

Climate Change Resources

Developed By Zender Environmental Health and Research Group, a Non-Profit Organization
www.zendergroup.org, updated in 2011

Good Climate Change Information Sites

Site	Address	Information
Impacts of a Warming Arctic, Arctic Climate Impact Assessment (ACIA)	http://amap.no/acia/Highlights.pdf	Good summary with lots of pictures on Alaska Impacts. This has mostly Arctic impacts, but also includes other parts of the state.
UAF's Alaska Climate Research Center	http://climate.gi.alaska.edu/ClimTrends/	Good site for summary of Alaska temperatures and trends
National Oceanic and Atmospheric Administration (NOAA)	http://www.arctic.noaa.gov/essay_bond.html	How and Why scientists study climate change in the Arctic
Scenarios Network for Alaska Planning	http://www.snap.uaf.edu/community-charts http://igloo.atmos.uiuc.edu/SNAP/ Click on top sentence to go to monthly mean (average) temperature, second line links to mean precipitation (rain and snow measured in melted water)	This site uses a standard global climate change model with local historical weather information to predict for your village what the average monthly temperature and rain and snowfall might be up until 2090. This is a model, so there is an uncertainty level- but this is the best prediction for your village at this time using current models
Alaska Climate Research Center	http://climate.gi.alaska.edu/Climate/Locations/Index.html	Historic and current weather information for locations throughout Alaska
Climate Institute	http://www.climate.org/topics/climate-change/index.html	Good info on many climate change-related topics, including the science of climate change, sea level rise, extreme weather, and human health
Alaska Center for Climate Assessment and Policy	http://ine.uaf.edu/accap/	Climate change-related webinars on topics relevant to rural Alaskan communities (choose from list of topics on left side of page).
Alaska Native Tribal Health Consortium	http://www.anthc.org/chs/ces/climate/index.cfm	Informational site of the Center for Climate and Health.
US Global Change Research Program	http://www.globalchange.gov/	The USGCRP coordinates and integrates federal research on changes in the global environment and their implications for society. This site provides an overview of most federally funded research on climate change.
Pew Center on Global Climate Change	http://www.pewclimate.org/	Great overview of the science and impacts of climate change, including adaptation and summaries of the Intergovernmental Panel on Climate Change reports
Foundation for International Environmental Law and Development	http://www.field.org.uk/work-areas/climate-change-and-energy/climate-change/indigenous-peoples-adaptation	A document on "Ways for Indigenous People's groups to advance adaptation concerns and solutions through international fora"
State of Alaska Climate Change Strategy	http://www.climatechange.alaska.gov/	This site has reports from the working groups on climate change Adaptation, Mitigation, Immediate Action and Research Needs for

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Site	Address	Information
		Alaska
US EPA Office of Air, Waste, and Toxics	http://yosemite.epa.gov/R10/TRIBAL.NSF/programs/tribalairprojects/\$FILE/tribal_climate_change_adaptation_report_010610.pdf	A document on "Tribal Climate Change Adaptation Options: A Review of The Scientific Literature"
ITEP Tribal Climate Change	http://www4.nau.edu/tribalclimatechange/index.asp	Resources and information on climate change for different regions of the US, including Alaska. Includes information on the science of climate change, as well as mitigation, adaptation, impacts, policy, and outreach. Also has info on conferences and trainings on climate change issues.
Center for Indigenous Environmental Resources	http://www.cier.ca/information-and-resources/publications-and-products.aspx?id=412	Six guidebooks on climate change planning for First Nations in Canada
Taiga.net	www.taiga.net	There is so much great information here to browse through - though it is Canada-based.
Polar Bears: Listing and watching	USFW's Polar Bear Page http://alaska.fws.gov/fisheries/mmm/polarbear/issues.htm International Polar Bear webcam: http://www.pbcam.org/	Listing of Polar bear as endangered due to climate change may have many impacts.
Arctic Monitoring Assessment Program (AMAP)	http://www.amap.no/	Intl. research program with many good documents. Includes Arctic and Bering Sea coastal communities for Alaska, but not further south or east.
Natural Resources Canada	http://adaptation.nrcan.gc.ca/posters/nu/nu_01_e.php	Climate change in Nunavut, Climate change the basics
NOAA's Climate Change Dictionary	http://www.cpc.ncep.noaa.gov/products/outreach/glossary.shtml	A Glossary of climate change A-Z
NOAA's Breakup page	http://aprfc.arh.noaa.gov/php/brkup/getbrkup.php - all years http://aprfc.arh.noaa.gov/php/rivnotes/searchnotes.php - searchable database for last 3 years	This great site gives local observation Breakup history in Villages throughout Alaska.
NOAA's River, Ice, Snow, Fire Forecasts	http://aprfc.arh.noaa.gov/index.php	Browse around Alaska NWS pages. There is a lot of information. We suggest bookmarking pages that are helpful, as they have so many pages!
Powerpoint presentations	http://www.alaskaconservationsolutions.com/acs/afe.html	PowerPoints on climate change and what is happening from it, from 2007 AFE
Climate Ark - Intro to Climate Change	http://www.climateark.org	This page lists and gives brief science explanations of the all the causes of climate change, as well as graphics. Climate Ark full site is global, not Alaska-specific. Lists hundreds of CC links—probably the most of any website..
Exploratorium Intro and Explanation to Global Climate Change	http://www.exploratorium.edu/climate/index.html	This series of 6 pages with graphics is technical but still straightforward. It also has a dictionary for terms used. You can turn the

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Site	Address	Information
		annoying sound off by clicking "sound off" on the home page.
Exploratorium climate change videos. Note you will need a good connection as these are all videos.	http://www.exploratorium.edu/poles/climate.php	This page has dozens of videos that explain different aspects of climate change. There are some good education videos, as well as training/learning more about the science for environmental staff.
New Scientist's answers to people who are doubting climate change	http://environment.newscientist.com/channel/earth/dn11462	Most of us in rural Alaska know climate change is happening. But if you educate or write to someone who does not know - this is a good site. The blue titles are the "wrong story". Clicking on the blue title will explain the right information.
GAO's ALASKA NATIVE VILLAGES - Villages Affected by Flooding and Erosion Have Difficulty Qualifying for Federal Assistance	http://www.gao.gov/new.items/d04895t.pdf	Not too long and very informative 2004 report. If you are looking for funding or making community decisions on climate change issues, this is helpful to know.
EPA's Tribal Climate Change site	http://www.epa.gov/statelocalclimate/tribal/	Information on tribal climate change action planning, as well as funding

Climate Change Observations and Exchange

Site	Address	Information
Taiga.net's Community-Based Monitoring Project	http://www.taiga.net/coop/community/index.html	This is an example of community observation monitoring. Browse through the whole Taiga.net site, there is a lot of good information.
NOAA Weather Spotter Program NWS Alaska Region	Southeast Communities: http://pajk.arh.noaa.gov/spotter.php Once in the program, you'll be working with the regional NWS office that normally does your forecasts.	You can help the National Weather Service (NWS) help Villages by receiving a short training (online or in person) and start reporting your local weather. Your reports can help forecasters predict weather more accurately and the public can access your local weather observations.
NOAA's photo/video gallery	http://aprfc.arh.noaa.gov/gallery2/main.php	Has some storm and breakup pictures. You can submit your own pictures of extreme weather here as well.
NOAA's National Weather Service list of Village weather stations	http://www.arh.noaa.gov/obs.php	This site has weather data from Village weather stations throughout Alaska
Federal Aviation Administration	http://akweathercams.faa.gov/	Live webcams from around the state, mostly at Village airstrips
AOOS (Alaska ocean observing system)	www.aoot.org	Especially if you are a coastal or near-coastal community, a good site to browse to find links to Alaska ocean and coastal observations and

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		projects. Entire coast. Other Villages should still check this site out to see the pages of interest to them. there are several that include interior information.
Alaska Native Knowledge Network	http://www.ankn.uaf.edu/index.html	Resources including publications, talking maps, curriculum, and cultural atlases for compiling and exchanging information related to Alaska Native knowledge systems and ways of knowing.
American Indian Alaska Native Climate Change Working Group	http://stemrc.aihec.org/envsci/ccworkgroup/default.aspx	Resources on tribal climate change conferences

Funding

There are many potential sources of funding that don't say "climate change". Decide what aspect of climate change you wish to conduct a project on. Climate change can affect almost everything, for example culture, health, air quality, landfill erosion. Then look up at www.grants.gov or look at private foundations that specialize in the aspect you are interested in. Here are a few possibilities:

Grant	Website	Due Date
ITEP's Tribal Climate Change-list of funding opportunities	http://www4.nau.edu/tribalclimatechange/resources/funding.asp	Various
EPA has several grants, including Greenhouse Gases and Climate Impacts, Facilitating Tribal Climate Change Planning and Communicating Climate Change Impacts, and Clean Diesel	http://www.epa.gov/air/grants_funding.html#0713	Various
Alaska Conservation Foundation grants and awards	http://alaskaconservation.org/grant-opportunities/	Various
Rasmuson Foundation (must be geared to an impact they will fund)	http://www.rasmuson.org/	Various.
EPA's IGAP	Contact your project officer.	IGAP will cover many different types of climate change projects. Discuss with your project officer after you have an idea of what you would like to see if it is eligible
Office of Homeland Security Hazard Mitigation Grants, Local Emergency Planning Grants http://www.ak-prepared.com/grants.htm#Homeland%20Security%20Grant%20Program%20Forms	Contact Mark Roberts, mark.roberts@alaska.gov (907)428-7016 Fax (907)428-7009 for Hazard Mitigation, or Emergency planning michelle.heun@alaska.gov, michelle heun, (907)428-7089 Fax (907)428-7009	This office has funded village sea walls. If you are in a situation that imminently threatens the infrastructure, escape route, lives in your village. Try calling these folks and sending them pictures of your situation.
Denali Commission Road Grants	List of road grants: http://www.denali.gov/index.php?option=com_content&view=category&id=4:transportation&layout=blog&Itemid=17 contact mike mckinnon, mgmickinnon@gci.net	One of the priorities are safe evacuation routes - so this is a possibility if you have an road to your port or airstrip that gets washed out. Waterfront roads are also a priority.

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Alaska NRCS Conservation Technical Assistance Program, Emergency Watershed Protection Program, Watershed Protection and Flood Prevention Program	Contacts for your field office are at http://www.ak.nrcs.usda.gov/contact/fieldoffices.html , or call (907) 761-7760	Programs to prevent/mitigate erosion, flooding. The assistance program does not require a match, and the emergency program a match can be waived.
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Listservs and newsletters. When you sign up, you will receive automatic email updates. Some listservs allow email exchange as well. Remember you can always unsubscribe if you don't like the newsletter or updates you get, or you are getting too many!

Climate Change/Global Warming	
Group/Organization	Whom to contact
ITEP Tribal Climate Change Newsletter	To join: email Sue Wotkyns at Susan.Wotkyns@nau.edu
Alaska Conservation Alliance's Alaska Global Warming Group	To join the listserv, send an email to this address asking to join the listserv: ak_globalwarming@lists.onenw.org Sign up for the ACS monthly newsletter on left side of home page http://www.alaskaconservationsolutions.com/acs/index.php Also check this page regularly for their monthly reports http://www.alaskaconservationsolutions.org/acs/monthly-reports.html
AML Climate Change Working Group	Alaska Municipal League is an organization for Alaska's city governments to advocate for and identify local community issues in State-wide policies. The Climate Change Group is open to all local communities - whether you are a Tribal or City representative or interested individual. Email Shana to get on the email listserv for important announcements. Shana Crondahl Alaska Municipal League (907) 586-1325 shana@akml.org
Alaska Center for Climate Assessment & Policy (ACCAP)	Email Brook Gamble accap@uaf.edu or go to https://lists.uaf.edu:8025/mailman/listinfo/accap-l to sign up for ACCAP listserv. Also go to this site to find out information about upcoming and past conference calls http://www.uaf.edu/accap/teleconference.htm
The Collaborative on Health and the Environment Alaska (CHE) and Alaska Community Action on Toxics (ACAT)	Contact ACAT at the following email address: info@akaction.net or call 222-7714 to ask to be added to their email listserv for important announcements on climate change, contaminants, and environmental health. Also see their website for more information http://www.akaction.org/Tackling_Toxics/Alaska/CHE-AK.html
Sierra Club "Hotline" newsletter	Go to their site to sign up for <i>The Hotline</i> twice a month for news updates on the science of global warming http://action.sierraclub.org/site/PageServer?pagename=Signup_Hotline
Joint Alaska Climate Impact Assessment Commission	Sign up for email updates at http://www.housemajority.org/coms/cli/cli_background.php (right side of home page) Public hearings about climate change occur throughout the state. Sign up for updates by email or contact Tim Benintendi, Legislative Staff to: Rep. Ralph Samuels, House Majority Leader and AK Climate Impact Assessment Commission, phone (907) 269-0241 fax (907) 269-0242 email tim_benintendi@legis.state.ak.us for information

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EPA's Global Climate Change Listservs	Sign up for a variety of climate change related listservs at http://www.epa.gov/climatechange/news_listservs.html
Northern Climate Exchange' newsletter on "Weathering Change"	This is a Canadian Yukon Group that focuses on adapting to climate change and its impacts in the north. Relevant for northern Alaska especially, but also has information on climate change and First Nation adaptation and issues relevant to all Alaska Villages. Email: nce@yukoncollege.yk.ca and ask to subscribe to "Weathering Change" newsletter and updates.

Groups that meet in person or by teleconference

Climate Change/Global Warming	
Group/Organization	Notes about conference calls
Alaska Tribal State-wide Air Quality Workgroup	This group holds monthly teleconferences with speakers and discussions on Village Air Quality issues. They also discuss Climate Change Issues that pertain to Villages and Climate/Weather/Dust/Global Source Pollutants that affect local air quality issues. Contact Rose Kalistook at rkalistook@nativecouncil.org to be placed on the announcement list.
Alaska Conservation Alliance's Alaska Global Warming Group	This group meets on a regular basis to work on Global Warming Issues. They have in-person meetings in Anchorage but offer a call-in line for people to attend by phone. For information about the next meeting contact: Kate Troll, Executive Director Alaska Conservation Alliance 810 N Street Anchorage, AK 99501 907-258-6174 kate@akvoice.org How to receive email announcements about their meetings.
AML Climate Change Working Group	Teleconference meetings on climate change issues occur on a semi-regular basis. Contact Shana Crondahl at the Alaska Municipal League at (907) 586-1325 or shana@akml.org to find out about the next calls. Join their listserve and get emails. Find out about AML: http://www.akml.org/
Alaska Center for Climate Assessment & Policy (ACCAP)	Monthly teleconferences occur on a variety of climate change topics. Go to this site to find out information about upcoming and past conference calls: http://www.uaf.edu/accap/teleconference.htm Call in number information: http://www.uaf.edu/accap/teleconference.htm#login Presentations from past conferences: http://www.uaf.edu/accap/teleconference.htm#archive You can also email Brook Gamble accap@uaf.edu to sign up for ACCAP listserv.
Alaska Conservation Solutions	ACS holds Global Warming Workshops from time to time. Check out their calendar for workshop listings and other events, or contact Deborah L. Williams at dlwilliams@gci.net7 or call 929-9370

Reducing the sources of climate change in your homes and community

The amount of global warming gases that Alaska Villages generate will not affect the global changes. However, there are indicators that **reducing emissions at home can slow down local permafrost melt** because you are reducing the amount of dirty snow. Dirty snow warms quickly and melts faster, allowing local permafrost more opportunity to melt. Also, **reducing emissions saves fuel costs and takes out contaminants** from our environment

Site	Web Address
EPA's Climate Change "What You Can Do" site	www.epa.gov/climatechange/wycd/
EPA's Climate change website for kids - We Can Make a Difference!	http://epa.gov/climatechange/kids/difference.html
Environmental Defense - Fight global warming	http://www.fightglobalwarming.com/page.cfm?tagID=135
Sierra Club - What to do about global warming	http://www.sierraclub.org/globalwarming/get_involved/
World Wildlife Fund (WWF) -Climate Change - 12 Things You Can Do	http://www.worldwildlife.org/climate/whatyoucando.html
Stopglobalwarming.com	http://www.stopglobalwarming.org/default.asp
About.com's Top 10 Things You Can Do to Reduce Global Warming	http://environment.about.com/od/globalwarming/tp/globalwarmingtips.htm
Exploratorium's Video on reasons to switch to energy-efficient light bulbs - Good for school education if you have a good download speed there.	http://www.exploratorium.edu/poles/climate.php Scroll down to "Save the World, One Lightbulb At A Time" Date: 12/29/2006. This is a simple demo that shows and tells why energy bulbs work to reduce climate change impacts and save fuel costs.

Calculating your local contribution to climate change	
Site	Web Address
Alaska Conservation Solutions Carbon Calculator for Alaska: Carbon calculators tell you how much CO ₂ , the main global warming gas, you produce. You can see how you compare with the average and then look at ways to reduce your CO ₂ "footprint". This calculator isn't completely accurate for villages, but it is the closest and best calculator available.	http://www.alaskaconservationsolutions.com/acs/akcalculator.html There is also a site in Yup'ik here: http://www.alaskaconservationsolutions.org/acs/yupikcalculator.html
EPA's Climate Change Resource center - calculators, software etc. for estimating greenhouse gas emissions	http://www.epa.gov/climatechange/
DOE's Estimating Greenhouse Gas Emission Reductions from Source Reducing or Recycling Selected Materials	http://www.eia.doe.gov/oiaf/1605/recycle/recycle.html
EPA's Watersheds - What you can do site	http://www.epa.gov/weatherchannel/whatyoucando.html