Southwest Practitioners Adaptation Network Launch Event
Workshop Summary Report

Co-convened by the Center for Climate Adaptation Science and Solutions, the Southwest Climate Adaptation Science Center, the University of Nevada, Las Vegas, and the Western Regional Climate Center at the Desert Research Institute

University of Nevada, Las Vegas
February 7, 2020

August 2020

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Introduction

The first Southwest Practitioners Adaptation Network (SPAN) workshop took place on February 7, 2020 at the University of Nevada, Las Vegas. This workshop was co-convened by the Center for Climate Adaptation Science and Solutions (CCASS), the Southwest Climate Adaptation Science Center (SW CASC), the Western Regional Climate Center (WRCC) at the Desert Research Institute (DRI), and the University of Nevada, Las Vegas (UNLV) (the conveners). The overarching theme of this first workshop was *climate change and public health* with a particular focus on heat impacts. The conveners chose this theme because it was identified as one of particular importance to our local partners in southern Nevada, and workshop participants emphasized the importance of acknowledging and preparing for the impacts of climate change on human health in the region.

The event brought together 33 adaptation and assessment practitioners from across the Southwest, with a primary focus on southern Nevada. This included emergency managers, planners, public health professionals, and sustainability directors, among others. The participants provided very positive feedback on this initial convening and there was a strong indication from the group that practitioners in the region want to stay engaged in this network moving forward. Connections were made at the meeting that the conveners hope will be strengthened and expanded over time.

Overview of the Southwest Practitioners Adaptation Network (SPAN)

The concept for SPAN was developed at the inaugural Southwest Adaptation Forum (SWAF), which was co-convened by CCASS and the SW CASC at the University of Arizona in Tucson on October 29-31, 2018. Around 100 adaptation and assessment practitioners from around the Southwest region gathered at SWAF to discuss lessons learned and best practices around five main adaptation theme areas: tribal lands, working and public lands, the wildland urban interface, built environments, and public health. The organizers of SWAF 2018 defined its goals as: 1) to strengthen existing and build new relationships among climate adaptation and assessment practitioners in the region; 2) to identify gaps in our existing stakeholder and practitioner networks; 3) to generate synergy and momentum for future engagement among partners and stakeholder groups; and 4) to position this emergent network to take tangible action on adaptation and assessment issues.

One of the main outcomes of conversations at SWAF was a decision to move forward with building a network of networks in the Southwest dedicated to bringing together adaptation and assessment practitioners and facilitating the exchange of experiences and best practices in the region. Through a cooperative agreement between CCASS and the SW CASC, SPAN was created to achieve this goal and work toward supporting collaborations and finding and implementing integrated, community-based adaptation solutions. The main pillars of SPAN include: 1) science-focused partnerships, assessment, and translation; 2) capacity and network building, information sharing, and convenings; and 3) community engagement and science to action components.

The formation of SPAN was informed by themes from SWAF 2018 that emerged as cross-cutting and which especially resonated with participants:

- *Integration:* Different forms of knowledge (e.g., indigenous, local, traditional, etc., in addition to western science) should be represented in the adaptation planning and implementation processes.
- *Coordination:* Although there are a lot of small adaptation efforts underway across the landscape, these efforts would benefit from increased coordination.
- *Leveraging:* Increased partnerships and leveraging of existing partner activities could support landscape-scale adaptation.

- *Knowledge Sharing:* Communities that are seeking to implement adaptation actions can learn from "tested practices," that have proven successful in other communities. At the same time, it's important to keep in mind that what works in one location may not work in another.
- *Community Engagement:* Community and tribal leaders, members, and organizations should be key players in the conversation. For example, many ranchers have generations' worth of knowledge about how to adapt land management practices to arid land weather variability.
- *Highlighting Tribal Communities:* Should be integrated throughout the network's activities

Summary of Opening Discussion on How Local Priorities in Southern Nevada Relate to SPAN

After a brief introduction and overview, the conveners began the workshop by opening up the floor to participants to discuss and identify how connecting to a network like SPAN could help or expand their work. The session evolved to create a list of four main ideas that, from the participants' perspectives, would make this network of networks successful to them. This discussion then led to a short breakout session to give space to allow participants to reflect on what drove them to come to the workshop and what they were hoping to get out of this experience.

- It would be nice to have a core set of principles or guidelines for how to work on adaptation and resilience issues. How do we engage with this huge potential network of networks?
    - How do we leverage where members are today so we can move together in the future? How do we broaden this for a more effective network?
- Longevity and momentum of these networks is important. We need continuous funding to keep these networks going. How is SPAN different?
    - Connections to national networks help.
- There's power in collaborative work. It attracts money—funders want to see how you're being creative with funding and partnerships. The power is in leveraging this type of work.
- It's important to narrow your focus and create priorities early on. Bring in the people who can work on that smaller effort, that way you're not burning out the entire network when it's not their main priority.
    - Champions at the executive level help

As a summary of the discussion above, four main ideas emerged for funding and sustaining momentum for a network of this kind:

1. Funders like to hear about collaboration; tell your story.
2. Identify and prioritize key concerns; bring in the people needed to just tackle the main concern first. The whole network does not need to be part of the conversation every time, but check in with them about what is going on. Remember that not everyone will have the same priorities.
3. Important to have champions at your agency; identify and engage them.
4. Stay targeted and focused.

Facilitated Participant Discussion: What Drove You to Come Here Today?

Participants broke out into small groups to reflect on what drove them to come to this workshop. Conveners wanted to give participants this space to briefly reflect on what was important to them and what they were hoping to give or gain from these conversations. Afterward, the whole group discussed what they heard. Below is a list of key drivers and issues that participants identified in the structured small group exercise:

- Equity
- Quality of life
- Leveraging partnerships and relationships
- People-centered, community approach
- Healthy competition that leads to momentum and production of knowledge
- Health is shared ground. Human health is a way to access every citizen, maybe we can affect change if we come through this lens.
- Natural environment should be the foundation of the systems we are planning for.
- Existence of political leadership
- Vulnerable populations
- Education
- Resource management
- Societal capital
- Current availability of funding
- Limited resources that are not need-based but population-based needs to change
- Access to science; science communication
- Duplication vs. parallelism (getting to a place where we're all aligned and working together)
- Radical incrementalism
- Current planning and legislative efforts

Panel on Lessons Learned in the Southwest

The conveners agreed that it was important to hear from practitioners across the Southwest region about their work and what they were discovering in the process but also wanted to keep this session informal, conversational, and interactive. The only prompt panelists were given was to discuss major lessons learned from their work that could prove useful to others in southern Nevada. The key insights from their presentations are outlined below in bullet points.

1. Ladd Keith, University of Arizona
    - Although we have advanced quite a bit in the last ten years, the resources are not equal across climate change risks. E.g., more information and resources are available for sea level rise than for extreme heat.
    - Ladd was involved with Urban Land Institute's 'Scorched' report which is geared toward cities and what they can do about heat impacts. (See full list of resources like this in Appendix C)
    - There is interest in an integrated approach to planning for climate change.
    - The lack of governance structure around heat makes it more challenging to work on than issues like flooding or fire.
    - Less than 3% of cities that responded to a survey Ladd helped to administer had a staff member dedicated to working on heat.
    - There is a concern for medium- and small-sized cities that are not connected to a university and do not have the same amount of resources to address these risks.
2. Erika Austhof, University of Arizona
    - There is a variation in exposure to heat impacts across different Arizona counties (indoor vs. outdoor).
    - For example, in Maricopa county, most heat-related deaths occur indoors because people do not have access to air conditioning.

- The most vulnerable people in the population to impacts of heat are those who are experiencing homelessness, those with mental health issues, and those dealing with substance abuse.
- Community input into pilot projects is important. For example, the community can best identify where a cooling center should be located.
- The Department of Education is currently working on a project focused on school-aged children and the threshold variable for when to bring them in from recess. Currently, there is no standard guidance for this.

3. Marco Velotta, City of Las Vegas
   - The Mt. Charleston fire that started on July 4 in Las Vegas due to a storm and ended up washing debris down into the valley. This sparked conversation about how to adapt to key vulnerabilities.
   - There are many questions Las Vegas is asking itself and trying to find answers to. For example:
     - How do we make Las Vegas equitable, healthy, resilient, etc. over the next 30 years?
     - How is heat going to impact tourism?
     - How do we bridge the academic and local government divide?
     - How does Las Vegas improve over time and make meaningful changes?
     - How do we increase tree cover?
     - How do we design a better urban environment?
     - How do we get the right city departments to work together?
     - How do we translate all this into policy change?
4. Braden Kay, City of Tempe
   - Creating the Tempe Climate Action Plan was a partnership between the City of Tempe and Arizona State University.
   - Being focused is key. For the Climate Action Plan, they had three focus areas and 12 or 13 actions. Focused on getting an emergency manager for the first time in many years.
   - Created board games with professors to engage on sustainability.
   - How to deal with "what aboutism?"
     - Develop guiding principles
     - Attract funding and grants from the guiding principles
     - Need to think about business owners in other ways
   - Simplicity is good, but they decided on five guiding principles for climate action moving forward, and now can look for funding for each of these.
   - It is important to do equity work. Recommend reading the Climate Justice Plan of Providence, Rhode Island. Tempe is using this as a model to do their work.
   - We need to have conversations about dismantling racial inequity and white supremacy in government.
5. Marci Henson, Clark County
   - It is important not to miss the opportunity to maximize the value of a crisis.
   - We can use the climate crisis to create action because it has been done before (e.g., with the air quality crisis in the past). But it's going to take a diverse set of government agencies.
   - Tackling carbon emissions is the next goal and it is going to take collaboration and partnerships, especially from the Regional Transportation Commission.
   - Clark County is late in the game to climate action. Part of this was the lack authority from the state of Nevada. There has now been an emergence of political will that will allow them to chart a new course.
   - Not yet allowed to deal with carbon emissions. This has to change.

6. Amber Pairis, Climate Science Alliance
    - The rubber meets the road in our communities.
    - The Climate Science Alliance was launched about five years ago. Now over 340 organizations and partners are part of the Alliance. It created a space for managers, researchers, artists, educators, and others to have conversations and solve problems.
    - The community and youth engagement pieces are essential. E.g., climate kids program.
    - Power of the diverse voices.
    - Have to communicate well and tell your story about your work.
    - Get Stuff Done (GSD)—you have to look at where you have traction right now.
    - Have to ask yourself how you make forward movement, and push for change, while living within the constraints of your job and governments.
    - Create space for the change-makers in your agency/organization to build relationships and take risks.
    - This is the time to walk the talk and make ourselves uncomfortable.
    - Take care of yourself and those around you. How do we find hope? How do we sustain ourselves?
7. Althea Walker, American Indian Higher Education Consortium, SW CASC
    - Sees herself as being a bridge between western science and Indigenous communities and knowledge.
    - Need to expand and build tribal node and strengthen connections and relationships between this node and others.
    - Indigenous knowledge is at the forefront of tribal climate adaptation plans along with water, public health, and ecocultural resources.
    - See tribes as collaborators and partners, not stakeholders.
    - There is a strong national tribal climate change network.

Breakout Group Report-Back Session

Participants were divided into breakout groups to have targeted discussions on climate challenges and solutions in southern Nevada related to public health. These are the summaries of the main ideas from the breakout group report-back session listed in bulleted points.

Where is the opportunity to address public health and extreme heat impacts?

1. Through innovative and transdisciplinary partnerships
    - Move beyond discipline-specific approaches/solutions to address common problems
2. Telling a story about impacts. Using stories of people to talk about problems.
    - Newspaper articles about people dealing with extreme heat
    - Opportunities for how you can improve quality of life
    - Bring in hope
    - Infiltrating other groups and telling a good story to gain traction
    - Begin where they are
    - Can you take some of the economic impacts on tourism by creating a story about these impacts and target them to a certain audience?
3. Being solution-oriented when you convene people together
4. Working across disciplines/sectors to create meaningful solutions.
    - This includes working across the urban to rural gradient.
5. Short-term messaging using social media to talk about heat. Scheduling outside work differently.

- Long-term: where urban heat island effects are more intense. Extreme heat events are a long-term problem.
- Using social media to do outreach.
- Garner buy-in where urban heat island is increasing; change development.

6. Accountability and preparedness
   - Decentralize the burden of preparedness
7. Develop a tool to map climate and societal impacts
8. Using networking opportunity to collaborate on social media
   - Develop common language and resources
9. Mitigating climate change effects in the places where people work, play, and live
10. Making the business case for reducing heat impacts
    - Thinking through the economics is important
11. Get data and research in front of legislators, doctors, etc.
12. How do we figure out priorities and where to use the information and data we have?
13. Targeted social media/communications
14. Advocacy/equity/social justice
    - Making sure plans have an equity component
    - Example of doubling urban tree canopy. Many of the trees are going into neighborhoods that are already have trees because they have irrigation strips. Policies working against them.
    - Should use data driven approach to change the way decisions are happening around public investments.

How do we change the built environment to reduce the urban heat island effect (by reducing rate of change) and increase heat resilience?

1. What needs to be done
   - Data requirements: understanding urban heat island at high resolution and figuring out where the vulnerable populations are
     - Southern Nevada Water Authority (SNWA) is creating urban heat maps for Clark County
     - Regional Transportation Commission will look at where vulnerable populations are
     - Is the current heat map accessible and serving the needs that you have?
     - There is a need to translate the data into change
     - Focus not only on heat but on suffering (vulnerability)
     - Data to establish what the possible solutions are
   - Need to think about landscape plans and the recommended plants list
     - Work with communities to update their plant lists.
     - SNWA has done this in the past.
     - SNWA found that many of the plants in their Climate Smart plan will not be heat tolerant by mid-century.
     - UNLV Cooperative Extension has a master garden plan.
     - Promote plants that will be adaptable in the future that are low water users.
   - There needs to be broad coalition building.
     - Think/work through trusted groups
     - City of Las Vegas has been working on coalition building through its Master Plan.
     - Building the business case could be part of this.
   - Business case
     - Frame the story for the audience
     - Works best with developers and private industry

- Political support (the power brokers)
- Education and outreach
- Pilot projects
    - Demonstrating and evaluating a small project is important
- Must set a goal that is measurable
    - Need more/better data on heat-related deaths and injuries
    - How do we get better at measuring this and then making the data available?
    - Southern Nevada Health District website now has heat-related mortalities and illnesses on the website (it is a small sample to work with because much of this would go unreported)
- Incorporate a sustained assessment (evaluation of what we know and what we don't, what are we learning through iterative implementation of adaptation) process
- Develop solutions based on data
- Must include tribal and vulnerable communities
- Spatially-targeted interventions

2. Everything you must *not* do
    - Don't tackle too much at one time
    - Don't claim success too early (before "it's real")
        - Can avoid this by choosing a meaningful measure
    - Do no harm; try to avoid unintended consequences
3. Our steps
    - Gather the data
    - Build the coalition
    - Develop solutions based on data and community input
    - Implement and assess

Looking Forward to Next Steps for SPAN

This conversation was facilitated with the whole group to share options for network building and potential next steps for SPAN.

What happened at this workshop?

- Met people
- Built a node
- Generated cool ideas
- Identified data sources
- Found common ground
- Learned things
- Eliminated barriers
- Learned some history

So what?

- Broaden potential
    - For better outreach to move forward
- Better/bigger questions to get better answers
- Mapped a plan to take action (on UHI)
- Instincts are on point

- Scaling up for solutions
- Opportunities for working together
- Motivation
- Inspired
    - Hope, not in it alone
- Beg, borrow, steal ideas
- Bigger barriers
    - Gaming industry—sustainability as marketing tool

Now what?

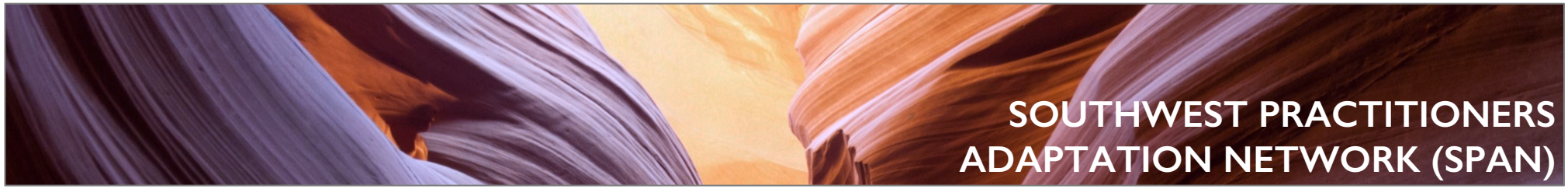
- Want some of the people from gaming and business in the room
- Should be an action item list
    - Everyone in the group should leave here today with an action item
    - Establish a working group
    - Continue the conversation
- Opportunities for members of Urban Sustainability Directors Network in the Southwest to meet
- Can we bring together groups on a regular basis around common goals?
- Idea to find ways to help with funding for the Southwest Adaptation Forum (SWAF)
- Way for all of us in the room to interact (Google Group, listserv, visualization of the network?)
- Network visualization tool
- Website idea as a space to share
    - This takes time; many people don't have the capacity
- Blog stories on website
    - These stories are then posted to Instagram, Facebook, Twitter, etc.
- How to build capacity through the network to take tangible action?
- Can we use students to help with some of these short-terms actions/goals?
- In Nevada, hard to get universities to partner with cities
- University of Nevada, Reno feels like it's necessary to build an institute of some form; need some level of commitment/funding to keep this going.
- Fellowship idea for students to work on a one-year project (Althea)
    - Natural resource workforce development
- List of shovel-ready projects for students
    - Offers professional development experience for students and helps implement these projects
    - Can put a list up on the SPAN website
- Targeted workshops (short, very specific)
    - Example of heat planning workshop in Arizona put on by Arizona State University and Maricopa County. Has grown from about 20 people to over 300.
    - Weather Service hosts quarterly stakeholder meetings (incorporates bringing in broadcasters)
    - Journalists should be involved to tell the stories

List of Appendices

Southwest Practitioners Adaptation Network (SPAN) Launch Meeting
February 7, 2020 | University of Nevada, Las Vegas | Lied Library, Goldfield Room

APPENDIX A: AGENDA

8:00 – 9:00 *60 min*	Registration open Breakfast available
9:00 – 9:30 *30 min*	**Welcome** Kristen Averyt, University of Nevada, Las Vegas (UNLV) Carolyn Enquist, Southwest Climate Adaptation Science Center (SW CASC), USGS **Overview of SPAN (goals, objectives, agenda for the day)** Kathy Jacobs, Center for Climate Adaptation Science and Solutions (CCASS), University of Arizona (UA)
9:30 – 10:00 *30 min*	**Discussion of Local Responses and Infusion of Local Priorities and Southern Nevada-Relevant Ideas into SPAN** Kathy Jacobs, CCASS, UA Tamara Wall, Western Regional Climate Center (WRCC)
10:00 – 10:15 *15 min*	**Participant Discussion** *Facilitated by Tamara Wall, WRCC
10:15 – 10:30 *15 min*	NETWORKING BREAK
10:30 – 12:00 *90 min*	**Panel on Lessons Learned in the Southwest** Ladd Keith, UA Erika Austhof, UA Amber Pairis, Climate Science Alliance Marco Velotta, City of Las Vegas Marci Henson, Clark County Braden Kay, City of Tempe **Discussion** *Moderated by Kathy Jacobs, CCASS, UA
12:00 – 1:00 *60 min*	NETWORKING LUNCH
1:00 – 2:30 *90 min*	**Breakout Groups** Targeted discussions on climate challenges and solutions in Southern Nevada related to public health *Facilitated by Tamara Wall, WRCC
2:30 – 2:50 *20 min*	NETWORKING BREAK Reassemble in main room
2:50 – 3:35 *45 min*	**Report-Backs** **Discussion** *Moderated by Carolyn Enquist, SW CASC
3:35 – 4:20 *45 min*	**Looking Forward to Next Steps for SPAN** Share options for network building
4:20 – 4:30 *10 min*	**Wrap-Up and Adjourn**



February 7, 2020
Lied Library, Goldfield Room
University of Nevada, Las Vegas

Southwest Practitioners Adaptation Network Launch Event

APPENDIX B: PARTICIPANT LIST

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APPENDIX C: RESOURCES

The following resources were either mentioned at the meeting in Las Vegas or were recommended materials from participants.

1. State of Sustainability Data Portal
    - Most relevant pages for SPAN would be the nature, energy, and built environment pillars.
2. Urban Sustainability Directors Network Guide to Equitable, Community-Driven Climate Preparedness Planning
3. National Weather Service Heat Risk Tool
    - The Heat Risk forecast provides a color and numeric value that places forecast heat for a specific location into an appropriate level of heat concern, along with identifying groups potentially most at risk at that level. The Heat Risk is accompanied by recommendations for heat protection and is a useful tool for planning for upcoming heat and its associated potential risk. Heat Risk is based on the high-resolution NWS national gridded forecast database, a daily Heat Risk value is calculated for each location from the current date through seven days in the future.
4. NWS Potential Heat Risk Tool
    - This tool might be more useful for long-term planning and incorporates impact information within a local climatology of Heat Impact Levels (HIL) to generate historical risk probability information that can then allow a partner to make more effective decisions and take appropriate actions for future heat events.
5. Urban Land Institute's Scorched: Extreme Heat and Real Estate Report
    - This report outlines how extreme heat will affect the real estate and land use sectors and highlights the leadership and the potential positive impact of the real estate sector in implementing "heat-resilient" building designs and land uses. The report provides an overview of extreme heat's connections to the built environment and an in-depth discussion of heat mitigation and adaptation strategies related to building design, building materials, green infrastructure and public space design.
6. City of Tempe Climate Action Plan
    - A Climate Action Plan (CAP) serves as a guideline for the City of Tempe's path to a sustainable and resilient future. It is a detailed framework for measuring and reducing greenhouse gas (GHG) emissions and climate change impacts. The CAP is a guideline to achieving the largest and most cost-effective solutions in conjunction with other Tempe goals and priorities. Having a CAP is critical to establish and create a sustainable and healthy community for the future residents of Tempe. The CAP helps to develop strategies to conserve resources and make quality of life improvements.
7. The City of Providence's Climate Justice Plan
    - Providence's Climate Justice Plan, co-developed by the City of Providence's Office of Sustainability and the Racial and Environmental Justice Committee of Providence, includes seven key objectives, 20+ targets, and over 50 strategies aiming to create a truly equitable, low-carbon, climate resilient city.
8. Arizona Climate and Health Adaptation Plan
9. Union of Concerned Scientists Killer Heat in the United States Report