VOLUME 8
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TWO TRIBES GET CLIMATE SHOWCASE COMMUNITY GRANTS

Congratulations to the Northern Cheyenne tribe and the Gila River Indian Community on being awarded Climate Showcase Community Grants. The competition was stiff -- 404 local governments and 40 tribes submitted proposals. Unlike local governments, tribes were not required to provide a 50% match.

The Gila River Indian Community in Arizona received $262,124. They plan to hire a climate projects specialist to accomplish selected projects for the tribe. This dedicated climate project staff can implement diverse projects targeted for relevance to the tribe with significant potential emissions reductions. Example projects include a curbside recycling program; promoting the benefits and assisting with deployment of compact fluorescent lighting and green building technologies; and energy auditing and efficiency actions for community facilities.

The Northern Cheyenne tribe in Montana received $200,000. They are partnering with the National Wildlife Federation. Their actions will begin with an updated energy audit for a central community building and implementation of energy efficiency and small scale renewable energy measures. The tribe will promote this project as a replicable model for others in the community, as well as use it as a training opportunity to build capacity.

Stay tuned to the Tribal Air News for more information about these projects, and how your tribe can learn from their experiences.

Five more grants (of 25 to be awarded) remain to be announced. Also, an additional $10 million in funding for the Climate Showcase Community Grants program will become available in late spring 2010. To receive notification when this funding is available, please sign up for this listserv. Additional information on the grants program is available at: www.epa.gov/statelocalclimate/local/showcase/

SCHOOL AIR TOXICS MONITORING: RESULTS FROM THE NEZ PERCE

By Mary Fauci, Nez Perce Tribe

The Nez Perce Tribe participated in EPA's School Air Toxics (SAT) Monitoring Project. The Tribe's Environmental Restoration and Waste Management Division's Air Quality Program collected air samples at the Lapwai High School and Middle School from September 16 through December 9, 2009 following EPA's 1-in-6 day schedule. Samples were shipped to the contract lab, Eastern Research Group (ERG), and analyzed for volatile organic compounds, carbonyls, and PM10 metals. Sonic wind data was also collected and all data were submitted to EPA's Air Quality System by either ERG or EPA.

You can read more on the school air toxics monitoring project at: www.epa.gov/schoolair

EPA is analyzing the monitoring data for all the schools tested, including the other tribal school, Southern Ute. EPA will prepare individual reports for each school, which will identify:

- Levels of air toxics around the school
- Potential for long term health impacts
- Actions that may be needed to reduce exposure to the pollutants

The Nez Perce Tribe's air quality staff had prior experience sampling for air toxics. However, the equipment used in the SAT monitoring was different and required practice to gain sufficient knowledge on how to operate and troubleshoot. Air toxics sampling is challenging and requires attention to detail to avoid costly mistakes.

From the Nez Perce Tribe's perspective the SAT project has been successful.

- Air Quality staff took the two 9th grade science classes on a tour of the monitoring site, explaining how the equipment worked and what was being analyzed.
- Key pollutant concentrations found in the SAT monitoring are comparable to earlier studies.
- EPA and the ERG lab were great in getting the data analyzed and distributed quickly and there were no problems with media delivery or return.

It was a very positive experience working with ERG and EPA on this School Air Toxics Monitoring Project. The Tribe and the community look forward to EPA's evaluation of the long-term health impacts of breathing air in the Lapwai Valley.

Contact: maryf@nezperce.org

Lotus Notes 8.lnk

OPPORTUNITIES FOR INPUT ON REGULATORY ACTIONS

GOLD MINING MERCURY STANDARDS

EPA is planning to propose national mercury emission standards by April 15, 2010 for gold mine ore processing and production facilities under section 112 (c)(6) of the Clean Air Act. The rule will require maximum achievable control technology (MACT) requirements.

Mercury is a naturally-occurring contaminant in gold ore, similar to coal. The amount of contamination varies by location. When ore is thermally processed, the mercury volatilizes out. If uncontrolled, it will enter the atmosphere, can deposit out, enter aquatic ecosystems and contaminate fish.

There are about 23 gold mine ore processing facilities operating in the U.S., with about 17 of these facilities located in Nevada and about 6 in other western states, including Alaska, Montana, California and Colorado.

The public will be provided at least 30 days to review the proposed rule and submit comments to the EPA for consideration in the development of the final rule, which is scheduled for promulgation in December 2010. The proposed rule will be available through the EPA shortly after April 15, 2010.

Contact: french.chuck@epa.gov

The rule will be signed on April 15 and the public may comment for at least 30 days after the publication date. For details see: www.epa.gov/ttn/atw/eparules.html

OZONE DESIGNATIONS UPDATE

EPA's National Tribal Air Designations Workgroup (TADW) is busily working on developing designations materials and guidance of importance to Tribes. In the next several months the National Tribal Air Designations Workgroup (TADW) will be finalizing drafts of Agency documents to update and assist Regional Offices and Tribes within their regions through the current National Ambient Air Quality Standards (NAAQS) designations process for the next designations for ground level ozone.

Designations for the ground level ozone standard are on hold pending the outcome of EPA's reconsideration of that standard. EPA intends to complete the reconsideration by August 31, 2010.

For more information contact your Regional Tribal Coordinator. To find that person, go to: www.epa.gov/oar/tribal/coordinators.html

Documents under development include:

1. White Paper: Clarification on different designation categories and how to use them for the designations processes.
2. White Paper: Tribal Designation Issues specifically for the 2011 Ozone Designations
3. White Paper: Priority Listing for Tribal Designation Issues - What Must Get Done First?
4. Guidance Memo: Tribal Designations Guidance; Memo and Designations Procedures

We expect to have a final guidance memo mailed and posted by the middle of summer 2010. The guidance memo builds on earlier guidance provided by the Agency and incorporates best practices for effective communication and consultation.

Contact: link.tom@epa.gov

NEW SOURCE PERFORMANCE STANDARDS FOR RESIDENTIAL WOOD-BURNING HEATERS

EPA's Office of Air Quality Planning and Standards is developing a proposal to revise the New Source Performance Standards (NSPS) for new Residential Wood Heaters. These standards are scheduled to be proposed in April 2011 and promulgated in April 2012.

Because wood-burning appliances are in frequent use in Indian Country, over the next several months EPA will be meeting with Tribes in various forums to provide opportunities for Tribal input as the rule is being developed.

For questions about when and how to participate in these discussions, email: mccormack.angel@epa.gov

Why is EPA developing these standards?

EPA promulgated the present NSPS for residential wood heaters in 1988. The Clean Air Act (CAA) requires EPA to review each NSPS every 8 years unless it determines "that review is not appropriate in light of readily available information on the efficacy of such standard." If needed, EPA must revise the standards of performance to reflect improvements in methods for reducing emissions. The current body of information indicates that review and revision of the current residential wood heater NSPS are needed to reflect improvements in performance. Also, expanding the scope of the NSPS may be warranted, such that it would apply to additional wood-burning devices that are on the market today.

What new appliances could be subject to these standards?

Markets are expanding and demand is increasing for new residential wood- and other biomass-burning (e.g., corn, switchgrass) appliances, while performance is improving. Given these changes, EPA is considering revising the standards to cover new wood stoves, as well as appliances such as new indoor and outdoor hydronic heaters (wood boilers), new pellet stoves, new masonry heaters, new fireplaces (indoor and outdoor), and new cookstoves.

At upcoming national meetings, workgroup conference calls and other forums, EPA will be discussing with Tribes how the revised standards for new residential wood heaters might impact them. This will provide Tribes with good opportunities for input well before the April 2011 proposal and prior to the open public comment period.

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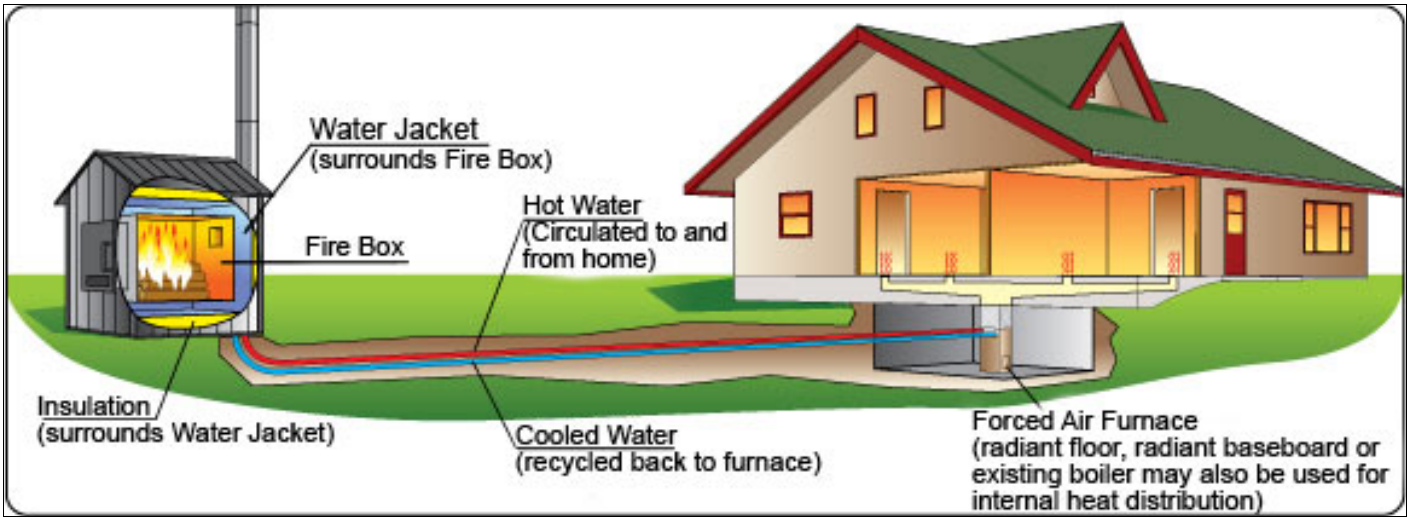


This shows how a wood-fired hydronic heater functions.

What is the NSPS Program?

Section 111 of the CAA, "Standards of Performance for New Stationary Sources," requires EPA to establish federal standards of performance for new sources for source categories which cause or contribute significantly to air pollution, which may reasonably be anticipated to endanger public health or welfare. If it is not feasible to prescribe or enforce a standard of performance, the Administrator may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which reflects the best technological system of continuous emission reduction, taking into consideration the cost of such emission reduction, and any other non-air quality, health, and environmental impact and energy requirements the Administrator determines has been adequately demonstrated. This level of control is commonly referred to as best demonstrated technology (BDT). To determine BDT, EPA uses available information and considers the incremental costs and emissions reductions for different levels of control to determine the appropriate emission limits representative of BDT. The NSPS apply to sources which have been constructed or modified since the proposal of the current (1988) standard. Since December 23, 1971, the Administrator has promulgated 88 such standards and associated test methods. The NSPS have been successful in achieving long-term emissions reductions in numerous industries by assuring controls are installed on new, reconstructed, or modified sources.

Contact: cole.david@epa.gov

Many Tribal members use wood burning devices - often older, wood stoves and fireplace inserts that are not EPA certified- as a significant source of heat in their homes. For example, about 95% of the Makah Tribe's 1700 members living on or near the reservation burn wood to heat their homes and this yields approximately 35 tons of particle pollution into the Tribal air shed. As a result, Tribal members and their neighbors can be routinely exposed to wood smoke – both outdoors, and in their indoor air.

EPA certified wood and pellet stoves emit approximately 70% less pollution than older, conventional wood stoves.

Burn Wise is a partnership program of the U.S. Environmental Protection Agency that emphasizes the importance of burning the right wood, the right way, in the right wood-burning appliance to protect your home, health, and the air we breathe. The Burn Wise website provides information for consumers to make informed decisions about how to make those right choices. State and local agencies will discover ways to improve air quality in their communities through changeout programs and education.

ENTER THE BURNWISE VIDEO CONTEST—APRIL 11

The Burn Wise program is sponsoring a video contest for professional and amateur filmmakers. With the theme "Learn Before You Burn," the winning 30- or 60-second videos will promote responsible wood-burning techniques that can help citizens save money while making the air healthier to breathe. Anyone can enter (children under 18 must get parental permission). Winners will receive cash awards, and their videos will be provided to television stations as public service announcements. Prizes are as follows: first place, $2,500; second place, $1,000; third place, $500 and viewers' choice, a $250 U.S. Savings Bond.

Here's how the contest will work: Information is already available to help filmmakers get started. Then, at noon EST Friday, April 9, EPA will reveal three mystery criteria that must be included in the videos. Final videos must be uploaded to EPA's YouTube channel within 48 hours -- by noon EDT Sunday, April 11. Viewers will vote on their favorite video via YouTube. Everything you need to know is on the contest web site at:

www.epa.gov/burnwise/contest.html

COMPREHENSIVE REGULATORY REVIEW OF THE OIL AND NATURAL GAS SECTOR

Have you noticed the recent abundance of television commercials telling us that natural gas is the bridge to our country's energy future? Natural gas is a cleaner-burning fuel than coal, and may play an important role in the energy and climate issues our country is facing. Another thing you may have noticed is the rapid growth in natural gas exploration, production, processing, and transmission that is indicated by the many wells, processing plants, and compressor stations that have been popping up.

This gas boom is being driven by both the positive outlook for future uses for natural gas and recent activity in the many American shale gas fields. All this activity has resulted in increasing public awareness and concern about potential environmental impacts of these operations.

Tribal consultations will be held in Summer 2010 in the Dallas and Denver areas.

Some oil and natural gas production and transmission operations are subject to New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) under the Clean Air Act (CAA). These regulations are dated, having been promulgated in 1985 and 1999, and are fairly narrow in scope, applying primarily to some gas processing and gas transmission operations. The CAA requires EPA to periodically revisit these rules and update them as appropriate.

WildEarth Guardians and San Juan Citizens Alliance filed a deadline lawsuit against EPA for failure to perform the required rule reviews. As a result of settlement discussions, EPA has court-ordered deadlines for completing these reviews and proposing and promulgating the rules resulting from the reviews by January 31, 2011, and November 30, 2011, respectively.

Although the specific rules requiring review are narrow in scope, we are taking this opportunity to evaluate operations across the entire oil and natural gas industry, from the wellhead to the local distribution company. Our goal is to identify all significant emission points and cover all operations that warrant control. We are using a sector-based, multi-pollutant approach in this review and intend to replace the previous fragmentary rules with a comprehensive, coordinated sector rulemaking covering the entire oil and natural gas industry.

We envision a rulemaking consisting of a single NSPS, a single NESHAP, and a companion Control Techniques Guidelines (CTG) document. This effort will not include refineries, as they are being handled as a separate industry sector on a different schedule.

EPA is now in the data collection phase of the project, which includes surveys, site visits, interaction with stakeholders on all sides, and coordination with other EPA offices and other agencies. As part of our public outreach effort, we will be convening two stakeholder meetings in the summer of 2010, one in Dallas, Texas, and one in Denver, Colorado.

We believe that the oil and natural gas sector is an important issue to Tribal communities. To that end, we plan to conduct at least two Tribal Consultation meetings associated with the summer 2010 stakeholder meetings in the Dallas and Denver areas. We will consider other consultation meetings as needed, and as travel funding allows.

Bruce Moore is Senior Technical Advisor for the Oil and Natural Gas Sector within the Sector Policies and Programs Division of OAQPS. He can be reached by phone at (919) 541-5460 or by e-mail at moore.bruce@epa.gov.

ONLINE CLIMATE ADAPTATION TOOLKIT LAUNCHED

The Tribal Air Monitoring Support (TAMS) Center is pleased to announce the launch of the Tribal Climate Change Toolkit. The mission for the Tribal Climate Change Toolkit is to be a TAMS Center resource for tribes working on climate change adaptation. The Toolkit is broken into three main categories for assistance: funding; education and outreach; and, implementation activities. The funding category includes a search guide to funding opportunities available to federally-recognized tribes from all government agencies through *grants.gov*. The guide also provides Federal Agency contacts for funding assistance.

The Tribal Climate Change Toolkit is a complementary tool to the Institute for Tribal Environmental Professionals' (ITEP) "*Tribes & Climate Change*" website. The Toolkit was developed with the one or two person tribal environmental program in mind. The toolkit offers recipe-style instructions for climate change adaptation projects. Recipes were developed by tribal staff and organizations. Implementation project recipes are available for: agriculture, biomass, construction, geothermal/wave, solar, weatherization and wind implementation activities.

The Tribal Climate Change Toolkit can be found at: http://www4dev.nau.edu/tams/toolkit/index.html

Demonstrations of the Tribal Climate Change Toolkit will be available at:
2010 National Tribal Science Forum
Grand Traverse Resort and Spa,
June 6-10, 2010
And
2010 National Tribal Forum on Air Quality Management and Policy
The Hard Rock Hotel & Casino Albuquerque, Isleta Pueblo
July 13-15, 2010

AIR POLLUTION AND CLIMATE ACTION PLANNING TOOL LAUNCHED

CAPPA
Climate and Air Pollution Planning Assistant

The Climate and Air Pollution Planning Assistant, or CAPPA, was just launched by ICLEI, Local Governments for Sustainability. CAPPA is a decision-support tool that helps communities develop climate and air pollution control strategies by giving them a simple starting place to examine and narrow down the range of options available to local authority. While billed by ICLEI as primarily a climate tool, it's far broader than that. It is especially helpful to evaluate strategies which can address multiple pollutants. An important caveat for this tool is that it is not meant for SIP or TIP planning, as the data is not specific, nor the calculator detailed, enough.

This quick, but thorough, resource provides a library of information for over 100 potential energy, smart growth and transportation measures and can calculate emissions benefits and financial returns for these activities under different degrees of implementation. The tool also helps rank which actions may be most successful for a user community using effectiveness ratings from real world local experience and the user community's priorities and constraints.

Download the tool and learn more at: www.icleiusa.org/cappa

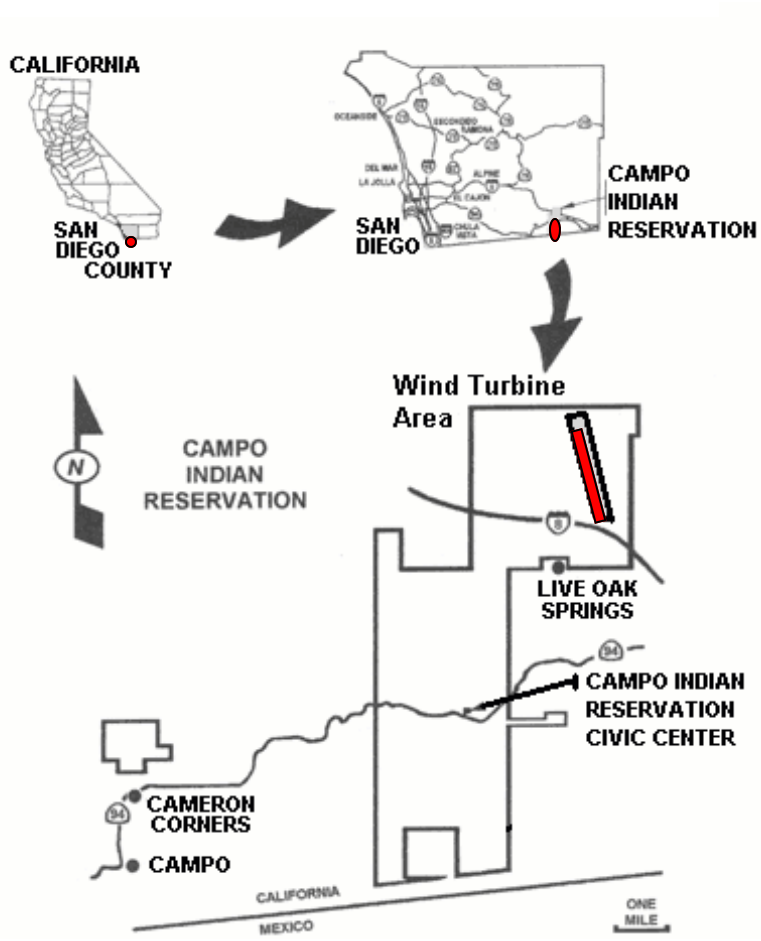
ICLEI
Local Governments for Sustainability

TRIBE TO TRIBE: ENERGY AND CLIMATE

WIND POWER HELPS CAMPO KUMEYAAY NATION THRIVE FOR GENERATIONS TO COME

The Campo Kumeyaay Nation is one of twelve Kumeyaay Bands in the County of San Diego, California. They are a gaming tribe and owners of the Golden Acorn Casino & Travel Center.

Campo Kumeyaay Nation was one of the first tribal nations to join The Climate Registry, as well as to measure and collect data on greenhouse gas emissions in the region.



By Monique La Chappa
Chairwoman, Campo Kumeyaay Nation

Access to higher education, lower rates of diabetes and hypertension, opportunities for meaningful employment, preservation of our culture and traditions. These are goals I had in mind when I was elected to lead the Campo Kumeyaay Nation in 2008. These are goals that most people have for their children and that many government leaders have for the people they serve.

For Campo, achieving these goals is challenging due to our limited economic resources. But, we are not ones to shy away from a challenge. We face challenges head on – and our investments in wind power are just one example.

Our band is at the forefront of national efforts to build a new energy future. The Campo Reservation is home to the largest utility-scale wind project on tribal lands in the United States. A 50 megawatt wind farm, Kumeyaay Wind I was placed in commercial operation in 2005. Kumeyaay Wind I annually produces power sufficient for about 30,000 homes and saves approximately 110,000 tons a year in greenhouse gas emissions. It helps San Diego Gas & Electric meet its target of supplying at least 20 percent of its customers' electricity from renewable sources by 2010.

In November 2008, our General Council approved development of an additional 300 megawatts of wind power on our reservation in San Diego County. In partnership with San Diego Gas & Electric, and Invenergy (a clean energy development company), Campo is jointly developing the first phase – 160 megawatts – of this project, known as Kumeyaay Wind II (KWII).

KWII will be an in-state wind farm serving San Diego County. It will produce enough renewable, homegrown energy to power 54,000 homes each year. The project will also provide benefits for the tribe, such as work for local contractors and crews and the purchase of critical equipment and services from our

The Campo Reservation is home to the largest utility-scale wind project on tribal lands in the United States.

tribe (such as concrete, electrical cable, fuel, sand, energy equipment, and food). KWII will be of the hub of the California South Renewable Energy Zone.

Our investments in wind power enable us to create a better future for our people, for our neighbors in San Diego County, and for Mother Earth. Our sustainable energy practices are based on the Indian saying, "Treat the earth well. It was not given to you by your parents; it was loaned to you by your children." Our wind farms will provide reliable, stable economic development – and a sound financial future is what makes everything else possible.

In January, I gave the traditional State of the Nation address at our General Council meeting. In that address, I asked the Campo people to join me on a journey – a journey of a generation of promise – a journey to prosperity; a journey that will lead our people to a place where we not only survive over the next decade, but we thrive.

Our wind power investments are an important part in achieving the Campo 2020 vision of THRIVE: A Generation of Promise. THRIVE stands for Tradition, Home, Reform, Independence, Voice and Economic development. In 2020, Campo people are prosperous, healthy and safe. Our traditions and culture are thriving and our land is flourishing. People have meaningful, fulfilling employment and economic opportunity. We are governed in true partnership with all Campo people and in a way that inspires trust and confidence. Our spirit is strong. All our children have access to higher education and a chance for high-skill, high-wage jobs. All families feel safe and secure in their own homes and throughout the reservation, and view the reservation as a place they want to call home.

Our journey toward THRIVE may not be easy or direct, but we know it will be powered by wind.

TRIBE TO TRIBE: ENERGY AND CLIMATE

THE SWINOMISH ADDRESS ADAPTATION

SWINOMISH CLIMATE CHANGE INITIATIVE

The Swinomish Indian Reservation is located on the southeastern peninsula of Fidalgo Island, west of the Swinomish Channel and adjacent to low-lying mainland areas to the east. The Reservation regulatory boundary encompasses approximately 7,450 upland acres and approximately 2,900 acres of tidelands for a total of 10,350 acres. Roughly 4,700 acres is forested uplands with surrounding and interspersed urban and rural development. Approximately 7,675 acres are held by the Tribe or Tribal members, with the remaining 2,675 acres held in private non-tribal ownership (Figure 3-2). Tribal headquarters are located in the historic Swinomish Village in the southeast portion of the peninsula, across the channel from the Town of La Conner. Tribal enterprises, including a casino, gas station, and RV park, are located on the north end of the Reservation, adjacent to SR20, a state highway crossing the Reservation. There are upwards of 1,300 homes on the Reservation, and total Reservation population is estimated at approximately 3,000 (over 2,600 as of 2000 census).

Aerial view of Swinomish Indian Reservation (looking northwest)

The scientific evidence of climate change is increasingly abundant and convincing. Warmer global temperatures, melting glaciers, reduced mountain snow pack, rising sea levels, declining summer river flows, and other factors demonstrate such change. The geographic characteristics and coastal location of the Swinomish Indian Reservation place community assets, vital infrastructure, natural resources, sensitive cultural areas, low-lying economic development areas, and community health at risk from projected wide-ranging and long-term impacts of climate change.

The destructive potential of sea level rise was demonstrated in February 2006 when a strong storm surge pushed water levels several feet above normal, resulting in some flooding and damage to property on the Reservation and in La Conner.

The Swinomish Channel separates the Swinomish Reservation (left) from LaConner and mainland (right)

This was followed in November 2006, by a strong winter storm that downed trees and power lines across the Reservation, isolating the Reservation community for three days and prompting plans for evacuation of residents to the local Tribal gymnasium.

Low-lying residential area on the Swinomish Indian Reservation

These events heightened awareness of climate impacts in general, as well as the lack of preparedness within the community to such impacts, and they helped provide a catalyst for action to determine appropriate responses.

In recognition of this, the Swinomish Indian Senate issued a Proclamation in October of 2007 directing action to assess potential climate change challenges and develop appropriate responses.

Following this Proclamation, the Tribe won funding through the U.S. Department of Health & Human Services, Administration for Native Americans (ANA), to support a major new $400,000 Climate Change Initiative.

...while society at large must play a part in climate mitigation, it falls to each community to determine needed action toward adaptation.

While the Tribe acknowledges the need for action toward mitigating the causes of climate change, the approach of this project has been consciously directed toward adaptation actions to counter the anticipated effects of climate change on the Reservation community. This is based in large part on the recognition that, while society at large must play a part in mitigation, it primarily falls to each community and local government to determine needed action toward adaptation. This need is even greater for tribal communities because they are so culturally tied to ancestral lands, as well as financially dependent on the resources. Tribes in coastal areas, especially, are on the front lines of climate change impacts.

Determining proper responses to climate change impacts is essentially a deliberative game of "what-if." *What if* sea level rise eventually threatens to cut off access to the Reservation from the mainland? *What if* higher tides or tidal surges threaten valuable commercial, residential, or infrastructure investments? *What if* dock facilities for fishing or other commercial purposes became unusable? *What if* a serious wildfire broke out in a densely developed area of the Reservation during a searing heat wave? *What if* any or all of these were to happen sooner than predicted? This project attempts to address such critical questions, and this report is the first step toward the answers.

A key partner in the Swinomish project is the University of Washington Climate Impacts Group (CIG), serving as expert scientific advisor. CIG is one of nine Regional Integrated Sciences and Assessment

CONTINUED FROM PREVIOUS PAGE

teams studying impacts of climate change in the United States. CIG staff plays a crucial role in reviewing scientific data, reports, and project documents, advising on the use of scientific data and information in the project, and in identifying probable local impacts and climate change scenarios. Other participants in the Swinomish project include Skagit County, the Town of La Conner, the Shelter Bay Community, and Skagit River System Cooperative, who work with Tribal departments and staff on a project advisory group. In addition, a community advisory group was established to assist in communicating issues to the tribal community and in evaluating and soliciting feedback from the tribal community on issues of interest or concern.

Major products of the Swinomish project are an *Impact Assessment Technical Report*, which was published in the fall of 2009, and a Community Action Plan currently in progress that will contain recommendations for future adaptation options and strategies. To assess the range of impacts and the potential risks posed to human and natural systems, the Technical Report considered several regional climate change scenarios, from low to high impacts, to accommodate the inherent uncertainty in the climate change models and future greenhouse gas emissions scenarios. The scope of this assessment is broad by design to help ensure that this first look at potential issues will be properly comprehensive and will allow for the fullest consideration and prioritization of issues. The Tribe's approach and methodologies to a large extent parallel those in the CIG/King County guidebook, **Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments**, although the Tribe modified process elements of the methodology to suit particular Tribal needs and objectives.

Principle vulnerable areas include shorelines, beaches, low-lying terrain and forests, and the assets within those areas.

As discussed in the Technical Report, the assessment of impacts relied on a comprehensive review of scientific data and reports that detail a wide variety of potential climate change effects, including projected sea level rise, temperature increases, and impacts on water resources, habitat, and marine and upland species associated with sea level rise and temperature increases. For the purposes of the project, projected temperature increases ranged from 3°- 8°F over the next century (about 1.5°- 4°C); the Tribe also modeled "risk zones" for sea level rise and storm surge, allowing for "risk" of up to 5 feet of sea level rise.

Study found that almost every aspect of tribal life and traditions will be affected by climate change. The principal areas and resources within the Swinomish Indian Reservation vulnerable to climate change impacts are shorelines, beaches, low-lying terrain, and forests, along with the assets within those areas. Impacts to some of these vulnerable areas are potentially high within 20-50 years, increasing through the end of the century and beyond.

Tribal tidelands along the west shore of the Swinomish Reservation contain important shellfish beds.

Other areas and resources may have moderate impacts during this timeframe. Significant among these potential impacts are the following:

- Over 1,100 acres of Swinomish Reservation lands, or approximately 15% of Reservation lands, at risk from sea level rise, including the Tribe's agricultural and primary economic development lands.
- 160 homes at risk from sea level rise, with a total estimated value of over $83 million.

- 18 non-residential structures at risk from sea level rise, with a total estimated value of almost $19 million.
- Approximately 2,218 acres of uplands and over 1,500 properties are in a high risk zone for potential wildfire; total value of structures and properties within this zone is estimated to be more than $518 million.
- Vital transportation links and access routes to the Reservation are at risk of inundation, with the potential to isolate the Reservation from the mainland during increasingly high tidal events.
- Beach seining sites and shellfish beds along the west shore of the Reservation, areas of traditional tribal harvest, are at significant risk of permanent inundation and potential loss, affecting important traditional food sources and ways of life.
- The population as a whole, particularly those who are ill or elderly, are at risk of a variety of heat-related illnesses during isolated or extended high heat episodes as average temperatures increase, and tribal members in particular may be at risk of increased incidence of respiratory ailments such as asthma from potential increase in synergistic impacts of pollutants.
- Sensitive cultural sites within low-lying areas may face permanent inundation, and traditional native species may be lost as they are forced to migrate or adapt to hotter, drier climatic conditions.

These reports are intended to lay a solid foundation for assessment of appropriate response strategies, the ultimate intent of which is to provide a well-documented path to actions taken based on such strategy recommendations. The final action plan will also describe areas of recommended or necessary coordination with local jurisdictions where common interests exist between the Tribe and other jurisdictions, and it will examine capacity and funding requirements for implementation. The final report will be shared as a model to assist other tribal governments and jurisdictions in planning for adaptation.

While numerous impacts were ranked as significant, the broad scope of the project and identified issues necessarily limited the depth to which any single issue or group of issues could be examined, and a number of issues warrant further examination. The need for further study, coupled with the expected long-term duration of climate changes, mandates that considered responses will need to be crafted over timeframes much longer than is customary for conventional planning efforts. The extended timeframes needed for planning and implementing responses will present new and possibly unique challenges for those responsible, including how to institutionalize and adapt responses to changing information and conditions over time.

Contact: Ed Knight at eknight@swinomish.nsn.us

The Swinomish Climate Change web site can be found at http://www.swinomish.org/departments/planning/climate_change/climate_main.html, where the Impact Assessment Technical Report is available.

Final publication of the action plan is scheduled for September 2010.

TRIBAL AIR NEWS

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Melissa McCullough (mccullough.melissa@epa.gov)

We're on the Web!
www.epa.gov/oar/tribal

MARK YOUR CALENDARS

- Apr 30: NTF registration deadline
- July 13-15: National Tribal Forum at Isleta Pueblo (outside Albuquerque, NM)
- ITEP trainings: www4.nau.edu/itep/air/training_aq.asp

Tribal Data Toolbox	**Apr 6-June 30**	On-Line
Indoor Air Quality in Alaska	**Apr 13-16**	Bethel, AK
Practical Applications for GIS in Air Quality	**Apr 27-29**	Tahlequah, OK
Management of Tribal Air Programs & Grants	**May 4-7**	Kansas City, MO
Climate Change Adaptation Planning – NEW	**May 18-20**	Ocean Shores, WA
Air Quality System (AQS)	**May 25-27**	Las Vegas, NV
Indoor Air Quality in Tribal Communities	**Jun 15-17**	Minneapolis, MN

2010 NATIONAL TRIBAL FORUM

The 2010 Joint National Tribal Forum / National Tribal Air Association Conference on Air Quality will be held at the **Pueblo of Isleta's Casino/ Hotel in Albuquerque, New Mexico on July 13-15, 2010.**

The joint meeting is a gathering of tribal environmental professionals concerned about air quality in Indian Country. This conference is co-hosted by the Institute for Tribal Environmental Professionals (ITEP) and the National Tribal Air Association (NTAA), and sponsored by the US Environmental Protection Agency Office of Air & Radiation.

NTAA staff will provide opportunities for discussion of budget and policy issues, and ITEP will present education, training, and monitoring updates. Organizers also want to hear from tribes at this conference. As they say, "The more we can do to highlight the good work of the tribes, the more we'll learn from one-another."

All interested tribal environmental professionals, U.S. EPA representatives, and members of national tribal organizations are encouraged to attend. This conference is designed to allow attendees time and a venue to share with, and learn from, one another.

The conference agenda will include: Discussion of EPA's new leadership and air quality management priorities, tribal air program budget forecasts and what tribes can do to make a positive impact; Trends in national air quality and public health impacts; The latest on climate change, the Tribal New Source Review rule, and much more.

For more information on the Forum, go to:
http://www4.nau.edu/itep/air/aq_ntf10.asp
To register online, go to:
https://www4.nau.edu/itep/forms/form_ntf10.asp

Online registration closes April 30.