I&M Program's Role in FY 2010 Climate Change Activities
November 18, 2009 Latest Developments

There continues to be a flurry of activity related to addressing climate change impacts. DOI Secretary Salazar has identified Climate Change Response and Youth as two major priority areas, and there have been numerous meetings among DOI and bureau leaders and budget staff trying to develop the vision and work out some of the details about how the DOI bureaus will work together to meet the significant challenges ahead.

The NPS received $10 Million in FY 2010 for the Climate Change Response Program. The details of how these funds will be allocated are still being worked out (e.g., the National Leadership Council is meeting this week, and climate change is the major topic), but the funds will be available for park competitive projects through the SCC; funding of 5 CESU and other positions in regions; funding for vulnerability assessments and scenario planning; adaptation coordination with the DOI Landscape Conservation Cooperatives (LCCs) that are being set up; development of a template for park cc adaptation plans; SCA or other interns; details and permanent positions at the national level; and funding to build upon existing monitoring and to strengthen interagency monitoring coordination.

The US Fish and Wildlife Service is getting a large funding increase to build an I&M Program for the National Wildlife Refuge System, and to address climate change issues through eight interagency LCCs that they are funding this year. We have had a series of meetings with FWS leaders, and our I&M Program will be working very closely with the FWS on inventories, monitoring, and possibly teaming up with us on the IRMA data system development. The FWS has decided to base their new national I&M program staff in Fort Collins, possibly on the third floor of our building, so that we can work together. They've provided a lot of information on their climate change website: http://www.fws.gov/home/climatechange/

Meanwhile, the USGS is receiving a lot of new money and is figuring out how to coordinate with NPS, FWS, BLM, and other agencies and States inside and external to DOI, but they are still in the process of hiring key staff to lead the efforts. Our needs for climate model downscaling, vulnerability assessments, scenario planning, data synthesis and modeling, climate change monitoring, and other needs overlap considerably with the needs of other agencies and States, so everyone is trying to figure out how to coordinate all of this across agency and funding boundaries, and waiting to see how the Regional CC Response Centers and LCCs develop.

The latest vision of the LCCs (Landscape Conservation Cooperative) is that they are interagency science and technical support teams that "provide scientific and technical support for landscape-scale conservation in an adaptive management framework, by supporting scientific assessment, conservation design, prioritizing and coordinating research, and designing inventory and monitoring programs." Basically, they are a lot like our I&M Networks: a group of scientists, data managers, GIS specialists, various "ologists" working together to produce reports, GIS products, models, and expertise to inform land management and planning. This year, the FWS plans to fund and hire a bunch of people for the following 8 LCCs:

- Arctic Plains and Mountains (Alaska)
- Pacific Islands (Hawaii and the western Pacific)
- California
- Great Northern
- Plains and Prairie Potholes
- Southern Great Plains
- North Atlantic
- South Atlantic

A map showing the proposed LCC areas for the lower 48, and the convex hulls for our I&M networks that are associated with six of these LCCs, is available at (128 kb .pdf file):
http://www1.nrintra.nps.gov/im/docs/DOI-Framework_NetworkHulls_CONUS_20091117.pdf

As part of the NPS Climate Change Response Program, we will be providing monitoring funding this year to six groups of parks that fall within four "high vulnerability to climate change effects" thematic areas, for the purpose of enhancing and building on the existing monitoring being done by the I&M networks. The six groups of parks are:

- High Latitude parks in Alaska
- Pacific Island parks (enable the PACN to contribute to the Pacific Island LCC)
- High-elevation parks in the ROMN, GRYN, and UCBN networks
- Atlantic Coastal parks in the NETN, NCBN, and NCRN networks (contribute to the North Atlantic LCC, but emphasis on coastal and marine parks)
- Atlantic Coastal parks in the SECN (contribute to the South Atlantic LCC, with emphasis on the coastal and marine parks and interagency collaboration)
- Southwest Desert parks in the SODN, CHDN, and MOJN networks (the NPS will take the lead initially on the Desert LCC since the FWS is not funding the Desert LCC this year).

Each of these six groups of parks this year will hold meetings and conference calls and work with partners to develop a work plan describing how the monitoring funding in FY 2011 and beyond will be used to enhance the existing monitoring. The description of what the networks involved in these "thematic areas" need to do was described in the September 15 update:
http://www1.nrintra.nps.gov/im/docs/CC_Monitoring_Update_15-Sep-2009.pdf

As explained in the September 15 update, our long-term strategy (it may take us multiple years, as it did with the 32 networks) is to provide additional funding for climate change monitoring for all parks with significant natural resources. However, we will start with the subset of parks that fall into one of the groups listed above. Multiple I&M networks will be involved in each of the high-vulnerability "thematic areas", and not all parks in a particular network will be included.

A major role of the I&M Program and the 32 I&M networks is to "put science into the hands of managers and planners". Most of the vital signs being monitored by the I&M networks are relevant to tracking and responding to rapid climate change. The data sets that we have already compiled and organized, as well as inventory data and the landscape-scale datasets generated by the NPScape Project, will make an important contribution to the LCCs and the DOI's efforts to respond to climate change impacts. By continuing to do what we are already doing, all 32 I&M networks and the national program staff will be contributing to the climate change response. Much of the NPS capacity for science, data analysis, and modeling currently resides within the I&M Program.

Several other Noteworthy Items:

- We're still on track to deliver the datasets and documents generated by the NPScape Project to all 32 networks by Christmas, as described in the Sept. 15 update. Peter Budde is the project lead.
- Associated with a DOI Youth initiative, we have requested 160 technicians (approximately 5 for each of the 32 networks). These might be SCA interns or 6-month seasonals or something else; we don't have any details, but there's actually a chance that this could happen in FY 2011 or 12.
- Gary Machlis, the new Science Advisor to the Director, is beginning to develop a major Science initiative for the NPS for the FY 2012 budget. This would be a major budget initiative, on par or larger than the Natural Resource Challenge, that he will develop by May 2010 to get it into the

FY 2012 budget request. The I&M Program and the Climate Change Response Program will be major factors in whatever is developed.

- We are doing the contracting paperwork to hold an I&M Program meeting during one of the four weeks in March 2010. We have identified five cities, and we have to go through the competitive contracting process before we know which week and where the meeting will be. Lisa Garrett is leading the organizing committee, and they are using the results of the survey that we sent out, asking people what their priorities are, as the basis for organizing the meeting. We're expecting somewhere around 300 people to attend. There is a lot of interest from the FWS and USGS and other agencies to attend.
- We are contributing to a research solicitation that would involve NASA, FWS, NPS, USGS, and possibly the National Science Foundation to develop forecasting tools to project the impact of a changing climate on populations, species, and ecosystems. The research proposals would need to include NPS scientists or data managers from I&M or other programs.