ASSESSMENT OF NEEDS AND TOOLS TO SUPPORT ACTION

Viccy Salazar
US EPA, Seattle Office
Salazar.viccy@epa.gov
EPA National Tribal Climate Adaptation Workgroup

Leads: OITA, Paige Lieberman and R10, Viccy Salazar

Started in April 2019

Focus

- Research - what are the tribal needs
- Inventory and identify relevant tools
- Determine EPA’s role and develop a plan
- Highlight grant opportunities
Assess: ETEP Review

- Tribes in Region 10: **271**
- EPA-Tribal Environmental Plans (ETEPs) Reviewed: **223**
- Alaska ETEPs: **185**
- WA, OR, ID ETEPs: **38**
Climate Adaptation Priorities Identified

Region 10 Climate Adaptation Priorities

- Ambient Air Quality
- Reduced Water Quality and/or Quantity
- Flooding & Shoreline Erosion
- Public Health
- Infrastructure
- Resilience, Planning, & Preparedness
- Subsistence Resources
- Displacement

[Chart showing percentages for each category, with FY14-18 (221 ETEPs) and FY19 (27 ETEPs) compared.]
### What is included?

In 2019, ETEPS referenced an average of 7 (2014 avg 3.2) All identified by at least one

<table>
<thead>
<tr>
<th>Ambient Air Quality</th>
<th>Wildfires/ Smoke Dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quality</td>
<td>Quality (chemical, acidity/ salinity)</td>
</tr>
<tr>
<td></td>
<td>Quality (biological, e.g., algal)</td>
</tr>
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<td></td>
<td>Quality (physical, e.g. temp)</td>
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<tr>
<td></td>
<td>Quantity/ Availability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flooding &amp; Shoreline Erosion</th>
<th>Shoreline Erosion Coastal Erosion</th>
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</thead>
<tbody>
<tr>
<td>Permafrost/ Sea Ice/ Glacial Melt</td>
<td>Extreme Precip Events (Storms)</td>
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<tr>
<td>Storm Surges &amp; Tidal Action</td>
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<table>
<thead>
<tr>
<th>Public Health</th>
<th>Ambient Air Temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAQ (smoke, mold, moisture)</td>
<td></td>
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<tr>
<td>Disease</td>
<td></td>
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<tr>
<td>Mental Health</td>
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<thead>
<tr>
<th>Infrastructure</th>
<th>Water</th>
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<tbody>
<tr>
<td>Energy</td>
<td></td>
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<tr>
<td>Waste</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resilience, Planning, &amp; Preparedness</th>
<th>Vulnerability Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Education on Climate</td>
<td>CA Planning</td>
</tr>
<tr>
<td>Emergency Response Planning</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subsistence Resources</th>
<th>Loss of Habitat/ Range Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly Impacted Populations (e.g., salmon)</td>
<td>Invasive Species</td>
</tr>
<tr>
<td>Disease/ Parasites</td>
<td>TEK</td>
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<tr>
<td>TEK</td>
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</table>

<table>
<thead>
<tr>
<th>Displacement</th>
<th>Sea Level Rise</th>
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</thead>
<tbody>
<tr>
<td>Permafrost Melt</td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
Climate Adaptation Priorities Identified

Reduced Availability of Subsistence Resources

- Range shift, reduced yield
- Invasive species
- Disease/pests

Proposed Action:
- Document changes
- Remove invasive species

This photo shows the First Salmon ceremony of the Puyallup Tribe.
Photo credit: Matt Nagle, Puyallup Tribal News.
4th National Climate Assessment
Climate Adaptation Priorities Identified

Coastal and Riverbank Erosion

- Storm surge and flooding
- Loss of protection from sea ice
- Increased rainfall

Proposed Action:

- Document changes
- Reinforce riverbank
- Some tribes: relocation

A rock revetment was installed in the Alaska Native Village of Kivalina in 2010 to reduce increasing risks from erosion.

From Figure 15.3, Ch. 15: Tribes (Photo credit: ShoreZone. Creative Commons License CC BY 3.0: https://creativecommons.org/licenses/by/3.0/legalcode). 4th National Climate Assessment

The inset shows a close-up of the rock wall in 2011.

Photo credit: U.S. Army Corps of Engineers–Alaska District. 4th National Climate Assessment
Climate Adaptation Priorities Identified

**Reduced Water Quality**

- Harmful algal blooms
- Ocean acidification

**Proposed Action:**

- Collect baseline data
- Document changes
- Educate community

Phytoplankton bloom off the Pacific Northwest. NASA image courtesy Jeff Schmaltz, LANCE/EOSDIS MODIS Rapid Response Team at NASA GSFC. Caption by Mike Carlowicz.
Climate Adaptation Priorities Identified

Reduced Water Quantity

- Decreased snowpack and streamflow
- Lakes or creeks drying up completely during summer

Proposed Action:

- Document changes

Detroit Lake Reservoir in Oregon at record-low levels in 2015. Photo Credit: Twelvizm, Flickr
Climate Adaptation Priorities Identified

Permafrost Melt

Proposed Action:

- Collect baseline data
- Document observed changes
- Educate community

Melting permafrost in Alaska caused by rising global temperatures. Photo Credit: Andrew Burton/Getty Images
Priorities Not Attributed to a Changing Climate (but we know are connected...)

Air Quality: Road Dust

Proposed Action:

- Apply water or palliatives
- Enforce speed limits
- Create trails around the community instead of through the middle.

Dust often comes from roads or runways where it is kicked up by vehicles, but it can also be picked up by the wind from barren areas.

Photo courtesy of Alaska Department of Environmental Conservation, Division of Air Quality
Priorities Not Attributed to a Changing Climate
(but we know are connected...)

Emergency Preparedness

Proposed Action:

- Develop emergency response plan
- Review existing plans and determine tribal role.
- Disaster resilience and preparedness

Andy Lamebear, a Yurok Wildland Fire Department firefighter and Yurok tribal member, ignites a cultural burn on the Yurok Reservation.

Photo courtesy of the Yurok Tribe. 4th National Climate Assessment
Climate Adaptation Priorities Identified

Region 10 Climate Adaptation Priorities

- Ambient Air Quality
- Reduced Water Quality and/or Quantity
- Flooding & Shoreline Erosion
- Public Health
- Infrastructure
- Resilience, Planning, & Preparedness
- Subsistence Resources
- Displacement

Percentage

FY14-18 (221 ETEPs)
FY19 (27 ETEPs)
RESOURCES
EPA Climate Adaptation Resources

- Climate Indicators
- Climate Research
- Weather and Climate
- Implications of Climate Change
- Climate Ready Estuaries
- Implications in the Water Sector
- Economics of Climate Change
- Environmental Education
- Tribal Greenhouse Gas Inventory Tool

https://www.epa.gov/arc-x
Adaptation Resource Center (ARC-X)

A tailored package of information about:

- The risks that a changing climate poses to the issues of concern selected
- Relevant adaptation strategies case studies illustrating how other communities have successfully adapted to those risks
- Tools to replicate others’ successes
- EPA funding opportunities
- EPA can help you use it for your community

https://www.epa.gov/arc-x
ECOLEARN

ENVIRONMENTAL EDUCATION ENRICHMENT FOR A BETTER TOMORROW
~70 LESSONS
1 HOUR EACH
PRE-SCHOOL — 5TH
AGE APPROPRIATE
EASY TO TEACH
HANDS ON
FUN

- water
- air
- ecosystem
- food
- waste
- energy
- climate change
- animals
- marine debris

Coming soon:
Green Building, Oceans, National Parks
5th Grade: ECOSYSTEMS

ECOSYSTEMS ARE A WEB OF RELATIONSHIPS BETWEEN DIFFERENT ANIMALS AND PLANTS IN ECOSYSTEMS, AND THAT AFFECTING ONE LINK IN THE WEB HAS RIPPLE EFFECTS FOR THE ENTIRE SYSTEM. STUDENTS’ WILL DEVELOP RESPECT FOR THE DIVERSITY OF SPECIES ON THE PLANET AND THE IMPORTANT WAYS IN WHICH ALL LIVING THINGS ARE CONNECTED.
2nd Grade

Climate Change and Weather

Learn the difference between weather, climate, and climate change!
THE WHOLE PACKAGE

1. Introductory Letter to Parents
2. Ecolearn overview for students/youth.
3. 70+ lessons on 9 topics
4. Background material on each topic.
5. 1 – 2 fun activities per lesson.
6. PowerPoint for each lesson.
7. Non-perishable and specialized materials to teach the lesson.
8. Partnership with EPA (internships for older youth)

http://bit.ly/EPAEcoLearn (ask to join), case sensitive
Email salazar.viccy@epa.gov request to join
MUST HAVE A MICROSOFT ADDRESS
Decision Integration for Strong Communities (DISC)

County Level
- Resilience index
- Scenario Builder
- Resource Composite

Data can help you prepare fundable proposals!
Resources

Regional Resilience Toolkit

- https://www.epa.gov/smartgrowth/regional-resilience-toolkit

EPA Environmental Justice Grants

- https://www.epa.gov/environmentaljustice/environmental-justice-grants-funding-and-technical-assistance

Indian Environmental General Assistance Program (IGAP)

- https://www.epa.gov/tribal/indian-environmental-general-assistance-program-gap
- EPA Region 10 GAP Climate Change Workplan Template

Wildfire Smoke Guide – 2019 update

- www.airnow.gov/wildfire-guide
Resources

**Clean Water State Revolving Fund**
- [https://www.epa.gov/cwsrf](https://www.epa.gov/cwsrf)

**Smart Growth Technical Assistance**
- [https://www.epa.gov/smartgrowth](https://www.epa.gov/smartgrowth)

**Disaster Debris Management Federal Resource Guide**

**Air Pollution Training Institute (APTI-Learn) Courses Related to Climate Adaptation**
- [https://www.apti-learn.net](https://www.apti-learn.net)

**Denali Commission (July 2018). Community Resilience in Alaskan Communities: Catalog of Federal Programs**
Resources

Erosion Resources – Creating a Road Map Forward

Clean Diesel Tribal Grants
  ▪  https://www.epa.gov/cleandiesel/clean-diesel-tribal-grants

Wetland Program Development Grants
  ▪  https://www.epa.gov/wetlands/tribal-wetland-program-development-grant-request-applications

FEMA's Pre-Disaster Mitigation Grant Program
  ▪  https://www.grants.gov/web/grants/view-opportunity.html?oppId=320395

EcoLearn Lesson Plans
  ▪  ftp://newftp.epa.gov/Region10/EcoLearn/
EPA’s National Tribal Science Council

The Tribal Science Council is a forum for interaction between Tribal and Agency representatives to work collaboratively on environmental science issues.

The Tribal Science Council is committed to the development of sound scientific approaches to meet the needs of Tribes.
Adaptation and Resilience Publications from EPA’s Office of Community Revitalization

- **Smart Growth Fixes for Climate Adaptation and Resilience: Changing Land Use and Building Codes and Policies to Prepare for Climate Change** (2017)
- **Planning Framework for a Climate-Resilient Economy** (2016)
  - [https://www.epa.gov/smartgrowth/planning-framework-climate-resilient-economy](https://www.epa.gov/smartgrowth/planning-framework-climate-resilient-economy)
- **Creating Safe Growth Strategies for the San Francisco Bay Area** (2015)
- **Enhancing Sustainable Communities With Green Infrastructure: A Guide to Help Communities Better Manage Stormwater While Achieving Other Environmental, Public Health, Social, and Econ Benefits** (2014)
  - [https://www.epa.gov/smartgrowth/enhancing-sustainable-communities-green-infrastructure](https://www.epa.gov/smartgrowth/enhancing-sustainable-communities-green-infrastructure)
- **Flood Resilience Checklist** [https://www.epa.gov/smartgrowth/flood-resilience-checklist](https://www.epa.gov/smartgrowth/flood-resilience-checklist)
Your GAP Project Officer!!
Your most important resource
Many other Federal Resources e.g. USDA Northwest Climate Hub
USDA Programs and Resources to Assist with Adaptation to Climate Change

Introduction:
This searchable guide is a compilation of over 140 USDA programs and resources that provide financial or technical assistance, insurance, or services to assist with adaptation and mitigation of climate change. These programs and resources are accessible to eligible Tribes, Tribal governments, Tribal citizens, farmers, ranchers, forest land owners, businesses, state agencies, institutions, and non-government organizations. This guide has been reviewed and approved by the USDA Office of Tribal Relations.
Disclaimer: Details of programs and resources listed are from the 2014 Farm Bill and will be updated to reflect the 2018 Farm Bill.

Instructions:
Select items from any of the three drop-down lists for Keyword, Eligibility, and/or Category and select the Apply button to conduct a search. Selecting from the Keyword menu alone will maximize results, while adding additional criteria from the Eligibility and/or Category menus will narrow the search and reduce results. Results will appear in table format at the bottom of the page with ten results visible per page and additional pages viewed by clicking the arrow or page number. Click on the program title in the leftmost column to access additional information for each program or resource.

Additional Tips:
If you are interested in climate change adaptation topics related to Conservation, consider using the following keywords: conservation as many conservation practices often double as adaptation to climate change as they aim to build landscapes that are more resilient to climate change.
Human health, consider using any of the following keywords: nutrition, disease, food security, drinking water, and waste disposal.
Rural or remote infrastructure and economics, consider using any of the following keywords: community, housing, infrastructure, extension, and energy.

Keyword
# Tribal Climate Change Funding and Program Guide

Last update: September 18, 2013. The Funding Guide is intended to provide up-to-date information on grants and programs that may assist tribes in addressing climate change through a broad range of sectors. The Guide for Tribes summarizes key U.S. government programs addressing climate change, opportunities for tribal engagement and contacts for each agency. In addition to its immediate value to tribes and their partners, this information will provide a foundation for research on understanding and improving the tribal consultation processes in the context of climate change. You can search this guide with keywords in the descriptions bar, or use the drop-down menus to search by agency or geography. You can refine your search by using multiple drop-down menus and/or search terms in the description category. The DNIF Tribal Climate Change Project at the University of Oregon and the Environmental Protection Agency, Region 10 Tribal Program Office developed this guide collaboratively. We will update this guide regularly, so please check back often. If you have questions or updates for this guide, email: [ttribo@uoregon.edu](mailto:triboi@uoregon.edu).

<table>
<thead>
<tr>
<th>Type</th>
<th>Grant/Program</th>
<th>Agency/Organization</th>
<th>Deadline</th>
<th>Description</th>
<th>Category</th>
<th>Funding Amount</th>
<th>Eligibility</th>
<th>Matching Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant</td>
<td>Coastal and Estuarine Land Conservation Program Grant</td>
<td>NOAA</td>
<td>11/15/2013</td>
<td>The Coastal and Estuarine Land Conservation Program (CELCP) was authorized for the purpose of protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural, undeveloped, or recreational state to other uses. This announcement solicits applications for non-acquisition projects (fee simple interest or conservation easements) that are expected to be completed within 18 months from the start date of the award. NOAA-NOOS-OCRM-2014-003082.</td>
<td>Estuarine Conservation</td>
<td>Varies</td>
<td>Eligibility includes Native American tribal governments (Federally recognized).</td>
<td>Unknown</td>
</tr>
<tr>
<td>Grant</td>
<td>NSF Science, Engineering and Education for Sustainability Fellowship</td>
<td>NSF</td>
<td>11/21/2013</td>
<td>Through the SEES Fellows Program, NSF seeks to advance science, engineering, and education to inform societal actions needed for environmental and economic sustainability and human well-being while creating the necessary workforce to address these challenges. The Program's emphasis is to facilitate investigations that cross traditional disciplinary boundaries and address issues of sustainability through a systems approach, building bridges between academic inquiry, economic growth, and societal needs. The Fellow's proposed investigation must be interdisciplinary and allow him/her to obtain research experiences beyond his/her current core disciplinary expertise.</td>
<td>Education, Research</td>
<td>Unknown; $7,000,000 in total funding</td>
<td>Post-doc, see website for details</td>
<td>Not required</td>
</tr>
<tr>
<td>Grant</td>
<td>BIA 2013 Tribal Climate Change Adaptation Grant Program</td>
<td>BIA, DOI</td>
<td>11/29/2013</td>
<td>This grant is intended to support tribes adapting to climate change. Funds may be used to support adaptation planning, trainings as well as travel and conference planning.</td>
<td>Adaptation</td>
<td>Less than $150,000 per project</td>
<td>Tribes, inter-tribal organizations, non-profits with tribal support</td>
<td>Unknown</td>
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</table>
## Putting it together into your GAP Work Plan

### What are you adapting to?

<table>
<thead>
<tr>
<th>Issue</th>
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<tbody>
<tr>
<td>Fire</td>
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<tr>
<td>Drought</td>
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<tr>
<td>Flood</td>
</tr>
<tr>
<td>Sea Level Rise</td>
</tr>
<tr>
<td>Costal erosion</td>
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<tr>
<td>Food security and access to cultural resources</td>
</tr>
<tr>
<td>Temperature/Heat or Freeze events</td>
</tr>
<tr>
<td>Water Security</td>
</tr>
<tr>
<td>Air Quality</td>
</tr>
<tr>
<td>Health Impacts</td>
</tr>
<tr>
<td>Changes in seasonality</td>
</tr>
<tr>
<td>Permafrost/Snowpack/Glacier melt</td>
</tr>
<tr>
<td>Ecological impacts</td>
</tr>
</tbody>
</table>
What are your Activities

• Climate Vulnerability Assessments
• Climate Adaptation Plans
• Documenting Traditional Knowledge on climate change
• Climate Education
• Youth Programs
• Community Engagement
• Protecting a clean and healthy environment to protect traditional foods.
  • Hazard Mitigation/Resiliency Planning
• Infrastructure related adaptation activities
• Air, Water, Waste, Superfund specific climate adaptation activities

What can you do?
Work Plan Period: Begin: [ ]  End:

Work Plan Component: Climate Change Adaptation Planning, emergency response emphasis

Primary Capacity Area Developed:
- C.3.14 Tribe has developed a climate change vulnerability/risk assessment.
- F.3.9 Tribe has established a program to conduct emergency response training and exercises for community members.
- C.3.19 Tribe has established community outreach/education programs, including air quality advisories.

Long-Term Outcome(s) (Changes in the Environment, Public Health, Behavior, or Knowledge):
- Increased capacity to participate in emergency response programs.
- Enhanced capacity to assess and protect ecosystem and watershed health.

ESTIMATED COMPONENT COST:

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>CAPACITY AREA DEVELOPED</th>
<th>ESTIMATED COMMITMENT COST (optional)</th>
<th>END DATE</th>
<th>OUTPUTS AND DELIVERABLES</th>
</tr>
</thead>
</table>

Communication:
- Quarterly report on progress and climate adaptation activities.

X.6 Coordinate with the local governments, including the City and Borough, the Alaska Department of Military & Veterans Affairs (DMVA) Division of Homeland Security and Emergency Response (DS/SEEM) to either develop a new Emergency Operations Plan or determine what revisions may be necessary in the existing plan. (Coordinator)
- Technical
- Start second 3rd quarter, finish by fourth quarter
- Conference call notes & summaries, gap analysis, and list of needs. Updated or completed plan included in 4th quarter report to EPA.

X.7 Present information about Alaska Youth for Environmental Action to Tribal Council.
- Communication
- 2nd quarter
- Council action on starting a youth environmental program.
**Long-Term Outcome(s) (Changes in the Environment, Public Health, Behavior or Knowledge):**

- Assess potential environmental impacts and develop corresponding adaptation strategies.
- Build Tribal environmental capacity to prepare for climate change impacts through assessment and planning.

**Intermediate Outcome(s) (this work plan period):**

- Tribal Council and Tribal members will better understand potential impacts to human health and their region.
- Tribe will increase its capacity to participate in emergency response programs.
- Tribal environmental program will have the required plans and assessments to access other state and federal programs.
- Tribe will be able to assess and protect ecosystem and watershed and ecosystem health.

<table>
<thead>
<tr>
<th>ESTIMATED COMPONENT COST:</th>
<th>ESTIMATED COMPONENT WORK YEARS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMITMENTS</td>
<td>CAPACITY AREA DEVELOPED</td>
</tr>
<tr>
<td>X.6</td>
<td>Coordinate with the local governments, including the City and Borough, the Alaska Department of Military &amp; Veterans Affairs (DMVA) Division of Homeland Security and Emergency Response (DHS&amp;EM) to either develop a new Emergency Operations Plan or determine what revisions may be necessary in existing plan. (Coordinator)</td>
</tr>
<tr>
<td>X.7</td>
<td>Present information about Alaska Youth for Environmental Action to Tribal Council. (Communication)</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
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</tr>
<tr>
<td>X.1</td>
<td>Gather information on existing planning and assessment efforts at both regional and local levels. (Coordinator)</td>
</tr>
<tr>
<td>X.2</td>
<td>Obtain training in emergency response for Tribal staff and tribal responders. (Coordinator and/or local emergency responders)</td>
</tr>
<tr>
<td>X.3</td>
<td>Work with elders, tradition bearers, knowledgeable hunters and gatherers to gather traditional knowledge of past and existing environmental conditions, such as ice conditions, local animal and plant species, invasive species and other information that will help establish the baseline for the community. (Coordinator, potentially with contractor support).</td>
</tr>
<tr>
<td>X.4</td>
<td>Contact Alaska Youth for Environmental Action (AYEA) to discuss forming a local chapter. (Assistant)</td>
</tr>
<tr>
<td>X.5</td>
<td>Add information about climate to tribal newsletter. Contact regional and national tribal non-profits for information and articles.</td>
</tr>
<tr>
<td>X.6</td>
<td>Coordinate with the local governments, including the City and Borough, the Alaska Department of Military &amp; Veterans Affairs (DMVA) Division of Homeland Security and Emergency Response (DHS&amp;EM) to either develop a new Emergency Operations Plan or determine what revisions may be necessary in existing plan. (Coordinator)</td>
</tr>
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<td>X.7</td>
<td>Present information about Alaska Youth for Environmental Action to Tribal Council.</td>
</tr>
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GAP Climate Adaptation Workplan Template

Contact: Michelle Davis, Devon.MichelleV@epa.gov, EPA Region 10 Tribal Climate Change Advisor

Table 1: General Assistance Program Standardized Work Plan Format

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Enter Tribe’s Name here</th>
<th>Region: 10</th>
<th>Work Plan Period: Begin:</th>
<th>End:</th>
</tr>
</thead>
</table>

Work Plan Component: Climate Change Adaptation Planning, emergency response emphasis

Primary Capacity Area Developed:
- C.3.14 Tribe has developed a program to conduct emergency response training and exercises for community members.
- C.3.19 Tribe has established community outreach/education programs, including air quality advisory system (e.g., climate change).

Long-Term Outcome(s) (Changes in the Environment, Public Health, Behavior or Knowledge):
- Assess potential environmental impacts and develop corresponding adaptation strategies.
- Build Tribal environmental capacity to prepare for climate change impacts through assessment and planning.

Intermediate Outcome(s) (this work plan period):
- Tribal Council and Tribal members will better understand potential impacts to human health and the environment from climate change in their region.
- Tribe will increase its capacity to participate in emergency response programs.
- Tribal environmental program will have the required plans and assessments to access other state and federal programs.
- Tribe will be able to assess and protect ecosystem and watershed and ecosystem health.

Estimate Component Cost:

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>CAPACITY AREA DEVELOPED</th>
<th>ESTIMATED COMMITMENT COST</th>
<th>END DATE</th>
<th>OUTPUTS AND DELIVERABLES</th>
</tr>
</thead>
<tbody>
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Estimated Component Work Years:

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>CAPACITY AREA DEVELOPED</th>
<th>ESTIMATED COMMITMENT COST (optional)</th>
<th>END DATE</th>
<th>OUTPUTS AND DELIVERABLES</th>
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</table>

X.1 Gather information on existing planning and assessment efforts at both regional and local levels. (Coordinator)
- Technical
- 1st quarter
- Presentation to Council, information for beginning emergency response planning.

X.2 Obtain training in emergency response for tribal staff and tribal responders. (Coordinator and/or local emergency responders)
- Technical
- Ongoing
- Completed training certificates.

X.3 Work with elders, tradition bearers, knowledgeable hunters and gatherers to gather traditional knowledge of past and existing environmental conditions, such as ice conditions, local animal and plant species, invasive species and other information that will help establish the baseline for the community. (Coordinator, potentially with contractor support)
- Technical
- Begin 1st quarter
- Complete 4th quarter
- Completed interviews will be kept on CD and on external hard drives for future use. Some will be transcribed to support assessment and planning efforts.

X.4 Contact Alaska Youth for Environmental Action (AYEA) to discuss forming a local chapter. (Coordinator)
- Technical
- 1st quarter
- Formation of local AYEA chapter, meeting minutes included in quarterly report.

X.5 Add information about climate to tribal newsletter. Contact regional and national tribal non-profits for information and articles.
- Communication
- Quarterly
- 4 articles related to tribal climate adaptation activities.

X.6 Coordinate with the local governments, including the City and Borough, the Alaska Department of Military & Veterans Affairs (DMVA) Division of Homeland Security and Emergency Response (DHS&ERM) to either develop a new Emergency Operations Plan or determine what revisions may be necessary in existing plan. (Coordinator)
- Technical
- Start second 2nd quarter, finish by fourth quarter
- Conference call notes & summaries, gap analysis, and list of needs. Updated or completed plan included in 4th quarter report to EPA.

X.7 Present information about Alaska Youth for Environmental Action to Tribal Council.
- Communication
- 2nd quarter
- Council action on starting a youth environmental program.
Thank you!

For any questions and comments, please contact:

**Joel Scheraga**
Scheraga.joel@epa.gov

**Viccy Salazar**
salazar.viccy@epa.gov

**Michelle Davis**
davis.michelleve@epa.gov

Presentations and resources available on FTP Site [ftp://newftp.epa.gov/Region10/EcoLearn/](ftp://newftp.epa.gov/Region10/EcoLearn/).
Tribes in Lower Region 10

Federally Recognized Tribes in Region 10

Legend
- Native American Tribes
- Region 10
- Major Lakes
- Major Rivers

Source: U.S. Census Bureau, 2010 Census Geographies, 2010. Copyright by the U.S. EPA.
Tribes in Alaska