

# FLN Networker No. 150: January 22, 2014

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*The FLN Networker is a publication of the Fire Learning Network—a partnership of the USDA Forest Service, Department of the Interior (BIA, BLM, National Park Service, US Fish & Wildlife Service) and The Nature Conservancy—intended to foster communication within the network and among its friends. Submit comments, links and subscription requests to Liz Rank.*

For more about the FLN, visit [www.conservationgateway.org/fln](http://www.conservationgateway.org/fln) or contact Lynn Decker.

## News from the Field

**California:** **Photos and videos** taken by participants in this fall's **prescribed fire training exchange** have been collected and posted at <http://www.trex-2013.com/>, thanks to **Larry Luckham**.

**New Mexico:** Last week **Eytan Krasilovsky** ([eytan@forestguild.org](mailto:eytan@forestguild.org)) gave a presentation on **lessons learned** in the Black Lake prescribed fire **training exchange** in a **webinar** hosted by the Southwest Fire Science Consortium. The presentation slides are now available on the [consortium's website](#), and the recording will be available there soon.

**North Carolina:** The SBR FLN **Central Escarpment landscape** team met on December 4, and began with a discussion of the **Table Rock Wildfire** near Linville Gorge (fully within Central Escarpment) that burned 2,500 acres over 15 days in November. Forest Service staff noted that operations went about as **smoothly as possible**, largely due to the **partner and community relationships developed through the FLN**. As a result, the team noted the merit of reengaging neighboring landowners.

Partners also discussed refining the **burn prioritization tool** to integrate **updated vegetation data** and possibly **social and logistical factors**, and identified several **new partners** to include in future projects and discussions. A **new coordinator** for the **Grandfather CFLRP** project will begin work in February. This will help move forward the landscape goal of further developing the **FLN-CFLRP partnership**, looking for **synergy and collaboration** opportunities. For more, contact newly-appointed landscape lead **Adam Warwick** ([awarwick@tnc.org](mailto:awarwick@tnc.org)), Southern Blue Ridge Stewardship Director.

**Virginia & West Virginia:** The **forest structure and composition monitoring protocol** (and accompanying forms) developed by the **Central Appalachians FLN** Monitoring Working Group is now [available on the Conservation Gateway](#). The working group met on January 7 to catch up on last year's work, problem-solve with colleagues, and plan for 2014 (**400 plots planned!**). For more information, contact one of the group co-leads, **Nikole Swaney** ([nswaney@tnc.org](mailto:nswaney@tnc.org)) or **John Moncure** ([johnmoncure@fs.fed.us](mailto:johnmoncure@fs.fed.us)).

**Virginia & West Virginia:** Hot off the presses from this FLN, the report "**Ecological Zones on the Jefferson National Forest** Study Area: First Approximation" (2014) by **Steven Simon**. A [project description and links](#) to this document and its appendixes, along with "**Ecological Zones on the George Washington National Forest: First Approximation Mapping**" (2011) are on the Conservation Gateway. For more information, or for access to the underlying **GIS data**, contact **Marek Smith** ([marek\\_smith@tnc.org](mailto:marek_smith@tnc.org)).

And for **even more** on the recent work and successes of **Central Appalachians FLN** landscapes and partners in Virginia and West Virginia, see the attached **Notes from the Field**.

**National:** And finally, as we work to put together the **report on FLN (and related) accomplishments** for the last half-year, **thank you:** to network, landscape and project leads for timely and insightful reporting back, and to all the partners, colleagues and supporters who make the work possible. As FLNs are ever-evolving to meet local and regional needs, and training exchanges and cooperative implementation and fire adapted communities become ever more integral to the network, there is no

longer a really simple picture of what the FLN is. It's varied and varying, interconnected and complex, adaptable and useful. We'll catch some parts of this bounty in the report (next issue), and some in other ways. Meanwhile—keep up the good work; keep learning; keep sharing.

## Funding: Climate Adaptation / Mitigation (CO)

**Climate Adaptation:** The National Oceanic and Atmospheric Administration (NOAA) has compiled a long list (attached) of funding sources for various aspects of climate change adaptation work.

**Mitigation Grants:** The **Colorado Department of Natural Resources** is accepting applications under its [Wildfire Risk Reduction Grants program](#); the submission deadline is **March 13**.

## Input Requested: JFSP Fuel Treatment Science

**JFSP Survey:** The Joint Fire Science Program is conducting **scoping to identify research needs** related to **fuel treatment** and develop a Fuel Treatment Science Plan. This plan will affect the policy, research, and management aspects of the fuel treatment program, and will outline future relevant fuel treatment research topics for JFSP consideration. Please complete the [federal](#) or [non-federal](#) version of the questionnaire, based on your employment, by **January 31**.

## Resources: Fire Adapted Communities / Mitigation Video

**Intro to Fire Adapted Communities:** A [recording](#) of **Molly Mowery's** California Fire Science Consortium webinar "Fire Adapted Communities: **Moving from Policy to Action**" is available for viewing. Her presentation included a brief **history** of the fire adapted communities concept, and **tools and programs** available, and **introduced** the **Fire Adapted Communities Learning Network** and its pilot communities and hub organizations. About 90 people from across the country and a wide range of organizations were at the webinar. For more information, contact [molly@wildfireplanning.com](mailto:molly@wildfireplanning.com).

**Mitigation Video:** Pikes Peak Wildfire Prevention Partners have produced a [video](#) on the **Black Forest Fire** in Colorado. It features interviews discussing the **role of mitigation** in the **choices responders face** about which homes they can safely attempt to protect, and also mentions the **benefits** of mitigation for the **forests** themselves.

## Article: Large Trees Capture C

**Large Trees Capture C:** A [letter](#) in *Nature* ("Rate of Tree Carbon Accumulation Increases Continuously with Tree Size") **contradicts the widely held belief** that while large trees store carbon, they do not accumulate significant amounts. A story and podcast about this research also appear on the journal's [public website](#).

## Interesting Reads: Cautionary Tale / What Climate Change?

**Cautionary Tale:** The push to introduce **clean cook stoves** in developing countries to reduce fuel use, improve health and cut greenhouse gas emissions has been **less successful than hoped**, and as [this blog](#) notes, the explanation behind it is a **good reminder** for other problem-solving.

**What Climate Change?:** Climate change deniers get a lot of press. But in an essay (attached) in this month's *Science Chronicles*, **Annick Cros** talks about the simple **lack of awareness of climate change** she found in her class of **college students**. Anecdotal, to be sure, but perhaps a good reminder of **how the world at large sees things** that we view as pervasive and obvious. (It seems that other ways of communicating with younger generations about these important issues may be in order, if all the headlines and reports to date have made this little impact.)

## For Fun: Behind the Scenes at Towns County PSA Filming

**Towns County:** In December, the **Fire Adapted Communities Learning Network pilot community** Towns County was the **filming location for a PSA** on the *Ready, Set, Go!* Program for the International Association of Fire Chiefs. They've posted some pictures from filming on [their Facebook](#).

## Jobs: Ecologist / Fire Team

**Ecologist:** The **Forest Service** is seeking an **ecologist** in the Forest Supervisor's Office organization of the Wallowa Whitman National Forest with a duty location of LaGrande, Oregon. The position is open to both federal employees ([details](#)) and others ([details](#)); applications are due by **January 24**.

**Fire Team:** The **Nature Conservancy** is seeking a **fire team member** as part of the **Central Gulf Cooperative Stewardship** team, working mainly in Louisiana and southeast Mississippi. Details are available on the Conservancy's careers page ([job ID 41750](#)); applications are due by **January 31**.

## FLN Workshops

**January 30**

### **Working Together: Collaboration for Fire Adapted Communities in the Yakima Valley / Yakima, WA**

This workshop is being held to help find ways to bring civic leaders, developers, business owners, first responders, land managers and homeowners together to develop strategies and connections that will transform wildfire-prone areas in the Yakima Valley into Fire Adapted Communities.

Info: see draft agenda is attached to [FLN Networker #149](#); for more, contact **Reese Lolley** ([rlolley@tnc.org](mailto:rlolley@tnc.org))

**February 6-7**

### **SBR FLN—Upper Warwoman Workshop: LANDFIRE Biophysical Settings & VDDT Models / Lakemont, GA**

At this workshop, partners will review LANDFIRE BpS and VDDT models to determine their fit with the more southerly ecosystems of Georgia, in preparation for conducting LiDAR-based vegetation analysis for this landscape.

Information: **Mike Brod** ([mbrod@fs.fed.us](mailto:mbrod@fs.fed.us))

**March 4-5**

### **Washington Prescribed Fire Council Conference / Olympia, WA**

Save the date for the next meeting of the council, with speakers, mini-workshops and a poster session to share learning & training opportunities around the state.

**May 20-22**

### **Southern Blue Ridge FLN / Cashiers, NC**

Save the date for the next SBR FLN regional workshop. Suggestions for topics and speakers should be submitted by early January, and a draft agenda will be available in February.

Information: **Margit Bucher** ([mbucher@tnc.org](mailto:mbucher@tnc.org)) or **Beth Buchanan** ([bbuchanan@fs.fed.us](mailto:bbuchanan@fs.fed.us))

## Training, Conferences & Workshops

**February 8-13**

### **Society for Range Management: 67<sup>th</sup> Annual Meeting, Technical Training & Trade Show / Orlando, FL**

The theme for the meeting, "From Dusty Trails to Waning Wetlands," will bring drought and water management to the fore. The technical sessions, workshops and symposia will cover a wide range of topics, from wildlife to fire ecology.

Information: <http://rangelands.org/orlando2014/>

- February 11-12  
deadline** **Pennsylvania Prescribed Fire Council Annual Meeting / State College, PA**  
The council's annual meeting will include sessions on burn history in the state, incident management, burning on private lands and more. Register by January 30 for student or early-bird discounts.  
Information: see information attached to [FLN Networker #149](#)
- February 20-22** **Fire Ecology of the Northeast: Restoring Native and Cultural Ecosystems / New Haven, CT**  
This workshop hosted by the Yale School of Forestry & Environmental Studies and Tall Timbers Research Station & Land Conservancy.  
Information: <http://www.talltimbers.org/YALEworkshop/>
- February 25-27** **Fostering Resilience in Southwestern Ecosystems: A Problem-Solving Workshop / Tucson, AZ**  
This JFSP workshop will help develop answers to pressing questions such as "How can managers build resilience when ecosystems are undergoing rapid change?" and "What are our options when megafires removes huge swaths of forests not adapted to this disturbance?"  
Info: <http://swfireconsortium.org/Fire%20and%20Resiliency%20Ecology%20Workshop/>
- March 17-19  
new listing** **2014 Wildland-Urban Interface Conference / Reno, NV**  
This conference, hosted by the International Association of Fire Chiefs, will offer a range of sessions (and pre-conference courses) on various wildfire and WUI topics, including one on building a fire adapted community by a lead of the Towns County, GA Fire Adapted Community Learning Network hub organization.  
Information: <http://www.iafc.org/wui>
- April 8-10** **Oregon Prescribed Fire Council / Bend, OR**  
The first meeting of this new prescribed fire council will be held in conjunction with the Central Oregon Fire Science Symposium at OSU. Rx310 Fire Effects will be offered that week as well.  
Information: [oregonrxfirecouncil@gmail.com](mailto:oregonrxfirecouncil@gmail.com)
- April 16-17  
new listing** **Colorado Wildland Fire Conference: The True Cost of Wildfire / Glenwood Springs, CO**  
Save the date for this conference for planners, elected officials and municipal managers for the Colorado Western Slope, eastern Utah and southern Wyoming.  
Information: see the [save-the-date "postcard"](#)
- April 30-May 1** **Relationships between Fire Management and Quality of Foraging Habitat for Bats: A Workshop for Scientists and Managers / Mammoth Cave NP, KY**  
Save the date for this workshop that will feature a synthesis of JFSP research.  
Information: see the CAFMS newsletter attached to [FLN Networker issue 148](#)
- May 19-23  
deadline** **Large Wildland Fires: Social, Political & Ecological Effects / Missoula, MT**  
Abstracts for oral and poster presentations at this conference co-hosted by the Association for Fire Ecology and the International association of Wildland Fire are due **January 31**.  
Information: <http://largefireconference.org/>

## Send News, Links & Comments

**Lynn Decker** – [ldecker@tnc.org](mailto:ldecker@tnc.org) – Lynn is in Boulder (CO) January 20-23, Western Klamath Mountains (CA) January 26-30.

**Jeremy Bailey** – [jeremy\\_bailey@tnc.org](mailto:jeremy_bailey@tnc.org) – Jeremy is in Boulder, CO January 20-23.

**Wendy Fulks** – [wfulks@tnc.org](mailto:wfulks@tnc.org) – Wendy is in the office.

**Mary Huffman** – [mhuffman@tnc.org](mailto:mhuffman@tnc.org) – Mary is in Western Klamath Mountains (CA) January 26-30, out February 1-10.

**Heather Montanye** – [hmontanye@tnc.org](mailto:hmontanye@tnc.org) – Heather is in Boulder, CO January 20-23.

**Guy Duffner** – [guyduffner@gmail.com](mailto:guyduffner@gmail.com) – Guy is in the office.

**Liz Rank** (Networker Editor) – [lrnk@tnc.org](mailto:lrnk@tnc.org) – Liz is in the office.

To stop receiving the FLN Networker, please reply to this message and include your request in the body of the message.

### Full Links

News from the Field—NM TREX: <http://swfireconsortium.org/black-lake-prescribed-burn-lessons-learned-building-capacity-prescribed-fire/>

News from the Field—VA—Monitoring protocol: <http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/NetworkProducts/Pages/Central-Apps-Forest-Structure-Comp-Monitoring.aspx>

VA—Ecological zones: <http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/NetworkProducts/Pages/Simon-MappingEcoZones.aspx>

Funding—Colorado mitigation grants: <http://www.coemergency.com/2014/01/wildfire-risk-reduction-grant-program.html>

Input Requested—JFSP survey—Federal version: <https://www.surveymonkey.com/s/98H9BHM>

Non-federal version: <https://www.surveymonkey.com/s/QYVSMNL>

Resources—FAC webinar recording: <http://uc-d.adobeconnect.com/p99lhmz3573/>

Resource—Mitigation video: <http://vimeo.com/84393594>

Article—Large trees capture C: <http://www.nature.com/news/tree-growth-never-slows-1.14536>

Interesting Reads—Cautionary tale: <http://motherboard.vice.com/blog/just-because-you-give-someone-cleaner-technology-doesnt-mean-theyll-use-it>

For Fun--Towns County PSA: <https://www.facebook.com/pages/Towns-County-Fire-Adapted-Communities/327878940679796#!/media/set/?set=a.397272337073789.1073741833.327878940679796&type=1>

Jobs—Ecologist—Federal employee info: <https://www.usajobs.gov/GetJob/ViewDetails/359447500>

Others see: <https://www.usajobs.gov/GetJob/ViewDetails/359449100>

Jobs—Fire team member: [http://careers.nature.org/psp/P91HTNC\\_APP/APPLICANT/HRMS/c/HRS\\_HRAM.HRS\\_CE.GBL?Page=HRS\\_CE\\_JOB\\_DTL&Action=A&JobOpeningId=41750&SiteId=1&PostingSeq=1](http://careers.nature.org/psp/P91HTNC_APP/APPLICANT/HRMS/c/HRS_HRAM.HRS_CE.GBL?Page=HRS_CE_JOB_DTL&Action=A&JobOpeningId=41750&SiteId=1&PostingSeq=1)

FLN Workshops—WA—Networker #149: <https://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/FLNNetworker/Pages/FLN-Networker-149.aspx>

Training, etc.—Colorado Wildland Fire Conference postcard: <http://us5.campaign-archive2.com/?u=2263fe298f4df255d22b80097&id=eb783750ff&e=06d744032b>

The Fire Learning Network is supported by *Promoting Ecosystem Resiliency through Collaboration: Landscapes, Learning and Restoration*, a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior.

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## Fire Learning Network Notes from the Field



Mare Run controlled burn, April 2013 © Chuck Almarez

### Central Appalachians Fire Learning Network Recent updates from the Virginia and West Virginia landscapes

January 2014

The Central Appalachians FLN partnership continues to grow each year—a few of the 2013 accomplishments and updates from the Virginia and West Virginia landscapes give a sense of its current scope and impact:

#### IN THE FIELD

##### Controlled Burns

By all accounts, 2013 was an extremely successful year for controlled burns. Of the 17,900 acres planned, FLN partners in Virginia and West Virginia completed burns on over 13,700 acres in the Allegheny and Potomac Highlands of Virginia and West Virginia, and north of the James River in Virginia. Plans for 2014 will also include burns conducted south of the James River and into southwestern Virginia. Partners are especially proud of the increased communication and coordination on burns

Staff from seven different agencies conducted the 456-acre Big Cobbler burn in April 2013 at Hidden Valley Dispersed Recreation Area on the George Washington National Forest.

© TNC/Marek Smith

##### Updates on MOUs

*Agreements among agencies are critical for enabling cross-jurisdictional collaboration. New or revised cooperating agreements or memoranda of understanding (MOU) were executed between the USDA Forest Service and Virginia Department of Conservation and Recreation (VA DCR) and between The Nature Conservancy (TNC) and the USDA Forest Service Region 8 in 2013. Efforts continue on MOUs between Virginia Department of Game & Inland Fisheries (VA DGIF) and both TNC and the Forest Service, with the goal of having the agreements in place before the 2014 spring burn season. An additional MOU between VA DGIF and the US Fish & Wildlife Service (USFWS) is under development; it will primarily facilitate partnerships in eastern Virginia, but will benefit the FLN as well, because USFWS frequently sends crews from coastal wildlife refuges to help with controlled burns in the mountains.*

this past year, with several burns having five or more agencies and organizations participating. Partners also travelled beyond their typical areas of responsibility to assist others across the two states. The on-going commitment by all involved to training and safety enabled a remarkably productive year.

##### Non-Native Invasive Species (NNIS) Control

With funding from Scaling-up to Promote Ecosystem Resiliency (SPER), FLN partners were able to treat 832 acres of NNIS in Highland Wildlife Management Area (VA DGIF), Cowbane Prairie Natural Area Preserve (VA DCR), South River Preserve (TNC), and





The Monitoring Working Group held a workshop on June 26 at which 23 participants from the George Washington & Jefferson National Forests, Virginia Department of Conservation & Recreation, Virginia Department of Game & Inland Fisheries and The Nature Conservancy met to refresh plant identification skills, review monitoring protocols and share updates. © TNC/Marek Smith

the George Washington National Forest. Many of these acres were treated in burn units or special biological areas where fire-adapted species are present. SPER funding helped leverage NNIS control efforts initiated by the Potomac Highlands Cooperative Weed and Pest Management Area (<http://www.phcwpma.org/>) and effectively linked those activities with other management actions taken by the FLN. Additional SPER funds allocated this fall will allow continuation of this work in the Allegheny and Potomac Highlands in 2014.

### Monitoring Working Group

The FLN Monitoring Working Group was very productive in 2013, with progress on a number of projects, most notably the revision of the collaboratively-developed Forest Structure and Composition (FSC) monitoring protocol and data forms. The revisions included: 1) adding a history of FLN monitoring goals and measurable objectives that can be referenced in burn plans, 2) attaching appen-

dices to aid in determining plot origin placement and protocol methodology, 3) revising and updating plant species lists, 4) reformatting to facilitate more user-friendly data entry into a FEAT and FIREMON Integrated (FFI) database, and

5) development of standardized data entry templates for FFI. Current versions of the FSC protocols and data forms can be found on the Conservation Gateway (<http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/NetworkProducts/Pages/Central-Apps-Forest-Structure-Comp-Monitoring.aspx>).

Significant progress was also made on entering a backlog of previously collected data. By year's end, 55% of pre- and/or post-burn visits to the 333 total macroplots monitored by The Nature Conservancy and the George Washington and Jefferson National Forests (GWJNF) had been entered into FFI.

The Working Group also welcomed two new fuels technicians from the GWJNF, Samantha Schinnell from the North Zone and Butch Shaw from the South Zone.

For more information about these projects, contact the working group co-leaders Nikole Swaney ((540) 839-3599, [nswaney@tnc.org](mailto:nswaney@tnc.org)) or John Moncure ((540) 839-2521, [johnmoncure@fs.fed.us](mailto:johnmoncure@fs.fed.us)).



Kadrin Anderson, Laurel Schablien and David Fox sample one of the monitoring plots in the Big Wilson controlled burn unit (July 2013). © TNC/Nikole Swaney

## Grasslands Working Group

Ryan Klopf ((540) 580-6341, [ryan.klopf@dcr.virginia.gov](mailto:ryan.klopf@dcr.virginia.gov)) and Tyler Urgo ((540) 290-0562, [tyler.urgo@dgif.virginia.gov](mailto:tyler.urgo@dgif.virginia.gov)) have agreed to co-lead the new FLN Grasslands Working Group. As the partnership begins to see improvements in ground cover diversity after controlled burns and continues to expand management beyond forested communities, this Working Group will play a critical role in facilitating the understanding of restoration activities in grasslands, prairies, glades, woodlands and similar communities.

Initial plans for 2014 include developing a digital library of resources (sources, lists, etc.), sharing native seed mix lists, developing a database of good native forb collection sites in the region, and scheduling field trip(s) to several demonstration sites.

## SHARING SCIENCE

### Wildland Fire in the Appalachians Conference

The organizers extend thanks to those who were able to attend the Wildland Fire in the Appalachians Conference sponsored by the Association for Fire Ecology and the Consortium of Appalachian Fire Managers and Scientists (CAFMS) in October, and express regret that so many federal agency partners were unable to attend due to the government furlough. Despite that unfortunate situation, over 150 people from throughout the Appalachians region did attend, taking part in more than 30 sessions and an outstanding field trip to the Fenwick Mines and Mill Creek areas of the Jefferson National Forest. There was also excellent attendance at the gathering of the Central Appalachians and Southern Blue Ridge FLNs on the second night of the conference, with its opportunity for catching up with so

## JFSP Consortia

*The Consortium of Appalachian Fire Managers and Scientists (CAFMS) announced its next fire management and bat foraging habitat workshop in the latest issue of its newsletter (<http://www.cafms.org/newsletter/CAFMSnewslettervol3no4.pdf>). The workshop will be held April 30 – May 1, 2014 at Mammoth Cave National Park, Kentucky. For more information or to get on the CAFMS mailing list, contact Helen Mohr ([helen@cafms.org](mailto:helen@cafms.org)).*

*The neighboring Oak Woodlands and Forests Fire Consortium recently hosted a webinar by Greg Nowacki (USDA Forest Service Northern Research Station) on Oak, Fire and Mesophication: Past, Current and Future Trends of Oak in the Eastern United States; the recording of the presentation can be found on their webinar archive site (<http://www.oakfirescience.com/webinars/>).*

many colleagues, networking and sharing good stories and learning.

Proceedings from this conference—including papers and abstracts intended for presentation by those who were unable to attend—are being compiled.

### Recent Literature

Among the peer-reviewed articles published in 2013 relevant to fire history and management in eastern forests were several by FLN authors, including Lauren Howard, Melissa Thomas-Van Gundy, Tom Schuler, Mark Ford and Karen

Powers. The FLN assembled a fire literature bibliography and PDF copies of over 115 papers that was distributed on a USB drive at the Wildland Fire in the Appalachians Conference; for a copy of this, contact Nikole Swaney ((540) 839-3599, [nswaney@tnc.org](mailto:nswaney@tnc.org)).

### Ecological Zones Completed for Southwestern Virginia

In November, Steve Simon of Ecological Modeling and Fire Ecology Inc. completed mapping of ecological zones for 5.6 million acres in southwestern Virginia. This FLN-





supported project includes mapping of potential natural vegetation on the Jefferson National Forest and adjacent conservation lands, and together with Ecological Zones on the George Washington National Forest: First Approximation Mapping (2011), completes mapping of over 10 million acres in the Ridge and Valley and Blue Ridge provinces of western Virginia and eastern West Virginia. Both reports are available on the Conservation Gateway (<http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/NetworkProducts/Pages/Simon-MappingEcoZones.aspx>) and GIS data layers are available on request.

A workshop for GWJNF staff on January 28, 2014 will review the map products and examples of how the maps have already been used for determining current conditions in the GWNF revised management plan, modeling ecological prioritization of burn units, and conducting an ecological departure analysis for Lower Cowpasture Restoration Project.

For more information or GIS data layers, contact Marek Smith ((540) 839-3599, [marek\\_smith@tnc.org](mailto:marek_smith@tnc.org)).

## OUTREACH

### Education and Outreach Working Group

The brochure *Controlled Burning for Healthy Forest Management in the Appalachians* was revised, with photos and fire history specific to Virginia and West Virginia. An electronic version is at <http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/NetworkProducts/Pages/ControlledBurn-Brochure.aspx>, and print copies for distribution will be available soon—contact Marek Smith.

Work continues on the development of five 24"x36" interpretive panels that will be installed at Douthat State Park (VA DCR), Warm Springs Mountain Preserve (TNC), Hidden Valley Dispersed Recreation Area (GWNF), and a VA DGIF Wildlife Management Area. These signs are expected to be completed in time for spring 2014 burns at several locations.

Lastly, planning is underway for a "Wildland Fire and the Media" workshop for the spring. The workshop, which was postponed from 2013, will introduce members of the media to fire ecology and management topics.

## COMING NEXT

### Prescribed Fire Training Exchange

The Central Appalachians FLN will host a prescribed fire training exchange (Trex) in the mountains and coastal plain of Virginia, March 31-April 11, 2014. Trainees in RXB2, FIRB, ENGB, FFT1, FEMO and other positions as needed will be working with experienced firefighters from federal, state, county, private and non-government organizations and agencies to conduct a number of moderate complexity burns in pine savannah, grasslands and Appalachian hardwood forests. Participant nominations closed on December 31, but more details can be found on the Conservation Gateway ([http://www.conservationgateway.org/ConservationPractices/FireLandscapes/Pages/2014\\_trex\\_announce.aspx](http://www.conservationgateway.org/ConservationPractices/FireLandscapes/Pages/2014_trex_announce.aspx)) or by contacting Sam Lindblom ((434) 951-0580, [slindblom@tnc.org](mailto:slindblom@tnc.org)) or Sami Schinnell ((540) 432-8262 [slschinnell@fs.fed.us](mailto:slschinnell@fs.fed.us)).

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### For more information on the Central Appalachians FLN:

**Sam Lindblom**

[slindblom@tnc.org](mailto:slindblom@tnc.org)

**Marek Smith**

[marek\\_smith@tnc.org](mailto:marek_smith@tnc.org)

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Staff from the USFWS were among those that conducted the multi-partner Mare Run controlled burn. A professional photographer was hired to document this burn, and the resulting photos are being used for signs, brochures and other outreach. © Chuck Almaraz

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The Fire Learning Network (FLN), Scaling-up to Promote Ecosystem Resiliency (SPER) and prescribed fire training exchanges (Trex) are part of the *Promoting Ecosystem Resiliency through Collaboration: Landscapes, Learning and Restoration*, a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior. For more information, contact Lynn Decker at [ldecker@tnc.org](mailto:ldecker@tnc.org) or (801) 320-0524.



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# Climate Funding Opportunities<sup>i</sup>

NOTE: These opportunities represent a snapshot of what is currently available (as of January 15, 2014). Future grant opportunities are contingent upon funding appropriations.

## National Scale Opportunities

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### ***National Science Foundation***

#### ***Science, Engineering, and Education for Sustainability (NSF-wide investment area)***

The National Science Foundation's Science, Engineering, and Education for Sustainability (SEES) program addresses the challenge of building a sustainable future through promoting research and education. SEES is expected to extend into FY15 with continuing research efforts to include global community sustainability; sustainable energy; modeling; vulnerability, resilience, and sensitivity to regional change; and public engagement. Since SEES is a NSF-wide investment area rather than an individual program, applicants are encouraged to check for updates to the collection of new and existing activities. Programs of interest include the Climate Change Education Partnership Program (CCEP), the Ocean Acidification (OA) program, the Coastal SEES program, and the Water Sustainability and Climate (WSC) program.

**Eligibility:** Unrestricted

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=504707](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504707)

### ***National Science Foundation***

#### ***Coastal Science, Engineering, and Education for Sustainability (Coastal SEES)***

Program Solicitation: NSF 14-502

NSF's Coastal SEES program focuses on the sustainability of coastal systems, which include barrier islands, mudflats, beaches, estuaries, cities, towns, recreational areas, maritime facilities, continental seas and shelves, and the overlying atmosphere. The Coastal SEES program, in short, seeks to 1) advance understanding of fundamental, interconnected processes in coastal systems, 2) improve capabilities for predicting future coastal system states and impacts, and 3) identify pathways for research to be translated to policy and management domains, enhancing coastal resiliency. The program seeks proposals from interdisciplinary research teams to conduct integrated coastal systems research (which may include theoretical, field, laboratory, or modeling activities). Proposal budgets should be in the range of \$800K - \$2 million (maximum) total, over a period of 3-5 years. NSF anticipates a funding amount of \$13 million, thus awarding up to 10 proposals depending on availability of funds.

**Eligibility:** U.S. academic institutions (with NSF supported research areas), non-profit (non-academic) organizations (such as independent museums, observatories, research laboratories, or professional societies).

Application deadline is **5pm proposer's local time on January 21, 2014**

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=504816&org=NSF&sel\\_org=NSF&from=fund](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504816&org=NSF&sel_org=NSF&from=fund)

***National Science Foundation***

***Long Term Research in Environmental Biology (LTREB)***

Program Solicitation: NSF 14-507

This program, through the National Science Foundation, addresses a problem faced by many investigators, which is that typical funding awards do not have time frames long enough to address long-term data-driven, research proposals. These awards are designed to provide funding to maintain an ongoing, long-term research project for a period of a decade or even longer. The solicitation includes a list of potential thematic areas for research proposals that includes, but is not limited to, research relating to external forcing functions such as climatic cycles that operate over long return intervals. Awards are not to exceed \$90K total per year, and \$450K over a 5 year effort. NSF anticipates making six (6) new awards annually, pending availability of funds. The Solicitation outlines renewal procedures following the initial five year award.

Application deadline for Preliminary proposals is **5pm proposer's local time on January 30, 2014** (and annually thereafter).

Application deadline for full proposals is 5pm proposer's local time on August 1, 2014.

[http://www.nsf.gov/publications/pub\\_summ.jsp?WT.z\\_pims\\_id=13544&ods\\_key=nsf14507](http://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=13544&ods_key=nsf14507)

***National Science Foundation***

***Paleo Perspectives on Climate Change program***

Program Solicitation: 13-574

The National Science Foundation's Paleo Perspectives on Climate Change program utilizes key geological, chemical, and biological records of climate system variability to provide insight rates of change that characterized the Earth's historical climate variability, the responses of key Earth system components, and the sensitivity of the Earth's climate system to forcing changes. The scientific objectives of this program are to 1) provide comprehensive paleoclimate data sets that can serve as model test data sets analogous to instrumental observations; and 2) enable transformative syntheses of paleoclimate data and modeling outcomes to understand the response of the long-term variability of the Earth's climate system. The NSF is expecting to award 35 grants, with a typical award duration of three (3) years. Approximately \$11 million is expected to be available each year, pending funding availability.

**Eligibility:** no restrictions

Application deadline is **5pm (proposer's local time) on October 15, 2014**

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5750](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5750)

***Department of Commerce: National Oceanic and Atmospheric Administration (NOAA)  
FY 2012-2013 Broad Agency Announcement (BAA)***

Funding Opportunity Number: NOAA-NFA-NFAPO-2014-2003949

The purpose of this notice is to request applications for projects associated with NOAA's strategic plan and mission goals. The funded research, projects, or sponsorships must address one or more of the four mission goals in NOAA's strategic plan (Climate adaptation and mitigation and responding to climate and its impacts; Weather-Ready nation – society is prepared for and responds to weather-related events; marine fisheries, habitats, and biodiversity sustained within healthy and productive ecosystems; and resilient coastal communities and economies – environmentally and economically sustainable). Funding appropriation is dependent on FY 2014 and FY 2015 appropriations. The anticipated start date will be three to six months after receipt by NOAA, with applications generally submitted for a one-year award period.

**Eligibility:** Institutions of higher learning, non-profit organizations, commercial organizations, international or foreign organizations or governments, individuals, state, local and tribal governments. (Universities with a NOAA joint or Cooperative Institute (CI) should submit an application through the CI).

Application deadline is **11:59pm Eastern Daylight Time on September 30, 2015**

Information is found by searching for the above Funding Opportunity Number on [www.grants.gov](http://www.grants.gov).

***U.S. Environmental Protection Agency***

***Human and Ecological Health Impacts Associated with Water Reuse and Conservation Practices***

Catalog of Federal Domestic Assistance (CFDA) Number: 66.509

The US EPA is seeking proposals for research that measures and quantifies health and ecological impacts from water reuse and conservation practices. In many areas of the US, factors such as climate change, extreme drought and storm events, increased population, and changing land-uses are decreasing water availability, while increasing demand. In short, the EPA is interested in supporting research on water reuse and water conservation practices that promote public and ecosystem health, and how they may be assessed over the long-term, so as to manage the availability of water resources more holistically. Additional information relating to the Priority research areas is available through the link below. EPA anticipates approximately \$4 million in available funding for this opportunity (pending availability), with a maximum total award of \$750K for regular awards and \$330K for early career awards. EPA anticipates funding approximately 7 awards.

**Eligibility:** U.S. Public nonprofit organizations, U.S. private nonprofit institutions, institutions of higher learning, state and local governments, tribal governments, and US Territories.

Application deadline is **February 18, 2014 at 11:59pm Eastern Time.**

[http://www.epa.gov/ncer/rfa/2014/2014\\_star\\_water-reuse.html#FUNDING](http://www.epa.gov/ncer/rfa/2014/2014_star_water-reuse.html#FUNDING)

***U.S. Environmental Protection Agency  
Green Infrastructure Technical Assistance Program***

The EPA's office of Wastewater Management is currently seeking letters of interest from communities that are interested in implementing green infrastructure to protect water quality and increase community sustainability. This Technical Assistance program helps communities to: 1) overcome the barriers to green infrastructure, and 2) develop approaches to implement green infrastructure for the sake of attaining environmental, social, and economic goals. This opportunity is not a grant, but rather, EPA would provide technical assistance through an EPA contract, in the form of work conducted by contactors (paid by EPA). EPA estimates the value of this assistance to be around \$400K (each community to receive approximately \$60K in contractor support), and the program anticipates providing assistance to 5 – 7 communities. Project periods will last 9 months.

**Eligibility:** any combination of local government departments, offices, or agencies, as well as non-profit organizations may submit a letter of interest. Applicants must have a local government representative. Deadline for submitting letters of interest is **5pm Eastern Time on January 24, 2014**

[http://water.epa.gov/infrastructure/greeninfrastructure/gi\\_support.cfm#2014TechnicalAssistance](http://water.epa.gov/infrastructure/greeninfrastructure/gi_support.cfm#2014TechnicalAssistance)

***U.S. Environmental Protection Agency  
Environmental Education Model Grants Program***

The primary goal of the Environmental Education Model Grants Program is to support environmental education projects, which increase the public's awareness about environmental issues and provide them with the skills to take responsible actions to promote the environment. EPA expects to make two or three awards per EPA region, and two awards at Headquarters (between 22-32 grants nationwide). Funding awards will range between \$75K and \$200K, with the number and amount of awards depending on funding availability. Applicants must also include non-federal matching funds of at least 25% of the project's total costs.

**Eligibility:** Local, state, or tribal education or environmental agency; colleges and universities; and non-profit organizations (501(c)(3)).

Application deadline is **11:59pm local time on February 4, 2014**

<http://www2.epa.gov/education/environmental-education-ee-grants>

***U.S. Department of Agriculture – Forest Service  
Community Forest and Open Space Conservation Program***

Funding Opportunity Number CFP-FS-1002014

The Community Forest Program protects forests through support for local governments, tribal organizations, and qualified non-profit organizations to establish community forests through fee simple acquisition of private forest land from a willing seller. The land in question must be at least 5 acres in size, 75% forested, and be threatened by conversion to non-forest uses. This program recognizes that community forests provide many benefits as places to recreate, protect habitat, benefits water quality and quantity issues arising from storms, and can provide locations for environmental and cultural education. Awards are not to exceed \$400K for a single project, and applicants must demonstrate a 50% match of the total project cost.

Eligibility: Local governments, tribes, qualified nonprofit organization

Application deadline is **January 15, 2014**

<http://www.fs.fed.us/spf/coop/programs/loa/cfp.shtml>

### ***Georgetown Climate Center***

#### ***Federal Funding Compendium for Urban Heat Adaptation***

The Georgetown Climate Center has produced an in-depth document, which collects and analyzes information relating to 44 separate federal programs that support cities and states that are interested in reducing the impacts of urban heat. While federal funding sources are often dependent on appropriations, this list provides interested applicants a great resource for finding federal funding opportunities for climate-related work. Two sections of this document of specific interest include the Environment section (which focuses on monitoring/improving water quality, conserving habitats, protecting green/open spaces, and the effects of air pollution), as well as the Public Health section (which covers government programs providing resources to promote health and safety of populations vulnerable to the harmful effects of climate change). A full description and link to the document is available on the Georgetown Climate Center website:

<http://www.georgetownclimate.org/federal-funding-compedium-for-urban-heat-adaptation>

### ***University of Oregon***

#### ***The Tribal Climate Change Funding and Program Guide***

This funding guide is an online inventory of information on grants and programs that may assist tribes in addressing climate change issues and impacts. The inventory provides information on grants originating from many different sectors, all of which include tribes or tribal organizations as eligible applicants. The online inventory is available through the link below.

<http://envs.uoregon.edu/tribal-climate/>

#### ***The Wildlife Conservation Society's Climate Adaptation Fund***

In 2014, the Wildlife Conservation Society (WCS) will provide 1-2 year grants ranging from \$50K to \$250K for on-the-ground projects that focus on implementing conservation actions for climate adaptation at a landscape scale. The grants required a 1:1 match with a maximum of 50% of match funding from in-kind sources. WCS anticipates releasing its 2014 Request for Proposals to the Climate Adaptation Fund by mid-February. Interested applicants should check the program's website for updates on future grant opportunities. The link below offers information on previous grant awards.

**Eligibility:** U.S.-based (all 50 states and 6 territories) non-profit organizations with approved IRS 501(c)(3) status. Public agencies, tribal governments, and universities may partner with eligible non-profits to submit proposals.

<http://www.wcsnorthamerica.org/ClimateAdaptationFund>

### ***Climate Solutions University (CSU)***

CSU aids local rural communities, connected through a peer learning network, by offering training, expertise, and support in climate adaptation planning. Through this training, expertise, and support, CSU strengthens local leadership, public engagement, and ecosystem protection efforts in rural communities. In the past, CSU has offered two distance-learning programs; the Climate Adaptation Plan Development Program and the Climate Adaptation Plan Implementation Program. The development program results in a local climate adaptation plan (focusing on forest and water resource resilience). The implementation plan supports participants in moving the plan into action. Each program typically has 8 positions available. Each participating community received ~\$100K in training, mentoring, and access to tools/resources; however, communities must commit \$5K of cost-share in the form of staff time and related resources.

**Eligibility:** Region non-profit organizations (501 (c)(3) status); local, county, or municipal governments; state or federal organizations (encouraged to participate with local agencies). Individuals may not apply. There is no strict application deadline as applications are accepted on a continual basis.

<http://www.mfpp.org/csu/>

### ***The Doris Duke Charitable Foundation***

The foundation's Environmental Program strives to meet four main strategies through grant awards. These strategies include: 1) enabling strategic wildlife habitat conservation in an era of climate change; 2) reducing impacts on the landscape from increased energy development and energy demand; 3) encouraging land stewardship and sustainability in the Tri-state area; and 4) helping to build a clean-energy economy. The foundation typically provides funding support through a series of invited proposals. Unsolicited proposals are not considered by the foundation, information about future opportunities can be requested through a letter of inquiry, which is described on the webpage below.

Funding is limited to the U.S. Also, the foundation does not support green building projects (construction capital) or projects focusing on marine environments, toxics remediation, litigation, filmmaking, individual research, or scholarships

<http://www.ddcf.org/Programs/Environment/Grant-making-Process/>

### ***The Rockefeller Family Fund***

This foundation's Environment Program is currently focusing on the challenges of Climate Change. The program focuses on public education of the risks of global warming and implementation of sound solutions, conservation of natural resources, protection of health as affected by the environment, meaning implementation of environmental laws, and public participation in national environmental policy debates. Grant applicants must submit a letter of inquiry online through the Fund's online application portal. If accepted, the applicant will be invited to submit a full proposal for evaluation. Grants are usually in the range of \$25,000 – \$30,000 and are normally made to the same organization for no more than two consecutive years. The Fund does not ordinarily consider projects pertaining to a single community, unless the project advances a national issue, or can serve as a national model.

**Eligibility:** United States tax-exempt organizations engaged in activities of national significance  
Program information: <http://www.rffund.org/grants/environment>

### ***The Kresge Foundation***

This foundation's Environment program invests in projects within the U.S., as well as selects initiatives in Canada. The Environment program supports communities that are striving to become more resilient, meaning they will be better positioned to prosper amid the range of circumstances they could encounter as consequences of climate change. Currently, the Kresge foundation is refining the funding priorities for the Environment program; therefore, the portal is currently closed for unsolicited funding requests. As this foundation has been supportive of climate change adaptation work in the past, interested applicants should check back with the foundation's website frequently to stay abreast of new developments relating to the program refinement.

**Eligibility:** U.S. based 501(c)(3) organizations (and Canadian equivalents), government entities  
<http://www.kresge.org/programs/environment/adaptation-climate-change>

### ***Surdna Foundation***

This foundation invests in projects that support their program areas of Sustainable Environments, Strong Local Economies, Thriving Cultures, Community Revitalization, and Effective Citizenry. An example of a previous grant award is \$200K to the American Planning Association in FY2008 to aid U.S. planners with initiatives to integrate energy sustainability and climate change into contemporary planning practices. Another example is \$200K to the Coalition to Restore Coastal Louisiana in FY2010 to increase/strengthen local and national collaboration for the benefit of Louisiana coastal protection. Organizations are eligible for a max of three consecutive years of funding.

**Eligibility:** U.S. based non-profit organizations

There are no application deadlines. Grants are assessed three times a year (February, May, and September), and must be submitted three to four months prior to staff review.

<http://www.surdna.org/grants/grants-overview.html>

FAQ web page: <http://www.surdna.org/grants/eligibility-a-faqs.html>

### ***Alfred P. Sloan Foundation***

This foundation offers grant assistance in 6 major program areas. Two such areas are the “Public Understanding of Science,” and the “Basic Research” areas. Through these programs, the foundation offers grants for high-quality, original STEM (science, technology, engineering, and math) research that benefits the scientific community, as well as increases the public understanding of relevant and complex scientific issues. The Public Understanding of Science program promotes using books, television, radio, film, theatre, and other media in order to engage the public in science and technology. A grant applicant must first submit a letter of inquiry that outlines the idea of the grant, since the foundation does not accept unsolicited grant proposals. If accepted, the applicant will receive notice to submit a full proposal for evaluation.

**Eligibility:** The foundation does **not** make grants to individuals, for-profit institutions, endowments, fundraising drives, political campaigns, or lobbying efforts for/against legislation. Institutions of higher learning and government entities have received project funding in the past.

There are no application deadlines. The foundation makes grants year-round.

Grant process information: <http://www.sloan.org/apply-for-grants/>



## Regional Scale Opportunities

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### ***U.S. Department of Interior – Bureau of Reclamation WaterSMART Water and Efficiency Grants for FY2014***

Funding Opportunity Number: R14AS00001

This funding opportunity invites applicants to leverage resources through a cost-sharing program with the Bureau of Reclamation for large projects that will improve water/energy efficiency in Western states. These WaterSMART grants are an important way in which the Dept of Interior is implementing the President's November 1, 2013 Executive Order, *Preparing the United States for Impacts of Climate Change*. This opportunity has two funding groups. Funding group 1 supports projects up to \$300K in size for on-the-ground projects (typically completed within 2 years), and Funding group 2 supports projects up to \$1 million in size for large, phased on-the-ground projects (typically take up to 3 years to complete). The Bureau anticipates that the majority of funding will go toward projects funding group 1.

**Eligibility:** States, Indian tribes, irrigation districts, or other organizations with water or power delivery authority. Applicants must be located in western U.S. States (AZ, CA, CO, ID, KS, MT, NE, NV, NM, ND, OK, OR, SD, TX, UT, WA, WY, and U.S. territories)

Application deadline is **4pm Mountain Standard Time on January 23, 2014**

Information is found by searching for the above Funding Opportunity Number on [www.grants.gov](http://www.grants.gov).

### ***Department of the Interior – Landscape Conservation Cooperatives (LCCs)***

LCCs are a network of partnerships working for the sustainability of America's land, water, wildlife, and cultural resources. Partnerships include federal, state, and local governments, tribes, universities, NGOs, landowners, as well as other stakeholders. These cooperatives (21 in total, representing different geographic areas of the country) build upon existing science and conservation efforts that preserve water and land resources, as well as cultural partnerships. Periodically, LCCs offer grants that support their core functions. Interested applicants should check the website below to remain apprised to upcoming funding opportunities.

<http://www.fws.gov/science/SHC/lcc.html>

### ***Wisconsin Department of Administration – Coastal Management Program Great Lakes Area of Concern Land Acquisition Grants***

The Wisconsin Coastal Management Program is currently soliciting grant applications to support public land acquisition with Wisconsin's Areas of Concerns and their associated watersheds for the purpose of acquiring ecologically significant coastal habitats, as well as areas in need of habitat restoration. Wisconsin may submit selected project proposals to the National Oceanic and Atmospheric Administration, who will develop a prioritized list of projects for funding. NOAA Anticipates that approximately \$800K will be available; however, this funding is dependent on Fiscal Year 2014 appropriations. Eligible projects range between \$100K and \$800K. Matching funds are encouraged, but not required. For information relating to Area of Concern Land Acquisition Grants in other Great Lakes states, interested applicant should check with their State's Coastal Management Program.

The application deadline to submit applications through Wisconsin's Coastal Management Program is **January 21, 2014**.

<http://coastal.wisconsin.gov>

## ***Sustain our Great Lakes***

### ***2014 Request for Proposals***

Sustain our Great Lakes is a public/private partnership between Arcelor Mittal, the National Fish and Wildlife Foundation, and several US federal entities (such as the FWS, NOAA, EPA, NRCS, and the Forest Service). This organization offers grant programs to promote both in-the-water and on-the-ground restoration and enhancement projects. In 2014, grant funding will be awarded in two categories: habitat restoration, and delisting of beneficial use impairments within Great Lakes Areas of Concern. In 2014, Sustain our Great Lakes will not award funding for land protection (e.g., acquisition and/or easements), rain barrels, rain gardens, green roofs, or research. Further description of what work is supported through the two categories listed above is available in the RFP (available through the link below). Grants typically support two year projects, with awards ranging range between \$25K and \$1.5 million.

**Eligibility:** Nonprofit 501(c) organizations; local, state, Tribal, and provincial governments; and education institutions. Federal agencies, individuals, and for-profit organizations are **not** eligible.

Application deadline is **5pm Eastern Time on February 18, 2014.**

<http://www.sustainourgreatlakes.org/Apply.aspx>

## ***Fund for Lake Michigan***

The Fund for Lake Michigan focuses grant making efforts on projects in Southeastern Wisconsin that will serve to 1) enhance the ecological health of near shore and coastal areas, as well as SE Wisconsin rivers through habitat preservation and restoration; and 2) improve the quality of water flowing into Lake Michigan through pollutant reductions, including toxins and nutrients. In short, the Fund supports efforts that improve the coastal and tributary systems for the benefit of people, plants, and animals who depend on the systems for water, recreation, and commerce. Interested applicants must first submit a letter of inquiry to the Fund. Prospective grantees will then be invited to submit a full proposal to the Fund for consideration. Previously funded projects have ranged between \$13K and over \$200K, with climate-related topics such as stormwater best management practices, and green infrastructure research/implementation.

**Eligibility:** 501(c)(3) nonprofit organizations, and government agencies.

Deadline for letters of inquiry through the Fund's online system is **January 24, 2014**

<http://www.fundforlakemichigan.org/application-process/how-to-apply>

## ***Great Lakes Protection Fund***

The Great Lakes Protection Fund is seeking preproposals for a suite of projects that will help "design, develop, test, and evaluate innovations to advance the next generation of actions to protect and restore the ecological health of the Great Lakes." The Fund is providing support through three focus areas: 1) Tools for next generation of water utilities (e.g., value-based pricing and new transactions for utility services, asset management strategies for water resources, etc); 2) Strategies for smarter lakes (e.g., real-time performance monitoring of stormwater infrastructure, real-time AIS detection systems, prototype water quality alert networks); and 3) Putting financial capital to work for the Great Lakes (e.g., certification programs for industrial/agricultural water users). More examples of potential projects are included for each of the three focus areas on the Fund's website. Projects should be led by interdisciplinary, action-oriented teams seeking to benefit the Great Lakes Ecosystem. The average level of support for past projects is around \$460K, with awards ranging from \$20K to \$1.5 million.

**Eligibility:** Non-profit organizations, institutions of higher learning, for-profit businesses, government agencies, and individuals. Canadian organizations are also eligible.

Preproposal deadline is **February 3, 2014** for consideration at the Fund's June 2014 board meeting.

<http://glpf.org/working-with-us/projects-wanted>

### ***Gaylord and Dorothy Donnelley Foundation***

This foundation offers grant opportunities to advance work in land conservation and artistic vitality in the 13-county Chicago Region and the 9-county Lowcountry of South Carolina. Eligible counties are shown on the maps regional maps link below. Their land conservation efforts focus on 1) preserving, restoring, and protecting strategic lands that contribute to regional ecosystem health; 2) building and supporting constituencies that value land stewardship by sustaining appropriate land uses (e.g. limiting sprawl, fostering regional land use planning); and 3) engaging young people with the natural world. If applicants believe that their project fits the foundation's interests, they must submit an application (rather than a formal proposal or letter of inquiry). If unsure, contact the organization's Grant Manager

**Eligibility:** The foundation does not typically make grants to public entities (therefore, unsolicited proposals are not accepted). Public entities should contact the foundation to discuss a project. Also, non-profit "operating foundation" groups (Type III organization under 509(a)3) are not eligible.

Application deadline is **11:59pm Eastern Time on April 11, 2014** (for review in July 2014).

Regional maps: <http://gddf.org/about/>

Grant information: <http://gddf.org/grants/funding-guidelines>

### ***The Joyce Foundation***

This foundation supports funding opportunities in Great Lakes protection and restoration. The foundation supports funding opportunities that address the following areas: 1) the introduction and spread of invasive species in the Great Lakes basin; 2) Polluted, non-point source runoff from agricultural lands and cities (as well as watershed-based investments for reducing nonpoint source pollution, such as green infrastructure); and 3) Funding of and support for Great Lakes restoration and protection policies (such as implementing the Great Lakes-St. Lawrence River Basin Water Resources Compact and Great Lakes Restoration Initiative related work). The foundation accepts grant inquiries throughout the year

**Eligibility:** Non-profit organizations

In order for the foundation's Board of Directors to consider a grant proposal at the July board meeting, the Letter of Inquiry submission deadline is **February 24, 2014** (with full proposal deadline of April 8, 2014).

Application process: <http://www.joycefdn.org/apply/>

Program information: <http://www.joycefdn.org/content.cfm/guidelines-3>

### ***The Fred A. and Barbara M. Erb Family Foundation***

This foundation supports funding opportunities in the Detroit, MI area (Wayne, Oakland, and Macomb counties) that work to improve water quality in the watersheds affecting Metro Detroit and Bayfield Ontario. The foundation supports efforts to restore ecological integrity in these watersheds, by emphasizing local implementation of regional Great Lakes strategies for reducing non-point source pollution and promoting water conservation and efficiency. The foundation will be proactively encouraging grants in the areas of: 1) effective public outreach relating to how daily activities impact local watersheds; 2) promoting green infrastructure through low impact development and repurposing of Detroit's vacant land; 3) Promoting water conservation and efficiency by individuals, governments, businesses, and others; and 4) promoting the restoration of critical wetlands.

Letters of inquiry must be submitted through the Foundation's website. The Foundation's board meets four times per year to review grant requests (March, June, September, and December).

**Eligibility:** Non-profit 501(c)(3) organizations

Application process: <http://www.erbff.org/application-process>

### ***Gulf of Mexico Foundation – Community-based Restoration Partnership***

This foundation offers a grants competition through its Community-based Restoration Partnership. This partnership, established in 2001 between the Gulf of Mexico Foundation, NOAA, and the EPA, has led to 76 restoration projects in the Gulf of Mexico and Caribbean Basin. In 2011, the foundation awarded approximately \$500K to projects in the Gulf States and U.S. Caribbean Territories. Projects typically fell in the range of \$50K - \$100K. All participants were required to provide a 1:1 cash or in-kind match of the grant amount. Matching funds cannot be federal dollars. The Foundation also awarded approximately \$250K in 2012. Interested applicants should check this website for future grant opportunities

<http://www.gulfmex.org/conservation-restoration/gulf-conservation-restoration-and-preservation/>

### ***Bullitt Foundation***

The mission of the Bullitt Foundation is to protect the natural environment through promotion of responsible human activities and sustainable development in the Pacific Northeast. The foundations program areas include Ecosystem Services; Energy, Industry, and Technology; Urban Ecology; and Leadership and Civic Engagement. The foundation currently focuses grant making on 10 different strategies, which include the following: 1) Fostering environmental coalitions and furthering collaboration 2) Encouraging strong partnerships between grantees and local groups in the private, public, and tribal sectors to achieve broad consensus on issues of public interest 3) Supporting state and regional offices of national environmental organizations whose resources can lend valuable expertise to make sure that local efforts are coordinated with regional and national efforts 4) Supporting credible research, monitoring, and analysis to ensure advocacy campaigns are grounded in the best available science 5) Developing and promoting appropriate messages for public education. Grant applicants must submit a letter of inquiry online. If accepted, the applicant will be invited to submit a full proposal for evaluation.

**Eligibility:** Non-profit organizations in the Pacific Northwest (Washington, Oregon, Idaho, British Columbia, western Montana, and Coastal Alaska from the Cook Inlet to the Canadian border)

In order to be considered for the May 1 proposal deadline, **Letters of Inquiry must be received on or before March 15<sup>th</sup>.**

Grant making process: <http://bullitt.org/grantmaking>

### ***The Russell Family Foundation***

#### ***Environmental Sustainability Program***

The Russell Family Foundation's Environmental Sustainability Program aims to protect and restore Puget Sound by supporting three main focus areas: 1) Polluted Runoff and Green Infrastructure, 2) Environmental Education, and 3) Restoration and Protection of the Puyallup Watershed. Through these focus areas, the Foundation hopes to improve behaviors among Puget Sound residents to reduce polluted runoff; encourage and test green infrastructure innovations; improve local, state, and federal codes; increase environmental literacy; and promote effective management of land use and water quality of specific watersheds (such as the Puyallup). In 2013, the Foundation's Environmental Sustainability Program paid out approximately \$1.9 million, with an average award of \$45K.

**Eligibility:** Tax-exempt organizations as determined by the Internal Revenue Service.

A Letter of Inquiry (LOI) must first be submitted and approved before a full proposal will be accepted. The deadline to submit an LOI for this program is **February 5, 2014**

<http://www.trff.org/environmental-sustainability/>

***Mary A. Crocker Trust***

The Mary A Crocker Trust is a charitable foundation located in San Francisco, CA. The Trust's Environment program area focuses support on the areas of waste management and recycling, water quality, land use management, and sustainable agriculture and forestry. The Trust is primarily interested in Bay Area programs, with an annual award budget of approximately \$500K. Typical award amounts range between \$10K and \$25K.

**Eligibility:** The Trust does not fund individuals, for annual campaigns, continuing support, deficit financing, or sectarian purposes.

The deadline for submitting a one-page letter of interest is March 5, 2014.

<http://mactrust.org/home.html>

## International Opportunities

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### ***The Rockefeller Foundation***

One of the foundation's current initiatives is developing climate change resilience in the areas of Asian urban environments, African agriculture, and US policy. As the foundation is a "proactive grantmaker," it does not accept proposals without staff invitation. Grant seekers must submit a funding inquiry form.

**Eligibility:** The foundation partners with governments, foundations, donors, NGOs, and private sector groups

<http://www.rockefellerfoundation.org/our-work/current-work/developing-climate-change-resilience/grants-grantees>

### ***The Kresge Foundation (re-posted from National-Scale Opportunities section)***

This foundation's Environment program invests in projects within the U.S., as well as selects initiatives in Canada. The Environment program supports communities that are striving to become more resilient, meaning they will be better positioned to prosper amid the range of circumstances they could encounter as consequences of climate change. Currently, the Kresge foundation is refining the funding priorities for the Environment program; therefore, the portal is currently closed for unsolicited funding requests. As this foundation has been supportive of climate change adaptation work in the past, interested applicants should check back with the foundation's website frequently to stay abreast of new developments relating to the program refinement.

**Eligibility:** U.S. based 501(c)(3) organizations (and Canadian equivalents), government entities

<http://www.kresge.org/programs/environment/adaptation-climate-change>

### ***Great Lakes Protection Fund (re-posted from Regional-Scale Opportunities Section)***

The Great Lakes Protection Fund is seeking preproposals for a suite of projects that will help "design, develop, test, and evaluate innovations to advance the next generation of actions to protect and restore the ecological health of the Great Lakes." The Fund is providing support through three focus areas: 1) Tools for next generation of water utilities (e.g., value-based pricing and new transactions for utility services, asset management strategies for water resources, etc); 2) Strategies for smarter lakes (e.g., real-time performance monitoring of stormwater infrastructure, real-time AIS detection systems, prototype water quality alert networks); and 3) Putting financial capital to work for the Great Lakes (e.g., certification programs for industrial/agricultural water users). More examples of potential projects are included for each of the three focus areas on the Fund's website. Projects should be led by interdisciplinary, action-oriented teams seeking to benefit the Great Lakes Ecosystem. The average level of support for past projects is around \$460K, with awards ranging from \$20K to \$1.5 million.

**Eligibility:** Non-profit organizations, institutions of higher learning, for-profit businesses, government agencies, and individuals. Canadian organizations are also eligible.

Preproposal deadline is **February 3, 2014** for consideration at the Fund's June 2014 board meeting.

<http://glpf.org/working-with-us/projects-wanted>

### ***Federation of Canadian Municipalities***

#### ***Green Municipal Fund (GMF)***

Through the GMF, the Federation of Canadian Municipalities funds the best examples of innovation in municipal sustainable development. The funded work must aim to achieve significant environmental impacts and have potential to be replicated in other Canadian communities. The GMF provides support for three types of initiatives (plans, studies, and projects), in five sectors of municipal activity (including brownfields, energy, transportation, waste, and air). The Federation is anticipating approving \$45 million in loans and \$5 million for capital projects in the energy, transportation, waste, and water sectors; \$40 million in loans in the brownfields sector; and \$6 million in grants for plans, feasibility studies, and field tests.

**Eligibility:** Municipal Governments and their partners (this includes cities, counties, regional governments, towns, townships, villages, local boards, regulatory authorities, and improvement districts). For a complete list, see link below.

Applications for funding are accepted on a rolling basis.

<http://www.fcm.ca/home/programs/green-municipal-fund.htm>

### ***Environment Canada***

#### ***Green Source Funding Database***

Environment Canada hosts an online database of funding opportunities for organizations undertaking environmental projects. These opportunities include funding, in-kind donations, and labor costs contributions. Through this database, Canadian communities and organizations can identify funding opportunities, which are organized by keyword, issue, geography, as well as application deadline. The database contains opportunities for municipalities, academic institutions, non-profit organizations, Aboriginal organizations, community groups, and individuals.

<http://www.ec.gc.ca/financement-funding/default.asp?lang=En&n=768DAFB1-1>

### ***Environment Canada***

#### ***EcoAction Community Funding Program***

The EcoAction Community Funding Program is supported by Environment Canada, and supports community groups that are completing projects that have measureable, positive impacts on the environment. The program supports project work addressing four main focus areas: 1) Clean air (reducing emissions), 2) clean water (improving water quality), 3) climate change (reducing emissions, as well as addressing impacts of climate change), and 4) nature (reducing biodiversity loss). Awards range up to \$100K, but Environment Canada requires that 50% of the total project value must come from non-federal sources. The maximum project length is 36 months.

**Eligibility:** Environmental groups, community groups, community-based associations, service clubs, and Aboriginal organizations. Businesses, academic institutions, individuals, and governments are NOT eligible. The application deadline is typically **November 1<sup>st</sup>** of each year.

<http://www.ec.gc.ca/ecoaction/>

**Royal Bank of Canada (RBC)**

**Blue Water Project**

The Royal Bank of Canada, through its Blue Water Project, is providing support for local/community based organizations in Canada, the U.S, and the Carribean to protect and preserve water. Through this grant program, RBC anticipates projects to support measureable outcomes such as: reduced damage from flooding, reduced rate of stormwater runoff, increased water absorption through natural infiltration, improved water quality of beaches, etc. Projects could include stormwater harvesting, infiltration related projects, bioretention projects, as well as public education efforts on stormwater management practices and water conservation. Grant awards through the Community Action Grants range between \$1K and \$10K

**Eligibility:** a Canada Revenue Agency registered charity in Canada, a 501(c)(3) organization in the US, or an equivalent organization in a country outside the U.S. and Canada. Project work should focus on towns, cities, and urbanized areas with populations greater than 10,000 people.

Application deadline is **February 3, 2014**

<http://www.rbc.com/community-sustainability/apply-for-funding/guidelines-and-eligibility/blue-water-project.html>



## Viewpoint

# Teaching Climate Change

By [Annick Cros](#), Coral Triangle Program Coordinator, The Nature Conservancy



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When it comes to climate change, I've always been a sceptic about the attempts of NGOs to reach out to the "public." Sure, WWF's drowning polar bears have made me shed a tear, but not once have I traded my car for the bus because of them — and I am someone whose work is dedicated to finding solutions to the threats of climate change. So if the polar bears don't get to me, what does make me switch from jumping on a plane to Indonesia to video conferencing? Well, truthfully, it is making savings to my small project budget, not missing yet another ukulele class, or being there for my friend's special birthday. The justification to my supervisor? Cutting down on CO<sub>2</sub> emissions.

So, if I can't be convinced to adopt a certain lifestyle for the sake of polar bears, or any other wildlife for that matter, but would gladly make the effort if it saves me money, maintains my current lifestyle or even improves it, why are NGOs still trying to convince the public with the same of teary-eyed strategy? And who actually are they targeting?

I taught a Biology 101 class this past fall to non-biology majors at the University of Hawaii. The students were a mixture of majors, ages 19 to 23 with a few more mature students that had just finished serving in the army. There were students from Hawaii, the mainland, and abroad (mostly Japan and China). One of the topics I had to cover was climate change. Out of 60 students, only 5 knew that climate change was an issue. Out those, two thought climate change was an issue created by scientists to manipulate the American people. Out of the last two, one 20-year-old woman had gone to Punahou, one of the best high schools in Hawaii and the other woman was 45. Incidentally, the 45-year-old was the only one who knew about the hole in the ozone layer.

I asked my colleagues to lend me the essays their students had written on climate change. Out of 180 students about 75% wrote that they felt that they didn't take an interest in climate change because:

- They didn't know it was an issue,
- They didn't feel it concerned them,
- They didn't understand it, they thought it was too scientific for them.

Of those, about 30% thought that melting icebergs were the main consequence of climate change and that they did not feel concerned about cute polar bears (the students were not prompted to talk about polar bears).

About 90% of my students didn't know that the major cause of global warming was CO<sub>2</sub> emissions, or that burning fossil fuel was the main source of CO<sub>2</sub> emissions. Asked what a carbon footprint was and why it was interesting, only one person had heard about it. You might think I am exaggerating, but I wouldn't have had the audacity to give so little credit to students at the University of Hawaii. I was completely taken aback by the total lack of knowledge, but far worse, by the lack of concern shown by these young adults. These future business managers, entrepreneurs, consumers and educators are the very people who most need to be convinced that the world has to change because they will be the people making the decisions. Yet, not a single message from NGOs or the scientific community had reached them.

The silver lining in this story is that the same students were easy to talk to, were open to learning about the issues of climate change and were curious enough to ask questions. I don't expect them to read the next National Geographic or any scientific paper, but maybe they'll think about our discussion next time they have to decide between buying a locally grown mango or one flown in from Ecuador. Even if they do buy the mango from Ecuador because ironically it is about half the price of the locally grown ones, they might eventually either have the money to make the "right" choice, or get tired of making the "wrong" choice and want to see changes in the system.

Next semester, with the University of Hawaii, I will be helping to organize a week-long seminar for high school teachers on climate change and its impacts. Targeting education at the high school level will help students feel confident that they have the capacity to understand these issues and hopefully grow into adults that understand the consequences of their choices. At University level, I would make certain classes, such as environmental ethics, mandatory for future leaders of industries, politics and education. You are interested in business? You want to develop or manage a large company? Well, this is what you need to know about the impacts of your actions on the planet. But most importantly, this are the impacts of your choices on your money, your lifestyle and your family.

PS. If anyone is interested in coming to speak about climate change adaptation and environmental strategies for the seminar, please contact me. I have funding to bring in a guest speaker — or we can video conference you! **SC**

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