

**MINUTES OF THE
SENATE COMMITTEE ON NATURAL RESOURCES**

**Eighty-second Session
April 27, 2023**

The Senate Committee on Natural Resources was called to order by Chair Julie Pazina at 3:34 p.m. on Thursday, April 27, 2023, in Room 2144 of the Legislative Building, Carson City, Nevada. [Exhibit A](#) is the Agenda. [Exhibit B](#) is the Attendance Roster. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

COMMITTEE MEMBERS PRESENT:

Senator Julie Pazina, Chair
Senator Melanie Scheible, Vice Chair
Senator Edgar Flores
Senator Pete Goicoechea
Senator Ira Hansen

GUEST LEGISLATORS PRESENT:

Assemblywoman Lesley E. Cohen, Assembly District No. 29

STAFF MEMBERS PRESENT:

Alysa Keller, Policy Analyst
Erin Sturdivant, Counsel
Cherie Dittler, Committee Secretary

OTHERS PRESENT:

Lisa Ortega, Executive Director, Nevada Plants
Nic Ciccone, City of Reno
Cinthia Moore, Nevada Environmental Justice Coalition
Jaina Moan, The Nature Conservancy
Olivia Tanager, Progressive Leadership Alliance of Nevada
Leonardo Benavides, City of North Las Vegas
Fauna Tomlinson, Sierra Club of Nevada
Christi Cabrera-Georgeson, Deputy Director, Nevada Conservation League
Cadence Matijevich, Washoe County
Chaunsey Chau-Duong, Southern Nevada Water Authority

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Deni French

Joanne Leovy, M.D., Nevada Clinicians for Climate Action

Dwight George, Native Voters Alliance of Nevada; Nevada Environmental Justice Coalition

Kacey KC, State Forester Firewarden, Division of Forestry, State Department of Conservation and Natural Resources

James Woolsey, Superintendent, Great Basin National Park

Julia Ratti, Great Basin National Park Foundation

Briget Eastep, Chair, Great Basin National Park Foundation

CHAIR PAZINA:

I want to acknowledge a very special guest who will be presenting Assembly Bill (A.B.) 131 on behalf of Great Basin National Park and the Great Basin National Park Foundation. Former Senator Julia Ratti is a good friend, and it is wonderful that she is here today.

[ASSEMBLY BILL 131](#): Revises provisions governing urban and community forestry.
(BDR 47-720)

ASSEMBLYWOMAN LESLEY E. COHEN (Assembly District No. 29):

I am introducing Lisa Ortega who will present A.B. 131 today. Ms. Ortega is the only female registered as a consultant through the American Society of Consulting Arborists and a registered Master Arborist in the State. Although Ms. Ortega lives in Las Vegas, she traveled to Reno today to transport 16 trees because that is what arborists do. Ms. Ortega has been employed with urban forestry in Nevada for over 25 years and has worked for the State and the City of Henderson as the first urban forester in the City. She owns her own business specializing in arid landscaping methods and horticulture.

In 2021, Ms. Ortega created Nevada Plants, a tree-planting nonprofit organization focused on trees and tree education. She recently planted some trees in Elko, and Senator Goicoechea will be happy to know that the trees behind the baseball field were the work of Ms. Ortega. I have been friends with Ms. Ortega on social media for several years and knew Ms. Ortega has been selflessly working throughout Nevada to plant, protect and nourish trees. In the summer of 2022, Ms. Ortega posted to social media a conceptual plan to develop legislation addressing urban and community forestry.

Several meetings and hours of research later, we are happy to present A.B. 131 which I refer to as "that happy little bill for happy little trees." The issues A.B. 131 addresses are serious: heat islands, poor air quality, poor soil health and food insecurity, all harmful to Nevadans. This bill will help solve these problems and make Nevada communities healthier for our families.

LISA ORTEGA (Executive Director, Nevada Plants):

I have a visual presentation ([Exhibit C](#)). Assembly Bill 131 is an urban and community forestry bill. It aims to reduce urban heat islands, hot playgrounds, streets and occasionally hot tempers. Trees are often the most prominent natural features in towns and cities from both a visual and functional perspective. Urban forests are key to the green infrastructure system and critical to mental and physical health. Access to trees can help reduce individual stress, improve mental health, strengthen immune systems, reduce crime and improve student academic performance. Exposure to urban forests reduces mental and physical stress, anxiety, depression and improves people's moods. Exposure to urban forests helps people strengthen their immune systems and motivates active living.

Clean air and healthy trees mitigate air pollution. Urban forests clean our air by holding particulate matter and sequestering carbon. Nevada residents living in highly polluted areas experience more hospitalization, negative effects of chronic air pollution and higher instances of pregnancy complications for both mother and child.

Pollution creates more memory loss in older adults and higher instances of Parkinson's disease and diabetes. Urban forests slow climate change as trees and shade transpiration release water into the air and cool the urban landscape. Trees deter the effects of climate warming as greenhouse gasses from tree canopies provide a measure of protection against harmful UV rays, especially in our schools. Urban forests remediate urban heat islands which can be ten degrees hotter. Las Vegas, Henderson, Reno—all of these cities have urban heat islands which disproportionately exist in low-income neighborhoods where people of color reside.

High temperatures contribute to exhaustion, fatal heatstroke and heat-related illnesses affecting certain populations. High heat affects the old, the very young, pregnant women, outdoor workers, athletes and people with other health conditions such as diabetes. Urban forests are visible in the more robust

and wealthier communities across Nevada which are visible in aerial maps of Las Vegas, Henderson and Reno. Typically, the same equity issues apply to tree canopies.

Urban and community forestry benefit the northwest Indian tribes in the State. All Nevadans want trees, and we are happy to provide them. Schools have hot playgrounds, high-use bus stops and pedestrian routes that are not shaded. Tribes and small communities need shade and trees for tourist esthetics and to bolster riparian corridors and river parkways. The City of Reno maintains community parks with trails, trees and shade reducing their energy bills. Most places in Nevada are losing more trees than are being planted, especially with our drought conditions. Planting trees reduces energy use, remediates air pollution, encourages urban healing and reduces stormwater runoff because urban forestry holds the soil.

Urban forests also support birds who contribute to wildlife and need urban forests to roost. Planting trees allows us to experience canopy cooling, energy savings and water conservation which encourages best forestry practice.

ASSEMBLYWOMAN COHEN:

I will review the sections of A.B. 131. The first few sections of the bill provide definitions, including the definition for urban and community forestry which is basically the science of developing and caring for trees in urban environments to enhance air and water quality, provide shade, stabilize soils, reduce noise levels and other benefits.

Section 6 creates the Urban and Community Forestry Program (UCFP) within the Division of Forestry (DOF). The program will promote, create, improve and maintain urban and community forests and provide technical assistance and various improvements. The bill requires the State Forester Firewarden to develop target numbers for urban tree canopies, to service historically underserved communities and areas vulnerable to heat islands. The State Forester Firewarden is also required to cooperate with forestry organizations and government agencies to advance and promote urban forests and develop best practices for maintaining the health of urban forests.

Section 7 requires the DOF to provide technical assistance to State and local governments with the planning of urban forests and land use training programs, urban forest health and other matters.

Section 8 authorizes the State Forester Firewarden to establish a program to distribute grants to support urban forestry, promote community involvement for the planning and planting of urban forests, develop educational materials, implement maintenance programs and other related projects. The bill also requires the State Forester Firewarden to adopt regulations to maintain the grant program.

Section 9 allows the State Forester Firewarden to enter into cooperative agreements with other entities to accept gifts, grants, services and donations in furtherance of the UCFP and to adopt regulations to carry out the act.

Section 10 of A.B. 131 makes the bill effective upon passage—for the purpose of performing preparatory administrative tasks and adopting any regulations—and on January 1, 2024, for all other purposes. There are many benefits of urban forests including mitigating the detrimental impacts of urban heat islands, improving our air quality, making positive contributions to our mental health and creating opportunities for social interaction. Creating green infrastructures within our communities will allow us to improve the lives of Nevadans across the State.

SENATOR HANSEN:

When I was growing up, all the parks in Reno and Sparks had big, beautiful Fremont cottonwood trees. Unfortunately, they need a lot of water. Clark County has been eliminating green strips as being unnecessary. If we do not have the water to keep water-guzzling trees alive, will we plant trees designed for the desert? How will you reconcile the ever-increasing demand for water and the need to increase the number of trees in a community that needs water to survive?

MS. ORTEGA:

We are not planting many cottonwood trees anymore, although they can still be planted in riparian areas, wetlands or similar places not experiencing a water drought like southern Nevada. We know Clark County is removing nonfunctional turfgrass, so we did some preliminary calculations on the water conservation realized by planting and maintaining 100,000 trees in the Las Vegas Valley. We calculated that 100,000 desert and drought-tolerant trees would eliminate 5 percent of the water generated by the Southern Nevada Water Authority (SNWA) that is in favor of A.B. 131. It supports the planting of trees because

the Authority realizes that we use more water when air conditioners are operating. Tree shading is important and another way to save water.

ASSEMBLYWOMAN COHEN:

My sister lives in one of the older neighborhoods in Las Vegas with houses built in the 1950s and 1960s. She has large trees around her house, and she can go weeks without turning on her air conditioning, much longer than I can living in a newer neighborhood. Planting trees is an investment that will improve our soil and air quality. That investment is worth the comparatively small amount of water you need to enjoy the benefits of quality trees.

Ms. Ortega has previously mentioned situations where houses are built with south-facing walls. If you have a crib in a room in a southerly direction, and remove the nearby tree, the temperature in the children's room will rise substantially. It will then take more resources to cool that room so the child can be comfortable.

SENATOR HANSEN:

I remember when there were no water meters, and everybody had trees. We now have meters, and residents pay for the water they use. You mentioned there are less trees in low-income neighborhoods and more in wealthier neighborhoods. I assume there is some correlation between wealthier residents who can afford to water their trees and low-income people who cannot. Does SNWA have any interest in subsidizing water bills to encourage residents to plant the tree covers you are promoting?

MS. ORTEGA:

The SNWA is promoting tree plantings and when turf is removed, the turf must be replaced by a certain amount of shrubbery and tree canopy.

SENATOR HANSEN:

We have a tree guy here today, so maybe we can bring him up to the front later and ask him these questions.

MS. ORTEGA:

Many of our low-income areas are in older neighborhoods, and their greenery includes mature mulberry, pine and elm trees. The City of Henderson has neighborhoods of 50- to 60-year-old smaller homes. If a resident is using

15 gallons of water twice a week on an established tree, the cost to water that tree would be under \$2, an insignificant cost.

CHAIR PAZINA:

When you collaborated with the State Department of Conservation and Natural Resources on the proposed forestry program, did you foresee them working closely with the Division of Outdoor Recreation (DOR) on tree planting?

MS. ORTEGA:

Most people want more trees planted, and many groups actively bring our partners together. For example, just today we transported 16 fruit trees to Urban Roots, a nonprofit organization in Reno. These trees will be used within the science and technology curriculum for students attending the Washoe County School District. Both programs would work together with the forestry program this bill will create.

CHAIR PAZINA:

Would all of the nonprofit and government agencies work together if this bill is passed?

MS. ORTEGA:

The DOR will work with community nonprofit organizations to plant trees, but not on federal land. State, city and county agencies will collaborate to plant trees with federal landowners and landholders.

CHAIR PAZINA:

We will hear from those in support of A.B. 131. If the SNWA plans to offer its position on the bill, I ask you to expand on Senator Hanson's question.

NIC CICCONE (City of Reno):

The City of Reno maintains the Urban Forestry Commission, the oldest program supporting the expansion of tree planting in the State. The creation of similar programs at the State level would help our Commission meet its goals for planting and maintaining tree canopies. The City of Reno is looking forward to working with the State on this program. The City of Reno supports A.B. 131.

CINTHIA MOORE (Nevada Environmental Justice Coalition):

The Nevada Environmental Justice Coalition is a coalition of 40 Nevada-based organizations formed in 2019 and united for environmental justice. We support

A.B. 131 which stresses the need to plant more trees in the urban heat island. Las Vegas is the second fastest warming city in the Country. Some parts of the city are hotter than others due to the heat island effect.

East Las Vegas is just one of the heat islands in southern Nevada. In the summer, neighborhoods located there often experience temperatures up to ten degrees hotter than other parts of the city, like Summerlin. A study by American Forests, a nonprofit agency established in 1875, found that neighborhoods of color have 33 percent less tree canopy than neighborhoods where the white population is the majority. Neighborhoods of color also have a higher rate of poverty compared to white neighborhoods.

Assembly Bill 131 would help neighborhoods like East Las Vegas and the historic Westside of Las Vegas achieve tree equity and help mitigate the urban heat island effect. I urge you to please support A.B. 131.

JAINA MOAN (The Nature Conservancy):

We support A.B. 131 which will create the UCFP within the DOF. The bill will strengthen DOF's commitment to maintaining and improving urban forests. It would also prioritize tree canopy-related resources in historically underserved communities and areas most vulnerable to extreme heat. Recent studies, notably the Southern Nevada Extreme Heat Vulnerability Analysis prepared by the Regional Transportation Commission of Southern Nevada, found that populations in the Las Vegas Valley with the highest exposure to extreme heat are also the most sensitive and least able to adapt to its effects. Expanding tree canopy in these areas is a critical step toward alleviating the disproportionate burden that many communities are experiencing in the age of changing climate.

As a nonprofit conservation organization working to conserve the lands and waters on which all life depends, The Nature Conservancy is partnering with the Division of Forestry to develop a tree canopy strategic planning baseline for the Las Vegas Valley. This baseline will help guide a strategic approach to tree canopy research planning and project implementation in southern Nevada. It will also address species types, water use and ways to maximize cobenefits.

OLIVIA TANAGER (Progressive Leadership Alliance of Nevada):

We believe everyone deserves to live in a shaded neighborhood with clean and breathable air and green spaces. We also recognize that not all communities and

neighborhoods have equal or sufficient access to green spaces which this bill is seeking to address.

The Las Vegas Paiute Tribe's residential area is directly adjacent to a crematorium and crematoria dust covers their cars every day. Trees would help mitigate dust and prevent people from breathing in harmful particles. Trees are also needed in east and west sides of Las Vegas and in North Las Vegas neighborhoods to create urban forests, slow climate change, mitigate air pollution and clean our air by holding particulates and sequestering. The Environmental Protection Agency estimates that trees in the United States remove about 800 million tons of carbon dioxide from the atmosphere every year, enough to offset 12 percent of our climate pollution from burning fossil fuels.

Planting trees in urban areas creates urban forests and delivers environmental, economic, social and health services. The health of Nevadans depends on passage of this bill. Please support A.B. 131.

LEONARD BENAVIDES (City of North Las Vegas):

We look forward to collaborating with the UCFP to provide more green spaces for the residents of the diverse City of North Las Vegas, especially our underserved communities. We are happy to support A.B. 131.

FAUNA TOMLINSON (Sierra Club of Nevada)

There are 30,000 members and supporters of the Sierra Club Statewide. Assembly Bill 131 positively addresses urban and community forestry and provides many benefits including trees that sequester carbon and provide shade for cooling in hot environments.

The top two cities in the Nation experiencing increased temperatures are Reno and Las Vegas. Trees are a useful tool for reducing pollution levels throughout our communities. The more we learn about the effects of air pollution, the more we understand just how harmful it is for our environment. The Sierra Club supports A.B. 131 as it will mitigate the effects of pollution and climate change in our State and improve the quality of life for our residents. Please support this important happy tree bill.

CHRISTI CABRERA-GEORGESON (Deputy Director, Nevada Conservation League):

The typical number of heat wave days in Nevada is projected to increase from 15 to nearly 55 days a year by 2050. This increase would intensify the urban heat island effect. Las Vegas is ranked No. 1 in the Country for the biggest difference between urban and rural temperatures with urban areas an average of 7.3 degrees hotter.

Researchers have concluded that we can minimize the heat island effect by planting more trees. Urban forestry will mitigate that effect, beautify neighborhoods and introduce desert-resilient plants that are less water intensive. Trees also serve as a natural air purifier by reducing particulate pollution that causes health ailments such as asthma. We urge the Committee to support A.B. 131.

CADENCE MATIJEVICH (Washoe County):

Like our fellow local government stakeholders who testified before me, we support A.B. 131. The bill provides opportunities for donations and grants to help provide funding for lower-income neighborhoods that may need financial support to plant trees.

We also look forward to working with the DOF on this program. We have wonderful trees in our State capitol, but if you need a change of scenery during your final weeks in Carson City, we have a wonderful arboretum in Rancho San Rafael Regional Park in Washoe County. I invite you to take a trip there if you need a little mental health break and spend quality time with happy trees.

SENATOR HANSEN:

I have a question for Ms. Matijevich and the gentleman from North Las Vegas. How much money is needed to get this program going? There is no fiscal note for the State, but the counties will need grant monies, donations and start-up costs. What is planned financially to get this bill up and running? Can you provide a rough estimate on the costs to sustain trees over a period of time?

MS. MATIJEVICH:

We have not done any calculations on the cost to stand up this program. During the collaborative process, we could determine if any grant programs are available for certain communities or for Statewide benefit. We will also collaborate with DOF to determine what resources it may have available. I do not have a good answer for you.

I can also reach out to the Reno Parks and Recreation Department to see if it is seeking grant funding. I can submit that information to the Committee later.

MR. BENAVIDES:

My response is similar to that of Ms. Matijevich. I can provide information on our parks and recreation programs and submit the information later.

MR. CICCONE:

The City of Reno is in a unique position because we have had the urban forestry program for so long. As a reminder, tomorrow is Arbor Day, and the City consistently conducts programs on natural tree species and drought-resistant trees. Although I am unsure what the fiscal impact will be, we are glad this bill will be a collaborative process.

SENATOR HANSEN:

You do not know who is paying for the City of Reno tree program, correct?

MR. CICCONE:

I do not have that information available, but I can provide it later.

CHAUNSEY CHAU-DUONG (Southern Nevada Water Authority):

The Southern Nevada Water Authority supports this bill. Our Water Smart Landscapes Rebate program reimburses participating Clark County residents. The program provides a rebate of \$3 per square foot of grass that you remove if the grass removed requires 50 percent replacement canopy coverage. The irrigation of trees uses less water than grass, and we support any initiative or bill that reduces the use of water.

DENI FRENCH:

I support A.B. 131. I am a tree hugger. I just listened to a wonderful special on National Public Radio and viewed special programming on the Public Broadcasting Service discussing how temperatures nationwide are increasing. This week will be a record temperature for this time of year. Trees make a huge difference. When I worked at a golf course and moved from one area with trees to another without, it was like a whole climate change. Trees often reduced temperatures five to ten degrees, no exaggeration. Please consider approving A.B. 131. We are running out of trees, which are necessary for birds, insects and temperature control.

JOANNE LEOVY, M.D. (Nevada Clinicians for Climate Action):

I have a letter ([Exhibit D](#)) for the Committee. State support for municipal tree efforts will help maximize the health and health equity benefits of trees. Besides all the benefits trees provide for excess heat and air-quality improvement, studies reflect that trees reduce ultraviolet radiation, support the immune system and improve social cohesion. People who live in neighborhoods with trees are more active outdoors and have an easier time maintaining a healthy weight. Health professionals love trees because they make our jobs easier.

DWIGHT GEORGE (Native Voters Alliance Nevada; Nevada Environmental Justice Coalition):

As a resident of Reno, I see how temperatures are rising. One study identified Reno as the hottest city in the Country and I definitely can feel the difference. The bill will not just repair the environment, it will allow the environment to recover. It will improve the environment and the long-term good effects for your constituents. Bringing back the environment is an important thing. Every Nevadan can see how special our environment is, and the more that people can see it, the more they will care and protect it. We support [A.B. 131](#).

MR. CICCONE:

I just heard from my office and would like to add to my testimony that we maintain six full-time employees, and salary costs are approximately \$730,000 in a fiscal year.

CHAIR PAZINA:

Your additional testimony is noted. As there is nobody testifying in opposition to [A.B. 131](#), will hear from those who are neutral.

KACEY KC (State Forester Firewarden, Division of Forestry, State Department of Conservation and Natural Resources):

[Assembly Bill 131](#) codifies the Division's UCFP that employs one full-time and two part-time employees. We are the only entity coordinating multiple partners and stakeholders including municipalities, educational and academic institutions, nonprofits and homeowners to ensure we are implementing these programs throughout communities in both rural and urban areas. We are developing best practices to teach and use the best available science to protect rural forests and trees. For the reasons you have heard today, trees are critically important, but like children, it takes a village to raise them. It is not as easy as simply planting

and watering a tree; trees also need pruning and care for at least the first two years.

It is important to educate people so that when a tree is planted, it will grow to maturity. Once you plant a tree, you must take proper care of it by watering and pruning. We need to coordinate our tree-care industry in multiple languages to ensure all Nevadans are properly educated on tree maintenance, which is why this program is so important.

Our tree-planting program is 100 percent funded by the federal government through the U.S. Forest Service. This can be challenging, as we must comply with the strict parameters of each federal grant, which do not always benefit the unique needs of Nevada.

It is important to codify the UCFP through *Nevada Revised Statutes*. As the federal Bipartisan Infrastructure Law monetarily invested in the urban forestry program, Nevada requested \$8.7 million last year and was awarded \$3 million to help plant trees in urban and rural communities throughout Nevada. Although we were awarded less than requested, we are still excited to receive federal funding that will support three full-time positions. Because of the anticipated funding, this bill does not have a fiscal note and why we have not asked the State to provide start-up costs to implement the program.

SENATOR HANSEN:

Last year, you requested \$8.7 million to plant trees, and the federal government only gave you \$3 million this year. If this bill is approved, the City of Reno can add \$700,000 locally. You will almost be a clearinghouse for the urban communities in Nevada now funded entirely by federal grants; but this year, you only received half of what you requested. Should the bill be worded that the State "may" establish rather than "shall" establish the UCFP?

Ms. KC:

The UCFP is more of a coordinated effort. The UCFP can be funded through State funds, grant funds or private donations. We use funding from the U.S. Forest Service through an Urban Forestry grant program. The purpose of having the State coordinate UCFP is to ensure we are implementing it fairly and consistently throughout Nevada and investing in long-term care for trees and green areas. We plan to continue working with the federal government and

establish a consistent funding mechanism Statewide; we will also search for other funding options.

SENATOR HANSEN:

We need you to figure out how to take the pinyon-juniper shrub surplus in rural areas and replant that in urban areas. That would kill two birds with one stone.

Ms. KC:

If I can figure that out, I may not be working here much longer.

CHAIR PAZINA:

We will close the testimony on A.B. 131. We now have a presentation by Great Basin National Park.

JAMES WOOLSEY (Superintendent, Great Basin National Park):

I have a visual presentation of Great Basin National Park ([Exhibit E](#)). Most of our visitors come from Reno, California or Las Vegas. From Reno, the Park is a six hour drive, and from Las Vegas and Salt Lake City, a four-hour drive. The Park is truly in the middle of nowhere, but Nevadans should know about the Park that is literally in their backyard. A national park is a designated area that has national significance. When appointed as Park Superintendent five years ago, I focused on redeveloping the infrastructure of the Park. Federal funding for this purpose has been received, and we have used the funding to upgrade facilities at the Park.

Many national parks predate the Organic Act of 1916 that created the National Park Service. For example, Yellowstone National Park was established in 1872, predating the Act. The Organic Act codified the purpose of national parks "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

Our job is to identify those areas that are so special, natural and historic that they should be saved forever, and to encourage Americans and people from all over the world to enjoy and help us preserve those areas forever.

The nucleus of the Park, the Lehman Caves, was designated as a National Monument in 1922, and we just celebrated the one hundredth anniversary of that initial portion of Great Basin National Park. In 1986, the Monument was enlarged to 77,000 acres, upgraded to a National Park status and named Great Basin National Park. The Act authorizing Great Basin National Park stated that the purpose of establishing the Park was to "preserve for the benefit and inspiration of the people."

The Great Basin is a gigantic area and includes almost all of Nevada except for Clark County. The Basin also includes parts of California, most of eastern Oregon and half of western Utah. The Basin is one of the largest ecological areas in the United States. The Colorado Plateau maintains a plethora of national parks including the Mojave, Sonoran and Chihuahuan Deserts, but the Great Basin was last in line when important areas were deemed worthy of preservation.

When the Park was designated, they wanted to preserve an outstanding segment of the Great Basin, including old growth Bristlecone pines, rich biodiversity, the Lehman Caves and other distinct geologic features. Park highlights include expansive scenic views and 13,000 years of human history for the inspiration, enjoyment and scientific understanding of current and future generations.

I just visited Patagonia, which is a famous cold desert in South America. It is a beautiful area but flat. After driving through Patagonia, I now realize how diverse the Great Basin is; by driving from one range to another, you can enjoy unique, everchanging and beautiful vistas.

The Great Basin Visitor Center is at a 5,000-foot elevation. At the Visitor's Center, you can look up at a 13,000-foot mountain. People who are raised in deserts think the unique terrain is normal and become used to it, but the landscape is amazing. The Bristlecone pines grow to be 5,000 years old and have been dated as the oldest living thing on the planet. Aspen grove trees are a little older, but they are a different story. The Basin is home to the Bonneville cutthroat trout, a native species close to extinction that has been reintroduced due to efforts by State and federal wildlife authorities. We also reintroduced this native trout to Snake Creek, Utah, in the last couple of years. One of the coolest things I have done as Superintendent was to take a bucketful of Bonneville cutthroat trout and reintroduce them to Snake Creek.

The Lehman Caves, one of the most beautiful cave systems in the United States, are smaller and more intimate than other cave systems. They are an impressive sight, especially with all the water they have received this year. Where before, a drop of water would drip from a crevice every few minutes, the water now pours out.

The Park's dark skies are also amazing. When viewing a sky map of the United States depicting light pollution, only two areas in the United States are particularly dark, eastern Oregon and eastern Nevada. About 15 percent to 20 percent of our visitors come specifically to see dark night skies because 95 percent of us live in areas where the sky is so compromised by light pollution, it is difficult to find the Milky Way Galaxy, stars and objects.

Visits to all state parks have grown. Ten years ago, we had 80,000 visitors at the Park. We now have between 150,000 to 170,000 visitors per year, and over the past 10 years, visitation has doubled. Since the Park was first designated in 1986, the number of visitors began gradually increasing but then leveled off. In the past ten years, more people are discovering their national parks. Although we did experience a slight decrease during COVID-19, our visitor numbers are now back to where they were before. The demographics have changed, and we are seeing younger visitors from the cities around us who want to enjoy nature; we have two visitor centers to service their needs.

In the summer, we conduct 12 to 14 tours per day through the Lehman Caves. Over 50,000 visitors go through the caves each year, a third of our visitors. We have five campgrounds in the park, more than similarly sized parks, but people love to camp at and near the Park.

Many visitors enjoy driving to the top of the Wheeler Peak Scenic Drive which ends at an elevation of 10,000 feet near the Wheeler Peak Campground, the most beautiful campground in the National Park Service. From there, you can hike the high country and enjoy the trees, wildlife and the beautiful view from the mountaintop. The Park maintains a unique ecosystem.

Visitors enjoy the Park's astronomy programs. Over 20,000 visitors a year attend The Great Basin Astronomy Festival, and we collaborate with the Nevada Northern Railway on a night sky train. One of our rangers rides with train passengers to provide information on the Park and answer questions. We also opened an astronomy amphitheater where we conduct nighttime programs

and provide gigantic telescopes so visitors can view Jupiter and other astronomical spheres.

The Park is a great boon to the local economy. Over 150,000 visitors each year spend \$8.8 million to supplement the local economy, identified as being within a one-day radius, like Ely. The town of Baker is 5 miles from the Park entrance and employs 121 people, and the Park helps maintain a diverse local economy.

We are working on several different projects and have successfully accessed project funding. Our base budget is about \$3 million a year, and we have access to about \$5 million more in project money, substantial for a smaller park. I spend much of my day managing all these projects, and it can be overwhelming; but my philosophy is that the bipartisan Inflation Reduction Act funding will not last forever, so we should access it while we can.

The Park was awarded grant funding to install a new Lehman Caves electrical lighting system, and we will start installing that in the next 12 months; it will take two years to complete. Nevada U.S. Senator Catherine Cortez Masto was instrumental in procuring that funding through the Great American Outdoors Act. We are also replacing the water and wastewater systems around the Lehman Caves. Installed in the early 1960s, the system has a big leak.

We are also working on a \$2 million project to protect the Wild Caves in White Pine County. We are rebuilding the visitors parking lot on the Wheeler Peak Scenic Drive. We will begin construction and rehabilitation this summer on the Lower Lehman Campground and just completed the restoration of the Wheeler Peak Campground, which was restored in keeping with its history. Within the Wheeler Peak Campground was beautiful rockwork that was badly decayed, and we hired a historic stonemason to remediate it. The restoration was beautiful; when we later built the astronomy amphitheater, we hired him again to build a new rock wall. The stonemason's signature is building an arrowhead into each wall he builds, so that is something you can look for when visiting the Park.

We have been quite successful in maintaining the Great Basin National Park, which, in my opinion, has some of the best infrastructure in the National Park System.

SENATOR HANSEN:

The Great Basin National Park is a Nevada treasure. In 1986, I was one of the people opposed to the National Park but for different reasons—there is a beautiful silver poplar tree in front of the Park that is the largest of its kind in the State.

MR. WOOLSEY:

From my office, you can see the tree, which is still the largest of its kind in the State.

SENATOR HANSEN:

What are the lowest and highest points in the Park? What about greasewood flats?

MR. WOOLSEY:

There are no actual basins in the Great Basin National Park, so the lowest point is Baker at an elevation of 5,300 feet, which is just below Lehman Caves at 6,000 feet. The average elevation on Wheeler Peak is over 13,000 feet. When the concept of the Park was first discussed, they initially planned to include greasewood flats, and the Park was contemplated at being larger. Compromises were made, so what we have now is what we ended up with.

CHAIR PAZINA:

We will close the presentation by Great Basin National Park and welcome Former State Senator Julia Ratti who will be presenting today.

JULIA RATTI (Great Basin National Park Foundation):

I will introduce Briget Eastep, President of Great Basin National Park Foundation. Most of our national parks have a friends or nonprofit group that supports the park. The budgets for managing and upgrading national parks can be slender, so our Foundation volunteers help supplement funds provided by the federal government and other benefactors.

The Great Basin National Park Superintendent is doing great work at the Park, and the assistance of our Foundation allows them to do many projects. The rules and regulations of the federal government are often quite stringent and inflexible, so our Foundation steps in and determines projects that can be implemented with regulatory funding.

The gateway to the Park is Baker with a population of 62. The Park itself is quite remote. Ely is about an hour away and near the Utah border. The Park is the main driver of tourism in White Pine County, and we still have one-room schoolhouses in that part of the State.

The Park has many unique features that attract visitors, including Bristlecone pines, and the oldest single living tree. Hiking among the pines provides a perspective about your place in the world, especially when you are standing next to a tree that is 3,000 years old. The Lehman Caves are spectacular, and the reservation system for entry to the Caves is fully booked months in advance. Great Basin Park was created around those Caves that were designated as a historical landmark in 1922, and the Foundation helped celebrate their 100-year anniversary. Our Foundation was founded 12 years after the Park was founded by Bonnie Bryan, Nevada's First Lady, married to Senator Richard Bryan who is still on our Board of Directors as a founding member.

We are a nonprofit Foundation, and our mission is to support the Park and to preserve, protect and ensure Great Basin National Park remains for generations to come.

We pride ourselves with some significant accomplishments. The Foundation raised money to build a visitor center. We have purchased and provided safety equipment for backcountry rescue. These assets and supplies are hard to come by on a slim budget. We have paid for interpretive displays in exhibit spaces and conduct research, support, education and community outreach.

The Park is limited in its ability to do outreach. The Park has a small but mighty team that maintains infrastructure and supports park visitors but has limited resources for community outreach. The Foundation serves as an extension to community outreach services. Great Basin has some of the darkest and clearest skies in the contiguous United States. The Park has been designated as a gold-tier International Dark Sky Park and cited as the best national park for nighttime stargazing due to its isolation. In the new moon phase, Park skies are completely dark, something most humans are unable to experience.

One of our most significant accomplishments was raising money to build and install the only research-grade observatory in the national park system. The observatory was built in partnership with the University of Nevada, Reno, and

Southern Utah University. The observatory can be operated remotely by students at those two universities to study black holes, double star systems and supernovas. Remote access has now been extended to high school students, who may enjoy opportunities to conduct research with a research-grade observatory and be published in national literature. Our Foundation does everything we can to support the Park.

BRIGET EASTEP (Chair, Great Basin National Park Foundation):

I have a visual presentation ([Exhibit F](#)). National parks are for everyone to enjoy. We love digging into diversity, equity and inclusion by building partnerships and conducting community outreach. We collaborate with schools within 100 miles of the Park, including those in Millard County, Utah. We plan to include every school in Millard County this year and present an overview of Great Basin National Park to every fourth grader in the Millard County School District.

We have also developed a curriculum for science teachers. Teachers teach best when they can personally enter the Park and participate in the tours and programs available to them. The Foundation also conducts community outreach addressing students in urban communities. Through partnerships, we implemented the Great Basin Explorer Program and help young people to escape the summer heat and discover the natural resources within the Park. It is magical to watch a child observe the Milky Way Galaxy for the very first time.

While involved with the Foundation, I accompanied two students who had never seen the Milky Way Galaxy. It was cloudy the first two nights, but on the third night, we were on our backs in the parking lot of the campground watching the Milky Way Galaxy until three o'clock in the morning. New visitors are also amazed by the forests of Bristlecone pine trees and meeting some of the oldest trees on this Earth. The caves are magical, and visitors are awed by cave pictographs, especially those depicting warriors with shields.

We are developing partnerships with local Native American tribes to host family camps and have reached out to the Duckwater Shoshone, Ely Shoshone and the Confederated Tribes of Goshute Reservation. We enjoy hosting multigenerational families who often bring cousins and friends. The family camps include elder tribal members who share tribal lore with young tribal members. The Park gives them the space to share tribal customs, lore and stories. The Foundation is also collaborating with local tribes to develop a

repository of local Indigenous stories, an idea suggested by tribal elders who attended a family camp.

The Foundation assists the Park because while visitation has increased, budgets have decreased. We reach out across Nevada since Great Basin National Park is the only national park completely contained within State borders. Although we prefer for Nevadans to visit the Park in person, we also help them to visit the Park virtually. Our greatest challenge now is providing broadband high-speed Internet access throughout the Park. Visitors freak out if they are unable to access cell phone service, which is entertaining to see when you are sitting under a tree and observing nature. It is important for Park staff and visitors to have good, reliable and fast Internet service, and we are researching ways to expand Park housing.

Although jobs are within Baker and available in the Park, there is no housing. Potential employees are unable to reside within the Park and raise their kids there. We want people to visit the Park, and one of the reasons we are presenting today is to invite you to visit this beautiful jewel in Nevada.

Ms. RATTI:

We invite the Committee and everyone who may be listening today to become a guardian of Great Basin National Park. You can access the Great Basin National Park Foundation at <<https://greatbasinfoundation.org>> or become a guardian to help protect this State and national treasure. If anything on the website intrigues you or you have ideas for the Park, we would love to sit down and talk with you. We want to be a bright spot in your day today and remind you of Great Basin National Park.

SENATOR HANSEN:

Are any Basque tree carvings still in the park? A lot of people do not know what they are, but aspens live for a long time.

MR. WOOLSEY:

You can still carve aspens in the groves, and Strawberry Creek is a particularly good place to carve. In 2016, a fire burned the lower portion of Strawberry Creek, but aspens need to burn periodically to rejuvenate themselves. If you go further up in the watershed, there are aspens, and you will see many carvings on them in the Spanish and Basque languages.

SENATOR HANSEN:

I love this stuff and have enjoyed your presentation. I am curious how many Nevadans visit the Park compared to non-Nevadans from a tourism perspective. Did visitors increase during COVID-19 when so many people participated in outdoor tourism? Are you planning on doing a demographic study anytime this summer?

MR. WOOLSEY:

Yes. The study will be done this summer and the data should be available one year after.

SENATOR HANSEN:

I am a huge fan of outdoor recreation and outdoor tourism.

CHAIR PAZINA:

We will now hear public comment.

MR. FRENCH:

I would like to bring up the insect issue. We are definitely running out of insect species. I speak from just a general understanding of local growth Statewide, but as Carson City is growing in population, insects and surrounding nature will be crowded out of the landscape.

Any program that promotes helping people become better acquainted with nature through parks is appreciated. I would like everyone to start thinking more about preserving nature. Everyone knows that animals migrate, but they do not realize that insects migrate too. There are some bills that would protect honeybees and similar pollinators, but people should remember that insects are also important to our ecostructure.

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CHAIR PAZINA:
The meeting is adjourned at 4:49 p.m.

RESPECTFULLY SUBMITTED:

Cherie Dittler,
Committee Secretary

APPROVED BY:

Senator Julie Pazina, Chair

DATE: _____

EXHIBIT SUMMARY				
Bill	Exhibit Letter	Introduced on Minute Report Page No.	Witness / Entity	Description
	A	1		Agenda
	B	1		Attendance Roster
A.B. 131	C	3	Lisa Ortega/ Nevada Plants	Visual Presentation
A.B. 131	D	12	Joanne Leovy / Nevada Clinicians for Climate Action	Letter in Support
	E	14	James Woolsey / Great Basin National Park	Visual Presentation
	F	20	Briget Eastep / Great Basin National Park Foundation	Visual Presentation