



MITIGATION, ADAPTATION, AND RESILIENCY PLAN

2022

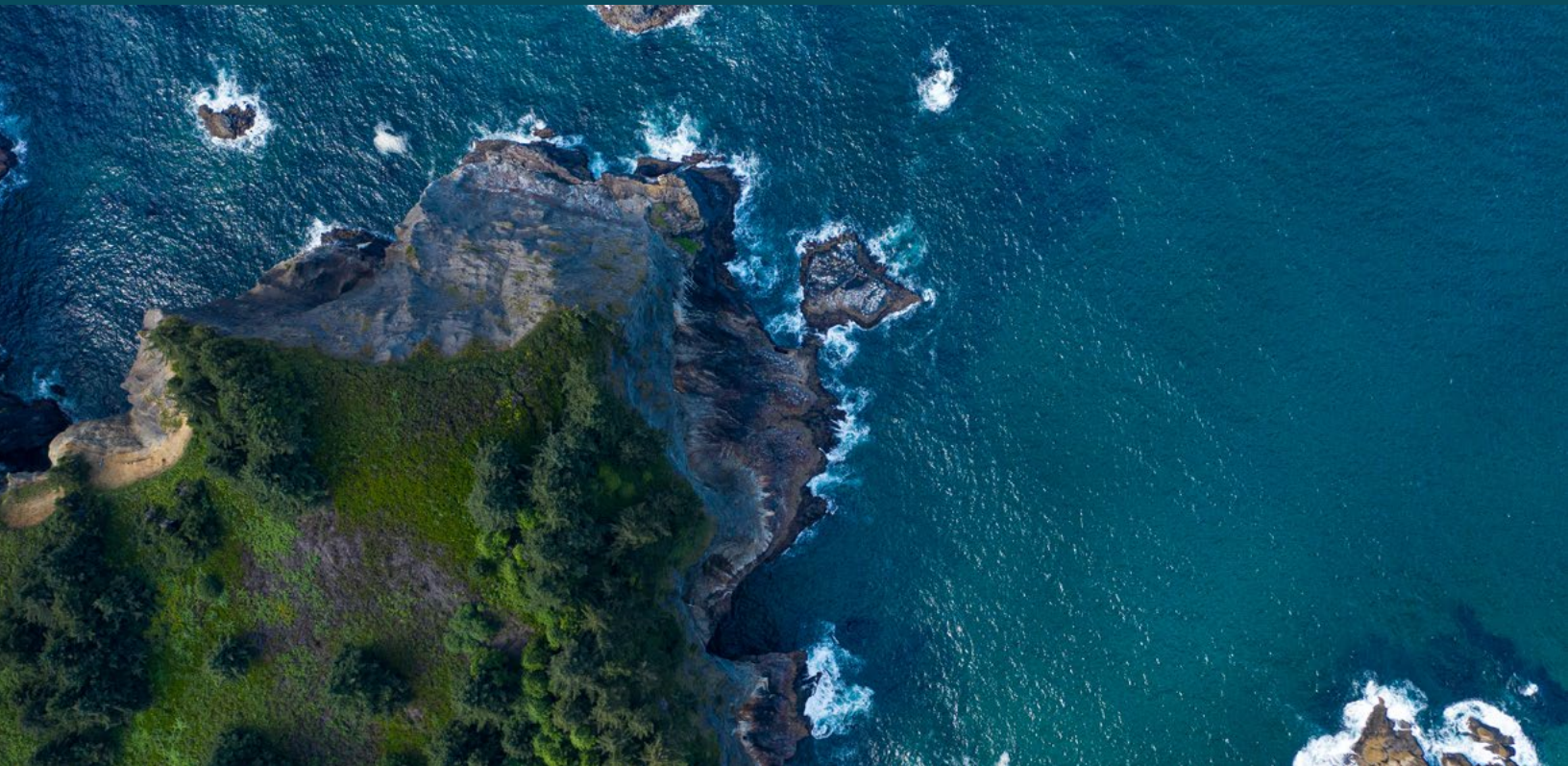


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EXECUTIVE SUMMARY:

The tourism industry is a leading economic driver on the Oregon Coast that supports visitors, business, agritourism, workforce, quality of life, and infrastructure development. Therefore, it is uniquely positioned to develop and support resiliency and adaptation planning. This report integrates Oregon Coast Visitors Association's (OCVA) goals with those of the Glasgow Declaration. It provides a roadmap to guide OCVA in the implementation of these goals, and offers suggestions of prioritized mitigation, adaptation, and resiliency actions. Additionally, this report outlines factors to consider when performing an in-depth analysis of recommended solutions. Also provided are answers to commonly asked questions, inspiring stories from the Oregon Coast, a synopsis of interviews performed in researching this report, and a thorough list of resources used in report development.

Overall, this report aims to demonstrate what mitigation, adaptation, and resiliency action could look like on the Oregon Coast and provide clarity on the way forward.



SECTION 1: OVERVIEW

As communities along the Oregon Coast face unprecedented numbers of visitors, the need for community resiliency, adaptation, and destination management solutions has become apparent. Community systems are significantly burdened from congested roadways, strained parking availability, stressed outdoor spaces, and overwhelmed visitor amenities. Fluctuations in energy and fuel costs, a depleted work force, water scarcity, and supply chain shortages make tourism economies along the Coast prohibitive at points. Infrastructure damage from wildfires and flooding from winter storms add additional weight. Community economies centered around the Oregon Coast's world renowned commercial and recreational fishing industry have been noticeably impacted as fish stocks become depleted and jobs are outsourced. The Oregon Coast is struggling to cope with these threats without changing beyond recognition. These struggles are key priorities for tourism and the Oregon Coast Visitors Association (OCVA) to address.

Excitingly, adding mitigation, adaptation, and resiliency strategies from the climate solutions space can solve these concerns while also offering a unique opportunity to increase the coastal economy. Outlined below is OCVA's coastal resiliency plan and integration strategy that brings impactful solutions to Oregon Coast tourism.

SECTION 2: WHY OCVA BEGAN THIS WORK

This plan was birthed from the results of the [2020 Oregon Coast Tourism Industry Stakeholder Survey](#). The results of this survey identified *Tourism Strategies for Climate Change Resilience* as both a short-term and long-term priority for OCVA stakeholders. Based on these results, OCVA began working on a coastal resiliency plan and integration strategy. A part of OCVA's strategy was a commitment to the [Glasgow Declaration](#), which OCVA signed in April 2021 and was launched at the United Nation Climate Change Conference (COP26) in Glasgow.

To build an educated and comprehensive resiliency plan, OCVA worked to align with the resources, knowledge, and momentum available in other state-run programs working in this space. Sixteen Oregon State Agencies are required to take action to reduce and regulate greenhouse gas emissions according to Executive Order 20-04 and are actively working in this space. A key step in the strategy was to review background research and literature to identify what actions agencies are taking and identify potential for alignment with current solutions. The background information and resources OCVA used to develop this plan can be found in the **Resource Section** of this report. During this process, OCVA interviewed key experts at over eighteen different state agencies and companies. A synopsis of each interview can be found in the **Interview Section** of the report.

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SECTION 3: OCVA'S MISSION

The **mitigation, adaptation, and resiliency** actions proposed in this plan are in direct alignment with OCVA's mission.

To inspire travel, it's necessary to preserve the majesty of our great coastal region that is responsible for attracting millions of people every year to our Coast. We also must address challenges that make it difficult for both the residents and visitor to come to the Oregon Coast. This includes investing in infrastructure and projects that might at first appear somewhat tangential to tourism to help alleviate some of these pain points. This can look like investing in infrastructure that addresses traffic congestion issues or attempting to address the scarce availability of locally caught seafood on the Oregon Coast.

To strengthen collaboration, we must be willing to work with and build upon the mitigation, adaptation, and resiliency programs and solutions that are being recommended to us by our State, Federal, and international leaders while honoring the local flavor

of engagement problem solving. Additionally, in this collaborative spirit, we also must be willing to support our stakeholders to begin working in this space as well. The results from our most recent stakeholder survey demonstrated to us that resiliency planning and solutions are a top need from the people we serve. Current polling of visitors shows a similar trend ([ref 91-98](#)). Collaboration is essential to help solve these identified issues.

Lastly, to steward a sustainable coastal economy we must provide actions and solutions that align with this goal. Mitigation, adaptation, and resiliency strategies greatly complement and promote sustainable economies. It is estimated that the climate solutions economy will be worth up to \$26 trillion by 2030 ([ref 99](#)) and will expand and create many new

jobs. By engaging in this work, we can bring this burgeoning economy to the Oregon Coast.

**OUR MISSION
IS TO INSPIRE
TRAVEL AND
STRENGTHEN
COLLABORATION
TO CREATE AND
STEWARD A
SUSTAINABLE
COASTAL
ECONOMY.**



SECTION 4: HOW TO USE THIS PLAN

This plan is designed to help facilitate decision making and to support the implementation of the most impactful resiliency solutions.

- Importantly, to understand how OCVA's resiliency goals integrate with the Glasgow Declaration, read **Section 5**. This section provides critical guidance on the integration of new solutions that align with international goals.
- Moreover, to understand the approach OCVA will take to execute resiliency actions, read **Section 6**. This section describes the type of work and circle of influence OCVA utilizes in resiliency planning in order to achieve the above-mentioned goals.
- Additionally, to see the prioritized solutions recommended in this plan, read **Section 7**. This section lists the prioritized options that were generated based off of OCVA's circle of influence.
- Furthermore, each recommended action option requires additional consideration, research, and alignment with mitigation, adaptation, and resiliency objectives before it can be implemented. **Section 8** provides a deep dive into the criteria important for consideration and project development.
- Outlined in **Section 9** is a timeline of OCVA's key deliverables.
- For commonly asked questions go to **Section 10**
- Additionally, there are many inspiring stories about businesses implementing mitigation, adaptation, and resiliency solutions along the Oregon Coast. Some of these stories can be found in **Section 12**.
- For an in-depth explanation of how to prioritize resiliency solutions use **Section 13**. This section should be used when new solutions or projects emerge and or during the reprioritization of the plan.
- To understand the accountability measures OCVA has committed to, go to **Section 14**.
- Lastly, **Section 15** links foundational resources and tools used in the construction of this plan.



SECTION 5: OCVA'S GOALS FOR MITIGATION, ADAPTATION, AND RESILIENCY PLANNING

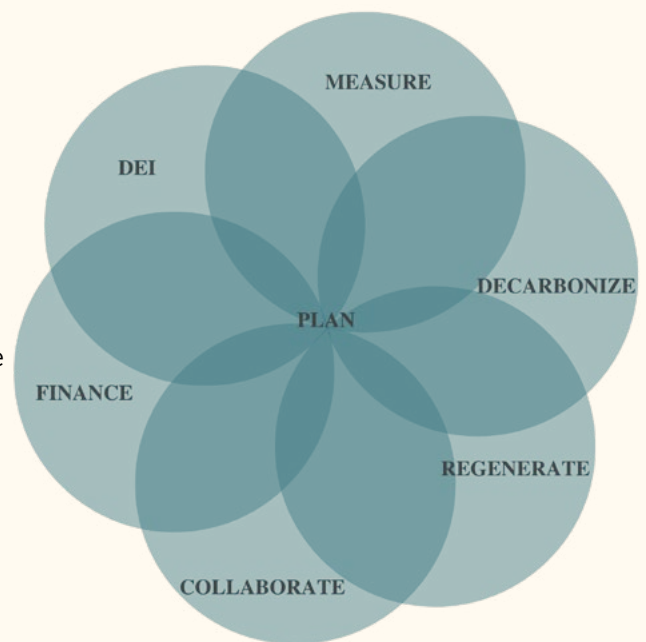
To ensure that OCVA's mitigation, adaptation, and resiliency solutions are aligned with both the Glasgow Declaration and OCVA's specific tourism directives for the Oregon Coast, key overarching long-term goals have been created. These provide critical understanding of both big picture themes and specific criteria important for solution planning. As technologies, solutions, and priorities change and develop, these listed goals should provide guidance for how to adapt solutions. They also list the key elements to consider in future planning.

Goal 1. Support the Measurement of Greenhouse Gas Emissions on the Oregon Coast

Emissions measurements are a fundamental aspect of resiliency and mitigation work. It is essential to be able to measure the impact of a solution to determine if it is effective or if other solutions are more suitable.

As OCVA is not a regulatory governing body with the scope, influence, or resource available to directly tackle the measurement of scope 1, 2, and 3 travel and tourism-related emissions on the Oregon Coast, OCVA has the following sub-goals:

- A. To support actions and advocate for the measurement and reporting of scope 1, 2, and 3 travel and tourism-related emissions on the Oregon Coast.
- B. Recommend measurement methodologies and tools that are aligned to UNFCCC-relevant guidelines on measurement, reporting and verification, i.e., following the Environmental Protection Agency's requirements that emission be reported as metric tons of CO₂ equivalent (MTCO_{2e}) units.
- C. Allow for all relevant measurements to be transparent and accessible to the public.
- D. In situations where emission measurement technology is yet to be established, OCVA will prioritize other forms of metrics to quantify the impact of solutions.





Goal 2. To Support Decarbonization and the Reduction of Greenhouse Gas Emissions on the Oregon Coast

In accordance with the Glasgow Declaration and the Intergovernmental Panel on Climate Change (IPCC), all industries are to reduce greenhouse gas emissions to 55% below the baseline by the year 2030 and 100% by the year 2050. The baseline is to be calculated on 2019 emissions levels. Accordingly, OCVA will have the following sub goal:

A. To use science-based recommendations to accelerate tourism’s decarbonization on the Oregon Coast. This includes recommended actions to reduced emissions for transportation, infrastructure, accommodation, activities, food & drink, and waste management.

Goal 3. To Support and Safeguard Regenerative Tourism Efforts Along the Oregon Coast

A. OCVA will support the restoration and protection of ecosystems burdened by tourism along the Oregon Coast including collaborating with tourism stakeholders and encouraging projects that support nature’s ability to draw down carbon.

B. OCVA will support the safeguarding of biodiversity, food security, and water supply in a way that is aligned with the Oregon Coast tourism industry.

C. OCVA will ensure tourism on the Oregon Coast can support affected and at-risk communities in resilience building, adaptation, and disaster response.

D. Through alignment with the tourism industry, OCVA will help visitors and coastal communities experience better balance with nature.

Goal 4. To Collaborate in Key Resiliency Efforts

A. OCVA will start to share evidence of resiliency risks and solutions with all stakeholders and visitors.

B. OCVA will start to work with others to ensure plans are as effective and coordinated as possible.

C. OCVA will start to support the strengthening of governance and capacity for action at all levels, including national and sub-national authorities, civil society, large companies and small and medium enterprises (SMEs), vulnerable groups, local communities, and visitors.

D. OCVA will prioritize action planning and solutions that tie into active state and federal resiliency strategies already in place

E. OCVA will create an action plan other Destination Management Organizations (DMO) and stakeholders can model and build upon.

F. OCVA will champion stakeholders and others also engaging in this work.



Goal 5. To Support Resiliency Planning Through Finance

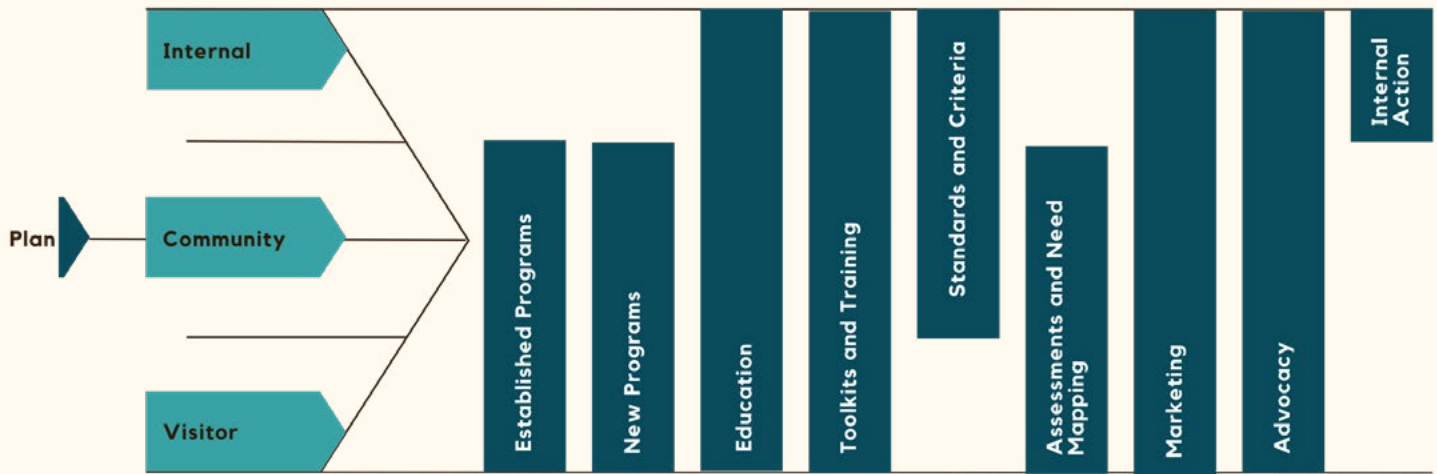
A. OCVA will work to ensure organizational resources and capacity are sufficient to meet objectives set out in its mitigation, adaptation, and resiliency plan. This includes the financing of training, research, and implementation of effective fiscal and policy tools where appropriate to accelerate resiliency transitions.

Goal 6. To Ensure Resiliency Planning is Diverse, Equitable, and Inclusive

A. OCVA will integrate diversity, equity, and inclusion into all resiliency solutions and strategies including seeking ways to reduce barriers of entry for solutions with high cost.

B. OCVA will seek perspectives from under-served communities to ensure climate strategies do not negatively impact these communities and are aligned with their resiliency and adaptation approaches.

C. OCVA will prioritize solutions that support equitable and inclusive travel.



SECTION 6: OREGON COAST VISITORS ASSOCIATION ROADMAP TO COASTAL RESILIENCY

As a regional destination management organization, OCVA has three types of engagement: internal direction, industry partnership, and visitor support. Internal direction speaks to the impact OCVA has internally within its organization. Industry partnership refers to the work OCVA performs in collaboration with Oregon Coast Stakeholders. Visitor Support is the type of engagement OCVA performs to support visitors coming to the Oregon Coast. Moreover, based on capacity, scope, and influence, OCVA has defined specific areas of influence where it can integrate mitigation, adaptation, and resiliency solutions. Based off the work OCVA is already engaged in, OCVA's circle of influence for resiliency solutions work is applicable to these nine strategies:

1. Incorporation into Established Mitigation, Adaptation, and Resiliency Programs:

Many state agencies, nonprofits, businesses, and others have established critical infrastructure, collaboration, and launched resiliency solutions. The solutions in this category are solutions that OCVA can collaborate with and incorporate into.

2. Creation of New Mitigation, Adaptation, and Resiliency Programs:

For some solutions there is neither infrastructure currently in place nor has critical partnerships and collaborations been identified. These solutions require new infrastructure and partnership creation to be implemented.

3. Education:

There is a knowledge gap in the tourism industry surrounding the understanding of impactful resiliency solutions. Industry education is needed for stakeholders and visitors to promote understanding of why resiliency solutions are important and why they are beneficial for business and economy on the Oregon Coast.

4. Development of Toolkits and Training:

Many resiliency solutions require new skills or tools that stakeholders and visitors may not have. Toolkits and training are needed to support stakeholders as they begin engaging in resiliency work.

5. Development of Standards and Criteria:

A way of encouraging stakeholders to begin engaging in resiliency solutions is the incorporation of standards and criteria. By having established key resiliency standards and criteria, OCVA prevents the promotion of programs and solutions that make the Oregon Coast more vulnerable and ensures any stakeholder collaborating with OCVA is aligned with OCVA's resiliency mission.

6. Inspire Further Assessments and Need Mapping:

A critical component of resiliency work is identifying unknown pain points, resiliency gaps, and unmet needs of stakeholders and visitors so that solutions can be formed to address them. Through stakeholder surveys, meetings, interviews, and impact reports, OCVA can make assessments of current solutions and map unmet needs.



7. Perform PR and Marketing:

Recent polling shows that business mitigation, adaptation, and resiliency work is coveted by the consumer. Therefore, OCVA can provide effective and targeted sales and marketing tools for stakeholders engaging in this work and help stakeholders align themselves with the quality solutions they are creating.

8. Commit to Internal Action:

Parts of this resiliency plan require internal action by OCVA. This category lists essential actions for OCVA to begin engaging in this work.

9. Catalyze Further Advocacy:

There are mitigation, adaptation, and resiliency needs that are outside of OCVA's circle of influence. Advocacy of the needs of stakeholders is essential for the adaptation of new strategies. There is a need for OCVA to advocate on specific points on a business, community, regional, state, and federal level.



SECTION 7: TOP 10 PRIORITIZED ACTIONS BY CIRCLE OF INFLUENCE

Based on OCVA’s capacity, scope, and influence below are resiliency actions prioritized specifically for OCVA as an organization. Please note, different industry partners engaging in resiliency work will have different priorities based on their specific functions as an organization or group.

INCORPORATE INTO ESTABLISHED MITIGATION, ADAPTATION, AND RESILIENCY PROGRAMS

Action Options	Prioritization Score
Develop Oregon Coast tourism wildfire preparation, water conservation, and emergency flood management strategies	18
Expand upon Oregon Coast electric vehicle charging infrastructure	15.5
Expand upon the Coastal Food Trails Program - Collaborate with farmers who apply sustainable agricultural practices (in progress)	15
Expand reuse and refurbish programs along the Coast	12.5
Expand coastal food donation programs or connect with inland programs	12
Facilitate collaborations with interested stakeholders including the development/expansion of visitor volunteer opportunities with other foundations: Ocean Acidification Council, Wild Salmon Center, local beach cleanup programs for visitors, The Nature Conservancy of Oregon, Surfrider, others...	11

CREATION OF NEW MITIGATION, ADAPTATION, AND RESILIENCY PROGRAMS

Action Options	Prioritization Score
Establish a donation system for visitors	23
Support the development and expansion of Oregon Coast public transportation system.	16.5

SECTION 7: CONTINUED

Enhance the local food supply chain including the support of fishing, aquaculture, and mariculture for food systems development	15.5
Support community establishment of natural seawalls and nature-based carbon sinking	15.5
Support the development of a clean energy distribution smart hub	14.5
Support the development coastal community composting programs	13
Support employee commuter programs for coastal stakeholders	11.5
Support the development an electric vehicle rental car program for visitors driving to the Coast	7.5

EDUCATION OF INDUSTRY PARTNERS

Action Options	Prioritization Score
Develop an education campaign focusing on the fundamentals of sustainable tourism	22
Develop an education campaign focusing on how to integrate diversity, equity, and inclusion into climate action and tourism.	21
Develop an education campaign focusing on risk reduction strategies to promote a resilient and adaptable coast	17.5
Develop an education campaign focusing on sustainable supply chains applicable to the Oregon Coast	15.5
Develop an education campaign focusing on food waste reduction with key points addressing why waste is so harmful, how it contributes to biodiversity loss and ocean acidification, the available options for buying food in season, and talking points for industry stakeholders.	15
Develop an education campaign focusing on tourism activities that negatively impact ecosystems and habitat.	15
Develop an education campaign focusing on emission metrics and carbon footprint calculations. Key points should include how to calculate it, what tools to use, cost of calculation, and what to do with the results.	15
Develop an education campaign focusing on circular economy in tourism	13.5
Develop an education campaign focusing on water conservation education for stakeholders and visitors	13

SECTION 7: CONTINUED

DEVELOPMENT OF TOOLKITS AND TRAINING

Action Options	Prioritization Score
A toolkit highlighting the basic steps of resilience and adaptation planning	21
A new business startup kit for tourism businesses	20
A toolkit highlighting technology recommendations based on tourism sectors (ex. food, lodging, vacation rentals, retail, events, etc.)	19
Top recommended mitigation actions based on industry (ex. food, lodging, vacation rentals, retail)	18
A toolkit highlighting stakeholder talking points for customers surrounding solutions	17.5
A stakeholder guide for conferences and events	17
Visitor resiliency toolkit	17
Training providing food and menu planning to reduce emissions and food resiliency	15
Trainings focusing on how to apply a circular model to your business (ex. cradle to cradle innovation, reuse of materials, collaboration with tourism supply chains)	13

DEVELOPMENT OF STANDARDS AND CRITERIA

Action Options	Prioritization Score
Resilient and adaptable meetings and conferences	17
Green agricultural standards (renewable powdered fertilizer, biomass to biochar, flooding of farmlands in winter, recommended permaculture practices, no till farming, rotational grazing)	16.5
Establish GHG emissions & sustainability metric criteria for all projects launched and supported by OCVA	15
Establish diversity, equity, and inclusion criteria for all projects	14
Establish standards and criteria for contractor work	14
Develop sustainability criteria for trail, park, and landscape development	13
Adopt standards for energy efficient technologies	11

SECTION 7: CONTINUED

INSPIRE FURTHER ASSESSMENTS AND NEED MAPPING

Action Options	Prioritization Score
Assess vulnerable destinations and tourist industries	22
Define opportunities for coastal rehabilitation in tourism heavy areas	16
Define Oregon Coast tourism's carrying capacity	14
Assess and identify business with climate risks and map out avoided losses, economic benefits, and social & environmental benefits of adaptation measures taken in areas prone to high climate change impacts	14
Assess what activates in the tourism value chain are significantly contributing to destruction of natural habitats	14
Assess visitor transportation to the coast to determine key systems required for public transportation development.	13.5

PERFORM PR AND MARKETING

Action Options	Prioritization Score
Develop a marketing campaign to promote recommended technologies that increase mitigation, adaptation, and resiliency along the coast.	20
Develop marketing campaign to promote ways to travel to the coast that align with mitigation, adaptation, and resiliency strategies.	20
Develop marketing campaigns to promote mitigation actions by the visitor in specific industries (ex. food and lodging, vacation rentals, and retail).	17
Develop a marketing campaign to help visitors chose sustainable, low-impact travel options and tourism activities	14
Develop a marketing campaign to promote domestic and intra-regional tourism	11.5
Develop a marketing campaign to promote diversified tourist attractions and products as an alternative to identified vulnerable destinations	11

SECTION 7: CONTINUED

COMMIT TO INTERNAL ACTION	
Action Options	Prioritization Score
Create a climate dashboard on OCVA's website for all metrics	24
Determine OCVA's biannual financial commitment to key action items	24
Develop brand partnerships for climate support	22
Ensure the needs of vulnerable and or marginalized groups are accounted for in the development and implementation of climate actions. This can be done using the following programs: Solstice Initiative, land acknowledgment, climate and economic justice screening tool, and upholding the Justice40 Initiative.	21
Internally hold bi-annual meetings to assess effectiveness and prioritization of implemented climate solutions	19
Use video conferencing for meetings and conferences	16
Reduce OCVA's conference emissions by 55% by 2030	13
Participate in Cooperative Community Engagement around climate solutions	12
Support the use of enhanced and user-friendly technology which allows visitors to easily calculate their emissions.	12
Measure OCVA's baseline emissions from the year 2019 according to the UNFCCC MVR guidelines	12
Measure and record OCVA's biannual emissions derived from both employees and contractors until 2032 making results accessible on OCVA's climate dashboard	12

Needed Advocacy

- State law currently restricts Energy Trust of Oregon and public utility districts in supporting customer resiliency action. These organizations cannot help consumers upgrade appliances if their purpose is electrification.
- The definition of the tourism industry by state agencies currently restricts tourism industries access to funding and other resources. There is a need to advocate for the change in this definition.
- There is a need for Oregon Tourism emissions data to be collected and measured.
- There is currently no emissions reporting system available for small businesses in the state of Oregon.
- There is a need to advocate for vulnerable coastal ecosystem protection that is integral to the attractiveness of the Oregon Coast.
- Many visitors use aviation as a means of transportation to the Oregon Coast as part of the tourism supply chain. There is a need to advocate for electric and H2 aviation at inland airports
- There is a need for early warning systems and capacity building at tourist destinations along the Oregon Coast.
- There is a need for the development of composting and recycling centers along the Oregon Coast.



SECTION 8: ACTION STEP DEEP DIVE EXAMPLE

Once a resiliency action has been selected, a deeper analysis of the solution is needed. Below is a Deep Dive example of factors and considerations for resiliency solutions. These include co-benefit arguments, emissions reduction potential, regeneration impact, the reach of the solution, supply chain considerations, diversity, equity, and inclusion considerations, science-based evidence to support solution, drawbacks of solution, metrics to assess progress of solution, funding needed, key points in a timeline, collaboration to establish or engage in action, needed assessments for solution, pilot locations, and other resource that might be needed for the solution to be implemented.

KEEPING SEAFOOD LOCAL: Expand the regional distribution network of smaller seafood and aquaculture producers on the Oregon Coast.

TIMELINE

In progress! This form will be updated with the development of this project.

TYPE OF WORK

New program for OCVA (in progress)

CO-BENEFITS & ECONOMIC ARGUMENTS

- Oregon Coast visitors spend \$840 million on food stores and food services annually, bringing in new money to the Oregon Coast economy each year.
- However, we have a long way to go regarding local seafood ingredients as we export most of what we catch and import most of what we sell in the State of Oregon.
- This practice generates large amounts of unnecessary greenhouse gas emissions, outsourcing local jobs, reducing our coastal resiliency in the face of disaster, and creating

economic leakage.

- This project will support the establishment and strengthening of infrastructure for Oregon Coast fisheries to efficiently operate and thrive

EMISSIONS REDUCTION POTENTIAL

This project reduces the transportation and emissions of locally caught seafood. For example, fish caught in Coos Bay and sold in Newport have ~25x less emissions than fish from Alaska coming into Newport.

RESILIENCY AND REGENERATION IMPACT

In the face of a natural disaster like fire and flooding that may damage land transportation systems and large-scale supply chains, a localized seafood distribution program builds resiliency in communities. Impact on local water system is minimal.

REACH

This project creates jobs for residents, provides the visitor with a coveted supply chain, develops a niche



seafood market along the Oregon Coast, and has the potential and ability to supply local seafood to inland towns and cities. This project will reach and impact millions of people.

NOTES ON A CIRCULAR ECONOMY

(Note opportunities and or problems to relevant steps in the supply chain)

Extraction of raw materials: With depletion of wild fish stocks, intense localized fishing has the potential to impact these stocks and biodiversity.

Processing & Distribution to Seller: Out of state processing leads to production of unnecessary GHG emissions

Waste: Annual US fish waste amounts to ~2 billion pounds from by catch alone, more including fish processing waste. This can be turned into other resources (Tidal Vision is using fish waste for water treatment processes, textiles, fertilizer, and consumer products. There is potential opportunity to expand our economy here.).

DIVERSITY, EQUITY, AND INCLUSION ACTION

1. Land Acknowledgment - There is opportunity at processing centers and distribution hubs to acknowledge native land use and practices.
2. It is recommended to collaborate with coastal tribes on this project.

DIVERSITY, EQUITY, AND INCLUSION

Integrate with the Solstice Initiative for any actions requiring stakeholder lending or assessment, use an alternative scoring system rather than a credit score to increase access.

DIVERSITY, EQUITY, AND INCLUSION

Climate and Economic Justice Screening Tool: Use this map to see communities that are identified as disadvantaged and integrate these communities into local seafood solutions. This map uses publicly-available, nationally consistent datasets. [Link to Tool](#)

DIVERSITY, EQUITY, AND INCLUSION

Justice 40 Initiative: This executive order requires all federal agencies to deliver 40% of the overall benefits of climate, clean energy, affordable and sustainable housing, clean water, and other investments to under-resourced communities. [Link to Fact Sheet](#)

Action: integrating the goals of this initiative into this pilot program including incorporating under-resourced communities.

SCIENCE-BASED EVIDENCE

Not applicable

DRAWBACKS

Infrastructure does not currently exist to keep Oregon seafood local.

RECOMMENDED METRICS FOR ANNUAL RECORDING

1. Quantify the change in distance Oregon caught seafood travels after the implementation of the program. With this measurement, change in emissions is easily measured.
2. Proxy Measurement: quantify the pounds of seafood kept local.
3. Proxy Measurement: quantify the economic impact to the Oregon Coast of keeping seafood local.

FUNDING

USDA \$735,200 Grant

COLLABORATIONS

Ports, EDCs, Distribution hub, State Agencies, Private Sector

ASSESSMENTS

Change analysis assessment of keeping seafood local

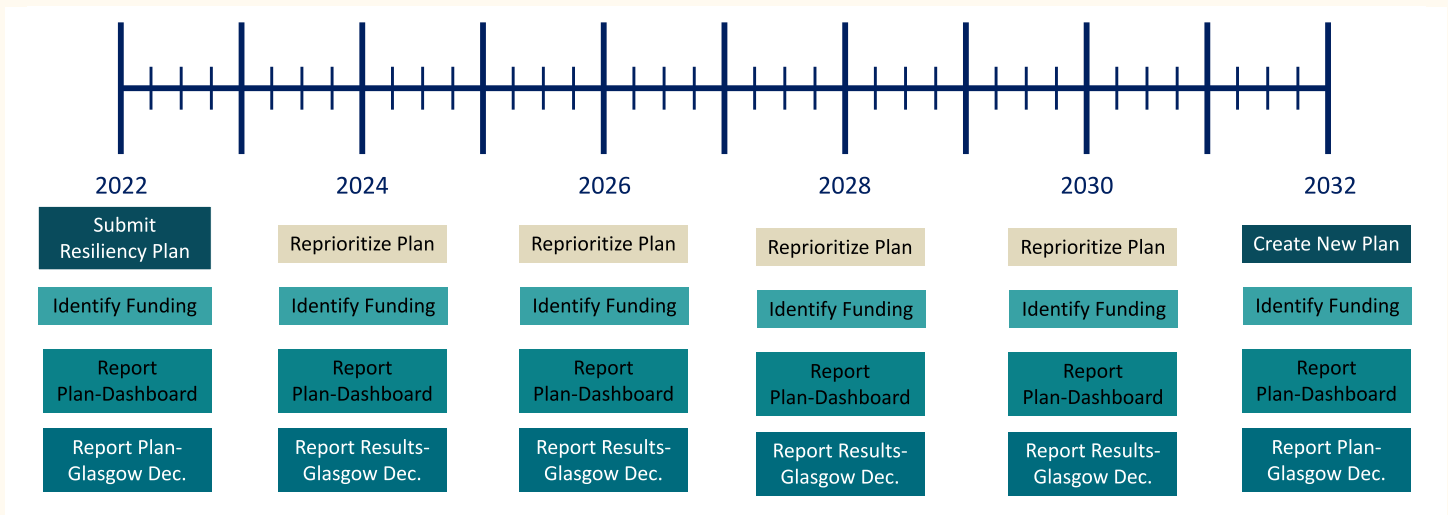
PILOT LOCATION/PILOT BUSINESS

In development

KEY RESOURCES

Monterey Bay Aquarium Seafood Watch transport calculator - [Link to Tool](#)

SECTION 9: 9 YEAR TIMELINE OF KEY GOALS



SECTION 10: COMMONLY ASKED QUESTIONS

Question 1: Why isn't OCVA calculating the carbon footprint on the Oregon Coast?

Answer: The state's system and infrastructure for reporting greenhouse gas emissions does not support easy calculation of emissions specific to the tourism industry. Nearly all tourist related businesses are not required to calculate or report emissions. Currently there is no easy way to accurately measure, or report travel related emissions to the Oregon Coast without relying on variable assumptions. Lastly, the technology, infrastructure, and governance needed to accurately measure emissions exceeds OCVA's influence and scope. However, OCVA recognizes the critical importance of calculating emissions and is committed to advocating for new technology that can expand the industry's ability to calculate. As infrastructure is put in place to capture critical measurements by larger state organizations like the Department of Transportation, Business Oregon, and the Department of Environmental Quality, this calculation will be easier to perform for the Oregon Coast. As of now, OCVA is focusing on alternative ways of measuring impact and emissions reductions.

Question 2: What are the economic benefits for businesses working in the climate solutions space?

Answer: First, consumers are willing to pay more for services and products that mitigate against environmental impacts. Second, there is a lot of money to be saved with efficiency upgrades. Third, there is governmental support in terms of grants, low interest loans, and tax incentives for businesses engaging in resiliency solutions. Lastly, there is evidence that shows a business may increase both customer demand and revenue by incorporating resiliency solutions such as an EV charging stations.

Question 3: Why is OCVA not promoting efficiency solutions or tackling electricity emissions?

Answer: In July 2021, the Oregon legislature passed a sweeping clean energy bill where Portland General Electric and Pacific Power are required to reduce emissions by 80% from a baseline amount by 2030, 90% by 2035 and 100% by 2040. We acknowledge that sustainable electricity requires increased efficiency of use, however, since this problem will be predominately corrected by energy producers, OCVA is deciding to shift efforts elsewhere.

Question 4: How does a small nonprofit efficiently work in this space?

Answer: Prioritization of resiliency actions using objective, logic-based approaches remove the potential of favoritism and bias and can show a small organization what their most impactful actions should be within their constraints. This plan outlines the prioritization system OCVA used to determine action steps for other DMO's to model after.



SECTION 11: INSPIRING STORIES

Buoy Beer Co. is capturing own carbon!

Carbon dioxide is greatly important in the beer brewing process. It is the thing that makes your beer fizz, and it is also released in great quantities during the fermentation process. Strikingly, carbon dioxide is considered a precious commodity for breweries, and they spend large amounts of money to buy it, despite producing it. During the pandemic, breweries saw carbon dioxide increase in price by 300%. To be more resilient and economical, Buoy Beer has started capturing its own carbon by investing in a carbon capture technology called Cici. They collect the carbon dioxide released during fermentation and reuse it later in the brewing process to carbonate their beer. coastriverbusinessjournal.com

Tastes like bacon and sequesters carbon!

Oregon Seaweed Company uses land-farmed dulse seaweed using only saltwater and sunshine. Dulse seaweed is a complete protein source that is starting to be incorporated in local menus up and down the Oregon Coast and is easy to use in everyday cooking. The best part, for every 4 pounds of seaweed grown, one pound of carbon dioxide is removed from the atmosphere. oregonseaweed.com

A place to stay on the Coast with a zero emissions footprint!

WildSpring Guest Habitat is a small eco-friendly bed and breakfast resort in Port Orford. They used local sustainable materials to build the resort and use non-toxic, pH neutral cleaning supplies. All appliances are low energy and low flow and WildSpring has reduced their energy footprint as much as possible. The remaining emissions has been offset. They use rainwater collection systems and native species landscaping. They recycle plastics, buy local, donate unused food, and give food waste to a local farm for composting. Of note, WildSpring's efforts have earned them a great deal of industry recognition. wildspring.com

Ditch your car at Pacific City!

The Pacific City Free Shuttle provides free transportation throughout Pacific City and surrounding areas to reduce traffic congestion during peak visitor times in the summer. With departures every 30 minutes visitors and locals can leave their cars, avoid the unnecessary traffic, and enjoy the Coast. nwregontransit.org/pacific-city-shuttle



SECTION 12: INTERVIEWS

Oregon Department of Energy, ODOE

Interviewee: Maya Buchanan, Climate Change Expert

Takeaway: ODOE has a bi-focused approach to climate solutions. In part ODOE functions as a think tank and produces analysis and reports like the Biennial Energy Report. ODOE also focuses on developing and supporting energy programs for stakeholder use. They do not have regulatory function and recommended DEQ as the agency to discuss the development of emissions regulations and reporting for small business. There are ODOE rebates available for the purchasing, installing, and utility of electric vehicles and solar technologies. In discussion, ODOE recommended the annual reporting of emissions. They also recommended using electric vehicle tourism as a business strategy. Overall, ODOE has not been involved with tourism in the climate resiliency space, however, they expressed excitement at the work OCVA is doing including offering to write a vignette on OCVA's work in the upcoming 2022 BER report.

Energy Trust of Oregon, ETO

Interviewee: Karen Chase, Southern Oregon Outreach Manager

Takeaway: ETO provides cash incentives and technical support for renewable energy projects, feasibility studies, and construction of projects that generate renewable energy from hydropower and biopower. ETO also has appliance trade-in and replacement incentives for personal and small business use. However, state law stipulates that the reason for trade-in cannot be electrification. ETO recommends working with utility programs for program development and suggested working with Coos Bay as a possible pilot area for climate solutions work.

Business Oregon, 7/29/21

Interviewees: Brenda Bateman, Assistant Director for Operations and Finance & Jeffery Stell, Incentives Program Manager

Takeaway: Discussed changing the definition of tourism so that the tourism industry may have more access to funding. Discussed Business Oregon developing tools to fill the business gaps in climate solutions work, specifically around emissions measurement and reporting.

Oregon Department of Transportation, ODOT 7/29/21

Interviewees: Geoff Crook, Climate Office Policy Lead & Brain Hurley, Senior Program Lead

Takeaway: ODOT has recently published a 5-year climate action plan to address the impacts of climate change



and extreme weather on the transportation system. ODOT also has capacity and funding to work with local governments on climate solutions around transportation. They recommended OCVA translate these solutions to private business. Additionally, they recommended electric vehicles use but also suggested the use of biodiesel and renewable gases as an intermediate transitional approach to decarbonizing transportation. They specifically expressed excitement about their employee transit solutions and community transit programs as a key resiliency solution for small business. We discussed the statewide need for electric vehicle and charging analysis beyond the TEINA report and opened the door for potential collaboration with their modeling and analysis program. They have capacity and interest to provide signage for an electric highway corridor. Suggested OCVA investigate electric micro mobility strategies such as e-bikes.

Good Company

Interviewee: Joshua Proudfoot, Principal

Takeaway: Good company helps organizations measure and report greenhouse gas emissions. They have worked with various state agencies to develop emissions measurement tools. Good Company in collaboration with OCVA could easily create a tool for small business to measure scope 1 and 2 emissions. However, scope 3 emissions are significant in the tourism sector and measurement technology for the sector would be more complicated to develop, although possible.

Lane County Climate Initiative, 8/5/21

Interviewee: Mark Nystrom, Lane County Climate Strategist

Takeaway: Lane County Climate Initiative is interested in developing and expanding infrastructure for electric vehicles to allow for more easy commuting from Eugene to the Oregon Coast. They are also interested in expanding electric vehicle infrastructure up and down the 101 corridors. They expressed interest in collaborating with OCVA in the development of this electric vehicle infrastructure. Mark also recommended additional resources including the Lane County BRING Rethink Program for Business, Forth Mobility, and ODOT fuel use measurements and maps.

US Department of Agriculture, USDA

Interviewees: Jill Rees, Acting State Director, Jessie Huff, State Energy Tribal Coordinator, and Tim O'Connell

Takeaway: There is a lot of opportunity in affordable loans and upgrades. USDA suggests OCVA to work with utilities and energy cooperatives to achieve additional access to some funding. Additionally, they recommended avenues of funding through the EPA and other state agencies. They provided multiple USDA opportunities for sustainable building, energy audits, renewable energy technology loans, energy savings programs, rural business development grants, ethanol and biodiesel higher blends incentive programs, and solid waste management opportunities.

Oregon Global Warming Commission, 8/18.21

Interviewees: Cathy McDonald, Chair Oregon Global Warming Commission

Takeaway: The Commission was established to track the progress, recommend policy, and prioritized goals for



statewide climate action. McDonald recommended OCVA's use of consumption-base greenhouse gas emissions inventory for Oregon to better understand the role of tourism in statewide emissions. McDonald also strongly urged prioritizing co-benefit arguments in resiliency discussions. She also recommended distributed energy systems and microgrids as an essential solution to prepare for emergencies such as fires and flooding. Lastly, she informed us about the Pacific States Marine Fisheries Commission working on a Climate Resiliency Plan.

Oregon Department of Administrative Services, DAS

Interviewees: David Wortman, DAS Statewide Sustainability Officer & Garcia Camizzi, Travel Oregon

Takeaway: The Department of Administrative Services is one of the 16 Directing State Agencies required by Governor Browns executive Order 20-04 to act and reduce greenhouse gas emissions in their agency. DAS has worked with Good Company to reduce supply chain emissions and has developed an internal program to reduced scope 3 emissions through a local materials program. The DAS recommended several resources through other state programs that may be applicable to OCVA's work.

Pelican Brewing Company

Interviewee: Ken Henson, Co-owner, and director of restaurant operations at Pelican Brewing Company

Takeaway: The discussion with Ken gave insightful business perspectives on resiliency solutions. Ken finds the sustainability accreditation systems distrustful, has never calculated the complete greenhouse gas emissions of his business, knows his post-consumer food waste tonnage, and believes the technology is comparable between electric and gas powered where electric stoves take more time to cook the same food. His biggest needs are post-consumer waste composting, energy audit, and consumer education. Additionally, he finds food donation systems challenging to use.

Bring Recycling

Interviewees: Carolyn Stein, Executive Director of Bring Recycling & Emily Shelton, Director of Education and Outreach

Takeaway: Bring Recycling is a nonprofit focusing on recycling of consumption waste. They aim to align with DEQs 2050 vision for material management for Oregon. Carolyn spoke to the difficulty of emissions measurement for small business saying she only knew of a few businesses that had ever successfully tackled their emissions measurement. She stressed the importance of communicating from a place of being helpful rather than regulatory. Bring Recycling is currently developing a program to track business behaviors which they expressed potential opportunities to collaborate with OCVA and relevant stakeholders on.

Tillamook Creamery

Interviewees: Paul Snyder, Executive Vice President of Stewardship at Tillamook Creamery

Takeaway: The discussion with Paul gave insightful business perspectives on resiliency solutions. He noted the challenges associated with greenhouse gas emission calculations include accuracy and the intensity of labor involved in collecting data that can later be used to be calculated. He stressed the importance of stating upfront the economic benefits for business. He also recommended B Corp Certification to maintain sustainable accountability.

Oregon Public Utility Commission

Interviewee: Ezell Watson, Director of Diversity, Equity, and Inclusion

Takeaway: Ezell recommended OCVA consider other forms of sustainable action including indigenous knowledge. Additionally, he recommended a more expansive definition of innovation and suggested the examination of disparity impacts along the Oregon Coast. He pointed out that programs driven on volunteerism are inherently exclusive and privileged as many people cannot afford to volunteer. He recommended OCVA reach out to farm communities about electrification and emphasized that gig economies have a definite need for electric vehicles.

Oregon Business for Climate

Interviewee: Tim Miller, Director

Takeaway: Oregon Business for Climate works with larger companies and serves to encourage larger business engagement with relevant policies. They function in the political arena as a lobbyist and can provide expert testimony. They have no experience working with small tourism businesses.

Purdue's School of Hospitality and Tourism Management

Interviewee: Jonathon Day, Associate Professor at Purdue University

Takeaway: Jonathon had great insight into effective ways to communicate with businesses and consumers surrounding climate action. Specifically, he recommended the use of words such as 'quality of life, resilience, future proofing, and disaster proofing' since they are less politically charged and construe a similar meaning in the climate solutions space. He also recommended resources from the Yale Climate Communication's Center.

Lotus Sustainability

Interviewee: Hillary Dobos

Takeaway: Lotus is an engineering and consulting firm. We discussed challenges in the climate solutions space including how to get people to engage in the face of pessimism. Hillary emphasized the need to get both business and visitors to focus on needed solutions rather than comfortable solutions. For example, composting solutions are more needed than plastic waste solutions, however, when presented with a choice, most people still chose plastic waste solutions.

Northwest Natural gas

Interviewee: Jennifer Yokom, Local Government Affairs Manager

Takeaway: Northwest Natural Gas is creating a tool for people to invest in green tariffs and increasing opportunities for energy efficiency including a smart energy program. Additionally Northwest Natural Gas is actively exploring the use of renewable hydrogen.

Climate Solutions

Interviewee: Meredith Connolly & David Vaunt

Takeaway: Meredith emphasized the power of business voices in creating political change. Small business has big sway with the legislature and elected officials. She also emphasized energy independence and microgrids as a key approach to create resiliency in communities. Meredith stressed the importance and potency of storytelling in the resiliency space and recommended resources such as Flip the Fleet, a community project empowering people to commit to electric vehicles, and Wave of Change, a responsible tourism organization helping coastal communities combat climate change.



SECTION 13: PRIORITIZATION OF RESILIENCY SOLUTIONS

There are two fundamental needs that an objective prioritization approach satisfies. First, ranking and prioritization of solutions easily demonstrates what the top solutions should be, particularly for small organizations such as OCVA. Second, with an overwhelmingly large list of solutions, using objective, logic-based approaches remove the potential of favoritism and bias, allowing decision makers to engage in resiliency and adaptation solutions in the most effective way.

In this plan solutions have been ranked based on ability for immediate action, emissions reduction potential, ecosystem resiliency, reach of solution, and equity potential. Each of these rankings is weighted based off emissions and other relevant factors. A solution step can achieve a total of twenty-seven points with high scores indicating priority actions.

Speed of Action Score (5 points)

*Does OCVA have the knowledge and understanding required for immediate action?

- Yes: 5 Points
- No: 0 Points

Emission Reduction Potential Score (9.5 points)

*Based off Oregon GHG Reported Emissions (% emissions have been converted into points)

- Transportation CO₂e reduction: 2.5 points
- Electricity CO₂e reduction: 3.5 points (Zero points available for the Oregon Coast due to the Coast being predominately powered by hydroelectric)
- Direct Use fuels CO₂e reduction: 2.0 points
- Waste CO₂e Reduction: 1 point
- Other: 0.5 points

Ecosystem Resiliency Score (7 points)

- Water conservation: 1 point
- Wildfire preparedness: 1 point
- Flood preparedness: 1 point

- Nature-based solution: 1 point
- Habitat management: 1 point
- Pollution management: 1 point
- Endangered species protection: 1 point

Reach Score (6 points)

- 1 person: 1 point
- 10 People: 2 points
- 100 People: 3 points
- 1000 people: 4 points
- 10,000 people: 5 points
- 100,000+ people: 6 points

DEI Score (5 Points)

- Solution has equitable access potential: 1point
- Solution preserves culture and heritage: 1point
- Solution reduces climate risk for vulnerable communities: 1point
- Solution educates to reduce risk for vulnerable communities: 1point
- Solution directly supports climate action in vulnerable communities: 1 point



SECTION 14: OPERATE WITH ACCOUNTABILITY

A fundamental aspect of this action plan is transparency and accountability. To achieve this OCVA should follow these 3 steps.

1. Create a publicly available Resiliency Dashboard. Here OCVA can post metrics biennially and promote other Oregon Coast resiliency champions.

2. OCVA will biennially research, edit, review, and update all resiliency solutions in this plan by **December 2024** and biennially commit to future plans by **January of 2027, 2029, 2031, and 2033**.

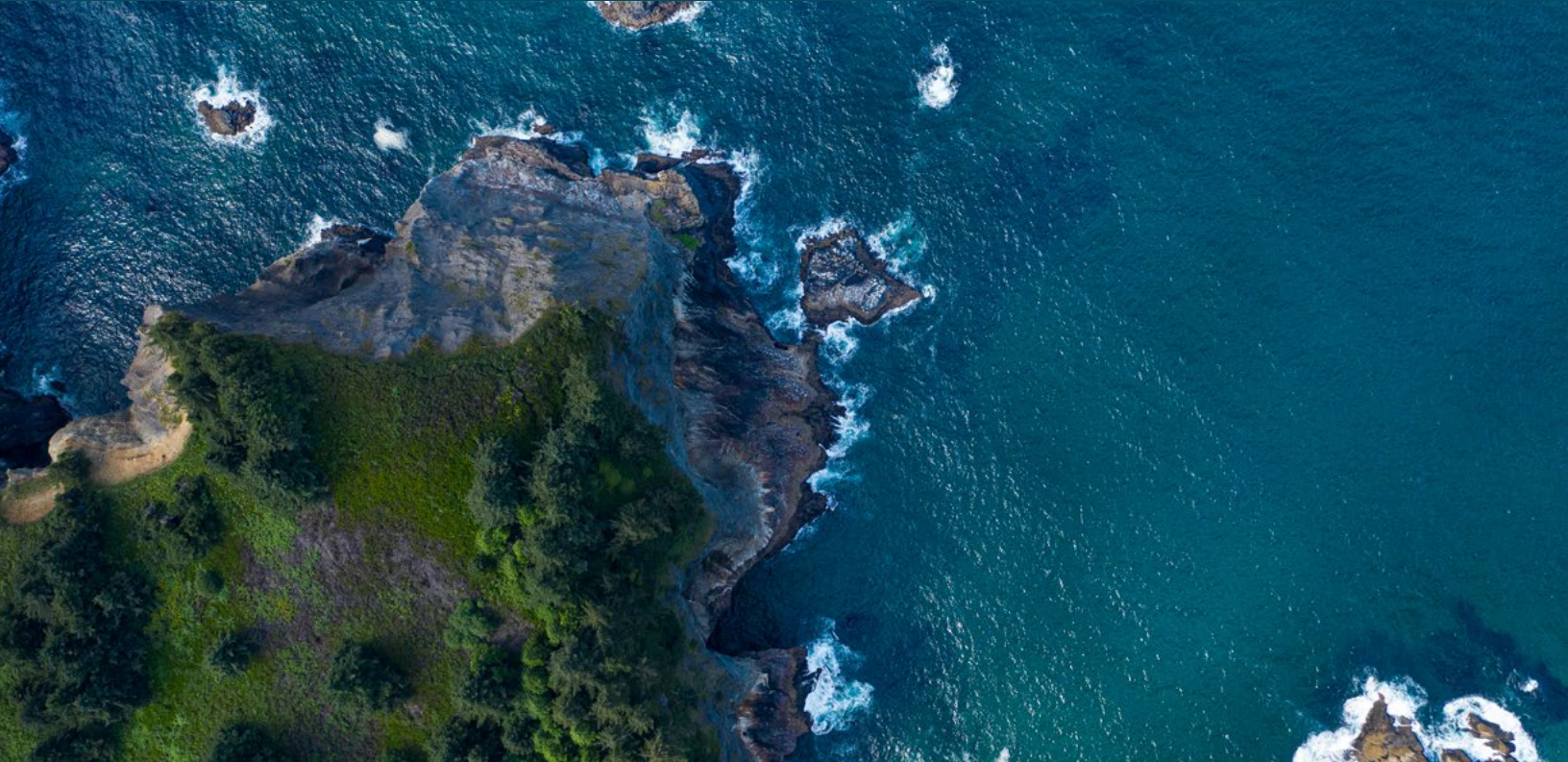
It is recommended for OCVA to report to stakeholders on resiliency achievements and future expectations including gains, wins, fails, and measurements. This will be done by the following September of the researching year. Specifically, results will be reported by **September 2025, 2027, 2029, 2031, and 2033**.

3. OCVA will biennially report progress to the Glasgow Declaration's recommended reporting site and include aspects of the plan that failed.



EXHIBITS

Exhibit A: Resources



SECTION 15: RESOURCES

UN Intergovernmental Panel on Climate Change Resources:

1. United Nations: The Paris Agreement ([Link](#))
2. AR6 Climate Change 2022: Mitigation of Climate Change ([Link](#))
3. AR6 Climate Change 2022: Impacts, Adaptation, and Vulnerability ([Link](#))
4. The Ocean and Cryosphere in a Changing Climate ([Link](#))
5. 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories ([Link](#))
6. Global Warming of 1.5C ([Link](#))
7. Additional Reports ([Link](#))

Glasgow Declaration Resources:

8. The Glasgow Declaration Homepage ([Link](#))
9. Glasgow Declaration FAQ ([Link](#))
10. Glasgow Declaration Recommended Actions ([Link](#))

Environmental Protection Agency Resources:

11. EPA-Overview of Greenhouse Gases ([Link](#))
12. EPA-Pollution Prevention Greenhouse Gas Calculator Guidance ([Link](#))
13. EPA-Scope 1 and Scope 2 Inventory Guidance ([Link](#))
14. EPA-Scope 3 Inventory Guidance ([Link](#))
15. EPA-GHG Inventory Guidance for Low Emitters ([Link](#))
16. EPA-Supply Chain Guidance ([Link](#))
17. EPA-Target Setting ([Link](#))

Other Federal Agency Resources:

18. The White House- National Climate Task Force ([Link](#))
19. US Climate Resilience Toolkit ([Link](#))
20. National Ocean and Atmospheric Administration- 2022 Sea Level Rise Technical Report ([Link](#))
21. US Energy Information Administration- Environment ([Link](#))

Oregon USDA Resources:

22. US Department of Energy- Better Buildings ([Link](#))
23. USDA- Rural Energy for America Program Renewable Energy Systems & Energy Efficiency Improvement Guaranteed Loans and Grants ([Link](#))
24. USDA- Rural Energy Savings Program ([Link](#))
25. USDA- Rural Business Development Grants ([Link](#))
26. USDA- Higher Blends Infrastructure Incentive Program ([Link](#))
27. USDA- Solid Waste Management Grants in Oregon ([Link](#))

Oregon Department of Transportation Resources:

28. ODOT-Climate Office ([Link](#))
29. ODOT-Transportation Options Program ([Link](#))
30. ODOT- Use Fuel ([Link](#))
31. ODOT-Passenger Vehicle Fuel Economy ([Link](#))
32. ODOT- Transportation Option Program ([Link](#))
33. ODOT- Get There Program: Commuter Resources and Employer Resources ([Link](#))
34. ODOT- Taxable Distribution Reports ([Link](#))

Oregon Department of Energy Resources:

35. Oregon Department of Energy - Oregon Electric Vehicle Dashboard ([Link](#))
36. Oregon Department of Energy- Energy Programs Incentive and other Resources ([Link](#))

- 37. Oregon Department of Energy- 2020 Biennial Energy Report ([Link](#))
- 38. Oregon Department of Energy- Rural & Agricultural Energy Audit Program ([Link](#))

Other State Agency Resources:

- 39. Oregon Department of Administrative Services- Highway Coast Allocation Study ([Link](#))
- 40. Oregon Department of Administrative Services & Department of Energy- Statewide Plug-Load Strategy ([Link](#))
- 41. Oregon Department of Administrative Services- Integrating Climate Change ([Link](#))
- 42. Oregon Climate Change Research Institute- 2021Fifth Oregon Climate Assessment ([Link](#))
- 43. Oregon Department of Environmental Quality- Oregon Greenhouse Gas Sector-Based Inventory Data ([Link](#))
- 44. Oregon Department of Environmental Quality- Consumption-based Greenhouse Gas Emissions Inventory for Oregon ([Link](#))
- 45. Oregon Global Warming Commission- Roadmap to 2035: A plan for Oregon to Meet its Greenhouse Gas Reduction Targets (TIGHGER Project) ([Link](#))
- 46. Oregon Global Warming Commission- 2020 Biennial Report to the Oregon Legislature ([Link](#))
- 47. Oregon Department of Fish and Wildlife- Threatened, Endangered, and Candidate Fish and Wildlife Species List ([Link](#))
- 48. 2021 TEINA Report- Transportation Electrification Infrastructure Needs Analysis ([Link](#))

Travel Oregon Resources:

- 49. Travel Oregon 2022- Traveler's Guide to Climate Resilience in Oregon: Land ([Link](#))
- 50. Travel Oregon 2022- Traveler's Guide to Climate Resilience in Oregon: Wildfire ([Link](#))
- 51. Travel Oregon 2022- Traveler's Guide to Climate Resilience in Oregon: Water ([Link](#))
- 52. Travel Oregon 2022- Traveler's Guide to Climate Resilience in Oregon: Air ([Link](#))
- 53. 2020 Oregon Tourism Industry Stakeholder Survey- Oregon Coast ([Link](#))

Nonprofit and Private Sector Resources:

- 54. Energy Trust of Oregon- Renewable Energy Program ([Link](#))
- 55. Renew Oregon- Climate Action Plan ([Link](#))
- 56. From Extraction to Sustainability: Oregon's Southern Coast and the Emerging Blue Economy ([Link](#))
- 57. Oregon Shores Conservation Coalition- 2015 Adapting to Climate Change on the Oregon Coast, A citizen's Guide ([Link](#))
- 58. Environmental Entrepreneurs- Oregon: Changing Climate, Economic Impacts, & Policies for Our Future ([Link](#))
- 59. Rethink Program for Business ([Link](#))
- 60. Forth Mobility- Advancing Clean and Equitable Transportation ([Link](#))
- 61. Surfrider Foundation- Rising Seas, Federal Climate Campaign Toolkit ([Link](#))
- 62. Surfrider Foundation- Programs ([Link](#))
- 63. Oregon Restaurant and Lodging Association Resources ([Link](#))
- 64. Cornell Center for Hospitality Research Publications- 2019 Benchmarking Index ([Link](#))
- 65. Natural Climate Solutions ([Link](#))
- 66. Coastal Carbon Research Coordination Network- Blue Carbon Inventory Report ([Link](#))
- 67. Coastal Carbon Atlas ([Link](#))
- 68. Running Tide- Carbon Sinking Program ([Link](#))
- 69. University of Oxford- Nature Based Solution Initiative ([Link](#))
- 70. Flip the Fleet- Resources ([Link](#))
- 71. Wave of Change- Leading Responsible Tourism ([Link](#))

Oregon Agency Climate Action Plans:

- 72. Oregon Department of Transportation Climate Action Plan ([Link](#))
- 73. Oregon Department of Forestry Climate Action Plan ([Link](#))
- 74. Oregon Environmental Council Climate Action Plan ([Link](#))
- 75. Oregon Coordinating Council on Ocean Acidification and Hypoxia- Action Plan ([Link](#))

Diversity Equity and Inclusion Resources:

76. Racial Disparities and Climate Change, The Princeton Student Climate Initiative ([Link](#))
77. University of Oregon-Tribal Climate Change Project ([Link](#))
78. Bloomberg, Aug 12th 2021, Climate Change is Killing US Farmworkers ([Link](#))
79. White House Environmental Justice Advisory Council-Climate and Economic Justice Screening Tool ([Link](#))
80. Yale Environment 360- What Ecologists are Learning from Indigenous People ([Link](#))
81. White House Commits to elevating Indigenous Knowledge in Federal Policy Decisions ([Link](#))
82. Native Land Digital Guide ([Link](#))
83. The White House-The Justice 40 Initiative ([Link](#))
84. McKinsey Business Sustainability: Diversity and Inclusion ([Link](#))
85. McKinsey Business Sustainability: Climate risk and response, physical hazards and socioeconomic impacts ([Link](#))

Tools for Communicating Climate Action:

86. Yale Climate Opinions Map ([Link](#))
87. Yale Program on Climate Change Communicating- Global Warmings 6 Americas ([Link](#))
88. Yale Program on Climate Change Communicating- Factsheet ([Link](#))
89. Yale Program on Climate Change Communicating- American willingness to prepare for “climate change” v. “extreme weather” study ([Link](#))
90. Skeptical science- explaining climate change science and rebutting global warming misinformation ([Link](#))
91. Georgetown University- Climate Change: Resources for research on all aspects of climate change and global warming ([Link](#))

Polls and Studies of Consumers and Climate Change:

92. 2022 Expedia Group Sustainable Travel Study ([Link](#))
93. 2021 Booking.com Sustainable Travel Report ([Link](#))
94. The Forrester Study: Sustainability in the Last Mile- A 2021 Snapshot ([Link](#))
95. Dynata 2021 Study: Global Consumer Trends- The Urgent Fight Against Climate Change ([Link](#))
96. Pew Research Center 2021 Climate Change Consumer Report ([Link](#))
97. Greenpoint 2021 Report: Business of Sustainability Index ([Link](#))
98. 2020 IBM Report- Meet the 2020 Consumers Driving Change ([Link](#))
99. The New Climate Economy: Unlocking the Conclusive Growth Story of the 21st Century ([Link](#))

Relevant News and Opinion Articles:

100. Oregon has a new plan for the legendary Coast Bike Route ([Link](#))
101. Fish and rivers are the lifeblood of communities ([Link](#))
102. Business and government must come together for strong climate action ([Link](#))
103. Oregon Fishing is Busier During Pandemic ([Link](#))
104. Echo Mountain Fire near Otis destroyed homes, spared lives, The Oregonian ([Link](#))
105. Climate Change Was Killing Northwest Oysters. Growers and Scientists Fought Back ([Link](#))
106. Dungeness Crab Fishing Industry Response to Climate Shock ([Link](#))
107. Crab Fishers Sue Fossil Fuel Industry Over Climate Change Damage ([Link](#))

Recommended Books:

108. Speed and Scale by John Doerr
109. Saving Us: A Climate Scientists Case for Hope and Healing in a Divided World by Katharine Hayhoe