

**COHESIVE STRATEGY
CROSSWALK AND STRATEGIC ALIGNMENT
APPENDICES**

**A COMPANION DOCUMENT TO THE REPORT BY THE
NATIONAL STRATEGIC COMMITTEE**

Cohesive Strategy Vision for the next Century:

To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.

Cohesive Strategy Goals:

Resilient Landscapes

Fire Adapted Communities

Safe and Effective Wildfire Response

**SUBMITTED TO THE WILDLAND FIRE LEADERSHIP COUNCIL
DECEMBER, 2016**

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APPENDIX A: Members

National Strategic Committee Members

Pete Anderson, *Natural resource management area, National Association of State Foresters*

Denise Blankenship, *Fire management area, USDA/Forest Service*

Patti Blankenship, *NSC Chair, Community planning area, DHS/FEMA/U.S. Fire Administration*

Robert Cope, *At-large member, National Association of Counties*

Rich Cowger, *Fire Management area, International Association of Fire Chiefs*

Lynn Decker, *Community planning area, The Nature Conservancy*

Jim Erickson, *Cultural resource area, Intertribal Timber Council*

Will Meeks, *Fire Management area, DOI/Fish and Wildlife Service*

Brenda O'Connor, *Communications area, Insurance Institute for Business and Home Safety*

Kevin Oliver, *Natural resource management area, DOI/Bureau of Land Management*

Tom Olshanski, *Communications area, DHS/FEMA/U.S. Fire Administration*

Ray Rasker, *Socio-economic area, Headwaters Economics*

Matt Rollins, *Science area, USDA/Forest Service*

Ex-Officio Committee Members

Brad Simpkins, *Chair, Northeastern Regional Strategy Committee*

Joe Stutler, *Co-Chair, Western Regional Strategy Committee*

Gary Wood, *Coordinator, Southeastern Regional Strategy Committee*

Mike Zupko, *Executive Manager, WFLC*

Alternate and Support Members

Steve Acarregui, *DOI/BLM Fire and Aviation, Alternate-Oliver*

Tom Boggus, *Member, Southeastern Regional Strategy Committee*

Cathy Broughton, *Administrative support, DHS/FEMA/U.S. Fire Administration*

Michael Haydon, *DOI/FWS Region 6, Alternate-Meeks*

Danny Lee, *Science representative, USDA/Forest Service*

Katie Lighthall, *Coordinator, Western Regional Strategy Committee*

Cohesive Strategy Crosswalk and Strategic Alignment Report – Appendix A

Larry Mastic, *Coordinator, Northeastern Regional Strategy Committee*

Kristin Merony, *DOI/Office of Wildland Fire*

Bill Tripp, *Co-chair, Western Regional Strategy Committee*

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Crosswalk and Strategic Alignment Report Development Team

Patti Blankenship

Cathy Broughton

Katie Lighthall

Larry Mastic

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APPENDIX B: Crosswalk Reference Documents

The National Strategy – The Final Phase in the Development of the National Cohesive Wildland Fire Management Strategy, April 2014

<https://www.forestsandrangelands.gov/strategy/documents/strategy/CSPhaseIIINationalStrategyApr2014.pdf>

National Action Plan – An Implementation Framework for the National Cohesive Wildland Fire Management Strategy, April 2014

https://www.forestsandrangelands.gov/strategy/documents/strategy/NationalActionPlan_20140423.pdf

National Cohesive Wildland Fire Management Strategy Barriers and Critical Success Factors, unpublished working document, August 2012, (see Appendix E)

National Cohesive Wildland Fire Management Strategy Performance Measure Data Dictionary, unpublished working document, January 2014, (see Appendix H)

Wildland Fire Leadership Council Strategic Priorities, unpublished working document, November 2015, (see Appendix I)

2014 Quadrennial Fire Review, May 2015

<https://www.forestsandrangelands.gov/QFR/documents/2014QFRFinalReport.pdf>

APPENDIX C: Cohesive Strategy Crosswalk

Crosswalk matrix document begins on next page.

COHESIVE STRATEGY CROSSWALK AND STRATEGIC ALIGNMENT REVIEW

FINAL VERSION **09/27/2016** – UPDATED POST NSC F2F MEETING

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
COHESIVE STRATEGY GOAL: RESTORE AND MAINTAIN LANDSCAPES						
L-1.1	Management Option Prescribed Fire 1: Expand or maintain in areas of current use. Rx Fire 1	Where wildfires are unwanted or threaten communities and homes, design and prioritize fuel treatments (prescribed fire, and mechanical, biological and chemical treatments) to reduce fire intensity, structure ignition and wildfire extent. V&F-IPG 1				
L-1.2	Rx Fire 1	Continue and expand the use of prescribed fire to meet landscape objectives, improve ecological conditions, and reduce the potential for high-intensity wildfires. V&F-IPG 3	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	
L-1.3	Rx Fire 1	V&F-IPG 3	B33-3		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-1.4	Rx Fire 1	V&F-IPG 3	B33-3		Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-1.5	Rx Fire 1	V&F-IPG 3	B33-3		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-1.6	Rx Fire 1	Promote community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfire to communities and homes situated near or adjacent to natural vegetation. HC&V-IPG 1			Utilize shared learning to expand knowledge and access to information RRC E/C-1	

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L-1.7	Rx Fire 1	HC&V-IPG 1			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-1.8	Rx Fire 1	HC&V-IPG 1			Utilize shared learning to increase the opportunity for successful collaboration across the country LLC E/C-1	
L-1.9	Rx Fire 1	HC&V-IPG 1			Develop a workshop series to focus shared learning among practitioners and partners LLC E/C-4	
L-1.10	Rx Fire 1	HC&V-IPG 1			Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-1.11	Rx Fire 1	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2			Educate prescribed fire practitioners on the importance of following basic smoke management practices to reduce emissions and smoke effects on the public and firefighters SMAQ E/C-3	
L-1.12	Rx Fire 1	HC&V-IPG 2			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
L-1.13	Rx Fire 1	HC&V-IPG 2			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-1.14	Rx Fire 1	HC&V-IPG 2			Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-1.15	Rx Fire 1	Promote prescribed fire certification and training to provide safe use of fire. R&ML 2	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3		Work to identify and remove barriers to conducting prescribed fire. SMAQ P-4	
L-1.16	Rx Fire 1	R&ML 2	B33-3		Educate prescribed fire practitioners on the importance of following basic smoke management practices to reduce emissions and smoke effects on the public and firefighters SMAQ E/C-3	
L-1.17	Rx Fire 1	R&ML 2	B33-3		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	

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L-1.18	Rx Fire 1	R&ML 2	B33-3		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-1.19	Rx Fire 1	Promote landscape scale fuels management activities that address creation and maintenance of resilient landscapes. R&ML 3	Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 2 Encourage federal agencies to use authorities under the Healthy Forest Restoration act (HFRA) and the Health Forest initiative (HFI) to expedite the planning /collaboration process to treat large landscapes. CSF14-2		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	Explore opportunities to enhance awareness about the benefits of fire and public acceptance of prescribed fire and fire use through a set of multifaceted messages QFR 4
L-1.20	Rx Fire 1	R&ML 3	CSF14-2		Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America’s wildlands as it relates to worldwide climate change discussions SMAQ E/C-2	
L-1.21	Rx Fire 1	R&ML 3	CSF14-2		Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-1.22	Rx Fire 1	R&ML 3	CSF14-2		Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-1.23	Rx Fire 1	R&ML 3	CSF14-2		Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-1.24	Rx Fire 1	R&ML 3	CSF14-2		Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
L-1.25	Rx Fire 1	R&ML 3	CSF14-2		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-1.26	Rx Fire 1	R&ML 3	CSF14-2		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	

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L-1.27	Rx Fire 1		Critical Success Factor #5 Increase fuels Mgmt on Private Land – Action 3 Integrate USFS and NRCS funding and programs to achieve success. Work with NRCS, FSA, and other USDA agencies to better incorporate and/or incentivize prescribed burning on tribal and private lands. CSF5-3		Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states. SMAQ P-3	
L-1.28	Rx Fire 1		CSF5-3		Work to identify and remove barriers to conducting prescribed fire. SMAQ P-4	
L-1.29	Rx Fire 1		CSF5-3		Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-1.30	Rx Fire 1		CSF5-3		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
L-1.31	Rx Fire 1		CSF5-3		Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-1.32	Rx Fire 1		CSF5-3		Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
L-1.33	Rx Fire 1		Critical Success Factor #5 Increase fuels Mgmt on Private Land – Action 4 Work with EPA to reduce restrictions to the use of prescribed fire due to smoke tolerance and emissions (air quality). Part is education of the general public; the other part is education/science working with EPA on short term effects verses long term impacts and extent of emissions. CSF5-4		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> • define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire • describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	
L-1.34	Rx Fire 1		CSF5-4		Work with health and safety agencies at all levels to better understand the long term impact that limiting prescribed fire has on public safety and health issues due to large uncontrolled wildfires. SMAQ P-2	

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L-1.35	Rx Fire 1		CSF5-4		Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states. SMAQ P-3	
L-1.36	Rx Fire 1		CSF5-4		Work to identify and remove barriers to conducting prescribed fire. SMAQ P-4	
L-1.37	Rx Fire 1		CSF5-4		Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
L-1.38	Rx Fire 1		CSF5-4		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
L-1.39	Rx Fire 1		CSF5-4		Utilize shared learning to increase the opportunity for successful collaboration across the country LLC E/C-1	
L-1.40	Rx Fire 1		CSF5-4		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-1.41	Rx Fire 1		CSF5-4		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-1	
L-1.42	Rx Fire 1		CSF5-4		Explore policy and regulatory structures to increase cross-boundary work and more effectively use existing authorities EC P-2	
L-1.43	Rx Fire 1		National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3		Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ P-4	
L-1.44	Rx Fire 1		B33-3		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-1.45	Rx Fire 1		B33-3		Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response LLC P-1	
L-1.46	Rx Fire 1		B33-3		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-2	

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L-1.47	Rx Fire 1		B33-3		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-1.48	Rx Fire 1		B33-3		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-1 OA.1	Overarching Action for L.1 Prescribed Fire: Expand or maintain in areas of current use OA Rx Fire 1				Support interagency investments in Joint Fire Science Program studies and other studies on smoke impacts and air quality SMAQ S-1	
L-1 OA.2	OA Rx Fire 1				Strengthen knowledge about the impacts of weather, ecology, fuel depth, geography, and other environmental factors on total emissions produced by planned prescribed fires compared to wildfires SMAQ S-2	
L-1 OA.3	OA Rx Fire 1				Identify pilot areas to study the localized impacts of smoke produced during frequent prescribed fires. SMAQ S-3	
L-1 OA.4	OA Rx Fire 1				Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
L-1 OA.5	OA Rx Fire 1				Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America's wildlands as it relates to worldwide climate change discussions SMAQ E/C-2	
L-1 OA.6	OA Rx Fire 1				Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	

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L-2.1	Management Option Prescribed Fire 2: Expand into areas of limited current use. Rx Fire 2	Where wildfires are unwanted or threaten communities and homes, design and prioritize fuel treatments (prescribed fire, and mechanical, biological and chemical treatments) to reduce fire intensity, structure ignition and wildfire extent. V&F-IPG 1			Utilize shared learning to increase the opportunity for successful collaboration across the country LLC E/C-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-2.2	Rx Fire 2	V&F-IPG 1			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-2.3	Rx Fire 2	V&F-IPG 1			Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-2.4	Rx Fire 2	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2			Educate prescribed fire practitioners on the importance of following basic smoke management practices to reduce emissions and smoke effects on the public and firefighters SMAQ E/C-3	
L-2.5	Rx Fire 2	HC&V-IPG 2			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
L-2.6	Rx Fire 2	HC&V-IPG 2			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-2.7	Rx Fire 2	HC&V-IPG 2			Develop a workshop series to focus shared learning among practitioners and partners LLC E/C-4	
L-2.8	Rx Fire 2	Continue and expand the use of prescribed fire to meet landscape objectives, improve ecological conditions, and reduce the potential for high-intensity wildfires. V&F-IPG 3	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	

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L-2.9	Rx Fire 2	V&F-IPG 3	B33-3		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-2.10	Rx Fire 2	V&F-IPG 3	B33-3		Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-2.11	Rx Fire 2	V&F-IPG 3	B33-3		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-2	
L-2.12	Rx Fire 2	V&F-IPG 3	B33-3		Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-2.13	Rx Fire 2	V&F-IPG 3	B33-3		Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
L-2.14	Rx Fire 2	V&F-IPG 3	B33-3		Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-2.15	Rx Fire 2	V&F-IPG 3	B33-3		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-2.16	Rx Fire 2	V&F-IPG 3	B33-3		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-2.17	Rx Fire 2	Promote community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfire to communities and homes situated near or adjacent to natural vegetation. HC&V-IPG 1			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
L-2.18	Rx Fire 2	HC&V-IPG 1			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-2.19	Rx Fire 2	HC&V-IPG 1			Develop a workshop series to focus shared learning among practitioners and partners LLC E/C-4	

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L-2.20	Rx Fire 2	HC&V-IPG 1			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-2.21	Rx Fire 2	Ensure that wildfire mitigation strategies consider protection of community infrastructure and values, for example, municipal watersheds, cultural assets, viewsheds, parks, and transportation and utility corridors. HC&V-IPG 4			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-2.22	Rx Fire 2	Seek means to assist private landowners with managing fuels. R&ML 1			Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-2.23	Rx Fire 2	Promote landscape scale fuels management activities that address creation and maintenance of resilient landscapes. R&ML 3			Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> • define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire • describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	
L-2.24	Rx Fire 2	R&ML 3			Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-2.25	Rx Fire 2	R&ML 3			Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-2.26	Rx Fire 2	R&ML 3			Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-2.27	Rx Fire 2		Critical Success Factor #5 Increase fuels Mgmt on Private Land – Action 3 Integrate USFS and NRCS funding and programs to achieve success. Work with NRCS, FSA, and other USDA agencies to better incorporate and/or incentivize prescribed burning on tribal and private lands. CSF5-3		Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states. SMAQ P-3	

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L-2.28	Rx Fire 2		CSF5-3		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	
L-2.29	Rx Fire 2		CSF5-3		Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-2.30	Rx Fire 2		CSF5-3		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
L-2.31	Rx Fire 2		CSF5-3		Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
L-2.32	Rx Fire 2		CSF5-3		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-2.33	Rx Fire 2		CSF5-3		Explore policy and regulatory structures to increase cross-boundary work and more effectively use existing authorities EC P-2	
L-2.34	Rx Fire 2		Critical Success Factor #5 Increase fuels Mgmt on Private Land – Action 4 Work with EPA to reduce restrictions to the use of prescribed fire due to smoke tolerance and emissions (air quality). Part is education of the general public; the other part is education/science working with EPA on short term effects verses long term impacts and extent of emissions. CSF5-4		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	Explore opportunities to enhance awareness about the benefits of fire and public acceptance of prescribed fire and fire use through a set of multifaceted messages. QFR 4
L-2.35	Rx Fire 2		CSF5-4		Work with health and safety agencies at all levels to better understand the long term impact that limiting prescribed fire has on public safety and health issues due to large uncontrolled wildfires SMAQ P-2	
L-2.36	Rx Fire 2		CSF5-4		Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states SMAQ P-3	
L-2.37	Rx Fire 2		CSF5-4		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
L-2.38	Rx Fire 2		CSF5-4		Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
L-2.39	Rx Fire 2		CSF5-4		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
L-2.40	Rx Fire 2		CSF5-4		Utilize shared learning to increase the opportunity for successful collaboration across the country LLC E/C-1	
L-2.41	Rx Fire 2		CSF5-4		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-1	
L-2.42	Rx Fire 2		CSF5-4		Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
L-2.43	Rx Fire 2		CSF5-4		Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-2.44	Rx Fire 2		CSF5-4		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-2.45	Rx Fire 2		CSF5-4		Explore policy and regulatory structures to increase cross-boundary work and more effectively use existing authorities EC P-2	
L-2 OA.1	Overarching Action for L.2 Prescribed Fire: Expand into areas of limited current use OA Rx Fire 2				Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
L-2 OA.2	OA Rx Fire 2				Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America's wildlands as it relates to worldwide climate change discussions SMAQ E/C-2	

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L-3.1	Management Option Prescribed Fire 3: Utilize on a limited basis. Rx Fire 3	Where wildfires are unwanted or threaten communities and homes, design and prioritize fuel treatments (prescribed fire, and mechanical, biological and chemical treatments) to reduce fire intensity, structure ignition and wildfire extent. V&F-IPG 1				
L-3.2	Rx Fire 3		Critical Success Factor #5 Increase fuels Mgmt on Private Land – Action 4 Work with EPA to reduce restrictions to the use of prescribed fire due to smoke tolerance and emissions (air quality). Part is education of the general public; the other part is education/science working with EPA on short term effects verses long term impacts and extent of emissions. CSF5-4		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	Explore opportunities to enhance awareness about the benefits of fire and public acceptance of prescribed fire and fire use through a set of multifaceted messages. QFR 4
L-3.3	Rx Fire 3		CSF5-4		Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states SMAQ P-3	
L-3.4	Rx Fire 3		CSF5-4		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	
L-3.5	Rx Fire 3		CSF5-4		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
L-3.6	Rx Fire 3		CSF5-4		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-1	
L-3 OA.1	Overarching Action for L.3 Prescribed Fire: Utilize on a limited basis OA Rx Fire 3				Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
L-3 OA.2	OA Rx Fire 3				Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America's wildlands as it relates to worldwide climate change discussions SMAQ E/C-2	

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L-4.1	Management Option Manage wildfires for resource objectives 1: In forested systems. MWRO 1	Where allowed and feasible, manage wildfire for resource objectives and ecological purposes to restore and maintain fire-adapted ecosystems and achieve fire-resilient landscapes. V&F-IPG 4		Percent of fire ignitions managed for resource benefits, where allowed and number of these acres burned that contribute to landscape resilience IM 1c	Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-5.1	Management Option Manage wildfires for resource objectives 2: In non-forested systems. MWRO 2	Where allowed and feasible, manage wildfire for resource objectives and ecological purposes to restore and maintain fire-adapted ecosystems and achieve fire-resilient landscapes. V&F-IPG 4		Percent of fire ignitions managed for resource benefits, where allowed and number of these acres burned that contribute to landscape resilience IM 1c	Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-6.1	Management Option Manage wildfires for resource objectives 3: In areas where increased awareness of community risk is necessary. MWRO 3	Where allowed and feasible, manage wildfire for resource objectives and ecological purposes to restore and maintain fire-adapted ecosystems and achieve fire-resilient landscapes. V&F-IPG 4		Percent of fire ignitions managed for resource benefits, where allowed and number of these acres burned that contribute to landscape resilience IM 1c	Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-6.2	MWRO 3	V&F-IPG 4		IM 1c	Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-6.3	MWRO 3	HC&V-IPG 4			Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> • define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire • describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	
L-6.4	MWRO 3	Use and expand fuel treatments involving mechanical, biological, or chemical methods where economically feasible and sustainable, and where they align with landowner objectives. V&F-IPG 5			Utilize shared learning to expand knowledge and access to information RRC E/C-1	

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L-6.5	MWRO 3	V&F-IPG 5			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-6.6	MWRO 3	V&F-IPG 5			Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-6.7	MWRO 3	V&F-IPG 5			Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-6.8	MWRO 3	V&F-IPG 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-6.9	MWRO 3	V&F-IPG 5			Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
L-6.10	MWRO 3	V&F-IPG 5			Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America’s wildlands as it relates to worldwide climate change discussions SMAQ E/C-2	
L-7.1	Management Option Non-fire Treatments 1: Supported by forest products industry. N-fire Tx 1	Use and expand fuel treatments involving mechanical, biological, or chemical methods where economically feasible and sustainable, and where they align with landowner objectives. V&F-IPG 5			Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels QFR 3
L-7.2	N-fire Tx 1	V&F-IPG 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-7.3	N-fire Tx 1	<i>9/27 – removed V&F-IPG 3; this NAP action is included with other National Strategy Mgmt Options above.</i>				

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L-7.4	N-fire Tx 1	Promote community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfire to communities and homes situated near or adjacent to natural vegetation. HC&V-IPG 1			Utilize shared learning to increase the opportunity for successful collaboration across the country LLC E/C-1	
L-7.5	N-fire Tx 1	HC&V-IPG 1			Develop a workshop series to focus shared learning among practitioners and partners LLC E/C-4	
L-7.6	N-fire Tx 1	Ensure that wildfire mitigation strategies consider protection of community infrastructure and values, for example, municipal watersheds, cultural assets, viewsheds, parks, and transportation and utility corridors. HC&V-IPG 4			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-7.7	N-fire Tx 1	Promote cost-effective active forest and rangeland management. R&ML 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-7.8	N-fire Tx 1	R&ML 5			LLC P-3	Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels QFR 3
L-8.1	Management Option Non-fire Fuels Treatments 2: In non-forest areas. N-fire FTx 1	Use and expand fuel treatments involving mechanical, biological, or chemical methods where economically feasible and sustainable, and where they align with landowner objectives. V&F-IPG 5			Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-8.2	N-fire FTx 1	V&F-IPG 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	

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L-8.3	N-fire FTx 1	<i>9/27 – removed V&F-IPG 3; this NAP action is included with other National Strategy Mgmt Options above.</i>				<i>9/28 – removed QFR 4</i>
L-8.4	N-fire FTx 1	Ensure that wildfire mitigation strategies consider protection of community infrastructure and values, for example, municipal watersheds, cultural assets, viewsheds, parks, and transportation and utility corridors. HC&V-IPG 4				
L-8.5	N-fire FTx 1	Promote cost-effective active forest and rangeland management. R&ML 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-9.1	Management Option Non-fire Fuels Treatment 3: In areas with limited economic markets. N-fire FTx 2	Use and expand fuel treatments involving mechanical, biological, or chemical methods where economically feasible and sustainable, and where they align with landowner objectives. V&F-IPG 5			Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-9.2	N-fire FTx 2	V&F-IPG 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-9.3	N-fire FTx 2	<i>9/27 – removed V&F-IPG 3; this NAP action is included with other National Strategy Mgmt Options above.</i>				<i>9/28 – removed QFR 4</i>
L-9.4	N-fire FTx 2	Promote cost-effective active forest and rangeland management. R&ML 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-9.5	N-fire FTx 2	R&ML 5			LLC P-3	Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels QFR 3
L-10.1	Management Option: Fuels treatments as a precursor to prescribed	Use and expand fuel treatments involving mechanical, biological, or chemical methods where			Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	

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	fire or managed wildfire. FT pre Rx	economically feasible and sustainable, and where they align with landowner objectives. V&F-IPG 5				
L-10.1	FT pre Rx	V&F-IPG 5			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	
L-10.2	FT pre Rx	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
L-10.3	FT pre Rx	HC&V-IPG 2			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-10.4	FT pre Rx	HC&V-IPG 2			Develop a workshop series to focus shared learning among practitioners and partners LLC E/C-4	
L-10.5	FT pre Rx	Continue and expand the use of prescribed fire to meet landscape objectives, improve ecological conditions, and reduce the potential for high-intensity wildfires. V&F-IPG 1				
L-10.6	FT pre Rx	Promote community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfire to communities and homes situated near or adjacent to natural vegetation. HC&V-IPG 1			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
L-10.7	FT pre Rx	HC&V-IPG 1			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
L-10.8	FT pre Rx	HC&V-IPG 1			Develop a workshop series to focus shared learning among practitioners and partners LLC E/C-4	

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L-OA.1	Overarching Actions for Cohesive Strategy Goal 1 OA CS G1	Where feasible, implement strategically placed fuel treatments to interrupt fire spread across landscapes. V&F-IPG 2			Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-OA.2	OA CS G1	Include fuels reduction and fire risk management activities into existing and future land management programs. R&ML 4			EC P-1	
L-OA.3	OA CS G1	Promote cost-effective active forest and rangeland management. R&ML 5			EC P-1	
L-OA.4	OA CS G1		Critical Success Factor #5 Increase Fuels Mgmt on Private Land – Action 2 Integrate fuels reduction and defensible space principles with private land management programs. CSF5-2			Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-OA.5	OA CS G1		Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 4 Support the Good Neighbor Authority Act and broaden the use of the Act's provisions to other states where local interest and support exists. CSF14-4		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-OA.6	OA CS G1		CSF14-4		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-OA.7	OA CS G1		CSF14-4		Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-OA.8	OA CS G1		CSF14-4		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-OA.9	OA CS G1		CSF14-4		Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-OA.10	OA CS G1		Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 5 Seek relief from impediments in the Forest Service Planning Rule for fuels management. CSF14-5		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	
L-OA.11	OA CS G1		CSF14-5		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-1	
L-OA.12	OA CS G1		CSF14-5		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in	

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					navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-OA.13	OA CS G1		CSF14-5		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-OA.14	OA CS G1		National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	
L-OA.15	OA CS G1		B33-3		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-OA.16	OA CS G1		B33-3		Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-OA.17	OA CS G1		B33-3		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-OA.18	OA CS G1		B33-3		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-OA.19	OA CS G1		National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 5 Identify complexities that need to be simplified in order to efficiently share resources. B33-5		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	
L-OA.20	OA CS G1		B33-5		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	
L-OA.21	OA CS G1		B33-5		Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-OA.22	OA CS G1		B33-5		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-OA.23	OA CS G1		B33-5		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-OA.24	OA CS G1			Percent of priority acres with vegetative conditions that support		

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				the social and ecological resilience of landscapes OM 1		
L-OA.25	OA CS G1			Percent of large wildfire acres that burn with uncharacteristically high severity by vegetation type IM 1a		
L-OA.26	OA CS G1			Cost of wildfire-damaged landscape restoration IM 1b		
L-OA.27	OA CS G1			Percent of total vegetation treatments within high priority wildland and WUI that are strategically located IM 1d		Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-OA.28	OA CS G1			Percent of monitored fuels treatments where fire behavior during a wildfire was observed to change as planned in the treatment objectives IM 1e	Support large landscape-scale monitoring to evaluate the effectiveness of management actions LLC S-1	
L-OA.29	OA CS G1			Percent of monitored fuels treatments that contributed to fire control during a wildfire IM 1f	LLC S-1	
L-OA.30	OA CS G1			Amount expended to modify vegetative conditions in high priority wildland and WUI areas IM 1g		
L-OA.31	OA CS G1			Cost per acre to provide vegetative conditions in high priority wildland and WUI areas that support landscape resilience IM 1h		Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-OA.32	OA CS G1			Acres burned by wildfire that are moved to a resilient condition IM 1i		
L-OA.33	OA CS G1			Number of Fire Management Assistance Grant declarations IM 2c		
L-OA.34	OA CS G1			Cost of post-wildfire recovery IM 2d		
L-OA.35	OA CS G1					Promote continuous data collection and analysis to increase understanding of

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						broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment. QFR 1
L-OA.36	OA CS G1					Empower a “Chief Innovation Officer” to establish innovation priorities and technology implementation plans, build partnerships, foster innovation at all levels, and inform fire leaders’ decisions about investment in “winners.” QFR 5
L-OA.37	OA CS G1					Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges. QFR 6
L-OA.38	OA CS G1					Develop a capability to undertake ongoing, futures-oriented analysis and planning to identify, plan for, and empower action to address emerging issues. QFR 7
L-OA.39	OA CS G1					Over the next five years, assess potential organizational schemes and identify associated benefits and drawbacks. QFR 8
L-ASA.1	Additional Supporting Actions for Cohesive Strategy Goal 1 ASA CS G1		Critical Success Factor #5 Increase Fuels Mgmt on Private Land – Action 1 Develop landowner incentives (e.g., tax breaks, free disposal of material, increased use of Wyden Amendment and other finance or cost-share authorities). CSF5-1		Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	
L-ASA.2	ASA CS G1		CSF5-1		Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	

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L-ASA.3	ASA CS G1		Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 1 Move from a national criteria based allocation model to a process that considers the core principles of the Cohesive Strategy and funds the federal organizations at the regional levels, and that would also allow for management discretion at the local level that takes into account priorities, capabilities, and the changes in individual project dynamics. If standard guidance and direction for fuels treatments is modified it must be done at the Department level, between USDA and DOI, with discussion of the relationships to state, tribal and private partners. CSF14-1 <i>Larry Mastic has provided a copy of the fuels group report.</i>			
L-ASA.4	ASA CS G1		CSF14-1			Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-ASA.5	ASA CS G1		CSF14-1			Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels QFR 3
L-ASA.6	ASA CS G1		Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 2 Encourage federal agencies to use authorities under the Healthy Forest Restoration act (HFRA) and the Health Forest initiative (HFI) to expedite the planning /collaboration process to treat large landscapes. CSF14-2		Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems SMAQ P-1 	
L-ASA.7	ASA CS G1		CSF14-2		Work to identify and remove barriers to conducting prescribed fire SMAQ P-4	
L-ASA.8	ASA CS G1		CSF14-2		Expand existing authorities to enhance opportunities to develop fire adapted communities RRC P-1	

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L-ASA.9	ASA CS G1		CSF14-2		Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities LLC P-1	
L-ASA.10	ASA CS G1		CSF14-2		Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner EC E/T-1	
L-ASA.11	ASA CS G1		CSF14-2		Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
L-ASA.12	ASA CS G1		Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 3 Integrate Community Wildfire Protection Plans with agency land management and/or fire management plans to facilitate fuels treatments across multiple jurisdictions (RSC level). CSF14-3		Facilitate opportunities for cross-boundary work and coordination to work more efficiently LLC E/C-2	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
L-ASA.13	ASA CS G1		CSF14-3		Promote effective, large-scale landscape level projects across jurisdictional lines LLC E/C-3	
L-ASA.14	ASA CS G1		Critical Success Factor #42: Improve Fire Data – Action 1 Present the issues to the Landfire Executive Oversight Group. CSF42-1			
COHESIVE STRATEGY GOAL: FIRE ADAPTED COMMUNITIES						
F-1.1	Focus on home defensive actions. HC&VR 1	Engage non-traditional partners, such as the insurance industry and non-governmental organizations, in efforts to promote fire-adapted communities. FAC 6	Critical Success Factor #20: Growth Mgmt, Land Development and Zoning Laws – Action 2 Work with the insurance industry on products that motivate homeowners to create fire adapted homes/communities – create a model fire adapted community concept that can be replicated in high fire prone areas resulting in reduced fees and higher ISO ratings. CSF20-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-1.2	HC&VR 1	FAC 6	CSF20-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	

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F-1.3	HC&VR 1	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response. Resp-IPG 3			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-1.4	HC&VR 1	Resp-IPG 3			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-1.5	HC&VR 1		Critical Success Factor #10: Enforceable State/Local Ordinances - Action 3 Work with Congress and Federal agencies to tie incentive programs related to development (e.g., community development grants) to be scored higher for programs that incorporate prevention programs into their State and local government development requirements (the carrot). CSF10-3		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-1.6	HC&VR 1		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 1 Revise FEMA grant guidelines that require direct funding of projects on private lands, eliminating the need for NEPA, and to include funding for prescribed fire. CSF12-1		RRC P-2	
F-1.7	HC&VR 1		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 2 Transfer FEMA assistance program and funding to USFS State and Private programs or provide block grants to the states. CSF12-2		RRC P-2	
F-1.8	HC&VR 1		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 3 Increase the amount of FEMA funds available for pre-disaster mitigation. CSF12-3		RRC P-2	
F-1.9	HC&VR 1		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 4 If FEMA determines that it needs to directly fund projects, have FEMA establish NEPA Categories of Exclusion, which would reduce NEPA costs and timeframes, making more funds available for project work, and would accelerate project approval. CSF12-4		RRC P-2	

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F-1.10	HC&VR 1		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 5 Have FEMA reduce the cumbersome reporting requirements for reimbursement. CSF12-5		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-1.11	HC&VR 1		Critical Success Factor #16: Rating Fire Adapted Communities – Action 1 Utilize Regional Strategy Committee Chairs, NFPA and the Fire Adapted Communities Coalition, IAFC, NASF and other stakeholders to facilitate and devise this system. CSF16-1 This was revised to “Assisting Communities at Risk” and is in progress via FAC Learning Network.			
F-2.1	Focus on combination of home and community actions. HC&VR 2	Where wildfires are unwanted or threaten communities and homes, design and prioritize fuel treatments (prescribed fire, and mechanical, biological and chemical treatments) to reduce fire intensity, structure ignition and wildfire extent. V&F-IPG 1			Utilize shared learning to increase the opportunity for successful collaboration across the country LLC E/C-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
F-2.2	HC&VR 2		Critical Success Factor #10: Enforceable State/Local Ordinances – Action 3 Work with Congress and Federal agencies to tie incentive programs related to development (e.g., community development grants) to be scored higher for programs that incorporate prevention programs into their State and local government development requirements (the carrot). CSF10-3			
F-2.3	HC&VR 2			Amount expended to modify vegetative conditions in high priority wildland and WUI areas IM 1g		Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
F-2.4	HC&VR 2			Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g		

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F-2.5	HC&VR 2			Cost per acre to provide vegetative conditions in high priority wildland and WUI areas that support landscape resilience IM 1h		Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels QFR 3
F-2.6	HC&VR 2		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 1 Revise FEMA grant guidelines that require direct funding of projects on private lands, eliminating the need for NEPA, and to include funding for prescribed fire. CSF12-1		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-2.7	HC&VR 2		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 2 Transfer FEMA assistance program and funding to USFS State and Private programs or provide block grants to the states. CSF12-2		RRC P-2	
F-2.8	HC&VR 2		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 3 Increase the amount of FEMA funds available for pre-disaster mitigation. CSF12-3		Explore policy and regulatory structures to increase cross-boundary work and more effectively use existing authorities EC P-2	
F-2.9	HC&VR 2		CSF12-3		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-2.10	HC&VR 2		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 4 If FEMA determines that it needs to directly fund projects, have FEMA establish NEPA Categories of Exclusion, which would reduce NEPA costs and timeframes, making more funds available for project work, and would accelerate project approval. CSF12-4		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-2.11	HC&VR 2		Critical Success Factor #12: FEMA Pre-Disaster Mitigation Program – Action 5 Have FEMA reduce the cumbersome reporting requirements for reimbursement. CSF12-5		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	

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F-2.12	HC&VR 2		Critical Success Factor #16: Rating Fire Adapted Communities – Action 1 Utilize Regional Strategy Committee Chairs, NFPA and the Fire Adapted Communities Coalition, IAFC, NASF and other stakeholders to facilitate and devise this system. CSF16-1 This was revised to “Assisting Communities at Risk” and is in progress via FAC Learning Network.			
F-2.13	HC&VR 2	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2	Critical Success Factor #14 Increase fuels Mgmt on Federal Land – Action 3 Integrate Community Wildfire Protection Plans with agency land management and/or fire management plans to facilitate fuels treatments across multiple jurisdictions (RSC level). CSF14-3	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2 .
F-2.14	HC&VR 2	HC&V-IPG 2	CSF14-3	IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels QFR 3
F-2.15	HC&VR 2	HC&V-IPG 2	CSF14-3	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.16	HC&VR 2	HC&V-IPG 2	CSF14-3	IM 2f	Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
F-2.17	HC&VR 2	HC&V-IPG 2	CSF14-3	Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g	Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
F-2.18	HC&VR 2	HC&V-IPG 2	CSF14-3	IM 2g	Facilitate opportunities for more efficient cross-boundary work and coordination EC P-1	
F-2.19	HC&VR 2	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	Promote continuous data collection and analysis to increase understanding of broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment QFR 1

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F-2.20	HC&VR 2	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2		SMAQ E/C-1	
F-2.21	HC&VR 2	HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1		Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	
F-2.22	HC&VR 2	HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 3 Construct a federal incentive program to reimburse for the creation of fire adapted communities through CWPPs and other comprehensive community planning practices (FEMA and/or USDA/DOI). CSF20-3	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	SMAQ E/C-1	
F-2.23	HC&VR 2	HC&V-IPG 2	CSF20-3	IM 2f	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-2.24	HC&VR 2	HC&V-IPG 2	CSF20-3	Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g	Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke SMAQ E/C-1	

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F-2.25	HC&VR 2	HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1			
F-2.26	HC&VR 2	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 4 Tie federal funding requirements to the presence of enforceable state and/or local community wildfire risk reduction ordinances with an emphasis on prevention (the stick). CSF10-4			
F-2.27	HC&VR 2	Ensure that wildfire mitigation strategies consider protection of community infrastructure and values, for example, municipal watersheds, cultural assets, viewsheds, parks, and transportation and utility corridors. HC&V-IPG 4	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 3 Construct a federal incentive program to reimburse for the creation of fire adapted communities through CWPPs and other comprehensive community planning practices (FEMA and/or USDA/DOI). CSF20-3	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-2.28	HC&VR 2	HC&V-IPG 4	Critical Success Factor #20 Growth CSF20-3	IM 2f	Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
F-2.29	HC&VR 2	HC&V-IPG 4	CSF20-3	Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g	LLC P-4	
F-2.30	HC&VR 2	Emphasize programs and activities that prevent human-caused ignitions, whether accidental or incendiary, where these ignitions, combined with high levels of area burned, suggest the greatest need. Programs should be tailored to meet identified local needs. Hlg IPG 1			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-2.31	HC&VR 2	Hlg IPG 1			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	

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F-2.32	HC&VR 2	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response. Resp-IPG 3			Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-2.33	HC&VR 2	Resp-IPG 3			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.34	HC&VR 2	Resp-IPG 3			Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response LLC P-1	
F-2.35	HC&VR 2	Align public investments in fuels treatments to demonstrable risk reduction activities by communities and landowners. FAC 1			Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities LLC P-3	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
F-2.36	HC&VR 2	Utilize fuels management programs to address protection of communities and their values. FAC 3			Utilize shared learning to expand knowledge and access to information RRC E/C-1	QFR 2
F-2.37	HC&VR 2	FAC 3			Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.38	HC&VR 2	Encourage communities and landowners to actively manage land for fuels reduction. FAC 4	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 3 Construct a federal incentive program to reimburse for the creation of fire adapted communities through CWPPs and other comprehensive community planning practices (FEMA and/or USDA/DOI). CSF20-3	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-2.39	HC&VR 2	FAC 4	CSF20-3	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.40	HC&VR 2	FAC 4	CSF20-3	IM 2f	Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives LLC P-4	
F-2.41	HC&VR 2	Engage non-traditional partners, such as the insurance industry and non-	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action		Utilize shared learning to expand knowledge and access to information RRC E/C-1	

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		governmental organizations, in efforts to promote fire-adapted communities. FAC 6	1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1			
F-2.42	HC&VR 2	FAC 6	CSF20-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.43	HC&VR 2	FAC 6	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 2 Work with the insurance industry on products that motivate homeowners to create fire adapted homes/communities – create a model fire adapted community concept that can be replicated in high fire prone areas resulting in reduced fees and higher ISO ratings. CSF20-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-2.44	HC&VR 2	FAC 6	CSF20-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.45	HC&VR 2	Examine and develop solutions to better utilize grant programs that address community and homeowner fire mitigation efforts and activities for risk reduction. FAC 7	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 3 Construct a federal incentive program to reimburse for the creation of fire adapted communities through CWPPs and other comprehensive community planning practices (FEMA and/or USDA/DOI). CSF20-3	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
F-2.46	HC&VR 2	FAC 7	CSF20-3	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-2.47	HC&VR 2	FAC 7	CSF20-3	IM 2f	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-2.48	HC&VR 2	FAC 7	CSF20-3	Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g		

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F-3.1	Adjust building and construction codes, municipal areas. HC&VR 3	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-3.2	HC&VR 3	HC&V-IPG 2	CSF20-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-3.3	HC&VR 3	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f		

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F-3.4	HC&VR 3	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2			
F-3.5	HC&VR 3	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 4 Tie federal funding requirements to the presence of enforceable state and/or local community wildfire risk reduction ordinances with an emphasis on prevention (the stick). CSF10-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f		
F-3.6	HC&VR 3	HC&V-IPG 2	CSF10-4	Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g		
F-3.7	HC&VR 3	HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 4 At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-3.8	HC&VR 3	Pursue municipal, county, and state building and zoning codes and ordinances that mitigate fire risk to protect life and property from wildfire. HC&V-IPG 3	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1			

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F-3.9	HC&VR 3	HC&V-IPG 3	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-3.10	HC&VR 3	HC&V-IPG 3	CSF10-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-3.11	HC&VR 3	HC&V-IPG 3	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-3.12	HC&VR 3	HC&V-IPG 3	CSF10-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-3.13	HC&VR 3	HC&V-IPG 3	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 4 At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. CSF20-4		Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	

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F-3.14	HC&VR 3	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response. Resp-IPG 3	CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f		
F-3.15	HC&VR 3	Adopt and implement planning and zoning measures to reduce risk to communities from wildfire. FAC 1	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-3.16	HC&VR 3	FAC 1	CSF20-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-3.17	HC&VR 3	FAC 1	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-3.18	HC&VR 3	FAC 1	CSF10-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	

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F-3.19	HC&VR 3	FAC 1	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-3.20	HC&VR 3	FAC 1	CSF10-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-3.21	HC&VR 3	FAC 1	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 4 At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f		
F-4.1	Adjust building and construction codes, non-municipal areas. HC&VR 4	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1			

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F-4.2	HC&VR 4	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.3	HC&VR 4	HC&V-IPG 2	CSF10-1	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.4	HC&VR 4	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.5	HC&VR 4	HC&V-IPG 2	CSF10-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.6	HC&VR 4	HC&V-IPG 2	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 4 Tie federal funding requirements to the presence of enforceable state and/or local community wildfire risk reduction ordinances with an emphasis on prevention (the stick). CSF10-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f		
F-4.7	HC&VR 4	HC&V-IPG 2	CSF10-4	Amount expended to create, implement and update community wildfire risk mitigation plans IM 2g		

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F-4.8	HC&VR 4	HC&V-IPG 2	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 4 At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.9	HC&VR 4	HC&V-IPG 2	CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.10	HC&VR 4	HC&V-IPG 2	CSF20-4	IM 2f	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-4.11	HC&VR 4	Pursue municipal, county, and state building and zoning codes and ordinances that mitigate fire risk to protect life and property from wildfire. HC&V-IPG 3	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.12	HC&VR 4	HC&V-IPG 3	CSF20-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.13	HC&VR 4	HC&V-IPG 3	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.14	HC&VR 4	HC&V-IPG 3	CSF10-1	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
F-4.15	HC&VR 4	HC&V-IPG 3	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.16	HC&VR 4	HC&V-IPG 3	CSF10-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.17	HC&VR 4	HC&V-IPG 3	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 4 At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.18	HC&VR 4	HC&V-IPG 3	CSF20-4	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.19	HC&VR 4	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response. Resp-IPG 3	CSF20-4		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.20	HC&VR 4	Resp-IPG 3	CSF20-4		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	

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F-4.21	HC&VR 4	Adopt and implement planning and zoning measures to reduce risk to communities from wildfire. FAC 1	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 1 Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. CSF20-1		Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.22	HC&VR 4	FAC 1	CSF20-1		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.23	HC&VR 4	FAC 1	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 1 Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. CSF10-1	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.24	HC&VR 4	FAC 1	CSF10-1	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.25	HC&VR 4	FAC 1	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 2 Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. CSF10-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	

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F-4.26	HC&VR 4	FAC 1	CSF10-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.27	HC&VR 4	FAC 1	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 4 At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. CSF20-4	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans IM 2f	Utilize shared learning to expand knowledge and access to information RRC E/C-1	
F-4.28	HC&VR 4	FAC 1	CSF20-4	IM 2f	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-4.29	HC&VR 4	FAC 1	CSF20-4	IM 2f	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities RRC P-2	
F-5.1	Reduce accidental human-caused ignitions. H-c Ign 1	Emphasize programs and activities that prevent human-caused ignitions, whether accidental or incendiary, where these ignitions, combined with high levels of area burned, suggest the greatest need. Programs should be tailored to meet identified local needs. Hlg IPG 1	Critical Success Factor #20 Growth Mgmt, Land Development and Zoning Laws – Action 2 Work with the insurance industry on products that motivate homeowners to create fire adapted homes/communities – create a model fire adapted community concept that can be replicated in high fire prone areas resulting in reduced fees and higher ISO ratings. CSF20-2			
F-5.2	H-c Ign 1	Hlg IPG 1		Number of human-caused wildfires IM 2e		
F-5.3	H-c Ign 1	Reduce human caused ignitions. FAC 5		IM 2e		
F-6.1	Reduce human-caused incendiary ignitions (e.g., arson). H-c Ign 2	Emphasize programs and activities that prevent human-caused ignitions, whether accidental or incendiary, where these ignitions, combined with high levels of area burned, suggest the greatest need. Programs should be tailored to meet identified local needs. Hlg IPG 1		IM 2e		

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
F-6.2	H-c Ign 2	Reduce human caused ignitions. FAC 5		IM 2e		
F-OA.1	Overarching Actions for Cohesive Strategy Goal 2. OA CS G2	Promote community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfire to communities and homes situated near or adjacent to natural vegetation. HC&V-IPG 1			Work with health and safety agencies at all levels to better understand the long term impact that limiting prescribed fire has on public safety and health issues due to large uncontrolled wildfires SMAQ P-2	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
F-OA.2	OA CS G2		Critical Success Factor #5: Increase Fuels Mgmt on Private Land – Action 2 Integrate fuels reduction and defensible space principles with private land management programs. CSF5-2		Utilize shared learning to expand knowledge and access to information RRC E/C-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
F-OA.3	OA CS G2		CSF5-2		Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining RRC E/C-2	
F-OA.4	OA CS G2		Critical Success Factor #42: Improve Fire Data – Action 1 Present the issues to the Landfire Executive Oversight Group CSF42-1			Promote continuous data collection and analysis to increase understanding of broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment QFR 1
F-OA.5	OA CS G2			Percent of communities at risk with a high probability of withstanding wildfire without loss of life and infrastructure OM 2		
F-OA.6	OA CS G2			Number of public fatalities attributed to wildfire IM 2a		
F-OA.7	OA CS G2			Number of structures lost to wildfires IM 2b		
F-OA.8	OA CS G2			Number of Fire Management Assistance Grant declarations IM 2c		
F-OA.9	OA CS G2			Cost of post-wildfire recovery IM 2d		

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
F- OA.10	OA CS G2					Promote continuous data collection and analysis to increase understanding of broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment. QFR 1
F- OA.11	OA CS G2					Empower a “Chief Innovation Officer” to establish innovation priorities and technology implementation plans, build partnerships, foster innovation at all levels, and inform fire leaders’ decisions about investment in “winners.” QFR 5
F- OA.12	OA CS G2					Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges. QFR 6
F- OA.13	OA CS G2					Develop a capability to undertake ongoing, futures-oriented analysis and planning to identify, plan for, and empower action to address emerging issues. QFR 7
F- OA.14	OA CS G2					Over the next five years, assess potential organizational schemes and identify associated benefits and drawbacks. QFR 8
	COHESIVE STRATEGY GOAL: SAFE AND EFFECTIVE WILDFIRE RESPONSE					
R-1.1	Prepare for large, long-duration wildfires. MO Resp 1	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2				

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
R-1.2	MO Resp 1	Enhance wildfire response preparedness in areas more likely to experience large, long-duration wildfires that are unwanted or threaten communities and homes. Resp-IPG 1		Percent of large wildfire incidents managed to effectively meet initial objectives IM 3c		
R-1.3	MO Resp 1	Resp-IPG 1		Percent of large fires that employed a common risk decision framework IM 3f		Promote continuous data collection and analysis to increase understanding of broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment QFR 1
R-1.4	MO Resp 1	Develop and implement standards and protocols that strengthen national mobilization capabilities. WFR 1	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 2 Rectify authority issues via federal legislation, for the USFS to mobilize state and local resources via the Master Cooperative Wildfire Management and Stafford Act Response Agreement, or implement a work around. B33-2	Percent of large wildfire incidents managed to effectively meet initial objectives IM 3c	Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response LLC P-1	Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges QFR 6
R-1.5	MO Resp 1	WFR 1	B33-2	Percent of resource orders filled (by type) IM 3g	LLC P-1	
R-1.6	MO Resp 1	WFR 1	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3	Percent of large wildfire incidents managed to effectively meet initial objectives IM 3c		
R-1.7	MO Resp 1	WFR 1	B33-3	Percent of resource orders filled (by type) IM 3g		
R-1.8	MO Resp 1	WFR 1	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 4 Local government needs national clarification on structure protection verses wildfire suppression and who pays. B33-4			
R-1.9	MO Resp 1	WFR 1	National Barrier #33: Remove Policy B33-4	Percent of resource orders filled (by type) IM 3g		

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R-1.10	MO Resp 1	WFR 1	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 5 Identify complexities that need to be simplified in order to efficiently share resources. B33-5	Percent of large wildfire incidents managed to effectively meet initial objectives IM 3c		
R-1.11	MO Resp 1	WFR 1	B33-5	Percent of resource orders filled (by type) IM 3g		
R-1 ASA	Additional Supporting Actions for R-1 Prepare for large, long duration wildfires ASA MO Resp 1			Percent of large fires that exceed a cost efficiency index and change in the cost efficiency index over time IM 3d		
R-2.1	Protect structures and target landscape fuels. MO Resp 2	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2			<i>Per NSC F2F mtg the following also apply to R-2:</i> RRC-P.1 RRC-P.2 RRC-P.3 RRC-P.4 RRC-S.1 RRC-2.2	Promote continuous data collection and analysis to increase understanding of broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment QFR 1
R-2.2	MO Resp 2	Enhance wildfire response preparedness in areas more likely to experience large, long-duration wildfires that are unwanted or threaten communities and homes. Resp-IPG 1		Percent of large fires that employed a common risk decision framework IM 3f		Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges QFR 6
R-2.3	MO Resp 2	Resp-IPG 1		Percent of at risk communities with local response capacity and capability by scorecard category IM 3h	Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response LLC P-1	
R-2.4	MO Resp 2	Enhance wildfire response preparedness in areas experiencing high rates of structure loss per area burned. Resp-IPG 2				
R-2.5	MO Resp 2	Enhance wildfire response preparedness in areas experiencing high rates of structure loss per area burned. Resp-IPG 1		Percent of at risk communities with local response capacity and capability by scorecard category IM 3h	Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response LLC P-1	

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
R-2.6	MO Resp 2	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response. Resp-IPG 3	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3	IM 3h	LLC P-1 <i>Per NSC F2F mtg the following also apply to R-6: RRC-P.1; RRC-P.2; RRC-P.3; RRC-P.4</i> RRC-S.1; RRC-2.2	
R-2.7	MO Resp 2	Resp-IPG 3	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 4 Local government needs national clarification on structure protection verses wildfire suppression and who pays. B33-4			
R-2.8	MO Resp 2	Invest in the wildland fire firefighting workforce at all levels (federal, state, tribal, territorial, and local) to meet the increasing complexities and demands of firefighting in the wildland urban interface. WFR 2	National Barrier #31: Inefficiencies in the National Qualification Standards – Action 1 WFEC should consider tasking the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways, Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs). B31-1	Percent of all wildland firefighters who are qualified and equipped in accordance with national standards and the percent of the total federal wildland fire budget expended to maintain these resources IM 3i		Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges QFR 6
R-2.9	MO Resp 2	WFR 2	B31-1	IM 3i		Over the next five years, assess potential organizational schemes and identify associated benefits and drawbacks QFR 8
R-2.10	MO Resp 2	WFR 2	National Barrier #31: Inefficiencies in the National Qualification Standards – Action 2 Build on existing success, e.g., Incident Qualification and Certification System (IQCS), Recognition of Prior Learning (RPL), and Service First, to develop a national qualification system to track federal, tribal, local, state, and private community responders. B31-2	Percent of at risk communities with local response capacity and capability by scorecard category IM 3h		

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R-2.11	MO Resp 2	WFR 2	B31-2	Percent of all wildland firefighters who are qualified and equipped in accordance with national standards and the percent of the total federal wildland fire budget expended to maintain these resources IM 3i		
R-2.12	MO Resp 2	WFR 2	National Barrier #31: Inefficiencies in the National Qualification Standards – Action 3 Continue to utilize the USFA crosswalk as a component of the National Wildland Qualification System. Expand the concept. B31-3	IM 3i		
R-2.13	MO Resp 2	WFR 2	Critical Success Factor #39: Investment in Firefighting Workforce – Action 1 Develop a fire program that focuses efforts on maintaining and developing field level leaders and workforce. CSF39-1	Percent of at risk communities with local response capacity and capability by scorecard category IM 3h		
R-2.14	MO Resp 2	WFR 2	CSF39-1	Percent of all wildland firefighters who are qualified and equipped in accordance with national standards and the percent of the total federal wildland fire budget expended to maintain these resources IM 3i		
R-2.15	MO Resp 2	WFR 2	Critical Success Factor #39: Investment in Firefighting Workforce – Action 2 WFEC should task the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways, Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs). CSF39-2	Percent of all wildland firefighters who are qualified and equipped in accordance with national standards and the percent of the total federal wildland fire budget expended to maintain these resources IM 3i		

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
R-2 OA.1	Overarching Actions for R-2 Protect structures and target landscapes fuel OA MO Resp 2					Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges. QFR 6
R-2 ASA.1	Additional Supporting Actions for R-2 Protect structures and target landscapes fuel ASA MO Resp 2			Percent of resource orders filled (by type) IM 3g		
R-3.1	Protect structures and target prevention of ignitions. MO Resp 3	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring. HC&V-IPG 2				
R-3.2	MO Resp 3	Enhance wildfire response preparedness in areas experiencing high rates of structure loss per area burned. Resp-IPG 2		Percent of unwanted wildfires suppressed in initial attack IM 3b		
R-3.3	MO Resp 3	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response. Resp-IPG 3	National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 3 Identify and correct policy barriers that prevent the effective sharing of resources. B33-3		Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response LLC P-1	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments QFR 2
R-3.4	MO Resp 3	Resp-IPG 3	B33-3	Percent of at risk communities with local response capacity and capability by scorecard category IM 3h		
R-OA.1	Overarching Actions for Cohesive Strategy Goal 3. OA CS G3	Pursue municipal, county, and state building and zoning codes and ordinances that mitigate fire risk to protect life and property from wildfire. HC&V-IPG 3	Critical Success Factor #10: Enforceable State/Local Ordinances – Action 4 Tie federal funding requirements to the presence of enforceable state and/or local community wildfire risk reduction ordinances with an emphasis on prevention (the stick). CSF10-4			

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
R-OA.2	OA CS G3		National Barrier #33: Remove Policy Barriers and Process Complexities for Sharing Resources – Action 1 NWCG to complete revisions to the Master Cooperative Wildfire Management and Stafford Act Response Agreement. B33-1			
R-OA.3	OA CS G3		Critical Success Factor #39: Investment in Firefighting Workforce – Action 1 Develop a fire program that focuses efforts on maintaining and developing field level leaders and workforce. CSF39-1			Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges QFR 6
R-OA.4	OA CS G3		Critical Success Factor #39: Investment in Firefighting Workforce – Action 2 WFEC should task the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways, Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs). CSF39-2			Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges QFR 6
R-OA.5	OA CS G3		Critical Success Factor #42: Improve Fire Data – Action 1 Present the issues to the Landfire Executive Oversight Group CSF42-1			Over the next five years, assess potential organizational schemes and identify associated benefits and drawbacks QFR 8
R-OA.6	OA CS G3		National Barrier #28: Intergovernmental Wildland Fire Governance B28-1 <i>*This has been addressed through the inclusion of the IAFC on the NWCG Board and other discussion</i>			
R-OA.7	OA CS G3			Number of Fire Management Assistance Grant declarations IM 2c		
R-OA.8	OA CS G3			Cost of post-wildfire recovery IM 2d		

ID #	CS National Strategy (see Management Options)	CS National Action Plan (see Implementation Planning Guidance and National Action Implementation)	National Barriers and Critical Success Factors (see Potential Actions listed for each Barrier and CSF)	National CS Performance Measures	WFLC Strategic Priorities	2014 QFR
R-OA.9	OA CS G3			Percent of wildland fire managers (and partners) that perceive the fire response system enables them to fulfill their individual responsibilities while safely and efficiently achieving the desired results in all affected jurisdictions OM 3		Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges QFR 6
R-OA.10	OA CS G3			OM 3		Develop a capability to undertake ongoing, futures-oriented analysis and planning to identify, plan for, and empower action to address emerging issues QFR 7
R-OA.11	OA CS G3			OM 3		Over the next five years, assess potential organizational schemes and identify associated benefits and drawbacks QFR 8
R-OA.12	OA CS G3			Number of active inter-jurisdictional collaboratives, plans, or agreements IM 3e		
R-OA.13	OA CS G3					Empower a “Chief Innovation Officer” to establish innovation priorities and technology implementation plans, build partnerships, foster innovation at all levels, and inform fire leaders’ decisions about investment in “winners.” QFR 5
R-ASA.1	Additional Supporting Actions for Cohesive Strategy Goal 3 ASA CS G3			Number of firefighter injuries and fatalities attributed to wildfire IM 3a		

APPENDIX D: Crosswalk Codes Dictionary

Document begins on next page.

Cohesive Strategy – National Strategic Committee
Cohesive Strategy Crosswalk and Strategic Analysis
Codes and Definition of Terms

CS NATIONAL STRATEGY

ID #	Management Options – Vegetation and Fuels	
L-1	Rx Fire 1	Prescribed Fire: Expand or maintain in areas of current use
L-1 OA	OA Rx Fire 1	Overarching Action for L-1: Prescribed Fire: Expand or maintain in areas of current use
L-2	Rx Fire 2	Prescribed Fire: Expand into areas of limited current use
L-2 OA	OA Rx Fire 2	Overarching Action for L-2: Prescribed Fire: Expand into areas of limited current use
L-3	Rx Fire 3	Prescribed Fire: Utilize on a limited basis
L-3 OA	OA Rx Fire 3	Overarching Action for L-3: Prescribed Fire: Utilize on a limited basis
L-4	MWRO 1	Manage wildfires for resource objectives: In forested systems
L-5	MWRO 2	Manage wildfires for resource objectives: In non-forested systems
L-6	MWRO 3	Manage wildfires for resource objectives: In areas where increased awareness of community risk is necessary
L-7	N-fire Tx 1	Non-fire Treatments: Supported by forest products industry
L-8	N-fire FTx 1	Non-fire Fuels Treatments: In non-forest areas
L-9	N-fire FTx 2	Non-fire Fuels Treatment: In areas with limited economic markets
L-10	FT pre Rx	Fuels Treatments as a precursor to prescribed fire or managed wildfire
L-OA	OA CS G1	Overarching Actions for Cohesive Strategy Goal 1
L-ASA	ASA CS G1	Additional Supporting Actions for Cohesive Strategy Goal 1
Management Options – Homes, Communities & Values at Risk		
F-1	HC&VR 1	Focus on home defensive actions
F-2	HC&VR 2	Focus on combination of home and community actions
F-3	HC&VR 3	Adjust building and construction codes, municipal areas
F-4	HC&VR 4	Adjust building and construction codes, non-municipal areas
Management Options – Human-caused Ignition		
F-5	H-c Ign 1	Reduce accidental human-caused ignitions
F-6	H-c Ign 2	Reduce human-caused incendiary ignitions
F-OA	OA CS G2	Overarching Actions for Cohesive Strategy Goal 2
Management Options – Effective and Efficient Wildfire Response		
R-1	MO Resp 1	Prepare for large, long-duration wildfires
R-1 ASA	ASA MO Resp 1	Additional Supporting Actions - Prepare for large, long duration wildfires
R-2	MO Resp 2	Protect structures and target landscapes fuel
R-2 OA	OA MO Resp 2	Overarching Actions for R-2: Protect structures and target landscapes fuel
R-2 ASA	ASA MO Resp 2	Additional Supporting Actions for R-2: Protect structures and target landscapes fuel
R-3	MO Resp 3	Protect structures and target prevention of ignitions
R-OA	OA CS G3	Overarching Actions for Cohesive Strategy Goal 3
R-ASA	OA CS G3	Additional Supporting Actions for Cohesive Strategy Goal 3

CS NATIONAL ACTION PLAN: IMPLEMENTATION PLANNING GUIDANCE AND NATIONAL ACTION IMPLEMENTATION

Managing Vegetation and Fuels – Implementation Planning Guidance	
V&F-IPG 1	Where wildfires are unwanted or threaten communities and homes, design and prioritize fuel treatments (Prescribed fire, and mechanical, biological and chemical treatments) to reduce fire intensity, structure ignition and wildfire extent.
V&F-IPG 2	Where feasible, implement strategically placed fuel treatments to interrupt fire spread across landscapes.
V&F-IPG 3	Continue and expand the use of prescribed fire to meet landscapes objectives, improve ecological conditions and reduce the potential for high-intensity wildfires
V&F-IPG 4	Where allowed and feasible, manage wildfire for resource objectives and ecological purposes to restore and maintain fire-adapted ecosystems and achieve fire-resilient landscapes.
V&F-IPG 5	Use and expand fuel treatments involving mechanical, biological, or chemical methods where economically feasible and sustainable, and where they align with landowner objectives.
Protecting Homes, Communities and Values at Risk – Implementation Planning Guidance	
HC&V-IPG 1	Promote community and homeowner involvement in planning and implementing actions to mitigate the risk posed by wildfire to communities and homes situated near or adjacent to natural vegetation.
HC&V-IPG 2	Emphasize proactive wildfire risk mitigation actions, such as CWPPs and other methods of comprehensive community planning, where new development and expansion into natural vegetation is occurring.
HC&V-IPG 3	Pursue municipal, county and state building and zoning codes and ordinances that mitigate fire risk to protect life and property from wildfire.
HC&V-IPG 4	Ensure that wildfire mitigation strategies consider protection of community infrastructure and values, for example, municipal watersheds, cultural watersheds, cultural assets, viewsheds, parks and transportation and utility corridors.
Managing Human-caused Ignitions - Implementation Planning Guidance	
HIg IPG 1	Emphasize programs and activities that prevent human-caused ignitions, whether accidental or incendiary, where these ignitions, combined with high levels of area burned, suggest the greatest need. Programs should be tailored to meet identified local needs.
Safely, Effectively & Efficiently Responding to Wildfire - Implementation Planning Guidance	
Resp-IPG 1	Enhance wildfire response preparedness in areas more likely to experience large, long-duration wildfires that are unwanted or threaten communities and homes.
Resp-IPG 2	Enhance wildfire response preparedness in areas experiencing high rates of structure loss per area burned.
Resp-IPG 3	At the community level, emphasize both structure protection and wildfire prevention to enhance the effectiveness of initial response.
Restore and Maintain Landscapes – National Action Implementation	
R&ML 1	Seek means to assist private landowners with managing fuels
R&ML 2	Promote prescribed fire certification and training to provide safe use of fire.
R&ML 3	Promote landscape scale fuels management activities that address creation and maintenance of resilient landscapes.
R&ML 4	Include fuels reduction and fire risk management activities into existing and future land management programs.
R&ML 5	Promote cost-effective active forest and rangeland management.
Fire Adapted Communities – National Action Implementation	
FAC 1	Adopt and implement planning and zoning measures to reduce risk to communities from wildfires.

FAC 2	Align public investments in fuels treatments to demonstrable risk reduction activities by communities and landowners.
FAC 3	Utilize fuels management programs to address protection of communities and their values.
FAC 4	Encourage communities and landowners to actively manage land for fuels reduction.
FAC 5	Reduce human caused ignitions.
FAC 6	Engage non-traditional partners, such as the insurance industry and non-governmental organizations, in efforts to promote fire-adapted communities.
FAC 7	Examine and develop solutions to better utilize grant programs that address community and homeowner fire mitigation efforts and activities for risk reduction.
Wildfire Response – National Action Implementation	
WFR 1	Develop and implement standards and protocols that strengthen national mobilization capabilities.
WFR 2	Invest in the wildland fire firefighting workforce at all levels (federal, state, tribal, territorial and local) to meet the increasing complexities and demands of firefighting in the wildland urban interface.

NATIONAL BARRIERS AND CRITICAL SUCCESS FACTORS

Critical Success Factor (5): Increase Fuels Management on Private Land	
CSF5- 1	Develop landowner incentives (e.g. tax breaks, free disposal of material, increased use of Wyden Amendment and other finance or cost-share authorities.)
CSF5-2	Integration of fuels reduction and defensible space principles with private land management programs.
CSF5-3	Integrate USFAS and NRCS funding and programs to achieve success. Work with NRCS, FSA and other USDA agencies to better incorporate and/or incentivize prescribed burning on tribal and private lands.
CSF5-4	Work with EPA to reduce restrictions to the use of prescribed fire due to smoke tolerance and emissions (air quality). Part is education of the general public; the other part is education/science working with EPA on short term effects verses long term impacts and extent of emissions.
Critical Success Factor(14): Increase Fuels Management on Federal Land	
CSF14-1	Move from a national criteria based allocation model to a process that considers the core principles of the Cohesive Strategy and funds the federal organizations at the regional levels, and that would also allow for management discretion at the local level that takes into account priorities, capabilities, and the changes in individual project dynamics. If standard guidance and direction for fuels treatments is modified it must be done at the Department level, between USDA and DOI, with discussion of the relationships to state, tribal and private partners.
CSF14-2	Encourage federal agencies to use authorities under the Healthy Forest Restoration act (HFRA) and the Health Forest initiative (HFI) to expedite the planning /collaboration process to treat large landscapes.
CSF14-3	Integrate Community Wildfire Protection Plans with agency land management and/or fire management plans to facilitate fuels treatments across multiple jurisdictions (RSC level).
CSF14-4	Support the Good Neighbor Authority Act and broaden the use of the Act's provisions to other states where local interest and support exists.
CSF14-5	Seek relief from impediments in the Forest Service Planning Rule for fuels management.
Critical Success Factor(20): Growth Management, Land Development and Zoning Laws	
CSF20-1	Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards.
CSF20-2	Work with the insurance industry on products that motivate homeowners to create fire adapted homes/communities – create a model fire adapted community concept that can be replicated in high fire prone areas resulting in reduced fees and higher ISO ratings.
CSF20-3	Construct a federal incentive program to reimburse for the creation of fire adapted communities through CWPPs and other comprehensive community planning practices (FEMA and/or USDA/DOI).
CSF20-4	At Federal Agency, State and local government level develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues.
National Barrier (31): Inefficiencies in the National Qualification Standards	
B31-1	WFEC should consider tasking the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways, Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs).

B31-2	Build on existing success, e.g., Incident Qualification and Certification System (IQCS), Recognition of Prior Learning (RPL), and Service First, to develop a national qualification system to track federal, tribal, local, state, and private community responders.
B31-3	Continue to utilize the USFA crosswalk as a component of the National Wildland Qualification System. Expand the concept.
National Barrier (33): Remove Policy Barriers and Process Complexities for Sharing Resources	
B33-1	NWCG to complete revisions to the Master Cooperative Wildfire Management and Stafford Act Response Agreement.
B33-2	Rectify authority issues via federal legislation, for the USFS to mobilize state and local resources via the Master Cooperative Wildfire Management and Stafford Act Response Agreement, or implement a work around.
B33-3	Identify and correct policy barriers that prevent the effective sharing of resources.
B33-4	Local government needs national clarification on structure protection verses wildfire suppression and who pays.
B33-5	Identify complexities that need to be simplified in order to efficiently share resources.
Critical Success Factor (10): Enforceable State/Local Ordinances	
CSF10-1	Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities.
CSF10-2	Work through NGOs (NACo, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development.
CSF10-3	Work with Congress and Federal agencies to tie incentive programs related to development (e.g., community development grants) to be scored higher for programs that incorporate prevention programs into their State and local government development requirements (the carrot).
CSF10-4	Tie federal funding requirements to the presence of enforceable state and/or local community wildfire risk reduction ordinances with an emphasis on prevention (the stick).
Critical Success Factor (12): FEMA Pre-Disaster Mitigation Program	
CSF12-1	Revise FEMA grant guidelines that require direct funding of projects on private lands, eliminating the need for NEPA, and to include funding for prescribed fire.
CSF12-2	Transfer FEMA assistance program and funding to USFS State and Private programs or provide block grants to the states.
CSF12-3	Increase the amount of FEMA funds available for pre-disaster mitigation.
CSF12-4	If FEMA determines that it needs to directly fund projects, have FEMA establish NEPA Categories of Exclusion, which would reduce NEPA costs and timeframes, making more funds available for project work, and would accelerate project approval.
CSF12-5	Have FEMA reduce the cumbersome reporting requirements for reimbursement.
Critical Success Factor (16): Rating Fire Adapted Communities	
CSF16-1	Utilize Regional Strategy Committee Chairs, NFPA and the Fire Adapted Communities Coalition, IAFC, NASF and other stakeholders to facilitate and devise this system.
Critical Success Factor (39): Investment in Firefighting Workforce	
CSF39-1	Develop a fire program that focuses efforts on maintaining and developing field level leaders and workforce.
CSF39-2	WFEC should task the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways,

	Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs).
Critical Success Factor (42): Improve Fire Data	
CSF42-1	Present the issues to the Landfire Executive Oversight Group
National Barrier (28): Intergovernmental Wildland Fire Governance	
B28-1	Reexamine the membership of the NWCG Executive Board to ensure local government is adequately represented.
B28-2	WFEC report findings and recommendations on wildland fire governance to WFLC.

NATIONAL COHESIVE WILDLAND FIRE MANAGEMENT STRATEGY – PERFORMANCE MEASURES

OM 1	Percent of priority acres with vegetative conditions that support the social and ecological resilience of landscapes
IM 1a	Percent of large wildfire acres that burn with uncharacteristically high severity by vegetation type
IM 1b	Cost of wildfire-damaged landscape restoration
IM 1c	Percent of fire ignitions managed for resource benefits, where allowed and number of these acres burned that contribute to landscape resilience
IM 1d	Percent of total vegetation treatments within high priority wildland and WUI that are strategically located
IM 1e	Percent of monitored fuels treatments where fire behavior during a wildfire was observed to change as planned in the treatment objectives
IM 1f	Percent of monitored fuels treatments that contributed to fire control during a wildfire
IM 1g	Amount expended to modify vegetative conditions in high priority wildland and WUI areas
IM 1h	Cost per acre to provide vegetative conditions in high priority wildland and WUI areas that support landscape resilience
IM 1i	Acres burned by wildfire that are moved to a resilient condition
OM 2	Percent of communities at risk with a high probability of withstanding wildfire without loss of life and infrastructure
IM 2a	Number of public fatalities attributed to wildfire
IM 2b	Number of structures lost to wildfires
IM 2c	Number of Fire Management Assistance Grant declarations
IM 2d	Cost of post-wildfire recovery
IM 2e	Number of human-caused wildfires
IM 2f	Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans
IM 2g	Amount expended to create, implement, and update community wildfire risk mitigation plans
OM 3	Percent of wildland fire managers (and partners) that perceive the fire response system enables them to fulfill their individual responsibilities while safely and efficiently achieving the desired results in all affected jurisdictions
IM 3a	Number of firefighter injuries and fatalities attributed to wildfire
IM 3b	Percent of unwanted wildfires suppressed in initial attack
IM 3c	Percent of large wildfire incidents managed to effectively meet initial objectives
IM 3d	Percent of large fires that exceed a cost efficiency index and change in the cost efficiency index over time
IM 3e	Number of active inter-jurisdictional collaboratives, plans, or agreements
IM 3f	Percent of large fires that employed a common risk decision framework
IM 3g	Percent of resource orders filled (by type)
IM 3h	Percent of at risk communities with local response capacity and capability by scorecard category
IM 3i	Percent of all wildland firefighters who are qualified and equipped in accordance with national standards and the percent of the total federal wildland fire budget expended to maintain these resources

OM = Outcome Measure / IM = Intermediate Measure

WFLC STRATEGIC PRIORITIES – KEY PRIORITY COMPONENTS

SMAQ	Smoke Management & Air Quality: Minimize air quality impacts from wildland fire over the long-term, improve the resilience of landscapes to wildfire, and increase the health and safety of communities, firefighters and the public by using fire as a land management tool
SMAQ P	Smoke Management & Air Quality – Policy
SMAQ P-1	Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to: <ul style="list-style-type: none"> define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire describe the ecological benefits of frequent prescribed fire use on ecosystems
SMAQ P-2	Work with health and safety agencies at all levels to better understand the long term impact that limiting prescribed fire has on public safety and health issues due to large uncontrolled wildfires
SMAQ P-3	Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states
SMAQ P-4	Work to identify and remove barriers to conducting prescribed fire
SMAQ E/C	Smoke Management & Air Quality – Education/Communication
SMAQ E/C-1	Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke
SMAQ E/C-2	Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America’s wildlands as it relates to worldwide climate change discussions
SMAQ E/C-3	Educate prescribed fire practitioners on the importance of following basic smoke management practices to reduce emissions and smoke effects on the public and firefighters
SMAQ S	Smoke Management & Air Quality – Science
SMAQ S-1	Support interagency investments in Joint Fire Science Program studies and other studies on smoke impacts and air quality
SMAQ S-2	Strengthen knowledge about the impacts of weather, ecology, fuel depth, geography, and other environmental factors on total emissions produced by planned prescribed fires compared to wildfires
SMAQ S-3	Identify pilot areas to study the localized impacts of smoke produced during frequent prescribed fires
RRC	Reducing Risk to Communities: Build a suite of enabling conditions* for the creation and enhancement of fire adapted communities across the country. *enabling conditions include: access to tools and material, seed funds, relationship building, etc.
RRC E/C	Reducing Risk to Communities – Education/Communication
RRC E/C-1	Utilize shared learning to expand knowledge and access to information
RRC E/C-2	Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining
RRC E/C-3	Promote constant and consistent links to the tenets and terminology of the Cohesive Strategy
RRC E/C-4	Increase the presence of WFLC members and affiliates at high profile wildfire incidents to demonstrate support and provide timely educational messages
RRC P	Reducing Risk to Communities – Policy
RRC P-1	Expand existing authorities to enhance opportunities to develop fire adapted communities
RRC P-2	Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities
RRC P-3	Work to ensure priorities are locally established for all levels of resources and all mechanisms of funding

RRC P-4	Promote active engagement of resources from all levels of government through multi-agency and partner collaboration in all phases of wildfire response
RRC S	Reducing Risk to Communities – Science
RRC S-1	Continue to use social sciences to evaluate the effectiveness of fire adapted community messaging and tools
RRC S-2	Identify pilot programs/projects to study the community effects of risk reduction activities
LLC	Large Landscape Collaboration: Increase the number and area of wildfire resilient and healthy landscapes, resilient communities and efficiency of wildland fire response by expanding cross-landscape, cross-ownership collaboration
LLC E/C	Large Landscape Collaboration– Education/Communication
LLC E/C-1	Utilize shared learning to increase the opportunity for successful collaboration across the country
LLC E/C-2	Facilitate opportunities for cross-boundary work and coordination to work more efficiently
LLC E/C-3	Promote effective, large-scale landscape level projects across jurisdictional lines
LLC E/C-4	Develop a workshop series to focus shared learning among practitioners and partners
LLC P	Large Landscape Collaboration – Policy
LLC P-1	Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response
LLC P-2	Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities
LLC P-3	Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities
LLC P-4	Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives
LLC S	Large Landscape Collaboration – Science
LLC S-1	Support large landscape-scale monitoring to evaluate the effectiveness of management actions
EC	Environmental Compliance: Conduct project planning and analysis in a timely, coordinated and efficient manner to expedite fuels management, restoration and maintenance of healthy, resilient landscapes
EC E/T	Environmental Compliance – Education/Tool
EC E/T-1	Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner
EC P	Environmental Compliance – Policy
EC P-1	Facilitate opportunities for more efficient cross-boundary work and coordination
EC P-2	Explore policy and regulatory structures to increase cross-boundary work and more effectively use existing authorities

2014 QUADRENNIAL FIRE REVIEW

QFR	Based on in-depth analysis, broad stakeholder engagement, and an assessment of possible alternative futures; offers the following set of conclusions and possible actions for consideration.
QFR 1	Promote continuous data collection and analysis to increase understanding of broad-based outcomes, explore new performance metrics to assess program effectiveness, and conduct an operational capability assessment.
QFR 2	Create a fuels management optimization framework to enable effective and efficient application of funding and treatments.
QFR 3	Conduct research to better understand whether (or not) active forest management offers potential to address high fuel levels.
QFR 4	Explore opportunities to enhance awareness about the benefits of fire and public acceptance of prescribed fire and fire use through a set of multifaceted messages.
QFR 5	Empower a “Chief Innovation Officer” to establish innovation priorities and technology implementation plans, build partnerships, foster innovation at all levels, and inform fire leaders’ decisions about investment in “winners.”
QFR 6	Conduct a strategic workforce review and develop a strategic plan for the federal wildland fire workforce that addresses pressing emergent challenges.
QFR 7	Develop a capability to undertake ongoing, futures-oriented analysis and planning to identify, plan for, and empower action to address emerging issues.
QFR 8	Over the next five years, assess potential organizational schemes and identify associated benefits and drawbacks.

APPENDIX E: National Barriers and Critical Success Factors

Document begins on next page.

National Cohesive Wildland Fire Management Strategy

Barriers and Critical Success Factors – Version August 2012

Status Updates – November, 2016

During Phase II of the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy), each of the three Regional Strategy Committees (RSCs) – Northeast, Southeast, and West – identified barriers and critical success factors that would impact their ability to be successful in implementing the Cohesive Strategy. The terms as used in this process are defined as:

Barriers – Must be removed in order for the Cohesive Strategy to be successful.

Critical Success Factors – Must be present for the Cohesive Strategy to be successful.

When the regional lists were combined into a master list, over fifty barriers and critical success factors had been identified by the regions. The Wildland Fire Executive Council (WFEC), through the Cohesive Strategy Subcommittee (CSSC), tasked the RSCs with further defining the factors and creating a sub-list targeting the highest priority factors that reasonably could be addressed within the next five years.

The row labels in the following tables were adapted from the original factor spreadsheet. Several of the labels are described in more detail below.

Impact – What are the potential implications or effect if the barrier is removed or the critical success factor is met?

Supporting Details – Additional information and references

Existing Groups and Past Efforts – Is there an existing group that could review and define proposed actions to address the barrier or critical success factor? Has there been a past effort(s) to address the barrier; and if so, by whom?

The last three rows – Impact on Achieving Objectives, Probability of Success, and Investment of Resources Versus Benefit – were added following the WFEC members' review of the highest priority barriers and critical success factors identified by the RSCs. The responses, when combined for each factor, represent the WFEC's assessment of the likelihood of achieving a positive outcome.

Each of the 11 barriers and critical success factors (CSF) that follow was selected by the RSCs as being the highest priority barriers/CSFs to be addressed in order to contribute to the successful implementation of the Cohesive Strategy. These barriers/CSFs were further stratified into two tiers.

Tier 1 (blue headings) – Contains the most urgent of the RSC's highest priority barriers/CSFs

Tier 2 (tan headings) – Contains the remainder of the RSC's highest priority barriers/CSFs

Finally, the number in parentheses in the heading of each table corresponds to the barrier or critical success factor number in the original master barrier and critical success factor spreadsheet.

CRITICAL SUCCESS FACTOR (5): <i>Increase Fuels Management on Private Land</i>	
Tier (Priority)	1
National Goals Addressed	<ul style="list-style-type: none"> • Landscapes • Fire-Adapted Communities • Response to Fire
Description	There is a need to increase private land management assistance to complement and implement broader fuel reduction management objectives across fire prone landscapes. Incentives for private landowners are needed to increase the fuels management on private lands. Incentives may include providing cost share funds through current landowner assistance programs. There is a need to integrate federal and state level fuels and prevention programs and provide fuels management incentives to mitigate undesired fire effects and property loss.
Impact	Increasing incentives for private lands fuels mitigation will result in more acres being mitigated of undesired fire effects to the landscape/watershed and reducing the probability of fire damage/loss. It can also bring about multiple program integration to reach the same outcome on a larger portion of the landscape with more efficient leveraging of funding sources. Treated areas must be maintained. Increases in the acres treated results in reduced wildfire risk to the public and firefighters and reduced wildfire suppression costs.
Supporting Details	Could be integrated with various private and public land conservation and stewardship programs. Integration and coordination of WUI planning with land management objectives. There is a need to integrate federal and state level fuels and prevention programs which integrate WUI protection planning with land management objectives. There must be social incentives in addition to financial incentives. The emphasis must be at the local level which requires active engagement with constituents at that level.
Existing Groups and Past Efforts	The NRCS currently has the Conservation Stewardship Program (CSP) that covers many of the natural resource and fuels reduction needs addressed here. It is specifically geared to tribal and private agricultural lands and non-industrial private forest landowners. Additionally, the USFS has the Forest Stewardship Program. This program has specifically been coordinated within the Northeastern and Midwestern U.S. and addresses the very needs that the Cohesive Strategy seeks, including, risk management, communication, natural resource management and fuels treatments across this landscape. States utilize hazardous fuels mitigation funds via State Fire Assistance (NASF-USFS).
Potential Action(s)	<ol style="list-style-type: none"> 1. Develop landowner incentives (e.g., tax breaks, free disposal of material, increased use of Wyden Amendment and other finance or cost-share authorities). 2. Integration of fuels reduction and defensible space principles with private land management programs. 3. Integrate USFS and NRCS funding and programs to achieve success. Work with NRCS, FSA, and other USDA agencies to better incorporate and/or incentivize prescribed burning on tribal and private lands. 4. Work with EPA to reduce restrictions to the use of prescribed fire due to smoke tolerance and emissions (air quality). Part is education of the general public; the other part is education/science working with EPA on short term effects verses long term impacts and extent of emissions.
Impact on Achieving Objectives	High
Probability of Success	Medium
Investment of Resources versus Benefit	Medium
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.
Status Update Nov 2016	Critical Success Factor (CSF) #5 – Increase Fuels Management on Private Land and CSF #14 – Increase Fuels Management on Private Land were combined by the assigned task group. The task

	group submitted their report to the Wildland Fire Executive Council (WFEC) in November 2013. See Appendix F for a copy of the task group report.
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CRITICAL SUCCESS FACTOR (14): <i>Increase Fuels Management on Federal Land</i>	
Tier (Priority)	1
National Goals Addressed	<ul style="list-style-type: none"> • Landscapes • Fire-Adapted Communities • Response to Fire
Description	<p>1. Need revised standardized guidance and direction for fuels treatments on federal land to enhance fire adapted communities and landscapes.</p> <p>2. Landscape scale restoration is often difficult to achieve due to the complex process requirements of federal laws, rules and policies. New interpretation and engagement with key partners can take advantage of flexibility that currently exists, but may not be exercised for fear of litigation.</p>
Impact	If guidance is revised, DOI agencies will be able to effectively target fuels treatment dollars to achieve integrated Cohesive Strategy goals for fire adapted communities and landscape resilience. Increased acres treated on federal lands reduces wildfire risk to the public and firefighters, and results in reduced wildfire suppression costs.
Supporting Details	Currently, guidance and direction comes from HFPAS and OMB. The emphasis is to prioritize WUI treatments, with approximately 90% of the HFR funds going to this endeavor. However, a gap exists between the DOI agency missions, which are different for NPS, FWS, BLM and BIA, and the WUI emphasis. For example, spending HFR funds in Yosemite to reduce fuels around structures in and adjacent to the park does not fully advance the NPS mission, and in fact could have severe consequences if a large portion of the park burns in a mega-fire and the critical values of Yosemite (including the tourism economy) are lost.
Existing Groups and Past Efforts	DOI Fire program Assessment. NWCG Fuels Committee has been involved with fuels allocations and processes. The use of the Good Neighbor authority was approved by Congress in 2009 for projects in Colorado and Utah. The authority enables state agencies to act as an agent for the federal agency to complete similar or complementary forest and land management activities across state, federal and private landowner boundaries. The Authority has not been widely used due to limited application and problematic contracting requirements.
Potential Action(s)	<p>1. Move from a national criteria based allocation model to a process that considers the core principles of the Cohesive Strategy and funds the federal organizations at the regional levels, and that would also allow for management discretion at the local level that takes into account priorities, capabilities, and the changes in individual project dynamics. If standard guidance and direction for fuels treatments is modified it must be done at the Department level, between USDA and DOI, with discussion of the relationships to state, tribal and private partners.</p> <p>2. Encourage federal agencies to use authorities under the Healthy Forest Restoration act (HFRA) and the Health Forest initiative (HFI) to expedite the planning /collaboration process to treat large landscapes.</p> <p>3. Integrate Community Wildfire Protection Plans with agency land management and/or fire management plans to facilitate fuels treatments across multiple jurisdictions (RSC level).</p> <p>4. Support the Good Neighbor Authority Act and broaden the use of the Act's provisions to other states where local interest and support exists.</p> <p>5. Seek relief from impediments in the Forest Service Planning Rule for fuels management.</p>
Impact on Achieving Objectives	High
Probability of Success	Medium
Investment of Resources versus Benefit	Medium
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.
Status Update Nov 2016	Critical Success Factor (CSF) #5 – Increase Fuels Management on Private Land and CSF #14 – Increase Fuels Management on Private Land were combined by the assigned task group. The task

	group submitted their report to the Wildland Fire Executive Council (WFEC) in November 2013. See Appendix F for a copy of the task group report.
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CRITICAL SUCCESS FACTOR (20): <i>Growth Management, Land Development and Zoning Laws</i>		
Tier (Priority)	1	
National Goals Addressed	<ul style="list-style-type: none"> • Fire-Adapted Communities • Response to Fire 	
Description	Need growth management, land development, and zoning laws that require defensible space and wildland fire risk reduction actions as communities develop; and the maintenance of wildland fire risk reduction practices, e.g., defensible space, fire resistant construction, hazard reduction, etc.	
Impact	Reduced risk to firefighters and homeowners, reduced suppression costs, and lower insurance rates.	
Supporting Details	Mostly a local government issue but national support and coordination are needed.	
Existing Groups and Past Efforts	NFPA has completed national surveys on zoning laws. Additional information is available from the Fire Adapted Communities Coalition and NWCG WUI Committee. NACO, IAFC, NGA, and NLC have also contributed.	
Potential Action(s)	<ol style="list-style-type: none"> 1. Work through NGOs (American Planners Association, builders and other organizations and NACO/League of Cities/Mayors Conference) at the national level to develop a list of best practices and model zoning laws/development standards. 2. Work with the insurance industry on products that motivate homeowners to create fire adapted homes/communities – create a model fire adapted community concept that can be replicated in high fire prone areas resulting in reduced fees and higher ISO ratings. 3. Construct a federal incentive program to reimburse for the creation of fire adapted communities through CWPPs and other comprehensive community planning practices (FEMA and/or USDA/DOI). 4. At Federal Agency, State and local government level, develop codes and standards for developing and maintaining Fire Adapted Communities reflecting regional and local wildland fire risks to Human Communities, including landscape and structure components/issues. 	
Impact on Achieving Objectives	High	
Probability of Success	Low	
Investment of Resources versus Benefit	Medium	
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.	
Status Update Nov 2016	<p>No separate task group report is available. Actions that have occurred relative to this Critical Success Factor include:</p> <ol style="list-style-type: none"> 1. Implementation of the Community Planning Assistance for Wildfire (CPAW) program, funded through a cooperative agreement with the U.S. Forest Service (USFS) and private organizations, provides technical consulting services in the form of land use planning using codes and ordinances in cities or counties with authority over local land use planning and zoning decisions. 2. The Mitigation Framework Leadership Group (MitFLG) initiated an effort to identify way the federal government can encourage local and state awareness, adoption and enforcement of building codes. The final report is pending release. 3. Land use planning and WUI building codes are included in the curriculum in the U.S. Fire Administration/National Fire Academy's resident WUI:FAC course. 4. In May 2016 the White House released Executive Order 13728 on Wildland-Urban Interface Federal Risk Mitigation. 	

BARRIER (31): <i>Inefficiencies in the National Qualification Standards</i>	
Tier (Priority)	1
National Goals Addressed	<ul style="list-style-type: none"> • Response to Fire
Description	Inefficiencies in the national qualification standards and procedures must be addressed to increase response capabilities. Develop one wildland fire qualification standard for the federal, state, tribal, and local wildfire community. Currently NWCG PMS 310-1 provides qualifications for national mobilization and recognizes the ability to accept qualifications of local jurisdictions while in those jurisdictions. These standards are in sync with FEMA NIC efforts to bridge the gap with local government.
Impact	<ol style="list-style-type: none"> 1. Many resources that would otherwise be available for mobilization are unavailable because of cumbersome qualification standards and procedures. As a result, resources are not available for mobilization. 2. Better coordination between and among local, state, tribal and federal agencies who are investing in training. A clear definition of position requirements for training and experience. 3. NWCG develops and maintains interagency qualifications and training standards. Implementation is the responsibility and decision of the individual agencies.
Supporting Details	<ol style="list-style-type: none"> 1. Build on existing success (Recognition of Prior Learning [RPL], Service First). Should accept experience, training and qualification classes, and nomenclature of DHS/NIMS as well as the U.S. Fire Administration. 2. We need to shorten time for qualifications which is part of the NWCG Workforce Development Goal and IMT Succession Project. Agency support for implementation is required.
Existing Groups and Past Efforts	<ol style="list-style-type: none"> 1. Past efforts have only looked @ NWCG affiliation. Currently, RPL has been modeled in the south and west and sponsored by BLM; FEMA is now completing the RPL guide materials. 2. The U.S. Fire Administration (USFA) has a fire crosswalk qualification system that is recognized by the NWCG and recognizes prior obtained skills of structure fire departments. This system has provided an avenue to incorporate fire personnel into interagency fire organizations where agencies have chosen to recognize them. 3. NWCG Evolving Incident Management (IMT Succession Project): strategic implementation plan is complete and work units with leads are identified.
Potential Action(s)	<ol style="list-style-type: none"> 1. WFEC should consider tasking the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways, Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs). 2. Build on existing success, e.g., Incident Qualification and Certification System (IQCS), Recognition of Prior Learning (RPL), and Service First, to develop a national qualification system to track federal, tribal, local, state, and private community responders. 3. Continue to utilize the USFA crosswalk as a component of the National Wildland Qualification System. Expand the concept.
Impact on Achieving Objectives	Medium
Probability of Success	Medium
Investment of Resources versus Benefit	Medium
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.
Status Update Nov 2016	<p>Current efforts that support this area include:</p> <ol style="list-style-type: none"> 1. There have been significant revisions to NWCG manual 310-1 for national standards and qualifications. Tying into IMT succession helps reduce amount of time to get qualified. 2. NWCG staff doing comprehensive review and assessment of training – how task book process is

	<p>working and how it can be streamlined.</p> <p>3. Revised two of the upper level required courses S420 and S520 to be more current. If don't pass during course, don't get automatically kicked out of program – have opportunity for remediation.</p> <p>4. Crosswalk courses continue to work well.</p> <p>5. Efficiencies have resulted from using positon task books.</p>
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BARRIER (33): Remove Policy Barriers and Process Complexities for Sharing Resources	
Tier (Priority)	1
National Goals Addressed	<ul style="list-style-type: none"> Landscapes Response to Fire
Description	Need to remove policy barriers and process complexities which affect the ability to effectively and efficiently share resources, not only for wildfire, but for fuels and prescribed fire work. The statutory authority for the USFS to pay for state resources responding to another state's incident, even though the receiving state reimburses the USFS for those responding resources, has been questioned.
Impact	<ol style="list-style-type: none"> 1. Qualification standards pose barriers to sharing resources when the USDA Forest Service follows one set of rules, while all other state and federal agencies follow the Wildland Fire Qualification System Guide, PMS 310-1. (USFS requires 5901 but NWCG PMS 310-1 is the standard for national mobilization.) 2. It is an appropriate and key role for the USFS and other federal agencies to maintain a national and regional mobilization system to facilitate the coordinated mobilization of suppression resources, including state-sent local resources, to support fire suppression efforts nationally. 3. If not resolved, this issue is likely to restrict mobilization of key resources for the protection of private, state and local government lands.
Supporting Details	As budgets decline and skill gaps grow, reliance on a mobile skilled workforce is one option, while local expertise is developed. Processes for updating and revising agreements are slow and cumbersome.
Existing Groups and Past Efforts	<ol style="list-style-type: none"> 1. The guidance for state to state mobilization and fire billing cooperative fire agreements is currently under development and billing procedures have not yet changed. 2. A USFS/NASF task group has developed recommendations for addressing the authorities issues for the USFS, and developed a potential work around if needed. 3. NWCG task team has worked on revisions to the national template for the Master Cooperative Wildfire Management and Stafford Act Response Agreement. 4. Cohesive Strategy foundational documents: Mutual Expectations for Preparedness and Suppression in the Interface, The Responsibilities, Authorities, and Roles of Federal, State, Local and Tribal Governments.
Potential Action(s)	<ol style="list-style-type: none"> 1. NWCG to complete revisions to the Master Cooperative Wildfire Management and Stafford Act Response Agreement. 2. Rectify authority issues via federal legislation, for the USFS to mobilize state and local resources via the Master Cooperative Wildfire Management and Stafford Act Response Agreement, or implement a work around. 3. Identify and correct policy barriers that prevent the effective sharing of resources. 4. Local government needs national clarification on structure protection verses wildfire suppression and who pays. 5. Identify complexities that need to be simplified in order to efficiently share resources.
Impact on Achieving Objectives	High
Probability of Success	Medium
Investment of Resources versus Benefit	High
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.
Status Update Nov 2016	<p>Current efforts that support this area include:</p> <ol style="list-style-type: none"> 1. Regarding master agreements for wildland fire and Stafford Act response (national template that is used for state and federal agencies) NWCG approved template and it is currently in use. 2. More work is needed to facilitate standardization and acceptance of interagency qualifications. 3. There continue to be impediments in state-to-state mobilizations that need to be addressed.

	4. There are opportunities to better utilize interstate firefighting compacts (in existence for a long time). There are opportunities to recognize and utilize these more because there are many qualified state people that aren't interested in national mobilization.
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CRITICAL SUCCESS FACTOR (10): <i>Enforceable State/Local Ordinances</i>		
Tier (Priority)	2	
National Goals Addressed	<ul style="list-style-type: none"> Fire-Adapted Communities 	
Description	Need adequate state and/or local ordinances related to wildfire prevention which are enforceable.	
Impact	Reduced number of human caused wildfires. Cost-benefit ratio of fire prevention versus the cost of fire suppression.	
Supporting Details	Issue appears to reside at local and state level rather than federal level.	
Existing Groups and Past Efforts	Southern WUI Center-Prestemon Study. Cooperative Forest Fire Prevention Committee-NASF, USFS. Ad Council may have additional information, as well as the NWCG Communication, Education and Prevention Committee. NACO, IAFC, NGA, and NLC have also contributed.	
Potential Action(s)	<ol style="list-style-type: none"> 1. Implement coordinated information sharing between RSCs regarding successful state and local government community growth management planning and enforcement that results in sustainable wildfire risk reduction in WUI communities. 2. Work through NGOs (NACO, League of Cities, etc.) to develop a list of WUI Codes, growth management policies and land development regulations, special wildland fire risk reduction ordinances, and best management practices related to community risk reduction and prevention from wildfire from across the Nation, and develop into an information and education program to State and local government agencies responsible for community development. 3. Work with Congress and Federal agencies to tie incentive programs related to development (e.g., community development grants) to be scored higher for programs that incorporate prevention programs into their State and local government development requirements (the carrot). 4. Tie federal funding requirements to the presence of enforceable state and/or local community wildfire risk reduction ordinances with an emphasis on prevention (the stick). 	
Impact on Achieving Objectives	Medium	
Probability of Success	Low	
Investment of Resources versus Benefit	High	
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.	
Status Update Nov 2016	<p>Current efforts that support this area include:</p> <ol style="list-style-type: none"> 1. The Mitigation Framework Leadership Group (MitFLG) initiated an effort to identify way the federal government can encourage local and state awareness, adoption and enforcement of building codes. The final report is pending release. 2. Land use planning and WUI building codes are included in the curriculum in the U.S. Fire Administration/National Fire Academy's resident WUI:FAC course. 	

CRITICAL SUCCESS FACTOR (12): <i>FEMA Pre-Disaster Mitigation Program</i>	
Tier (Priority)	2
National Goals Addressed	<ul style="list-style-type: none"> Fire-Adapted Communities
Description	Enhance FEMA pre-disaster mitigation program to maximize fuels reduction across the landscape with emphasis on private lands.
Impact	Currently FEMA has pre-disaster mitigation grants available but less than 1% of those funds go towards wildland fire mitigation. If those funds could be significantly increased, much more investments could go towards private lands.
Supporting Details	FEMA has very limited use of NEPA Category of Exclusions. Most projects funded by FEMA require them to go through an Environmental Assessment prior to award. Through their granting process FEMA will not fund prescribed fire or slash burning due to liability issues. It makes perfect sense for both existing and increases in this program to be "block grant" awarded to either federal or state agencies with expertise to complete the projects. Block grants to the states would eliminate the costly NEPA process of analyzing fuels reduction activities on private lands, and provide for the expertise that would allow other tools such as prescribed fire and slash pile burning.
Existing Groups and Past Efforts	This has never been attempted, so no previous action. Hazardous fuels mitigation on private lands is supported by National Fire Plan funding through State Fire Assistance from USFS.
Potential Action(s)	<ol style="list-style-type: none"> 1. Revise FEMA grant guidelines that require direct funding of projects on private lands, eliminating the need for NEPA, and to include funding for prescribed fire. 2. Transfer FEMA assistance program and funding to USFS State and Private programs or provide block grants to the states. 3. Increase the amount of FEMA funds available for pre-disaster mitigation. 4. If FEMA determines that it needs to directly fund projects, have FEMA establish NEPA Categories of Exclusion, which would reduce NEPA costs and timeframes, making more funds available for project work, and would accelerate project approval. 5. Have FEMA reduce the cumbersome reporting requirements for reimbursement.
Impact on Achieving Objectives	High
Probability of Success	Medium
Investment of Resources versus Benefit	Medium
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.
Status Update Nov 2016	The task group submitted a final report to the WFLC in November 2016; however, work toward addressing the actions has been ongoing since 2013. FEMA's Grants Policy Branch and Assistance to Firefighters Grant/Fire Prevention and Safety Grant staff have worked closely with U.S. Fire Administration. See Appendix G for the task group's report.

CRITICAL SUCCESS FACTOR (16): <i>Rating Fire Adapted Communities</i>		
Tier (Priority)	2	
National Goals Addressed	<ul style="list-style-type: none"> Fire-Adapted Communities 	
Description	Develop a common system to characterize and rate fire-adapted communities (FAC); track individual community progress; prioritize investment; and to allow for identification of trends across communities.	
Impact	This would create a common understanding and mechanism for tracking progress in FAC in each region. The standards could also be used for investments from all stakeholders.	
Supporting Details	NFPA and NWCG definition of Fire Adapted Communities. Maintain the full intent of the CS goal of fire adapted communities.	
Existing Groups and Past Efforts	The Fire Adapted Communities Coalition (USFS, NFPA, IAFC, NASF, IBHS, and others), the FireWise Community Program, along with IAFC Ready, Set, Go!, are all working toward this goal. NASF provides national guidance to states for identifying communities at risk and prioritizing risk reduction projects. NASF provides an annual report on the number of communities at risk to wildfire.	
Potential Action(s)	Utilize Regional Strategy Committee Chairs, NFPA and the Fire Adapted Communities Coalition, IAFC, NASF, and other stakeholders to facilitate and devise this system.	
Impact on Achieving Objectives	Medium	
Probability of Success	Medium	
Investment of Resources versus Benefit	Medium	
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.	
Status Update Nov 2016	<p>Social science research and experience indicates that a formal rating system could be counter-productive due to the fact that a community rating system tends produce a snapshot that tends to be viewed as a static condition. A solution is needed to determine readiness or resilience, i.e., a resilience assessment based on local needs and situation, rather than a rating system that would indicate a somewhat subjective judgement.</p> <p>One tool has been developed (not as part of this task group) that addresses this topic. The FAC Self-Assessment Tool (http://fireadaptednetwork.org/resources/fac-assessment-tool/) was developed to help communities assess their level of fire adaptation and, just as importantly, track their capacity to live safely with fire over time. This assessment tool can be used to assess individual neighborhoods, cities and even large counties.</p>	

CRITICAL SUCCESS FACTOR (39): <i>Investment in Firefighting Workforce</i>	
Tier (Priority)	2
National Goals Addressed	<ul style="list-style-type: none"> • Landscapes • Fire-Adapted Communities • Response to Fire
Description	Investment in firefighting workforce. Need to invest in human capital at the field level. Budget cuts are reducing the number and quality of the on-the-ground firefighting workforce. Budget cuts always seem to land at the field more than at the national level.
Impact	Continued and increased investment in the firefighting workforce is necessary in order to maintain capacity to respond to wildfire as well as mitigate fire hazards. A lack of investment in the firefighting workforce will lead to fewer firefighters on the ground, reduced safety, reduced capability at accomplishing local projects, and reduced initial attack success. In the long term we face a generation gap in the fire workforce available for future leadership of the program.
Supporting Details	Impacts all agencies and organizations with wildland fire responsibilities – local, state and federal.
Existing Groups and Past Efforts	NWCG Evolving Incident Management (IMT Succession Project) strategic implementation is complete and assignments to work units with leads are in progress. Section 5 workforce development has not yet been officially tasked to a work unit. The USFS and others are developing Workforce Succession Plans.
Potential Action(s)	<ol style="list-style-type: none"> 1. Develop a fire program that focuses efforts on maintaining and developing field level leaders and workforce. 2. WFEC should task the NWCG Executive Board to provide a plan for implementation of Section 5 Incident Capacity/Workforce Development/IMT Succession from the Evolving Incident Management Report 10/17/2011 (Single Qualification System, Alternative Qualification Pathways, Experimental Training, Wildfire and Incident Management Academies, Position Task Books, Previous Experience Credit, Mentoring Programs).
Impact on Achieving Objectives	High
Probability of Success	Medium
Investment of Resources versus Benefit	High
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.
Status Update Nov 2016	<p>Current efforts that support this area include:</p> <ol style="list-style-type: none"> 1. State volunteer fire assistance (from USFS to states) continues to work very well for training and increasing local capacity. 2. A few states, notably Arizona and Texas, have done a good job in tapping and using local resources for wildland fire. One limiting factor in many state forestry agencies is insufficient staffing to handle the workload. 3. Several years ago NWCG began work on an evolving incident management system that transitioned to work on IMT succession planning. NWCG, NMAC and FMB are overseeing this ongoing effort. 4. The addition of the IAFC to the NWCG Executive Board has brought the local government perspective, which has been a big plus in working with local resources.

CRITICAL SUCCESS FACTOR (42): <i>Improve Fire Data</i>		
Tier (Priority)	2	
National Goals Addressed	<ul style="list-style-type: none"> • Landscapes • Fire-Adapted Communities • Response to Fire 	
Description	Landfire: The accuracy of various aspects of the Landfire data is questionable, even when used at intended scale. Landfire data is being used nationally to depict existing vegetation, surface and canopy fuels, fire regime condition class, and estimates of national fire hazard/risk. Without accurate data, many assumptions and actions based on this data will be compromised.	
Impact	More realistic and accurate depiction of where wildland fire hazard/risk actually occurs across the country, which can be used to base decisions upon. More people willing to utilize this data for broader collaboration efforts.	
Supporting Details	For the SE and NE regions particularly, Landfire data and the inaccurate analysis created at a national view are barriers to these two regions playing on a level field nationally. It is a barrier to being able to accurately predict and plan. Many state wildfire agencies have weighed in on the need to improve the accuracy of Landfire.	
Existing Groups and Past Efforts	There is no effective, consistent way to provide feedback and critical review to the Landfire team. If feedback is given, there is no guarantee that suggested improvements will be conducted, and no feedback for why suggestions are not incorporated.	
Potential Action(s)	Present the issues to the Landfire Executive Oversight Group.	
Impact on Achieving Objectives	Medium	
Probability of Success	Medium	
Investment of Resources versus Benefit	Low	
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.	
Status Update Nov 2016	The original LANDFIRE models and mapping products, produced a decade ago, are being systematically updated. Currently, The Nature Conservancy (TNC) is facilitating a national update of LANDFIRE mapping and data. The LANDFIRE program goal is to develop a “continuous improvement” process where updated biophysical settings (BpS) models are delivered on a periodic basis.	

BARRIER (28): Intergovernmental Wildland Fire Governance		
Tier (Priority)	2	
National Goals Addressed	n/a	
Description	Need an intergovernmental wildland fire governance structure to serve the needs of all jurisdictions in both wildland fire and all-risk incidents.	
Impact	All stakeholders with wildland fire responsibilities would be represented by either NWCG or another entity that represents all interests. The current charter for NWCG requires national wildland fire management responsibilities.	
Supporting Details	NWCG does not satisfy this need fully; for example, each of the RSCs reported that municipalities do not feel they are adequately represented by NWCG, nor are the standards recognized.	
Existing Groups and Past Efforts	Past efforts have only looked at NWCG affiliation. WFEC current tasking for governance is in progress.	
Potential Action(s)	<ol style="list-style-type: none"> 1. Reexamine the membership of the NWCG Executive Board to ensure local government is adequately represented. 2. WFEC report findings and recommendations on wildland fire governance to WFLC. 	
Impact on Achieving Objectives	Medium	
Probability of Success	Medium	
Investment of Resources versus Benefit	Medium	
Recommended Disposition	Critical success factors and barriers could be integrated into regional and national analysis reports and action plans. WFEC/WFLC will determine how to proceed with those critical success factors and barriers national in scope.	
Status Update Nov 2016	<p>Completed February 2014 – The Wildland Fire Governance structure has been amended to reduce the number of wildland fire governance organizations with the same or similar membership and redundant responsibilities. These groups are necessary to assist in the development and implementation of strategic and/or tactical direction for the nation’s wildland fire management activities. The new Governance assures the right people are involved in making the best decisions at the right time.</p> <p>Governance Groups and their functions are as follows:</p> <ul style="list-style-type: none"> • <i>Federal Fire Policy Council (FFPC)</i> - Provides a common, integrated, and coordinated Federal agency approach to wildland fire policy, leadership, budget, and program oversight. • <i>Federal Executive Council (FEC)</i> – Provides a common, integrated, and coordinated Federal agency approach to wildland fire policy, leadership, budget, and program oversight. • <i>Fire Management Board (FMB)</i> - Provides a mechanism for coordinated, integrated Federal wildland fire program management and implementation • <i>National Wildfire Coordinating Group (NWCG)</i> - Provides national leadership to develop, maintain, and communicate interagency standards, guidelines, qualifications, training, and other capabilities that enable interoperable operations among federal and non-federal entities. NWCG will facilitate implementation of approved standards, guidelines, qualifications and training. 	

APPENDIX F: Combined Report for CSF (5) and CSF (14)

CS Fuels Task Group Final Report
November 15, 2013

Introduction

The Wildland Fire Executive Council (WFEC) Cohesive Strategy subcommittee tasked an ad hoc group of interested professionals including representatives from each region, to investigate and suggest ways to increase the pace and scale of fuels treatments, in general, across the nation. The group called themselves the Cohesive Strategy Fuels Critical Success Factors Task Group, and included the following:

Theresa Gallagher	Regional Fuels Specialist	USDA Forest Service
Erin Darboven	Outreach Specialist	DOI Office of Wildland Fire
Dr. Bob Cope	County Commissioner	Lemhi County, ID
Mark Melvin	Chair, Board of Directors	Coalition of Prescribed Fire Councils
Frank Sorrells	District Forester	Georgia Forestry Commission
Travis Medema	Division Chief	Oregon Department of Forestry
Bob Sommer	Fire Ecologist	USDA Forest Service Co-Chair
Erik Christiansen	Fuels Program Coordinator	DOI Office of Wildland Fire Co-Chair

The Task Group was convened in January, 2013, and held weekly conference calls through the end of February. Calls were held monthly in March and April. After that time, Task Group business was done largely through the exchange of emails and draft documents.

Originally, the Task Group received a verbal charge from the Cohesive Strategy Subcommittee Chair Dan Smith to review such documents as the Cohesive Strategy regional action plans (in draft at the time), regional strategy committee reports, and the Phase 2 report in search of those actions that the Group considered to be of such importance that if implemented could increase the amount of fuels treatments across various land ownerships. The Task Group was to verify, modify if necessary, and adapt that foundational work, and attempt to improve on it with an “eye to making a difference.” The Task Group was encouraged to be bold, to “think outside the box,” and attempt to be creative. The Task Group was asked to look generally at the “big ticket” actions, typically national in scope, and suggest who might be the best entity to effect meaningful change.¹

Given that charge, the Task Group chose to describe those topics or activities that they judged to be worthy of further development for WFEC’s consideration and subsequent recommendation to the Secretaries of Agriculture and Interior. Topics considered were to be significant activities that were expected to be undertaken and completed in the near- (0-2 years) or mid- (2-4 years) term, and were expected to result in the implementation of more hazardous fuel reduction treatments. The topics are overarching and national in scope, even though they were not

¹ Excerpted from the *Cohesive Strategy Fuels Critical Success Factors Task Group* notes of January 31, 2013.

required to be. All potential topics were eligible for consideration, regardless of their application to private lands or public lands.

This report represents the merging of two priority Critical Success Factors: #5 Increase Fuels Management on Private Land, and #14 Increase Fuels management on Federal Land that reflect the desire nationally to increase fuels treatments on public and private lands, across ownerships, boundaries, and jurisdictions. Below is the list of six potential actions that the Task Group believed met the criteria that were established. Each topic is formatted with a problem statement, a short discussion with some background or explanation of the problem, followed by some suggested remedies or solutions for each topic or problem.

The Task Group considered more issues or topics than made the final list. These will be mentioned following the main list of the “actionable” topics, in a section entitled “Actions Considered but Eliminated for Further Consideration”.

Once the Task Group’s report was in preparation, WFEC issued a tasking on June 11 asking the Group “to review and validate the national barriers and critical success factors” that were delivered to WFEC in August 2012. The Task Group felt that those issues from the August 2012 document that needed to be further addressed are contained in one or more of the six topics below. In some cases, those issues have been named differently, or combined with other issues. However, in an effort to meet the intent of the WFEC tasking, the Task Group appended a section to the report, called “Resolution of Potential Actions.” This section lists each of the potential actions list in the August 2012 document, and provides an explanation of where the action is included in one of the six Topics, or a rationale as to why it was not carried further.

Topic 1: Improve Business Practices

Problem: The federal land management agencies and bureaus are unable to efficiently share resources to implement fuels treatments, particularly prescribed fires. Under the 2010 *Interagency Agreement for Wildland Fire Management* (typically referred to as the Master Agreement) among the BIA, BLM, FWS, NPS, and USFS, agencies have the authority to share resources for fuels work; but the agencies are required to “enter into separate agreements for personnel and other resources provided for planning and implementation of treatments and activities.” Typically, though, the federal fire and fuels workforce is not used outside of their local units, as it is inefficient and cumbersome to do so. There is no fund or reimbursable account like the suppression operations activity available to accomplish fuels related work, for example. Resource sharing is often hampered by travel restrictions, overtime caps, and administrative processes that require an inordinate amount of time to complete.

Discussion: Local units often require assistance from their partners to accomplish fuels treatments, particularly prescribed fires, as many local units do not have enough staff to ignite, hold, mop-up, and monitor several prescribed fires simultaneously, or for prescribed fires that extend for several days or longer. Various administrative rules and procedures exist among the DOI bureaus and between the departments that make it time consuming and awkward to exchange funds for assistance. Some instances of assistance do take place. BLM smokejumpers from Boise assist units in other geographic areas, for example, but these instances are relatively

few, largely informal, and are typically the result of professional relationships forged over the years. Inter- agency and inter -departmental assistance is difficult to implement, given the requirement for separate agreements. Interpretations in most regions indicate that state and local resources cannot be reimbursed under cooperative fire agreements for prescribed fire. A separate agreement or procurement action is required. Suppression contracts often have equipment available on short notice at competitive rates but those contracts cannot be used. Limited authority for "non-emergency" purchasing does not allow for the support of crew type resources on prescribed fires.

Action: Convene a national-level task force of subject matter experts (predominantly fuels managers, acquisitions specialists, and agreements specialists) to determine what procedures exist that make exchanging funds difficult, then propose efficient administrative remedies that enable the exchange of funds among the federal bureaus to be accomplished more efficiently. Consider the suggestions made in the regional action plans. Develop a system to share resources for fuels related work similar to that used for wildfire resource ordering and mobilization. A percentage of the federal workforce (or fire workforce) could be shared nationally, regionally, or sub-regionally, to accomplish goals and objectives for federal units as well as adjacent partners, using a system similar to the wildfire emergency resource use. Fuels project funds could be pooled and managed nationally or regionally, much like suppression funds. Base salary could be covered by the home unit, much like preparedness funds.

Topic 2: Increase the concept of Risk Management in existing forest management programs as a means to address the need to increase fuels reduction treatments on private lands

Problem: Assessing and taking action to reduce wildfire risk and hazards is currently not a requirement in some federal and state managed private landowner assistance and conservation programs. Private landowners in fire prone landscapes may or may not know that their land management objectives could reduce or mitigate wildfire risk. Wildfire risk may not be identified or recognized depending on the department or agency managing the assistance program. Coordination between conservation program managers and fire program managers needs to ensure conservation goals and objectives and fire and fuels management objectives are compatible within a larger landscape fire management strategy. Private consultants, agency staffs, and landowners need a common understanding of fire risk and hazards, and what actions are locally beneficial for the broader fuels management strategy. If Cohesive Strategy Goals were incorporated into these programs, management activities on private land could expand the area of reduced wildfire risk through fuels reduction and mitigation strategies and methods.

Discussion: Throughout the development of the Cohesive Strategy, and in particular during the development of the regional assessments and action plans, a greater awareness began to grow regarding the perceived lack of coordination and integration between programs and efforts that compete for federal and state funding. By better coordinating these efforts, through program delivery and project criteria, the goals of the Cohesive Strategy could be partially achieved from efforts that depend on cooperation and partnering with private landowners.

There are a number of federal and state level programs that offer incentives and assistance to private landowners and industrial forest landowners. Property tax incentives, cost sharing, grants, and land management assistance are some of the services these programs provide to landowners seeking to achieve management objectives. By requiring Cohesive Strategy Goals to be incorporated into these programs, as applicable, private landowners in fire prone areas will have access to assessment tools, best management practices guidance and methods, and professional assistance to better address fuels reduction and maintenance in their management plans and objectives. Management activities would support and complement fire adapted community efforts.

Several examples illustrate where Cohesive Strategy Goals could be incorporated:

Federal programs examples:

1. Through the 2008 Farm Bill the U.S. Department of Agriculture provides many support programs that family and individual landowners can use to conserve their working land. The programs provide expert technical advice and often include financial assistance for landowners who use specific management practices. Some programs also offer rental payments to offset income losses due to changes in land use. These are voluntary programs—property owners choose the program that most closely matches their management goals, such as improving wildlife habitat or restoring a wetland. The Natural Resource Conservation Service (NRCS) administers many of the programs, and the U.S. Forest Service and Farm Service Agency (FSA) manage other programs. The Conservation Reserve Program, the Forest Legacy Program, Wildlife Habitat Incentive Program are a just a few of these programs.
2. The Forest Stewardship Program (administered by the Forest Service through State and Private Forestry) has recently been modified to a landscape stewardship approach targeting large expanses of land including private landowners and includes communities and public agencies. The program encourages States to address resource issues outlined in their State Forest Action Plans by strategically targeting technical assistance and by focusing on priority landscapes.

State Programs examples

1. Wisconsin's Managed Forest Law program encourages sustainable forest management on private lands by providing a property tax incentive to landowners. The programs encourage proper management of woodlands not only in their purpose and policies, but through a written management plan for the landowner's property. To enroll in the program a landowner must have a minimum of 10 acres which is mostly forested. A certified management plan is required, which addresses items such as landowner objectives, timber management, wildlife management, and water quality. Landowners have access to forestry and natural resource professionals and technical assistance, and opportunities to share costs on practices that achieve objectives for healthy forests, while providing forest products during the lifetime of the contract. In other states, such as Maryland and New Jersey, the small woodlot owner needs a minimum of 6 acres to qualify for forest management assistance and to participate in the forest tax programs. Many of these woodlots are considered to be Wildland-Urban Interface.

2. State Forest Action Plans and Wildlife Action Plans are strategic conservation efforts which identify areas of concern and outline priority actions in each state. Achieving conservation objectives include partnering with private landowners. Grants are available for projects which meet certain criteria. Cohesive Strategy goals could be identified, incorporated and supported through these conservation efforts.

Action: Form an inter-departmental task group to fully explore the laws, regulations, budget guidance, and program direction for federal conservation programs that grant funding to states or provide programs within states which offer assistance or subsidy to private landowners, and determine where Cohesive Strategy Goals and Objectives could be integrated to expand fuels reduction on private lands.

Topic 3: Standardize Prescribed Fire Qualifications

Problem: Inconsistent qualification standards and training irregularities within federal agencies, as well as between federal agencies and non-federal partners pose challenges to sharing of resources for fuel treatments.

Discussion: Currently no other mechanism outside the NWCG qualification system exists that allows federal and state agency and private landowners to work cooperatively on prescribed fire projects, whether on public or private land. Private landowners rarely have an opportunity to attend NWCG sanctioned fire courses, and it's even a rarer occurrence that the private sector can gain Burn Boss status. Private landowners and consulting foresters conducting prescribed fires rely on state prescribed burn manager certification courses, which are not formally recognized by federal agencies. This inconsistency prevents public and private fire managers from working together, regardless of ownership. As a direct result, many opportunities are lost to implement prescribed fire across jurisdictional boundaries, especially in high risk fire areas and WUI. Most prescribed fire use occurs on private lands in the US and creative solutions are needed to bridge the 'qualification' gap to allow partners to share resources in a fire resilient landscape; neighbor helping neighbor. There is a desperate need to develop a stand-alone nationally recognized prescribed fire training standard which allows seamless, effective partnerships to develop.

Too much of NWCG's qualification path and experience is spent in wildfire and is not relevant or transferable to prescribed fire use for resource benefit. Prescribed fire planning and implementation requires a different skill set than suppression tactics; fire managers must have a fundamental understanding of fire's effect on the resource being managed and possess the knowledge of applying fire at the right time and intensity to meet objectives.

Action: Develop prescribed fire certification and training (possibly through NWCG) *independent of wildfire training*. Agency implementation can be accomplished by establishing a network of prescribed fire training centers, one in each geographic region, dedicated to prescribed fire training and implementation, and modeled after the National Prescribed Fire Training Center. Also, state prescribed fire manager certification status should be recognized as a means to work with state and private landowners. In certain regions it would be beneficial if this level of training were made available to private landowners as well.

Topic 4: Increase Funding for Fuels Treatments

Problem: Funding for fuels treatments is scarce among all entities. Fire Management accounts for as much as 40 percent of some of the federal land management agency's budgets. Wildfire Response (Preparedness and Suppression Operations) funding continues to make up the largest portion of the federal fire management dollars. This disparity negatively impacts the ability of federal units to manage their lands, maintain or increase efforts to restore and maintain ecosystems, protect values at risk, and increase safety during wildfire response through activities that reduce fire intensity.

As federal funding trends downward and those dollars focus on wildfire response, less fuels treatment will be completed, stopping or reversing the investments to date, creating more hazardous conditions for firefighters, and placing more values at greater risk.

Discussion: Funding to accomplish fuels treatments, whether on private or public lands, is scarce, and becoming scarcer. The Hazardous Fuels Reduction budget in DOI has declined by 30% since FY 2010. USDA Forest Service fuels funding is declining, but at a slower rate. Fuels funding from states is often derived from other federal sources, and given the current desire by many to reduce federal spending, there is concern that this funding may not be available in the future. Funding for treatments on private lands is limited in most areas of the country.

In the FY 2014 Congressional Budget Justification, DOI requested that 84.9% of the total Wildland Fire Management appropriation be allocated to preparedness and suppression, including the FLAME reserve. The Forest Service requested that 86.6% of the appropriation be allocated to preparedness and suppression, including the FLAME reserve. Such a potential imbalance leaves little funding available to restore and maintain fire resilient landscapes, or to assist in creating fire-adapted communities, as compared to responding to wildfires.

The 2009 Quadrennial Fire Review (QFR) details two cross-cutting strategies that are critical to all fire management efforts. Establishing an integrated fuels management portfolio would transform fuels management from a project/output perspective to a larger investment strategy in support of greater land management priorities and multi-jurisdictional goals. The portfolio would support multiple programs – starting with the fuels reduction zones near fire-adapted communities and reaching efforts to treat larger landscapes away from the wildland-urban interface.

Fuels management is but one of many programs used to accomplish land and resource management objectives and is heavily focused on reducing undesired impacts of wildfires. Fuels management is comprised of many methods and techniques, which together form a fuels portfolio which may reduce, modify, or maintain fuels characteristics in support of other management programs (QFR 2009). The “Cohesive Fuels Treatment Strategy” was released in 2006 by the federal fire agencies. This strategy addressed the need to reduce the risk of catastrophic wildland fires by reducing fuels build-up in forests and woodlands and by reducing

threats by flammable invasive species in rangelands and grasslands. The strategy focused on four principles: prioritization, coordination, collaboration, and accountability, and emphasized creating effective fuel treatments across landscapes. Six years of implementation cannot undo what it took decades to create. The pace at which land use changes are being realized will further outpace the ability of federal agencies to manage the public lands without sustainable or increased funding.

By increasing the funding and focusing on preparing for and suppressing wildfires, the federal agencies will consequently limit the tools and methods to manage fuels. The current funding strategy is also negatively impacting many federal units in the East which are not adjacent to each other and often intermingled with state and other conservation lands. Only through a diversity of techniques and methods, which include wildfire, mechanical, prescribed burning, and other treatments will the federal agencies be able to achieve CS goals and objectives and land management objectives and commitments to the public and partners.

Actions: Convene a national-level task force of subject matter experts (for example fuels management, public affairs, legislative affairs, insurance, and perhaps tax law) to determine the availability of funding from all potential sources, the feasibility of obtaining funding regardless of ownership, and creating model legislation that could be introduced seeking funding for treatments. Complete national, regional, as well as local trade off assessments on balancing funding between vegetation management and wildland fire response.

Develop a federal fuels management funding and allocation strategy that more evenly distributes funding to fire management programs in the federal agencies. Consider CS goals and regional objectives, which give flexibility. Allocate based on capability rather than acres treated target. Consider the three CS goals rather than current hazardous fuels allocation criteria. Federal land management plans should consider WUI values at risk and combine Community Wildfire Protection Plans or similar plans with agency land management and/or fire management plans to facilitate fuels treatments across multiple jurisdictions (RSC level). Expand use of preparedness funding for fuels reduction or shift more into fuels management.

Topic 5: Promote Collaboration to result in projects completed on the ground

Problem: Years can pass before collaboratively developed and approved projects can be implemented due to the various planning requirements and processes, and allocation of resources necessary to allow the projects to move forward. Ability to implement such projects on the ground in a timely manner should be increased.

Discussion: Collaborative groups have proven to be extremely successful in developing consensus in regard to federal fuel reduction projects. However, federal laws and regulations, particularly the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and the Equal Access to Justice Act (EAJA), have been used by groups not involved in these collaborative efforts to limit or delay the implementation of these projects. Completing planning and analysis sufficient to withstand the appeal process is often time- and resources-consuming.

Additionally, the sizes of these projects are sometimes reduced to accommodate the level of available resources.

Action: Assemble a body of experts to seek out alternatives or revise existing authorities to promote outcome-based solutions for active forest management and fuels-reduction treatments developed by collaboration. Consider the suggestions made in the regional action plans. This will likely require new legislation or the modification of current legislation in order to allow collaborative, outcome-based solutions to withstand judicial challenges. Alternative federal processes must allow more efficient and less costly processes that decrease the time needed for the necessary planning, and aid in the development of solutions promoting large scale active management and fuels treatments.

Topic 6: Insufficient Biomass Utilization

Problem: Currently, stewardship contracting authorities- especially the contract duration and potential risk of litigation do not promote a sustainable environment for long term investments in necessary forest products processing infrastructure.

Discussion: The economic feasibility of forest management and restoration activities is highly dependent upon local markets for harvested raw materials. In turn, successful bioenergy project development and investments in new forest product manufacturing facilities of all types requires an assured feedstock supply. Large facilities can require hundreds of millions of dollars in initial capital expense, for planning, permitting, and construction. This level of investment leads to a return on investment period of ten to twenty years or more. Due diligence actions by project developers, investors, and financiers often include formal agreements for feedstock supply. Properly administered and managed stewardship contracts could serve to provide a more secure source of supply. However, the limits of current stewardship contracting authorities, especially given the short duration and potential risk of litigation, do not provide a sustainable environment for the type of long-term investments necessary to provide for the forest product processing infrastructure necessary for large-scale biomass processing.

Processing facilities, new technologies and promotion of business and investments is a critical component in a long term strategy to increasing fuels treatments across the landscape. Current authorities in most cases do not promote or create a stable enough environment to recruit business investments in forest management processing infrastructure.

Action: Agency managers and other responsible officials are encouraged to involve forest management stakeholders and partners to review existing rules and lengths of stewardship contracts and develop solutions for up to 20 year agreements to promote the necessary infrastructure creativity and investments.

Actions Considered but Eliminated from Further Consideration

As mentioned in the Introduction, the Task Group considered more issues or topics than made the final list of six. The four listed below were presented by various Task Group members and were included in earlier drafts, but after discussion, were dropped from further consideration.

They are offered here as examples of the Task Group's effort to "think outside the box," and illustrate the sorts of ideas considered by the Group that could possibly increase the pace and scale of fuels treatments.

1. **Hazard Pay for Prescribed Fire:** This suggestion has been made several times over the last 30 years or so, and failed to gain traction with upper management or the federal Office of Personnel Management (OPM). Also, it was judged by the Task Group to be an unlikely avenue for increasing the amount of fuels treatment acres.
2. **Community Wildfire Protection Plan (CWPP) Database:** Although a national database could be useful to help interested parties know what communities are covered, how a community describes its Wildland-Urban Interface (WUI) locally, and what projects a locality considers important to mitigate the effects of wildfire on its community, this action, too, was deemed unlikely to increase the number of acres treated for hazardous fuels reduction.
3. **Develop building codes in new housing developments that seek to promote wildfire risk reduction:** Although certainly a worthwhile endeavor, this action was deemed unlikely to increase the number of acres treated for hazardous fuels reduction. However, it was recognized that new building codes or other regulations that slow or make development in the wildland-urban interface less vulnerable to wildfire could reduce the need for fuels treatment in some locales, and is more properly considered by the group convened to work on Critical Success Factor #20, Growth Management, Land Development, and Zoning Laws.
4. **NEPA Streamlining:** A frequently suggested impediment to achieving land management activities on federally managed lands is the cumbersome nature of ensuring that the provisions of the National Environmental Policy Act (NEPA) of 1970 are properly followed. However, often times project plans that have been crafted with strict attention to NEPA, among the myriad of other pertinent statutes, rules, and regulations, can still be challenged, many times by those who have not participated in collaborative planning efforts. This topic was dropped from further consideration, because the Task Group believed that it would not be feasible to make additional changes to a recently changed process. The Forest Service has adopted a pre-decisional objection process, for projects previously subject to appeal. This rule is now codified in 36 CFR and published in the Federal Register, Volume 78, Number 59, dated March 27, 2013. The rule is intended to eliminate post-decisional appeal processes. Decisions will still be subject to litigation, but pre-decisional involvement is required for standing. Perhaps fewer projects, especially those planned by the Forest Service, will face challenges. In any case, it is not likely that the Council on Environmental Quality (CEQ) would be open to further rule changes without first testing this rule.

Resolution of Potential Actions

As mentioned in the introduction, the WFEC produced a document in August, 2012, entitled "National Cohesive Wildland Fire Management Strategy Barriers and Critical Success Factors." The Task Group was formed to suggest ways that Critical Success Factor (5): *Increase Fuels Management on Private Lands*, and Critical Success Factor (14): *Increase Fuels Management on Federal Land* could be achieved. The Task Group used this document as a starting point, but did not feel constrained to speak only to the Potential Actions listed under each Critical Success Factor.

However, the Task Group was subsequently asked to describe their views on each of the listed Potential Actions. This section is intended to be that description.

Critical Success Factor (5): Increase Fuels Management on Private Lands

1. Develop landowner incentives (e.g. tax breaks, free disposal of material, increased use of Wyden Amendment and other finance or cost-share authorities).

The Task Group felt that this Potential Action was included in Topic 5 and Topic 4. Clearly, the exact examples suggested in the August, 2012 document are not explicitly mentioned in this report. However, those potential incentives and others are expected to surface as a result of the work suggested in the Action portion of each Topic.

2. Integration of fuels reduction and defensible space principles with private land management programs.

This potential action is also included in Topic 5, as well as Topic 2. In many cases, it is already occurring as the result of the local collaboration processes required by the federal land management agencies by policy and statute. It is also good example of the type of outcome expected in Community Wildfire Protection Plans that can be applied to private lands.

3. Integrate US Forest Service (USFS) and Natural Resources Conservation Service (NRCS) funding and programs to achieve success. Work with NRCS, Farm Service Agency (FSA) and other USDA agencies to better incorporate and/or incentivize prescribed burning on tribal and private lands.

The task group felt that this Potential Action was accounted for by Topic 5, Collaboration, and Topic 4, Funding for Fuels Treatments, at least in part. Actually integrating federal funding among different federal agencies would require a great deal of effort and congressional action, which is not likely in the defined time period. Also, prescribed fire is not the only fuels reduction tool available. Presumably all treatment types should be considered. Fuels treatments on tribal lands are already funded through the Department of the Interior. Certainly it makes great sense to leverage available funding sources and combine them to the extent practicable. Such proposals are likely to surface as a result of the actions suggested below each Topic.

4. Work with the Environmental Protection Agency (EPA) to reduce restrictions to the use of prescribed fire due to smoke tolerance and emissions (air quality). Part is education of the general public; the other part is education/science working with EPA on short term effects verses long term impacts and extent of emissions.

Federal law seeking to reduce air pollution in order to help to protect human health dates to at least the Air Pollution Control Act of 1955. EPA is responsible to develop and enforce regulations to protect the public from airborne contaminants known to be hazardous to human health. Federal and state forestry and natural resources agencies have worked with EPA since the 1970s in the development of those regulations, such as National Ambient Air Quality

Standards (NAAQS) and State Implementation Plans (SIP) as they relate to wildfire and prescribed fire. Those agencies continue to collaborate today to permit prescribed burning while simultaneously seeking to protect human health. Although it is frustrating not to receive “smoke clearance” from the local or state air quality regulatory agency when a prescribed fire project is otherwise in prescription, most prescribed fire practitioners have developed a working relationship with their local air quality regulators, and have learned to schedule burns during times favorable for smoke dispersion. Although statistics for burn opportunities forgone are not available, it is expected that some small number of opportunities are lost each year due to a lack of conditions favorable to smoke dispersion. It is expected that this circumstance will persist into the foreseeable future.

Critical Success Factor (14): Increase Fuels Management on Federal Land

- 1. Move from a national criteria based allocation model to a process that considers the core principles of the Cohesive Strategy and funds the federal organization at the regional levels, and that would also allow for management discretion at the local level that takes into account priorities, capabilities, and the changes in individual project dynamics. If standard guidance and direction for fuels treatments is modified it must be done at the Department level, between USDA and DOI, with discussion of the relationships to state, tribal, and private partners.**

The criteria used by the Forest Service and DOI have been based on the core principles of the Cohesive Strategy since at least 2011, and are expected to remain based on them into the future. Local units have considerable discretion as to the types, sizes, and locations of the projects they propose to implement in any given year. Local units have discretion as to when to implement funded projects, how to implement them, and to substitute unfunded projects for funded projects based on local conditions. Standard guidance and direction comes from the department level, in the form of manuals, handbooks, policy memoranda, and guides. Such direction is coordinated at the departmental level to the extent practicable.

- 2. Encourage federal agencies to use authorities under the Healthy Forests Restoration Act (HFRA) and the Health Forests Initiative (HFI) to expedite the planning/collaboration process to treat large landscapes.**

“The (Bush) administration launched the HFI in 2002 to reduce barriers to the timely removal of hazardous fuel. Sixteen months later, Congress passed the HFRA to reduce delays and remove statutory barriers for projects that reduce hazardous fuels and improve forest health and vigor. Other provisions of the HFRA are designed to address forest and rangeland health on private lands.”²

HFI and HFRA apply to only the Forest Service and the BLM. The other three DOI bureaus are not affected by the legislation, but have agreed to implement many of the provisions in order to expedite treatments to the extent they can. HFI and HFRA established new categorical exclusions (CE or Cat-X) from more in-depth environmental analyses. The

² *The Healthy Forests Initiative and Healthy Forests Restoration Act Interim Filed Guide*. USDA Forest Service and DOI Bureau of Land Management, February 2004, p. 3.

Forest Service, DOI and the BLM revised regulations to allow for timelier project decisions and allow faster project implementation. Stewardship contracting legislation was also enacted.

In March, 2008, BLM discontinued use of the DOI hazardous fuels CE in the area covered by the Ninth Circuit Court of Appeals as a result of a December 2007 decision of the Court declaring the Forest Service hazardous fuels CE invalid. While the ruling didn't specifically address the DOI CE, the DOI CE was identical to the Forest Service CE, and BLM chose to discontinue its use, rather than face potential litigation.

In August 2009, BLM discontinued use of the DOI CE on all lands managed by the bureau, in accordance with a stipulated settlement agreement on a separate BLM court case. Even though BLM has discontinued use of the DOI CE, it still remains valid, and is listed in the Code of Federal Regulations at 43 CFR 46.210 (K), and it remains available for the other DOI bureaus to use, although the risk of a challenge remains possible.³

Stewardship contracting authority expired on September 30, 2013, but was renewed in the continuing budget resolution only through January 27, 2014. It is unlikely that renewed authority will lead to any substantial increase in acres treated; however, this authority notwithstanding, the value of the material typically removed in a fuels treatment project is not usually of sufficient value to justify any significant investment.

3. Integrate Community Wildfire Protection Plans (CWPP) with agency land management and/or fire management plans to facilitate fuels treatments across multiple jurisdictions (RSC level).

This Potential Action is currently addressed in Topic 5 and to some extent Topic 2. Current DOI policy gives priority to project proposals that protect values-at-risk and achieve fire management objectives identified in applicable management plans, including CWPP or their equivalents land fire management plans, and local risk assessments.⁴ The Forest Service gives similar consideration to CWPP and projects proposed therein.

4. Support the Good Neighbor Authority Act and broaden the use of the Act's provisions to other states where local interest and support exists.

Good Neighbor Authority applies solely to the Forest Service in the states of Utah and Colorado. It was authorized through appropriations bills in 2009. Its objective is to permit the State Forester of the states of Colorado and Utah to perform forest, rangeland, and watershed restoration services on National Forest System Lands in the states of Colorado and Utah, either directly or through subcontractors. No special funding came with the authority, and the authority expired on September 30, 2013. Environmental documentation by the

³ Information supplied by the BLM branch of Fire Planning and Research via email to the DOI co-chair on August 15, 2013.

⁴ June 1, 2011 Memorandum, Department of the Interior Hazardous Fuels Reduction Program Priorities. Rhea Suh, Assistant Secretary, Policy, Management, and Budget.

Forest Service is completed prior to inclusion under an award. An environmental impact assessment is required for this program.⁵

It is not known that this authority has resulted in any substantial increase in fuels reduction projects in the two states. This Potential Action is accounted for under Topic 5, Collaboration. It is conceivable that it would surface as a result of the actions suggested for that Topic.

5. Seek relief from impediments in the Forest Service Planning Rule for fuels management.

The Forest Service has adopted a pre-decisional objection process, for projects previously subject to appeal. Perhaps fewer projects, planned by the Forest Service, will face challenges as this revised process unfolds.

Conclusion

The Task Group established by the WFEC to further investigate ways to increase fuels treatments on public and private lands used several sources of information to help produce ideas or topics that have the potential to increase the pace and scale of treatments. Generally, each of the six topics brought forward will require more in-depth investigation and development to bring them to fruition.

The Task Group suggests that WFEC advance these topics to the Secretaries of Agriculture and Interior, and to ask the Secretaries to convene dedicated work groups to provide specific recommendations and actions to implement these topics.

⁵ See “Catalog of Federal Domestic Assistance,” Number 10.691

APPENDIX G: Final Report and Action Plan of the CSF (12) FEMA Grants Work Group

Report begins on next page.



U.S. Fire Administration

National Cohesive Wildland Fire Management Strategy
Critical Success Factor — FEMA Grants
Final Report and Action Plan

FEMA Grants Work Group Report to the Wildland Fire Leadership Council

November 2016



FEMA

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Executive Summary

As part of the development of the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy or CS), the Regional Strategy Committees (RSCs) identified barriers and critical success factors (CSFs) that would impact the successful implementation of the Cohesive Strategy at the national level. The Wildland Fire Executive Council (WFEC) tasked the U.S. Fire Administration (USFA) to lead the effort for the CSF (12), addressing leveraging Federal Emergency Management Agency (FEMA) grants to maximize community wildfire mitigation. Three FEMA grant programs were included in this effort: Pre-Disaster Mitigation (PDM), Hazard Mitigation Grant Program (HMGP), and Fire Prevention & Safety (FP&S) Grants under the Assistance to Firefighters Grant (AFG) Program.

The CSF (12) workgroup conducted a gap analysis between stakeholder community wildland fire mitigation needs and provisions contained within grant program policy and guidance documents. The analysis revealed numerous areas for consideration that could have a positive impact on addressing community wildfire mitigation and increasing community resilience to the detrimental impacts of wildfire. Recommendations for further consideration were organized into four broad categories: Awareness, Education and Outreach; Grant Policy and Guidance Development; Grant Processes; and Research Considerations.

Cohesive Strategy vision for the next century:

“To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.”

Background

Inception of Workgroup and Tasking by Wildland Fire Executive Council

During Phase II in the development of the National Cohesive Wildland Fire Management Strategy, the three Cohesive Strategy RSCs — Northeast, Southeast and West¹ — were tasked by the WFEC to prepare a list of existing barriers that would impede, and necessary critical success factors that would facilitate, the successful implementation of the Cohesive Strategy. The Cohesive Strategy regions were then asked to identify, from the original list of over 50 items, those barriers and CSFs that required action at the national level to address, were cross-cutting across the three Cohesive Strategy regions, and could be completed within five years from the list’s creation (Summer 2012). The resulting list of the top priority barriers and CSFs was submitted to the WFEC.

As the Cohesive Strategy progressed through Phase III, the WFEC sought from its membership a lead agency and point of contact to address each of the national barriers and CSFs. The USFA accepted the role of leading the workgroup for CSF (12): FEMA Pre-Disaster Mitigation Program. Lead agencies were asked to update the original write-up for their assigned barrier or CSF, as well as identify the activities necessary to mitigate the barrier and/or CSF, appropriate resources necessary to implement those activities, and expected duration of the activities.

¹ The Cohesive Strategy Regions are composed of the following states. The **Northeast Region**: Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin. The **Southeast Region**: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, the Virgin Islands, and Virginia. The **Western Region**: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, the Western Pacific Islands, and Wyoming.

Cohesive Strategy goals:

- Restore and maintain landscapes.
- Fire-adapted communities (FACs).
- Safe and effective wildfire response.

Tasking Update

While the original intent of CSF (12): FEMA Pre-Disaster Mitigation Program, as submitted by the RSCs, was to “Enhance [the] Pre-Disaster Mitigation program to maximize fuels reduction across the landscape with emphasis on private lands,” the workgroup felt it important to include two other FEMA grants that can also fund wildfire mitigation projects, programs and activities — the HMGP and the AFG Program/ FP&S Grant. This resulted in revising the name from CSF (12) to “FEMA Grants.”

This original charge was also modified by the workgroup to reflect FEMA’s focus on Whole Community, as well as requirements specified in the grant programs’ authorizing language. Specifically, potential actions proposed by the RSCs to revise grant guidelines to eliminate the need to meet National Environmental Policy Act requirements (i.e., actions that could be categorically excluded), transfer FEMA assistance programs and funds to the U.S. Forest Service (USFS), and increase FEMA Pre-Disaster Mitigation grant funding, were determined to be outside the scope of this workgroup. Instead, the workgroup sought to identify actions that would lead to greater understanding of the grant programs and grant applicant/recipient needs which could, in turn, lead to a greater likelihood of grant award.

Workgroup Membership

Representatives from the following agencies and organizations were sought for membership in the CSF (12) workgroup. Refer to Appendix A for a listing of task group members and agency affiliations.

- Cohesive Strategy Northeast RSC.
- Cohesive Strategy Southeast RSC.
- Cohesive Strategy Western RSC.
- Department of Agriculture — USFS.
- Department of Homeland Security (DHS) — FEMA — Federal Insurance and Mitigation Administration (FIMA).
- DHS — FEMA Grant Programs Directorate (GPD).
- DHS — FEMA GPD — AFG Program/FP&S Grant.
- Department of the Interior (DOI) Office of Wildland Fire (Note: Representatives from the Bureau of Indian Affairs (BIA) were recommended for membership).
- Insurance Institute for Business and Home Safety (IBHS).
- International Association of Fire Chiefs (IAFC) — Wildland Fire Policy Committee.
- National Association of State Fire Marshals (NASFM).
- National Emergency Management Association (NEMA) — (State Hazard Mitigation Officers).
- National Fire Protection Association (NFPA).
- National Native American Fire Chiefs Association (NNAFCA).

Project Timelines and Process

The workgroup was assembled during June through September 2013, with some members joining the effort at a later date. Monthly meetings began in October 2013. It was projected to take approximately one year to complete the tasking; however, because of the level of detail addressed by the workgroup, completion of the draft report was delayed. It is important to note that for some of the actions, work has already begun or may have been completed.

The workgroup developed a list of critical information regarding the identified grant programs, then divided into smaller task groups to research each of the grant programs in greater detail against the critical criteria. Informational and programmatic gaps were identified, explored and organized into a list of potential actions that could be taken to address the gaps. Lead and collaborating agencies/organizations are being identified to comprise the task groups that will implement the actions. During work group discussions, additional details that could provide clarification and guidance for implementers were identified and included in an internal implementation plan. Where identified by the working group, task priorities are provided.

Description of Outcome

Specific tasks identified in the CSF (12) Action Plan can be grouped into four main categories. Each of those categories is briefly described below.

Awareness, Education and Outreach Category

Based on stakeholder feedback, gaps in awareness and understanding of the identified grant programs exist at all stakeholder levels — local applicant, state, tribal, national (organizations), and federal. The workgroup recommends that clarifying information be provided to these target audiences in varying formats, as outlined in subsequent sections of this plan, so as to maximize the effectiveness of message delivery. To meet these needs, this category has been subdivided into two subcategories:

- Identification of information needs.
- Communications strategies.

Grant Policy and Guidance Development Category

Several grant policy-related issues were identified that resulted in challenges to successful development, award or implementation of wildfire mitigation grant applications. The workgroup identified areas within current grant policy and guidance where additional clarification is needed, as well as identified areas for potential policy revisions that could result in the use of FEMA grant funds for more effective wildfire mitigation activities.

Grant Processes Category

Workgroup recommendations in this area are intended to address identified gaps in the grant application and review processes, as well as applicable timelines, which could inhibit the submission or awarding of wildfire mitigation applications.

- Grant application process.
- Grant review process.

Research Considerations Category

Targeted research could help illustrate the effectiveness of measures taken to reduce the wildfire threat, increase community resilience, and improve life safety measures for community members and firefighters. In addition, the workgroup felt it important to identify wildfire mitigation related research priorities that could be eligible for funding under the FEMA grants.

Section 1. Tasks — Awareness, Education And Outreach Category

A. Identification of Information Needs

Task 1.A.1: Solicit feedback regarding success stories and lessons learned from grant recipients and regional grant program managers. Feedback mechanism(s) to be determined.

Grant Program(s): PDM, HMGP, FP&S.

Priority: 1

Task 1.A.2: Identify possible reasons why there are so few wildfire mitigation projects funded under the grants; use this information to inform internal FEMA grant personnel and provide feedback to potential grant applicants.

Grant Program(s): PDM, HMGP, FP&S.

Priority: 1

Task 1.A.3: Ensure transparency in identifying the business processes for the grant application life cycle (application, review and funding obligation).

Grant Program(s): PDM, HMGP.

Task 1.A.4: Provide information regarding the environmental assessment (EA) process and the proposed categorical exclusion. Include clarification regarding when project implementation may begin following FEMA's approval of the EA and how that relates to the grant's period of performance.

Grant Program(s): PDM.

Task 1.A.5: Clarify and explain what a cost benefit analysis is, identify specific information that must be included, and provide examples for applicants.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.6: Provide solid examples of how grant recipients and subrecipients can meet the funding match requirement, especially in terms of in-kind contributions.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.7: Explain how the grant priorities are established and implemented; provide this information to target audiences.

Grant Program(s): PDM, HMGP.

Task 1.A.8 (also see Tasks 1.A.16, 3.B.4): Recognize and acknowledge the benefits that can be provided by Cohesive Strategy and other regional, state and local data by developing and providing training regarding available wildland urban interface (WUI)/wildland fire-related data. Training should include how to use the data to support and inform the applicant's risk/vulnerability assessment, cost-benefit analysis, and funding request justification.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.9: Provide a list of examples of eligible WUI/wildfire mitigation activities to inform applicants, including explanation of specific factors that make the projects/ programs eligible. Also provide a list of activities not deemed eligible and an explanation for why they are not.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.10: Advise local agency mitigation planners to include fire districts and fire departments in their planning, training, activities and outreach.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.11 (also see Task 1.B.3): Compile a collection of WUI/wildfire mitigation success stories. Collection should include projects/programs funded under the FEMA grants, as well as other non-FEMA funded activities.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.12: Provide examples of existing wildfire mitigation “5 Percent Initiative Grants” and “7 Percent Planning Grants,” and explain the associated parameters.

Grant Program(s): HMGP.

Task 1.A.13: Share eligibility requirements and program incentives with potential applicants and stakeholders by providing examples or best practices. The goal is to incentivize communities to participate.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.A.14: The task group should seek collaboration with FEMA mitigation planning team leads to develop a crosswalk for mitigation plans and Community Wildfire Protection Plans (CWPP).

Grant Program(s): PDM, HMGP (unified Hazard Mitigation Assistance (HMA) Guidance; FEMA will determine to which grant program this clarification may be applied/applicable).

Task 1.A.15: Clarify the guidance to local governments that it is an option to have homeowners provide the matching funds/in-kind match (“sweat equity”). Document and share best practices, such as in-kind match tracking.

Grant Program(s): HMGP, PDM, possibly FP&S.

Task 1.A.16 (also see Tasks 1.A.8, 3.B.4): Provide an overview of the Cohesive Strategy and how the activities funded under the FEMA grants could help accomplish the goals of the Cohesive Strategy. Develop strategies for how to use Cohesive Strategy data and science, in conjunction with local, state and regional data, to justify wildfire risks, as well as the potential effectiveness of activities being requested under the grants.

Grant Program(s): PDM, HMGP, FP&S.

Notes: If FEMA grant program offices agree that grant prioritization can be informed by identifying areas that are more at-risk, determine if there is specific Cohesive Strategy data that could be critical in supporting justification of the activities requested in the application. Important detail to include in outreach: The Cohesive Strategy is a new way to look at existing data and the analysis of that data.

Task 1.A.17: Explore the feasibility of having the FEMA review of PDM/HMGP wildland fire mitigation applications incorporate “how well” the activity requested in the application meets what is in the approved state or local Hazard Mitigation Plan to supplement the current “met/not met” criteria.

Grant Program(s): PDM, HMGP.

B. Communications Strategies

Note: One goal is to integrate wildland fire into communications efforts already being undertaken for other hazards, incorporating the WUI/wildland fire community.

Task 1.B.1: Determine how applicants and subapplicants would prefer to receive this information, and target informational and educational programs to meet these needs. Methods could include using partner websites, frequently asked questions (FAQs), working with states as grant recipients, list-serve messaging, social media, handouts, webinars, etc.

Task 1.B.1.a: Reference the PDM and HMGP Grants.

Grant Program(s): PDM, HMGP.

Task 1.B.1.b: Reference the FP&S Grant.

Grant Program(s): FP&S.

Task 1.B.2 (also see Task 1.B.5): Identify key communicators, including state hazard mitigation officers, fire grant regional staff, Regional Environmental Officers (through Office of Environmental Planning and Historic Preservation's (OEHP's) HMA Liaison), regional mitigation specialists (from all FEMA regions, though Regions VI, VIII, IX and X would most likely have the most experience in this area), CSF (12) member agency/organization personnel, state fire training directors, state fire marshals, state firefighter and fire chief associations. Provide them with pre-prepared and updated presentations and other communications tools they can deliver at the state and local levels.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.B.3 (also see Task 1.A.11): Share grant information with potential applicants and stakeholders via a user-friendly website, such as the FEMA transparency website for HMGP awards, where users can easily retrieve or link to project/program details, and where WUI/wildfire mitigation success story presentations are showcased. The CSF (12) workgroup could help inform the development of this website capability.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.B.4: Increase awareness regarding how individual homeowners can be eligible for assistance by communicating through local mitigation planning committees, Firewise communities, and other mechanisms.

Grant Program(s): PDM, HMGP.

Note: This task is not intended to compete with FACs; Firewise; Ready, Set, Go! (RSG); or other programs.

Task 1.B.5 (also see Task 1.B.2.): Develop a set of FAQs as another tool in the key communicators toolbox.

Grant Program(s): PDM, HMGP (unified HMA guidance; FEMA will determine to which grant program this clarification may be applied/applicable).

Task 1.B.6: Education and outreach efforts should include the sharing of best practices associated with eligible WUI/wildland fire mitigation-related activities, materials, programs, etc.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.B.7: Investigate the feasibility of providing a grant and application program kit to applicants and subapplicants at the local/state/tribal level (as appropriate).

Grant Program(s): PDM, HMGP.

Task 1.B.8: Create a wildfire-specific course/workshop/webinar (to be updated regularly) on successful application development, grants management, and project implementation.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.B.9: Enhance means for disseminating grant information notices regarding application periods, funds availability, training, and other outreach information. Ensure messaging can reach all pertinent audiences, including the state capability to inform local entities.

Grant Program(s): PDM, HMGP, FP&S.

Task 1.B.10: Provide assistance to states through the State Hazard Mitigation Officer regarding wildfire hazard mitigation activities, measurement, etc., targeting states with little experience or understanding in this area.

Grant Program(s): PDM, HMGP.

Section 2. Tasks — Grant Policy and Guidance Development Category

Task 2.1: Monitor the status of the President’s recommendation in the fiscal year 2015 budget for an additional \$400 million for climate change grants, and seek opportunities to collaborate with the FEMA Mitigation Directorate to ensure wildfire mitigation is identified as one of the hazards to be addressed.

Grant Program(s): PDM.

Priority: N/A; status is complete — the additional funding was not appropriated.

Task 2.2: Monitor annual budget appropriations regarding funding for wildfire mitigation, and collaborate with the FEMA Mitigation Directorate, as appropriate, to provide programmatic and technical expertise.

Grant Program(s): PDM, HMGP.

Task 2.3: Provide clarification of the grant performance period relative to the application period, completion of the programmatic and environmental review, and awarding of funds. Provide clarification regarding the 2015 DHS categorical exclusion (CATEX) and how it will have a positive impact in reducing the time it takes for grant recipients to be able to implement awarded grant activities under PDM and HMGP.

Grant Program(s): PDM, HMGP.

Task 2.4: Provide clarification about the parameters for the “5 Percent Initiative” and “7 Percent Mitigation Planning Initiative.” Include updated information on the availability of up to 10 percent funding. Develop job aids, as needed.

Grant Program(s): HMGP.

Task 2.5: Clarify the HMA requirement to confirm the WUI boundary and the related information required in a wildfire mitigation application. Determine if current research still supports this requirement.

Grant Program(s): HMGP, PDM (unified HMA guidance; FEMA will determine to which grant program this clarification may be applied/applicable).

Task 2.6: Monitor the status of FEMA’s proposed Programmatic Environmental Assessment (PEA) and CATEX to determine whether FEMA’s OEHP would still require its own EA if part of the land included under a FEMA grant already has an authorized/approved EA under another grant program through a different federal or state agency.

Grant Program(s): HMGP, PDM.

Task 2.7: Inform grant guidance development (rules, regulations, requirements, priorities, policies):

- Submit recommendation that FIMA leadership reconvene the External Stakeholder Work Group.
- Monitor for and seek opportunities to provide comments to future HMA Guidance updates via Federal Register notices and External Affairs outreach to partners, stakeholders and associations.

Grant Program(s): HMGP, PDM.

Task 2.8: Clarify types of or model programs and activities that could qualify for FP&S grant funding.

Grant Program(s): FP&S.

Task 2.9: Consider fuel sequencing (tying fuel treatments in the wildland with homeowners' and communities' defensible space) as an eligible grant activity. Reconsider the eligibility of fuelbreaks, in conjunction with integrated fuels treatment programs, as a viable mitigation activity to reduce the likelihood of structural ignition.

Grant Program(s): PDM.

Task 2.10: Consider ways to provide grant funding to local government agencies willing to implement structure or home wildfire mitigation assistance programs to community residents. Programs should include structure or home hardening, defensible space on the homeowner's property, and fuels reduction on adjacent public land.

Grant Program(s): PDM, HMGP.

Task 2.11: Provide comment to inform future wildfire policy.

Grant Program(s): HMGP, PDM.

Notes: Completed for 2014 cycle; the public comment period for this was held in 2014. Current FEMA policy revision cycle calls for policy updates no later than every four years. Since the new HMA Guidance was released in 2015, the next review must be completed by 2019 at the latest.

Section 3. Tasks — Grant Processes Category

A. Grant Application Process

Task 3.A.1: Explore the possibility of extending the length of the application period.
Grant Program(s): PDM.

Note: The grant application is very detailed, and the 90-day application period may not allow adequate time for both applicant states and subapplicant localities to gather and thoroughly prepare application information.

B. Grant Review Process

Task 3.B.1: Examine business processes — from application review, to award and receipt of funding by recipients and subrecipients — to determine where and how current practices are having negative impacts on grant recipients and subrecipients, and recommend/establish consistent practices to ameliorate those impacts wherever feasible.
Grant Program(s): PDM, HMGP.

Note: Grant recipients have experienced variable delays in the amount of time in which the grant review process is conducted, as well as delays in receiving awarded funds and subsequent commencement of the project. This impacts how much time recipients and subrecipients have to complete their projects within the performance period.

Task 3.B.2: Provide subject matter expertise to develop and recommend criteria reviewers can apply during application review in order to help determine the subapplicants' technical capacity to successfully implement the requested WUI mitigation project/program.
Grant Program(s): PDM, FP&S.
Priority: 3

Task 3.B.3: Provide subject matter expertise to develop and recommend FP&S grant application evaluation criteria for WUI mitigation activities. Identify possible opportunities for sharing FP&S application evaluation criteria with PDM and HMGP application reviewers for their consideration in identifying effective WUI mitigation activities for potential PDM and HMGP awards.
Grant Program(s): FP&S, PDM, HMGP.

Task 3.B.4 (also see Tasks 1.A.8, 1.A.16): Identify and describe possible national, regional, tribal, state and local data sources that could be used by applicants to provide justification and help inform decisions for WUI mitigation activities requested in their applications. Encourage FEMA grant program offices and states to recognize the value in and support the use of these data sets in evaluating applications for funding.
Grant Program(s): PDM, HMGP, FP&S.
Priority: 3

Task 3.B.5: Provide a recommendation to the AFG program office to evaluate current levels of WUI expertise on the FP&S Criteria Development and grant review panels. The task group should draft a position paper to provide justification for inclusion of WUI subject matter experts (SMEs), to include specific information or recommendations to be taken to the Criteria Development panel for consideration and suggestions for developing a pool of WUI SMEs.

Grant Program(s): FP&S.

Task 3.B.6: Encourage states to consider establishing panels to review PDM and HMGP grant applications that request funding for WUI mitigation activities.

Grant Program(s): PDM, HMGP.

Section 4. Tasks — Research Considerations Category

Task 4.1: Explore research opportunities to quantify structure retrofit mitigation actions.

Grant Program(s): HMGP, PDM.

Notes: See Appendix B for suggestions and recommendations to be considered a starting point for actions under this task.

Task 4.2: Determine what types of research may be eligible for funding under HMGP's "5 Percent Initiative" funding available for mitigation.

Grant Program(s): HMGP.

Task 4.3: Determine what, if any, types of research may be eligible for funding under the FP&S Research and Development funding stream.

Grant Program(s): FP&S.

Appendix A: Critical Success Factor (12)

Task Group Members and Alternates

Name	Title	Organization/ Agency	Organization/ Agency Represented on Workgroup
Bartholomew, Brad	Mitigation & Recovery Section Manager; State Hazard & Mitigation Officer; Public Assistance Officer	Utah Emergency Management	NEMA
Blankenship, Patti Task Group Co-lead	Technical Advisor	DHS/FEMA/USFA	Cohesive Strategy Subcommittee
Brooks, Maureen	Community Fire Planner, Fire Prevention	USFS/Northeastern Area State and Private Forestry	CS NE Regional Strategy Committee and National Strategic Committee
Cowger, Rich	Fire Chief	Columbus (MT) Fire Rescue	IAFC
Crew, Chris	State Hazard Mitigation Officer	NC Department of Public Safety/ Division of Emergency Management	NEMA
Flack, Joan	Program Specialist, HMA	FEMA Region IX	FEMA/Mitigation
Gaines, Glenn Task Group Co-lead	Deputy Fire Administrator	DHS/FEMA/USFA	WFEC
Harrington, Tom	Branch Chief	DHS/FEMA/ GPD-EHP	FEMA
Holguin, Soledad	Fire Prevention Specialist	Pacific Region, BIA	DOI/BIA
LaRosa, Nicole	Acting Branch Chief, HMA Grants Policy Branch	DHS/FEMA/FIMA	FEMA/FIMA
Larson, Mark	State Fire Marshal	State of Idaho, Department of Insurance	NASFM (Idaho)
Latipow, Kurt	Fire Chief	City of Lompoc, CA	IAFC
Lighthall, Katie	Coordinator	CS Western Regional Strategy Committee	CS Western Regional Strategy Committee
McCord, Robert	Branch Chief, HMA	FEMA Region IX	FEMA/Mitigation

Name	Title	Organization/ Agency	Organization/ Agency Represented on Workgroup
Nanamkin, Jim	Regional Wildland Fire Prevention Specialist	DOI/BIA	DOI/BIA
Openshaw, Mark	Fire Chief	Ft. McDowell Yavapai Nation Fire Department	NNAFCA
Palmer, Cindy	Hazard Mitigation Specialist	DHS/FEMA/FIMA/ Risk Analysis Division	FEMA/FIMA
Rosenberg, Cece	Branch Chief, HMA Grants Policy Branch	DHS/FEMA/FIMA	FEMA/FIMA
Quarles, Steve	Senior Scientist for hurricane and high wind building durability and fire protection	IBHS	IBHS
Rochman, Julie	President and CEO	IBHS	IBHS
Steinberg, Michele	Senior Fire Service Specialist	NFPA — Wildland Fire Operations Division	CS Western Regional Strategy Committee
Vienneau, Kevin	Emergency Management Specialist	DHS/FEMA/HMA Grants Policy Branch	FEMA/FIMA
Wallace, Mark	State Fire Marshal	Oregon Office of State Fire Marshal	NASFM (Oregon)
Willette, Ken	Division Manager	NFPA — Public Fire Protection	NFPA
Wilson, Maggie	Section Chief	DHS/FEMA/ GPD-FP&S & SAFER Grants	DHS/FEMA/ GPD-AFG
Zupko, Mike	SGA Representative	Southern Governors' Association	CS SE Regional Strategy Committee

Appendix B: Task 4.1 Detailed Notes

Task 4.1.a: Laboratory — investigation of vulnerabilities to wind-blown embers (firebrands) and effectiveness of mitigation strategies.

- Direct ember ignition of component.
 - Potential for ember accumulation as a function of building feature (e.g., interior corner), other factors.
 - Metal flashing at wall intersection (roof-to-wall, ground-to-wall).
 - Effectiveness of gutter cover devices.
 - Evaluate effectiveness of exterior water spray system to extinguishing wind-blown embers at building.
- Indirect ember ignition, resulting in flame contact and/or radiant heat exposure.
 - Evaluate effectiveness of fence-to-wall connections; determine effective strategy.
 - Evaluate effectiveness with weathering of intumescent coatings (current IBHS project).
 - Evaluate effectiveness of gel-coatings with weathering.
 - ▶ Determine current state.
 - ▶ Fill in.

Task 4.1.b: Field — implement specified mitigation strategies on homes in selected wildfire-prone communities. Evaluate cost, required skill level. Prepare retrofit guide/visuals/video.

- Replace wood-shake roof (no particular research needed, except potential for fire-retardant treatment (FRT) shakes).
- Develop defensible space, including 0- to 5-foot zone.
- Convert selected vent-types/locations to alternate (less vulnerable) locations (e.g., gable end to ridge).
 - Replace screening (coarse to finer mesh).
 - ▶ Install mesh under turbine vent.
 - Replace current vent with ember resistant/flame resistant type.
- Install metal flashing at wall intersection.
 - Local replacement of combustible siding (e.g., at former, siding at roof-to-wall at split level).
- Install gutter cover devices and drip edge at roof edge.
- Box-in eave (convert open-eave framing to soffit eave).
- Fence-to-wall connection (creating noncombustible connection between combustible fence and building).

Appendix C: Acronyms

AFG	Assistance to Firefighters Grant
BIA	Bureau of Indian Affairs
CATEX	categorical exclusion
CEO	Chief Executive Officer
CS	Cohesive Strategy
CSFs	critical success factors
CSSC	Cohesive Strategy Subcommittee
CWPP	Community Wildfire Protection Plans
DHS	Department of Homeland Security
DOI	Department of the Interior
EA	environmental assessment
FAC	fire-adapted community
FAQs	frequently asked questions
FEMA	Federal Emergency Management Agency
FIMA	Federal Insurance and Mitigation Administration
FP&S	Fire Prevention & Safety
FRT	fire-retardant treatment
GPD	Grant Programs Directorate
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
IAFC	International Association of Fire Chiefs
IBHS	Insurance Institute for Business & Home Safety
NASFM	National Association of State Fire Marshals
NEMA	National Emergency Management Association
NFPA	National Fire Protection Association
NNAFCA	National Native American Fire Chiefs Association
OEHP	Office of Environmental Planning and Historic Preservation
PDM	Pre-Disaster Mitigation
PEA	Programmatic Environmental Assessment

RSC	Regional Strategy Committee
RSG	Ready, Set, Go!
SGA	Southern Governors' Association
SME	subject matter expert
USFA	U.S. Fire Administration
USFS	U.S. Forest Service
WFEC	Wildland Fire Executive Council
WFLC	Wildland Fire Leadership Council
WUI	wildland urban interface

APPENDIX H: Performance Measures Data Dictionary

Document begins on next page.

NATIONAL COHESIVE WILDLAND FIRE MANAGEMENT STRATEGY



PERFORMANCE MEASURE DATA DICTIONARY

Purpose: The purpose of this data dictionary is to provide a set of national standard data elements for each performance measure in order to insure that the data are consistent, i.e. measured in the same manner, collected at the same sample intensity or level of accuracy, and reported the same way using the designated databases or other applicable reporting system as described in the data dictionary element.

Data Element	Description/Explanation
Measure Name & Number:	OM 1 - Percent of priority acres with vegetative conditions that support the social, economic and ecological resilience of landscapes.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are vegetative conditions across all jurisdictions conducive to supporting the social, economic, and ecological resilience of landscapes?
Description¹: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>Landscapes across federal, state, tribal, local and private landownerships are minimally harmed by or recover quickly from disturbances, without significant human-assisted rehabilitation efforts, as measured against what the expected typical recovery would be for a similar ecosystem that is resilient. <i>(Disturbances include climate change, wildfire, insects, diseases and invasive species.)</i> Vegetative conditions that do not support management objectives, whether or not they are resilient to fire-related disturbances do not meet the intent of this goal.</p> <ul style="list-style-type: none"> • <u>Landscapes</u> – the landforms of a region in the aggregate; large swaths of land that may contain multiple jurisdictional boundaries. “Landscapes” include components along the entire urban to wildland gradient. The focus of this goal is on vegetative conditions in wildland and WUI areas. • <u>Resilient</u> –The ability of a system to absorb the effects of wildfire by regaining or maintaining characteristic structural, compositional, and functional attributes with minimal or no management intervention. • <u>Disturbances</u> – to vary from the average or normal conditions • <u>Management Objectives</u> – goals that are clearly stated in land management plans or similar plans that articulate desired characteristics of social, economic and ecological resilience of the landscape. • <u>Priority Acres</u> – Those wildland and WUI areas that are disproportionately important to the safety, economic vitality and identity of at risk communities,
Measure Type: Outcome or Intermediate.	Outcome

Data Element	Description/Explanation
Frequency: How often measure is reported	Periodic: Once every 3-5 years
Unit Type: How measure is expressed (\$, units, percentage.)	Percentage
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	TBD by WFEC: Suggest this could be a phased multi-year target (i.e., Identify priority acres and assess baseline condition by 201x; Increase the percentage of acres with suitable vegetative conditions by y% per year, until 100% of the priority acres meet the goal; Maintain those acres in that condition over time.)
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	Increasing trend of landscape acres considered resilient to wildfire as a percent of the total priority acres needing treatment.
Timeframe: Estimated time period to accomplish the measure's target (<i>generally expressed in number of years – can apply to either outcome or multi-year intermediate measures</i>)	Note to WFEC: need to establish expected timeframes to accomplish targets for intermediate measures and/or changes in trajectories for outcome measures.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Getting all agencies and jurisdictions with land management responsibilities to identify landscape resiliency priority needs based on some agreed upon criteria; and being able to collect all this information into a single database.
Method or Formula²: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Percent of acres that meet applicable resiliency objectives over total number of priority acres identified.
Data Sources³: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	All federal land management plans, all state forest action plans, Community Wildfire Protection Plans, TNC conservation plans, etc. to be used to identify "priority acres" and landscape resilience objectives. Remote sensed vegetation conditions, as validated by FIA surveys to be used in fire occurrence/intensity modeling.
Data Collector: Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 1a. Percent of large wildfire acres that burn with uncharacteristically high severity by vegetation type.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are fires burning at ecologically appropriate intensity levels?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	This measure is designed to capture burn severity information on large fires. The premise is that high severity indicates conditions that are not resilient for particular vegetation types.
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage.)	Percentage of area by vegetation type and severity class

Data Element	Description/Explanation
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward no acres burning at uncharacteristically high severity for the vegetation type.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	An indicator of increased landscape resiliency would be reflected by a decrease in the percent of acres that burn with uncharacteristically high severity for the vegetation type. We expect that decrease to be very small in the near term, but increasing in future years toward a small percentage.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Ensure collection of data for all large fires, regardless of jurisdiction. Need to define "large" wildfires based on geographic area and vegetation type (i.e. grasslands vs. forest fires) Describe and define what constitutes "uncharacteristic severity" for each vegetation type. This could be assigned to the MTBS team and ecologists.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Obtain summary of methods used from MTBS team. (Monitoring trends and burn severity program) Number of large wildfire acres burned at uncharacteristically high severity divided by the total number large wildfire acres burned by vegetation type
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	Obtain source of documented results from MTBS team. Ask them to contribute.
Data Analyst and Data Steward : Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 1b. Cost of wildfire-damaged landscape restoration.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are active post-fire restoration needs declining?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	Gathering of costs directly associated with active post-fire restoration. This includes things like BAER costs and NRCS funds for direct ecosystem restoration (including the cost of burn stabilization activities such as tree planting, seeding, mulching, erosion control, etc.) Does not include long-term community economic impacts such as value of wildlife habitat, forest, rangeland or soil loss due to the difficulty of collecting this data consistently over the long-term. This direct measure is intended to serve a surrogate for assessing these greater long-term impacts.
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage.)	Millions of dollars per total area burned by wildfire

Data Element	Description/Explanation
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	This measure is an indicator of the resilience of the landscape. Better conditions will lead to reduced need for intervention to restore landscapes. The objective is a trend toward limited need for active post-fire restoration of those acres burned by wildfire
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desired trajectory is a decreasing trend in post-fire restoration costs due to wildfires. We expect that decrease to be small in the beginning, but accelerating over time
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<ul style="list-style-type: none"> Determining the set of cost elements to track for consistency. Identifying and collecting all the relevant sources and costs to be able to compile into a single, valid annual cost amount across all jurisdictions. Developing a consistent approach to identification of acres burned.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	<p>Tally active restoration costs across a common set of elements and across all jurisdictions.</p> <p>Total annual costs per the defined elements for post-fire landscape restoration divided by the total number of acres burned.</p>
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	Federal, Tribal, State, and County financial systems
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	U.S. Departments of Interior and Agriculture, and State Forestry Departments
Measure Name & Number:	IM 1c. Percent of fire ignitions managed for resource benefits, where allowed and number of these acres burned that contribute to landscape resilience.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Is the use of wildfire for resource benefits increasing and how many acres are being improved as a result of this tool?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>The intent of this measure is to identify those wildfires that, where allowed, are managed in whole or in part, to contribute to improved landscape resilience. This would not include incidents where the objective was full suppression and initial attack efforts were unsuccessful</p> <p>It is recognized that most states and local communities are mandated by law to suppress fires as quickly and effectively as possible.</p> <p>It is also recognized that approved fire management plans must be in place for this tool to be used. At the present time this measure primarily applies to federal and tribal land ownerships.</p>
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual

Data Element	Description/Explanation
Unit Type: How measure is expressed (\$, units, percentage.)	<p>Percentage of wildfires managed for resource benefits, where that was a legal option</p> <p>Number of acres burned by those fires that actually contribute to landscape resilience</p>
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward increasing the incidence and effectiveness of use of wildfire for resource benefits where it is legal to do so.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	<p>It is desirable to have an increasing trend for this measure over time, indicating landscape and socio-political conditions that are conducive to the use of this tool (e.g., reduced fire intensity, increased community resilience to wildfire, greater social license).</p> <p>It is desirable to have an increasing trend in the effectiveness of the tool in contributing to landscape resilience.</p>
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<p>Identifying areas and collecting data across all relevant ownerships that have fire management plans or policies in place to allow wildfires to be managed for resource benefits if conditions are suitable.</p> <p>Developing a consistent approach to identification of burned acres that contribute to landscape resilience</p>
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	<p>Incorporate in existing management reporting mechanisms (e.g., add check-boxes to indicate whether 1) the fire was within an area where wildfire may be used to meet resource objectives; and 2) if the initial suppression strategy for the fire included this purpose).</p> <p>The first part of the measure would be the percentage of fire ignitions that were managed for resource benefits divided by the total number of fire ignitions that occurred in a fire management area where such a strategy was allowed.</p> <p>The second part of the measure would be the sum of acres burned by those fires that contribute to landscape resilience.</p>
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>)	Developing and/or collecting this information from all relevant land management agencies/ownerships on Fire Reporting Forms (1202, 209); NFIRS – USFA reporting system.
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 1d. Percent of total vegetation treatments within high priority wildland and WUI areas that are strategically located.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are vegetation treatments strategically placed in the high priority wildland and WUI areas?

Data Element	Description/Explanation
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>This measure is designed to determine how many acres of the identified total high priority landscapes have been treated in a strategic way to maximize the benefits (for increased protection and/or resiliency) from the treatment investments, relative to the total number of acres treated.</p> <p>Landscapes are the landforms of a region in the aggregate; large swaths of land that may contain multiple jurisdictional boundaries. Although "landscapes" include components along the entire urban to wildland gradient, the focus of this goal is on vegetative conditions in the wildland and WUI areas.</p> <p>High Priority areas are defined as those wildland and WUI areas that are disproportionately important to the safety, economic vitality and identity of at risk communities,</p>
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage.)	Percentage of vegetation treatments
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward increasing the portion of acres strategically treated in high priority wildland and WUI areas.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desired trajectory for this measure is an increasing trend in the percent of treatment acres strategically located in high priority wildland and WUI areas. We expect that increase to be small in the beginning but accelerating in the future.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<ul style="list-style-type: none"> Identifying and collecting data as the amount and location of priority areas are defined for this measure. Collecting and reporting the information on treating priority areas/acres from all participating agencies and jurisdictions. Developing an approach to consistently defining "high priority" and "strategic placement."
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	<p>Modify and use the existing reporting systems to segregate treatments in "high priority" wildland and WUI areas from those done elsewhere and then further screen that subset against some common evaluation criteria to determine if those treatments were strategically placed.</p> <p>The number of acres strategically treated within high priority wildland and WUI areas divided by the total acres treated.</p> <p>The number of acres strategically treated within high priority wildland and WUI areas divided by the total acres treated within those areas.</p>
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	All pertinent accomplishment reporting data bases that collect and report fuels and other relevant vegetation treatments.

Data Element	Description/Explanation
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 1e. Percent of monitored fuels treatments where fire behavior during a wildfire was observed to change as planned in the treatment objectives
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are vegetation treatments effective?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	This measure is focused on the subset of fuels treatments tested by wildfire and evaluated by FTEM. The intent of this measure is to objectively assess whether fuel treatments are effective as planned in affecting the behavior of a wildfire. For example, if the objective of a fuel break treatment was to cause crowning wildfire to drop to the ground, did it?
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage.)	Percentage of fuel treatments
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward 100% of fuel reduction actions meeting applicable fire behavior modification objectives.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desired trajectory for this measure is to see an increasing percentage of completed fuel treatments determined to be effective at modifying fire behavior during a wildfire. The results should reflect increased learning as to what kind and intensity of treatments are most effective, thereby reducing both cost and adverse effects from wildfires. We expect that increase to be small in the beginning but accelerating in the future
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Ensuring fuel treatments have clear measurable objectives related to modifying fire behavior during a future wildfire. Objectively assessing whether desired outcomes were achieved by fuel treatments.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Obtain summary of methods used from the FTEM team and associated specialists. Number of monitored fuels treatments where fire behavior during a wildfire was observed to change as planned in the treatment objectives divided by the total number of monitored fuel treatments tested by a wildfire.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>)	Obtain source of documented results from the FTEM team and associated specialists.
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	

Data Element	Description/Explanation
Measure Name & Number:	IM 1f. Percent of monitored fuels treatments that contributed to fire control during a wildfire.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are vegetation treatments in wildland and WUI areas effective?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	This measure is focused on the subset of fuels treatments tested by wildfire and evaluated by FTEM. The intent of this measure to objectively assess whether fuel treatments are effective in facilitating the control of a wildfire. For example, if the objective of a fuel break treatment was to facilitate firefighters' ability to stop a fire before it reached a particular community, did it?
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage.)	Percentage of fuel treatments
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward 100% of monitored fuel reduction actions contributing to applicable fire control objectives.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desired trajectory for this measure is to see an increasing percentage of fuel treatments determined to be effective as planned in facilitating the control of a wildfire that encounters the planned treatment. The result should reflect increased learning as to what kind and intensity of treatments are most effective, thereby reducing both cost and increasing the effectiveness of fire suppression of wildfires. We expect that increase to be small in the beginning but accelerating in future years.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Ensuring fuel treatments have clear measurable objectives. Objectively assessing whether desired outcomes were achieved.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Obtain summary of methods used from the FTEM team and associated specialists. Number of monitored fuels treatments where fire control was enhanced, divided by the total number of monitored fuel treatments tested by a wildfire.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	Obtain source of documented results from the FTEM team and associated specialists.
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 1g. Amount expended to modify vegetative conditions in high priority wildland and WUI areas.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.

Data Element	Description/Explanation
Key Question: Key question to be answered by the measure	What expenditures are being made to modify vegetative conditions in identified high priority wildland and WUI areas to support social, economic, and ecological resilience?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	The intent of this measure is to assess the amount of investment being made to modify vegetative conditions in identified high priority wildland and WUI areas.
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Millions of dollars
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward increasing investment in vegetation treatments within high priority wildland and WUI areas.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desire is to increase investments in vegetative treatments in high priority wildland and WUI. We expect that increase to be small in the beginning limited in the next X years, but accelerating in future years.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<ul style="list-style-type: none"> Determining the set of cost elements to track for consistency. Identifying and collecting all the relevant sources and costs to be able to compile into a single, valid annual cost amount.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	The cost of vegetative treatments in high priority wildland and WUI areas.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	Agency financial and accomplishment reporting systems
Data Collector: Individual(s) responsible for collecting data and providing reports	Modifying and using existing reporting systems will define the "data collectors."
Measure Name & Number:	IM 1h. Cost per acre to provide vegetative conditions in high priority wildland and WUI areas that support landscape resilience.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	Are treatment costs per acre for high priority wildland and WUI areas decreasing?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	The intent of this measure is to assess the per acre cost of investment being made to modify vegetative conditions in high priority wildland and WUI areas. It is expected that land and fire managers will focus on more strategic placement of treatments, seek opportunities for biomass utilization, seek more community support and additional partners to assist with the work, and employ other strategies to help reduce costs and increase the effectiveness of fuel treatments.

Data Element	Description/Explanation
Measure Type: Outcome, Intermediate, Efficiency, etc.	Intermediate/Efficiency
Frequency: How often measure is reported	Annually
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Cost per acre in dollars
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is a trend toward a xx% reduction in average vegetation treatment costs.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	The desire is to reduce the cost per acre of treatments in high priority wildland and WUI areas. We expect that decrease to be small in the beginning limited in the next X years, but accelerating in future years.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<ul style="list-style-type: none"> Determining the set of cost elements to track for consistency. Identifying and collecting all the relevant sources and costs to be able to compile into a single, valid annual cost amount.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	The cost of vegetative treatments in high priority wildland and WUI areas divided by the total number of acres treated in these areas.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	Agency financial and reporting systems
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 1i. Acres burned by wildfire that are moved to a resilient condition
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 1. Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
Key Question: Key question to be answered by the measure	To what extent is wildfire contributing to landscape resilience?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	The intent of this measure is to include ALL ignitions (human, lightning) and all objectives – initial attack, resource benefits, etc. that contribute to improved landscape resilience.
Measure Type: Outcome or Intermediate	Intermediate
Frequency: How often measure is reported	Annually
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number of acres burned by those fires that actually contribute to landscape resilience, regardless of fire cause.
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	The objective is to realize an increasing trend in the number of acres that are determined to be resilient to catastrophic fires.

Data Element	Description/Explanation
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<p>Identifying within fires that have areas that result in an increase in resiliency and collecting data across all relevant ownerships.</p> <p>Developing a consistent approach to identification of burned acres that contribute to landscape resilience.</p>
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	The measure would be the sum of acres burned by fires, regardless of ignition source or incident management objectives, which contribute to landscape resilience.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	BAER reports, other post-fire evaluations.
Data Analyst and Steward: Individual(s) responsible for collecting data and providing reports	

Data Element	Description/Explanation
Measure Name & Number:	OM 2 - Percent of communities at risk with a high probability of withstanding wildfire without loss of life and infrastructure.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Has the level of threat to communities at risk of being impacted by wildfire decreased?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (Include scope of data set, word definitions, measure rationale, etc.)	<p>Definition: The purpose of this goal is to have <i>FAC's recognize wildland fire as an inevitable event and commit to addressing the following items to enable them to withstand a wildland fire:</i></p> <ul style="list-style-type: none"> • Protection of people and the built and natural infrastructure that is essential to the identity and economic vitality of their communities • <u>Landowner responsibilities</u> – including assessing risk, developing a CWPP or equivalent, employing Firewise practices, having a Ready, Set, Go! plan in place • <u>Community Values and Attributes</u> – communities develop adequate local fire suppression capacity to meet community protection needs; design, construct, retrofit and maintain structures and landscaping in a manner that is resistant to ignition; adopt and enforce local codes that require fire-resistant home design and building materials • <u>Economic development</u> – communities will raise awareness of and create incentives for growth planning and management that reduces, rather than increases, fire-prone development and attracts and supports business infrastructure to capture the value in material removed to decrease fuel loading to help off-set the cost of those treatments • <u>Fuels Management over multiple ownerships</u> – communities will collaboratively work with others to properly space, sequence and maintain fuel treatments across the landscape • <u>Smoke and air quality management</u> – communities and natural resource managers recognize that smoke is often result of living near wildlands and communities will actively collaborate to recommend burn periods that are conducive to achieving prescribed fire objectives and minimizing impact on the communities. • <u>Fire Adapted Community</u> – a community consisting of informed and prepared citizens collaboratively taking action to safely co-exist with wildland fire.
Measure Type: Outcome or Intermediate.	Outcome
Frequency: How often measure is reported	Periodic: Once every 3-5 years
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	TBD by WFEC: Suggest this could be a phased multi-year target (i.e., Identify communities at risk and assess baseline conditions by 201x; Increase the percentage of communities at risk that are resistant to wildfire impacts by y% per year, until 100% of the communities at risk meet the goal; Maintain that condition over time.)

Data Element	Description/Explanation
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	An increase over time is expected in the percentage of identified communities at risk that have a high probability of withstanding wildfire without a loss of life and infrastructure as a result of community-based actions taken as outlined in community wildfire risk mitigation plans.
Timeframe: Estimated time period to accomplish the measure's target (<i>generally expressed in number of years – can apply to either outcome or multi-year intermediate measures</i>)	Note to WFEC: need to establish expected timeframes to accomplish targets for intermediate measures and/or changes in trajectories for outcome measures.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	1) Coming up with a consistent national approach for States to identify communities at risk in their respective State. 2) Developing a voluntary, national risk assessment tool that communities can use to conduct a self-assessment – and report progress.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Number of NASF reported communities at risk that have taken active measures to reduce their risk from wildfire divided by the total number of identified communities at risk to wildfire.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	NASF database with numbers of communities at risk as identified by the States. Scorecard ratings by community.
Data Collector: Individual(s) responsible for collecting data and providing reports	NASF and State Forestry Organizations.
Measure Name & Number:	IM 2a. Number of public fatalities attributed to wildfire
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Are there fewer public fatalities related to wildfire?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	This measure focuses on tracking progress for the first key principle for the CS – “Reducing risk to firefighters and the public is the first priority in every fire management activity”. Reducing the number and intensity of unwanted wildfires, improving community preparation for and resilience to wildfire, and improving the effectiveness of wildfire management actions is expected to reduce the relative number of public fatalities attributed to wildfire.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number

Data Element	Description/Explanation
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Specific objective is to have no public fatalities as a result of a wildfire.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	Desired trajectory is to have a decreasing trend in wildfire related fatalities per acres burned - one which approaches zero.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Developing a consistent, comprehensive, and reporting process to collect this data.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Compilation of known/reported wildfire-related fatalities divided by acres burned.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	A). National Fire Incident Reporting System (NFIRS) http://www.usfa.fema.gov/fireservice/nfirs/ B). ICS 209 - Incident Status Summary
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	
Measure Name & Number:	IM 2b. Number of structures lost to wildfires.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Is the number of structures lost to wildfire decreasing?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	This measure is an indicator designed to monitor the impacts of wildfire on communities. The intent is to account for the number of residences and Commercial Property destroyed by wildfire. Reducing the number and intensity of unwanted wildfires, improving community preparation for and resilience to wildfire, and improving the effectiveness of wildfire management actions is expected to reduce the relative number of structures lost to wildfire.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number

Data Element	Description/Explanation
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Reduce the relative number of structures lost to wildfire. Specific objective is to have no structures lost as a result of a wildfire.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	Desired trajectory is a decrease in structures lost per acres burned – one which approaches zero over time.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Adopting a common definition of structures to modify the ICS-209, NFIRS or other appropriate tools to ensure significant structures are not included under outbuildings/other. Developing a consistent and comprehensive use of the ICS-209, NFIRS or other appropriate tools to collect this data.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Compilation of known/reported structures lost to wildfire divided by the acres burned.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>)	ICS 209 - Incident Status Summary NFIRS Other Appropriate Tools National Fire Incident Reporting System (NFIRS) http://www.usfa.fema.gov/fireservice/nfirs/
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	
Measure Name & Number:	IM 2c. Number of Fire Management Assistance Grant declarations.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Is the number of structures lost to wildfire decreasing?

Data Element	Description/Explanation
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>Fire Management Assistance Grant (FMAG) declarations are made to State or Indian tribal governments by FEMA as a result of the threat posed by a fire or fire complex based on:</p> <ul style="list-style-type: none"> • Threat to lives and improved property, including threats to critical facilities/infrastructure, and critical watershed areas; • Availability of State and local firefighting resources; • High fire danger conditions, as indicated by nationally accepted indices such as the National Fire Danger Ratings System; • Potential major economic impact. <p>Reducing the number and intensity of unwanted wildfires, improving community preparation for and resilience to wildfire, and improving the effectiveness of wildfire management actions is expected to reduce the relative number of FMAG declarations.</p>
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	To incur zero FMAG declarations as a result of wildfire.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	Desired trajectory is for a declining trend in the number of FMAG declarations per acres burned – one which approaches zero over time.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	N/A.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Collect number of FMAG declarations made in a year.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	FEMA database or annual report
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	

Data Element	Description/Explanation
Measure Name & Number:	IM 2d. Cost of post-wildfire recovery.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Are wildfire recovery costs decreasing?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>Costs in this measure do not include restoration of natural resources (that is covered in a measure 1b). Costs for this measure do include insured and other quantifiable losses to built-infrastructure (e.g. communications, energy, transportation, utilities and water).</p> <p>(To simplify measurement and accounting only expenditures made within X years of fire containment are to be included.</p> <p>Reducing the number and intensity of unwanted wildfires, improving community preparation for and resilience to wildfire, and improving the effectiveness of wildfire management actions is expected to reduce relative post-wildfire recovery costs.</p>
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Millions of dollars
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Specific objective is to reduce post-wildfire recovery costs.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	Desired trajectory is for a declining trend in post-wildfire recovery costs per acres burned – one which approaches a small portion of the current baseline over time.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<p>This measure will require adoption of common standards as to what constitutes "cost of post-fire recovery," and how that information will be collected and reported.</p> <p>Establish a means to collect information across all jurisdictions.</p>
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Total annual cost of post-wildfire recovery per acres burned.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	FEMA, FS, DOI, Property Casualty Service (PCS), etc.

Data Element	Description/Explanation
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	
Measure Name & Number:	IM 2e. Number of human-caused wildfires.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Is the number of human caused ignitions decreasing?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>Knowledge about the number and distribution of human-caused ignitions is important to be able to assess effectiveness of prevention programs.</p> <p>Reducing the number of human caused wildfires is an important part of our strategy to reduce fatalities, impacts on built and natural infrastructure, and suppression costs.</p> <p>Effective prevention programs are expected to reduce the number of human-caused wildfire ignitions.</p>
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Specific objective is to reduce human-caused wildfire ignitions.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time	Desired trajectory is for a declining trend in human-caused wildfire ignitions.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<p>Obtaining complete, up-to-date data on an annual basis.</p> <p>Adopting and using consistent reporting standards, frequency, data systems, etc.</p>
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Number of human-caused wildfire ignitions by jurisdiction and geographic area.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	FS,DOI, States, etc.

Data Element	Description/Explanation
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	
Measure Name & Number:	IM 2f. Percent of communities at risk that have adopted and implemented wildfire risk mitigation plans.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	Is the number of at risk communities that have adopted and implemented wildfire risk mitigation plans increasing?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	Communities that would be counted for this measure include those that have demonstrated: <ul style="list-style-type: none"> • Implementation of a CWPP or equivalent plan, • Adoption of Firewise principles including appropriate defensible space and resilient structures, • Adequate fuels management in and around the community, • Active education and prevention programs, and • Implementation of Ready, Set, Go! principles to include public and responder awareness and involvement.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Periodic
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percent
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Specific objective is 100% of communities at risk meet this measure and maintain that condition over time.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	Desired trajectory is to increase the percentage of communities at risk that are resistant to wildfire impacts until all meet this measure.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Developing and adopting a nationally consistent approach to assessing communities at risk to wildfire. <i>(See the Australian Community Disaster Resilience Scorecard Toolkit October 2012 example)</i> Provide funding to do assessments.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	State Forestry organizations will apply a standard scorecard appraisal to assess and report the number of communities at risk that have effectively mitigated wildfire risk by category (i.e., red, yellow, and green). The approach will not only allow measurement of attainment (i.e., 100% green) but progress toward attainment of the measure (i.e., percent moving from red to yellow). Number of communities by score card category divided by the total number of communities at risk.

Data Element	Description/Explanation
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>)	NASF and State Forestry organizations.
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	State Forestry organizations.
Measure Name & Number:	IM 2g. Amount expended to create, implement, and update community wildfire risk mitigation plans.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 2: Human populations and infrastructure can withstand a wildfire without loss of life and property.
Key Question: Key question to be answered by the measure	What expenditures are being made to create, implement, and update community wildfire risk mitigation plans?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	It is recognized that these plans contain the diverse and comprehensive suite of activities necessary to mitigate wildfire risk within communities. This measure is intended to track the total amount of investments directed toward development, implementing, and updating of community protection plans. Consideration of this measure in relationship to other categories of expenditure and outcomes or accomplishments will help inform strategic investment of resources.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Millions of dollars
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Specific objective is sufficient investment in development, implementation, and updating community protection plans to optimize limitation of impacts of wildfire on social, economic, and ecological resilience.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	There is no desired trajectory associated with this measure. Consideration of this measure in relationship to other categories of expenditure and outcomes or accomplishments will help inform strategic investment of resources.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Developing a process to capture and report this information.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Sum the investments made by all jurisdictions toward development, implementing, and updating community protection plans.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>)	DOI, FS, etc. program reporting processes? States, counties, municipalities

Data Element	Description/Explanation
Data Analyst and Steward: Individual(s) responsible for collecting and analyzing data and providing reports	FAC Coalition?

Data Element	Description/Explanation
Measure Name & Number:	OM 3 - Percent of wildland fire managers (and partners) that perceive the fire response system enables them to fulfill their individual responsibilities while safely and efficiently achieving the desired results in all affected jurisdictions.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Does the fire response system enable wildland fire managers (and partners) to fulfill their individual responsibilities while safely and efficiently achieving the desired results of all affected jurisdictions?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (Include scope of data set, word definitions, measure rationale, etc.)	<p>Definition: <i>The purpose of this goal is to create a fire response system that allows all resources to work together to fulfill their clearly defined responsibilities and achieve the desired results of all affected jurisdictions safely, with minimum waste and at a level that is commensurate with the risk involved.</i></p> <ul style="list-style-type: none"> • Jurisdiction – legal or other authority; territory it extends over • Risk-based – Risk-based decisions are informed by: 1) the value of assets being threatened; 2) the type and amount of exposure to harm required to reduce the threat to those assets to an acceptable level; and 3) the probability of successfully mitigating those threats with the proposed actions. • Safe – Although we strive to eliminate death and serious injury, the wildland fire management environment is a high risk one posing inherent risks that can, even with reasonable mitigation, cause harm or death. In this context, an acceptably safe work environment is one where we do not accept exposure to harm that is inconsistent with agency missions, the values at risk and/or the probability of success. • Effective – producing the intended result • Efficient – produced with minimum waste or effort <p>The measure focuses on the perceptions of wildland fire managers (and partners) because they are in the best position to evaluate the safety, efficiency and effectiveness of the wildfire response system.</p>
Measure Type: Outcome or Intermediate.	Outcome
Frequency: How often measure is reported	Periodic: Once every 3-5 years
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage
Target: Describes if a specific target is needed for the measure and, if so, whether it's an annual target or a multi-year target.	TBD by WFEC: Suggest this could be a phased multi-year target (i.e., Develop scientifically sound opinion survey and assess baseline conditions by 201x; Increase the percentage of wildland fire managers and partners with a strongly positive view of the fire response system by y% per year, until over 90% of the respondents share that view; Maintain that positive view over time.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (for outcome measures)	An increase over time in the perception by fire managers and partners that they are able to fulfill their individual responsibilities safely, effectively, and efficiently.

Data Element	Description/Explanation
Timeframe: Estimated time period to accomplish the measure's target (<i>generally expressed in number of years – can apply to either outcome or multi-year intermediate measures</i>)	Note to WFEC: need to establish expected timeframes to accomplish targets for intermediate measures and/or changes in trajectories for outcome measures.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Developing a cost effective, statistically valid survey approach to assess this measure.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	A periodic survey of wildland fire managers (and partners) is envisioned by a research entity or the equivalent that utilizes an objective and statistically valid approach. Results to be expressed as a percentage of those surveyed that perceive fire managers and partners are able to fulfill their individual responsibilities safely, effectively, and efficiently.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	National periodic survey
Data Collector: Individual(s) responsible for collecting data and providing reports	
Measure Name & Number:	IM 3a. Number of firefighter injuries and fatalities attributed to wildfire.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are there fewer responder injuries and fatalities related to wildfire?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	<p>Risk informed decisions consider firefighter exposure relative to the values they are protecting and the probability of their success. By limiting exposure to the minimum necessary to accomplish reasonable objectives we expect to reduce firefighter injuries and fatalities.</p> <p>We expect efforts by communities to be able to withstand fire without loss of life or infrastructure to reduce the need for heroic, hazardous actions by firefighters to preclude such unacceptable losses.</p>
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective.	The objective is to realize decreasing trends in the number of injuries and fatalities per unit of exposure (days, hours, etc.)
Estimated time period to accomplish the measure	

Data Element	Description/Explanation
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	Expectations are for a reduction in firefighter injuries and fatalities, approaching zero fatalities.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Consistent identification and reporting of firefighter injuries across all jurisdictions.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Divide the number of injuries and fatalities by units of exposure Report this information by asset type (e.g., ground and aviation).
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>)	Identify specific databases (OWCP, etc.)
Data Collector: Individual(s) responsible for collecting data and providing reports	DOI and USDA
Measure Name & Number:	IM 3b. Percent of unwanted wildfires suppressed in initial attack.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are unwanted wildfires being successfully suppressed on initial attack?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	Effective initial attack remains an important part of our strategy to limit social, economic, and ecological impacts. As used here, the term "initial attack" applies to those wildfire ignitions where the initial suppression objective is to safely limit the fire perimeter to the smallest possible size. In some cases aggressive initial attack is the only legal response to wildfire starts.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	The specific objective is to maintain high initial attack success.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desired trajectory is a stable to slightly increasing rate of initial attack success.

Data Element	Description/Explanation
Development Needs: Challenges to measurement and/or data collection that must be overcome.	None
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Number of unwanted wildfires successfully suppressed during initial attack, divided by the number of wildfires where the initial suppression objective was to safely limit the fire perimeter to the smallest possible size.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	FS, DOI, State Forestry reporting systems
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	
Measure Name & Number:	IM 3c. <i>Percent of large wildfire incidents managed to effectively meet initial objectives.</i>
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are incident objectives being effectively met on large fires?"
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	Just as we are interested in maintaining initial attack capability, so too are we interested in tracking capability to meet incident objectives for the full range of fire response. This measure is focused on the effectiveness of large wildfire management (300+ acres) as currently defined in...
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage, by scorecard category such as: Green: At least 75% of the initial incident objectives were met. Yellow: At least 50% of the initial incident objectives were met. Red: Less than 50% of the initial incident objectives were met or there was a fatality associated with the incident or structural protection objectives were not met.
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	The specific objective is to improve our ability to successfully manage large fire to meet incident objectives for the full range of fire response. Through appropriate investment in training and fire management assets, and application of a common risk decision framework we anticipate outstanding results in meeting incident objectives.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	We expect to see an increase in the percent of large wildfire incidents rated by agency administrators and their partners as managed to meet incident objectives (i.e., a "green" score card rating).

Data Element	Description/Explanation
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Developing and applying a standard scorecard to track and assess attainment of objectives for each large wildfire. Develop or affirm common definitions of large wildfires – consider geographic and vegetation type distinctions.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Percent by scorecard category
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	From the development needs
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	Agency administrators
Measure Name & Number:	IM 3d. Percent of large fires that exceed a cost efficiency index and change in the cost efficiency index over time.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are relative fire suppression costs declining?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	One-quarter of one percent of all fires account for 80% of fire suppression costs. The intent of this efficiency measure is to pay attention to suppression investments on large fires that are highly resistant to control. We purposely selected the generic term “cost efficiency index” as opposed to a technical term like “stratified cost index” to communicate effectively to a broader audience and provide space for the application of the best available science in efficiency measurement.
Measure Type: Outcome or Intermediate.	Efficiency
Frequency: How often measure is reported	Annual (percent of large fires exceeding CEI)/Periodic (percent change in the CEI every 3-5 years)
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Long term objective is to see an overall decrease in large, high cost wildfires and more cost effective management of large fires that are highly resistant to control, leading to an overall reduction in total fire suppression costs nationally.

Data Element	Description/Explanation
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	As a result of improved risk management we expect to see a decrease in the percent of large fires that exceed a cost efficiency index on an annual basis, leading to an overall decrease in the cost efficiency index itself.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<ul style="list-style-type: none"> Update and expand the current methodology to calculate a cost efficiency index so that it's useful on an interagency basis – include definitions Uniformly apply and assess incidents against that index across jurisdictional boundaries
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Number of large fire that exceed the cost efficiency index divided by the total number of large fires.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	Review current SCI data sources and expand on them to meet new objective of making this useful on an interagency basis. Our intent is to draw from existing data sources to the greatest extent possible.
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	

Data Element	Description/Explanation
Measure Name & Number:	IM 3e. Number of active inter-jurisdictional collaboratives, plans, or agreements.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are collaborative and cooperative efforts among wildland fire managers increasing?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>Inter-jurisdictional agreements (e.g., mutual aid agreements, collaborative fire management plans) are critical to insuring an effective wildfire response and efficient use of available resources. The number of inter-jurisdictional collaboratives, plans, or agreements is an important indicator of improved safety, efficiency and effectiveness of wildfire management.</p> <p>Renewal, or updates of existing agreements are counted as "new" agreements.</p>
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Number

Data Element	Description/Explanation
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	There are opportunities across the country to develop more agreements and strengthen existing agreements particularly where response coverage and capacity is lacking or inadequate (i.e., especially in the more rural areas of the country).
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time	An increase in the number of agreements in place.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	There is not a current fire assistance program that currently collects this data. Develop a common set of standards for what qualifies as an "active agreement" and incorporate its reporting into an existing activity/accomplishment reporting mechanism. A baseline needs to be established.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Collect the number of new agreements that meet the established standards.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	NASF
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	State Foresters
Measure Name & Number:	IM 3f. Percent of large fires that employed a common risk decision framework.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Is a common approach to manage risk being used?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	Given the enormous risk and cost associated with large wildfires, there is a need for incident management teams to assess and manage risk in a transparent and consistent way. Use of a common risk decision framework will limit confusion and help accelerate development of risk management skills within the inter-jurisdictional world of wildland fire management.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage

Data Element	Description/Explanation
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	Objective is to use a common risk decision framework on all large fires. 3-5 years
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	The desired trajectory is an increasing percentage of large fire incidents that applied a common risk decision framework.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Building on the current work, develop a common risk decision framework that works well across all jurisdictions and is easy to use throughout the life of a large fire incident. Documenting use of the common risk decision framework, by way of incorporation in existing reporting systems. Add a "check box" to existing incident reporting systems to indicate whether the common risk decision framework was applied in management of that particular incident.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	Number of large fires that used the common risk assessment framework divided by the total number of large fires.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>)	Existing incident management system reporting mechanisms.
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	FS, DOI and NASF
Measure Name & Number:	IM 3g. Percent of resource orders filled (by type).
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are the necessary qualified and equipped firefighting assets available in the right locations?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	This measure is designed to assess whether adequate firefighting resources are available as indicated by what percent of resource orders are filled as requested. This measure will help determine the types of systemic shortages that exist within the wildland fire management system, at what preparedness levels they emerge, and in what geographies they occur.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual

Data Element	Description/Explanation
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage by resource type, preparedness level, and geographical area.
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	The objective is to develop knowledge of the types of systemic shortages that exist within the wildland fire management system and the circumstances that may contribute to those shortages. This information will inform investments in training and assignment or procurement of assets.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	We expect the percentage of resource shortages to decline over time as better information is acquired, causes determined, and remedies implemented.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Information is available through existing reports.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Trend over time in resource orders filled by geographical area, preparedness level and resource type.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>))	ROSS
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	FS and DOI
Measure Name & Number:	IM 3h. Percent of at risk communities with local response capacity and capability by scorecard category.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.
Key Question: Key question to be answered by the measure	Are the necessary qualified and equipped firefighting assets available in the right locations?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. (<i>Include scope of data set, word definitions, measure rationale, etc.</i>)	The intent here is that by having a qualified and equipped workforce - safe, effective, and efficient decisions will be made resulting in fewer injuries and fatalities as well as reduced damage to communities from wildfire.
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage by scorecard category

Data Element	Description/Explanation
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	The objective is to increase the percentage of at risk communities that have local response capacity and capability (as indicated by a "green" rating and the difference over time of the ratio of at risk communities in the "yellow" and "red" categories).
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time (<i>for outcome measures</i>)	An increasing trend in the number of communities that meet the "green" scorecard category requirements.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	Developing a consistent scorecard approach to assessing and reporting the adequacy of local response capacity and capability of communities at risk. An example of how the scorecard categories might be defined is provided below: <u>GREEN:</u> Local response capacity and capability is adequate given the community's risk to wildfire. <u>YELLOW:</u> Local response capacity and/or capability is not commensurate with the community's risk to wildfire, but substantial progress has been made since the previous assessment of capacity and capability. <u>RED:</u> Local response capacity and/or capability is not adequate given the community's risk to wildfire, or there has been no indication of progress toward developing adequate capacity and capability since the previous assessment.
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure (<i>business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.</i>)	Number of at risk communities with a scorecard rating for each category divided by the total number of at risk communities.
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. (<i>Data origin or references that support the meaning and use of the information.</i>)	NASF
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	State Foresters
Measure Name & Number:	IM 3i. Percent of all wildland firefighters who are qualified and equipped in accordance with national standards and the percent of the total federal wildland fire budget expended to maintain these resources.
Strategic Goal: Alignment to Cohesive Strategy Goal(s)	Goal 3: All jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions.

Data Element	Description/Explanation
Key Question: Key question to be answered by the measure	What proportion of wildland firefighters are qualified and equipped in accordance with national standards and what federal expenditures are being made to maintain these resources?
Description: Description that precisely and accurately captures the measure's key attributes and characteristics of the data to be collected. <i>(Include scope of data set, word definitions, measure rationale, etc.)</i>	<p>The purpose of this measure is help to insure firefighter safety by assessing the need and providing the proper training and latest approved safety equipment to all wildland firefighters.</p> <p>This measure is intended to help track expenditures made to ensure federal, tribal, state, and local firefighting assets are appropriately trained and equipped.</p> <p>There are gaps in providing adequate training and equipment, especially at the local, rural and volunteer levels even though these firefighters are usually first responders. It is our intent to close those gaps, and expect that additional investments will be required.</p>
Measure Type: Outcome or Intermediate.	Intermediate
Frequency: How often measure is reported	Annual
Unit Type: How measure is expressed (\$, units, percentage, etc...)	Percentage of wildland firefighters who meet national standards and percentage of dollars invested to maintain the resources (by broad jurisdictional category)
Long-term Objectives/Short-term Outputs: Describes if a specific objective or output is needed for the measure and, if so, whether it's an annual output or a multi-year objective. Estimated time period to accomplish the measure	The objective is to ensure all wildland firefighters have the proper training and safety equipment.
Desired Trajectory: Describes desired numerical, percentage or other parameter trajectory for this particular measure over time <i>(for outcome measures)</i>	An increasing number of wildland firefighters will meet the national standards and are properly equipped resulting in safer and more effective responses.
Development Needs: Challenges to measurement and/or data collection that must be overcome.	<p>Assessing the need for training and equipment and maintaining an acceptable level as turnover and retirements occur. At this time funding information is only available at the federal level. However, a goal is to be able to collect expenditure information from all jurisdictional levels in the future.</p> <p>Define or affirm what constitutes the national standard.</p>
Method or Formula: Description of method (such as a survey, data base source(s) or formula) used to calculate measure <i>(business rules, i.e. sampling or measuring protocols, sample frequency, sample size, level of accuracy needed, etc.)</i>	<p>Number of wildland firefighters that are trained and equipped in accordance with national standards divided by the total number of wildland firefighters.</p> <p>The federal wildland fire budget expended to maintain these resources divided by the total federal wildland fire budget.</p>
Data Sources: Sources of data (e.g. Forest Service, DOI systems, NASF, or database. <i>(Data origin or references that support the meaning and use of the information.)</i>	DOI, FS, NASF

Data Element	Description/Explanation
Data Collector: Individual(s) responsible for collecting and analyzing data and providing reports	

¹ Description: Identify how much data needs to be collected in order for meaningful results to be reported. The purpose is to insure there is an appropriate sample size to test and analyze.

² Method or Formula: Add details such as the type of comparison to be made, the precision for data elements (i.e. the level to which data will be assessed and reported)

³ Data sources: Considerations for data sources:

- Attribute data (fixed) are things that can be counted; Variable data are things that can be measured.
- Explain data layout requirements.
- Reference agreements relative to constraints in data use/analysis due to security classification or confidential/proprietary data sets.
- Include any background or rules of the data source that are important in understanding the meaning and use of the data elements.
- Include important data references.
- For new data sets that need to be developed/collected, identify the length of time needed before a quantitative analysis could be done on the data set.
- All data sources will need to be credible and cost effective.

APPENDIX I: WFLC Strategic Priorities

Document begins on next page.

SMOKE MANAGEMENT AND AIR QUALITY

Minimize air quality impacts from wildland fire over the long-term, improve the resiliency of landscapes to wildfire, and increase the health and safety of communities, firefighters and the public by using fire as a land management tool.

Key Priority Components

POLICY

- Continue to collaborate with the Environmental Protection Agency (EPA), tribes, state air quality agencies, and wildland fire management agencies and organizations to:
 - Define the unintended impacts to air quality of limiting the use of managed fire (prescribed fire and wildfire for resource benefit, where able) as compared to wildfire;
 - Describe the ecological benefits of frequent prescribed fire use on ecosystems.
- Work with health and safety agencies at all levels to better understand the long term impact that limiting prescribed fire has on public safety and health issues due to large uncontrolled wildfires.
- Facilitate consistent interpretation of air quality and smoke management policies and regulations across agencies, regions, and states.
- Work to identify and remove barriers to conducting prescribed fire.

EDUCATION/COMMUNICATIONS

- Provide information to key EPA, state air quality, and health and safety leadership and staff on the different impacts between managed smoke and unmanaged smoke.
- Create and communicate consistent interagency messages to improve public understanding about the role of fire in maintaining the carbon security and sequestration role of America's wildlands as it relates to worldwide climate change discussions.
- Educate prescribed fire practitioners on the importance of following basic smoke management practices to reduce emissions and smoke effects on the public and firefighters.

SCIENCE

- Support interagency investments in Joint Fire Science Program studies and other studies on smoke impacts and air quality.
- Strengthen knowledge about the impacts of weather, ecology, fuel depth, geography, and other environmental factors on total emissions produced by planned prescribed fires compared to wildfires.
- Identify pilot areas to study the localized impacts of smoke produced during frequent prescribed fires.

WFLC Member Actions

- Identify a team of key staff to coordinate input on policy and regulatory proposals – exceptional events rule, the EPA fine particulate matter standard (PM_{2.5}), ozone, and ambient air quality regulations (both internal through interagency reviews and external through multiple partners).
- Develop a process for insuring consistency in interpretation of rules and regulations at the regional and state level.



- Encourage WFLC member organization engagement in the development of rules and information being distributed regionally to EPA to insure consistency in implementation across the country.
- Identify a team of key staff to provide information and share best practices with EPA nationally (Washington Office, Office of Research and Development and Office of Air Quality Planning and Standards) and state air quality agencies on science components of emissions from planned prescribed fires compared to wildfires.
- Coordinate strategic outreach of WFLC member organizations to selected EPA regional offices and state air quality agencies to improve relationships and provide educational information on key issues concerning managed versus unmanaged wildland fire smoke.
- Coordinate research on impacts of smoke, smoke mitigation, more specific emissions calculations and other factors that contribute directly to air quality monitoring through EPA, tribal and state air quality programs.
- Establish a framework for state and tribal wildland fire management agencies and state air quality agencies to share information and jointly educate one another on unintended adverse impacts due to smoke and regulation.
- Craft the concept for a public outreach and education effort to explain the smoke effects from wildland fires; and how smoke can be managed through the increased use of prescribed fire and some managed wildfires, as compared to the harmful impacts of catastrophic wildfire smoke and other undesirable environmental effects.
- Identify appropriate level staff resources for participation in the task group and support roles.



REDUCING RISK TO COMMUNITIES

Build a suite of enabling conditions for the creation and enhancement of fire adapted communities across the country.*

Key Priority Components

**Enabling conditions include: access to tools and materials, seed funds, relationship building etc.*

EDUCATION/COMMUNICATIONS

- Utilize shared learning to expand knowledge and access to information.
- Expand availability of and access to resources with which to develop fire adapted communities and foster their ability to be self-sustaining.
- Promote constant and consistent links to the tenets and terminology of the Cohesive Strategy.
- Increase the presence of WFLC members and affiliates at high profile wildfire incidents to demonstrate support and provide timely educational messages.

POLICY

- Expand existing authorities to enhance opportunities to develop fire adapted communities.
- Develop relationships with additional federal agencies to most efficiently provide services to fire adapted communities.
- Work to ensure priorities are locally established for all levels of resources and all mechanisms of funding.
- Promote active engagement of resources from all levels of government through multi-agency and partner collaboration in all phases of wildfire response.

SCIENCE

- Continue to use social sciences to evaluate the effectiveness of fire adapted community messaging and tools.
- Identify pilot programs/projects to study the community effects of risk reduction activities.

WFLC Member Actions

- WFLC appoints a task group (or utilizes existing groups) and works with the National Strategic Committee (NSC) to:
 - Understand and frame the impact that wildland and other land that has not been actively managed have on community risk.
 - Identify and share best practices for land use planning, community engagement and implementation of existing authorities.
 - Assess existing authorities and incentives related to community engagement, what is working, what is authorized and not being utilized, and where there are gaps.
 - Recommend enhancements of existing authorities or propose new authorities for additional creation and engagement of fire adapted communities.
 - Coordinate communication and outreach efforts through WFLC member agencies/organizations to better link wildland urban interface (WUI) communities at risk with available assets and resources to facilitate meaningful progress towards becoming more fire adapted.



- Work with other federal agencies and non-governmental organizations (NGO) to encourage local adoption and enforcement of effective WUI land use planning, zoning laws, development standards, and building codes.
- Promote an understanding of how all three goals of the Cohesive Strategy affect reducing community risk.
- WFLC commits to:
 - Identifying appropriate level staff resources for participation in the task group and support roles.
 - Reaching out to other federal agencies and organizations to facilitate community engagement (building fire adapted communities).

DRAFT

LARGE LANDSCAPE COLLABORATION

Increase the number and area of wildfire resilient and healthy landscapes, resilient communities, and efficiency of wildland fire response by expanding cross-landscape, cross-ownership collaboration.

Key Priority Components

EDUCATION/COMMUNICATIONS

- Utilize shared learning to increase the opportunity for successful collaboration across the country.
- Facilitate opportunities for cross-boundary work and coordination to work more efficiently.
- Promote effective, large-scale landscape level projects across jurisdictional lines.
- Develop a workshop series to focus shared learning among practitioners and partners.

POLICY

- Promote active engagement of resources from all levels of government through multi-agency collaboration in all phases of response.
- Explore policy and regulatory structures to find opportunities to increase cross-boundary work and exploit currently existing authorities.
- Ensure land management agencies, tribes, neighboring landowners and other relevant entities are cooperating with each other on landscape level projects and activities.
- Develop a process to incorporate funding and programs into a multi-agency, multi-party partnership to utilize in the development of new collaboratives.

SCIENCE

- Support large landscape-scale monitoring to evaluate the effectiveness of management actions.

WFLC Member Actions

- WFLC appoints a task group (or utilizes existing groups) and works with the National Strategic Committee (NSC) to:
 - Evaluate the success of current and recent past funding mechanisms, policies and partnerships that stimulated and supported collaboration efforts (data call).
 - Conduct an analysis across ownerships to determine the potential for joint projects.
 - Evaluate the potential for an expanded joint federally funded (state and local where available) process across boundaries and ownerships to include additional agencies – (building upon the current USDA Forest Service and Natural Resource Conservation Service “joint chiefs” program and DOI Joint Bureau Resilient Landscape Program).
 - Develop:
 - A national clearinghouse for information about funding opportunities and best practices for collaborative landscape projects.
 - An interagency/intergovernmental proposal that incorporates a cross-agency/cross-boundary funding process for the scaling up of project areas.
 - Joint pilot projects across agencies and among WFLC members.
 - An interagency/intergovernmental proposal for monitoring effectiveness.

- WFLC commits to:
 - o Identifying appropriate level staff resources for participation in the task group and support roles.
 - o Sponsoring a National Workshop Series to address this priority.
 - o Recognize and expand the work of the Fire Adapted Communities Learning Network and Fire Learning Network and other place-based collaboration (e.g. Greater Okefenokee Association of Landowners [GOAL], Blue Mountains, Ashland OR, Santa Fe NM, fire science exchange network, prescribed fire councils, Landscape Conservation Cooperatives, FS Cohesive Strategy pilots, Collaborative Forest Landscape Restoration, Department of the Interior [DOI] Resilient Landscape Program, etc.)
 - o Produce joint communications in coordination with communities on opportunities to reduce catastrophic wildfires through development of resilient and healthy landscapes.

ENVIRONMENTAL COMPLIANCE

Conduct project planning and analysis in a timely, coordinated and efficient manner to expedite fuels management, restoration and maintenance of healthy, resilient landscapes.

Key Priority Components

EDUCATION/TOOLS

- Utilize shared learning across jurisdictional and communities of practice to increase efficiency in navigating government regulatory processes that will allow land management decisions to be implemented in a timely manner.

POLICY

- Facilitate opportunities for more efficient cross-boundary work and coordination.
- Explore policy and regulatory structures to increase cross-boundary work and more effectively use existing authorities.

WFLC Member Actions

- WFLC appoints a task group(s) (or utilizes existing groups) and works with the National Strategic Committee to:
 - Gather existing information on successful projects that have overcome issues.
 - Evaluate successes and challenges around National Environmental Policy Act (NEPA), Endangered Species Act (ESA), cultural resources, and wilderness compliance.
 - Utilize existing NEPA and other regulatory compliance coordinators to identify key issues and best practices.
 - Develop methodologies to build community support for projects.
 - Increase the utilization of Memorandums of Understanding (MOU) for compliance with Section 106 of the National Historic Preservation Act.
 - Capture successes and best practices in a format that can be shared and utilized by other groups across the country.
 - Recommend ways to make cross-boundary work more efficient on large-scale projects.
 - Evaluate short-term expediency of smaller projects versus longer-term success of larger scale projects.
 - Develop key leaders' intent and utilize joint messaging opportunities and outlets.
- WFLC commits to identifying appropriate level staff resources for participation in the task group and support roles.

APPENDIX J: White House Executive Order 13728 Wildland-Urban Interface Federal Risk Mitigation

Executive Order begins on next page.

THE WHITE HOUSE
Office of the Press Secretary

For Immediate Release

May 18, 2016

EXECUTIVE ORDER

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WILDLAND-URBAN INTERFACE FEDERAL RISK MITIGATION

By the authority vested in me as President by the Constitution and the laws of the United States of America, and to improve the Nation's resilience to wildfire, I hereby direct the following:

Section 1. Policy. It is the policy of the United States to strengthen the security and resilience of the Nation against the impacts of wildfire. The annual estimates on structure loss due to wildfire have increased dramatically over the past six decades as a result of multi-year drought conditions in combination with accumulated fuel loads, growing populations residing in the wildland-urban interface, and associated increases in the exposure of built environments. As such, we must continue to ensure our Nation is resilient to wildfire in order to promote public safety, economic strength, and national security.

The Federal Government must continue to take proactive steps to enhance the resilience of buildings that are owned by the Federal Government and are located on Federal land. Each executive department and agency (agency) responsible for implementing this order shall seek to enhance the resilience of its buildings when making investment decisions to ensure continued performance of essential functions and to reduce risks to its buildings' occupants in the event of a wildfire.

Sec. 2. Codes and Concurrent Requirements. (a) Commencing within 90 days of the completion of the implementing guidelines as described in section 3(b)(i) of this order, each agency shall ensure that every new Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk for which the agency has not completed design is in compliance with the 2015 edition of the International Wildland-Urban Interface Code (IWUIC) promulgated by the International Code Council (ICC), or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312. When the ICC releases a new version of the IWUIC, a determination shall be made whether the new version is a nationally recognized code for the purposes of 40 U.S.C. 3312(b), as expeditiously as practicable, but not later than 2 years after the release of the new version. If a determination is made that a new version is a nationally recognized code, agencies shall ensure that any Federal building covered by this section for which the agency has not completed design is in compliance with that new version, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312.

(b) Commencing within 90 days of the completion of the implementing guidelines as described in section 3(b)(i) of this order, each agency responsible for the alteration of an existing Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk for which the agency has not completed design shall ensure that the alteration is effectuated in compliance with the IWUIC, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312. When the ICC releases a new version of the IWUIC, a determination shall be made whether the new version is a nationally recognized code for the purposes of 40 U.S.C. 3312(b), as expeditiously as practicable, but not later than 2 years after the release of the new version. If a determination is made that a new version is a nationally recognized code, agencies shall ensure that any Federal building covered by this section for which the agency has not completed design is in compliance with that new version, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312.

(c) Each agency that owns an existing Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk is strongly encouraged to ensure that such existing buildings are in compliance with the IWUIC, or an equivalent code.

(d) The heads of agencies whose activities are covered by sections 2(a) and 2(b) of this order shall complete a wildfire risk assessment of their existing Federal buildings above 5,000 gross square feet within the wildland-urban interface and are strongly encouraged to consider creating and maintaining a defensible space in compliance with the IWUIC, or an equivalent code, for each of those buildings they determine to be at highest risk.

(e) Each agency that leases space in a building to be constructed for the predominant use of an agency above 5,000 rentable square feet in the wildland-urban interface in an area of greater than moderate wildfire risk is strongly encouraged to ensure that the building is designed and constructed in accord with the IWUIC, or an equivalent code.

(f) Each agency assisting in the financing, through Federal grants or loans, or guaranteeing the financing, through loan or mortgage insurance premiums, of a newly constructed building or of an alteration of an existing building above 5,000 gross square feet within the wildland-urban interface at moderate or greater wildfire risk shall consider updating its procedures for providing the assistance to be consistent with sections 2(a) and 2(b) of this order, to ensure appropriate consideration of wildfire-resistant design and construction.

(g) To the extent permitted by law, the heads of all agencies may:

(i) require higher performance levels than exist in the codes described in section 2(a) of this order;

(ii) apply the requirements within section 2(a) of this order to new buildings less than 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk; and

(iii) apply the requirements within section 2(b) of this order to existing buildings less than 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk.

(h) When calculating whether a building is at moderate or greater wildfire risk, agencies should act in accordance with the methods described in the 2015 edition of the IWUIC, or any subsequent version that is determined to be a nationally recognized code for the purposes of 40 U.S.C. 3312(b), or an equivalent code, or in accordance with an equivalent method.

(i) Each building constructed or altered in accordance with section 2(a) or (b) of this order shall comply with the IWUIC, or an equivalent code, only to the maximum extent feasible as determined by the head of an agency.

Sec. 3. Agency Responsibilities. (a) The heads of all agencies that own Federal buildings above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk shall determine the appropriate process within their respective agencies to ensure compliance with this order.

(b) The Mitigation Framework Leadership Group (MitFLG) shall:

(i) create implementing guidelines to advise and assist agency compliance with the code requirements within 240 days of the date of this order;

(ii) provide assistance to the agencies in interpreting the implementing guidelines.

(c) When determining whether buildings are located within the wildland-urban interface, agencies shall use the U.S. Department of Agriculture Forest Service's, "The 2010 Wildland-Urban Interface of the Conterminous United States," or an equivalent tool. The Secretary of Agriculture shall provide assistance to the agencies in determining whether buildings are located within the wildland-urban interface.

(d) The heads of agencies whose activities are covered by sections 2(a) and 2(b) of this order shall submit a report once every 2 years to the Chair of the MitFLG on their progress in implementing the order, commencing 2 years from the date of this order.

Sec. 4. Definition. As used in this order, "building" means a constructed asset that is enclosed with walls and a roof that provides space for agencies to perform activities or store materials as well as provides spaces for people to live or work.

Sec. 5. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department, agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law, including the National Historic Preservation Act of 1966, and subject to the availability of appropriations.

(c) This order applies only to buildings within the United States and its territories and possessions.

(d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA

THE WHITE HOUSE,
May 18, 2016.

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