

# **Recommended Wildfire Humanities Programs**

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## **1. Executive Summary**

This report outlines several options for collaborations among the Humanities, science, land management, and public concerning wildfire and wildfire policy and education. It critically reviews the need and potential value of various science/management/art/humanities partnerships and programs in hopes of broadening the effective scope of work and communication at JFSP-funded Regional Consortia. Partnerships and programs include creative residencies; conferences, workshops, and symposia; art-science collaborative field studies; community programs and partnerships; and the possibility of a new federal program or department designed to support collaborative humanities and science investigations.

We believe that a cultural transformation and reframing of the wildfire dilemma is necessary, and the humanities are aptly poised to help in this task. The Humanities are where we turn to sort out our relation to the rest of the world, to answer questions such as: What is our role in regards to wildfire and public lands? How and where does our understanding of wildfire ecology conflict and overlap with our societal needs and desires? By what basis do we reconcile the two?

This report documents how the Humanities offer numerous paths to arrive at answers to these questions: sociology, ethnology, anthropology, history, environmental philosophy, environmental studies, environmental humanities, cultural studies, environmental literary criticism; cultural geography, and religious studies. Within these various disciplines is a wide-range of mediums by which humanists can broadcast and deploy their understandings of wildland fire to the greater public, including film, television, web-based media, visual arts, land art, poetry and prose.

Surprisingly enough, this has not happened. We found few programs that exist between wildfire science, management, and arts and humanities. Much of what we did find takes place overseas, mainly in Australia, which appears far more advanced in the environmental humanities than the U.S. Art offers a prime example of the lack of general partnerships: there is a rich diversity of artistic programs, exhibits, and movements associated with environmental issues, especially water and land-use, but there is a notable dearth of artistic engagement with fire as a subject.

That said, there are a number of programs out there that could easily be adapted or adopted wholly by certain Regional Consortia, keeping in mind that the development of Humanities and art programs should be reasonably tailored to the specific regional opportunities and resources at hand, including partnerships, facilities, and personnel. For example, more and more biological field stations, science laboratories, and research centers are inviting and accommodating artists to observe, interact, and integrate with active science. As we explain in our report, a Regional Consortia could create an artistic

residency in an abandoned fire lookout, at once continuing the rich literary tradition writers in lookouts while archiving and promoting the work for their own purposes of public engagement. Or, as demonstrated by the JFSP NW Consortium's recent symposium—Words on Fire: Towards a New Language of Wildland Fire—a diverse group of scholars, land managers, scientists, and artists can convene in public discussion about critical wildfire topics. There are diverse opportunities, just as there is tremendous amount of talent, enthusiasm, energy, and experience out there waiting to be tapped by JFSP Regional Consortia. It is time to do so.

## **2. Introduction**

In the following pages we will outline several options for collaborations among the Humanities, science, land management, and public concerning wildfire and wildfire policy and education. We will also critically review the potential value of these various approaches, in hopes of engaging JFSP Regional Consortia.

Our objectives with this report are twofold:

- We believe that collaborative programs featuring the Humanities can help broaden the scope of work at JFSP-funded Regional Consortia for dealing with fire issues and their publics.
- To urge the adoption of a more holistic awareness of immediate fire issues in particular places and bioregions; and to encourage thoughtful and varied public engagement with those issues.

As we explain below, we believe that a cultural transformation and reframing of the wildfire dilemma seems necessary, and that Humanities may broaden the discussion and lead to such a reframing.

### **About Us**

The Spring Creek Project is a convening organization and think tank based out of Oregon State University that works to connect science and the humanities in conversations regarding sustainability and our place on planet Earth. The challenge of the Spring Creek Project is to bring together the practical wisdom of the environmental sciences, the clarity of philosophical analysis, and the creative power of the written word to find new ways to understand and re-imagine our relation to the natural world. For more information, visit <http://springcreek.oregonstate.edu/>.

## **3. Why Humanities?**

### **2.1 The Second Premise**

The world is heating. Nine of the 10 warmest years on record have occurred since 2000<sup>1</sup>. Higher temperatures are projected to lead to higher large-wildfire frequency, longer wildfire durations, and longer wildfire seasons.<sup>2</sup> At the same time, a burgeoning population increasingly sprawls into and recreates in fire-prone wildlands. The conflation of increased wildfire frequency,

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<sup>1</sup> <http://www.tomdispatch.com/1/26/2012>

<sup>2</sup> "Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity," L. Westerling, H. G. Hidalgo, D. R. Cayan and T. W. Swetnam. 2006.

duration, and season with increasing human encroachment on fire-prone ecosystems is imminent, yet political, managerial, and social responses to these looming problems have been sluggish.<sup>3</sup>

On the assumption that if the general public understood the magnitude of the problems, it would act, scientists and policy makers are looking for ways to speak with one voice, to amplify their voices, to broadcast information more widely. This is seen in organizations like the Joint Fire Science Program (JFSP), whose mission is to “accelerate the awareness, understanding, and adoption of wildland fire science information by federal, tribal, state, local, and private stakeholders within ecologically similar regions.” And yet, so far, the strategy doesn't seem to be working quickly enough.

Why not?

One reason, among many and complex reasons, is that, despite collaborative efforts like JFSP, scientists often still assume that the right scientific information in the right places is enough to move people to action. But any piece of practical reasoning that leads to a conclusion about how we ought to act will have not one, but two premises. The first premise is empirical, based on observation and experiment, grounded in science: this is the way the world is, this is the way the world may soon be. The second premise is normative, based on cultural values and

P1. Descriptive, empirical	This is the way the world <i>is</i> .	ethical norms: here is the collected human wisdom about what is of value, what is worthy, what is our obligation to the future of humanity and the rest of the natural world. From the combination of facts and values, but from neither
P2. Normative, ethical	This is what we value, this is what we believe is right, this is how the world <i>ought to be</i> .	
Conclusion	This is what we <i>ought to do</i> .	

alone, we reach conclusions about what we ought to do.<sup>4</sup>

If this is so, then to achieve cultural change in regard to pressing environmental issues such as wildfire, scientists, land managers, and politicians would be well advised to actively seek partnerships with those who work in the world of the second premise: moral philosophers, religious and spiritual leaders, historians, writers and poets, artists.

For the Humanities are where we explore what it means to be human; they are where we go to determine that which we value, find worthy, and beautiful. Perhaps most importantly in regards to fire, we turn to the Humanities to sort out our relation to the rest of the world, to answer questions such as: how does culture shape human perceptions and attitudes to the natural world? What is our role in regards to wildfire?

An example of how values underlie wildland fire is revealed by JFSP's Oak Woodlands and Forests Consortia, which conducted two regional surveys to rank high priority topics for their Consortia events to focus upon. Their number one “hot” topic was: “*Game Species and Prescribed Fire: This topic focuses on fire effects on species that are harvested for food, recreation, and fur. Both habitat and species life history responses to prescribed fire size and timing will be addressed. Species will include wild turkey, quail, deer.*” This is a direct reflection of how values—what human’s care about regarding wildland fire—and science and policy are interrelated.

<sup>3</sup> Dombeck et al. 2004

<sup>4</sup> Kathleen Dean Moore, See:

[http://www.peopleandplace.net/perspectives/2009/5/26/the\\_work\\_of\\_a\\_writer\\_in\\_a\\_world\\_of\\_wounds](http://www.peopleandplace.net/perspectives/2009/5/26/the_work_of_a_writer_in_a_world_of_wounds)

How and where does our understanding of wildfire ecology conflict and overlap with our societal needs and desires? By what basis do we reconcile the two?

## **2.2 JFSP's role**

Wildfire is an environmental issue with wide-ranging political, managerial, philosophical, existential, and cultural implications, and thus offers an opportunity to transcend traditional disciplines and encourage collaborative ways of approach. Yet wildfire has only rarely been approached or studied in terms of the Humanities. Fire science and policy are immersed in the first premise—this is the way the world is—and the majority of financial and intellectual attention is directed towards empirical studies.

JFSP is a good example of this. Although JFSP “has long recognized that investments made in fuels management and wildland fire science need to be accompanied by science interpretation and delivery,”<sup>6</sup> and has frequently stressed the need to “transform knowledge into meaningful action,”<sup>7</sup> in JFSP’s view, the “ultimate customers” are “the managers.” The majority of JFSP’s energy and resources are spent on “fostering a two way communication process between scientists and those who will ultimately benefit from knowledge gained: practitioners involved in applying fire science on the ground.”<sup>8</sup>

Whereas JFSPs actions are critical and commendable, as both managers and

### **A Note on Matching Programs to Specific Consortia**

A review of JFSP’s “guiding principles” (italics added) gives credence to the idea of developing support for Humanities and art programs within JFSP Regional Consortia

1. *be inclusive*, making sure all relevant partners have the opportunity to be involved,
2. serve as neutral science partners,
3. be customer driven, both in how they are structured and how they function,
4. *operate collaboratively*, fostering joint management and science communication,
5. *be innovative, pursuing new and creative ways to disseminate knowledge*,
6. facilitate the flow in fire science information, dialogue of new science findings, and needs of resource managers and policymakers.

However, the development of Humanities and art programs should be reasonably tailored to the specific regional opportunities and resources at hand, including partnerships, facilities, and personnel. As detailed in Fire Science Digest Issue 11, “While all consortia face similar challenges and are adopting similar approaches to address them, each one has also forged a variety of tools tailored to address specific needs and build upon the existing partnerships and resources in their areas.” As pointed out in the JFSP Supplement Proposal for *In a Time of Change: The Art of Fire*<sup>5</sup>, the first art/science program funded by JFSP, “In any program, it is up to the fire managers and scientists to determine how they would like to use art in their public communication strategies and by what methodology they wish to facilitate the artist’s involvement.” This sense of freedom is reinforced by the fact that, as quoted in the same Fire Science Digest, the regional consortia were given free rein to devise unique approaches and encouraged to think outside the box.

<sup>5</sup> [http://www.firescience.gov/JFSP\\_funded\\_project\\_detail.cfm?jdbid=%24%26Z04V0%20%20%0A](http://www.firescience.gov/JFSP_funded_project_detail.cfm?jdbid=%24%26Z04V0%20%20%0A)

<sup>6</sup> Barbour, 2007, “Accelerating Adoption of Fire Science and Related Research”

<sup>7</sup> Fire Science Digest Issue 11 pg 2

<sup>8</sup> Fire Science Digest Issue 11 pg 2

“practioners” serve undeniably important roles, the ultimate customers may well be the public. Increasingly, both scientists and land managers recognize that learning to live with fire remains primarily a social issue that will require not just greater political leadership and agency innovation, but public involvement and community responsibility.<sup>9</sup> For example, according to Pamela Lichtman, “Land managers and ecologists generally agree that the 1988 fires in the Greater Yellowstone Ecosystem were an ecologically important part of a natural disturbance pattern and that little could have been done to stop them. For policymakers, however, the fires were a major public relations failure. Land managers and ecologists need to understand how citizens' and politicians' view of wildfire as a crisis can undermine the stability of natural resource agencies, then find ways to build support for natural fire.”<sup>10</sup>

Yet much of the reason behind why citizens and politicians view fire in such a negative light is because of the way it has been framed. Researchers from multiple literatures have demonstrated that how and by whom topics are framed greatly influence how the public acts toward a particular issue<sup>11</sup>. It is in no small part due to the fact that fire has been framed solely in terms of a technical, political, and scientific matter that the general American public is either unconcerned with wildfire or views it as destructive force.

Faced with a world of increased fire and human population, we can no longer afford to frame the issue of wildfire solely in terms of overcoming deficits in scientific knowledge; we need to think in terms of how to best act on and distribute the knowledge that we already know (or, to cite one of JFSPs “Guiding Principles,” how to “be innovative, pursuing new and creative ways to disseminate knowledge.”) We can no longer concentrate the majority of our resources on gleaning further insights into fire behavior; we need to concentrate more fully on human behavior and values, on the choices we want to make regarding fire, or, as Tom Griffiths points out, “our ability to initiate, advocate, and absorb radical shifts in desired lifestyles, values and technology.”

We need to re-frame the issue of fire in terms of the Humanities.

### **2.3 Reframing the Issue**

Or perhaps the issue is not one of shifting frames but of widening the frame to bring cultural, historical, and theoretical knowledge to bear on the issue of wildland fire. Perhaps “frames” is not as good a metaphor as a balance: we need Humanities as a counterbalance to the science. We need to create or simply open conduits that allow the Humanities to inform and enrich scientific and managerial practices. In lieu of the facts that most wildfire occurs on public lands, that wildland fire appropriations of taxpayer dollars are routinely topping \$1 billion annually, that a high percentage of wildfires are started by humans, and that the overwhelming percentage of ecosystems in which wildfires occur have been dramatically impacted and altered by anthropogenic effects, it is clear that wildfire is a cultural phenomenon. According to Stephen Pyne, we choose to deal with such phenomena “according to a confusing welter of values, choices, accidents, institutions, knowledge, perceptions, and misinformation for which the Humanities are aptly equipped to explain and advise.”<sup>12</sup>

How, exactly?

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<sup>9</sup> Dombeck et al 2004

<sup>10</sup> Pamela Lichtman, “The Politics of Wildfire: Lessons from Yellowstone,” *Journal of Forestry*, Volume 96, Number 5, 1 May 1998, pp. 4-9(6)

<sup>11</sup> Davis 2006; Entman 2004; Bell 1994

<sup>12</sup> <http://nationalhumanitiescenter.org/tserve/nattrans/ntuseland/essays/fireb.htm>

Humanities approach subjects using methods that are primarily analytical, critical, or speculative, as distinguished from the mainly empirical approaches of the natural sciences.<sup>13</sup>

- **Sociology:** A sociological slant on wildfires allows us to see how we “frame” issues. For example, in his study of natural disasters, the American social scientist Kenneth Boulding, observed that humans have always tended to regard disaster control as ‘a problem in engineering rather than in sociology.’ This is exactly the case in regards to wildfire. Sociological method allow us to gain important information on cultural responses to fire, for example, a number of sociological studies concerning wildfire are currently underway in Australia, focusing on “Understanding Risk” (“Community Expectations.” “Risk Assessment and Decision Making,” and “Social Construct of Fuels in the Interface.”) and “Communicating Risk” (“Human Behavior under Stress” and “Psychological Preparedness for Bushfires”)
- **Ethnology:** Oral histories are rich sources of information, as is documented by the MA thesis “Using Oral Histories to Document Changing Forest Cover Patterns: Soap Creek Valley, Oregon, 1500-1999”<sup>14</sup> or the Australian program titled “Marysville Black Saturday Bushfire Survivors' Experiences of Preparedness, Survival, Attachment, Loss, Grief, Resilience and Recovery.”<sup>15</sup>
- **Anthropology:** Nowhere else is the overlap of scientific and Humanities-based disciplines as evident as it is in the field of Traditional Ecological Knowledge (TEK), especially, in this case, the study of traditional and current use of fire by native peoples.
- **History:** including the history of science, the history of anthropogenic fire use and suppression.
- **Environmental Philosophy:** environmental ethics, ontology, the philosophy of science, and the philosophy of technology.

It is an unfortunate yet unavoidable fact that scholars tend to examine a subject through their own isolated, narrow, and restrictive disciplinary lenses. Yet environmental/cultural problems like wildfire cannot be solved by specialized reflections alone. In fact, fire is exactly the sort of ecological question that invites the collaborative resources of disciplines.

It should thus be noted that academic Humanities are further along than many other fields in terms of cross-disciplinary research. This is exemplified by the burgeoning fields of environmental studies, environmental humanities, cultural studies, environmental literary criticism; cultural geography; environmental ethics; and religious studies.

Within these various disciplines is a wide-range of mediums by which humanists can broadcast and deploy their understandings of wildland fire to the greater public, including film, television, web-based media, visual arts, land art, poetry and prose. All of these modes of communication provide varied venues and levels of exploration into how ecological relationships and identities are lived and imagined. This reiterates the point that artists and humanists offer the chance for primary investigations using “relational analytic skills essential to the investigation of seamless phenomena such as time-space, nature-culture, and an organism-and-its-environment; and (the) insights of holism, eclecticism, synthesis, connectivity, poetry, narrative, storytelling.”<sup>16</sup>

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<sup>13</sup> <http://en.wikipedia.org/wiki/Humanities>

<sup>14</sup> Using oral histories to document changing forest cover patterns Soap Creek Valley, Oregon, 1500-1999;” Bob Zybach, Thesis (M.A.I.S.)--Oregon State University, 2000.

<sup>15</sup> [http://www.bushfirecrc.com/managed/resource/2011\\_poster\\_david\\_barton\\_2.pdf](http://www.bushfirecrc.com/managed/resource/2011_poster_david_barton_2.pdf)

<sup>16</sup> Tom Griffiths “The Humanities and an Environmentally Sustainable Australia”

## 2.4 A movement to be tapped

In seeking collaborations between fire science and arts, we are aiming not simply at increased synergies between arts/humanities and sciences, but at initiating and advocating changes in human awareness and behavior. And, as the writer Leslie Marmon Silko has said, “The way you change a human being and human behavior is through a change in consciousness that can be effected only through literature, music, poetry—the arts.” (This is not an uncommon point; take Bill McKibben, referring to climate change: “We need a big movement, and big movements come from beauty and meaning, not columns of statistics.”)

Yet it is exactly here that the relationship and engagement between arts/humanities and wildfire most lags—while the arts have had much to say on human’s role in and against nature, they have had little, very little, to say about wildfire itself. This is incredible, and bears investigation.

The disciplines of science and art have been regarded as distinct since Snow’s famous “Two Cultures” lecture. Thus science and art offer two parallel currents of human engagement with issues

(like wildfire) that fall within the human-environmental nexus. (This is, of course, reductive, there are actually innumerable such engagements, as many engagements as there are issues, and the currents are not parallel, but often merging, running atop one another, into one another, and often braiding back and forth.) But, nonetheless, it is striking how often the two are conducted as distinct investigations.

It may behoove us here to spend some time exploring the other current—the rich, dynamic world of environmental art—in hopes it can be tapped, or that the gap between fire and art can be bridged. Art is naturally drawn to the nexus of the human-natural, and there is a rich diversity of artistic programs, exhibits, and movements associated with environmental issues. “Environmental Art” is in fact a tangled and frequently overlapping landscape of terms, from soundscape art to landscape art to earthwork to “art-in-nature” to ecovention to ecoart to landart, all with various subtleties and permutations.

Varied in form, Environmental Art is equally varied in intention. Environmental Art can both engage with ecology and simply highlight an aesthetic aspect of the environment. Some is completely dependent on one person’s particular vision and self-expression and does not, in general, encourage or inspire wide-spread ecological awareness and activism; other art focuses

To list but a sample of the extensive and diverse websites and organizations dedicated to environmental art:

- **Art and Science Collaborations Inc.** <http://www.asci.org/>
- **Greenmuseum.org:** An online museum of environmental art and a “giant collaborative art-making tool.” <http://greenmuseum.org/>
- **Nevada Museum of Art’s “Art + Environment”:** *Art + Environment* explores contemporary art, architecture, and design and its intersections with environment, nature, landscape and place in support of the practice, study and awareness of creative interactions between people and their natural, built, virtual environments. <http://artenvironment.ning.com/>
- **Climarte:** an independent not for profit body that harnesses the creative power of the Arts to inform, engage and inspire action on climate change. <http://www.climarte.org/>
- **Intersections of Art, Technology, Science & Culture -** <http://userwww.sfsu.edu/~infoarts/links/wilson.artlinks2.bio.html>:

less in aesthetic qualities and on larger social and ecological implications, especially restoration, sustainability, and direct activism.

There are overlaps and commonalities, however. On a basic level, much of what we're calling "Environmental Art" evolved from simple depictions of landscape and into full engagement with that landscape. Much of it is ephemeral (made to disappear or transform) and designed for a particular place (and thus can't be moved). Environmental artists use a range of mediums, from garbage to litter to coal-mine wastewater to bonsai to natural objects like wood and shells and mangrove seeds to technological objects like computer screens and farm machinery.

In these artist's explorations of notions (and the way these explorations raise awareness) of resilience, reconciliation, harmony, chaos, synergy, sustainability, and place, there are enormous overlaps, both literally and symbolically, with issues of wildland fire. But again: despite the staggering potential of this medium in regards to fire, there is a notable dearth of artistic engagement with fire as a subject.

All this to say: there is tremendous amount of artistic talent, enthusiasm, energy, and experience out there in regards to artistic engagement with complex natural phenomena, just waiting to be tapped by JFSP Regional Consortia.

## **2.5 A note on resistance**

In his essay *SmokeChasing* (in *Ideas*, Vol. 6, No. 2, 1999) Stephen Pyne the world's foremost authority on anthropogenic fire use, remarked "I would like to be able to say that...the subculture of wildland fire recognized the contributions of historians (in particular) to its ambition, that a larger world of political economy appreciated that it could not address the purposes to which it might put its monies and machines without appeal to humanistic scholarship, that this larger world admitted that technology could enable but not advise, that science could advise but not choose, that ultimately it would need the vitality and rigor of philosophy, literature, and history if it were to choose wisely. In fact, these were the last things they wanted."

It may be that adopting Humanities perspectives and methodologies to clarify issues inherent in wildland fire is simply out of the conceptual frameworks of the majority of the fire scientists, land use managers and policy makers who have dominated the issue. It may simply be engrained and reflexive personal and professional bias: scholars tend to examine a subject through their own disciplinary lenses.

For example, in the course of our research into Humanities and art engagements of fire issues, we came across a program designed to raise awareness of wildfire in Australian kindergartens. The educational methods introduced by "Blazer to the Rescue"—puppetry—is, in many ways, cringingly emblematic of a program that would be resisted or dismissed, in that not only is it likely to be almost reflexively considered by many in the scientific and policy worlds as not just childish (which of course it is, being designed for children), but as representing the ineffective and fruity hogwash that artists and humanists contribute to the subject in lieu of practical management recommendations. This outlook is both personal and institutional, spanning from "What, are we going to throw mimes on the fire?" to a more widespread conception of literature, as Llosa points out, as "a dispensable activity, no doubt lofty and useful for cultivating sensitivity and good manners, but essentially an entertainment, an adornment that only people with time for recreation can afford."

This is as understandable a reaction as it is unfortunate. Because of course neither mimes nor marionettes are going to be effective in fighting fire or developing the complex and adaptive

policies we need to live in harmony with as dynamic and integral a process as fire. But we cannot afford to dismiss the arts, no matter the medium; Bertolt Brecht once said he didn't want people to leave his plays thinking about *theater*, he wanted them to leave his plays thinking about the world. And, as far as education and outreach go, for both children *and* adults, mimes and marionettes may be just as, if not more, effective in presenting or affecting the general public's thoughts and outlooks on wildfire than, say, "Binomial Optimization and Regression Downscaling" displays or the jargon-strewn texts that dominate fire-science literature.

Of course, these are like comparing apples and oranges, and that is exactly the point: the situation requires not one or the other, but using every means at our disposal to reach every audience we can; to view storytelling and poetry, observation and experiment, myth and mathematics as authentic and complimentary windows on the world.

## **4. Creative Residencies**

A promising model of the integration of arts/humanities and fire science is that of the artist residency. As is described in an essay "The Convergence of Art & Science,"<sup>17</sup> "Artists' residencies have always served as "research and development" laboratories for new creative work, of which the sciences have long understood the value. The residency environment is also particularly well-suited for collaboration and synergy between often disparate-seeming

Science-based stations or programs that host artistic residencies and/or facilitate interdisciplinary work between art and science:

- The Kavli Institute for Theoretical Physics
- NASA's Jet Propulsion Laboratory
- The Santa Fe Institute
- CERN (the European Organization for Nuclear Research)
- The Stanford Linear Accelerator Center (SLAC)
- The Exploratorium
- STUDIO for Creative Inquiry at Carnegie Mellon University in Pittsburgh
- The Huyck Preserve and Field Station
- National Science Foundation Antarctic Artists and Writers Program
- The Art-Science Program at the Mediterranean Institute for Advanced Studies in Marseille

disciplines."<sup>18</sup>

This is borne out by the fact that more and more biological field stations, science laboratories, and research centers are inviting and accommodating artists to observe, interact, and integrate with active science.

For example, the U.S. Forest Service, Aldo Leopold Foundation, and the Rocky Mountain Land Library recently combined to create a writer-in-residence program at the Aldo Leopold house in Tres Piedras, New Mexico.

Creative residencies are springing up across the nation: from the Bob Marshall Wilderness to the Tongass National Forest. This trend is already firmly ensconced within the National Park Service: at least 29 units of the National Park System offer artist-in-residence programs. Those accepted range from visual artists and photographer to sculptors, composers, and writers. The

<sup>17</sup> Caitlin Strokosch Glass, the Alliance of Artist Communities, April 2005, [http://greenmuseum.org/generic\\_content.php?ct\\_id=227](http://greenmuseum.org/generic_content.php?ct_id=227)

<sup>18</sup> For example, the Art-Science Program at IMERA, the Mediterranean Institute for Advanced Studies in Marseille, has hosted artists that have collaborated with: primatologists, climatologists, plasma physics, nano-scientists, geographers, neurobiology, cognitive sciences, virtual reality lab, complex network physics, hydrodynamicists, dynamical complex networks, and sociologists.

National Park Service attests to the importance of this program by saying: “Artists have had a long-standing impact on the formation, expansion and direction of our national parks. Painting the landscapes of the American West, visual artists like George Catlin and Albert Bierstadt focused attention on natural wonders in the western landscape, then unfamiliar to the eastern populace.”<sup>19</sup>

For this very reason—bringing unfamiliar landscapes and environmental issues to the greater populace—we believe there is great potential for a series of creative residencies within JFSP Regional Consortia.

### **3.1 Case Studies**

#### **Long Term Ecological Reflections**

An example of a successful artist residency in a scientific field station that could serve as a model for adoption by JFSP Regional Consortia is The Long Term Ecological Reflections Program at the H.J. Andrews Experimental Forest and LTER site. The LTER Reflections program, a collaboration between the Andrews Forest Long-Term Ecological Research group; the Spring Creek Project for Ideas, Nature, and the Written Word; and the USDA Forest Service, has hosted a writing residency for almost ten years.

Creative writers whose work in any genre reflects a keen awareness of the natural world and an appreciation for both scientific and literary ways of knowing are invited to apply for one- to two-week residencies at the H.J. Andrews Experimental Forest. The residencies are intended to provide concentrated time for personal creative work that promises to further the exploration of the relationship of humans to the rest of the natural world. While writers are allowed complete freedom to pursue this creative work, they are asked to attempt to pair up with any of the many research scientist individuals or teams. More than one hundred scientific studies are currently under way at Andrews, focusing on the role of forests in protecting water quality, controlling stream flow and sedimentation, cycling and storing carbon, providing habitat for wildlife, etc., offering a rich, varied, and dynamic source of material and collaboration. The purpose of this is to test ways by which writers and forest scientists might collaborate to further the work of helping people imagine and understand their relation to the forest and to the whole of nature.

The writer’s responses —poems, stories, essays, field notes, journals—have been added to the data, technical reports, scientific papers, aerial photographs, statistics, and maps and help present a more comprehensive vision of the Andrews Forest. Furthermore, each resident is asked to contribute copies of their work towards a collection to be gathered in permanent archives at Oregon State University. The writings are also accessible via the web-based *Forest Log*, which, like the LTER program, has been designed to span hundreds of years. Residents have published their work in a wide range of books, literary journals, and popular magazines, including *The Atlantic*, *Orion*, *OnEarth*, and *Trickhouse*.

#### **An Alternate Model: Fire Scientists at Artist Colonies**

Thus far we have presented examples of artists residing in scientific research and field stations, but the reverse could be just as effective: scientists going to artist communities. What if fire scientists “resided” at an artist colony for a few days to a week, leading fire field trips, presenting fire ecology, interacting and sharing with artists, and maybe even scribbling a few haikus herself?

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<sup>19</sup> [http://www.nps.gov/romo/supportyourpark/artist\\_in\\_residence.htm](http://www.nps.gov/romo/supportyourpark/artist_in_residence.htm)

Undoubtedly, this may be difficult. Artists are often willing to enter the world of scientists, seeing it as a rich source of inspiration.<sup>20</sup> Scientists, on the other hand, may be less inclined to enter an artist community. But what if JFSP funded them to do so, or, as “Communications Director,” that was part of their job?

Another potential roadblock is that artist communities may not be interested—they exist so that artists can have un-interrupted time to work on their own projects, and seminars and field trips about fire ecology may not be high on their list for their retreats. Nonetheless, many artist communities would welcome the idea.

In particular, one community strikes us as a strong potential candidate for a “fire-science resident” slot: Dorland Mountain Arts Colony. Dorland Mountain Arts Colony<sup>21</sup> is a non-profit artists’ community set on 300 acres along a ridge overlooking the Temecula Valley, in Southern California. The land was once a nature preserve under the stewardship of The Nature Conservancy, but has since been deeded back to the Dorland Mountain Arts Colony board of directors, with the restriction that the land be protected from development in perpetuity. In May, 2004, a wildfire swept through Dorland Mountain Arts Colony, destroying all ten buildings. Plans to rebuild are moving forward. Because of the recent fire, because of the resilience of ecosystem and community, Dorland strikes us as an interesting JSFP inroad, perhaps led by the Central and Southern California Region team of the California Fire Science Consortium.

Dorland is a prime example, but these collaborations could happen anywhere. There are an estimated 500 artist communities in the United States, catering to over 15,000 artists a year.<sup>22</sup> Very many of these colonies are in fire-prone ecosystems. For example, Tassajara, the Zen Retreat center in Big Sur, was recently threatened by a large fire (the story of which can now be found in Colleen Martin Busch’s 2011 book *Fire Monks: Zen Mind Meets Wildfire at the Gates of Tassajara*) and seems an intriguing location fully capable of supporting such a “residency.”

### **Recommended Models for JFSP**

We recommend two courses of action for JFSP to initiate writing residencies: co-opting existing Creative Residency programs—whether government or private—to allow “fire-artists,” and creating new residencies in fire-lookout stations.

The first potential opportunity for fire-related writing residencies is to simply pair up with an existing residency program, yet reserve certain slots within the applicants for “Fire Related” residents. An example is the USFS “Voices of the Wilderness Artist in Residence Program” in Girdwood, AK, in which “individual artists are paired with individual wilderness rangers for a forest stewardship/traveling residency in either the Tongass or Chugach wilderness area,” could be convinced to select “fire-artists.” As we mention later, the Voices of the Wilderness follows the norm when it asks participants to donate one piece of artwork to the Forest Service, and give one public presentation.

Another exciting opportunity for fire-related writing residencies is fire lookouts.

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<sup>20</sup> For example, the Scottish poet Gillian Ferguson spent four years writing *The Human Genome: Poems on the Book of Life*, a book about The Human Genome Project: "DNA — or, deoxyribonucleic acid — / a mouthful which should be a poem; / adenine, cytosine, guanine, thymine, / which should be the names of angels — / creative bond of adenine with thymine, / cytosine with guanine; A to T, C to G, / which is love, / as chemistry."

<sup>21</sup> <http://dorlandartscolony.org/>

<sup>22</sup> For more information on artist residencies, see The Alliance of Artist Communities website <http://www.artistcommunities.org/>.

Fire lookouts have a long tradition of hosting great western writers, especially nature writers. As detailed in John Suiter's book *Poets on the Peaks*<sup>23</sup>, North Cascades lookout towers hosted Gary Snyder, Philp Whalen, and Jack Kerouac. Norman Maclean wrote atop a lookout in Idaho. Ed Abbey wrote in fire lookout towers throughout the west (mainly in Arizona). More recently, Philip Connor, after a decade in one fire-lookout in the Gila national Forest, wrote *Fire Season: Field Notes from a Wilderness Lookout*.

In a recent interview in *Zyzzyyva*, Philip Connors describes the importance and potential of fire lookouts:

“In Jack Turner’s great book of essays, *The Abstract Wild*, he wrote: “Many of our best writers on wilderness—[Edward] Abbey, [Gary] Snyder, [Doug] Peacock—worked as fire lookouts for the U.S. Forest Service.” I think he’s right. Lookouts, by being stationed in a fixed location for long stretches of time, have the luxury of becoming intimate with wilderness in a way most people do not.

We can’t help becoming amateur phenologists: noting when the aphids hatch, when the irises bloom, when the broadtailed hummingbirds arrive. We detect patterns. We touch the ancient mysteries of life in the wild. We may even learn to see in new ways — more closely, perhaps, and deeper into geologic time. If we’re lucky we get close to learning how to “think like a mountain,” in Aldo Leopold’s great phrase. I think we’d do well to bring this knowledge back to the culture we come from, even or especially if that culture seems increasingly heedless of that type of knowledge.”<sup>24</sup>

In Oregon and Washington alone, the public has the opportunity to rent out 21 fire lookouts (there are at least that many cabins and decommissioned ranger stations which could also be considered).<sup>25</sup> Some of these are still working lookouts, and thus only available in winter. Others are decommissioned and available year-round. Competition to secure reservations is intense. With this in mind, dedicating either a decommissioned lookout or an active, offseason lookout to writing residencies may be too large and financially burdensome a step.

Nonetheless, the prospect is so fraught with potential it’s worth exploring, even in brief: as Connors points out in the preceding paragraphs, the deep history of the writer-in-fire-lookouts has created an almost cult-like following among young nature writers. A single lookout dedicated to the task of artistic creation and natural-history documentation would become, it is only a slight exaggeration to claim, a sort of Mecca to literary pilgrims. As Suiter describes it, the North Cascades lookouts are still “alive in (Gary Snyder’s) poems and essays, dog-eared copies stashed in the packs of thousands of hikers around the country and on the bookshelves of hostels from Amsterdam to Kathmandu.”<sup>26</sup>

Warner Mountain Lookout, Oregon



<sup>23</sup> John Suiter, Counterpoint Press, 2002

<sup>24</sup> <http://www.zyzzyyva.org/2011/03/28/philip-connors-fire-lookouts-kerouac-and-thinking-like-a-mountain/>

<sup>25</sup> USFS Recreation Rentals of the Pacific Northwest

<sup>26</sup> *Poets on the Peaks*, page 266

Of course, these writing residencies would have to be fire-focused. The application would clearly address this, much as the LTEReflections application does<sup>27</sup>, by flatly stating that we want artists and writers who are going to explore the topic of fire, or fire-related issues. Again, there will be no shortage of artists and writers who fit this bill.

But if dedicating a whole fire lookout to an artistic residency is too large a step, we propose reserving blocks of time—from three days to two weeks—within the range of the ongoing recreational lookouts annual rental time frames to be used for the purposes of writing residencies. While there may be concerns that such designation would lead to loss of revenue from the rental of these lookouts, it should be noted many artist communities charge for room and board, and that many writers and artists, given the opportunity, would be more than willing to pay for the chance to stay in a fire-lookout residency. This would offset any financial loss from tourism. In that case, the key is, again, to simply reserve blocks of time within the calendar year that only writers or artists could reserve. A parallel application would have to be developed.

### **3.2 Why a creative residency program?**

In addition to the more general reasons we listed in Section 2 (“Why JFSP Humanities”)—wildfire is about values, wildfire ecosystems are home, different people have different ways of knowing and perceiving—there are a number of fundamental reasons to host a creative residency:

- agency obligation
- humanizes agency—helps the public understand that agencies are not just technology or bureaucracy, but rich in human dimension
- may affect practical aspects of policy making by providing appropriate frame for addressing policy issues
- may lead to betterment of society
- may lead to better stewardship of the land
- they’re fun

Additionally, there are specific reasons how a creative residency program is beneficial to a hosting program or research station.

#### **Products: Artwork, Archives, and Exhibits**

One benefit of creative residencies is that often the hosting agency or organization stipulates certain criteria as a component of the residency, the most common criterion being a donation of artwork.

LTEReflections Writing Residency asks its residents to contribute a copy of their work towards a collection to be gathered in permanent electronic archives at Oregon State University/US Forest Service. The writings are also accessible via the web-based *Forest Log*<sup>28</sup>, which has been designed to span hundreds of years. In this case, writers retain ownership of their work.

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<sup>27</sup> The LTEReflections application invites “Creative writers whose work in any genre reflects a keen awareness of the natural world and an appreciation for both scientific and literary ways of knowing.”

<sup>28</sup><http://andrewsforest.oregonstate.edu/lter/research/related/writers/template.cfm?next=wir&topnav=169>

As mentioned above, the National Park System has an extensive artist-in-residency program, run and overseen by individual parks. The vast majority of these parks require, in the terms of Rocky Mountain Park's residency program, "an original piece of work from, and representative of their residency in Rocky Mountain National Park." As does the Science Museum of Minnesota's "Artist at Pine Needles Residency Program," which requires resident artists to "contribute an original work for the benefit of the research station."

It should be noted here that donated artwork is not squirreled away to a private collector's vault. It is, instead, prominently displayed in either the operating facilities, archived in museum collections, or in traveling art exhibits. In fact, even when artists retain ownership of all products produced during their time, they are often willing to temporarily donate them to traveling exhibits. Such was the case with The North Temperate Lakes LTER site's "Drawing Water" program.

"Drawing Water"<sup>29</sup> arose out of NTL's Humanities program LTEaRts, which is sponsored by The University of Wisconsin – Center for Limnology, the Trout Lake Research Station, the National Science Foundation, and the Long Term Ecological Research Program. Six artists and six scientists joined "determined to combine the insights of artists and scientists to create something extraordinary: to visualize life below the surface, to travel backward and forward through time, to anticipate our future." The exhibit invites viewers to "enter a realm where abstract thought, imagination and vision meld with the scientific world." There is an online gallery and physical exhibit. The exhibit traveled from April to October 2011, all up and down Wisconsin, showing in nine different venues and viewed by an estimated 100,000 people. Wayside signs displaying artwork and information from the project were posted at Crystal Lake.

A second example is an art exhibit of works from three of the Ecological Reflections (and LTER) programs (Bonanza Creek (AK), North Temperate Lakes (WI), Harvard Forest (MA)) that is being displayed at the National Science Foundation building in DC, the Ecological Society of America Meeting (Portland, OR, August), the LTER All-Scientists Meeting (Estes Park, CO, September), and possibly the Portland airport.

## **Outreach Programs**

In addition to a contribution of original artwork, the "Artist at Pine Needles Residency Program" further requires residents to "design an outreach project to share their work with the local community." This is near ubiquitous in residency programs. Rocky Mountain N.P. also requires artists to "present two 45-minute public programs during their residencies... Programs can be demonstrations, talks, exploratory walks, or performances." Furthermore, Rocky Mountain N.P. requests that artists "give public presentations in their communities about their residency experiences." This is an important auxiliary effort to reach the public, as has been articulated by Fred Swanson, Forest Service geologist and member of Spring Creek Project, who said:

"Society has designated areas such as experimental forests and ranges and the Mount St. Helens National Volcanic Monument as places for learning, and the Forest Service—both Research and the National Forest System—has the role of steward of the learning process. We also have a responsibility to help convey the lessons learned to wide and diverse audiences. One way that responsibility is expressed is through the commitment of resources to scientific study. However, the public does not see or understand the magnitude of that commitment, and it does not fully appreciate the dynamics of Pacific Northwest ecosystems. Engaging creative nature writers in

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<sup>29</sup> <http://lter.limnology.wisc.edu/ltearts/exhibition/panel1>

these places where the Forest Service has invested in learning with the tools of science will ultimately increase public understanding of ecosystems and, possibly, respect for the agency's efforts."<sup>30</sup>

Lastly, the most obvious medium of outreach provided is the writing itself. In the case of LTEReflections' residency, poems about the Andrews Forest have been published in the *Atlantic*, *Orion*, numerous literary journals and book anthologies. Another example can be found in the writer Elizabeth Dodd's column for *Terrain.org*; in which she last wrote about her experiences with prescribed burns in an LTER field research station.<sup>31</sup>

### **Limited Overhead**

Another appeal of writing residencies is that, on a whole, the sponsoring organization is not required to supply much investment or oversight. To quote the (now-dormant) Antarctic Artists and Writers Program, "This program is intended for individuals or small teams who would make use of existing, limited resources without requiring substantial dedicated support or a significant amount of logistical resources. It does not typically provide direct financial support to selected applicants." As we noted in regards to the Forest Service Fire lookouts, many writers and artists pay for the opportunity to stay in residencies. If the hosting organization has facilities—domiciles, kitchen, bathroom—there is not much else required.

To quote Charles Goodrich, Director of the Spring Creek Project, which runs the LTEReflections residency: "We receive 20 to 30 applications each round... And these are people who are largely paying their own way—we offer just a miniscule stipend—to spend a week at the Andrews." Part of the reason for this—and something to keep in mind regarding such creative residencies—is that visual artists need more studio space. Writers, on the other hand, need only a pen, a sheet of paper, and time to daydream.

## **5. Conferences, Workshops, and Symposia**

Workshops, symposia, and conferences are excellent program models for drawing the Humanities, arts, and sciences together. This is especially true as regards JFSP, as "in-person meetings, whether field trips, workshops, or conferences, are considered key components of consortia activities: these one-on-one encounters help cement personal relationships among participants and can lead to cooperative interaction confirmed with a handshake...or pave the way for informal phone calls."<sup>32</sup> In the following pages we will present a number of successful past events that can serve as models for potential gatherings of stakeholders to consider fire-related issues.

### **4.1 Case Studies**

#### **Long Term Ecological Reflections**

The LTEReflections program has successfully coordinated a number of conferences, workshops, and symposia. Many of their past events can serve as models for potential gatherings

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<sup>30</sup> Fred Swanson, USFS Pacific Northwest Research Station "Science Findings," Issue 105; Aug. 2008

<sup>31</sup> <http://terrain.org/columns/28/dodd.htm>; *Red Buffalo, Black Butterflies*, Elizabeth Dodd.

<sup>32</sup> JFSP Fire Science Digest Issue 11 (Aug. 2011)

of stakeholders to consider fire-related issues. Various LTER Reflections symposia over the years<sup>33</sup> include:

- **"Exploring the Meaning of Watershed 'Health'."** October 19-21, 2006. The symposium brought together twenty distinguished creative writers, thinkers, artists, and ecologists to engage a critical question in this time of destruction and restoration: What is a healthy watershed? Are there analogies between watershed health and human health? What is illness in a watershed? What is thriving? By bringing together people of theory and practice, we hoped to create a community of appreciation and common purpose across different disciplines and discourses. The final event of the symposium was held on the OSU campus and included a larger group of people who are in a position to use these ideas for practical purposes—watershed council members, health practitioners, environmental activists, legislative leaders.
- **"DRAGONFLY EYES: Multiple Ways to Envision the Future,"** 2010. This NSF-funded field symposium brought together distinguished writers, architects, artists, Humanities scholars, land managers, social scientists and ecologists to find ways to bring literary, artistic, and moral imagination together with the best empirical science to more fully imagine future scenarios of landscape change.

#### **"Facing Fire: Lessons from the Ashes"**

Another conference that holds great promise as a model for future fire-related conferences was held in the wake of the catastrophic 2000 fire season in the Western United States. The University of Colorado and Center for the American West "convened a group of experts from many disciplines to pool their understandings of wildlands fire." The purpose of this event, titled "Facing Fire: Lessons from the Ashes," was threefold<sup>34</sup>:

1. to examine and reappraise current understandings of the relationship between wildlands fire and human society;
2. to continue to identify and introduce to each other University of Colorado faculty whose expertise intersects on Western issues, and to identify and explore unexpected opportunities for collaboration; and
3. to see if an interdisciplinary conversation might produce new understandings of and new strategies for fire management."

#### **"Wildfire: Economics, Law & Policy"**

Another model conference was held for two days in 2010 at the University of Arizona. "Wildfire: Economics, Law & Policy" was co-sponsored by the John M. Olin Program in Law and Economics at the University of Chicago Law School and Program on Economics Law and the Environment at the University of Arizona.<sup>35</sup>

The wildfire law symposia was touted as the "first-ever forum for influential law and economics scholars to apply the analysis and methodologies of their field to this important area

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<sup>33</sup> More examples of past events can be found here:

<http://andrewsforest.oregonstate.edu/lter/research/related/writers/template.cfm?next=events&topnav=174>

<sup>34</sup> An interesting synopsis of this event, prepared by the historian Patricia Limerick, and containing many of these conversations, understandings, and strategies, can be found at: <http://centerwest.org/wp-content/uploads/2010/12/Facing-Fire.pdf>

<sup>35</sup> A more in depth description of the symposium can be found at: <http://www.law.uchicago.edu/wildfiresymposium>.

of law in an unprecedented show of scholarly attention to an important public problem.” The symposia addressed issues such as:

“How can public policy address the effects of climate change on wildfire, and wildfire on climate change? Are the environmental and fiscal costs of ex ante prevention measures justified? What are the appropriate levels of prevention and suppression responsibility borne by private, state, and federal actors? Can tort liability provide a solution for realigning the grossly distorted incentives that currently exist for private landowners and government firefighters? The larger question is - do the existing incentives in wildlife institutions provide incentives for efficient private and collective action and how might they be improved?”

This symposium led directly to the publication of a well-received book: *Wildfire Policy: Law and Economics Perspectives* (RFF Press; 1 edition; December 1, 2011), edited by the symposium directors Dean Lueck and Karen M. Bradshaw.

### **The Monongahela Conference**

A final example is “The Monongahela Conference on Post Industrial Community Development: Art, Ecology and Planning with people - influencing public places we care about.”<sup>36</sup>

The conference was held October 23-25, 2003, at Carnegie Mellon University, Pittsburgh, PA, and sponsored by the STUDIO for Creative Inquiry, Center for Arts in Society, School of Art, Regina Gouger Miller Gallery, and the Vice Provost for Education. The meetings goal was to “share and develop ideas and methods about art and its effect on public space and ecology.” Participants spent three days “discussing the strategies that we all bring to expressive, critical and transformative engagement with the social, political and ecological systems of our time.” What do “ecologically and socially minded visual artists bring to an urban place that reveals, enables or initiates change?” What range of theories and methods (can) provide common ground?”

We offer this conference as an example because the conference was geared to address “social-ecological and political situations”—such as wildland fire—“where an artist’s unorthodox approach can open doors, minds and solutions that would not have been considered or achieved through conventional methods and institutions.” Not only was this conference emblematic of the power of shared ideas, but it is also indicative of the discourse and ideas that course through the artistic realm, and is thus a tremendous source of ideas and inspiration for the Fire-science community to tap into.

## **6. Art-Science Collaborative Field Studies**

Another promising model for fire-science and arts-Humanities collaborations is in joint field studies. Though there are many ways of conducting such activities—and we shall present two case studies below—the gist of it as we see it involves a cadre of artists or humanists immersing themselves in the field for a certain length of time, in either conjunction with or interspersed with land managers and active field scientists, and ending in or with some sort of exhibit or performance.

We believe that the value of engaging practitioners and land managers (private as well as federal and state) in the context of wildland fire cannot be overemphasized, and thus joint field studies hold special relevance for JFSP, and particular Consortia in particular.

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<sup>36</sup> A detailed “recap” of the conference can be found at: <http://moncon.greenmuseum.org/recap.pdf>

For example, the Alaskan Consortium has proposed to conduct annual on-site field workshops. Whereas, like most JFSP activities, these field workshops are designed to synthesize fire managers and operations personnel with fire science research in ways that are “directly applicable on-the-ground,” they also include the public and the media. “The goal will be to demonstrate research in broad context and offer a venue for people to get together for a day and talk about research, its application, and continued research needs.” As we shall see below, they have taken a tremendous step forward in his regard.

Another example is that one of the Southern Fire Exchange’s four major activities is “public education”— “Science-based public education about fire is key to maintaining the "right to burn" in the southern region, and will be pursued in a variety of ways.” These types of field studies are important conduits for public education.

This is further exemplified by the California Consortium’s “field tours.”<sup>37</sup> One such field tour, held in March of 2012, was organized by Don Hankins, a professor at Chico State University. Don coordinated three different sites for the field tour, including the Big Chico Creek Ecological Reserve, a burn unit in Chico’s Bidwell Park, and the Rio Vista Unit of the Sacramento River National Wildlife Refuge. Prescribed fire is used in all three sites, but each site has unique burn objectives and models of implementation. All three sites use their burn programs for a variety of reasons, including invasive plant control, wildlife habitat restoration, and as an opportunity for public education and outreach.<sup>38</sup>

## 5.1 Case Studies



Fire scientists and Artists walk through the Rosie Creek fire in Alaska as part of “The Art of Fire” program. (Photo courtesy of Mary Beth Leigh)

climate change in interior Alaska... Each new project phase explores a new perspective on the connection between humans and the changing ecosystem in Alaska by a varying array of participating artists.<sup>39</sup>

Six to eight visual artists were selected to participate in the program. The selected artists were invited on field excursions with scientists and fire management personnel near Fairbanks

### **“In a Time of Change: The Art of Fire”**

The objective of *In a Time of Change: The Art of Fire* was to “bring the cultural and environmental issues related to forest fires and fire management in Alaska to a wider public through art that is based on communication and collaboration between artists, scientists, and members of the fire management community.”

The program arose out of a “growing network of visual and performing artists, writers and scientists

in Alaska (that) has been working since 2007 toward integrating scientific and artistic perspectives on

<sup>37</sup> For more information on these tours, contact Dale at [dale\\_shippelhoute@fws.gov](mailto:dale_shippelhoute@fws.gov) or Kipp at [kipp\\_morrill@fws.gov](mailto:kipp_morrill@fws.gov).

<sup>38</sup> For more, see: <http://www.cafiresci.org/blog/>

<sup>39</sup> Joint Fire Sciences Program Supplement Proposal for *In a Time of Change: The Art of Fire*

during the summer of 2011 and had other informal opportunities to interact with scientists on areas of particular interest to the artist.

Field trips included:

- Visiting scientific research sites of previous burns.
- Observing a wildfire suppression training exercise.
- Visiting an active incident command post during an active wildfire, or shadow/interview key fire personnel.

Each participant received a small artist grant (\$100-\$200 per artist) to create a body of work, up to 10 pieces, for an exhibit in Fairbanks at Pioneer Park Bear Gallery for August 2012.

This project is supported by the Joint Fire Sciences Program, the Alaska Fire Sciences Consortium and the Long Term Ecological Research stations at UAF, with the goal of integrating scientific and artistic perspectives on climate change in interior Alaska as it relates to fire, fire management practices and the resulting changes to ecosystems.

### **The Mount St. Helens Field Residencies**

*The Mount St. Helens Field Residencies* are a weeklong gathering of creative writers held in conjunction with the Mount St. Helens Science Pulse, a gathering of research scientists engaged in field work on Mount St. Helens. Residency writers join ecologists on field trips to various locations on Mount St. Helens, interact informally with scientists, and focus on writing projects that embody creative responses to the volcano and the role of volcanic landscapes in the imagination and culture of the Northwest.

The Field Residencies are modeled after the tradition—started by forest ecologist Jerry Franklin in the 1970s—called the “science pulse,” wherein “groups of upwards of 100 scientists, students, and technicians, from several disciplines, descend on a landscape for up to two weeks to collect massive amounts of data and ideas. Pulse locations were chosen for their ecological significance and their potential to stimulate discourse: the Hoh River valley, Sequoia National Park, the post-eruption Mount St. Helens landscape. By bringing in a breadth of expertise, much could be learned in a very short amount of time. The Field Residencies are loosely based on the pulse framework in that a diverse group of people go out in the land and think deeply about a landscape and an issue, then come back and share their experience and insights.”<sup>40</sup>

They differ in that the Residencies were designed to examine not the ecology but the language and metaphors that are linked to the volcano, such as catastrophe and change in geological, ecological, and human dimensions. For example: what can this radically altered landscape tell us about nature and how to live our lives?”

### **Recommended Models for JFSP**

Although any of the case studies cited above offer promise if adapted to wildfire, One idea would be to have JFSP Regional Consortia or Consortia partners host field studies of conferences around anniversaries of their local huge fire events: Peshtigo (1871), Hinkley (1894), Tillamook (1933-1951), The Big Burn (1910) etc.

## **5.2 Compelling components of these programs:**

### **Interaction between field scientists and artists**

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<sup>40</sup> PNW “Science Findings,” Issue 105/ August 2008

The AK program listed various methods by which to integrate the artists and managers and scientists, including “the potential for artists to ‘observe a wildfire suppression training exercise, visit an active wildfire Incident Command Post, or shadow/interview key fire personnel. This may involve matching each creative artist with a collaborative fire scientist or agency management partner. It may also (or alternatively) involve matching each professional artist with an amateur artist who is professionally engaged in the fire community.’” Participants visited numerous sites, “the AFSC field site visit designed to provide fire personnel direct exposure to a scientific research site, and exploration of previous burned sites with fire scientists.”

### **Drawing a wide range of participants:**

Both programs seek a wide range of participants. (All participants had to accept the stipulated terms of contribution and/or public outreach.) “The Art of Fire” drew from professional artists interested in engaging with fire science/management) as well as amateur artists from within the Alaskan fire community.

This last point bears further detail, as it smartly, and to our knowledge uniquely, taps those who experience both worlds of fire—the immediate, professional side, and the intuitive, artistic side.<sup>41</sup>

“In addition, many members of the fire community in Alaska (i.e. firefighters, ecologists, specialists) are highly creative and interested in communicating what they observe and experience on the job. For example, some firefighters make a hobby of photography; others may actually be painters, sculptors, poets, songwriters or videographers. A partnership between ITOC and the Alaska Fire Science Consortium (AFSC) that includes outreach to amateur artists within the fire community will provide a great opportunity to connect Alaskan artists, scientist, managers, and the public by utilizing a creative and unique platform for fire science information delivery.”<sup>42</sup>

The Mount St. Helens Field Residencies are also designed to attract a range of artists, though they specifically ask for “Creative writers whose work in any genre reflects a keen awareness of the natural world and an appreciation for both scientific and literary ways of knowing” They involve a mix of scientists and artists as central participants, with others – philosophers, photographers, singers, land owners, managers of the land, politicians, the general public – involved in lesser degrees. 20 distinguished writers, philosophers, artists, ecologists, and geologists.

### **Extensive and diverse public outreach**

Often, these field events culminate in a performance to communicate ideas with the general public, practitioners, and others. Preparation for this “reporting-out” session also helps participants to distill their chief insights before they fully disengage from the place of reflection.

For example, the 2010 incarnation of “In a Time of Change,” *In a Time of Change: Envisioning the Future* included both a performance featuring original theatre, dance, readings

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<sup>41</sup> It also speaks to a void that Stephen Pyne, among others, has already noted: “In *Young Men and Fire* Norman Maclean alludes to ‘the literature of forest fire, if such a literature exists.’ It is remarkable that almost no such literature exists...Tens of thousands of firefighters pass alongside the flames every year, and have for most of the last century, yet almost nothing of literary merit has resulted.”

<sup>42</sup> Joint Fire Sciences Program Supplement Proposal for *In a Time of Change: The Art of Fire* “Promoting collaboration between the Arts and Fire Management in Alaska.”

and music and a concurrent visual art exhibit event featuring original works by 24 Alaskan visual artists.<sup>43</sup>

*In a Time of Change: The Art of Fire* proposed a visual art exhibit in a local gallery, a public performance featuring theatre, music, dance, poetry/prose readings, video and/or other performing arts; a traveling visual arts exhibit; the production and distribution of DVD's documenting the visual art exhibits and performance; and the use of "AFSC's web space on FRAMES to publicize and archive this project including photos of artist and manager/scientist collaborations, event announcements, activity schedules, and artists' videos, writings, drawings, and other communication products."

*The Mount St Helens Field residencies* also have had varied products: At the end of the 2005 Residency, participants gave a public presentation at the Windy Ridge Visitor's Center. A number of participants coordinated a session at the 2010 Western Literature Association Annual Conference titled "From the Ashes: Readings from the Mount St. Helens Field." The 2005 Field Residency culminated in the book: *In the Blast Zone: Catastrophe and Renewal on Mount St. Helens* (ed. Goodrich, Moore, Swanson, OSU Press, 2008). Both Forays work is being compiled in a web-based archive to be hosted on the Mount St. Helens Institute's webpage. Wider dissemination of ideas is fostered through direct communication among individuals and via publications, webpage postings, and other venues.

## **Setting**

Setting is an often underutilized or underappreciated aspect of these collaborations, and one of the most powerful characteristics of the "field studies." Every LTEReflections field event takes place in a particularly inspiring setting, and elements of this setting (the sound of the creek, the height of the trees, the puff of ash from the volcano) informs the discussion. As LTEReflections program states: "Poetry, ceremony, silence, questioning, music, analytical thinking, and natural history are all parts of the conversation."

Fred Swanson describes the experience at St. Helens as a way of exploring "ideas of destruction and rebirth in geological, ecological, and human terms"—an activity far more meaningful and deep with the scorched earth beneath you and the steaming volcano directly in front of you.

And, certainly, in regards to fire, the setting is a dramatic and integral partner—a fresh burn or any stage of an old burn would not only provide the setting for stakeholders to focus their collective wisdom, but influence the discussion.

## **7. Community Programs**

Many of the programs we have described attempt to integrate science and art by focusing on collaborations and interactions between scientists and artists, with the public as passive recipients. As effective as these programs can be, they do maintain a distance between science, art, and community, and can thus be counter-effective to the goal of public involvement and investment in an issue such as wildfire.

As land-use managers and fire policy experts have extensive expertise in the area of public outreach, especially in regards to fire awareness and risk assessment in the wildland-urban

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<sup>43</sup> see [http://www.lter.uaf.edu/outreach/bnz\\_Collaboration.cfm](http://www.lter.uaf.edu/outreach/bnz_Collaboration.cfm)

interface (WUI), we will focus primarily on educational awareness and outreach programs that rely heavily on arts and humanities.

### **Partnerships**

“While all consortia face similar challenges and are adopting similar approaches to address them, each one has also forged a variety of tools tailored to address specific needs and build upon the existing partnerships and resources in their areas.<sup>44</sup>” Federal, tribal, state, local, and private stakeholders and organizations should be considered potential partners and sources of collaboration. Diverse partnerships allow a broad base for funding, networking, and allowing multiple perspectives in the development and promotion of humanities-science fire programs. JFSP Regional Consortia are already very well connected and networked. For example, the Eastern Tallgrass Prairie and Oak Savanna (ETPOS) Fire Science Consortium is partners with (among others): The University of Wisconsin-Madison, USGS, The Nature Conservancy, the US Fish and Wildlife Agency, and the Department of the Interior. The Northern Rockies Fire Science Network (NRFSN) is being developed in collaboration with Joint Fire Science Program, Rocky Mountain Research Station, National Forest System, National Park Service, the University of Montana, University of Idaho, Montana State University, and Salish Kootenai College. In addition, regional art council and galleries, artist retreats, environmental art collectives, museums, and local schools should all be considered valuable resources.

## **6.1 Case Studies**

### **Art & Community Landscapes**

The Art & Community Landscapes (ACL) program<sup>45</sup> is a partnership of New England Foundation for the Arts (NEFA), the National Endowment for the Arts (NEA) and National Park Service (NPS). ACL supported site-based public art as a catalyst for increased environmental awareness and stewardship. The program addressed the natural environment through site-specific art projects including temporary or permanent art installations, exhibitions, interpretive media, festivals, or other works informed by the site and community in which the project is located.

Project sites and partner organizations were selected to work closely with an artist or artist team for one year or longer. Together, the artist and partner organization developed and implemented a publicly accessible project that inspires greater community involvement in protecting and enhancing the natural environment.

Program Goals:

- Support artists to work with community-based collaborators to stimulate and advance environmental awareness through the process of experiencing or making art
- Bring diverse community members together to participate in site-based art projects that address local and regional environmental concerns
- Support cross-disciplinary approaches to the creative process that are mutually informative and may elicit new outcomes and models of partnership

One example of this was “The Community Self-Portrait Project” in Richford, Vermont. Residents, two sculptors, and a poet partnered with the Northern Forest Canoe Trail, a historic, 740-mile canoe route being re-established through four northern New England states, to interpret

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<sup>44</sup> Fire Science Digest Issue 11

<sup>45</sup> [http://www.nefa.org/artist\\_projects/art\\_community\\_landscapes](http://www.nefa.org/artist_projects/art_community_landscapes)

the meaning of community. The partners distributed cameras and journals to residents, inviting them to photograph and write about the people, places, traditions, objects and activities that, to them, showed the most meaningful aspects of life in Richford. As a result, more than one thousand photographs were collected, providing an eclectic, comprehensive and sometimes surprising portrait of life in a rural New England community.

“What really unifies these 18 projects—12 in communities and 6 in units of the National Park Service—is a deeper engagement with the environment: through site-specific art, the artists invited, inspired and sometimes challenged communities and individuals to consider how they relate to their environment. The artists and their work have influenced the stories these communities tell about themselves and the places which are important to them. What distinguishes these projects is a broad range of solutions. The art varies widely: it includes temporary and permanent art installations, festivals, exhibitions, interpretive media, and other works informed by community and place.”

The Art & Community Landscapes Summary (published by the National Park Service) contains many case studies.<sup>46</sup>

### **The Victorian Bushfire Research Project**

The Victorian Bushfire Research Project is a collaboration between the Australian National University’s Centre for Environmental History and the residents of Steels Creek, Victoria. In 2009, the worst bushfires in Australia’s history roared through the small community of Steels Creek.<sup>47</sup> Eleven people perished and over 70 dwellings were razed. The Victorian Bushfire Research Project seeks to address the gap in understanding of the social, cultural and ecological dimensions of fire experience. This far the project is funding a written study by author Dr Peter Stanley, a documentary film, and a book on the social and environmental history of the valley, provisionally titled *Living with Fire: People, Nature and History in Steels Creek*.<sup>48</sup>

### **Oral Histories**

Oral Histories provide a valuable educational and outreach tool. “Knowledge exchange” as determined by the JFSP is “more than a two-way process of sharing information and using new technologies to facilitate interaction. Wisdom can also be shared between the older and younger generations, creating a cultural continuity based on historic knowledge gleaned over time.”<sup>49</sup> A number oral histories have been published as books, including *The Hinckley Fire: Stories from the Hinckley Fire*, Anderson, A. A. (Survivors Comet Press; Reprint edition; 1993) and *I’ll Never Fight Fire With My Bare Hands Again’: Recollections of the First Forest Rangers of the Inland Northwest*, Rothman, H. K., Ed. (University Press of Kansas, 1994). More recently, an Australian program titled “Marysville Black Saturday Bushfire Survivors’ Experiences of Preparedness, Survival, Attachment, Loss, Grief, Resilience and Recovery” has been started by the Australian Centre for Cultural Environmental Research.

### **Native Community Outreach**

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<sup>46</sup> [http://www.nefa.org/sites/default/files/PastProjects\\_ACL\\_brochure.pdf](http://www.nefa.org/sites/default/files/PastProjects_ACL_brochure.pdf)

<sup>47</sup> A prize-winning essay on the Victorian Bushfires written by the environmental historian Tom Griffiths (Director of the Centre for Environmental History at ANU) can be found here <http://inside.org.au/we-have-still-not-lived-long-enough/>

<sup>48</sup> More can be found online at <http://ceh.environmentalhistory-au-nz.org/research/steels-creek/>

<sup>49</sup> Joint Fire Science Program *Fire Science Digest* Issue 11, August 2011.

Nowhere else is the overlap of scientific and Humanities-based disciplines as evident as it is in the field of Traditional Ecological Knowledge (TEK), especially, in this case, the study of traditional and current use of fire by native peoples. However, as David Bowman has stated, "Given high political voltage and the necessary overlap between disciplines from the sciences and Humanities, it should be no surprise that the intellectual rules of engagement in discourses about humanity's past ecological impacts are uneven, and often ambiguous. In some situations the strictest evidence is required to demonstrate an effect, in other cases evidence that 'feels' right is used to develop master narratives that sweep readers along with bold big ideas. The net effect is the production of a literature that has become filled with jumbled and jagged contradictions, ambiguities and uncertainties."<sup>50</sup>

More intensive outreach towards Native American communities by JFSP Consortia may help resolve these "contradictions, ambiguities and uncertainties."

A number of JFSP Regional Consortia have already determined to do so, identifying Native Americans as a rich source of knowledge dating back before European settlement. Many of the tribal nations in the northern Lake States, for example, have active forest management programs using prescribed fire, and the Lake States Consortium considers their participation crucial to the success of the regional network. Likewise, the California consortium aims to engage indigenous communities in the state. As related in JFSP Fire Science Digest Issue 11, Tim Kline, coordinator of the California consortium, sees this effort as doubly useful. "This is a way to share fire management resources that could be useful in managing tribal lands, as well as providing a platform for tribes to share their own cultural history of fire with researchers," he says. "These communities have a wealth of knowledge that we would like to share," says Kline.

Nor is this without precedent, as related in an interesting speech by Timothy Ingalsbee, Executive Director of Firefighters United For Safety, Ethics, and Ecology. In "Native Forests Need Native Fires!" a speech given at the Traditional Fire Use Conference hosted by the Confederated Tribes of the Grande Ronde and the Confederated Tribes of Siletz Indians, on June 12, 2002:, Ingalsbee relates how:

"Ten years ago I helped draft a citizen's initiative for the Warner Fire Recovery Project on the Willamette National Forest that proposed managing the Warner Fire area with prescribed fires....Prior to implementing prescribed burns in the Warner Area, we called for the Forest Service to conduct some oral history research and consult with local Native American communities on traditional burning practices. Our plan would have required the Forest Service to utilize their research findings on Native American burning practices in the design and implementation of prescribed fires. To the extent possible, we were asking the Forest Service to emulate the frequency, intensity, seasonality, and methodology of Indian burning in the Warner Fire area...

In the future, prescribed fires hopefully won't be the exclusive work of federal agencies but will become the responsibility of local communities and civic groups....

Looking to the past of traditional American Indian burning practices and forward to restoring cultural landscapes may be the best means of leading us to where we need to be: the re-creation of a fire-adapted society able to dwell sustainably within fire-dependent ecosystems."<sup>51</sup>

One of the important aspects of Native American outreach that Ingalsbee and others are hinting at here is that outreach and tribal partnership is not only a way to share fire management resources on tribal lands, but also a way to provide a platform for tribes to share their own

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<sup>50</sup> Bowman, D. (2004), Suppression of wildfires and ideas. *Journal of Biogeography*, 31: 859-860.

<sup>51</sup> [http://www.fusee.org/docs/Essays/native\\_forest\\_fires.html](http://www.fusee.org/docs/Essays/native_forest_fires.html)

cultural history of fire with researchers. These cultural histories are predominately found in the realm of the Humanities.<sup>52</sup>

## **8. A New Department**

One concern of program managers considering the adoption of any of the integrative models we have listed above is that of “mission drift,” by which an organization intentionally or inadvertently moves away from its stated mission. (Of course, the obvious way to avoid this problem is to include such activities, however generally, in the mission statement or “guiding principles” in the first place, as JFSP does with its “guiding principle” to “be innovative, pursuing new and creative ways to disseminate knowledge.”)

The problem with possible mission drift is in some ways inherent within the very nature of collaborations. As noted on the H.J. Andrews LTER website: “The engagement of the Humanities in the Andrews Forest program, now nearly a decade long, doesn’t fit neatly into any one category of activity. It is part basic inquiry (basic Humanities parallels basic science), part science journalism and public outreach, and in part an education effort.” The H.J. Andrews website goes on to assert that “This lack of tidy fit with our goal/objective framework in no way diminishes the significance and potential impact of the Long-Term Ecological Reflections program.”

Nevertheless, this “lack of tidy fit” can be a serious impediment to the creation or adoption of a program, particularly in the context of funding. Interdisciplinary and collaborative programs often fall between the cracks of funding sources: too “artsy” for many environmental science funding agencies, and too “science-y” for most art-funding agencies.

There are a number of ways of sidestepping this problem, some more successful than others. A common approach (and complaint) was articulated within in the University of California Office of the President’s (UCOP) 20<sup>th</sup> Anniversary Grant proposal (2007) “The complex structure of grant proposals in the sciences and the need to meet the new cross-disciplinary requirements of grantors like the National Science Foundation encourages scientists to write projects with Humanities scholars added on, rather than integrated into the core questions being asked.” We do not feel this is an adequate solution to the issue. So, to be bold about it, we’d like to suggest the creation of federal program that fills the cracks between federal funding agencies like NEA, NEH, and NSF. We envision a federal program whose very mission statement is to support interdisciplinary and collaborative work between science, art., and the Humanities.

As idealistic of a step as this may seem (and one that is obviously beyond the reach of the regional consortia, as well as JFSP in general) it is not without precedent. Indeed, the LTER program itself was created in order to fill a gap in both research and funding for long-term research, and now consists of 1800 scientists and students studying over 26 sites. More recently, The National Ecological Observatory Network (NEON), a continental-scale ecological observation platform, was created under the auspices of the National Science Foundation.

### **7.1 Case Studies**

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<sup>52</sup>A perspective that echoes Bill McKibben’s comments on combating climate change: “We need a big movement, and big movements come from beauty and meaning, not columns of statistics.”

## **Australian Centre for Cultural Environmental Research**

Internationally, these federal collaborative programs are far more common. A case study can be found in Australia, which has a Federal Department of Environment, Water, Heritage and the Arts. This department recently helped to create the Australian Centre for Cultural Environmental Research (AUSCCER), housed at the University of Wollongong. As described by the Council for the Humanities, Arts and Social Sciences:

“Scientific research over the last few decades has demonstrated unambiguously that humans and their influences have become an integral component of environmental processes, seen most starkly in the human contribution to climate change. It is now well recognized by the scientific and governance communities that these problems require social and cultural as well as scientific solutions. Yet until now Australia has been almost completely lacking in systematic investment in cultural environmental research, partly because of the tradition of lone scholarship within the Humanities and social sciences. AUSCCER will help redress this problem through its coordinated program of research.”

AUSCCER will:

- undertake in-depth cultural analysis of Australia’s highest priority environmental issues to make both intellectual and practical contributions to the pressing problems of environmental sustainability
- strengthen national Humanities/social science research and research training capacity in the environmental field, with particular strengths in ethnographic and related social science methods
- drive theoretical and practical research frontiers on the cultural environment
- provide a basis for more effective multidisciplinary engagement with the natural and physical sciences
- contribute to the development of relevant local, state and federal policy
- build Australia’s international research presence in the cultural dimensions of environmental sustainability

The creation of a United States government agency similar to Australia’s Department of Environment, Water, Heritage and the Arts is obviously thinking on a big scale. The creation of such a program would be an enormous undertaking, requiring large amounts of federal impetus and cooperation at a time when federal agencies are tightening their belts and being pressured to justify their existing programs.

Nonetheless, this program may actually increase cooperation and streamline certain shared yet exclusive activities between the departments. The federal government is, in fact, slightly behind the curve on this—non-profits and universities and research centers have been increasingly recognizing the importance of cross-fertilization of arts/humanities and sciences.

## **Other programs**

In the meantime, a more immediate and practical activity would be for individual JFSP Consortia to create specific funding conduits for partnerships with smaller regional branches of the NEH or NEA to create programs redolent of AUSCCER. These small-scale partnerships could easily be replicated in any number of capacities and forums.

A good example of this is found in the partnership between the New England Foundation for the Arts (NEFA), the National Endowment for the Arts (NEA) and National Park Service for the Art & Community Landscapes (ACL) program we discussed in Chapter 5: Community Programs.

Another example is found in the Spring Creek Project for Ideas, Nature, and the Written Word, which is funded by The U.S. Forest Service, Oregon State University, and a private endowment.

A final example is “ART/SCIENCE: Collaborations on Bodies and Environments” project (further detailed in the “links” section of this report), which is jointly funded by the US National Science Foundation and the UK Arts and Humanities Research Council.

## **9. Conclusion**

We have documented a number of programs that could be instituted by any of the JFSP’s Regional Consortia, including creative residencies, conferences, workshops, and symposia; art-science collaborative field studies; community programs and partnerships; and the possibility of a new federal program or department designed to support collaborative humanities and science investigations. We believe that every Regional Consortia—as well as the greater public they serve—is capable of and would benefit from any of these programs.

Indeed, a number of JFSP Regional Consortia are moving towards such programs, or greater inclusion and collaboration with artists and humanists in general. The Alaska Fire Consortium created and conducted the “Art of Fire” field workshops and exhibit. The California consortium aims to engage indigenous communities with wildfire issues and policy. JFSP’s Southern Rockies Fire Science Network has stated that “Wildland fire has far-reaching impacts. The SRFSN recognizes the need to involve fire experts, as well as those whose disciplines are affected by wildland fires. *However, the SRFSN extends beyond these disciplines. Anyone who has an interest in the challenges related to wildland fire and natural resource management is invited and encouraged to participate.*” (italics added.)

These efforts represent a bold and important first step. Let’s continue the journey.

