Introductory Statement

Climate adaptation is an increasing priority within the federal government. As part of the President's Climate Action Plan, federal agencies are required to develop agency-level climate adaptation plans (CEQ 2014). Federal agencies must integrate their emerging obligations to address climate impacts with existing responsibilities. Amongst these responsibilities are the federal government's trust responsibility towards tribes and the government's obligation to consult with tribes. Federal agencies are obligated to protect tribal resources and tribal rights to self-governance (NCAI 2014). As part of this trust responsibility, federal agencies must engage in ongoing consultation with tribes on issues that will impact tribal rights and resources, and to ensure that tribal access to on and off-reservation resources are protected in the face of climate change (EO 13175, Whyte 2013). Federal agency adaptation plans have the potential to impact tribes in a variety of ways, whether through changes in policies pertaining to tribes, or by altering management of resources that are of importance to tribes. This report examines how federal agency climate adaptation plans are addressing tribal issues and concerns.

Methods

Thirty-three departments and agencies completed climate change adaptation plans in October 2014. Plans varied in the extent that they addressed tribal issues. This report rates each plan on the extent to which tribes are addressed as None, Minimal, Moderate and Extensive. Some departments or agencies, such as the Board of Broadcasting Governors, work less extensively with tribes, and therefore are expected to have lower levels of tribal inclusion in their plans.

Several of the federal plans reference Executive Order 13514 (Federal Leadership in Environmental, Energy and Economic Performance) and/or Goal 9 of the GSA sustainability report, which states that federal agencies should "Ensure climate change adaptation is integrated into both agency-wide and regional planning efforts, in coordination with other Federal agencies as well as state and local partners, Tribal governments, and private stakeholders." When the only reference in a plan is to this goal, if there are no specific actions or information related to tribes, then "None" appears in the column entitled Tribal Inclusion. In plans that reference tribes only briefly, or alongside state and local government, "Minimal" appears in this column. When tribes and tribal issues are referenced few times, but in more substantial detail, "Moderate" appears in this column. When tribes and tribal issues are referenced throughout the agency plan and in significant detail, an "Extensive" rating will appear.

The following table illustrates the categories that the report uses to evaluate the federal climate change adaptation plans²:

Category	Criteria	
Policies and Goals	Are tribes included in goals of plan? Does plan lay out policies; if so, do they include tribes?	

Description of Categories used to evaluation Federal Climate Change Adaptation Plans

¹ This report was drafted in June 2015 by the Pacific Northwest Tribal Climate Change Project at the University of Oregon. For more information, contact kathy@uoregon.edu.

² Appendix A includes the full evaluation for each federal agency adaptation plan.

Climate Risk and	Does the plan discuss climate vulnerability of tribes and tribal communities? Does the
Vulnerability	plan acknowledge risks particular to tribal communities?
Science and	Does the plan discuss gathering and/or using climate science data? Does it address how
Communication	this science may benefit tribes?
Trust Responsibility	Does the plan acknowledge the Federal government's trust responsibility? If so, does the plan describe how it will fulfill this responsibility during climate adaptation?
Tribal Treaty Rights	Does the plan reference treaty rights? Does the plan address challenges facing tribal treaty rights due to climate?
Government-to-	Does the plan use language of government-to-government relationship between
Government	agencies and tribes? Does the plan provide avenues for agency to work within this
Relationship	framework in climate initiatives?
Tribal Consultation	Does the plan describe how agency obligations to consult with tribes will be met in a climate context?
Traditional Knowledges	Does the plan address Traditional Knowledges? If so, does the plan discuss challenges facing TKs, such as misappropriation, intellectual property law, and mutual benefit?
Cultural Resources	Does the plan address impacts to cultural resources and plans for minimizing these impacts?
Coordination and	Does the plan describe existing partnerships between agencies and tribes on climate
Partnerships	initiatives? Does the plan outline plans for future collaboration?
Specific Agency Actions	What specific actions does the plan outline for the agency to take which will benefit tribes in adapting to and/or preparing for climate impacts?

Ratings by Agency

Agency	Acronym	Rating
Broadcasting Board of Governors	BBG	None
Commodity Futures Trading Commission	CFTC	None
Corporation for National and Community Service	CNCS	None
Department of Commerce	DOC	Extensive
Department of Defense	DoD	Minimal
Department of Education	ED	Minimal
Department of Energy	DOE	Minimal
Department of Health & Human Services	HHS	Minimal
Department of Homeland Security	DHS	Minimal
Department of Housing & Urban Development	HUD	Moderate
Department of the Interior	DOI	Extensive
Department of Justice	DOJ	Minimal
Department of Labor	DOL	Minimal
Department of State	DOS	None
Department of Transportation	USDOT	None
Department of the Treasury	DOT	None
Environmental Protection Agency	EPA	Extensive
Federal Trade Commission	FTC	None
General Services Administration	GSA	None
National Aeronautics & Space Administration	NASA	None
National Archives & Records Administration	NARA	None
National Capital Planning Commission	NCPC	None
Office of Personnel Management	OPM	None
Peace Corps	Peace Corps	None
Postal Service	USPS	None
Railroad Retirement Board	RRB	None
Small Business Administration	SBA	Minimal
Smithsonian Institution	Smithsonian	Minimal
Tennessee Valley Authority	TVA	None
U.S. Agency for International Development	USAID	None

U.S. Army Corps of Engineers	USACE	None
U.S. Department of Agriculture	USDA	Moderate
Veterans Affairs	VA	Minimal

Ratings by Category

Rating	Number of Agencies	List of Agencies
Extensive	3	EPA, DOI, DOC
Moderate	2	HUD, USDA
Minimal	10	DOD, ED, DOE, HHS, DHS, DOJ, DOL, SBA, Smithsonian, VA
None	18	BBG, CFTC, CNCS, DOS, DOT, USDOT, FTC, GSA, OBM, Peace
		Corps, NASA, NARA, NCPC, USPS, RRB, TVA, USAID, USACE

Findings

Following are summaries of how particular federal agency or departmental climate change adaptation plans address tribal issues.

Policies and Goals

Five departments and two agencies reference tribes explicitly in their policies and goals to address climate change. Some, such as the Department of Interior, provide detailed goals for individual agencies within the Department (16-17). This level of planning helps to pave the way for meaningful change at the bureau level. Agencies described collaboration with tribes as an explicit goal, as well as providing services and support to tribes. Both approaches have the potential to benefit tribes as they adapt to climate impacts. Increased federal support such as the Department of Commerce's goal to "assist Federal agencies...and Indian tribes in integrating climate information and resiliency into their near-term and long-term strategies and actions," will benefit tribes as they develop their own strategies and plans for climate adaptation. Similarly, a focus on collaboration is exemplified by the Environmental Protection Agency's plan, which states that "each Program and Regional Office Implementation Plan will support the development of adaptive capacity in the tribes and identify clear steps for ongoing collaboration with tribal governments where appropriate." Finding appropriate and mutually beneficial opportunities to work alongside tribes has the potential to improve tribal resiliency, be in accordance with trust responsibility, and ease the load on agencies through partnership. When departmental plans only list tribal issues alongside state, local, and regional governments, the federal trust responsibility to federally-recognized tribes may not be upheld. Exclusion of language specific to tribes in the goals of some Department-level plans may not ensure that tribal issues are addressed when individual agencies are forming climate policies and goals.

2014 Adaptation	
Plans	Policies and Goals
	"Providing climate science and services to the Federal Government and other stakeholders, including the
	business community, the non-profit sector, and local, state, and tribal governments." (6); "Assisting
	other Federal agencies, local governments, regional entities, states, and Indian tribes in integrating
Department of	climate information and resiliency into their near-term and long-term strategies and actions, including
Commerce	economic development and natural resources stewardship." (6)
	"[A recent proposed rule] would establish national emergency preparedness requirements to ensure that
Department of	health care facilities adequately plan for disasters and coordinate with federal, state, tribal, regional, and
Health & Human	local emergency preparedness systems to make sure those providers and suppliers are adequately
Services	prepared to meet the needs of patients during disasters and emergency situations." (14)

Department of Homeland Security	"Integrate Climate Change Adaptation into the Department's engagement agenda with SLTT (state, local, tribal and territorial) partners." (8)
Department of the Interior	 Goals for select bureaus: "Bureau of Indian Affairs: Supporting to Tribes to address climate change, creating policy to guide climate response, demonstrating regional leadership for climate response, connecting Tribes and climate change communities of practice [NPS]: Implementing a comprehensive approach for evaluating risk and prioritizing adaptation actions to protect facilities, and cultural and historic resources [USFWS]:Increased support for states and tribes to integrate climate adaptation into their conservation planning, using the National Fish, Wildlife and Plants Climate Adaptation Strategy Joint Implementation Working Group to promote wildlife adaptation efforts across agencies and with the states and tribes." (11-13); "The Department will use the best available science to increase understanding of climate change impacts, inform decisionmaking, and coordinate an appropriate response to impacts on land, water, wildlife, cultural and tribal resources, and other assets. The Department will integrate climate change adaptation strategies into its policies, planning, programs, and operations, including, but not limited to services and support for tribes and Alaska Natives; protection and restoration of cultural, archeological and tribal resources" (16); "Use the network of Landscape Conservation Cooperatives, Climate Science Centers, and other partnerships to increase understanding of climate change impacts; build upon and monitor existing response efforts; coordinate adaptation strategies across multiple sectors, geographical scales, and levels of government; and inform decision makers." (17)
Department of Labor	"DOL will continue to look at how its component agencies' funding programs affect State, local and tribal communities' climate change risk"
Environmental Protection Agency	"The plan then identifies specific priority actions that the office will take to begin addressing its vulnerabilities and mainstreaming climate change adaptation into its activities. Criteria for the selection of priorities are discussed. An emphasis is placed on protecting the most vulnerable people and places, on supporting the development of adaptive capacity in the tribes, and on identifying clear steps for ongoing collaboration with tribal governments." (3); "EPA is committed to strengthening its partnerships with tribes on their priorities related to climate change adaptation. A unique government-to-government relationship exists between the U.S. Government and the 565 federally recognized tribes. EPA gives special consideration to tribes in developing policies that may affect their interests. EPA recognizes that tribes will likely be disproportionately vulnerable to climate changeEach Program and Regional Office Implementation Plan will support the development of adaptive capacity in the tribes and identify clear steps for ongoing collaboration with tribal governments where appropriate. These efforts will include increasing tribal capacity to identify vulnerabilities in order to adapt to a changing climate. EPA will work with tribes to support the effectiveness of national climate change adaptation programs in Indian country." (49)
National Capital Planning Commission	"Identify opportunities to support and encourage smarter, more climate-resilient investments by States, local communities, and tribes, including by providing incentives through agency guidance, grants, technical assistance, performance measures, safety considerations, and other programs." (7)

Climate risk and vulnerability

Four plans discussed specific climate risks and vulnerabilities facing tribes. Housing and Urban Development (HUD) provided detailed information about vulnerabilities that existing HUD programs face from climate, including tribal concerns. Homes and infrastructure funded by programs such as the Indian Housing Block Grant may be impacted via damage from climate-related disasters such as wildfire. These programs may suffer further as HUD infrastructure and personnel struggle to adapt to climate impacts. HUD may have a reduced capacity to respond to these disasters as they increase in frequency and severity. Furthermore, many HUD homes are ill-equipped to deal with climate impacts such as heat waves, melting permafrost, and sea level

rise. For Native peoples in the Southwest, Alaska and Hawaii especially, living in HUD housing may carry increased risks.

The United States Department of Agriculture (USDA) describes risks from wildfire facing both the Forest Service and adjacent tribal lands. Both HUD and USDA also describe drought as a concern. This goes hand-in-hand with wildfires, as drier summer seasons are likely to produce more severe fires. The Department of Energy (DOE) noted that their ability to fulfill agency functions may be diminished by climate impacts. Hazardous waste storage is one particularly troubling example that may affect tribal communities, many of whom are burdened with DOE waste-storage sites on or near their reservations (LaDuke 2014). The potential for long-term impacts to tribal lands and the environment are troubling in the event that hazardous waste is released due to a disaster such as a flash-flood.

2014 Agency	
Adaptation Plans	Climate risk and vulnerability
Department of Commerce	"The Department, through its scientific and economic bureaus, is uniquely situated to develop these [climate information and] services to help the private sector, local, regional, tribal and state governments, and resource managers better prepare for and reduce their vulnerabilities to climate variability and change." (5)
Department of Energy	"Climate change may also affect DOE's ongoing role in preserving historic and cultural resources on its federal lands, partnerships with Tribal governments, and environmental justice responsibilities In particular, the long-term integrity of DOE landfills and waste-storage sites containing hazardous materials could be affected by climate change, resulting in secondary impacts in adjacent or downstream culturally or environmentally sensitive areas, including Tribal lands." (10)
Department of Housing & Urban Development	HUD identifies several programs pertaining to tribes and Indian communities as at-risk from climate change (Appendix A). Risks include drought, sea-level rise, temperature increases, and other. One example is included below: "There are many American Indian tribes located in the American southwest, where extreme drought will be hazardous. These Indian communities will be especially vulnerable to the effects of drought because many of them are heavily dependent on agriculture and livestock for their livelihoods. Low-income and subsistence farmers will be disproportionately affected. Indian homes are more likely to be overcrowded, lack complete plumbing and require delivery of potable water. Droughts generate dust, exacerbating lung conditions such as asthma, which is more prevalent in low-income communities. Indian tribal governments and Indian communities." Plan also discusses risks to "Indian Housing Block Grants Program" (56); Plan discusses risks facing Native Hawaiians who may face relocation, as they are disproportionately homeless and many live in subpar housing (51, 54, 61); extreme heat will impact Native people living in HUD housing, as most HUD homes do not have air conditioning (62); the majority of HUD housing in Alaska is built on permafrost (63).
U.S. Department of Agriculture	Plan discusses several climate risks as they relate to tribes, including wildfire, "National Forest System lands bordering tribal lands are increasingly at risk of fire. Tribes are particularly vulnerable to fires both on and off tribal lands which complicates coordination of firefighting across shared fire-prone landscapes with various jurisdictional controls. Lack of resources, poverty, remote access, and poor infrastructure exacerbate already high risks areas." and "Rising Sea Levels" –"Coastal lands and coastal Tribes are increasingly at risk of damage to their land, including infrastructure, due to rising sea level. Tribes and islanders are particularly vulnerable" (14-16) The Forest Service is instructed to collaborate with DOI LCCs and CSCs to "learn from and assist." (14, 16, FS 61-2)

Science and communication

Four plans address science and communication in their plans. The National Oceanic and Atmospheric Administration (NOAA) includes tribes amongst their partners in raising awareness and undertaking research—although their list is broad and includes state governments, academic institutions and others. The Department of Interior (DOI) recognizes possible impacts to "cultural, heritage and tribal resources," pledging to use best available science in their response. The DOI plans to provide up-to-date climate science to tribal and isolated communities. Given the limited capacity of many tribal governments, reliable climate data will be invaluable in informing tribal adaptation strategies. Providing capacity-building to tribes is an important step in creating mutually beneficial and respectful relationships. Similarly, the Environmental Protection Agency (EPA) plans to support scientific projects which target tribal needs. This is an indicator of the EPA's intentions to provide meaningful support to tribes. In addition to tribal needs for reliable climate data on a regional scale, tribes will benefit greatly from data that is tailored to their own communities, landscapes and concerns. Unfortunately, tribes are limited in their capacity to produce such data without outside financial and/or technical support. EPA funding for tribally-led science projects may provide substantial benefit for tribal adaptation planning.

2014 Agency Adaptation Plans	Science and communication
Department of	"NOAA will continue to work with state and tribal governments, industry, academic institutions, museums, aquariums, and non-governmental organizations to raise awareness about ocean acidification and establish feasible solutions for resilience, adaptation and mitigation." (19); "NOAA will continue to lead the implementation of NIDIS, an interagency partnership (USDA, DoE, DHS, DoI, DoT, EPA, USACE, FCA, FERC, IRS, USITC, NASA, SBA, HHS, and CDC) that works toward collaboration on monitoring, research, data, and communication of drought related information. The drought related tools and resources produced through NIDIS inform decision-makers at the federal, state, tribal, and local levels." (20); "Various sectors of the Nation will need the best available climate guidance, including forecasts and data analysis tools, in order to address such climate change adaptation issues [in the Arctic]. NOAA, as a primary source of climate expertise and information, would be the logical choice to provide this information for users in Alaska including government (at Federal, state, local, and
Commerce	tribal levels), industry, fisheries, and others." (20) "Provide tribes, communities, and Insular Areas with the most recent climate change information and
Department of the Interior	climate adaptation guidance." (24); "The Department will use the best available social, physical and natural science to increase understanding of climate change impacts, to inform decision making, and to coordinate an effective response to impacts on land, water, wildlife, cultural, heritage, and tribal resources, and other assets." (19)
Environmental Protection Agency	"The Agency will support the development of climate science to meet priority research needs and decision-support tools useful to the tribes." (49)
U.S. Department of Agriculture	"Hubs will provide outreach and extension to farmers, ranchers, forest landowners, and rural communitiesThey will also link a broad network of partners includingNative Nations and organizations." (20)

Trust Responsibility

One department addressed federal trust responsibilities within their plan. The lack of discussion about the implications of climate change on the ability of departments to carry out their trust responsibility is a massive gap in these plans. The plans do not discuss how the nature of trust responsibility may be changed by climate impacts, i.e. how new and different meanings of trust responsibility may result from climate impacts. The Department of Interior (DOI) acknowledges that trust responsibility for resources is at the core of their mission. This acknowledgement should be included in federal department and agency adaptation plansfor all departments who work with tribes. Trust responsibility relates to climate adaptation in many ways. For example, disaster-preparedness is a major emphasis for many climate adaptation plans. Disaster plans which do not recognize federal trust responsibility may overlook departments. The trust responsibility also extends to resource management in a climate context. As departments and agencies adapt their managing culturally-important trust

resources in a manner that benefits tribes. The lack of discussion about trust responsibility in these climate adaptation plans could mean that departments will not consider tribes adequately in aspects of adaptation planning, fail to fulfill their trust responsibility, and negatively impact tribal health and access to cultural resources..

2014 Agency Adaptation Plans	Trust Responsibility
Department of the Interior	"The Department has an important role for supporting tribes as they address climate change impacts. Core to the Department's mission is trust responsibility for resources, as well as providing technical support across a wide range of services." (33)

Tribal Treaty Rights

One department addressed to tribal treaty rights. The Department of Interior (DOI) notes that impacts to natural resources are a concern because tribes have both a cultural tie to these resources, and a treaty right to them. Understanding how treaty rights apply in a climate context is a major concern for tribes as they seek to continue their relationship with culturally-important species. As resources become scarcer, tribal rights to these resources continue to exist. This may mean that the federal government is forced to advocate for tribal rights as states and others lay claim to resources. Federal departments would do well to prepare themselves to advocate for tribal treaty rights in the event of droughts, wildfires or other climate-induced disasters that may affect resources.

2014 Agency Adaptation Plans	Tribal Treaty Rights
Department of the	"Tribes have traditional, cultural, and spiritual ties to the land and may also have treaty and subsistence rights and interests off the reservation, and as such natural resource impacts are a serious concern. Further, tribal governance and resource rights are tied to their lands, and tribes cannot easily migrate to
Interior	follow traditional subsistence animals moving due to changing habitats." (33)

Government-to-Government

One department addressed "Government-to-Government" relationships in their plan. Many plans discuss tribes only along state and local governments, or private stakeholders. With the exception of the Department of Interior's (DOI), no plan mentions that there is a difference in relationships between the federal government and tribes, when compared to the federal government's relationship with other levels of US government, or private parties. Because they do not describe how tribes and federal entities will work on a government-to-government basis when partnering on climate issues, it is unclear what role agencies imagine tribes playing in collaborative initiatives to address climate change. However, federal departments and agencies are obligated to work with tribes on a government-to-government basis, and not on a basis identical to federal-state, federal-local or federal-private relationships. DOI states that its plans to work with tribes, Alaska and Hawaii Natives will occur within a government-to-government context. Other departments are also bound to this same standard.

2014 Agency	
Adaptation Plans	Government-to-Government

	"Ensure consistent and in-depth government-to-government engagement with tribes, Alaska and Hawaii
Department of the	Natives, and insular areas to address climate change impacts on natural and cultural resources and to
Interior	apply adaptation strategies." (25)

Tribal Consultation

In dealing with climate impacts, it is not clear how agencies plan to fulfill their obligation to consult with tribes who may be impacted by agency decisions. Only the Environmental Protection Agency (EPA) addresses this obligation. Although the EPA recognizes that its obligation to consult extends to climate impacts, other agencies and departments do not include information about how consultation applies to climate adaptation. Consultation requires departments and agencies to consult with tribes on all policy and management decisions that will have direct impacts to a given tribal community.

2014 Agency Adaptation Plans	Tribal Consultation
Environmental Protection Agency	"EPA has a special obligation to work consultatively with the tribes to help them as sovereign governments address their climate adaptation concerns." (34)

Traditional Knowledges

Three plans address Traditional Knowledges (TKs). The Department of Interior (DOI) and Smithsonian Institute's adaptation plans hope to use TKs for the benefit of broader adaptation efforts. Typically, efforts by people outside of TKs holders to utilize TKs are highly problematic. The DOI indicates awareness of the need for respect in dealing with TKs, stating that they plan to "respectfully consider and incorporate [TEK]..." while the Environmental Protection Agency (EPA) shows an awareness of the potential for misappropriation of TKs, acknowledging their role in the process as "support[ing]" the use of TKs, and emphasizing that TKs "may help tribes [emphasis added]..." with their own adaptation efforts. EPA's strategy may provide a successful model: government agencies may be most beneficial in providing support to tribally-led projects involving TKs, as opposed to gathering and/or synthesizing and utilize TKs with tribal input. Although finding a path towards effective collaboration while avoiding misappropriation can be a difficult task, avoiding misappropriation of TKs is an ethical and potential human rights issue. Furthermore, there is an increasing recognition both nationally and internationally that utilizing TKs and equitable partnerships with tribal communities are keys in effectively addressing climate impacts (Houde 2007, Mason et al. 2012, UN 2014, Emery et al. 2014, Bennett et al. 2104).

2014 Agency Adaptation Plans	Traditional Knowledge
•	"Respectfully consider and incorporate Traditional Ecological Knowledge and long-term observational information as data sources." (20); "Engage indigenous communities in dialogue and incorporate
	traditional knowledge in assessing climate change effects on cultural, natural, and heritage resources and developing appropriate adaptation strategies." (23); "Respectfully solicit traditional knowledge
	from tribes, communities, and villages to complement existing scientific resources on past and present ecological and sociological changes." (24); "The Department is also committed to respectfully and
Department of the	appropriately incorporating TEK into the body of knowledge that will underpin adaptation
Interior	management." (33)

Environmental Protection Agency	"EPA will also work with the tribes to identify and support the use of climate change relevant traditional ecological knowledge (TEK) in decision making. EPA recognizes that TEK, as an expression of key information that links historical, cultural and local ecological conditions, may help tribes choose how they adapt to climate change while also protecting resources and resource uses important to their culture and livelihood." (49)
Smithsonian Institution	"The Smithsonian is helping to understand how climate change impacts the traditional modes of native peoples, how they are working to adapt to these changes, and what lessons can be derived of benefit to modern society." (5)

Cultural Resources

Several other categories, including "Trust Resources, "Traditional Knowledges" and Climate risk and vulnerability," also include information about cultural resources. Many plans addressed cultural resources through their discussion of other issues. This reflects the close relationship between cultural resources, tribal and federal rights and responsibilities, and climate impacts. The Department of Interior's (DOI) commitment to "providing avenues for participation and soliciting information on areas of cultural value" is an important step in ensuring that adaptation actions by the DOI do not degrade culturally important areas and the rights of tribes to manage their homelands.

2014 Agency Adaptation Plans	Cultural Resources
Department of the Interior	"Ensure ongoing inclusion of indigenous groups in any EBM implementation by providing avenues for participation and soliciting information on areas of cultural value." (24)
Smithsonian Institution	"The Smithsonian has established new centers for the recovery and preservation of endangered languages through the Recovering Voices initiative, which involves the National Museum of Natural History, NMAI, and Smithsonian Center for Folklife and Cultural Heritage." (5)

Coordination and Partnerships

Eight plans described existing partnerships or plans for coordination in addressing climate impacts. Some plans included tribes only alongside other entities (e.g. state governments). As discussed throughout this report, tribes are often included only alongside other entities. Given that tribes are often marginalized politically, meaningful inclusion of tribes seems unlikely to occur in these instances. However, the Environmental Protection Agency (EPA), Department of Interior (DOI) and US Department of Agriculture (USDA) addressed working directly with tribes in their plans. The EPA described plans for ensuring that partnerships with tribes occur at a regional level in EPA offices. Given how many bureaus and office may fall under each agency, giving direction in climate planning is a practical necessity. Without providing guidance to office, agencies may fail in their goals of partnering with tribes is mutually beneficial, and eases consultation obligations. Similarly, departments may benefit from providing specific guidance to agencies. Given the limited capacity of many tribal governments, federal departments and agencies seeking equitable partnerships should take the lead in ensuring that avenues exist to facilitate meaningful collaboration between the federal government and tribes.

2014 Agency	
Adaptation Plans	Coordination and Partnerships

Department of Commerce	"Through NOP [National Ocean Policy] actions, Federal agencies are working together to support the various national, State, tribal, and local efforts to prepare for, respond to, and mitigate or avoid the degradation and loss of ocean and coastal habitats, water quality, and ecosystems through improved capabilities, proactive stewardship, strengthened research, and enhanced collaboration." (35)
Department of Defense	"Promote deliberate collaboration with stakeholders- across the Department and with other Federal, State, local, tribal and international agencies and organizations in addressing climate change considerations." (10); "identify opportunities to support and encourage smarter, more climateresilient investments by States, local communities, and tribes, including by providing incentives through agency guidance, grants, technical assistance, performance measures, safety considerations, and other programs." (15)
Department of Education	Proposes a "Whole Community approach" to engage partners, including tribes. (10)
Department of the Interior	USGS development of Interagency Climate Change Vulnerability Assessment Registry includes tribal partners.
Environmental Protection Agency	EPA goals include "partner[ing] with tribes to increase adaptive capacity." (12); "On a national level, EPA will work with other Federal agencies to collectively support tribes as they assess their vulnerabilities to climate change and plan and implement adaptation actions. Regional Offices will seek opportunities to work together with other Federal agencies' regional offices to provide strong support to tribes on their particular climate change challenges." (49)
Small Business Administration	"The SBA is committed to collaborating with other federal agencies, as well as partners in States, territories, local communities and tribes, to meet the challenges posed by climate change." (3)
U.S. Army Corps of Engineers	"Española, NM (General Investigation) includes climate trends and projected climate projections in planning sustainable ecosystem restoration for flood risk reduction and watershed management restoration for three Tribes in the Española region of northern New Mexico." (36)
U.S. Department of Agriculture	USDA lists support tribes are providing for climate adaptation through collaborative projects (FS 67)

Specific Agency Actions

A total of eight plans describe specific actions that they will take to help tribes adapt to and prepare for climate change. The Department of Commerce (DOC) describes how they plan to address impacts to tribes, as well as provide summary of existing actions that they're taking. Actions vary in their specificity partly because of the scale being discussed by each plan. For department-wide actions, plans make more general statements. Other plans provide information at a finer-scale (e.g. the Environmental Protection Agency), allowing them to provide more specificity. Several agencies and departments are working to develop documents and other resources for tribes and local governments to aid them in preparing for climate change. Providing effective resources for tribes to address climate impacts may benefit tribes, especially those without the means to create these resources independently. The EPA has incorporated tribal concerns into each of its regions Implementation Plans. This specific action builds consideration of tribes into EPA regional policies. The EPA states that this action will "help ensure that priority tribal adaptation needs are addressed, and efforts to build adaptive capacity within tribes are effective." Agency actions that address adaptation priorities articulated by tribes and build capacity for tribal adaptation actions may lay a groundwork for mutually beneficial and respectful collaboration between federal and tribal governments.

2014 Agency	
Adaptation Plans	Specific Agency Actions

Department of	"NOAA will continue to coordinate climate and related ecological research and services partnerships within the Department and with Department partners to better understand how climate variability and change will affect communities, cultural resources, and ecological processes. As part of this effort, NOAA will continue to host regional outlook forums where useful and appropriate. These forums serve as processes to communicate what we know and understand about regional climate and the potential implications of extreme events such as floods and droughts. A central focus of the forums is to increase engagement emergency managers, natural resource managers and other interested practitioners and the public. The forums will also serve to help connect a range of other federal, state, tribal, and private interests in shared understanding of potential vulnerabilities and risks and options for response." (15)"Effective coordination across federal, state, tribal, and local partners will be critical for this action." (16); "NOAA is co-leading an intergovernmental effort of federal, state and tribal governments to design and implement coordinated actions that safeguard the nation's fish, wildlife and plants and the people that depend on them. The Joint Implementation Working Group was established to promote implementation of the Strategy." (34); "Below are opportunities to support and encourage smarter, more climate-resilient investments by States, local communities, and tribes[goes on to list 10 programs,
Commerce	many of which describe support specifically for tribes]" (36-40)
Department of Health & Human Services	"CDC is developing guidance documents to assist state, local, territorial and tribal health departments prepare for climate change. The guidance includes identifying and minimizing climate-related health impacts among vulnerable populations. One such document, 'Assessing Health Related Vulnerabilities,' was released in 2014." (12)
Department of Housing & Urban Development	HUD will develop toolkits for HUD grantees, as part of their planning they will "Use Disaster Area Response Teams in Indian Country to Prepare For and Respond to Disasters" by "Us[ing] teams in each of HUD's six Area Offices of Native American Programs to work with American Indian and Alaska Native tribal governments, as well as the Department of Hawaiian Home Lands to ensure a coordinated Federal response to potential hazards and disasters. This includes assisting tribes to apply for Imminent Threat grants under ICDBG." (29)
Department of the Interior	"the BIA is taking a regional approach to identification of policy needs, communication, employee training, and tribal focus areas. Once the regions have set priorities and timelines, national priorities will be identified and addressed. The BIA provides both management and technical support for tribes. Starting in 2014, BIA plans to provide support for five tribal liaison positions located at CSCs." (33-34)
Department of Justice DOJ fact sheet	"Identify opportunities to support and encourage smarter, more climate-resilient investments (e.g., via existing funding program) by states, local communities, and tribes" (ii); "Assess budgetary implications of climate related impacts and evaluate whether DOJ funding, investment, or purchasing programs increase its vulnerability to climate change or fail to promote climate-resilient investments by States, local communities, or Indian tribes." (A-5)
Environmental Protection Agency	"Each Program and Regional Office Implementation Plan includes actions to address the tribes' adaptation issues relevant to the Office. The Implementation Plans identify how the Office will work collaboratively with tribes to increase the adaptive capacity of the tribes. This partnership will help ensure that priority tribal adaptation needs are addressed, and efforts to build adaptive capacity within tribes are effective. The Office of International and Tribal Affairs (OITA) will support the efforts of all Offices to consult and partner with the tribes to develop and implement the actions." (53)
U.S. Department of Agriculture	"Climate Change and Tribal Projects" are a series of USDA supported projects with aim to prepare tribes for climate impacts (Adaptation Action Table, 4); FS is learning from and sharing information with tribes to held adapt to climate impacts through its "R&D All Station Climate Change and Tribes Project" (FS 88).
Veterans Affairs	"Currently, VA is recommending sustainability principles to its state, tribal, and territorial grantees." (31)

Summary/Conclusion

Several agencies are making strides to include tribal concerns in adaptation planning. However, more than half of the agency adaptation plans did not include tribes meaningfully. While some agencies may not work with tribes (e.g. US Agency for International Development) directly, this does not account for the low consideration of tribal issues in federal adaptation plans. Even amongst plans with "Moderate" or "Extensive" inclusion of tribal issues, discussion of important issues was often lacking. Most notably, plans displayed an inadequate discussion of the relationship between climate impacts and federal trust responsibility, consultation and the government-to-government relationship. As climate change impacts tribal resources, the federal government will have an increasing responsibility to consult with tribes in climate adaptation actions, when these actions will directly impact tribes and tribal resources. Similarly, as climate change impacts certain resources, the federal government will need to allocate additional resources and infrastructure to ensuring that tribal rights to trust resources are maintained. Throughout the plans, little information was presented that demonstrated tribal issues were a major priority or concern. Plans with "Moderate" and "Extensive" ratings did provide more consideration towards tribal issues. Because each department's obligation to fulfill their trust responsibility, plans should be revised to include a more extensive consideration of tribal issues.

Particular areas of concern include:

- limited understanding of Traditional Knowledges (TKs) and ethical concerns around TKs,
- lack of discussion about the trust relationship,
- little specific information about what support agencies will provide for tribes,
- lack of distinction between tribes and other entities (e.g. state and local governments, non-profit agencies, the general public),
- limited discussion of what constitutes equitable and meaningful partnerships between federal and tribal governments,
- little specific information on resources that will be allocated to tribes for adaptation and mitigation actions,
- inadequate recognition and planning to address Superfund and hazardous waste storage on tribal lands,
- no discussion of how adaptation planning for off-reservation nuclear, military and other hazardous waste management may impact tribal trust resources (e.g. Hanford Nuclear Site and Columbia River Tribes' treaty rights),
- little planning for addressing droughts and water rights issues,
- limited information about how agencies plan to work with tribes to identify tribal priorities,
- limited discussion specifically pertaining to Alaska Natives or Native Hawaiians (many of whom may experience the most severe climate impacts in the nation),
- no discussion of indigenous peoples in US territories or protectorates (e.g. American Samoa)

There are notable areas where the United States is addressing climate change. These efforts include Climate Science Centers (CSCs), Landscape Conservation Cooperatives (LCCs) and USDA Climate Hubs, some of which have significant partnerships with and involvement of tribes. The Administration also launched the Climate Data Initiative, which aims to increase resilience by making climate data more accessible to the public (Whitehouse 2014). Broadening

tribal involvement in and access to federal adaptation planning will require additional efforts. One potential solution is for departments to include an additional planning document focused specifically on tribes to provide guidance across agencies about concerns particular to tribes. Collaboration with tribal parties is also recommended when developing planning documents.

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