

ATTACHMENT 2 – BUDGET DETAIL

Table x. Budget Detail for Period of Funding

	Requested	Contributed	TOTAL
LABOR/PI salary: \$65.90/hr @ \$432.5 hours for FY10	\$28,502		
LABOR/Rupp Salary: \$59.56hr @ 80 hrs for FY 10)	\$4,765		
LABOR/Technician Salary: \$53.53/hr @ 778.5 hrs for FY10	\$41,675		
LABOR/Technician Salary: \$53.53/hr @ 778.5 hrs for FY10	\$41,675		
LABOR/Allen NPS Salary: \$4000/month @ 1 week for FY10		\$4,000	
LABOR/Kolden USGS Salary: \$1,692/week @ 3 weeks for Fy10		\$5,076	
LABOR/Miller BLM Salary: \$24.85/hr/ @ 138 hrs for Fy10		\$3,430	
LABOR/Murphy FWS Salary: \$6,000/month @ 0.33 months for Fy10		\$2,000	
LABOR/Olson Salary: \$1633/month @ 3 weeks for Fy10		\$4,899	
LABOR/Other Salary Subtotal	\$116,617		
Commercial air travel:			
Workshop, Olson SEA/FAI	\$600		
Meetings/Focus Groups, FAI/ANC;	\$1050		
3 trips, \$350/trip			
Travel expenses (i.e., meals, lodging):			
- Other: Workshop, Olson, FAI, 4 nights, 5 days; lodging \$75/night, meals \$44/night	\$570		
- Meetings/Focus Groups ANC: 3 trips, 1 night/trip, lodging \$99/night, meals \$44/night	\$579		
Materials and Supplies:			
- Workshop and newsletter supplies	\$750		
Other			
- Costs to conduct workshop and focus groups to discover end-user priorities:			
- Itemize:			
- Audio conference charges	\$300		

- Photocopying and postage for newsletter	\$1,000		
- Photocopying and postage for administering survey	\$750		
- Phone charges for semi-structured interviews	\$500		
- On-line survey tool 4.5 mos, \$20/month	\$90		
- Meeting space rental	\$500		
Total Direct Costs	\$123,306		
Indirect Costs attributable to project (in-house): 17.5% - of total direct costs (if applicable)	\$21,579		
Pass-through indirect costs: 10% - of total direct costs (if applicable)	\$14,489		
Total Contributed Funding all years		\$19,405	\$19,405
Total Requested funding all years	\$159,374		\$159,374

ATTACHMENT 2 – SALARY JUSTIFICATION

Certification to the Joint Fire Science Program Justification of Need for Salary Support

I hereby certify the attached Justification of Need to provide temporary salaries for full-time permanent employee (s) __Sarah Trainor and Scott Rupp _(list name of employee(s)) is necessary and appropriate to enable him/her (them) to fully and directly participate in the proposed project.

Justification:

Dr. Trainor has a 12-month term research position at UAF. Her salary is paid entirely from grants and contracts. She is not a tenure track employee. We request 2.5 months salary and staff benefits for Trainor (see budget detail).

Dr. Rupp has a 9-month tripartite position at UAF. He is responsible for the other 3 months, which are contingent on grants and contracts. We request 0.5 months salary and staff benefits for Rupp(see budget detail).

I understand that salary funding for this/these employee(s) directly involved in the proposed project is temporary and will not be provided beyond the duration of the proposed project.

Signature /s/ 

Date 07/08/2009

Title Dean and Director, School of Natural Resources & Agricultural Sciences and the Agricultural and Forestry Experiment Station Phone No. 907-474-7083

ATTACHMENT 2 – CURRICULUM VITAE

Name: SARAH FLEISHER TRAINOR

Coordinator, Alaska Center for Climate Assessment & Policy
Stakeholder Liaison, Scenario Network for Alaska Planning
School of Natural Resources and Agricultural Sciences and Institute of Northern Engineering
University of Alaska, Fairbanks

Professional Preparation

Mount Holyoke College	Philosophy & Environmental Studies	B.A.	1992
University of California, Berkeley		M.A.	1998
University of Alaska, Fairbanks	Energy & Resources Arctic System Science	Ph.D.	2002
		Post-Doctoral Fellow	2003-2006

Professional appointments

Research Assistant Professor	University of Alaska	2006 - present
Post-doctoral Research Fellow	University of Alaska	2003-2006
Associate Chair, Lecturer, and Research Associate	University of Chicago	2002-2003

Five most relevant publications

- Trainor, S.F.**, F. S. Chapin, III, A. D. McGuire, M. Calef, N. Fresco, M. Kwart, P. Duffy, A. L. Lovecraft, T. S. Rupp, L. DeWilde, O. Huntington, D. D. Natcher (2009) Vulnerability and Adaptation to Climate-Related Fire Impacts in Rural and Urban Interior Alaska. *Polar Research* 28(100-118).
- Chapin F. S. III, **S. F. Trainor**, O. Huntington, A. L. Lovecraft, E. Zavaleta, D. C. Natcher, A. D. McGuire, J. Nelson, L. Ray, M. Calef, N. Fresco, H. Huntington, T. S. Rupp, L. DeWilde, R. Naylor (2008). Increasing Wildfire in Alaska's Boreal Forest: Causes, Consequences, and Pathways to Potential Solutions of a Wicked Problem, 58:531-540. *Bioscience*.
- Natcher, D. C., M. Calef, O. Huntington, **S. Trainor**, H. P. Huntington, L. DeWilde, S. Rupp and F. Stuart Chapin III (2007). Factors Contributing to the Cultural and Spatial Variability of Landscape Burning by Native Peoples of Interior Alaska. *Ecology and Society* 12 (1): 7. [online]URL: <http://www.ecologyandsociety.org/vol12/iss1/art7/>
- Chapin, F. S. III, A. L. Lovecraft, E. S. Zavaleta, J. Nelson, M. D. Robards, G. P. Kofinas, **S. F. Trainor**, G. Peterson, H. Huntington, R. L. Naylor (2006) Policy Strategies to Address Sustainability of Alaskan Boreal Forests in Response to a Directionally Changing Climate. *Proceedings of the National Academy of Sciences*, 103(45) (November 2006): 16637 – 16643.
- Huntington, H. P., **S. F. Trainor**, D. C. Natcher, O. H. Huntington, L. DeWilde and F. Stuart Chapin III (2006) The Significance of Context in Community-Based Research: Understanding Discussions about Wildfire in Huslia, Alaska. *Ecology and Society* 11 (1): 40. [online] URL: <http://www.ecologyandsociety.org/vol11/iss1/art40/>

Five other publications

Chapin, F. S. III, M. Robards, H. P. Huntington, J. F. Johnstone, **S. F. Trainor**, G. P. Kofinas, R. W. Ruess, N. Fresco, D. C. Natcher, T. N. Hollingsworth, and R. L. Naylor. Directional Changes in Ecological Communities and Social-Ecological Systems: A Framework for Prediction Based on Alaskan Examples. (2006) *American Naturalist*, 168 (S6): S36-S49.

Natcher, D.C, O. Huntington, H. Huntington, F. S. Chapin III, **S. Trainor** and L. DeWilde (2007). Notions of Time and Sentience: Methodological Considerations in Arctic Climate Change Research. *Arctic Anthropology*, Volume 44(2): 115-129.

Trainor, S. F. (2008). Finding Common Ground: Moral Values and Cultural Identity in Early Conflict over the Grand Staircase-Escalante National Monument. *Journal of Land, Resources, and Environmental Law*. Volume 28: (2), 331-359.

Trainor, S. F., F.S Chapin III, H.P. Huntington, G. Kofinas, D.C. Natcher (2007). Arctic Climate Impacts: Environmental Injustice in Canada and the United States. *Local Environments: International Journal of Justice and Sustainability*. 12:6, 627-643.

Trainor, S.F. (2006) Realms of Value: Conflicting Natural Resource Values and Incommensurability. *Environmental Values*, 15: 3-29.

Synergistic activities

Co-PI National Oceanic and Atmospheric Administration, Climate Program Office, Coping with Drought Initiative, 2009. Evaluation of Fire Forecast Products to Enhance U.S. Drought Preparedness and Response (0.5 month/year).

Co-PI National Oceanic and Atmospheric Administration, Climate Program Office, Coping with Drought Initiative, 2008. Improving Seasonal Fire Predictions and Information Services in Alaska for Regional and National Fire Resource Planning (http://www.uaf.edu/accap/wild_fires.html) (0.5 month/year).

Co-PI Communicating Climate Change Science in Alaska (unfunded).

Initiated, organized and participated in public symposium disseminating research results from interdisciplinary post-doctoral project: Human-Fire Interactions in the Boreal Forest, Aug. 15, 2006. Fairbanks, Alaska (<http://www.lter.uaf.edu/vignettes/hfi.cfm>).

Initiated, organized and lead public workshop, Planning and Preparing for Climate Change. Nov. 19-20, 2007. Kotzebue, Alaska.

Organize, implement and facilitate monthly, public Alaska Climate Teleconferences (<http://www.uaf.edu/accap/teleconference.htm>, June 2007- present).

Coordinate and implement Alaska Weather and Climate Highlights website (<http://www.uaf.edu/accap/awch/index.htm>, July 2007 - present).

Presented unit lecture for training course RX 310 Introduction to Fire Effects; The Human Interface and Socio-Political Factors. Bureau of Land Management, Alaska Fire Service. September 14, 2006. Fairbanks, Alaska.

Specialized Training

- | | |
|--|------|
| Moderator Training, National Issues Forum | 3/08 |
| Sponsored by Alaska Common Ground, this training provided theory and practice in moderating and recording civic dialogue and democratic deliberation. | |
| Alaska Native Perspectives on Western Science and Environmentalism | 8/05 |
| Training in the similarities and differences in assumptions, epistemologies and world views of these three groups. Emphasis on cross-cultural communication, problem-solving, conflict mediation and cultural diversity. | |

T. Scott Rupp, Director, Scenarios Network for Alaska Planning, University of Alaska, 368 O'Neill Bldg., Fairbanks, Alaska 99775. Phone 907-474-7535, Fax 907-474-6184, Email tsrupp@alaska.edu

EDUCATION:

Ph.D. Forest Ecology 1998 University of Alaska, Fairbanks, AK

B.S. Forest Science 1993 Pennsylvania State University, University Park, PA

RELEVANT WORK EXPERIENCE:

Scott Rupp is the Director of the Scenarios Network for Alaska Planning (SNAP), which provides climate maps and climate projections that managers and policy makers can use to make informed decisions. SNAP was established in 2007 with the mission to link the University of Alaska with government agencies, nongovernmental organizations and industry to help them develop well-informed plans for forests and wildlife resources, communities, transportation, coastlines, and infrastructure. The SNAP program collaborates with the Alaska Center for Climate Assessment and Policy, a NOAA-funded program launched by UAF and UAA in 2006 to engage Alaskans in planning for the impacts of climate change. Other university partners include: the International Arctic Research Center, Arctic Region Supercomputer Center, Center for Global Change and Arctic System Research, Geographic Information Network of Alaska, Geophysical Institute, Institute of Arctic Biology, Institute of Northern Engineering and the Institute of Social and Economic Research. Current collaborative partners include the US Fish and Wildlife Service, USDA Forest Service, Fairbanks North Star Borough, the Nature Conservancy, and the Wilderness Society. Dr. Rupp is also a well-established forest ecologist with specialized experience in ecological modeling. He developed a spatially-explicit numerical wildfire model (ALFRESCO) that is routinely used for controlling and prescribing fires in Alaska. He also adapted the ALFRESCO model to use 21st century climate projections to examine potential changes in the frequency and severity of fires over the Alaska landscape, and their associated effects on wildlife habitats. Dr. Rupp's experiences as Director of SNAP, and his scientific expertise in ecology and modeling, afford an optimal combination of knowledge and perspective for ensuring the success of the proposed project.

REPRESENTATIVE PUBLICATIONS:

- Brubaker, L.B., P.E. Higuera, T.S. Rupp, M. Olson, P.M. Anderson, and F.S. Hu. 2009. Linking sediment charcoal records and ecological modeling to understand causes of fire-regime change in boreal forests. *Ecology*. In press.
- Rupp, T.S., X. Chen, and A.D. McGuire. 2007. Sensitivity of simulated boreal fire dynamics to uncertainties in climate drivers. *Earth Interactions*. 11:1-21.
- Duffy, P.A., J. Epting, J.M. Graham, T.S. Rupp, and A.D. McGuire. 2007. Analysis of Alaskan burn severity patterns using remotely sensed data. *International Journal of Wildland Fire*. 16:277-284.
- Rupp, T.S., Olson, M., Henkelman, J., Adams, L., Dale, B., Joly, K., Collins, W., and A.M. Starfield. 2006. Simulating the influence of a changing fire regime on caribou winter foraging habitat. *Ecological Applications* 16:1730-1743.
- Duffy, P.A., J.E. Walsh, J.M. Graham, D.H. Mann, and T.S. Rupp. 2005. Impacts of the east Pacific teleconnection on Alaskan fire climate. *Ecological Applications*. 15(4):1317-1330

ATTACHMENT 2 – LETTERS OF SUPPORT



United States Department of the Interior



NATIONAL PARK SERVICE

Alaska Regional Office
240 West 5th Ave
Anchorage, Alaska 99501
Office: 907-644-3409 Fax: 907-644-3809

File Code:

Date: July 1, 2009

Joint Fire Science Board of Governors
Joint Fire Science Program
National Interagency Fire Center
3833 S. Development Center
Boise, ID 83705

Dear Board of Governors:

This letter is submitted in support of the Joint Fire Science Program proposal: **Wildland Fire Science Delivery and Outreach in Alaska**, submitted by Sarah Trainor and Scott Rupp under the JFSP Project Announcement No. FA-RFA-09-0004.

As the Regional Fire Management Officer for the National Park Service in Alaska, I am responsible for fire management decisions on over fifty-four million acres of national park lands. As a member of the Alaska Wildland Fire Coordinating Group, I feel this proposal will be of benefit to multiple agencies and provide direct application to management.

Fire research in Alaska has been conducted and continues to be conducted by a number of different entities, including land managers, universities and through the Joint Fire Science Program (JFSP). Many of these studies are intended to assist fire and land managers in the understanding fire behavior, fire hazards and fire effects. However, the results or technical transfer of these studies may be scattered across multiple web sites, journals or may reside as in-house publications that are publicly accessible, but not readily available.

The proposed project will focus on disseminating fire research information through a variety of means. We have successfully used Webinars in other training programs and feel this could be a successful tactic. The consortium will be of benefit to the AWFCG Research Committee and Fire Effects Task Group by formalizing workshops, which in the past have been supported primarily by individual agencies if possible.

I believe that having a formalized consortium in Alaska will improve the dissemination of fire science which is essential to support our fire and fuels management decision-making needs, as well as our wildland fire management planning and implementation activities.

Sincerely,

Dan Warthin



United States
Department of
Agriculture

Forest
Service

Pacific Wildland Fire
Sciences Laboratory

400 N. 34th Street,
Suite 201
Seattle, WA 98103
(206) 732-7800
FAX (206) 732-7801

Date: July 8, 2009

Subject: Proposal for *Wildland Fire Science Delivery and Outreach in Alaska*

To: John Cissel
Program Manager
Joint Fire Science Program
3833 S. Development Ave.
Boise, ID 83705

Dear John:

You are well aware of the efforts the AirFire Team makes at training and delivering the products of our research. JFSP has funded, at least in part, most of that research as well as some of the outreach efforts designed to bring that work to the practitioners who could use it. Yet with all of that support, we still find ourselves challenged to get the tools to many of the people we know could benefit from using them.

Alaska is a challenge we have confronted regularly. It falls within the Pacific Northwest Research Station, which should help, but the combination of its remoteness, size, population density, and largely self-sufficient land management culture have stalled us almost completely.

I have read the proposal for *Wildland Fire Science Delivery and Outreach in Alaska* and I strongly endorse it. I think it has the potential to coordinate the management communities in Alaska and the research communities there and in the lower 48. The initiative taken, and the effort and organization expended by the co-PIs to develop this initial proposal suggest that the modest funds they are requesting from JFSP to further develop a Consortium for outreach would be well spent. The proposal itself shows partnership among researchers and management, and the mechanisms they propose for delivery of the science tools should suit Alaska's unique challenges, as I understand them.

As AirFire Team Leader, I wholeheartedly support this proposal. The Team has discussed it and we hope that it gets funded. We stand ready and willing to participate in the Consortium, to deliver our smoke and fire tools to the community in Alaska.

Sincerely,

Dr. Brian E. Potter
Pacific Wildland Fire Sciences Laboratory
AirFire Team Leader
Phone: (206) 732-7828
Email: bpotter@fs.fed.us



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ANCHORAGE FIRE DEPARTMENT



*Daniel A. Sullivan,
Mayor*

Headquarters
100 East 4th Avenue
Anchorage, Alaska 99501
Phone (907) 267-4936 / Fax (907) 267-4977



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Municipality of Anchorage*

July 7, 2009

John Cissel, Program Manager
Joint Fire Science Program
3833 S. Development Avenue
Boise, Idaho 83705

Dear Dr. Cissel,

The Anchorage Fire Department supports the proposal to develop a fire science outreach and communication consortium for Alaska. As described by Sarah Fleisher Trainor and Scott Rupp of the University of Alaska Fairbanks, this mechanism would improve connectivity between agencies to share and apply fire science research for field implementation. Beyond the list of direct beneficiaries to the consortium, those agencies then extend that knowledge to local communities for neighborhood fuel treatment projects organized through Firewise Communities.

During the last eight years, the Anchorage Fire Department has benefitted from the research done by partnering agencies in Alaska with respect to fire mitigation at the wildland urban interface. Through findings from their research, we have implemented fuel management activities that improve the health of the forest and limit the spread of fire in the most populous area of the state. With a direct avenue to receive new information, we can adopt management strategies on the ground immediately, thereby improving the efficacy of treatments and the accountability of expenses to our federal grantors.

Fuel treatment projects are initiated in response to the dynamic states of interface fire. Interagency communication supports solutions for mitigating fire ignitions and fire spread in the variable fuels of the boreal forest. The existing network supported by FRAMES is very organized and useful. However, contributions to this database are volunteered when scientists have time. Additional outreach through this venue by the consortium would allow greater utility of FRAMES and build upon its database for extension to a wider user group.

In 2003-2004, the Anchorage Fire Department supported a research project coordinated through Dr. Scott Rupp and the University of Alaska Fairbanks. Then Master's candidate Daniel Cheyette initiated the fire fuels assessment across the wildland urban interface in Anchorage that was later used to develop the Anchorage Fire Exposure Model through Geographic Resource Solutions. From this model and Cheyette's fuel models, AFD has prioritized fire mitigation projects throughout the Municipality on public and private lands. Dr. Rupp's leadership in this process was focused on the objective and he was committed to a high quality product that is still in use today.

Thank you for considering this project to be funded by the Joint Fire Science Program. We look forward to partnering with Drs. Trainor and Rupp in furthering fire science application in Alaska.

Sincerely,

Sue Rodman, MS, CF
Forester
Anchorage Fire Department



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Fairbanks District Office
1150 University Avenue
Fairbanks, Alaska 99709-3844
<http://www.blm.gov/ak>



JUL 09 2009

Mr. John Cissel
Joint Fire Science Program Review Board

Dear Mr. Cissel:

I am pleased to write this letter of support for funding from the Joint Fire Science Program for a formal Alaska consortium, the purpose of which would be to develop more efficient mechanisms for technology transfer to improve land and fire management planning in Alaska.

The Fairbanks District of the Bureau of Land Management stretches across the northern half of Alaska, from the west coast at Kotzebue to the Canada border encompassing approximately 59 million acres of public land and state and native selected lands.

The variety of land and resource issues and conflicts over this area are numerous and complex. Fire and fire management are significant issues that affect many communities directly or indirectly, due to smoke and effects on wildlife habitat and subsistence resources as well as potential effects relating to invasive plant species.

Close collaboration between state and federal land and resource management agencies and research partners is necessary to ensure that limited science and research funding is purposefully and properly integrated with current and future resource issues. Funding fire science research with the end goal of developing better information would certainly help land managers make better decisions in our land use plans.

Sincerely,

Robert W. Schneider
District Manager



IN REPLY REFER TO:
NWRS709-0128.JP

United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Road
Anchorage, Alaska 99503-6199



JUL 09 2009

John Cissel
Program Manger
Joint Fire Science Program
3833 S. Development Ave.
Boise, Idaho 83705

Dear Mr Cissel:

The Alaska National Wildlife Refuge System would like to endorse the Proposal for *Wildland Fire Science Delivery and Outreach in Alaska*. Alaska Refuges have over 50 million acres in a fire dependent ecosystem. This proposal to create a consortium to coordinate science delivery efforts and provide an organized, centralized arena for effectively deliverable available fire science information is much needed and we look forward to our participation.

As the Regional Chief of Alaska Refuges, I encourage you to consider this proposal favorably.

For further contact regarding our endorsement please contact Karen Murphy, Regional Fire Ecologist at (907) 786-3501.

Sincerely,

Todd Logan
Regional Chief,
National Wildlife Refuge System - Alaska