GATEWAY TO THE STARS
FEASIBILITY REPORT

June 2025
Cave Junction, Oregon

TRAVEL OREGON

Acknowledgements

This feasibility report for the Gateway to the Stars project would not have been possible without collaboration and participation from the following organizations:

City of Cave Junction

Friends of the Oregon Caves and Chateau

Illinois Valley Chamber of Commerce

Main Street Cave Junction

Travel Southern Oregon

Water League

Executive Summary

The Gateway to the Stars feasibility report, prepared for the Illinois Valley Chamber of Commerce as part of Travel Oregon's Recreation Ready program, proposes nominating the city of Cave Junction as an International Dark Sky Community. This endeavor seeks to mitigate light pollution in the area and to partner with community organizations and the Oregon Caves National Monument and Preserve — an established International Dark Sky Park — thereby improving the quality of the night sky for astronomical observation, as well as drawing in tourists specifically interested in dark sky experiences. The anticipated benefits include boosting the local economy through increased tourism, promoting environmental responsibility by reducing light pollution, and strengthening the community's sense of pride in its unique natural resource: the beautiful, clear and captivating night sky of the Illinois Valley.

The report examines the current situation in Cave Junction, presents research findings on visitor behavior and the importance of accessibility for all visitors, summarizes the outcomes of community engagement efforts that demonstrate significant local backing for the initiative, and pinpoints the key advantages and challenges associated with achieving Dark Sky Community status. Furthermore, this report provides specific recommendations on how to ensure accessibility and inclusivity are central to the project's development. The report concludes with a detailed Phase II action plan that lays out the necessary steps to secure Dark Sky certification and to enrich the overall visitor experience in Cave Junction.

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PREPARED FOR

Illinois Valley Chamber of Commerce

RECIPIENT OF

Travel Oregon Recreation Ready Program

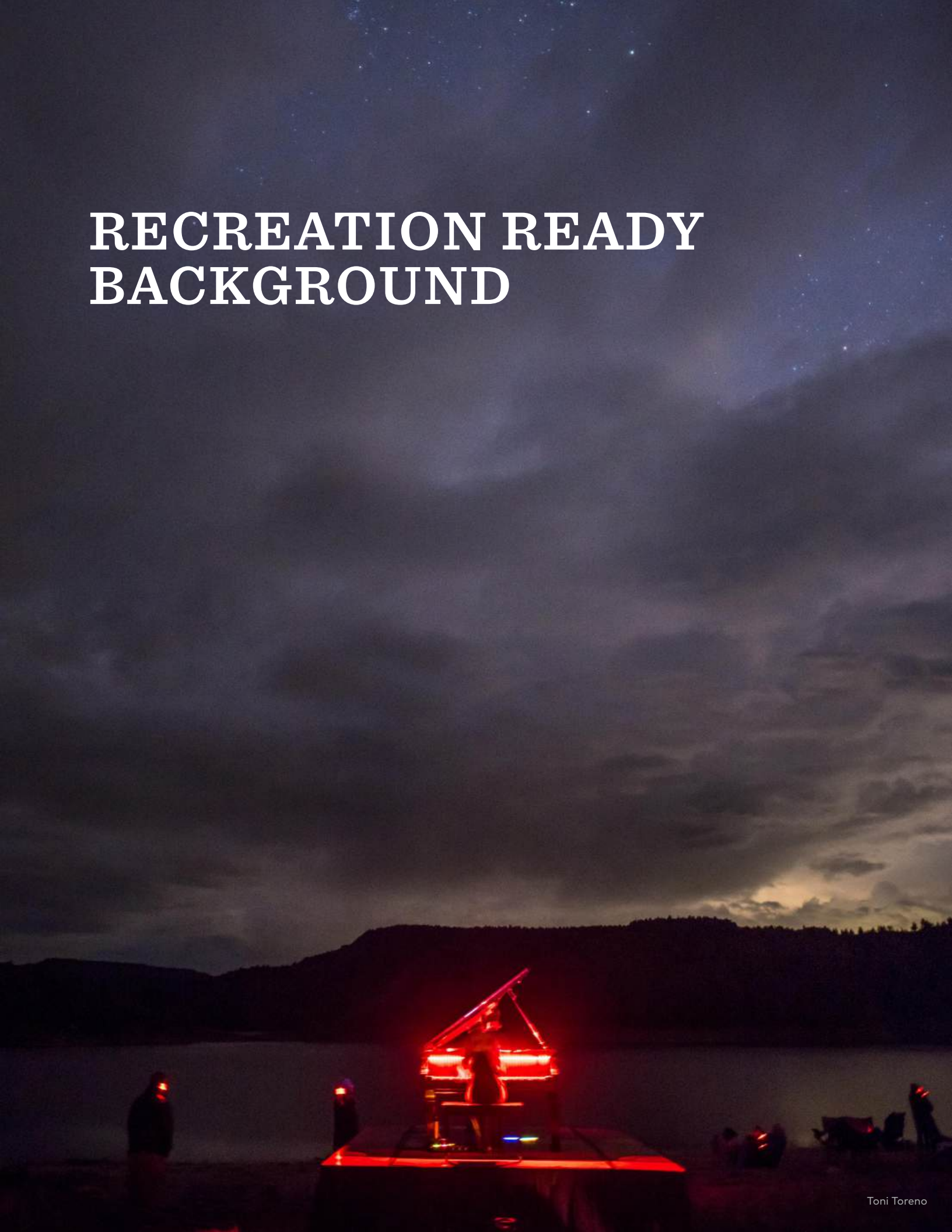
PREPARED BY

C2 Recreation

Empowering Access

Travel Oregon

RECREATION READY BACKGROUND



Toni Toreno


RECREATION READY BACKGROUND

To support Oregon communities in developing new outdoor recreation visitor experiences that enhance local communities, grow economic opportunities, respect natural environments and increase access and equity in the outdoors, Travel Oregon launched the Recreation Ready program in 2024.

Designed to provide communities with early project planning, technical assistance and investments, Recreation Ready is delivered over two phases. First, Travel Oregon staff and a consultant team work with a local project steering committee over a six-month period to assess project feasibility through a series of key steps. In the second phase, feasible projects are eligible to receive additional technical assistance and financial investment to further advance projects.

PHASE I: Assess project feasibility

(over six- month period)

- Convene local project steering committee
- Receive Access and Belonging in Outdoor Recreation training
- Examine existing conditions
- Analyze visitor trends and potential visitor profiles
- Perform disability and inclusion evaluation
- Engage community and receive feedback
- Identify opportunities and constraints
- Provide action planning for Phase II
- Culminate steps into this feasibility report

PHASE II: Investment

- Fund action plan to advance project forward (up to $100,000 to be executed by December 31, 2026)

The Recreation Ready program was available to rural communities and to tribal communities within the nine federally recognized Tribes of Oregon. Successful program applicants identified an outdoor recreation visitor experience project in early stages of development and planning; at the time of application, these projects were not yet ready to seek traditional infrastructure investments and were in need of assistance to get to that position in the future. Twenty-four applicants applied to the program through a competitive statewide process in fall of 2024. Gateway to the Stars was one of four projects accepted into the program.

Program participants that successfully complete Phase I with a viable project — determined through the feasibility report — are eligible and invited to participate in Phase II. Applicants are required to submit a detailed project scope of work, including a budget and timeline, to Travel Oregon to receive the Phase II investment award.

ACCESS AND EQUITY IN THE OUTDOORS

Access and Equity in the Outdoors

Access in outdoor recreation ensures people have the *ability* to physically reach and participate in outdoor spaces and activities by removing barriers. **Equity**, however, goes further: It acknowledges that different groups face unique challenges and have varying needs, focusing on *fairness* and addressing historical inequalities. The Recreation Ready program aims to prioritize both access and equity in the outdoor projects it supports. In Phase I, Travel Oregon retained an accessibility consultant with lived disability experience to provide guidance to program participants, addressing outdoor recreation disparities and highlighting the importance of intersectionality. Creating truly inclusive outdoor experiences requires intentional outreach to disability communities, hiring expert consultants and exceeding current standards. Ongoing community investment and partnerships are vital for genuine outdoor access and inclusion. This report presents findings and recommendations from Empowering Access to further these goals.

About Empowering Access

Empowering Access provides expert consultation in disability, equity and inclusion, drawing on both professional knowledge and personal experience. They partner with stakeholders to develop comprehensive and inclusive solutions that go beyond standard practices. Through research, best practices and a deep understanding of lived experiences, they prioritize and elevate the voices of individuals with disabilities. Their goal is to foster inclusion across all settings, offering clients innovative strategies for accessible outdoor engagement.

OSU Training on Access and Belonging

To support program participants in framing their outdoor projects with access and equity, project leads took Oregon State University's Elevate Outdoors training on access and belonging, followed by an Empowering Access-led debrief. Discussions covered inclusion, equity, historical exclusion and current research for equitable outdoor experiences. Projected learning outcomes included understanding access, inclusion and belonging; self-awareness; appreciating diverse identities; understanding barriers; and creating inclusive outdoor experiences. The debrief addressed history, Native lands, inclusive spaces/marketing, safety/allyship, dismantling privilege, forming partnerships and expanding opportunities.

STEERING COMMITTEE

The Recreation Ready program was designed for destination management/marketing organizations (or other organizations working closely with destination managers). The program required each DMO applicant to identify a local steering committee that would shape and guide their project and to submit a letter of commitment from each member. Recreation Ready: Phase I steering committee members for the Gateway to the Stars project included:

- **Amy Lusson, President, Main Street Cave Junction**
- **Bob Hackett, Executive Director, Travel Southern Oregon**
- **Christopher Hall, Executive Director, Water League**
- **Megan Curtis, Executive Director, Illinois Valley Chamber of Commerce (lead)**
- **Sue Densmore, Executive Director, Friends of the Oregon Caves and Chateau**
- **Tina Casey-Jones, City Council Member, City of Cave Junction**

PROJECT DESCRIPTION AND BACKGROUND

This exciting initiative aims to nominate the city of Cave Junction as an International Dark Sky Community via an application to DarkSky International, a nonprofit dedicated to preserving night skies. The initiative would enhance outdoor lighting to maintain Cave Junction's rural charm while reducing light pollution, supporting Cave Junction's aspiration to become a premier destination for stargazing and dark sky tourism.

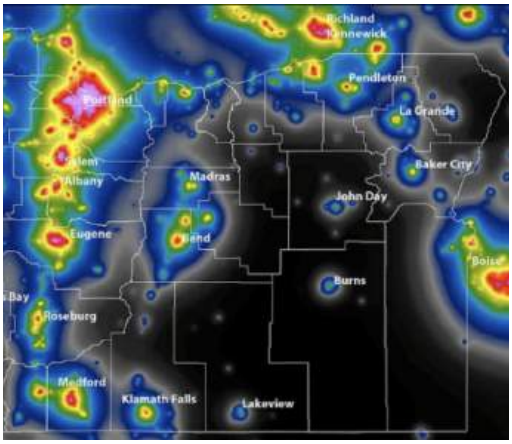
Global interest in "dark sky" destinations is increasing as the rate of artificial light at night grows. Consequently, some communities are adopting dark sky tourism, seeking certification from DarkSky International to protect and promote night skies. Applications for dark sky certifications are nearly doubling yearly, reflecting growing awareness of both the importance of the natural nighttime environment and the economic potential of dark sky tourism.

Cave Junction is exploring an International Dark Sky Community nomination, which will involve inventorying outdoor public lighting, implementing policy changes, providing public education, and engaging stakeholders. This initiative builds on local stargazing advocacy that began in 2001. Key partners include the city of Cave Junction, Main Street Cave Junction, Oregon Caves National Monument and Preserve (an International Dark Sky Park), Travel Southern Oregon, and the Illinois Valley Community Development Organization, along with local businesses and schools.

The concept emerged during Oregon Caves' recognition process and Travel Oregon's 2022 Destination Ready program, leading to a 2024 Recreation Ready program application. Dark sky protection aligns with state and regional sustainable tourism goals; it safeguards a natural resource, promotes environmental stewardship, maintains the character of Oregon's rural communities and small cities, and supports sustainable tourism.

Certification would help establish Cave Junction as an ecotourism destination, attracting visitors and benefiting local businesses, especially campgrounds. Beyond tourism, it would strengthen community pride and collaboration and catalyze environmental and social sustainability initiatives in the Illinois Valley. This project seeks to deliver lasting, transformative benefits for the environment, economy and community.

EXISTING CONDITIONS



Oregon possesses abundant dark skies — particularly in eastern and southern Oregon, which constitutes the largest pristine dark sky area in the contiguous U.S. Southern Oregon boasts two DarkSky International-certified locations: Oregon Caves National Monument and Preserve (an International Dark Sky Park) and the Oregon Outback (the world's largest International Dark Sky Sanctuary), demonstrating the state's commitment to dark sky preservation.

Cave Junction is pursuing an International Dark Sky Community nomination. Initial investigations indicate impressive light pollution metrics that make the Illinois Valley an attractive dark sky destination. Data from lightpollutionmap.info place the valley at Class 4 on the Bortle Scale — a measure of night sky darkness that ranges from 1 (darkest) to 9 (brightest) — meaning it has moderate artificial light at night and the Milky Way is visible. Travel Southern Oregon, a key regional partner experienced with the DarkSky nomination process, contributed to the initial feasibility study.

Tourism significantly benefits the economically disadvantaged Illinois Valley, supporting 2,000 jobs and contributing nearly $200 million annually to Josephine County's economy. However, the region faces challenges with overnight lodging due to recent closures, and it lacks a transient lodging tax. Accessibility and diversity are important considerations; existing and projected visitor data show significant percentages of travelers who have accessibility needs or identify as non-white.

One of the eligibility criteria for Dark Sky Community nomination requires Cave Junction to commit to adopting policies that align all public and private lighting with DarkSky International standards within five and 10 years of enactment, respectively. A subcommittee has begun a preliminary lighting audit and is coordinating with the city of Cave Junction Public Works Department to inventory existing lighting. Following these initial steps, a more comprehensive lighting inventory will help determine the feasibility of meeting one of the several nomination eligibility criteria within the required timeframes.

RESEARCH

Oregon Adaptive Sports

To understand the potential and need for the Gateway to the Stars project, Travel Oregon commissioned Future Partners to conduct two visitor-focused studies: one analyzing current local and regional visitor trends, the tourism economy, and resident sentiment; and another assessing regional outdoor recreation travelers' interest in the project and their perceptions of Oregon as an outdoor destination compared to competitors such as Washington, Idaho, Nevada and California. Furthermore, to gather specific feedback on accessibility and inclusion, Empowering Access facilitated disability and inclusion focus groups in both Portland and Central Oregon in March 2025. These sessions aimed to identify accessible recreation interests and barriers, providing crucial insight to ensure the project meets the diverse needs of all potential stargazers.

Economic Snapshot

Direct Travel Spending

$172 Million

↗ +0.7%

Overnight Visitor Volume
Total Nights per Travel Party

760,070

↘ -0.7%

Travel Industry Employment

2,060 Jobs

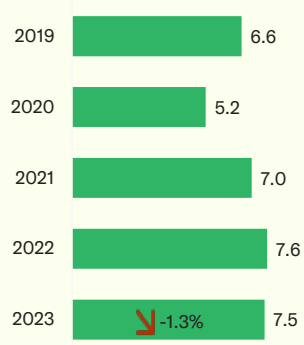
↘ -4.2%

Travel Industry Earnings

$61.9 Million

↗ +1.0%

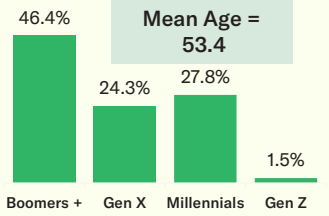
Total Tax Receipts Generated* ($ Millions)
by Travel Spending



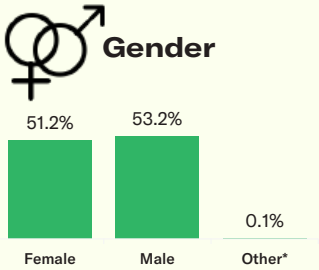
**The Total Tax Receipts Generated includes both state and local taxes*
Source: The Economic Impact of Travel in Oregon – 2023 preliminary data, Josephine County.

Visitor Demographics Snapshot

Generation

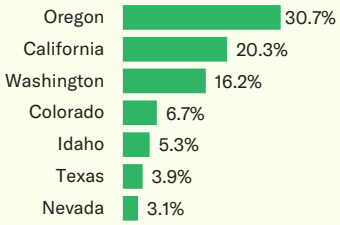


Gender



*Includes the following gender identities: cisgender, genderqueer, transgender, gender non-conforming, and other

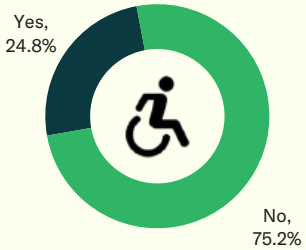
Origin States



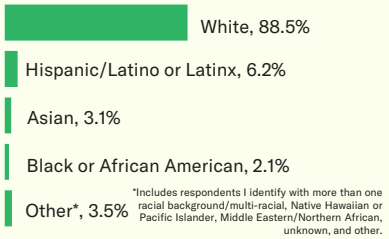
Average Household Income

$109,228

Accessibility Needs



Ethnicity



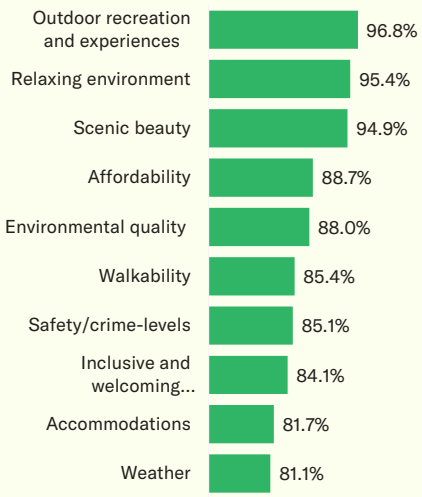
*Includes respondents I identify with more than one racial background/multi-racial, Native Hawaiian or Pacific Islander, Middle Eastern/Northern African, unknown, and other.

Source: Travel Oregon, 2022 Visitor Profile Study.
IVCoC Gateway to Stars includes Cave Junction, Kerby, O'Brien, Selma, Takilma, Grants Pass.

Outdoor Recreation Snapshot

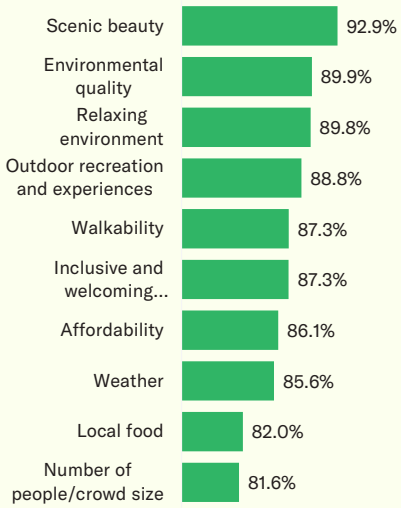
Top Motivations

(Top 3 Box Score - % selecting "Important", "Very important", and "Extremely important")



Top Satisfaction

(Top 2 Box Score - % selecting "Satisfied" and "Very satisfied")



98.5%

Overall Trip Satisfaction

(Top 2 Box Score - % selecting "Satisfied" and "Very satisfied")

89.5%

Likelihood to Recommend

(Top 3 Box Score - % selecting "8", "9", and "10 - Extremely likely")

92.2%

Likelihood to Return

(Top 2 Box Score - % selecting "Likely", and "Extremely likely")

Source: Travel Oregon, 2022 Visitor Profile Study, Sample: Visitors who participated in an outdoor recreation activity on their last trip to Oregon. IVCoC Gateway to Stars includes Cave Junction, Kerby, O'Brien, Selma, Takilma, Grants Pass.

Visitors with Disabilities Snapshot – Key Metrics

42.6%

Participated in Outdoor Recreation Activities

Overall Trip Satisfaction
(Top 2 Box Score - % selecting "Satisfied" and "Very satisfied")

94.4%

Likelihood to Recommend
(Top 3 Box Score - % selecting "8", "9", and "10 - Extremely likely")

81.1%

Likelihood to Return
(Top 2 Box Score - % selecting "Likely", and "Extremely likely")

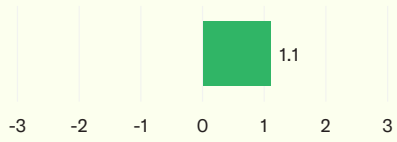
90.2%

Source: Travel Oregon, 2022 Visitor Profile Study, Southern Oregon Region, Visitors with Disabilities.

Josephine County Resident Sentiment Snapshot

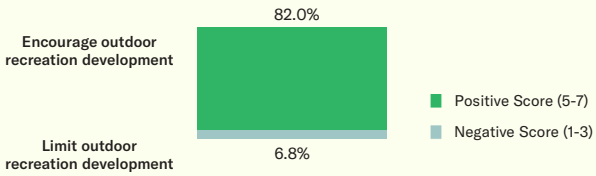
Overall Support for Tourism Mean Score*

Total Residents' Support for Tourism

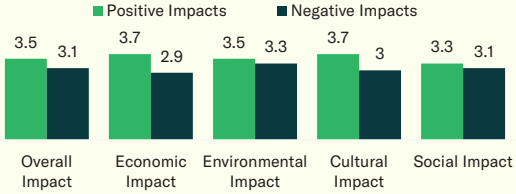


** Calculated as the mean scores for statements included in the index, with a minimum possible mean score of -3 and a maximum possible mean score of 3.*

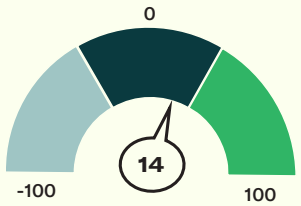
Support for Tourism – "Oregon should..."
(On a 7-point scale)



Index of Residents' Perceptions of Tourism Impacts



Likelihood to Recommend* Local Community as a Tourism Destination



**The likelihood to recommend score is the result of subtracting the detractors (residents who scored a 6 or lower) from the promoters (those who scored a 9 or 10).*

Source: Travel Oregon, 2023 Resident Sentiment Study, Josephine County.

Katie Falkenberg

Potential Visitors

KEY INSIGHTS

Key Markets: White travelers, older travelers and travelers with disabilities are highly likely to view Oregon as the best destination for dark sky activities, presenting a key target audience for the Gateway to the Stars project.

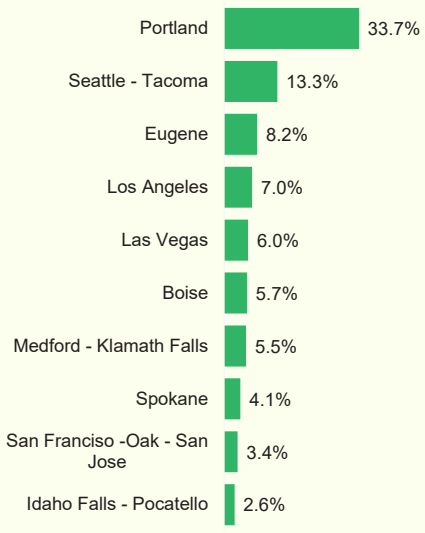
Opportunity: Out-of-state travelers who identify as Black, Indigenous and people of color (BIPOC) show the highest propensity for overnight outdoor leisure trips, indicating a significant growth opportunity for visitation to Cave Junction.

Competition: While California is a primary competitor for general outdoor recreation trips, British Columbia poses the strongest competition specifically for dark sky guided activities and stargazing.

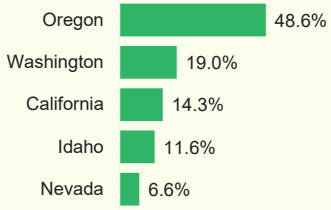
Inspiration Sources: Potential visitors across demographics primarily rely on word-of-mouth recommendations, internet searches and past experiences for travel inspiration, underscoring the importance of positive visitor experiences and accessible online information.

Travel Profile Snapshot

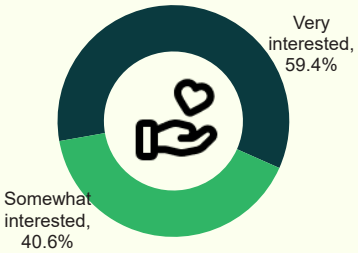
Top Origin by DMA (Designated Market Area)



Origin States



Leisure Travel Interest in Outdoor Recreation



Average Overnight Leisure Trips Taken Including Outdoor Activities

(Past 12 Months)

3.4 Trips

Average Length of Stay of Most Recent Outdoor Recreation Trip

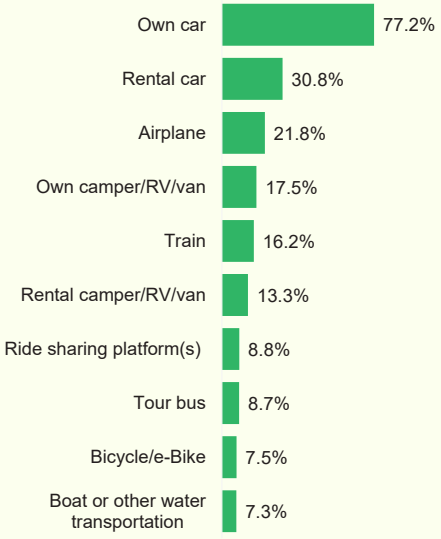
3.9 Nights

Outdoor Trip Snapshot

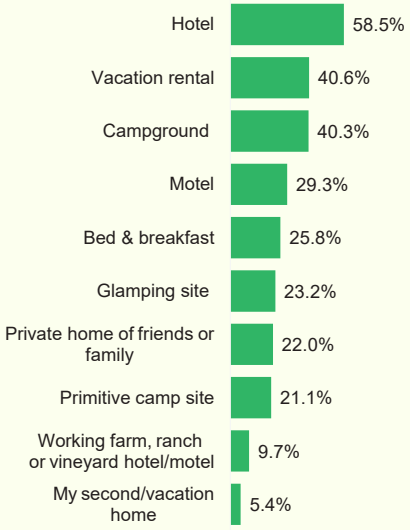
Average Distance Willing to Travel from Lodging to Outdoor Recreation

21.0 Miles

Top Preferred Mode of Travel
For Outdoor Recreation Trip

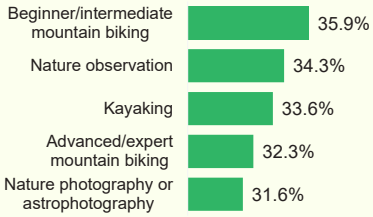


Preferred Accommodation
For Outdoor Recreation Trip

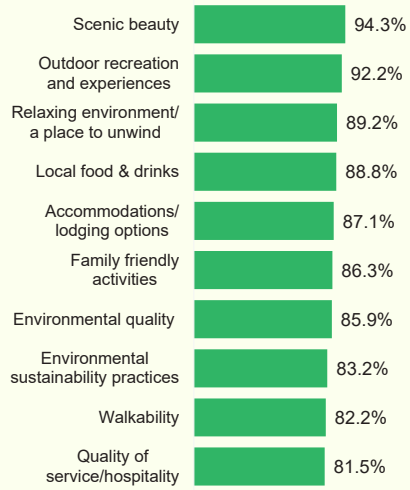


Oregon Perceptions Snapshot

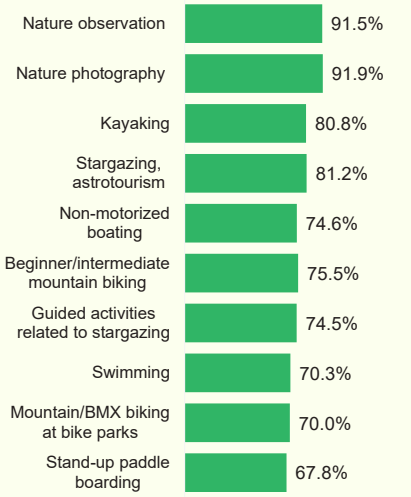
Oregon Attribute Performance
(% selected as Best Destination Attribute)



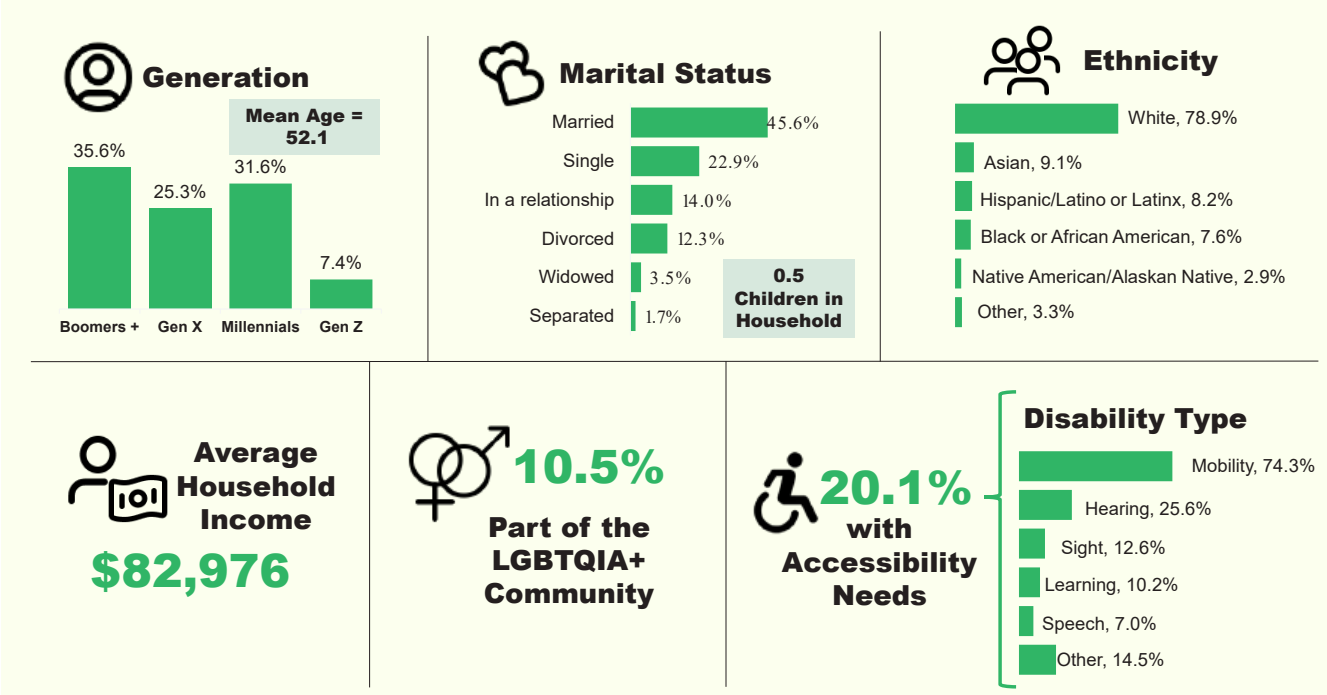
Top Oregon Attributes
(Top 2 Box Score - % selecting "Good" and "Very good")



Top Oregon Outdoors Attributes
(Top 2 Box Score - % selecting "Good" and "Very good")

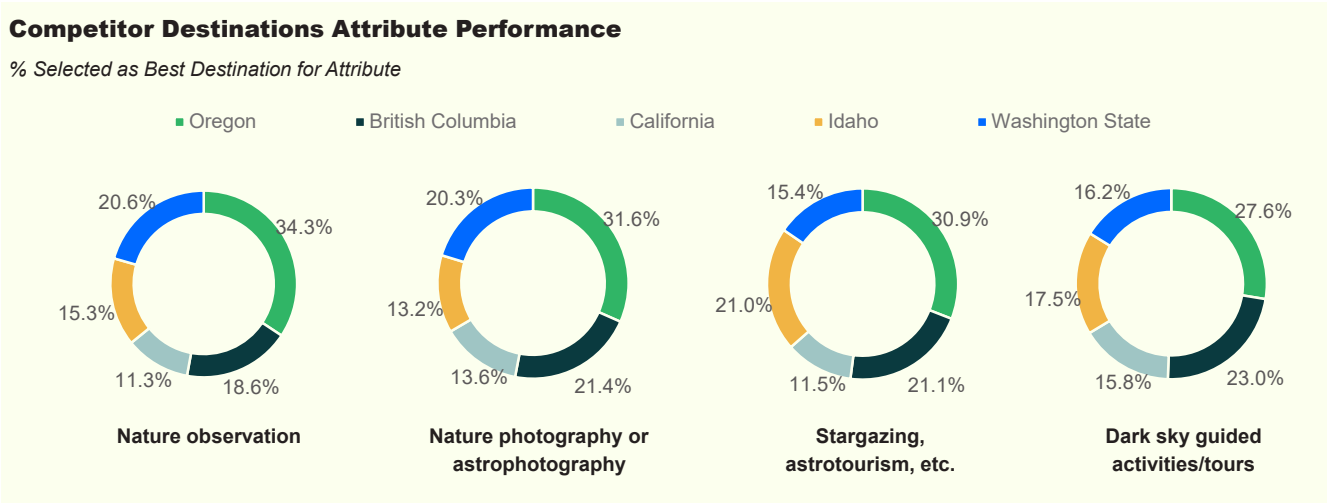


Demographics Snapshot



Oregon is considered the best destination for nature observation and dark sky activities.

When asked to select which regional destination is best for various nature observation and dark sky activities, Oregon was consistently selected over competitor destinations by potential Gateway to Star visitors. More than one in three chose Oregon as the best destination for nature observation (34.3%), while about three in ten selected Oregon for nature/astrophotography (31.6%) and/or stargazing (30.9%). Over one in four said Oregon was the best destination for dark sky guided activities or tours (27.6%)



Base: Total respondents. 641 completed surveys.

Adventures Without Limits

Disability & Inclusion Focus Groups

Two focus groups, representing potential visitors from different Oregon regions who would travel at least 50 miles, participated in this study. The participants represented a diverse range of disabilities and interests, and they engaged through in-person conversations or group Zoom calls, followed by detailed surveys. Snapshots of the findings are below, with full survey responses available in the *Appendix*.

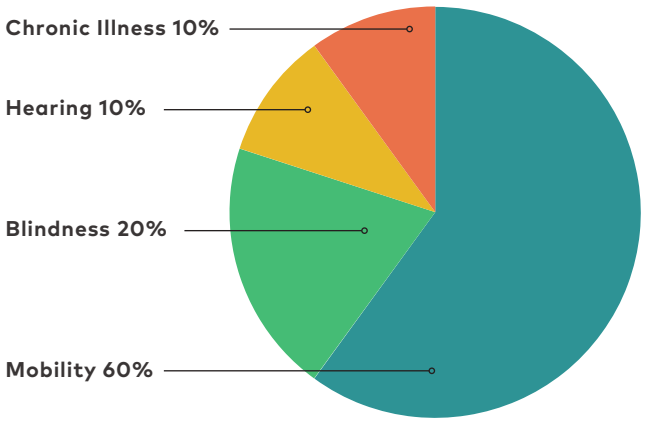
IN-PERSON FINDINGS

Participants from the Portland metro area were enthusiastic about a programmed dark sky experience, especially if combined with accessible programming, navigation and local events. They also appreciated the proximity to other regional attractions and the ease of travel via the I-5 corridor. The Central Oregon group showed less interest in dark sky as a primary attraction, due to existing local access, but considered it a worthwhile trip and a good stop on longer journeys when combined with other experiences. Both groups valued a relatively close destination offering a sense of escape and diverse activities and services, deeming it a worthwhile investment.

SURVEY RESPONSES

The 11 participants, aged 41 to 77 and from the Portland metro and Central Oregon areas, were surveyed about their outdoor recreation experiences. The group included individuals identifying as white and as people of color, as well as a range of gender identities (she/he/they). Participants reported a variety of disabilities — primarily mobility-related, along with blindness, chronic illness, hearing loss and chronic pain.

DISABILITIES EXPERIENCED



KEY THEMES AND DIRECT EXPERIENCES

Safety and Personal Identity: Perceptions of safety varied and were influenced by personal identity, familiarity with the area and availability of support systems. Privilege was noted as a factor affecting safety perceptions, and concerns related to race and gender were prominent.

- "I feel like I do [feel safe outdoors], but when I really think about it, I'm not. ... As a person of color, I fear for my personal safety."
- "As a woman, I don't always feel comfortable going out alone... Many times, I can't find the right information online to know if I can use [the area] safely as a power wheelchair user."

Suggestions for Accessible Night Sky Viewing: Participants offered numerous suggestions for improving accessibility, including specific equipment and infrastructure needs such as accessible seating, audio instructions, adjustable telescopes, wheelchair-accessible parking and routes, designated seating, clear pathways, and lighted bathrooms.

- "I would love for there to be lawn chairs to lay down on and look up, [with]some sort of audio instruction via a website ... that could be as basic as the Zoo Key machines at the Oregon Zoo."
- "A scope that I can use from a seated position would be great. If there were scopes that could be attached to a helmet, glasses or other kind of headgear that doesn't require the use of one's hands, [that would be] good because I am paralyzed from the shoulders down."

Concerns about Visiting a Dark Sky Community: Participants expressed a range of concerns related to access and safety in a dark sky environment. These included safety at night, lack of on-site support, physical obstacles in low light, parking issues, inaccessible lodging and restrooms, uneven terrain, and transportation access.

- "Parking, restroom access, accessible accommodations/restaurants, how easy the location would be to traverse once I get out of the car, [telescopes] being at standing height rather than being adjustable to someone sitting."

Varied Experiences with Night Sky Programs: Experiences with existing night sky programs were diverse. Some enjoyed the visibility, but noted issues with weather, scheduling or logistics. Others had memorable personal experiences or no experience at all.

The complete reports are available in the *Appendix*.

COMMUNITY ENGAGEMENT

Inclusive Stakeholder Mapping & Outreach Strategy

Prioritizing inclusivity and accessibility, Empowering Access guided the project steering committee to proactively engage underserved local communities (including adaptive athletes, BIPOC, LGBTQIA+, women, economically disadvantaged groups and disability groups). Through intentional and transparent outreach, the committee focused on building authentic relationships, acknowledging past exclusions and emphasizing shared goals. Communication prioritized empathy, connection and trust over immediate requests, ensuring a safe and welcoming engagement process. Communities were also invited to the in-person community gathering.

Community Gathering and Survey

A well-attended public gathering in Cave Junction on April 8, 2025, demonstrated strong community enthusiasm for the Gateway to the Stars project. An online and hard copy survey, available in Spanish and English, garnered 31 responses, further validating community support.

HIGHLIGHTS

Participants shared valuable suggestions, including drawing inspiration from other destinations (such as Kauai), creating quiet spaces for neurodivergent communities, utilizing the airport and Rusk Ranch Nature Center for programming, and fostering partnerships with organizations such as Oregon Caves National Monument and Preserve and Siskiyou Field Institute. These ideas underscored the community's proactive engagement and creative vision for the project's success.

While some practical considerations were raised (e.g., lighting retrofits and enforcement), they were framed as opportunities for collaborative problem-solving. The community showed a unified commitment to realizing the project's potential.

RESULTS

An overwhelming 93% of respondents expressed being "very supportive" of the project, with a mere 3% being "very unsupportive." A remarkable 97% agreed the project would significantly enhance local recreation opportunities.

QUOTES

- "I believe that excess light pollution is a major cause of disruption for human biology."
- "Cave Junction is due for growth to sustain itself. I think this project is a thoughtful way to preserve and grow the area."
- "Josephine County has a searing housing crisis... Before we welcome lots more demand for lodging, we must agree to create more housing for the housing insecure."
- "It is a great idea. There are already welcome programs for dark sky experiences. We will work to assure the community offers more programs."

PRIORITIES

The top three community-prioritized features were ADA compliance/accessibility, events, and community education/programs, signaling a strong desire for inclusivity and engagement.

THEMES

- Lodging & Infrastructure: Identified gaps were viewed as opportunities for positive growth and problem-solving.
- Visitor Experience: Strong interest in creating memorable visitor experiences, including trails and recreation areas.
- Dark Sky Passion: Enthusiasm for DarkSky certification, stargazing events and responsible lighting design.
- Transportation Vision: Reference to the 2014 Transportation Master Plan and interest in local improvements.
- Community Partnership: Recognition of funding needs, with a desire for community involvement.
- Optimistic Outlook: General support, coupled with a desire for careful planning and execution.

The complete reports are available in the *Appendix*.

OPPORTUNITIES AND CONSTRAINTS

Cody Rheault

Opportunities and Constraints

Assessing the feasibility of the Gateway to the Stars project requires a thorough evaluation of potential opportunities and constraints. These were identified through collaboration with the steering committee, site visits and community engagement efforts, including a public gathering and online surveys.

OPPORTUNITIES

- **Dark Sky Certification:** Achieving International Dark Sky Community accreditation to attract dark sky tourists, leveraging proximity to dark sky experiences at the Oregon Caves National Monument and Preserve and in the Oregon Outback.
- **Economic Growth:** Increasing tourism to support business growth and new events, and potentially to instigate lodging development and garner tax revenue.
- **Environmental and Community Benefits:** Reduced energy costs and light pollution, contributing to healthy ecosystems; increased public awareness through outreach events, programs and activities; increased lighting design/aesthetics; local pride; preserved starry skies; and potential to spur new infrastructure.
- **Accessibility Enhancement:** Potential to become an accessible recreation destination by improving lodging, infrastructure, transportation and marketing.
- **Strong Community Support and Positive Visitor Perceptions:** High community support (93%), and Oregon is favored among competitive destinations for nature observation and dark sky activities.

CONSTRAINTS

- **Policy:** Need for Cave Junction to adopt and enforce an outdoor lighting ordinance requiring a) conformance of public sector lights within five years and private sector lights within 10 years, and b) demonstration of a development conforming to the code at the time of nomination application.
- **Financial Considerations:** Costs of lighting upgrades, decommissioning or replacements; no dedicated lodging tax; expenses for accessibility improvements and visitor infrastructure; cost of establishing a night sky brightness measurement program, which is required at time of application; cost of maintaining a measurement program for the life of the certification; and cost of developing and maintaining a dark sky education program prior to application and after certification.
- **Community and Enforcement Challenges:** Capacity to host education and outreach via events, programs and activities. Potential opposition to lighting changes, resulting in difficulty enforcing private compliance and risk to accreditation from non-compliant bordering areas.
- **Tourism Infrastructure Gaps:** Limited lodging due to recent closures and lack of accessible infrastructure information.
- **Visitor Perceptions and Concerns:** Some lack interest or prefer other destinations; younger travelers need more information; travelers with disabilities have safety concerns.

RECOMMENDATIONS FOR ACCESSIBILITY & INCLUSION IN PROJECT DEVELOPMENT

Joey Hamilton

Cave Junction is uniquely positioned to build upon existing accessibility efforts and offer accessible night sky experiences to individuals with disabilities, potentially introducing them to an environment they might not otherwise encounter. The town's existing accessible attractions can offer visitors with disabilities a comprehensive experience that extends beyond stargazing, making the visit worth their time and effort. While significant challenges exist, particularly regarding lodging and infrastructure improvements, these also present opportunities for growth. Sustained investment and a dedicated commitment to accessibility will be crucial for prioritizing these efforts and ensuring the project's success in this area.

Recognizing projects often take nonlinear paths, it will be important to pull from these recommendations at the appropriate times throughout the project process. To maximize the project's effectiveness regarding accessibility and inclusion, a deliberate and comprehensive strategy should incorporate the following recommended best practices:

Holistic Approach to Project Development

COMMITTEES

- Establish a steering committee with diverse representation for feedback and guidance in the early stages.
- Proactively engage identified communities early, prioritizing those historically and currently excluded.
- Form a separate, specialized accessibility and inclusion advisory committee.
- Engage an accessibility contractor to establish and engage the advisory group.
- Provide compensation for any historically or currently underserved or under-resourced communities asked to be involved.

REQUEST FOR PROPOSAL

In the hiring/RFP process for experts and designers, specifically require a team member or consultant with lived experience of disability. Integrating this perspective from the beginning of a project prevents oversights and leverages unique insights, ensuring the built environment reflects a commitment to accessibility.

CONSULTANTS

- Seek professionals with:
  - demonstrable expertise in accessibility assessment, universal design and inclusive planning
  - technical expertise, especially knowledge of project-specific guidelines and regulations, ADA standards and assistive technologies.
  - both lived experience of disability and technical proficiency, whenever possible.
- When hiring, adopt an inclusive approach — from "for" to "with" people with disabilities — to ensure user-centered solutions.
- Keep in mind that community engagement is vital for diverse perspectives, but not for complex technical tasks.

SITE SELECTION

- Consult an accessibility expert to evaluate sites beyond ADA code compliance.
- The accessibility consultant should assess physical, sensory, cognitive and wayfinding aspects, and should recommend inclusive, user-centered solutions.

MAINTENANCE

- After the completion of an accessible design, maintenance will be crucial due to the dynamic nature of outdoor environments in order to maintain access.
- A maintenance plan developed during the design phase should identify at-risk accessible features and establish a schedule for regular checks and upkeep.
- Train of maintenance staff on the importance and proper care of these features, potentially through accessibility consultant-led workshops. This is essential for long-term accessibility.

DATA COLLECTION

- Invest in comprehensive data collection on site accessibility and usage.
- Systematically gather data on how individuals with varying abilities use site features.
- Develop a rubric cataloging existing accessible site features, considering physical, sensory and cognitive accessibility.
- Create a practical checklist for regular accessibility evaluations.
- Schedule revisits to maintain standards and promptly address issues.
- Use data to track progress and inform future inclusive development.

COMMUNITY FEEDBACK/INPUT

- Actively engage the disability community, including those from the professional and amateur astronomical observation community, throughout the design process.
- Conduct regular feedback sessions tied to data collection milestones.
- Seek diverse perspectives.
- Provide accessible formats for information and feedback.
- Document how feedback influences design iterations.
- Prioritize a user-centered product design approach.

MARKETING

- Develop a collaborative, intentional and inclusive marketing plan with community input and feedback from consultants with lived experience of disability.
- Craft welcoming invitations using appropriate language and imagery.
- Reach out to specific communities proactively through relevant channels to provide comprehensive accessibility information.
- Cultivate inclusion by listening actively, providing support, and building trust through ongoing dialogue and responsiveness.

Christopher Hall

User Profiles & Equipment Specifications

When designing outdoor recreation experiences with accessibility at the forefront, it is important to develop a lens for access needs. One way to do this is to examine user groups, user profiles and various adaptive recreational equipment. General categories to evaluate include:

- Types of mobility devices and adaptive technology needed
- Demographics (user age, race, ability, gender identity)
- Preferences (independence, desired level of challenge, safety, exposure, community)
- Facilities and features to support access and experience (restrooms, parking, lodging, viewing areas, adaptive equipment, programs, events, information kiosks, website info, directional signage)

Adaptive Equipment Specifications

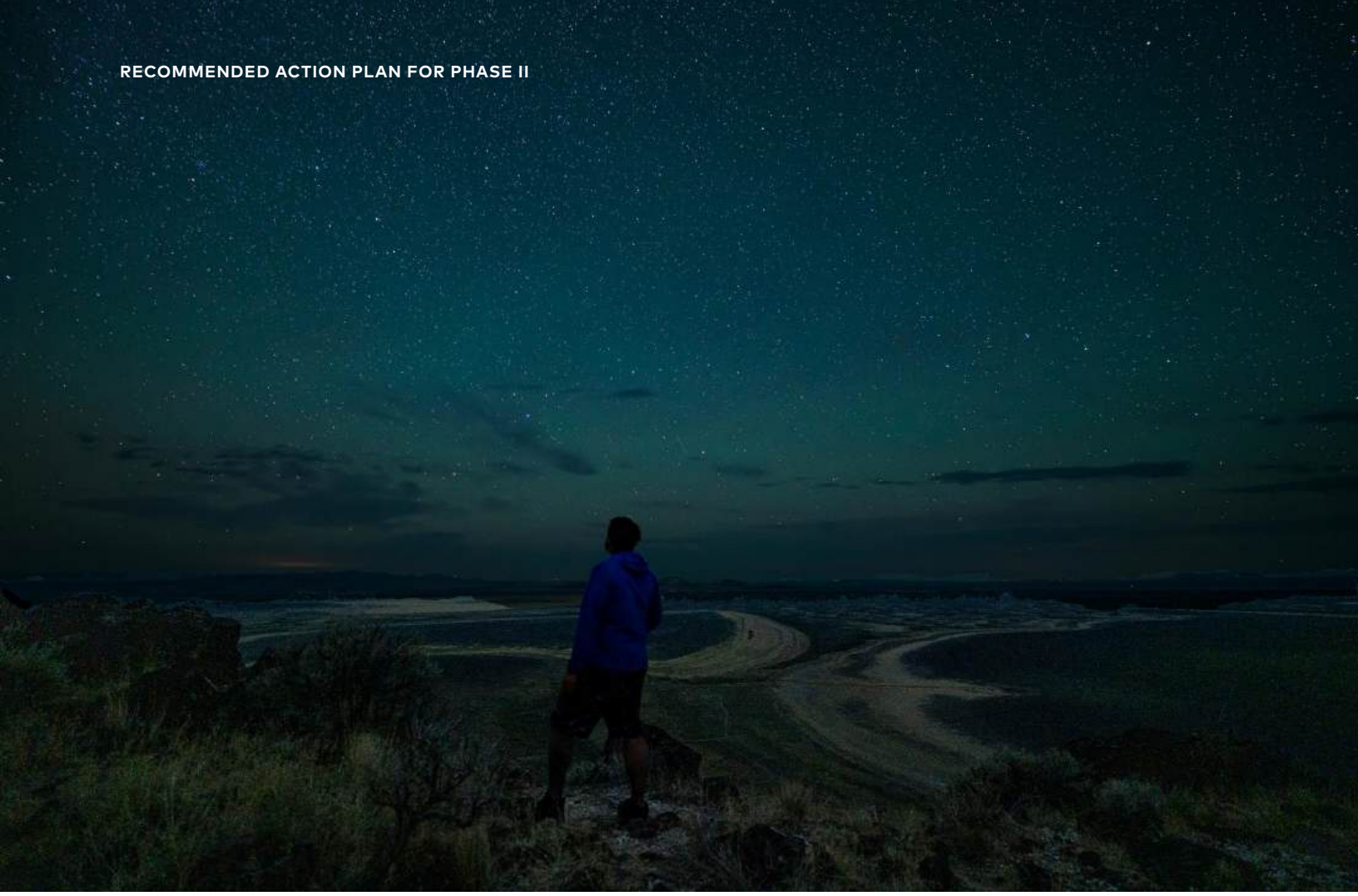
The *Appendix* offers an adaptive equipment specifications section outlining various disabilities to consider in the context of outdoor recreation, and details adaptive technologies and resources that may enhance the star viewing experience for individuals with visual, auditory, neurological and mobility impairments. It also includes other accessibility considerations for events and communication.

PRECEDENT EXAMPLES

Prior to designing and developing new outdoor recreation infrastructure and programs, researching existing projects and evaluating their outcomes is crucial. This process helps determine effective design elements and infrastructure investments while highlighting areas where innovative solutions may be necessary.

See the *Appendix* for two precedent examples of accessible projects that offer key opportunities for evaluation and learning: NASA's A Universe of Touch and Sound initiative, and Brandenburg's Westhavelland Dark Sky Reserve.

RECOMMENDED ACTION PLAN FOR PHASE II



The program participant for the Gateway to the Stars project has successfully completed all steps required for the Phase I feasibility assessment and is invited to submit an application for Phase II funding.

Based on the required steps completed in partnership with the project steering committee as part of Phase I, Travel Oregon and the consultant team recommend the following action plan to effectively move the project forward with Phase II funds (to be executed by December 31, 2026).

Additionally, over Phase II, Travel Oregon will provide up to 15 hours of disability and inclusion advising and technical assistance from the consultant, Empowering Access, in key areas of the action plan to support the project in achieving its goals.

RECOMMENDED ACTION PLAN FOR PHASE II

#	ACTION	RESPONSIBLE PARTY	TIMELINE	PHASE II BUDGET
1	Manage the project and action plan, including Phase II funds/reporting, retained professionals and the steering committee. Additionally, develop and initiate a fundraising plan to create a community lighting retrofit grant program.	**Illinois Valley Chamber of Commerce (IVCoC)**	Sept. 2025 - Dec. 2026	$20,000
2	Identify and convene Phase II project steering committee (SC) to provide technical support and advise on the action plan as needed. Recommend adding Tribal representative and community member from the stakeholder mapping exercise. Provide a $500 stipend to each for their time.	**IVCoC** with input from Recreation Ready: Phase I project steering committee	Sept. 2025 - Dec. 2026	$1,000
3	Develop and deploy community dark sky outreach, education and partner engagement plan. Recommend including printed materials, videos, in-person engagements, partner site programming and events and social media posts	**IVCoC** with input from dark sky consultant, SC and Empowering Access	Oct. 2025 - Dec. 2026	$10,000
4	Identify and retain a dark sky consultant to provide technical expertise and perform the following actions: • Complete preliminary lighting audit that began in Phase I. Identify and prioritize city-owned lighting retrofits. • Perform technical and comprehensive lighting inventory. • Liaise with City of Cave Junction Public Works. • Develop lighting municipal code (ordinance) and work with/present to City Council with the goal of adoption. • Develop lighting compliance plan and draft pre-application for International Dark Sky Community certification.	**IVCoC** with input from SC	Sept. 2025 - Dec. 2026	$29,000
5	Implement lighting retrofits in partnership with the City of Cave Junction on identified and prioritized city-owned lighting.	**IVCoC** with input from dark sky consultant and SC	Sept. 2025 - Oct. 2025	$20,000
6	Retain an accessibility consultant to perform an in-destination accessibility assessment and develop a community disability and inclusion report, including a vision and key strategies for welcoming all guests into dark sky experiences.	**IVCoC** with input from SC and Empowering Access	Nov. 2025 - July 2026	$20,000
7	Partner with Travel Southern Oregon and Grants Pass to bring a dark sky media influencer (with disability lived experience/expertise) to visit and create itinerary/ story for promotions.	**IVCoC** with input from SC and Empowering Access	July - Nov. 2026	
TOTAL PHASE II FUNDING				**$100,000**

APPENDIX

Research

Gateway to the Stars Background Report, 2025

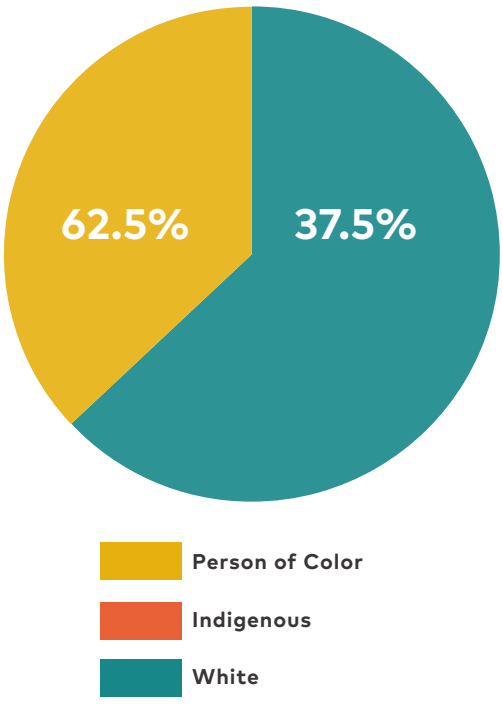
Gateway to the Stars Potential Visitor Profile, 2025

Gateway to the Stars Community Engagement Survey Report, 2025

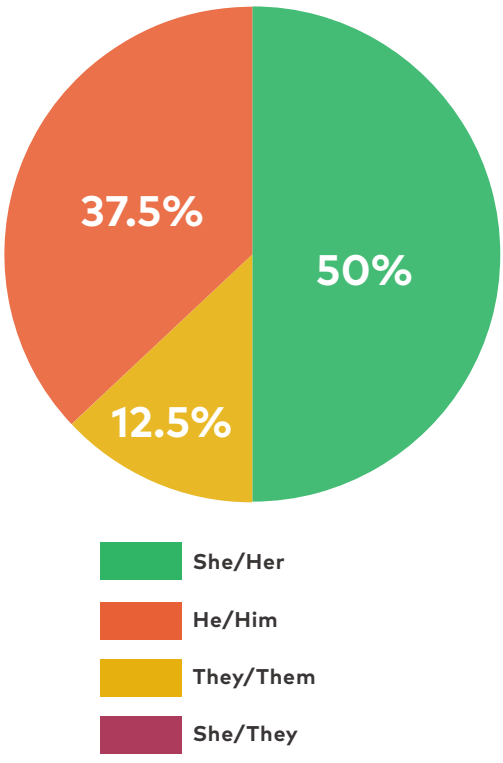
Disability & Inclusion Focus Group Survey

SURVEY RESULTS

Race?
8 responses



Gender Identity?
8 responses



Demographics (disability, age, location, race, gender)

Respondents represented ages between 41-77 from the Portland metro and Central Oregon regions, identified as white and POC, and included a spectrum of gender identities (she/he/they). Most identified as experiencing mobility disabilities, along with blindness, chronic illness, hearing loss and chronic pain.

1. What kind of disability(s) do you have?

- Neurodivergence, chronic illness
- T-10 paraplegic
- Physical mobility impairment
- Physical disability
- Manual wheelchair user
- Paraplegic
- Congenital blindness, hearing loss (aids in both ears), asthma, arthritis through body
- Paraplegic

2. Do you feel safe in the outdoors? Please explain.

- Yes.
- I feel like I do, but when I really think about it, I'm not. I recreate solo often and will need to share maps and locations with friends because trailhead signage is poor and there's often poor cell service. More than anything, as a person of color, I fear for my personal safety.
- I do feel safe in the outdoors. I may have a disability, but I am also white and male, which affords me a lot of privilege in the outdoors. I also grew up in the outdoors, so I am very comfortable in those spaces.
- As a woman, I don't always feel comfortable going out alone. I'm always looking for a new place to explore nature, but many times I can't find the right information online or when calling park officials to know if I can use [the area] safely as a power wheelchair user.
- Yes, I feel safe.
- Yes, when I have adequate support with information, cane and, sometimes, a walker.
- Yes and no. My ability to feel safe outdoors depends on a lot of factors. I feel safe outdoors during the day, when I am in an environment that I know I will be able to traverse unassisted. There are certain grades or terrains that I would not try on my own. because if I fall out of my chair and I'm alone, I would be stuck. At night with a headlamp I feel somewhat safe, but as a woman who cannot run, I would probably opt for bringing a friend.

3. What types of assistive technology would help you enjoy night skies?

- I would love for there to be lawn chairs to lay down on and look up. I think some sort of audio instruction via a website I can go to after scanning a QR code, or even having equipment available on-site. That could be as basic as the Zoo Key machines at the Oregon Zoo.
- Telescopes would be cool. I think with that, the biggest challenge is the tripods. My experience is the bases are oftentimes too narrow to roll under. Having a location that is barrier-free would be nice. If the point is to view the night sky and keep things low-light for viewing, then having an area you can go that doesn't have cracks in cement, or thresholds you have to worry about catching a caster on.
- A scope that I can use from a seated position would be great. If there were scopes that could be attached to a helmet, glasses or other kind of headgear that doesn't require the use of one's hands [that would be] good because I am paralyzed from the shoulders down.
- (No response)
- Wheelchair-accessible parking and route to viewing area.

- I am not sure.
- Designated places for seating, clearly defined pathways, lighted bathrooms.
- The only thing I can really think of is that it is hard to tip your head up constantly to the sky, so I would probably want a cot that I could transfer onto to watch the sky — but I'm not sure if that is considered assistive technology.

4. What barriers would you worry about when visiting a dark sky community?

- Safety at night … in general. Not having someone I could call/connect with when I have questions.
- Only thing I can think of is what I alluded to above, with physical obstacles in low light.
- [In]adequate parking with limited van-accessible spaces, the lack of a clear access route to the destination, or rough terrain with unavoidable ruts, rock and roots over 2" high in path of travel.
- Accessible lodging.
- Wheelchair-accessible parking and route to viewing area.
- Getting around in any rough terrain (grass, thick gravel, sand, etc.)
- Tripping/falling, access to transportation.
- Parking, restroom access, accessible accommodations/restaurants, how easy the location would be to traverse once I got out of the car, telescopes (if that is a component) being at standing height, rather than being adjustable to someone sitting.

5. Have you experienced night sky programs or communities? Please share the good and the bad.

- Yes — it can be very cold, because good night sky programs mean no clouds. Also, changes to scheduling (like it getting canceled) need to be available in real time.
- The only night sky program that I have been to was the viewing area at Stub Stewart State Park. The good was it had good visibility; the bad was that it was just a free-for-all in essentially a gravel parking lot. There wasn't a safe flow of traffic, and people were parking wherever. Definitely felt like an accident waiting to happen.
- I have never taken part in a night sky program. I can only speak to the times I've been camping in the mountains or parts of Alaska, when the sky was jet black and the stars covered the sky. It was an extraordinary, awe-inspiring experience.
- No, I have not.
- At 10 years old, I went out to visit a friend who lived in Stanfield, Oregon. There, I could see stars for the first time. I went with a teacher who described what I could see. I remember it to this day. I could see more stars in my 20s, when I did some wilderness camping. The planetarium was disappointing, because it was much more than I could see — and people were talking.

Adaptive Equipment Specifications

ABILITIES TO CONSIDER (NON-EXHAUSTIVE):

- **Visual Disabilities:** Blindness (complete loss of sight) and low vision (reduced visual acuity not fully corrected by lenses) impacting navigation and interaction with visual information.
- **Auditory Disabilities:** Deafness (profound hearing loss) and hard of hearing (varying degrees of hearing impairment) affecting communication and perception of auditory signals.
- **Neurological Disabilities:** Autism Spectrum Disorder (sensory sensitivities and overstimulation) and Traumatic Brain Injury (balance, coordination and safety awareness issues impacting physical movement).
- **Mobility Disabilities:** Limitations in physical movement affecting the ability to walk, climb stairs or manipulate objects.

ADAPTIVE TECHNOLOGY:

For individuals with disabilities, various assistive technologies and resources can make star viewing more accessible and enjoyable. These can be broadly categorized as follows:

For Visually Impaired Individuals:

- **Sonification devices:** These devices translate light from stars into audible sounds, allowing the user to "listen" to the stars. Different colors and intensities of light can be represented by different pitches or volumes, providing a unique sensory experience.
- **Tactile resources:** 3D-printed models of constellations, planets and other celestial objects allow individuals to explore them by touch. Braille books and tactile diagrams can also be used to learn about astronomy.
- **Descriptive audio:** Planetarium shows and presentations can be enhanced with descriptive audio, providing verbal descriptions of visual elements such as color, shape and movement.
- **Screen readers:** These software programs convert text and other visual elements on a computer screen into speech or Braille output, making digital astronomy resources accessible.
- **Magnification software:** For individuals with low vision, screen magnification software can enlarge text and images on a computer screen, improving readability and visibility.
- **Artificial Reality Headwear:** There are AR goggles available with narrations for various celestial objects.

For Individuals with Mobility Impairments:

- **Wheelchair-accessible telescopes:** These telescopes are designed with eyepieces positioned at a comfortable height for wheelchair users. Some models have adjustable heights or fixed focal points that eliminate the need to bend or reach.
- **Tabletop/large "paint bucket" telescopes:** Compact tabletop telescopes on Dobsonian mounts are easy to set up and use from a wheelchair or seated position.
- **Binoculars with parallelogram mounts:** Binoculars on parallelogram mounts allow for easy adjustment and comfortable viewing from a seated position.
- **Remote telescopes:** These telescopes can be operated remotely via the internet, allowing individuals to control and view astronomical objects from their home or another accessible location.

Other Considerations:

- **Accessible star parties:** Astronomy clubs and organizations can host star parties at accessible locations with paved surfaces and ramps. They can also provide assistance with setting up telescopes and navigating the site.
- **Quiet spaces:** Designating a quiet space at star parties or outreach events can benefit individuals with sensory sensitivities or autism.
- **Clear and descriptive language:** Using clear and descriptive language when explaining astronomical concepts can benefit individuals with various disabilities.

Precedent Examples

A UNIVERSE OF TOUCH AND SOUND — NASA

The Chandra X-ray Observatory's A Universe of Touch and Sound initiative makes astronomical data accessible to visually impaired individuals through tactile and auditory methods, striving to share the universe's wonders with everyone. Key elements include:

Tactile Resources:

- **3D models:** They create 3D-printed models of celestial objects — such as supernova remnants, galaxies and star-forming regions — using data from Chandra and other telescopes.
- **Tactile plates:** These are relief maps of 2D images, allowing users to feel the different brightness levels and structures within astronomical images.
- **Mini stars kits:** These kits combine 3D models, sonifications and audio files to provide a multisensory experience of stellar objects.
- **The Tactile Universe website provides resources to make astronomy research accessible to the blind and vision-impaired community. It offers:**
- **3D Printable Models:** STL files for galaxy models and gravitational wave models.
- **Educational Materials:** Lesson plans and presentations for modules on solar systems, galaxies, and gravitational waves.
- **Support Resources:** A list of materials needed for modules, a FAQ and best practices guide for engaging with the vision-impaired public, offline versions of technical blog posts, Blender install files, and a custom Blender plugin used to create the STL files.

Auditory Resources:

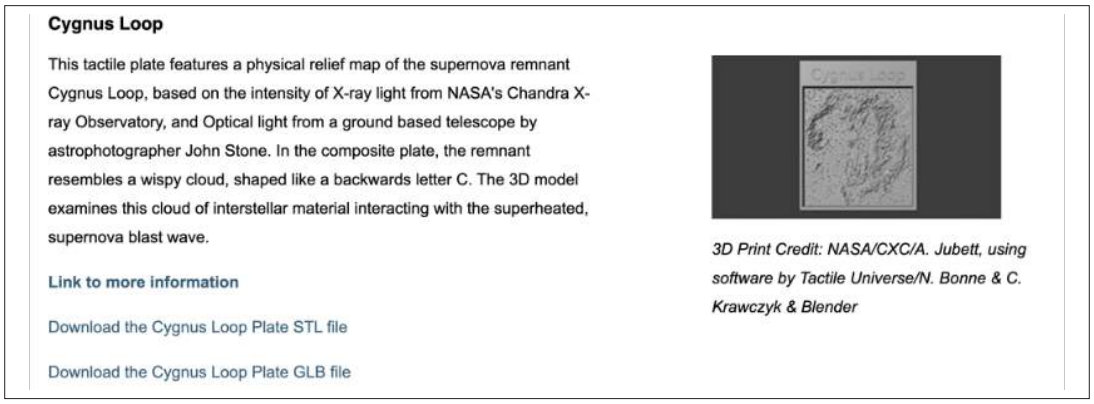
- **Sonification:** They translate astronomical data into sound, allowing users to "hear" the data and explore features such as brightness, color and position.
- **Audio descriptions:** They provide narrated audio files describing Chandra images and astronomical concepts.
- **Podcasts:** They produce podcasts featuring the latest discoveries and updates from the Chandra mission.

Educational Resources:

- They offer lesson plans, activities and guides to help educators use the tactile and auditory resources in classrooms and outreach events.

Open Access:

- Many of the resources, including 3D model files, are available for free download, allowing anyone to create their own tactile astronomy materials.



Cygnus Loop

This tactile plate features a physical relief map of the supernova remnant Cygnus Loop, based on the intensity of X-ray light from NASA's Chandra X-ray Observatory, and Optical light from a ground based telescope by astrophotographer John Stone. In the composite plate, the remnant resembles a wispy cloud, shaped like a backwards letter C. The 3D model examines this cloud of interstellar material interacting with the superheated, supernova blast wave.

Link to more information

Download the Cygnus Loop Plate STL file

Download the Cygnus Loop Plate GLB file

3D Print Credit: NASA/CXC/A. Jubett, using software by Tactile Universe/N. Bonne & C. Krawczyk & Blender

BRANDENBURG WITHOUT BARRIERS

Brandenburg Tourism promotes accessible stargazing in the Westhavelland Dark Sky Reserve, one of Germany's darkest areas. They offer a special holiday package for amateur astronomers with mobility restrictions, highlighting numerous accessible accommodations, restaurants and leisure providers. The region emphasizes that even those with mobility impairments can enjoy stargazing in the minimally light-polluted Dark Sky Reserve, designed as an inclusive experience to allow everyone to appreciate the night sky's beauty.

Learning how to use the equipment

Stargazing is about taking your time, slowing down and letting the stillness take over. It takes around 30 minutes just for the eye to adapt to seeing properly in the dark. During this time, you can see more and more stars until finally the adjustment is complete. However, when we arrive at our observation point at the holiday homes, it is still light. We have to learn how to use the equipment and there is a lot of it. It is meant for professionals and includes everything we need. From large-scale astro binoculars to a Dobsonian telescope with a diameter of 300 millimetres, various eyepieces and filters, everything is there.


TRAVEL
OREGON