each other. They are based on the actual numbers. It is useful when reviewing the overall assessment results but may not be as useful in the WFPP.

It uses the same color scheme as described in the Overall Priority Ranking Map.

Values at Risk Rating Map

This map displays the actual Values at Risk ratings. These results are not relative to each other. They are based on the actual Values at Risk scores. It is useful when reviewing the overall assessment results, but may not be as useful in the WFPP.

It uses the same color scheme as described in the Overall Priority Ranking Map.

Wildfire Hazard Potential Map

This map displays the actual Wildfire Hazard Potential layer. It is the source of the WPSAPS autofill for the Catastrophic Fire Potential risk category. It is useful when reviewing the overall assessment and CFP decision, but may not be as useful in the WFPP.

Human Caused Fires Map

This map displays the actual human caused fire locations by cause. It is useful when reviewing the overall assessment results. It may be useful in the WFPP for planning what strategies are needed around specific communities or in a specific PU.

Human Caused Fire Size Map

This map displays the actual human caused fires by size class. It uses those NWCG fire classes previously described. It is useful to identify any patterns in where the larger and potentially more damaging wildfires occur. It may be useful in the WFPP.

Human Caused Fire Discovery by Month Map

This map displays the locations of fires over the 25-year time record or for a selected year. The fires are further filtered by cause category. The user may select all causes, or a specific cause to display. The resulting map shows fires, identified by a color-coded legend for each month of the year.

Human Caused Fire Discovery by Day of Week Map

This map displays the locations of fires over the 25-year time record or for a selected year. The fires are further filtered by cause category. The user may select all causes, or a specific cause to display. The resulting map shows fires, identified by a color-coded legend for each day of the week.

Fire Occurrence Map

This map uses “hot spots” to display the fire density. The display shows the number of fires per 5 square kilometers (1.93 square miles or 1,235 acres). This is useful when reviewing the overall assessment results and for workload planning. It may also be useful to include in the WFPP.

Plan Boundaries Map

This simplified map just displays the PU boundaries and communities over the Streets Layer. It is useful for reviewing the locations of these features. It may be useful to include in the WFPP.

STEP SEVEN: FINALIZE THE ASSESSMENT

Once the results have been reviewed, any edits made, and the user is satisfied the results are realistic; it is time to finalize the assessment. This step cannot be undone. To re-enter the assessment and edit, after finalization requires the user to “clone” the WFPP from the “HOME” screen.

To finalize the assessment, click on the dark green rectangular box that says “Finalize Assessment”. A dialogue box appears with a warning. Click “Cancel” if further edits are needed, or “Finalize” to begin the process. Once the assessment is finalized, it cannot be reactivated from the “Dashboard”. If modifications to the assessment are needed, the plan should be *cloned* from the list of prevention plans. The assessment must be finalized before the user is able to begin to work on the “Planning Actions”.

The Assessment results are now visible by clicking on the “Planning Map” at the far right of the “Dashboard” screen. These are the same maps as were available in “Review the Results”.

V. USING THE RESULTS IN A WFPP

WPSAPS produces two types of results from the risk assessment. These are maps and reports. They are used in the Situational Analysis section of a WFPP. The following discussion shows how and where to use specific WPSAPS outputs in the Situational Analysis.

There are also a few business rules that apply to the subsections of the WFPP Situation Analysis. These are found in the 90 IAM Chapter 5- H Wildfire Prevention Handbook.

THE SITUATIONAL ANALYSIS

This section of the WFPP documents the current situation, planning process, and analysis that was used. There are eight sub-sections and four required tables in the Situational Analysis.

A. Description of the Unit.

No business rules apply to this sub-section.

This sub-section describes the overall Management Unit using descriptions from the Fire, Forest, or IRMP. It includes geographic boundaries, management unit boundaries, and vegetation types. The total acreage in the planning unit by ownership category should also be included. The sources for this information may include local unit fire management plan, BIA/Tribal Reality Office, or other fire protection data.

WPSAPS produces a map that is useful in displaying the planning unit boundaries. It can be found in the Planning Maps module. It is named “Plan Boundaries”.

B. Description of the Fire History.

Refer to the 90 IAM Chapter 5- H Wildfire Prevention Handbook for the business rules that apply to this subsection.

The Fire History is displayed in this section in **Table 1: Historical Fire Cause Analysis; this is a required table.** A template for Table 1 can be found on the Internet at:

<https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library/bia-prevention-handbook>.

Charts and graphs of the wildfire occurrence data are useful to illustrate the primary cause categories and occurrence trends. This sub-section must also identify the primary human cause(s) for wildfire.

WPSAPS provides several maps that are useful in this section. They can be found in the Planning Maps module. They are all based on the Karen Short dataset, and cover a 25-year history.

Human Caused Fires

This map is an actual depiction of the human caused fires, by cause. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. Note, the causes go beyond the standard 8 human fire causes. It is useful in displaying the geographic locations of various fire causes, when discussing fire occurrence, in a prevention plan.

Human Caused Fire Size

This map is a graphical depiction of human caused fire sizes, by cause. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. Note, the causes go beyond the standard 8 human fire causes. It is useful in displaying the geographic locations of various fires, by size and cause, when discussing fire occurrence in a prevention plan.

Human Caused Fire Discovery Month

This map shows the fire occurrence by location and month. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. Note, the causes go beyond the standard 8 human fire causes. It is useful in displaying when some prevention actions may be most effective.

Human Caused Fire Discovery Day of Week

This map shows the fire occurrence by location and day of the week. The map is customizable by year and by cause. To change the year or the cause, use the drop-down selectors at the right of the map, beneath the map layer switcher. Note, the causes go beyond the standard 8 human fire causes. It is useful in displaying what day of the week, some prevention actions may be most effective.

Fire Occurrence

This map shows the fire occurrence density. It is useful for the prevention staff, and planner to use when describing where wildfire activity is the highest.

Additionally, for WFPP Revisions: any changes in wildfire occurrence and in the primary cause category need to be described.

C. History of Prevention Efforts.

There are no business rules for this sub-section.

This sub-section briefly describes the history of wildfire prevention in the Management Unit in narrative form.

Additionally for WFPP Revisions: the previous plans are briefly described. A summary of the results of the most recent prevention program review--including all significant findings--should also be provided. A copy of the most recent program review and a copy of it must be included in Appendix J of the WFPP. The status and effectiveness of each of the policy required program elements and the average annual accomplishments for each category of actions should also be discussed. The average actual accomplishments are compared to the average planned accomplishments, identifying areas of significant under or over achievement. Any factors that influenced accomplishments during the previous planning cycle are discussed.

WPSAPS provides two reports that may be useful for this section.

Accomplished Community Action Reports

This report shows all of the accomplishments that have been reported for prevention actions at the community level. It includes planned and unplanned prevention actions.

General and Specific Accomplishment Reports

This report shows the accomplishment progress for the selected YAP. It uses the same menu selection format as the General and Specific Action Reports. The report is in tabular format and

has a selection box that allows you to hide any unused Actions. The Planned Actions are shown above the Accomplished Actions. The incomplete actions are shaded in orange. The background for completed actions changes to white.

D. Prevention Strategy.

No business rules apply to this subsection.

This sub-section describes the Prevention Strategy, based on the Fire History analysis, and the NWCG's *Wildfire Prevention Strategies*. The *Wildfire Prevention Strategies* can be found online at: <https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library>.

Additionally for WFPP Revisions: the strategy used in the previous plan is described and its effectiveness is discussed. A discussion on how the previous prevention strategy relates to the current situation and identified primary cause is needed. This discussion includes any changes being made to better address a changed situation or primary cause(s).

E. Management Unit Assessment.

No business rules apply to this subsection.

This sub-section describes the Management Unit and/or Prevention Units (PUs). The management unit may have multiple Fire Management Units (FMUs) established in the local FMP and these may be used as PUs, if further delineation is not needed. The PUs are the lowest level of delineation for area planning in the WFPP. The term "Prevention Unit" replaces the previous term "Compartment." Maps are useful to illustrate the FMUs and PUs.

Table 2: Composite Prevention Unit Assessment Summary (formerly Compartment Assessment Summary) is a **required table** and is located in this section of the plan. This table displays the composite risk assessment of the fire management and/or prevention units. It is used in prioritizing the planned prevention actions. This table is generated by the risk assessment. A template for Table 2 can be found online at: <https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library/bia-prevention-handbook>.

Extensive knowledge of the risks, hazards, and values within the planning unit is needed to complete this section. The sources for this information may include: any previous risk assessments, maps, and personal observations by the FMO, fire program manager, natural resource officer, Tribal representative, or any other resource officer at the local unit.

Additionally, for WFPP Revisions: Discuss any changes made to the FMUs and/or PUs and any changes in their risk assessment.

WPSAPS provides both types of outputs that will be useful for this subsection.

MU with PU Ranking Report

This report lists the PUs and communities along with their overall risk rankings. For the PUs, it also shows the predominant vegetation.

It is useful for illustrating the PUs and Communities with the highest priority for conducting prevention actions. It is the source of the information used in Table 2

Overall Priority Ranking Map

This map shows the priority ranking for the results of the risk assessment. Both PUs and Communities are shown. This map is useful to visually depict the overall results of the risk assessment.

Assessment Rating Map

This map shows the rating for the PUs and communities, based on their assessment scores. It does not illustrate the priorities, although the numerical priority ranking is shown. It is useful when discussing or quantifying risk within the prevention plan.

Ignition Risk Rating Map

This map shows the ignition risk or “risk” rating. Again, it shows the overall risk priority rankings, numerically. The map is useful when discussing ignition risks in the prevention plan.

History Rating Map

This map shows the fire occurrence ratings, based on the number of wildfires in each PU. It is useful when discussing fire occurrence in the prevention plan.

Values at Risk Rating Map

This map shows the values at risk based on the risk assessment scores. It is useful to illustrate the potential impacts of wildfires on the risk assessment values.

F. Community Assessment.

Refer to the 90 IAM Chapter 5- H Wildfire Prevention Handbook for the business rules that apply to this subsection.

Table 3 The Community Assessment Summary is included in this subsection.

Table 3: The Community Assessment Summary is a required table. It shows the ranking produced by the Community Assessment. It is used in prioritizing planned community actions.

A template for Table 3 can be found online at:

<https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library/bia-prevention-handbook>.

WPSAPS provides both types of outputs that will be useful for this subsection.

MU with PU Ranking Report

This report lists the PUs and communities along with their overall risk rankings. For the PUs, it also shows the predominant vegetation.

It is useful for illustrating the PUs and Communities with the highest priority for conducting prevention actions. It is the source of the information used in Table 2

Overall Priority Ranking Map

This map shows the priority ranking for the results of the risk assessment. Both PUs and Communities are shown. This map is useful to visually depict the overall results of the risk assessment.

Wildfire Hazard Potential

This map depicts the relative potential for wildfire that would be difficult for suppression resources to contain. Areas mapped with higher WHP values represent fuels with a higher probability of experiencing torching, crowning, and other forms of extreme fire behavior under conducive weather conditions, based primarily on landscape conditions at the end of 2012. It was produced by the USDA Forest Service, Fire Modeling Institute, to help inform evaluations of wildfire risk or prioritization of fuels management needs across very large landscapes (millions of acres). It is useful to illustrate areas at risk. It is useful when discussing risk to communities since it also includes the WUI layer.

G. Fuels Assessment.

No business rules apply to this section.

This sub-section describes the vegetation types, fuel types, fuel management projects, fuel treatment methods, and fuels management objectives. These descriptions come from the FMP or

from a local unit Fuels Management Plan. Maps are useful in displaying the distribution of vegetation types.

Additionally, for WFPP Revisions: any changes to the fuels since the previous WFPP was prepared are discussed. **The prevention planner must engage the fuels management staff when completing this section.**

WPSAPS provides both types of outputs that will be useful for this subsection.

Structural Ignitability Report

The second table in this report shows the fuel treatment needs, based on the field surveys. It is useful for meeting the requirements of a CWPP and for connecting the prevention program and the fuel treatment/vegetation management efforts at the MU.

Fuels Rating Map

This map shows the fuels risk or “hazard” rating. Again, it shows the overall risk priority rankings, numerically. The map is useful when discussing fuels in the prevention plan.

Wildfire Hazard Potential

This map depicts the relative potential for wildfire that would be difficult for suppression resources to contain. Areas mapped with higher WHP values represent fuels with a higher probability of experiencing torching, crowning, and other forms of extreme fire behavior under conducive weather conditions, based primarily on landscape conditions at the end of 2012. It was produced by the USDA Forest Service, Fire Modeling Institute, to help inform evaluations of wildfire risk or prioritization of fuels management needs across very large landscapes (millions of acres). It is useful to illustrate areas at risk. It also includes the WUI layer.

H. Structural Ignitability Analysis.

This subsection describes the overall issues with structural susceptibility to ignitions.

WPSAPS provides a report that is specifically designed to provide the information needed for this subsection. It is presented in tabular form and should appear that way in the WFPP. It is Table Number 4.

Structural Ignitability report

This report shows the averages for each of the structural ignitability attributes for all communities across the MU.

VI. ATTACHMENTS

ATTACHMENT 1- COMMUNITY ASSESSMENT TOOL

Bureau of Indian Affairs Community Wildfire Risk Assessment Tool

Assessment conducted by: _____ Date: ___/___/___

Community Name: _____ Tribe/Reservation: _____

State _____ Latitude _____ Longitude _____

Community Selection Criteria:

- A. Is this community within 3 kilometers of Trust Lands? ___ Yes; ___ No.
- B. Are any of the following present? ___ Government; ___ Schools; ___ Fire Department; ___ Business; ___ Industry; ___ Community Center/Tribal Facility; ___ None.
- C. Is this community listed on the Communities at Risk List? ___ Yes; ___ No.

If the answer to A is "No"; STOP HERE.

If the answers to B and C are "None" and "No", respectively; STOP HERE.

Structural Flammability:

Place an "X" in the checkbox to the left of the best fitting description.

		Good		Fair		Poor
Roofing Material	<input type="checkbox"/>	No wood roofs	<input type="checkbox"/>	Less than 50% of structures have wood roofs.	<input type="checkbox"/>	50% or more of the structures have wood roofs.
Roof Hygiene	<input type="checkbox"/>	Roofs clean.	<input type="checkbox"/>	Some debris on roofs	<input type="checkbox"/>	Lots of debris on roofs.
Survivable Space (distance between structures)	<input type="checkbox"/>	More than 100 ft.	<input type="checkbox"/>	30 to 100 ft.	<input type="checkbox"/>	Less than 30 ft.
Landscaping Materials	<input type="checkbox"/>	Low combustion risk plants in the Home Ignition Zone (HIZ)	<input type="checkbox"/>	Higher combustion risk plants in the HIZ, but not adjacent to structures.	<input type="checkbox"/>	High combustion risk plants in the HIZ and adjacent to structures.
Landscape Maintenance	<input type="checkbox"/>	Maintained	<input type="checkbox"/>	Mixed	<input type="checkbox"/>	Little to no maintenance
Siding	<input type="checkbox"/>	Siding is bricks, logs or metal	<input type="checkbox"/>	Clapboard or shingle	<input type="checkbox"/>	Vinyl
Structural Hygiene	<input type="checkbox"/>	Maintained	<input type="checkbox"/>	Repairs needed	<input type="checkbox"/>	Abandoned
Flammables	<input type="checkbox"/>	Stored at least 30 ft. away from structures	<input type="checkbox"/>	Stored within 30 ft. of structures, but not adjacent to them	<input type="checkbox"/>	Stored adjacent to structures

Fuels Treatment Needs (optional):

Fuels Treatment Needed: Yes ___; No ___;

Fuels treatment Priority: Low ___; Medium ___; High ___;

Machine Mechanical ___; Prescribed Fire Treatment Needed ___;

Hand Mechanical Treatment Needed ___; Chemical Treatment Needed ___.

Bureau of Indian Affairs
Community Wildfire Risk Assessment Tool

Community Name: _____

Fuels Hazard

Fuels (Flame Length): Low: 0 – 2 feet ___; Medium: 4 – 6 feet ___; High: 8 feet or greater ___.
 Crowning Potential: Low ___; Medium ___; High ___.
 Initial Attack Arrival Time: Low: Less than 20 minutes ___; Medium: 20 to 30 minutes ___;
 High: Greater than 30 minutes ___.

Ignition Risk

Population Risk: Low ___; Medium ___; High ___.

Ignition Risks

(Place an "X" in the box at the left, for any that are present.)

	Transmission Lines		Developed Camping Areas		Military Operations
X	Distribution Lines		Off highway vehicle use		Festivals, Special Events
	Sub-stations		Oil & Gas Transmission		Incendiary
	Active Timber Sale		Gas Pumps or Storage		Cultural Activities
	Construction Project		Alternative Fuel Cells		Welding/Cutting/Grinding
	Wind Energy Production		Powder Magazines		Railroads
	Debris and Trash Burning		Dump		State or Federal Highways
	Agriculture Burning		Fireworks	X	County Roads
	Forest Range Burning		Children with matches		Public Access Roads
	Mining		Electronic Installations:		Non Motorized Trails & OHV Trails
	Oil and Gas Production		Woodcutting area, power equipment		Camps, Resorts, Stables
	Maintenance/Service Contracts		Shooting, Exploding Targets, etc.		Businesses:
	Dispersed camping areas, party areas, hunters, water-based [recreation], hiking		Government Operations	X	Agriculture/Ranching, Schools

Catastrophic Fire Potential: High ___; Medium ___; Low ___.

Notes and Sketch Map:

Bureau of Indian Affairs
Community Wildfire Risk Assessment Tool

Community Name: _____

Values to be Protected

Place an "X" in the checkbox to the left of the best fitting description.

		Low		Medium		High
Recreational Value	<input type="checkbox"/>	Undeveloped average recreation use	<input type="checkbox"/>	Undeveloped high recreation use	<input type="checkbox"/>	Developed recreation site
Administrative Sites	<input type="checkbox"/>	Few or no administrative sites	<input type="checkbox"/>	Administrative sites are present	<input type="checkbox"/>	Special use or high values sites
Wildlife and Fisheries	<input type="checkbox"/>	Relatively insignificant habitat	<input type="checkbox"/>	Moderately significant habitat	<input type="checkbox"/>	Highly significant habitat
Range Use	<input type="checkbox"/>	Little or no range use	<input type="checkbox"/>	Range allotment within area, normal/average use	<input type="checkbox"/>	Range allotment within area, significant use
Watersheds	<input type="checkbox"/>	Low Drinking Water Importance	<input type="checkbox"/>	Medium Drinking Water Importance	<input type="checkbox"/>	High Drinking Water Importance
Forest and Woodland	<input type="checkbox"/>	Standing timber/woodland on 25% or less of area	<input type="checkbox"/>	Standing timber/woodland on 26-50% of area	<input type="checkbox"/>	Standing timber/woodland on 51%+ of area
Plantations	<input type="checkbox"/>	15% or less of area in or programmed for plantations	<input type="checkbox"/>	16 - 30% of area in or programmed for plantations	<input type="checkbox"/>	31%+ of area in or programmed for plantations
Private Property	<input type="checkbox"/>	Little or no threat or loss potential.	<input type="checkbox"/>	Threat to structures and property	<input type="checkbox"/>	High loss and threat potential due to numbers and placement
Cultural Resources	<input type="checkbox"/>	No findings, little potential for Native American Use	<input type="checkbox"/>	Minimal findings, potential for Native American use	<input type="checkbox"/>	Archaeological/historical findings of high significance
Special Interest	<input type="checkbox"/>	No special interest area within or adjacent to the area	<input type="checkbox"/>	Area is adjacent to a special interest area.	<input type="checkbox"/>	A majority of the area is classified as special interest area.
Visual Resources	<input type="checkbox"/>	Little Impact on Viewshed	<input type="checkbox"/>	Short Term Impacts to Viewshed (1-3 yrs)	<input type="checkbox"/>	Long Term Impacts to the Viewshed (4 yrs +)
T & E Species	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Present Sensitive	<input type="checkbox"/>	Present Threatened/Endangered
Soils (Erosion)	<input type="checkbox"/>	Low Significance (EHR < 4)	<input type="checkbox"/>	Moderately erodible (EHR 4-12)	<input type="checkbox"/>	Highly Erodible (EHR 13+)
Soils (Organic)	<input type="checkbox"/>	Not applicable	<input type="checkbox"/>	Moderate susceptibility	<input type="checkbox"/>	High susceptibility
Airshed	<input type="checkbox"/>	Attainment.	<input type="checkbox"/>	Non-Attainment.	<input type="checkbox"/>	Class 1 Airshed
T & E Vegetation	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Present Sensitive	<input type="checkbox"/>	Present Threatened/Endangered

ATTACHMENT 2 – PREVENTION UNIT RISK ASSESSMENT TOOL

Prevention Unit Wildfire Risk Assessment Tool

Assessment conducted by: _____ Date: ___/___/___

Management Unit: _____ Prevention Unit Name: _____

State _____

Fuels Hazard

Fuels (Flame Length): Low: 0 – 2 feet ___; Medium: 4 – 6 feet ___; High: 8 feet or greater ___.

Crowning Potential: Low ___; Medium ___; High ___.

Initial Attack Arrival Time: Low: Less than 20 minutes ___; Medium: 20 to 30 minutes ___; High: Greater than 30 minutes ___.

Ignition Risk

Population Risk: Low ___; Medium ___; High ___.

Ignition Risks

(Place an "X" in the box at the left, for any that are present.)

<input type="checkbox"/>	Transmission Lines	<input type="checkbox"/>	Developed Camping Areas	<input type="checkbox"/>	Military Operations
<input type="checkbox"/>	Distribution Lines	<input type="checkbox"/>	Off highway vehicle use	<input type="checkbox"/>	Festivals, Special Events
<input type="checkbox"/>	Sub-stations	<input type="checkbox"/>	Oil & Gas Transmission	<input type="checkbox"/>	Incendiary
<input type="checkbox"/>	Active Timber Sale	<input type="checkbox"/>	Gas Pumps or Storage	<input type="checkbox"/>	Cultural Activities
<input type="checkbox"/>	Construction Project	<input type="checkbox"/>	Alternative Fuel Cells	<input type="checkbox"/>	Welding/Cutting/Grinding
<input type="checkbox"/>	Wind Energy Production	<input type="checkbox"/>	Powder Magazines	<input type="checkbox"/>	Railroads
<input type="checkbox"/>	Debris and Trash Burning	<input type="checkbox"/>	Dump	<input type="checkbox"/>	State or Federal Highways
<input type="checkbox"/>	Agriculture Burning	<input type="checkbox"/>	Fireworks	<input type="checkbox"/>	County Roads
<input type="checkbox"/>	Forest Range Burning	<input type="checkbox"/>	Children with matches	<input type="checkbox"/>	Public Access Roads
<input type="checkbox"/>	Mining	<input type="checkbox"/>	Electronic Installations:	<input type="checkbox"/>	Non Motorized Trails & OHV Trails
<input type="checkbox"/>	Oil and Gas Production	<input type="checkbox"/>	Woodcutting area, power equipment	<input type="checkbox"/>	Camps, Resorts, Stables
<input type="checkbox"/>	Maintenance/Service Contracts	<input type="checkbox"/>	Shooting, Exploding Targets, etc.	<input type="checkbox"/>	Businesses:
<input type="checkbox"/>	Dispersed camping areas, party areas, hunters, water-based [recreation], hiking	<input type="checkbox"/>	Government Operations	<input type="checkbox"/>	Agriculture/Ranching, Schools

Catastrophic Fire Potential: High ___; Medium ___; Low ___.

Prevention Unit Wildfire Risk Assessment Tool

Prevention Unit Name: _____

Values to be Protected

Place an "X" in the checkbox to the left of the best fitting description.

		Low		Medium		High
Recreational Value	<input type="checkbox"/>	Undeveloped average recreation use	<input type="checkbox"/>	Undeveloped high recreation use	<input type="checkbox"/>	Developed recreation site
Administrative Sites	<input type="checkbox"/>	Few or no administrative sites	<input type="checkbox"/>	Administrative sites are present	<input type="checkbox"/>	Special use or high values sites
Wildlife and Fisheries	<input type="checkbox"/>	Relatively insignificant habitat	<input type="checkbox"/>	Moderately significant habitat	<input type="checkbox"/>	Highly significant habitat
Range Use	<input type="checkbox"/>	Little or no range use	<input type="checkbox"/>	Range allotment within area, normal/average use	<input type="checkbox"/>	Range allotment within area, significant use
Watersheds	<input type="checkbox"/>	Low Drinking Water Importance	<input type="checkbox"/>	Medium Drinking Water Importance	<input type="checkbox"/>	High Drinking Water Importance
Forest and Woodland	<input type="checkbox"/>	Standing timber/woodland on 25% or less of area	<input type="checkbox"/>	Standing timber/woodland on 26-50% of area	<input type="checkbox"/>	Standing timber/woodland on 51%+ of area
Plantations	<input type="checkbox"/>	15% or less of area in or programmed for plantations	<input type="checkbox"/>	16 - 30% of area in or programmed for plantations	<input type="checkbox"/>	31%+ of area in or programmed for plantations
Private Property	<input type="checkbox"/>	Little or no threat or loss potential.	<input type="checkbox"/>	Threat to structures and property	<input type="checkbox"/>	High loss and threat potential due to numbers and placement
Cultural Resources	<input type="checkbox"/>	No findings, little potential for Native American Use	<input type="checkbox"/>	Minimal findings, potential for Native American use	<input type="checkbox"/>	Archaeological/historical findings of high significance
Special Interest	<input type="checkbox"/>	No special interest area within or adjacent to the area	<input type="checkbox"/>	Area is adjacent to a special interest area.	<input type="checkbox"/>	A majority of the area is classified as special interest area.
Visual Resources	<input type="checkbox"/>	Little Impact on Viewshed	<input type="checkbox"/>	Short Term Impacts to Viewshed (1-3 yrs)	<input type="checkbox"/>	Long Term Impacts to the Viewshed (4 yrs +)
T & E Species	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Present Sensitive	<input type="checkbox"/>	Present Threatened/Endangered
Soils (Erosion)	<input type="checkbox"/>	Low Significance (EHR < 4)	<input type="checkbox"/>	Moderately erodible (EHR 4-12)	<input type="checkbox"/>	Highly Erodible (EHR 13+)
Soils (Organic)	<input type="checkbox"/>	Not applicable	<input type="checkbox"/>	Moderate susceptibility	<input type="checkbox"/>	High susceptibility
Airshed	<input type="checkbox"/>	Attainment.	<input type="checkbox"/>	Non-Attainment.	<input type="checkbox"/>	Class 1 Airshed
T & E Vegetation	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Present Sensitive	<input type="checkbox"/>	Present Threatened/Endangered

ATTACHMENT 3 – WPSAPS RISK ASSESSMENT WORKFLOW

WPSAPS Risk Assessment Workflow Table

Major Action	Incremental Steps	Notes
Login		
Create Planning Project	Select Planning Project	
Set-up Map		
	Digitize Management Unit	
	Create Prevention Units	Name Units
	Select and Identify Communities	Enter Structural vulnerabilities and fuel treatment priorities. Refer to standards.
	Lock Set-up Map	
	Select “global” risk assessment categories.	
	Generate Community Risk Assessment Map	
Enter Community Risk Assessment		
	Enter and Review Assessment Attributes	Must be done for each community. Refer to standards.
	Lock Community Risk Assessment	
	Generate Prevention Unit Assessment Map	
Enter Prevention Unit Assessment Map		
	Enter and Review Assessment Attributes	Must be done for each Prevention Unit. Refer to standards.
	Lock Prevention Unit Risk Assessment	
	Generate Assessment Results Map	
Review Assessment Results		
	Review maps and make edits to Communities and Prevention Units as needed.	
Finalize Assessment		