NIDIS EVALUATION SURVEY

1/1/2013

SURVEY RESULTS

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NIDIS Evaluation Survey

SURVEY RESULTS

BACKGROUND

The National Integrated Drought Information System (NIDIS), established by federal law in 2006, is an interagency, multi-partner effort to improve the nation's capacity for management of drought-related risks through provision of best-available information and tools for monitoring, forecasting, impact assessment, preparedness and mitigation. An executive council, a program office, an implementation team, and technical working groups were established to provide guidance for the implementation of NIDIS. In its initial phase, NIDIS focused on the development of the following elements:

- Pilot projects or regional drought early warning systems for selected basins across the U.S.
- The U.S. Drought Portal, a website that integrates many federal, state, and academic resources for monitoring and preparing for drought (http://www.drought.gov).
- A research environment focused on forecasting (Climate Test Beds) and integrating impacts and applications research (Coping with Drought).
- The leadership and networks required to improve the communication and collaboration that is needed to create a drought-ready nation.

The NIDIS program office requested a service assessment of established DEWS Pilot projects, the drought.gov portal, and other programming in early 2012. The National Drought Mitigation Center (NDMC) is leading this assessment. The evaluation includes both documenting the process and assessing the outcomes of NIDIS implementation to date. The NDMC has worked with the NIDIS program office to document the process (meetings, workshops, and other activities) of carrying out the NIDIS implementation plan, including participation, products, and outcomes. In addition, the NDMC is gathering information to assess the outcomes of NIDIS implementation, from the perspective of NIDIS stakeholders. The first stage of the outcome assessment was accomplished in July 2012, with a survey of NIDIS stakeholders across the country.

JULY 2012 NIDIS STAKEHOLDER SURVEY

The NDMC surveyed NIDIS contacts in the Apalachicola-Chattahoochee-Flint River basin (ACFRB), Upper Colorado River basin (UCRB), and Southern Plains, as well as lists of NIDIS Engaging Preparedness Communities (EPC) participants and others who have participated in NIDIS activities. The survey link was sent to 574 email addresses, representing the full contact lists minus NOAA and NDMC employees. After the initial email sent on July 24th, two additional reminder emails were sent over the next two weeks. A total of 133 people viewed the introductory page of the survey, representing a gross response rate of 23%. Of these, 109 chose to begin the survey and 100 completed a usable portion of the survey, bringing the adjusted response rate to between 17% and 19%. (Table 1)

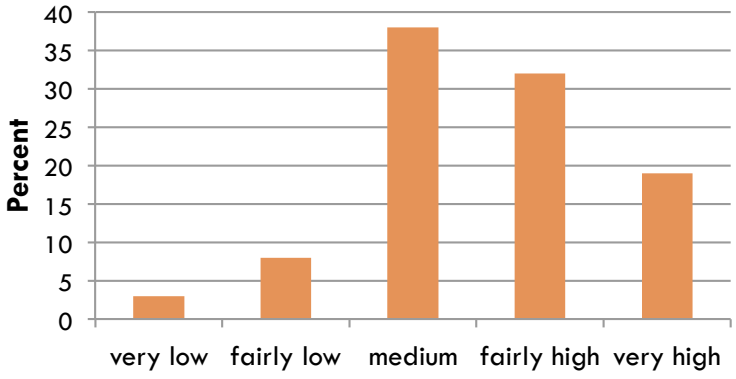
TABLE 1: SURVEY SAMPLE AND RESPONSE

Email Contact List	Survey Population #	Valid Response #	Response Rate
ACF River Basin DEWS Pilot	206	31	15%
Southern Plains Emerging Drought Area	139	24	17%
Upper Colorado River Basin DEWS Pilot	180	35	19%
General/Non-Pilot (lists from EPC and other NIDIS meetings)	49	10	20%
Total	574	100	17%

About the Respondents

We asked survey respondents to self-assess their level of experience with drought monitoring/early warning. By self-assessment, it appears that the opinions we've captured in this survey are those of fairly high levels of experience (Figure 1). NIDIS stakeholders who have low levels of experience with drought monitoring/early warning may be under-represented in this report.

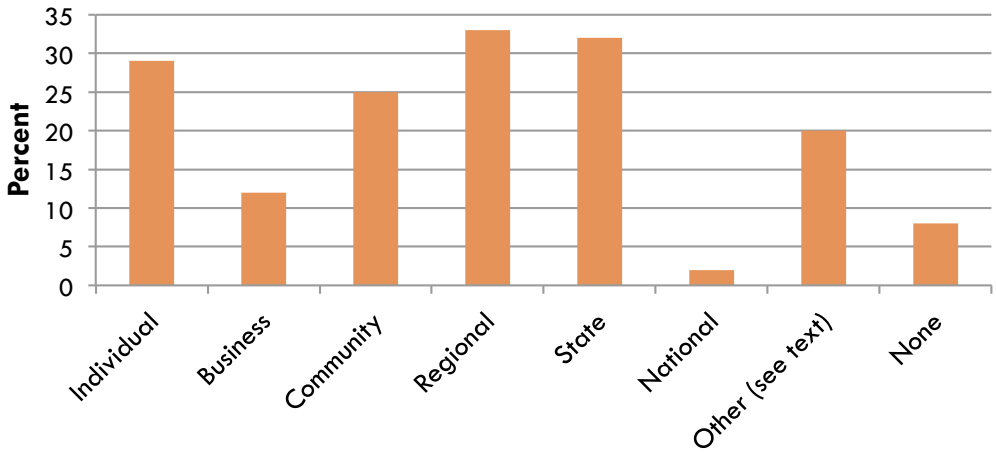
Fig. 1: How would you define your level of experience with drought and early warning information?



We also asked in what capacity or capacities respondents made drought-related decisions, including an option of "none" (for those who are not in a decision-making capacity). Out of 98 responses, 92% of respondents said they did make drought-related decisions in some capacity. The highest percentages

made decisions at the state (32%) or regional (33%) levels. Individual (29%) and community (26%) level decision makers were also represented. Another 12% made decisions at a business level. Also represented were a local water agency, NGOs, researchers, educators, public health, water conservation district, water wholesaler, state level planner, national park, NRCS, and FSA. (See Figure 2)

Fig. 2: In what capacity or capacities do you make drought-related decisions?



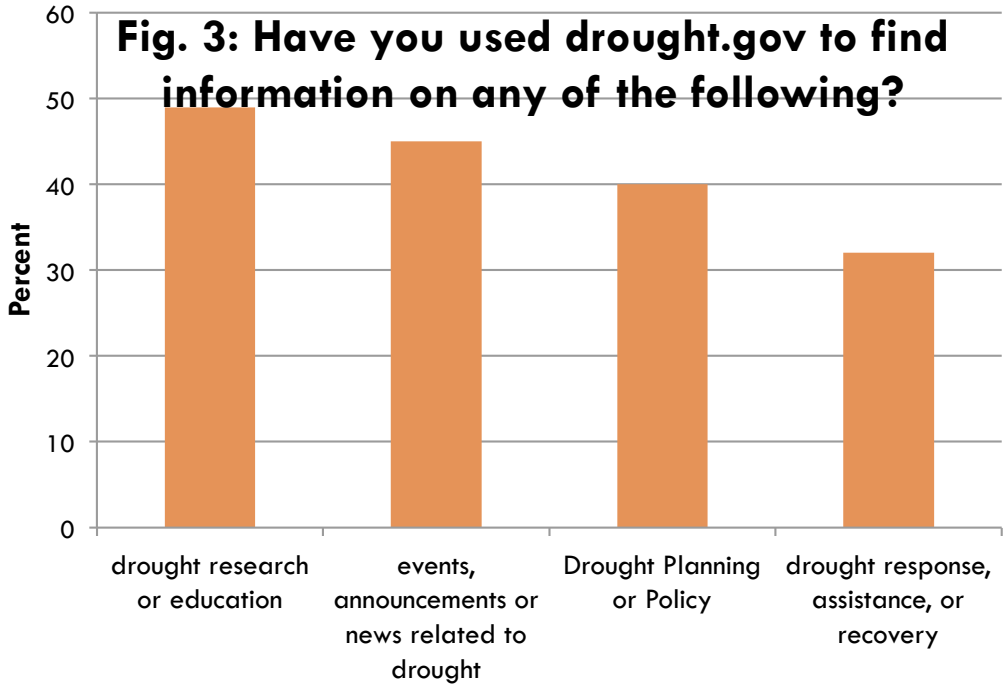
USE OF U.S. DROUGHT PORTAL

The NIDIS Implementation Plan called for the establishment of a U.S. Drought Portal as a way to assimilate and quality control drought data, models, risk information, and impacts, and to create a point of entry for archiving and disseminating data. To accomplish this goal, the implementation team was charged with establishing a Portal Feedback Team, soliciting input and assessing user needs, using feedback to shape the portal, and working with partners to incorporate existing data and resources. The U.S. Drought Portal was released in 2007 as an information clearinghouse.

We asked all of the survey takers about their use of the NIDIS portal, found at www.drought.gov. Of particular interest were the types of information that users had sought in the Portal, and the timeliness, usefulness, and appropriateness in scale of the information they had found.

Drought risk information was a high priority for the U.S. Drought Portal between 2007 and 2012. Program staffers were charged with providing relevant spatial and temporal drought risk information, integrating data resources, supporting interactivity of products, allowing users to find information for specific geographic regions, and supporting links to decision support systems. We asked survey respondents about their ability to find and use this information on drought.gov.

We asked respondents if they had used drought.gov to find information on current drought severity, emerging or anticipated drought conditions, or current or past impacts of drought. As shown in the table below, of 105 respondents, 83% had used drought.gov to find information on current drought severity and 76% had used it to find information on emerging or anticipated drought conditions. Fewer (46%) had used drought.gov to find information on current or past impacts of drought. (Figure 3)



We asked those located in a DEWS Pilot Region (ACFRB or UCRB) (n=62) whether they had used the regional DEWS web pages to find any of the types of drought information listed above. Fifty-five percent said they had used a DEWS Pilot web page; however, 27% said they had not, and 15% said they were not sure if they had used a DEWS Pilot Region page to find the information.

Of those who had used drought.gov to find information on current drought severity, emerging or anticipated drought conditions, or current or past impacts of drought, respondents were quite positive about the information: 62% percent found it very timely and 24% found it moderately timely; 51% found it very appropriate in scale and 26% found it moderately appropriate in scale; and 53% found it very useful and 33% found it moderately useful. (Table 2)

TABLE 2: TIMELINESS, APPROPRIATENESS, AND USEFULNESS OF DROUGHT.GOV INFORMATION

	Not Very	Somewhat	Moderately	Very	Not Sure
Timely (n=85)	0%	5%	24%	62%	9%
Appropriate in Scale (n=84)	0%	6%	26%	51%	17%
Useful (n=83)	1%	5%	33%	53%	8%

In addition to providing drought risk information, the U.S. Drought Portal provides links to partnering resources in planning, education, research, and recovery. The Portal also links to NIDS event

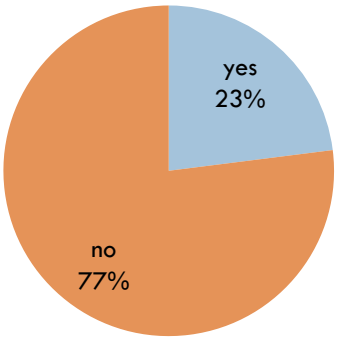
announcements and reports, and also includes a sampling of recent drought news. We asked survey respondents whether they had used drought.gov to find this type of information.

Of 102 respondents, the highest percentage had used drought.gov to find information on drought research or education (49%) and events, announcements, or news related to drought (45%). Slightly fewer had used drought.gov to find information on drought planning or policy (40%) or drought response, assistance, or recovery (32%). (Figure 4) Of those who had used the portal to find general information, 54% found it to be very useful and 31% found it to be moderately useful.

Ability to find Information on U.S. Drought Portal

While most participants had never been unable to find what they were looking for at drought.gov, 23% of users said they had been unable to find what they were looking for. (Figure 4) Examples of information they had been unable to find included:

Fig. 4: Have you ever been unable to find information at drought.gov?



- a comprehensive suite of monitoring products,
- assessment of predictions,
- drought indices' derivation methodologies,
- ensemble streamflow forecasts,
- difference between irrigators and rangeland droughts (for the West),
- forecasting,
- link to Drought Monitor,
- drought response programs,
- the drought level pie chart, and
- more quantitative precipitation forecasts (too vague).

Other comments included: "I found it difficult to orient to site contents and locate the desired information"; "sometimes takes a person familiar with the site to point out what I want"; and "always appears to look backwards".

DROUGHT EARLY WARNING SYSTEM ACTIVITIES

The goals of the NIDIS drought early warning pilots are to explore and demonstrate a variety of early warning and drought risk reduction strategies that incorporate drought monitoring and prediction information in partnership with users and federal, state, regional, tribal, and local agencies.

Through long-term partnership building and carefully planned stakeholder meetings to assess regional needs, DEWS have been established in the following regions:

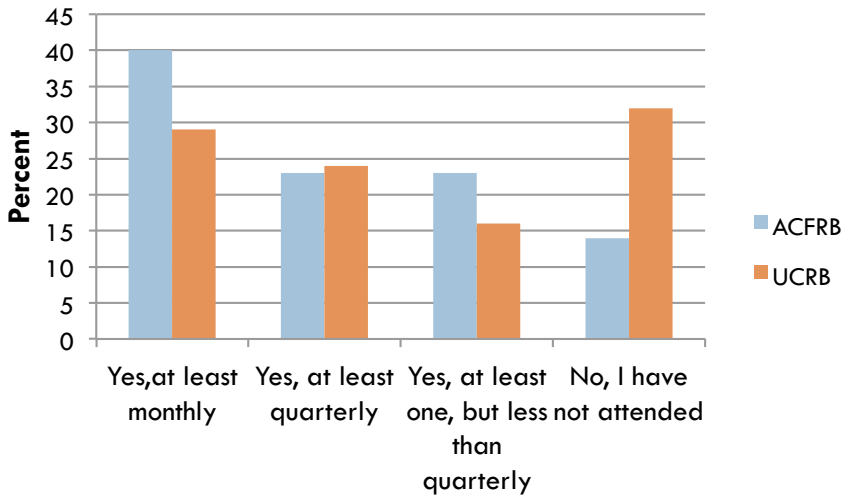
- Upper Colorado River Basin
- Apalachicola-Chattahoochee-Flint (ACF) River Basin
- Four Corners Tribal Lands

Assessment in this document will focus on the UCRB and ACFRB DEWS pilots. Assessment for the Four Corners Tribal Lands area will take place under a separate evaluation initiative.

Drought Assessment Webinars

Both the UCRB and the ACFRB DEWS pilots tested a relatively new (but now increasingly common) method of information sharing and stakeholder communication – the drought assessment webinar. Through the periodic webinars, drought and water supply information were presented in a streamlined manner for a wide range of stakeholders, and stakeholders were able to question the experts directly regarding their monitoring and predictions. Webinars began in the UCRB in 2010 and in the ACFRB in 2011.

Fig. 5: Have You Attended DEWS Drought Assessment Webinars?



We asked survey respondents in the UCRB and ACFRB about their participation in drought assessment webinars. In the ACF River Basin (n=35), 40% attended drought assessment webinars as least monthly, and only 14% had never attended a drought assessment webinar. Attendance among UCRB respondents (n=38) was slightly lower, with 32% reporting they had never attended a drought assessment webinar. (Figure 7)

Climate Outlook Forums

NIDIS also conducted climate outlook forums in the Southern Plains Region as drought developed throughout 2010 and 2011. As early as the summer of 2010, NOAA's Climate Prediction Center predicted La Nina conditions would increase the potential for drought formation across the southern United States. The forecast for drought formation was verified, and this drought has subsequently become one of the most severe multiple-year droughts on record. The 2011 Water Year in Texas, for

example, was the driest in 100 years with impacts in water resources, agriculture, energy, and tourism of more than $5 billion to date.

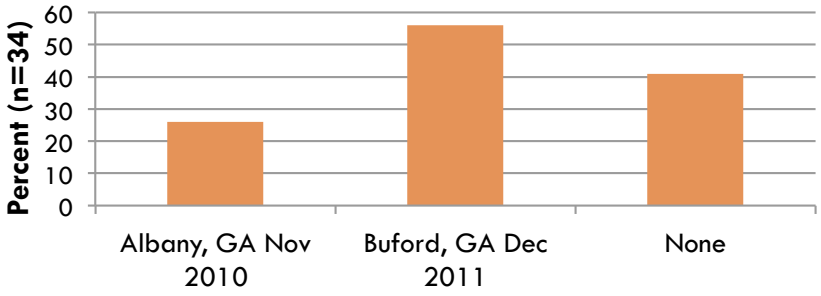
NIDIS (OAR/CPO) conducted a series of three drought information outlooks (July 2011, November 2011, April 2012) in the Southern Plains, with the Regional Climate Services Directors (NESDIS) and the Southern Region NWS Office, in partnership with the states of Texas, Oklahoma, New Mexico, and others.

The drought/climate outlook forums are a new approach to improve communication and delivery of drought early warning information for planning and risk management. The work has been highlighted in national media—e.g., the Wall Street Journal (2 January 2012). The research to develop these early warnings and outlooks on critical areas of impact, monitoring, and forecasts were developed and supported by NOAA through its Regional Integrated Sciences and Assessments, Physical Sciences Division and the NWS Climate Prediction Center.

NIDIS also used drought/climate outlook forums as a method of communication and drought early warning in the ACF River Basin. NIDIS conducted climate outlook forums in the ACF River Basin in November 2010 and December 2011.

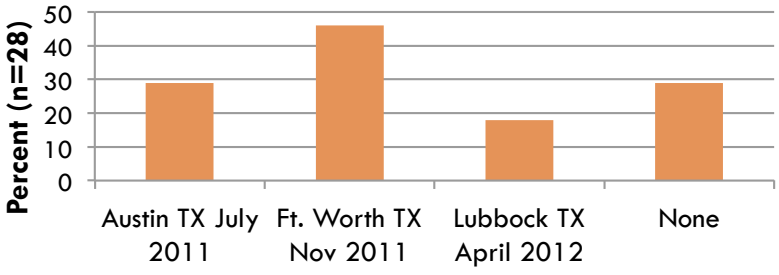
To learn more about the impact of the Climate Outlook Forums, we asked survey respondents in the ACF River Basin and in the Southern Plains Region a few questions specific to their participation in the forums. When asked which Climate Outlook Forums they had attended, the highest percentage of the ACFRB respondents (56%) said they had attended the Dec. 2011 forum in Buford, GA. Twenty-six percent had attended the Nov. 2010 forum in Albany, GA, and 41% had attended neither. (Figure 6)

Fig. 6: Did you attend any of the following Climate Outlook Forums (ACFRB only)



Of Southern Plains region respondents (28), the highest percentage (46%) had attended the November 2011 forum in Ft. Worth, TX, which was the second in the series. Twenty-nine percent had attended the July 2011 forum in Austin, TX, and 18% had attended the April 2012 forum in Lubbock, TX. Twenty-nine percent had not

Fig. 7: Did you attend any of the following Climate Outlook Forums (Southern Plains only)

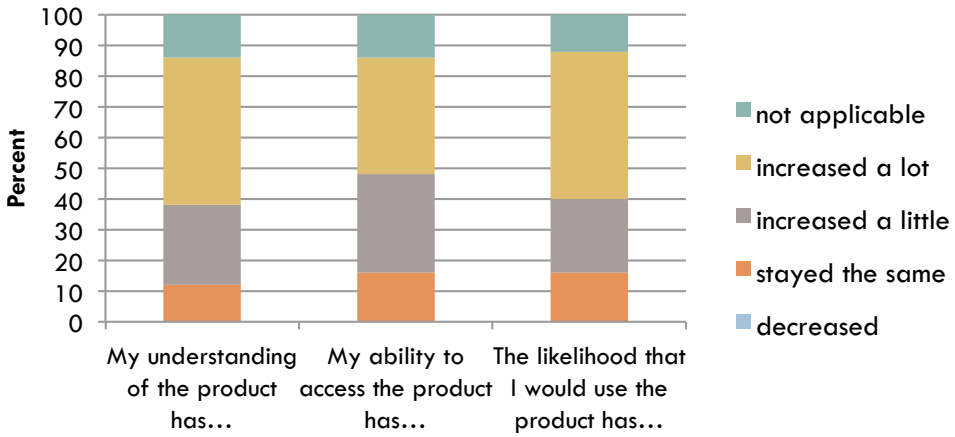


attended a Climate Outlook Forum. (Figure 7)

Climate Outlook Forum: Changes in Users' Ability to Use Climate Outlooks

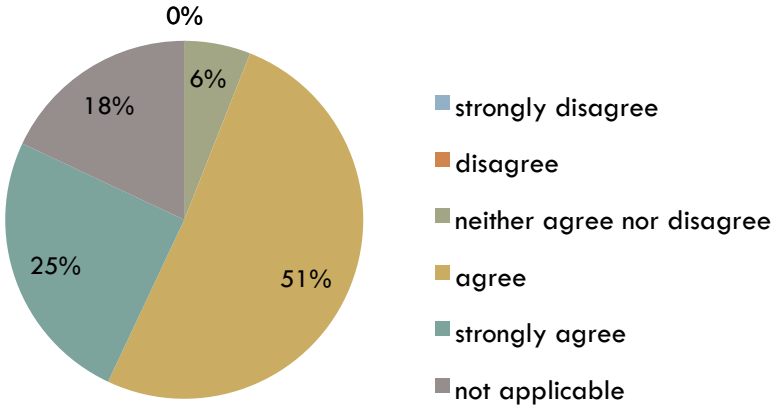
We asked those who had attended a Climate Outlook Forum about their experience with one example climate outlook product that was featured at all of the sessions – the NOAA/CPC 3-month Outlook for temperature and precipitation. In response, 48% said their understanding of the product had increased a lot and 26% said their understanding had increased a little; 38% said their ability to access the product had increased a lot and 32% said it had increased a little; and 48% said the likelihood of them using the product had increased a lot (24% said it had increased a little) (n=50). (Figure 8)

Fig. 8: Changes Experienced by Climate Outlook Forum Attendees



We were also interested in whether Climate Outlook Forum information was presented at the time needed for making decisions. In response to the statement "The information presented at the Climate Outlook Forum was available at the time that I needed to make decisions", 51% said they agreed that it was, and 25% said they strongly agreed that it was. Only 6% neither agreed nor disagreed, and no one disagreed or strongly disagreed with the statement. (Figure 9)

Fig. 9: Climate Outlook Forum information was presented at a time I needed it…

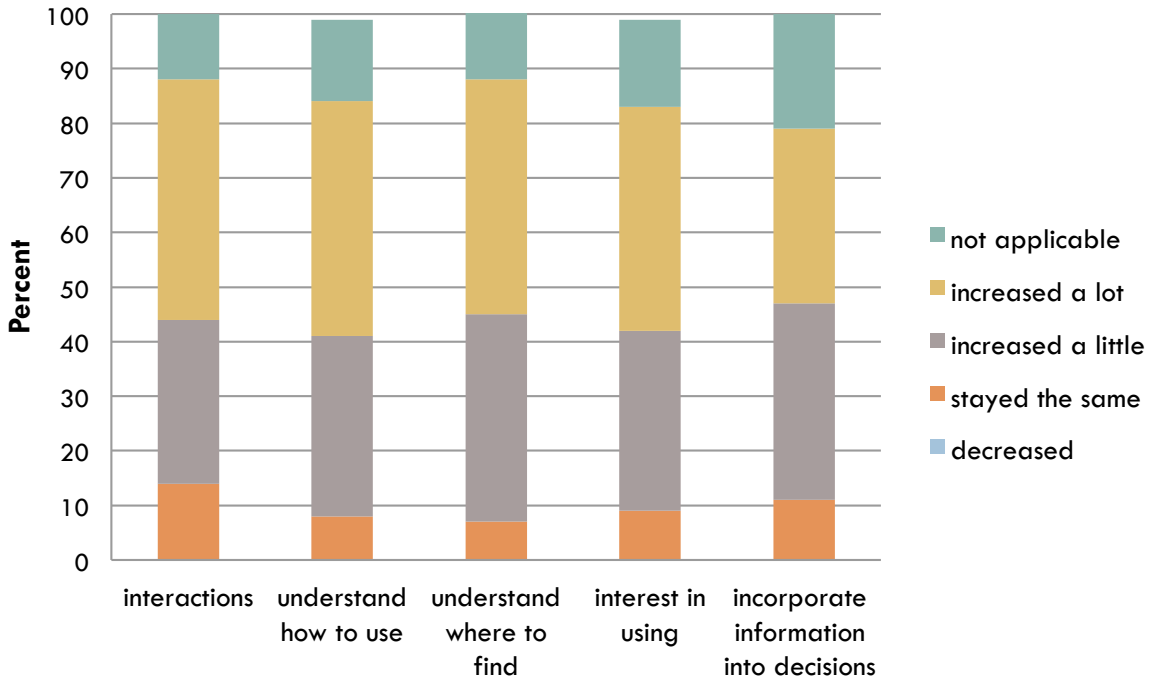


Webinar/Climate Outlook Forum: Changes in Users' Ability to Find, Understand, and Use Climate Information

Both the webinars and Climate Outlook Forums included a goal to increase stakeholders' ability to find, understand, and use climate information. To learn more about the impact of the webinars and Climate Outlook Forums on stakeholders, we asked survey respondents from the ACFRB, UCRB, and Southern Plains Region who had attended at least one webinar or forum about changes they've experienced as a result.

Of those who had participated in at least one webinar or climate outlook forum (n=88 for all questions except interactions (n=86) and interest in using (n=87)), 44% said their interactions and exchange of information with other basin stakeholders have increased a lot (and 30% said it increased a little); 43% said their understanding of how to use available drought and water supply information has increased a lot (and 33% said it had increased a little); 43% said their understanding of where to find drought and water supply information has increased a lot (and 38% said it had increased a little).; 41% said their interest in using drought and water supply information to make decisions has increased a lot (and 33% said it has increased a little); and 32% said their ability to incorporate drought and water supply information into decisions they made has increased a lot (and 36% said it has increased a little). (Figure 10)

Fig. 10: Changes in Webinar and/or Climate Outlook Forum Attendees



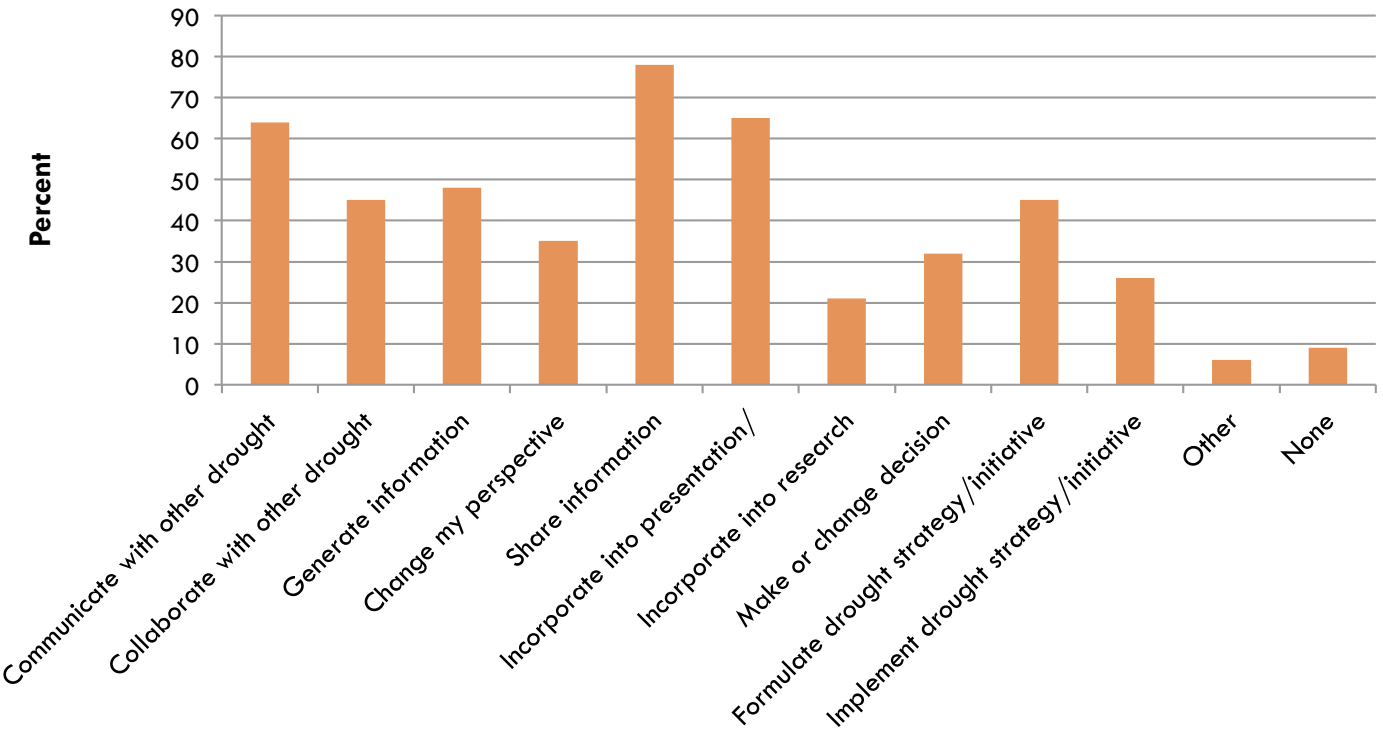
ACTIONS STEMMING FROM NIDIS INFORMATION AND ACTIVITIES

Changes in knowledge and understanding are important short-term outcomes of a program. Measuring longer-term program impacts requires that we ask about changes in actions or behavior that have arisen out of the program activities. In order to take a preliminary look at changes in behavior arising out of NIDIS programming, we asked survey respondents to read through a checklist of actions ranging from sharing information to making decisions, and check all of the activities that they had taken as a result of NIDIS information (webinars, forums, and workshops, as well as the U.S. Drought Portal). Results of this survey indicate that the impact of NIDIS information is multiplied through information sharing, communication, and information repackaging. Of 100 respondents, 78% said they had shared information with another person; 65% had incorporated information into a presentation or publication; 48% had generated information using a specific product or resource found on the portal; and 21% had incorporated information into a research objective.

Communication and collaboration appeared to increase as a result of NIDIS, with 64% saying they had communicated with, and 45% saying they had collaborated with, drought professionals across disciplines/sectors/regions. Decision making was also impacted: 32% percent said they had made, confirmed, or changed a decision, and 35% had changed their perspective on an issue as a result of NIDIS information. In addition, 45% had helped to formulate (and 26% had helped implement) a drought-related strategy, plan, program, or initiative. (Figure 11)

Other individuals wrote in that they followed droughts nationally, launched a new research project for the planning community, did a better job of educating their clients on drought, and addressed media questions or other questions. Only 9% said they did none of the things we asked about with the NIDIS

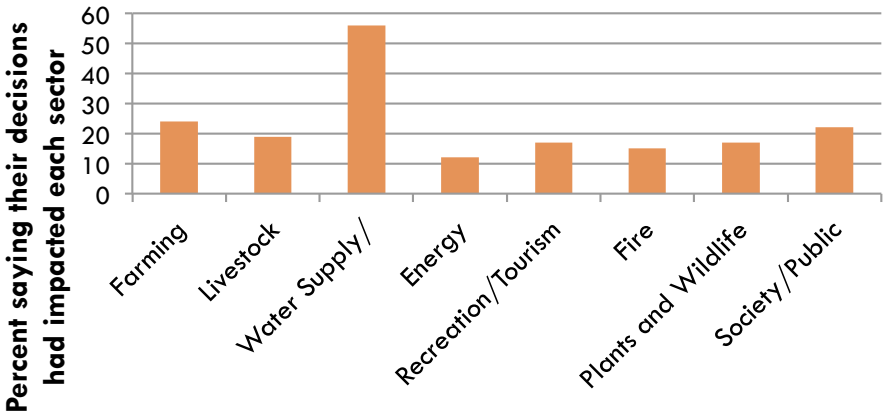
Fig. 11: Actions Taken as a Result of NIDIS



information.

Of those who said NIDIS information was used in decision making, we asked which sectors were impacted by those decisions. The highest percentage, by far, was water supply/quality (56%). Other sectors impacted were farming (24%), society and public health (22%), livestock production (19%), recreation and tourism (17%), plants and fish/wildlife (17%), fire (15%), and energy (12%). (Figure 12)

Fig. 12: Sectors Impacted by NIDIS Information



We asked respondents for examples of how NIDIS had been used in decision making, to start new programs, or to create new resources. Twenty-four individuals provided comments, grouped below:

Decision Making

- It has helped us determine the appropriate recommendation for the Governor's Drought Declaration. It provides information that we use, along with other data, to determine response for supplying alternate sources of stockwater supplies. (Southern Plains)
- NIDIS is one of the resources that my groundwater conservation district uses to assess the need to declare drought or a change in severity in drought stages, which translates into mandatory water use curtailments by our permittees. (Southern Plains)
- The drought information provided by NIDIS was extremely helpful in LCRA's decision about water supply and water supply planning for 2012. The deviation from LCRA's water management plan, approved by the Texas Commission on Environmental Quality, used drought information and forecasts from NIDIS to make this decision. (Southern Plains)
- We use it every month in our report to the Governor's office on fire danger across the state. (Southern Plains)
- ARA has used information from NIDIS in our push to develop a comprehensive water management plan for Alabama. (AFCRB)
- Presentations to Board of Directors to seek buy-in and understanding of our drought response strategies. (UCRB)
- Used drought monitor to discuss the need for conservation with board of directors. Also, used to forecast late summer water supplies. (UCRB)

- Used NIDIS to evaluate and implement fire restrictions over the past 2 months. Used NIDIS to implement voluntary watering restrictions. (UCRB)

- I follow drought and other climate-related forecasts (e.g., ENSO) closely so get some idea how the next field season will be. Drought does affect our resource management activities but it's hard to say that the forecast really influences decision-making. (General/Non-Pilot)

New Programs

- I have used the drought monitor maps and animations in talks I have given on drought in Texas. I participate in the bi-weekly drought webinars and find these to be a great source of timely information on drought conditions. Some of the discussions helped me realize the importance of researching factors driving the intensification of drought in the late-spring/early-summer last year. I have focused my research on understanding the predictability of spring precursors to summer drought in Texas. I also attended the drought outlook forum in Fort Worth, TX in November 2011 and was exposed to the extent to which the drought impacted agriculture and livestock. I learned of the various adaptation measures adopted that I would not have been aware of if I did not participated at the forum. (I would be happy to provide more information if needed and can be contacted at…). (Southern Plains)

- My role is a bit different from your typical survey recipients. I am leading a new research project for urban and regional planners in cooperation with NIDIS and NDMC, so we are a step removed from decision making but helping to inform it in the larger world of the planning profession. In that sense, NIDIS becomes for us an invaluable resource, and we hope to make far more use of it in coming months in that capacity. (General/Non-Pilot)

New Resources

- 1. I use the NIDIS portal as one place from which I collate information for US Drought Monitor recommendations from our region. 2. I leveraged the NIDIS portal to gain funding to develop some tools and climate products that can hopefully be integrated into the portal. 3. I intend to partner with the NIDIS staff in future research and outreach projects. (ACFRB)

- In terms of programs or resources started as a result of NIDIS-sponsored activities I have started an electronic newsletter focused on water and drought. (ACFRB)

- NIDIS information and NOAA subject-matter-experts were critical to the development of the Centers for Disease Control and Prevention's (CDC) guidance document titled "When Every Drop Counts: Protecting Public Health During Drought Conditions - A Guide for Public Health Professionals." (ACFRB)

- 1. The Drought Forecasting Home Page is very useful to me as a hydro-meteorologist who does long range precipitation and runoff predictions for users. The "one-stop" shopping for federal CPC related observational data bases and to a lesser extent forecasts is very helpful and provides timely access. In 2002 this information was scattered all over the web and very hard to find, and in some cases, not even available unless you asked for access from developers of the data. 2. CPC-based drought research has improved knowledge of drought and how it forms assisting all professionals in developing new predictive tools. No specific program started

because of NIDIS that I participated in. 3. I have developed long range predictions and prediction tools of Water Year precipitation (SWE, snowpack, etc.) and Drought/Flood occurrence in specific river basins using NIDIS/CPC observational data bases for users in Montana, Colorado, Arizona, New Mexico, Texas and North Carolina from 2002 to present. For more specific information on the programs and tools please contact me by either email or phone. (UCRB)

- I am the PI on a Small Business Innovation Research grant, working on developing drought data products for NIDIS, and collaborating with the Colorado Climate Center. I also am on the Water Board for the City of Fort Collins and have projects with the Colorado Water Conservation Board. I am trying to use information to help use federal data offerings at local and regional level, in a way that is not duplicative of the work of others, and eventually can dovetail into NIDIS offerings. I work some with Chad McNutt at NIDIS. I'm happy to collaborate in any way that would be helpful. (UCRB)

Other Examples of Use

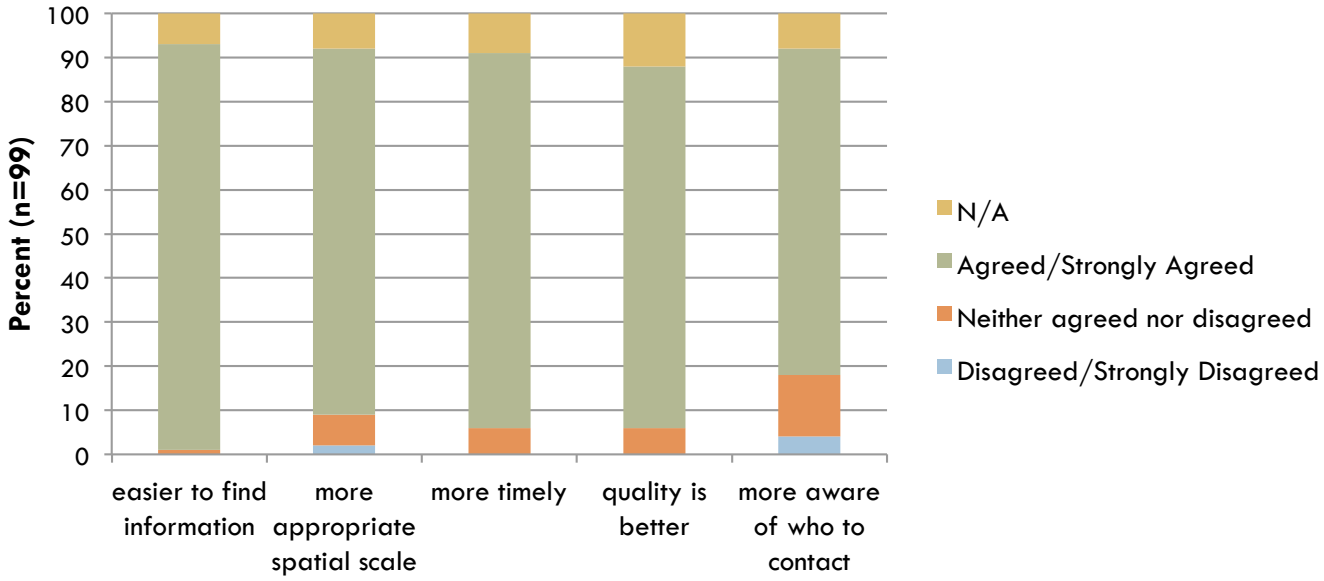
- Better understanding of drought impact throughout the ACF Basin and how it impacts other stakeholders. (ACFRB)
- I regularly use NIDIS graphics in updates for my agency on drought conditions. I also use this information in PowerPoints to update stakeholders on current drought conditions and climatic forecasts. (Southern Plains)
- None (General/Non-Pilot)
- Primarily to educate locals and provide timely water supply information to users. (UCRB)
- Used NIDIS website frequently to communicate with stakeholders at a variety of levels. Please feel free to contact us at … (UCRB)
- We have used NIDIS to examine the status and impacts of regional drought. More information on socio-economic impacts would be useful. (Southern Plains)

Other Comments

- It is nice to have all of the resources located in one location. Communication with others helps a lot as well. (UCRB)
- With USDA Drought Declarations and many other decisions, being tied to the DM map, are the right tools available and being used in Western watersheds where multiple land use is common, dryland and irrigation and forest, and your water source may fall hundreds of miles away? This summer's drought of 2012 across southern Idaho is an excellent example versus basins with ample water supply because of last year's runoff that saved in reservoirs. This may not be noticeable at a national scale, but if the maps are produced at state and fine levels, these drought levels of different intensities become more noticeable. (General/Non-Pilot)

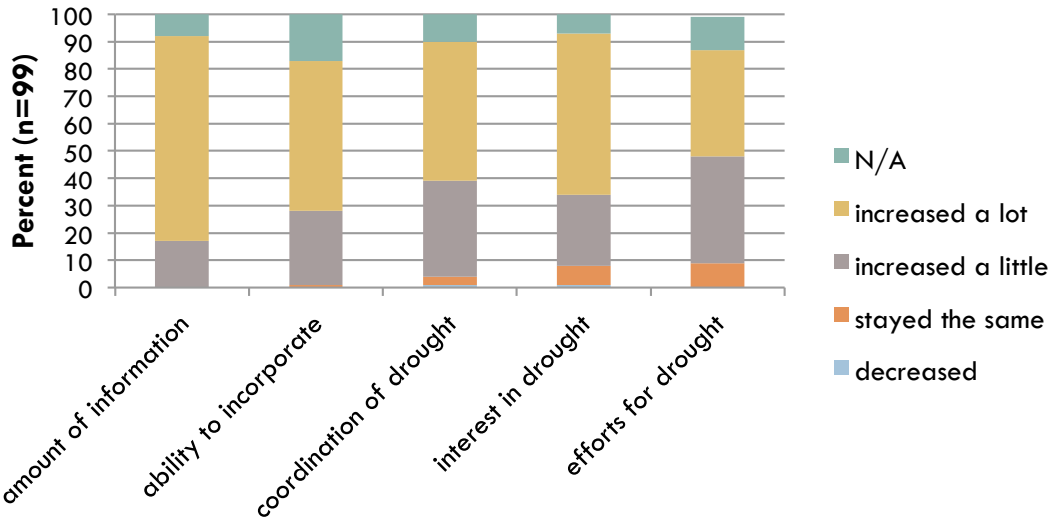
CHANGES IN DROUGHT PREPAREDNESS OVER TIME

Fig. 13: Comparing your readiness for drought before 2002 with now, information is...



We asked questions about general changes in drought preparedness that NIDIS may have impacted since its implementation in 2007. We asked respondents to compare their experience during the 2002 drought with current drought experience. In comparing these two droughts, 75% said that the amount of drought information available to them has increased a lot, 92% agreed or strongly agreed that it is easier to find the drought information they need now, compared with 2002; 83% agreed or strongly agreed that drought information is available at a more appropriate spatial scale now.; 85% agreed or strongly agreed that drought information

Fig. 14: Comparing your readiness for drought before 2002 with now...



is more timely (available when they need it) now; 82% agreed or strongly agreed that the quality of drought information they use in making decisions has gotten better; and 74% agreed or strongly agreed that they were more aware of who to contact with regard to drought preparedness now. (Figure 13)

How much did this access to information translate into changes in decision making? Some 55% of respondents said their ability to incorporate drought-related information into decision making had increased a lot (an additional 27% said it had increased a little); 51% said coordination of drought-related efforts in their area had increased a lot (and 35% said it had increased a little); 59% of respondents said interest in drought preparedness in their area had increased a lot (and 26% said it had increased a little); and 39% said efforts to develop drought preparedness and/or response strategies in their area had increased a lot (39% said it had increased a little). (Figure 14)

Final Comments

Finally, we offered space for general comments about how needs have or have not been met by NIDIS, or about what they would like to see in the future from NIDIS. Responses are grouped by region.

ACFRB:

- Drought preparedness and decision making is directly correlated to the accuracy of 5-day QPF; 2-week, 1-month, 3-month climate forecast outlooks; and monitoring. Continued research to improve the accuracy of forecast products and refined correlation to El Nino/La Nina events is critical to improving Drought Early Warning Systems. In addition, the ability to improve monitoring and correlation to various indices is important. The benefits of large, basin-wide forums are important to communication and collaboration among large, varied stakeholder groups with many different needs.
- I am retired and only active in the ACF Stakeholders organization in the ACF river system. I believe the NIDIS information provided at the ACFS meetings and the use of the drought web casts have been very useful in informing the stakeholders on the actual conditions in the area in a timely matter.
- It is unfortunate that the States, particularly Alabama, do not play a more substantial role in these discussions.
- More involvement from public health and inclusion of a public health agency (e.g., CDC) as a participating agency. Currently included in the list is the U.S. Department of Health and Human Services (HHS).
- Thanks for all the good work you do!

UCRB

- Although we are unable to attend the webinars, we read the summary every week. It has been helpful in explaining current conditions to customers so they have a broader understanding of area conditions.
- NIDIS is challenged because it is charged with integrating the efforts of other agencies. Keep working at it!
- On DEWS website for the Upper Colorado River Basin, the impacts are not represented well just by Lake Powell elevations. Furthermore, the linked website providing Lake Powell elevations is not

a Reclamation website. We recommend linking to http://www.usbrgov/uc/water/crsp/cs/index.html for the most up to date and accurate information. The forecast product could be improved. We suggest linking to http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html

- Some NIDIS participants seemed overly focused in early 2012 to NOT designate drought with the reasoning that reservoir capacity was good....It appears we need an irrigation/water delivery rating for them separate from the drought monitor ratings? M&I user should be reminded of drought conditions and the importance of all uses conserving, frustrating to listen to them downplay or delay posting drought severity.
- Two primary comments about NIDIS: 1. I am a strong supporter of the NIDIS initiatives as a storefront for federal drought information and forecasts and its interactions, especially with states, to become more drought-aware and to provide information on preparation for drought. 2. As a private meteorologist and certified consulting meteorologist I am concerned about the growing encroachment of federal consulting support and "research support" directly to water providers, agricultural and commodity businesses for a fee. While working at both HDR Engineering from 2000-2010 and now Dewberry from 2010-present I am surprised how often I have to compete against federal agencies, labs and university-federally funded "research centers" on RFP's to provide service to the water community and businesses. We have many, many engineering company based water resource and meteorological professionals to service these sectors. We have supported the insurance, agricultural, commodity, energy and water sectors for over 40-50 years and now we are competing against our tax dollars in the form of NCAR, NIDIS, CIRES, etc. professionals who are branching out into "high impact" weather sector support as if no one was there doing the work. For more information: email: …
- Webinars are awesome!

Southern Plains

- I have been surprised at how little NIDIS has benefited me or my state, but NIDIS is gradually becoming more helpful.
- More information on socio-economic impacts would be useful. More information on and coordination with drought response programs would be useful.
- The web site is very user friendly. Info is very easy to find.

General/Non-Pilot Region:

- I find little value added using the portal, it just repackages information from other sources.
- Since 2002, the El Dorado Irrigation District in Placerville, CA has only experienced abnormally dry years or months, and one very brief Stage 1 drought declaration in 2009 (until heavy April/May rains). When we do experience more severe conditions in the future, however, drought.gov will be a resource of tools I will recommend be used. In 2006 EID's consultant (Brown & Caldwell) completed a Drought Analysis report, analyzing historical droughts. In 2008 EID adopted a Drought Preparedness Plan, including a local supply remaining index tool, regional

snowpack data, and Pacific oceanic cycles. In 2009 a staff level Drought Action Plan was completed, and in 2012 we updated and simplified this action plan. These decision making tools identified during the analysis/preparedness process could now be replaced with this drought portal and California Dept. of Water Resources' new tools. Thank you for all of the time and expertise invested in this resource, which was not available during California's extended drought of 1987-1992 and later during dry years. It is good to have this national resource available, even though EID has not fully utilized it to date, other than reading the monthly Drought Monitor reports.

- We are working on trying to automate our Surface Water Supply Index. With this capability may allow expansion to develop a SWSI index in these other basins, less associated with irrigation, that better reflect the rangeland and forest areas. If interested in this index, or if it may be help NIDIS, let me know.