

PROPOSAL

SONOMA COUNTY

Natural Systems Climate Resilience & Adaptation Plan

SC001 - 0000001357



Submitted by:

EcoShift Consulting,

a division of Blue Strike Environmental
126 Bonifacio Place, Suite G Monterey, CA 93940



September 16, 2021

County of Sonoma
General Services Purchasing
2300 County Center Drive, Ste A208
Santa Rosa, CA 95403
Attn: Brenda Haas

RE: EcoShift Consulting Proposal: Sonoma County Resilience & Adaptation Plan

Dear Brenda Haas,

On behalf of EcoShift Consulting (a division of Blue Strike Environmental), it is with great pleasure that we submit the attached proposal for the opportunity to complete the Sonoma County Climate Resilience & Adaptation Plan related to natural systems, as the region's 1st Natural Systems Climate Resiliency & Adaptation Plan.

By submitting this proposal, our Project Team seeks to synchronize the collective regional planning efforts to date:

1. *County of Sonoma 5-year Strategic Plan (Strategic Plan),*
2. *Regional Climate Protection Authority (RCPA) Sonoma Climate Mobilization Strategy (SCMS),*
3. *Sonoma County Water Agency (SCWA) Climate Adaptation Plan (CAP),*
4. *Sonoma County 's Agricultural Preservation & Open Space District (Ag + Open Space) Vital Lands Initiative (VLI), and*
5. *Sonoma County Multi Jurisdictional Hazard Mitigation Plan (MJHMP).*

This effort will yield a single cohesive Natural Systems Climate Resiliency & Adaptation Plan to guide all departments, agencies, municipalities, and community partners that have a role in the region's land management in achieving California's ambitious climate goals, and leveraging funding to readily implement priority actions.

EcoShift is a mission-driven organization with deep capacity for and steadfast dedication to supporting the clients we serve in achieving their climate, resilience and adaptation goals. With extensive knowledge and expertise designing and implementing climate solutions, planning, data analysis, funding acquisition, and stakeholder engagement for local governments, organizations and business clients, EcoShift is eager and able to apply our knowledge, experience and creativity to contribute to this effort.

The project team leverages concurrent aligned climate and resiliency work already underway with **Sonoma State University** and **North Bay Forward**, providing an additional value add to this effort and ensuring that EcoShift's years of successful project delivery are coupled with a locally attuned understanding of Sonoma County's unique community, climate challenges and localized resources. Our annual contract with **SOMO Village** to support their sustainability efforts is an additional connection to the local region.

We applaud Sonoma County for your agency's long-standing leadership on climate action and resiliency. In line with this historical leadership, the creation of a single unified adaptation plan focused specifically on the lens of natural systems, is an innovative and deeply compelling approach to the climate crisis that is perfectly attuned to the unique scenic character of Sonoma County.

Natural systems' capacity for both carbon sequestration and emissions reductions contributions is a critical path mechanism essential to addressing climate change, consistent with existing plan goals. Preservation, restoration and other adaptation strategies to improve and sustain the healthy functionality of natural systems within Sonoma County to be outlined in this new unified natural systems plan, will provide the missing critical path mechanism to increase resilience against the impacts of a changing climate. Furthermore, it is anticipated that strategies implemented under the latter, will offer complementary mitigation carbon-cycle co-benefits for the former, thereby bolstering the County's overall positive climate impact.

EcoShift will utilize our track record of successful project delivery, demonstrated ability in climate, resiliency and vulnerability analysis, research and synthesis capacity, and tools such as our Resiliency Tracker to ensure solutions are timely, relevant and actionable, provide clear guidance for future implementation, identify co-benefits, and adequately prepare for funding requests to accelerate adoption.

We appreciate the opportunity to submit this proposal. Please reach out at any time with follow-up questions to kristin@EcoShift.com.

Thank you for your consideration of our proposal!

Sincerely,



Kristin Cushman, CEO

EcoShift Consulting, a division of Blue Strike Environmental

Email kristin@ecoshift.com | Phone (831) 277-0167

EcoShift is a Women-Owned Business and Small Business Enterprise.

Our offices are located in California, Ohio, Pennsylvania, and Massachusetts.

Project Overview

Sonoma County is a leader in climate innovation with a long-standing history of climate awareness and ambitious goals for protecting the region's unique scenic character and natural beauty. In addition, Sonoma County has been at the forefront of climate impacts responding with such initiatives as clear recovery and resiliency frameworks that include healthy and well-managed land and water, as well as a 5-year strategic plan with Climate Action and Resiliency embedded in 2 of the 5 strategic pillars. An array of organizations, agencies, consortiums and stakeholder groups have been active participants in the local climate dialogue, with a number of climate, adaptation, resilience and related plans produced for various components and geographic regions throughout the county in recent years. This Natural Systems Climate Resilience & Adaptation Plan (Natural Systems CAP) aims to combine the transformational work already completed by these partner and cooperative organizations into a single cohesive plan to guide natural systems management across all county departments, agencies, structures, private landholders and community partners that have a role in the region's land management.

Section 1 – Organizational Information

About EcoShift Consulting

Since 2007, EcoShift Consulting (EcoShift) has offered award-winning strategy, research, technical analysis, communications, and organizational development services in sustainability, climate change, and clean energy. Our staff has worked for over a decade on supporting state mandated programs for climate related activities with a focus on waste, green buildings and energy. We have been on the forefront of designing program activities, creating best practices and innovating policy and reporting frameworks. We have solid industry knowledge that allows us to translate goals and objectives into actionable work plans. Our team manages complex sustainability, clean energy, and climate projects each year. Our team members are experienced in tracking new legislative requirements, resources, and funding opportunities to build partnerships and proposals that successfully secure state, federal and other grant funding, manage delivery of these complex projects once such funding is secured, and produce positive outcomes that support our clients in meeting their climate goals. Our efficient management of inter-disciplinary projects at a low cost has empowered communities and governmental organizations to maximize the social, environmental and economic benefits of all the stakeholders they serve.

Organizational Chart

An organizational chart including key personnel involved in this project is presented in **Figure A**.



Figure A.
Project Team
Organizational
Chart

Authorized Organization Contact

The principal organizational contact for this proposal is presented below.

Kristin Cushman, CEO

Blue Strike Environmental DBA Ecoshift Consulting
126 Bonifacio Place Suite G
Monterey, CA 93940
(831) 277-0167
kristin@ecoshift.com
www.bluestrikeenvironmental.com

Key Personnel

The EcoShift team comprises highly skilled personnel with skill-sets that complement each team member to form an integrated and highly efficient whole with a proven track record of timely, realistic and effective execution of similar projects. EcoShift personnel dedicated to the success of this project include the following:

Advisor - Kristin Cushman, CEO The Advisor will provide executive level quality assurance and oversight of project delivery from a strategic perspective, align and/or leverage opportunities in concurrent local project delivery, and ensure that deliverables are locally attuned and responsive.

Project Manager - Brennen Jensen The Project Manager will act as the principal liaison between Sonoma County and the Project Team, develop a comprehensive project plan, track project performance, and ensure all deliverables within the project scope are met with excellence, on time, and on budget. The Project Manager serves as the primary stakeholder engagement facilitator overseeing partner coordination, stakeholder feedback, as well as playing a central role in data collection, ideation, document review and synthesis of project concepts. She will advise on natural systems components through an ecological lens and will oversee completion of the Resiliency Tracker, plan writing, editing and synthesis, and final document submissions.

Vulnerability and Adaptation - Zach Youngerman The Vulnerability and Adaptation Lead will play a principal role in document review, analysis and synthesis of project concepts as informed by our literature review of key documents and resources provided by the County. This lead will also review existing vulnerability study components, already completed in whole or in part, and conduct an updated vulnerability study to fill in gaps in existing plans.

GHG & Financial Analyst - Rich Swanson The Analyst Lead serves as the principal staff managing data management and analysis components of this plan, including updating programming of the Resiliency Tracker for the unique conditions of Sonoma County, obtaining financial cost estimates and quantifying impacts and co-benefits based on best available data.

Meet Our Team

Brief bios are presented below for each Ecoshift team member. Resumes are presented in **Attachment A**.

Kristin Cushman, CEO | Ms. Cushman's focus is to build climate mitigation strategies that combine community priorities with local climate and energy planning projects. Ms. Cushman has built lasting and effective public-private partnerships to leverage combined resources and build innovative programs. Her work focuses not only on reducing local greenhouse gas emissions but also designing mitigation strategies that have long term economic benefits. She has developed carbon funds and green revolving fund concepts for cities and counties and leads stakeholder engagement initiatives with a lens on social justice and equity. Her strength is to translate data driven climate strategies into a digestible and actionable format that can ease implementation and reporting metrics.



Project Role: Advisor

Brennen Jensen, Project Manager | For nearly 20 years, Ms. Jensen has concentrated her work in the fields of zero waste, renewable energy and environmental behavior change to guide government



agencies, businesses and nonprofit organizations in the design, adoption and implementation of localized and scalable climate solutions. Ms. Jensen holds a M.S. in Biomimicry from Arizona State University (1st graduating class) and is among just several dozen Certified Biomimicry Specialists by Biomimicry3.8 trained in the art and science of looking to nature for design solutions aligned with life's principles and natural systems. She holds a B.S. in Environmental Science Technology with concentrations in Landscape Ecosystems and Wilderness Conservation and a B.A. in Spanish from Humboldt State University. She is trained in systems thinking, strategic planning and

design thinking. Her strength lies in partnership building, funding acquisition for local governments and nonprofits and policy synthesis. Ms. Jensen has a cooperative facilitative approach that seeks to find creative solutions to complex problems, while expanding localized opportunities for climate solutions and emissions reductions throughout California and the nation.

Project Role: Project Manager, Natural Systems Lead

Zach Youngerman, Vulnerability and Adaptation Advisor | Mr. Youngerman joins our team as EcoShift's Vulnerability and Adaptation Lead. He has delivered a vulnerability assessment and adaptation plan for the City of Los Altos, as part of their Climate Action & Adaptation Plan update. He recently worked as the Planning and Resilience Lead for Water and Environment at WSP USA. In this role, Mr. Youngerman led the development of a flood resilience handbook for New York State and facilitated a long-term climate adaptation strategy workshop for the US Marine Corps Recruit Depot at Parris Island, South Carolina. He holds a Masters in City Planning from MIT and a Bachelor of Arts in Urban Studies from Brown University. He is also a certified Envision Sustainability Professional. His strengths are in research, data analysis and synthesis. **Project Role: Vulnerability and Adaptation**



design thinking. Her strength lies in partnership building, funding acquisition for local governments and nonprofits and policy synthesis. Ms. Jensen has a cooperative facilitative approach that seeks to find creative solutions to complex problems, while expanding localized opportunities for climate solutions and emissions reductions throughout California and the nation.

Rich Swanson, PhD, Senior Financial and GHG Analyst | Dr. Swanson is EcoShift's economic and GHG analyst for energy and climate-related projects and policy. Economic experience includes policy evaluation, cost-benefit assessments (CBA), project optimization, and tariff-setting recommendations. His financial experience includes project finance, financial modeling, and return on investment analysis. He maintains expertise in financial and economic modeling and risk assessments for utilities, developers, and infrastructure banks. He's performed sector analyses, demand forecasting, and policy evaluations. Rich has a strong technical, statistical and analytical background with a Ph.D. in Civil Systems Engineering, an M.A. in International Affairs, and a B.A. in Economics. **Project Role: GHG & Financial Analyst**



Section 2 – Qualifications & Experience

Since 2007, EcoShift and its team members have served local governments as a primary service area of our consultancy. From policy analysis to funding acquisition through grants and contracts, to stakeholder engagement, outreach and education for environmental behavior change, to conservation program design, implementation and results reporting, to planning research, ideation, synthesis, and plan development, and on-the-ground environmental program operations, EcoShift and its principals have worked with hundreds of local government agencies both as direct contractors and as project collaborators. Our Project Manager Ms. Jensen, for instance, has designed and led several statewide and multi-jurisdictional programs, each requiring direct coordination with 21-500 local governmental agencies and special districts, multiple public utilities, and dozens of state agencies. Our CEO Ms. Cushman routinely coordinates complex multi-jurisdictional projects with local governmental agencies throughout California and across the country.

EcoShift is pleased to offer our considerable related project experience in support of this effort. As our work pertains to climate change, resiliency, adaptation and related projects with similar scopes of work, we have selected the (5) most recent and closely aligned examples for reference here. Similarly scoped projects concentrated in energy and the built environment applications and involving complex GHG analysis, rate analysis and related modeling are numerous with applicable project scopes and team skill-sets required for completion. A condensed sample of (5) such projects are also presented below, although additional summaries are available upon request.

Brief summaries of recent and concurrent project experience, along with associated references are presented below. Qualifications and experience of individual team members are presented in the prior Section 1 Key Personnel and as **Attachment A**.

Recent Projects

- Carbon Neutrality Plan (2020-21)**
- Climate Action Plan (2021 – Present)**
- Sustainability Management System (2021 – Present)**



PROJECT DESCRIPTION

EcoShift is leading a Sonoma State University campus wide analysis to achieve carbon neutrality by 2043, in accordance with the University's Second Nature Climate Commitment. The Carbon Neutrality Roadmap will be an appendix to the 2022 Climate Action Plan. EcoShift identified emission reduction strategies, including green building, energy, waste, water and transportation sectors. Strategies will be analyzed to show ROI and be translated into a Business Case for Carbon Neutrality that will be presented to the Chancellor's office. As part of this planning process, EcoShift is working on strengthening the campus' internal and external communication and policy framework to propel the campus towards resiliency. EcoShift will also help Claudia Luke, the Director of Sustainability Programs, chair the North Bay Forward regional network.

Agreed Upon Timeline: February 2021 - December 2022
Carbon Neutrality Plan (January 2021 - November 2021);
Climate Action Plan (September 2021 - April 2022);
Sustainability Management System (September 2021 - November 2022)
Actual Timeline: On time, On budget
Major Deliverable(s): Carbon Neutrality Plan (complete),
Climate Action Plan (in progress),
Sustainability Management System (in progress)

Reference: Claudia Luke, Director of Sustainability Programs
Email: lukec@sonoma.edu | Phone: 707-664-3416

Sustainability Management System (2021 - Present)
Climate Action Plan (2022)
Carbon Neutrality Roadmap (pending funding)



PROJECT DESCRIPTION

EcoShift is working with Research Triangle Institute (RTI) International to shift RTI's corporate framework to incorporate sustainability into overall operations nationwide. This new management system will encourage decision making to consider economic, social and environmental benefits as well as to stay consistent across all departments. Once established, EcoShift will guide the corporation through a Climate Action Plan process, including a commitment of carbon neutrality. As part of this contract, a major emphasis is on stakeholder engagement, creating a Green Team, hosting focus groups and creating an education and outreach plan to engage the thousands of staff and scientists who work on campus.

Agreed Upon Timeline: July 2021 - Indefinite
Sustainability Management System (April 2021 - November 2021)
Climate Action Plan (November 2021 - April 2022)
Actual Timeline: On time, On budget
Major Deliverable(s): Sustainability Management System (in progress)
Climate Action Plan (planning for)
Carbon Neutrality Roadmap (pending funding)

Reference: Janelle Griffin, Engineering Operations Manager
Email: janellegriffin@rti.org | 919-541-8724

Climate Action & Adaptation Plan (2020 - Present)

PROJECT DESCRIPTION

The Los Altos Climate Action & Adaptation Plan project goal is to develop a new forward-thinking, accelerated plan for the City's CAP update. The EcoShift team is developing a plan with achievable and actionable steps that the City can take to reduce greenhouse gas emissions related to climate change, adapt its resources and environment to climate hazards, and set clear metrics to achieve these goals. EcoShift has incorporated state requirements that include review and update of safety elements to

address climate adaptation and resilience strategies; vulnerability assessment; adaptation and resilience goals, policies and objectives; and feasible implementation measures. Our team evaluated the existing Los Altos 2013 Climate Action Plan, collected and secured cost and emission data and analyzed that data to suggest refinements and innovative measures to achieve a comprehensive update.

Agreed Upon Timeline: April 2020 - November 2021

Actual Timeline: On time, On budget

Major Deliverable(s): Climate Action & Adaptation Plan (in progress)

Reference: Sustainability Coordinator, Emiko Ancheta

Email: eancheta@losaltosca.gov | Phone: (650) 947-2646



Renewable Energy Plan (2020 - 2021)

PROJECT DESCRIPTION

EcoShift is collaborating on a plan to identify strategies that will help the County of Durham government operations achieve a 100% renewable energy goal by 2030 and a 100% renewable energy goal by 2045. The planning phase contains strategic initiatives whose combined effects will enable Durham County to reach its goals within the County's parameters. Considerations include reducing building electricity consumption with on-site generation, energy efficiency, and renewable thermal alternatives; exploring renewable options such as physical plant community solar, or community wind options to replace all electricity that is fossil or nuclear powered; focusing on building electrification which may include replacing all building thermal energy sources with heat pump water heaters, solar-source heat pumps, or renewable fuels such as renewable gas (digester/landfill), or renewable diesel.

Agreed Upon Timeline: January 2020 - March 2021

Actual Timeline: On time, On budget

Major Deliverable(s): Renewable Energy Plan (complete)

Reference: Tobin Fried, Sustainability Manager

Email: tfried@dconc.gov Phone: 919-748-1467



Carbon Neutrality Climate and Energy Analysis (2017-Present)

PROJECT DESCRIPTION

EcoShift was the lead climate consultant to Cal Poly SLO to deploy the Climate & Energy Scenario Analysis (CESA) Tool, which allows users to input measures, set scenario parameters and assumptions, visualize from one scenario to another, and save scenarios for future analysis. Campuses using the tool can project scenarios and conduct rapid financial analysis based on existing, planned, and future carbon mitigation measures, such as lighting upgrades, envelope upgrades, HVAC, renewable energy, transportation, etc. Buckets of projects can be prioritized based on financial performance, as well as other qualifiers, and the CESA Tool allows tracking of project performance after implementation. Cal Poly SLO has integrated data from the Energy Information System to support scenario planning efforts, with the goal of having a smart tool with flexible planning dashboards that quantifies carbon reductions and financial performance over time. The CESA Tools allows flexibility in assumptions, projects emissions to 2055, and offers various graphical outputs that show how measures roll up over time.



Agreed Upon Timeline: Ongoing

Actual Timeline: Phase I, Phase II & Phase III

Major Deliverable(s): Business base for carbon neutrality

Reference: Dennis Elliot, Director of Energy, Utilities, and Sustainability

Email: delliot@calpoly.edu | Phone: 805-756-2090

Section 3 – Project Approach & Work Schedule

Sonoma County is a leader in climate actions on the forefront of the climate dialogue and uniquely attuned to the challenges caused by climate change from extreme droughts, floods, wildfires and other impacts of a warming climate. Agencies and organizations throughout the County including the County of Sonoma, the Regional Climate Protection Authority (RCPA), Sonoma County Water Agency (SCWA), Sonoma County's Agricultural Preservation and Open Space District (Ag + Open Space), and Sonoma County Mutijurisdictional Hazard Mitigation Plan (MJHMP), and others have overlapping and complementary service areas, each of whom have made significant commitments to addressing the impacts and causes of climate change, as outlined in the various regional and cooperative plans and guidance documents that will be considered in this effort.

The principal goal of this project will be to synthesize these planning efforts made to date, provide new ideation and project recommendations through a stakeholder engagement process grounded in equity and inclusion, and produce a single integrated climate adaptation plan through the lens of natural systems. The resulting plan will include clear and measurable implementation recommendations for both public and private entities, prioritized by such considerations as climate threats, impacts & co-benefits, cost, timeliness, and suitability for leveraging upcoming federal and state funding opportunities. Through input provided by Sonoma County and its stakeholders, the plan will propose and prioritize implementation projects and steps for the entire geographic area of Sonoma County in the following categories*:

- Wildfire Prevention/Mitigation,
- Watershed Restoration,
- Coastal Area Protection From Sea Level Rise,
- Riparian Area Flooding and Fish Habitat,
- Maintaining Large Landscape Connectivity,
- Preserving Agricultural Lands,
- Protecting/Restoring Biodiversity,
- Drought, Water Conservation & Related Water Management Infrastructure, and
- Mitigating Heat Island Effects.

**Social equity will be incorporated into recommendations*

According to SCWA as summarized in their current CAP Work Plan, the region is facing continued impacts from increased local temperatures, variability in precipitation, sea level rise, as well as severity and frequency potential for drought, flooding and wildfire. Such impacts without robust mitigation and resilience measures will have devastating consequences for the region's quality of life, its residents, businesses and visitors as well as its natural systems. Healthy natural systems strengthened through a suite of robust strategies and projects offer a key opportunity for increasing the County's resilience and ability to mitigate and adapt to climate change.

Robust natural systems function as the earth's integral mechanisms for supporting the land-ocean carbon cycle through carbon sequestration, providing coastal protection to mitigate sea level rise, maintaining vital watersheds to protect against increased flooding and variable precipitation, and sustaining the unique scenic character of Sonoma County for the residents, businesses and visitors through open spaces and agricultural resources providing additional community co-benefits in line with the County's 5 strategic pillars and the Ag + Open Space VTI principle goals, among others.

Ag + Open Space VTI identifies 229 million metric tonnes of carbon dioxide equivalent (CO₂e) sequestered in Sonoma County's landscape ecosystems; while the RCPA SCMS cites carbon sequestration and ecosystems services as being the critical element to closing the County's gap from 80% emissions reduction below 1990 levels to achieving 100% carbon neutrality. Such statistics already embedded within County plans underscore the important role of natural systems already recognized by County planners. Natural systems' ability to aid in both emissions reductions and carbon sequestration, as well as support additional resiliency and quality of life benefits for the community makes it one of the most powerful mechanisms Sonoma County can use for addressing climate change from both the mitigation as well as adaptation perspectives.

Building consensus around climate action planning and equity is the cornerstone of EcoShift's work. This is backed by a technical team with a broad background in climate change policy and economics. EcoShift provides technical analyses in vulnerability, carbon and lifecycle assessments, rate design for distributed energy resource planning, return on investment for carbon neutrality roadmaps and a synthesized approach to ranking mitigation strategies applicable to a wide variety of planning lenses. This high level of technical expertise adds an important layer of value and robustness to this scope of work, ensuring that the deliverables meet a high level of rigor. Our work to develop and define methodologies for techno-economic analysis for climate action means that organizations can be assured that recommendations will be based on the best information and methods available. With additional expertise in innovative cross-disciplinary approaches like Biomimicry, as well as carbon sequestration techniques like Carbon Farming, EcoShift is uniquely suited to incorporate innovative nature-based designs that draw on and strengthen natural systems and result in science-based recommendations to build upon your efforts to date, include input from your stakeholders, and chart a path toward inclusive and equitable climate adaptation and resilience.

Our direct experience with similar projects both within Sonoma County and elsewhere will ensure the EcoShift team successfully executes each component under this plan in a timely, realistic and effective manner.

Project Goal: Produce a comprehensive list of short- and long-term recommended implementation steps for natural systems to assist Sonoma County in meeting ambitious climate goals and leveraging future funding to implement priority actions.

EcoShift will engage in an 8-part planning process to guide this effort:

1. Initial Scoping & Interviews
2. Literature Review & Data Synthesis using EcoShift's Resiliency Tracker
3. Climate Change Vulnerability Assessment using Cal-Adapt
4. Robust Stakeholder Engagement
5. Project Input & Data Synthesis using EcoShift's Resiliency Tracker & Synthesis of Concepts
6. Evaluation of Concepts based on Cost, Co-Benefits, Timeliness, Funding Opportunities
7. Priority Project Recommendations
8. Document Synthesis & Refinement producing Draft & Final Reports

The County will play a critical role in providing key documents and regional expertise to be included in this effort, identifying local stakeholders integral to the guidance and feedback at critical path points during the process. EcoShift utilizes a streamlined cooperative process to target and minimize impacts on County staff, while also ensuring that in-house expertise critical to the long-term project success are appropriately engaged for relevant, actionable, and well-championed project implementation.

Planning Tools

These planning tools will be used as central aspects of the analysis contained herein and are discussed in detail below.

- EcoShift Resiliency Tracker
- Temperate Adaptation Planner
- CalAdapt
- Existing Research & Results

Major Deliverables:

- | | |
|---|----------|
| • Initial Outline | Nov 2021 |
| • Stakeholder Engagement Summary of Key Findings (1st round) | Dec 2021 |
| • Draft Plan with Preliminary Funding Opportunity Recommendations | Jan 2022 |
| • Stakeholder Engagement Summary of Key Findings (2nd round) | Mar 2022 |
| • Final Plan | Apr 2022 |



Methodology

The following tasks will guide implementation in line with the project goal and deliverables referenced above.

Task 1. Initial Scoping & Interviews

The goal of this immediate task will be to coordinate with internal agency organizations and County staff and to obtain all relevant baseline documents, identify key parties and stakeholders to be included in the effort and refine the project scope to ensure all project needs are met in the Initial Outline.

Task 1.1 Kickoff Meeting -Initial meeting with County and key stakeholder representatives such as those from each partner agency and others as deemed appropriate by the County. The purpose of this meeting will be to communicate the goals of the project and introduce our team to lay a foundation for subsequent coordination of relevant documents and information to ensure project success.

Task 1.2 Interviews - The project team will meet with internal agency organizations and/or individuals as advised by the County to assess needs, gaps, opportunities and documents to be included in the literature review. These meetings will be conducted as focus group or individual interviews and may include a survey to partner organizations. Initial feedback from key agencies will inform initial outline submission.

Task 1.3 Initial Outline - Based on feedback and direction provided above, within 4 weeks of contract start date, update the project scope herein into an Initial Outline of plan sections/ subsections and key tasks to be performed under this scope.

Task 1 Deliverable: Submit Initial Outline

Task 2. Literature Review

The goal of this task will be to review the existing documents and findings from the (5) agency completed climate documents and other relevant climate work as advised by the County. Natural systems projects will be input using EcoShift's Resiliency Tracker to provide a comprehensive list of projects to be synthesized and prioritized by various factors as outlined in Task 6 (see Task 5 for a detailed description of EcoShift's Resiliency Tracker). Task 2 provides an initial summary of projects, resources and gaps to guide the remaining tasks.

It is common for each jurisdiction to have multiple strategic planning processes occurring, sometimes at the same time. Therefore, the project team will further align the planning process during the Literature Review phase by creating tactics and metrics that are likely to overlap with tactics and metrics from similar plans. This will allow a commonality to grow to promote clarity and engagement around the strategies being recommended and allow new strategies to be incorporated into the planning process over the time.

Task 2.1 Key Document Review - Review of 5 agency completed plans: (1) County of Sonoma's 5-year Strategic Plan, (2) RCPA Sonoma Climate Mobilization Strategy, (3) SCWA Climate Adaptation Plan (based on available data/content subject to completion timelines underway), (4) Ag + Open Space Vital Lands Initiative, and (5) Sonoma County Multi Jurisdictional Mitigation Plan.

Task 2.2 Additional Document Review - Subject to available resources and as advised by the County, incorporate review of additional relevant climate commitments or plans and data sources specific to the County's natural systems.

Task 2.3 Resiliency Tracker Input - Initial input of existing projects and available data for further analysis and prioritization in subsequent tasks. For a detailed description of the Resiliency Tracker, see Task 5.

Task 2.4 Initial Gap Analysis - Initial review of projects to date to identify resources, opportunities and gaps in coverage to inform stakeholder engagement and subsequent tasks.

Task 2 Deliverable: Resiliency Tracker with Gaps Identified

Task 3. Climate Change Vulnerability Assessment

The ultimate legacy of our resiliency strategies and proposed enhancements will be the longterm benefits to the quality of life, habitat, agricultural resources, and natural systems that define Sonoma County. But first we need to understand how the climate is changing and what the impacts will be. The vulnerability assessment task is intended to assist the County in understanding the climate risks it faces under future emissions scenarios. The assessment relies on resources provided by the California Governor's Office of Emergency Services (OES) including Cal-Adapt and the California Adaptation Planning Guide to describe how the frequency and intensity of climate hazards are changing. It is our understanding that partial vulnerability data may be available from partner agencies but a complete County-wide vulnerability assessment will be needed under this scope. EcoShift will review this existing data and aim to generate a cohesive vulnerability assessment which may be used to inform additional aspects of the final Natural System CAP.

Task 3.1 Baseline Scoping - The team will review existing data and results from vulnerability assessments or components embedded within the (5) principal plan documents or other materials provided by the County to ascertain gaps in the existing vulnerability analysis and then complete an updated assessment to fill in these gaps as a component of the Plan. Integral to that scoping will be agreeing on the emissions scenarios (high, medium, low), planning horizon (2050, 2100), and categories of natural systems (wetlands, wildlands).

Task 3.2 Climate Change Summary - Use the Cal-Adapt tool to summarize expected climate changes for Sonoma County including:

- Temperature, Extreme Heat & Drought
- Precipitation, Riparian Flooding, and Sea Level Rise
- Wildfires

Task 3.3 Vulnerability Assessment - Summarize expected impacts based on Cal-Adapt calibrated with past experiences of climate hazards and the California Regional Climate Change Assessment. The Cal-Adapt tool and projections of climate change taken from other government plans describe how climate is changing, but they do not describe what the impact will be on Sonoma's natural resources and systems. The vulnerability assessment, informed by stakeholder engagement, will help the County understand the impact to its natural systems and inform project concepts. Results will be summarized in a Vulnerability Assessment Memo, which may serve as a specific Chapter in the completed Natural Systems CAP.

Task 3 Deliverable: Vulnerability Assessment Memo

Task 4. External Stakeholder Engagement

Our project team has extensive experience designing and implementing comprehensive and cost effective community engagement strategies for public agencies and private organizations. Our expertise includes planning, facilitating, and hosting stakeholder engagement events including Focus Groups, Workshops, Symposiums, and Webinars. In 2017, the project team led the mobilization of over 60 community and labor organizations in the development of East Bay Community Energy's Local Development Business Plan. In 2018-19, the Project Team led the stakeholder outreach for the Strategic Energy Plans for the cities of Santa Barbara, Goleta and Carpinteria as well as the County of Santa Barbara and currently, the project team is leading outreach for RTI International, the City of Los Altos and Sonoma State University. This experience means our team is well-prepared to assist with the creation of presentations and outreach materials related to the planning process. This outreach will be critical to achieving the buy-in needed from the County by diverse stakeholders to make the implementation of the plan a success.

There are two portals in all outreach strategies: 1) gathering input and data from stakeholders in order to better understand general priorities in the community, and 2) pushing out information to stakeholders in order to get them excited and calling them to action.

EcoShift will begin with a stakeholder mapping exercise during the Kick off Meeting to identify the specific internal and external stakeholders, community and regional groups, agencies etc. and determine what role each should play in the planning process. We will map these groups into different engagement categories (for example, gathering information vs pushing out information) and overlay the Plan onto the overall project timeline to effectively pace engagement activities. We will partner with the County to clarify priority target audiences, desired outcomes from outreach work, framing and key messages, as well as finalizing the most strategic activities and content in all aspects of the Plan.

Considering the COVID-19 pandemic and the ongoing need for social distancing, the project team has assumed activities will be COVID-19 compliant utilizing both digital and analog activities and/or taking place outdoors where it is possible to be socially distant.

Task 4.1 Coordination with County to define - Stakeholder Community, with lens on equity & inclusion

- Engaging communities on resiliency issues in a meaningful and equitable process is challenging and will require a creative and multi-faceted campaign that supports a diversity of community leaders to help craft the messaging in order to engage their own networks to reach new audiences.

Task 4.2 Stakeholder Workshop Series with Key Stakeholder Groups (Input Round) - EcoShift will manage technology, invitations, reminders, and outreach for all community workshops with a workshop goal to review existing efforts to protect and adapt natural systems, conduct stakeholder ideation and collect feedback using online polling features.

Task 4.3 Survey to Targeted Stakeholders - Create a bilingual survey using surveymonkey.com and distribute through the County's website and social media channels, any stakeholder agency outlets.

Task 4.4 Stakeholder Workshop Series with Key Stakeholder Groups (Output Round) - Develop a presentation to show current progress, needs and how the Plan development will help the County reach its goals. The workshop will be a critical opportunity to share predicted climate changes and receive feedback on the impacts to Sonoma's natural systems from Task 3.3. This presentation will be used to present to councils in the surrounding area. Leverage co-programming opportunities to promote the Plan's goals and development. Engage the community and/or internal County staff by releasing a comment period to allow stakeholders to weigh in on the draft Plan. Following the Stakeholder Workshop Series the team will document all outreach activities and major findings into Stakeholder Engagement Memo, which may also serve as a Chapter of the final Natural Systems CAP.

Task 4 Deliverable: Technology, invitations, reminders, and outreach for all community workshops Survey; Stakeholder Engagement Memo

Task 5 Input & Synthesis of Project Concepts

EcoShift has developed a Resiliency Tracker which serves as a central tracking system to synchronize various planning documents across multiple jurisdictions. The Resiliency Tracker pulls current strategies and policies out of planning documents, finds ways to align/identify areas of overlap, adds new strategies and determines where gaps are in the policy framework. **Figure B** depicts one tab of a varied matrix of tabs within the Resiliency Tracker. The secret to the Resiliency Tracker's success is the coding system set up internally which enables dynamic multi-factor prioritization.

The goal of this task is to populate and synthesize the project concepts identified in Task 2 from the existing County Plans under review. New ideation from Task 3 and 4 will also be input as they arise. The completion of this task will lay the foundation for the further evaluation and prioritization based on various factors of interest to the County to be analyzed in subsequent Tasks 6 & 7.

The Resiliency Tracker will enable the County to map performance within a single cohesive and updatable database and use it as a workbook to report progress over time, using both quantitative and qualitative metrics. The Resiliency Tracker will note such characteristics as the key leading agencies, stakeholders, resources, and expected time frames necessary for the completion of each action, as well as the order in which they should occur for greatest success and coordination. Barriers and opportunities to improve implementation will be noted, under "current status" as well as suggestions for their mitigation.

Developed initially as a tracking tool for Sustainability in support of our successful work with CSUMB, EcoShift's Resiliency Tracker is an evolved tool which has been refined by dozens of climate, adaptation, vulnerability and other resilience projects to serve as a streamlined and sortable database to help our clients evaluate and prioritize potential projects for clear, specific and measurable implementation. A unique Resiliency Tracker will be customized for Sonoma County and populated with project implementation steps from each of the existing 5 plans and new stakeholder recommendations, as an integral part of the Natural Systems CAP. Moreover, Sonoma County will be able to continue to add new inputs over time for the tool remains a long-term useful resource for the agency's ongoing climate planning.

Goal	Strategies	Strategy Number	Action Letter	New Actions	Description	Climate Risk Addressed	Focus Area
Understand and Reduce the Risk of Climate Hazards	Reduce Heat Risk	6.2	C	Promote alternative cooling strategies like shade trees, green roofs, building awnings and heat pumps	Promote fossil fuel free HVAC systems, like heat pump technologies, for buildings that install air conditioning. Establish voluntary adoption benchmarks and determine whether permitting requirements are reasonable options if adoption does not achieve benchmarks.	Extreme Heat	Built Environment
Make Climate Adaptation Integral to City Government	Incorporate Climate Adaptation into City Policy, Budget, Planning, Internal Standards	7.1	A	Account for Climate Change in all new City Projects	Establish an interdepartmental working group to integrate climate preparedness in planning, maintenance, and capital improvements through the development of work plans, screening of capital improvements, and cross-sector collaboration. Establish protocols for mitigating public health impacts from heat and air quality, with regional	Extreme Heat	Multiple

Figure B: Snapshot of Resiliency Tracker

The Resiliency Tracker is the central tool to:

- Provide clear, specific and measurable implementation steps,
- Identify any related mitigation benefits as they apply,
- Prioritize implementation steps based on climate threats, impact, co-benefits, cost and timeliness,
- Highlight key geographic regions most vulnerable (opportunity areas) related to a particular strategy(ies),
- Associate complementary climate change efforts, and
- Recommend a relative timeline for proposed implementation steps.

Task 5.1 Review Impacts & Sensitivities - Natural systems' capacity for both carbon sequestration and emissions reductions contributions is a critical path mechanism essential to addressing climate change, consistent with existing plan goals. Preservation, restoration and other adaptation strategies to improve and sustain the healthy functionality of natural systems within Sonoma County to be outlined in this new unified natural systems plan, will provide the missing critical path mechanism to increase resilience against the impacts of a changing climate. Furthermore, it is anticipated that strategies implemented under the latter, will offer complementary mitigation carbon-cycle co-benefits for the former, thereby bolstering the County's overall positive climate impact.

A review of impact and sensitivities based on available data from existing plans and priority areas by habitat, especially including those references in the Ag + Open Space VLI, will help inform opportunity areas to direct future implementation strategies and code existing strategies identified in current plans.

Examples might include:

- The impact of extreme temperatures and extended heat waves on the natural environment will be heat stress on plants with the potential for slow native species die-out and replacement by non-native species. These tipping points will depend on many factors including species and age.
- Managed landscapes will require greater care and watering. California Water Service predicts roughly 3.5% increase in mean temperature by 2040 and will correspond to a roughly 2% increase in demand. County staff may find formerly tried and true ornamental plants less reliable – or untenable due to new ordinances or demand management measures.

- Severe precipitation and repeated flooding and fire may increase stream bank erosion and flooding and erosion of managed landscapes. As the probability of multiple severe winter storms increase toward the end of the century, downed trees may be more common as trees rooted in soils saturated from storm previous events contend with heavy winds.

As such sensitivities are identified and better understood, county agencies and partners playing roles in local land management will be better able to identify response strategies that specifically strengthen these natural systems or adapt as habitats transition in the face of these climatic changes.

Task 5.2 Conduct Clear, Specific & Measurable Analysis - Ecoshift's extensive experience in designing similar plans for local governments, universities and businesses results in clear, specific and measurable implementation steps for our clients. We do this through facilitated strategic planning that generates SMART (**S**pecific, **M**easurable, **A**chievable, **R**elevant, **T**imebound) key performance indicators (KPIs) that are associated with each objective, strategy or tactic, and collectively comprise implementation steps associated with the project. Ecoshift's Resiliency Tracker (see Task 5), serves as a database of projects, Serach with clear, specific and measurable actions, while also enabling Ecoshift to sort and prioritize based on various criteria, and capturing additional noteworthy characteristics such as but not limited to, those related mitigation benefits as they apply. Evaluation and prioritization of various strategies will be conducted in Tasks 6 and 7.

Task 5.3 Presentation - Upon completion of the initial build-out completed under Task 5, the project team will prepare and deliver a presentation walk-through of the Resiliency Tracker to review key features, factors for further analysis and results to date, helping to guide the completion of subsequent tasks in line with County goals.

Task 5 Deliverables: Presentation to County Staff: Initial View of Resiliency Tracker

Task 6 Evaluation of Concepts Based on Cost, Impact, Co-Benefits, Timeliness, Funding Opportunities

The goal of this task is to evaluate the strategies within the Resilience Tracker populated in Task 5 against various factors of interest to Sonoma County. The presentation conducted in Task 5 will provide a forum for feedback and agreement on major factors such as but not limited to cost, co-benefits, timeliness, funding opportunities, etc. The project team will work closely with County staff and stakeholders to review, refine, and integrate our planned work products into an existing implementation schedule. The project team has over a decade of experience managing multi-faceted programs involving multiple vendors and complex financial scheduling while leveraging community values and priorities. EcoShift anticipates that the number of strategies populated within the Resiliency Tracker at this stage may be extensive. An initial prioritization of these projects may be recommended for subsequent build out of more actionable cost, benefit, funding and related evaluation (e.g. review of top 50 strategies based on initial prioritization of most promising results). Actual analysis parameters will be discussed in detail with the County to the selected approach is in line with the County's scope, timeline and budget considerations.

Task 6.1 Determine costs associated with recommended goals and strategies - Based on guidance and parameters agreed to above, EcoShift will determine relative costs associated with recommended goals allowing cost to be factor in initial considerations (e.g. low, mid, high). Those selected for additional consideration may be suitable for more thorough financial analysis to create a package of recommended strategies with higher level and more actionable detail. EcoShift is not only well versed in articulating potential solutions to funding but can also translate funding into a cash flow diagram. **Figure C** displays the positive cash flow from a series of mitigation projects earning a ROI from cost savings.

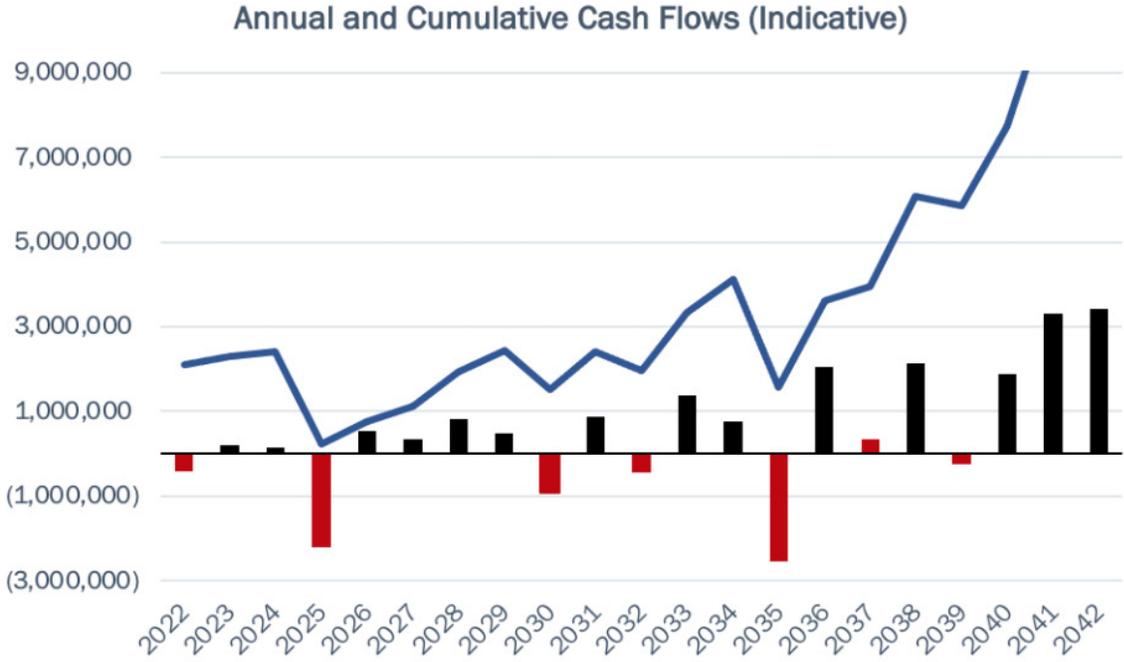


Figure C: Sample cash flow analysis to illustrate carbon neutrality

Task 6.2 Determine impacts of recommended goals and strategies as it relates to the natural system - Natural systems strategies are understood to have the potential for multiple co-benefits, strengthening the case for implementation. As an example, carbon farming uses compost as a catalyst to increase carbon sequestration, which improves soil health through increased plant reproduction. Subsequently, the environment benefits through reduced releases of CO2 and methane to the atmosphere. Farmers and ranchers also benefit with improved forage quality for their animals and reduced cost around water, plantings, and nutrient application. Where such data is available, these co-benefits, as related to the natural system, will be captured.

Task 6.3 Determine co-benefits of recommended goals and strategies - After a cost benefit analysis has been completed, the project team will drill down and rank each strategy using a specific set of criteria to show the co-benefit that each could bring to the planning process. Refer to **Figure D** for suggested criteria such as public health, equity and justice, jobs and prosperity. EcoShift will work with the County to set specific criteria, and as informed by input obtained during Task 4.



Figure D: Co-Benefits

Task 6.4 Determine timeliness of recommended goals and strategies -

Timeline recommendations will be just one of the many factors incorporated into the Resiliency Tracker for the purposes of both prioritization as well as justification detail. Where feasible and based on readily available data, prioritized project strategies will be accompanied with timeline details to guide implementation. Initially and for the purposes of this Plan, each tactic will be assessed on a simple near- mid- and long-term ranking. Finer resolution characterizations for timeline recommendations could be folded into this analysis as tactics are prioritized for implementation. The project will recommend a package actionable of strategics based on the Resiliency Tracker outcomes and County priorities revealed during this evaluation. The package is likely to contain a mixture of short, mid and long-term recommendations and reasonable timeframes for implementation in relation to each other.

Task 6.5 Determine grant funding for recommended goals and strategies -

In addition to direct finance models as shown in Figure C, EcoShift understands the state and federal grant programs available, has direct experience applying for and managing such complex contracts and applications, and what baseline information about funding sources would be helpful in guiding staff in their funding strategy. EcoShift will review major funding opportunities based on input provided by the County and rank project strategies according to their suitability (competitiveness) for such opportunities. EcoShift will select 3-5 opportunities that are of greatest interest to the County for special consideration. Based on final results, our team will produce a summary of those strategies or package of strategies that appear to be the best candidates for application submission. As an additional scope, EcoShift can support the County with grant applications if such additional services are desired.

Figure E displays the approach for combining grant funds with available rebates and loans available.



Figure E: Sample breakdown of potential grant and rebate funding

Task 6 Deliverables:

- Cash Flow Diagram
- Resiliency Tracker with Cost, Impact, Co-Benefits, Timeliness as key milestones in the Implementation schedule
- Funding Opportunity Summary

Task 7. Priority Projects Recommendations

We understand that even recommendations made through thorough data analysis need to be presented with sufficient background detail to justify adoption, especially in the case that such adoption requires allocation or re-direction of resources. In the case of Sonoma State University, for example, the project seeks to quantify ROI to make the business case for adoption by the Chancellor's office. The goal of this task will be to complete final prioritization of implementation steps and summarize these priority project recommendations based on analysis and feedback obtained in prior tasks and in line with the County's documentation goals.

Task 7.1 Provide enough background information to adequately justify the recommendations of this Plan will be a central goal of this effort. - Background details will be presented in appropriate sections/subsections of the Plan as agreed to during the Initial Outline approval (Task 1). Additional background and support detail will be embedded in the Resiliency Tracker (Tasks 5-7) with various known and related characteristics for each approach. For example a strategy such as Reduce Flood Risk might be associated with several unique tactics that each contribute to this strategy, in addition to identifying details such as tactic description, feasibility, risk addressed, lead department/agency, goal, related plans, co-benefits, type of action, cost-effectiveness, etc. Once populated this tool provides justification for each approach down to the individual tactic level based on best available data. The County is assured that individual actions complement existing efforts, as the implementer can easily see all tactics associated with various factors of interest. For instance, all tactics that support VLI Water goal to *protect natural lands and aquatic habitats that support aquatic ecosystems and water resources* would be easily sortable for prioritization, allowing many lenses by which the County may view results of this study over time. Such tactics could then be further refined by additional complementary factors to achieve desired outcomes as needs of individual departments or agencies shift.

Task 7.2 Work closely with Ag + Open Space team - This task will leverage the extensive GIS mapping layers presented in the VLI summarizing prioritization areas by various natural systems lens, e.g. conifer forests, wildlands, groundwater, wildlife corridors, etc. by folding them into the final Natural Systems CAP to highlight geographic regions within the County that are most vulnerable to impacts of climate change with consideration of the results from Task 3, and/or those regions which offer the most opportunity for mitigation and resilience. Dependant upon available data and resources, additional GIS mapping could be resourced as an additional scope add-on.

Task 7.3 Create a centralized database of natural systems tactics - The ultimate outcome of all preceding tasks is to finalize the Resiliency Tracker as a comprehensive centralized database of all natural systems tactics, as revealed during this project. The Resiliency Tracker then becomes a long term resource for the County's ongoing resilience planning and implementation.

Task 7 Deliverables: Presentation to County Staff: Final View of Resiliency Tracker

Task 8. Natural Systems Climate Adaptation Plan

This task represents the synthesis of all work to date at two critical path paths in the project, as summarized in the Draft and Final Report. The final Plan will be further refined by additional data analysis and stakeholder feedback obtained following the release of the initial draft Plan.

Task 8.1 Draft Natural Systems Climate Adaptation Plan - Our project team has served as lead or support authors for dozens of comparable plans and reports for government agencies, educational institutions, and private sector clients. We are skilled at synthesizing technical, sociocultural, and financial information through the lens of climate change mitigation and adaptation, and our approach is to provide visually-appealing materials that engage stakeholders with graphic representations of key information and easy- to-understand language. The project team will prepare a preliminary Draft of the Plan for circulation, review and comment by County staff and subsequent agencies and stakeholders that participated in the external engagement process. The preliminary Draft will be a complete document, with all elements of the plan in place and presented based on all analysis completed within Phase 1 of the project in order to meet the ambitious Jan 2022 timeline. This draft will offer stakeholders with sufficient information to provide substantive feedback during a public review period, as well as provide adequate detail to guide the County in responding to funding opportunities anticipated in early 2022. New and refined data and analyses scheduled for completion subsequent to the submission of the Draft Plan will be referenced as to their status in the Draft Plan and updated for Final Plan submission based on draft feedback.

Task 8.2 Revise & Finalize Natural Systems Climate Adaptation Plan - The project team will then prepare a Final Plan document, which incorporates all of the comments received during the public review period. The project team will conduct a final QA/QC review to ensure that the final Plan meets or exceeds all applicable requirements and expectations. The Final Plan document will be delivered to County staff on or before the target date for completion. We will support County staff in the preparation of a final report to the County Board of Supervisors, including presentation materials highlighting the critical path and final outcomes of the planning process. A high-level summary document of major findings will be made available in English and Spanish for public dissemination.

Task 8 Deliverables:

Draft Natural Systems Climate Adaptation Plan
 Final Natural Systems Climate Adaptation Plan

Schedule & Milestones

The proposed schedule and milestones are presented the following Work Plan Gantt Chart.

Project Budget & Workplan I Sonoma County Natural Systems Climate Adaptation Plan

Task #	Task Description	Schedule			2021			2022				Projected Completion Date:
		Start Date	End Date	Projected Contract Date:	OCT	NOV	DEC	JAN	FEB	MAR	APR	
Task 1	Initial Scoping & Interviews	OCT	NOV	Oct. 19, 2021								April 30, 2022
Task 2	Literature Review	OCT	DEC									
Task 3	Stakeholder Engagement	OCT	MAR									
Task 4	Vulnerability Assessment	DEC	MAR									
Task 5	Input & Synthesis of Project Concepts	NOV	JAN									
Task 6	Evaluation of Concepts Based on Cost, Impact, Co-Benefits, Timelines, Funding Opportunities	DEC	MAR									
Task 7	Priority Projects Recommendations	NOV	APR									
Task 8	Natural Systems Climate Adaptation Plan	DEC	JAN									

Related Deliverable(s):

- Task 1 Initial Outline
- Task 2 Resiliency Tracker
- Task 3 Key Findings Summary
- Task 4 Vulnerability Assessment
- Task 5 Resiliency Tracker
- Task 6 Resiliency Tracker
- Task 7 Resiliency Tracker
- Task 8 Draft Plan

Section 4 – Cost of Service

A summary of our cost of service is presented below.

Project Budget & Workplan I Sonoma County Natural Systems Climate Adaptation Plan

Task #	Task Description	Program Manager	Project Lead	Vulnerability & Adaptation Lead	GHG & Financial Lead	TOTAL
Task 1	Initial Scoping & Interviews	1	20	7	1	\$4,920
Task 2	Literature Review	2	180	72	0	\$44,150
Task 3	Stakeholder Engagement	2	48	20	0	\$12,190
Task 4	Vulnerability Assessment	2	26	79	0	\$16,675
Task 5	Input & Synthesis of Project Concepts	2	92	0	0	\$17,430
Task 6	Evaluation of Concepts Based on Cost, Impact, Co-Benefits, Timelines, Funding Opportunities	2	38	24	88	\$10,920
Task 7	Priority Projects Recommendations	2	48	6	22	\$10,160
Task 8	Natural Systems Climate Adaptation Plan	6	80	32	32	\$20,670
Hourly Rate		\$205	\$195	\$145	\$185	
		\$3,895	\$103,895	\$34,800	\$26,455	\$137,115
		19	532	240	143	934 (hrs.)

Related Deliverable(s):

- Task 1 Initial Outline
- Task 2 Resiliency Tracker
- Task 3 Key Findings Summary
- Task 4 Vulnerability Assessment
- Task 5 Resiliency Tracker
- Task 6 Resiliency Tracker
- Task 7 Resiliency Tracker
- Task 8 Draft Plan

Section 5 – Identification of Subcontractors

All services provided under this proposal will be delivered by Ecoshift Consulting.

Section 6 – Insurance

Ecoshift maintains all appropriate insurance. Upon selection, Ecoshift will be pleased to submit and comply with all insurance requirements.

Section 7 - Accessibility Standards

Ecoshift is aware of and will comply with all applicable Federal and local accessibility standards, in cooperation with County support services, as appropriate.

Section 8 - Additional Information

Ecoshift is proud to be a Woman-Owned Business and Small Business Enterprise. We thank you for your time and attention in reviewing this proposal.

Section 9 - Contract Terms

Ecoshift agrees to the Sample Terms & Conditions as presented/referenced in this RFP.

Section 10 - Other

Resumes for key personnel associated with this project are attached, as **Attachment A**.

KRISTIN CUSHMAN, CEO



SELECTED WORK EXPERIENCE

City of Los Altos, CA | Present - 2021

- Led Vulnerability Assessment
- Advisory role to Project Manager to establish key implementation strategies

Durham County, NC | Present - 2021

- Project Lead for Renewable Energy Plan
- Focus on funding and public - private partnerships

University of California, Monterey Bay | 2019 - Present

- Developed and execute the communication plan with key campus stakeholders to determine goals and objectives for carbon neutrality by 2030.

City of Santa Barbara's Strategic Energy Plan | 2018 - 2019

- Led the stakeholder outreach for the city's Strategic Energy Plan
- Developed and executed the community stakeholder outreach to determine needs and potential resources that would support the city's energy goals

East Bay Community Energy Local Business Development Plan | 2015 - 2017

- Led the stakeholder outreach for the community choice aggregation for Alameda County's Local Business Development Plan
- Developed and executed the community stakeholder outreach to determine needs and potential resources that would support the city's energy goals

EDUCATION

University of Alabama/
Aix Marseille University

B.S English and French Literature

PROFILE



BRENNEN JENSEN, MS



SELECTED WORK EXPERIENCE

Monterey Bay Regional Climate Action Compact Co-Chair | 2012 - 2019

- Co-Led Compact uniting 21 jurisdictions of the Monterey Bay Area in taking meaningful action against causes & impacts of climate change
- Produced Climate Action Summit, Regional Climate Achievements Summary Report, Quarterly Newsletters, Stakeholder Engagement & Networking Meetings, Training Seminars

Monterey Bay Community Power (now, C3 Power) | 2013 - 2018

- Played lead role in local government engagement, Program Development Advisory Committee formation, resolution adoption, stakeholder engagement and agency coordination resulting in Feasibility Study completion and agency formation of MCBP, California's largest Community Choice Aggregation program agency
- Conducted 60 local government presentations, 100 stakeholder engagement outreach events, passed over 50 local resolutions

Carpet America Recovery Effort | California Program Manager | 2013 - 2019

- Led ground-up development of Nation's 1st statewide carpet stewardship program to increase reuse, design for recyclability, collection, recycling, and buy-recycled circular economy market development
- Developed and managed all monthly, quarterly, annual report writing, data analysis, document creation & regulatory compliance submissions

Monterey Bay Carbon Farming Project | 2016 - 2018

- Convened stakeholder series to explore, promote and build local capacity for Carbon Farming practices within the tri-county Monterey Bay Area
- Supported formation of grant partnerships, local educational workshops and hands-on training with local farmers, ranchers and resource agencies

Monterey Bay Carbon Fund | Program Liaison | 2013 - 2015

- Developed Rancho Cielo Solar Workforce Development hands-on solar design & implementation curriculum at Construction Academy for underserved students and resulting in campus-wide energy independence
- Facilitated program launch press event with state & local elected officials, panel signing and recognitions of programs 1st student graduates

EDUCATION

MS Biomimicry Arizona State University

First graduating class of emerging discipline combining biology, natural history, engineering, and design to apply 3.8 billion years of nature's genius to solve for the design challenges of today

BS Environmental Science Technology,
concentrations in Wilderness Conservation
& Landscape Ecosystems
Humboldt State University

BA Spanish
Humboldt State University

CERTIFICATIONS

Biomimicry Specialist
Zero Waste Professional
Design Thinking

PROFILE



ZACH YOUNGERMAN, ENV SP

Planning and Resilience Lead



SELECTED WORK EXPERIENCE

City of Los Altos Climate Action and Adaptation Plan

- Wrote the Vulnerability Assessment
- Conducted required stakeholder outreach elements

WSP | 2018 - Present

- Managed and executed resilient design, planning, and sustainability projects for municipal and agency clients
- Helped to grow resilience and climate adaptation practice for WSP's water an environment business group by developing client relationships, tracking business opportunities, and leading proposal teams

NYC Dept of Environmental Protection | 2016 - 2018

- Coordinated project planning for New York City's \$1.5B Green Infrastructure Program across several internal Bureaus, hired and managed marketing consultant, prepared report content and presentations for State regulators and the Mayor's Office.
- Prepared and led public presentations about the Program to public officials and civic associations

Stormwater Charge, City of Mississauga | 2015 - 2016

- Designed, analyzed and drafted policies for launch of \$40M/year stormwater charge to address repeat flooding and infrastructure funding backlog
- Advised Transportation & Works staff on the implementation and strategic options of programs. Coordinated working committee of Council members and Division staff in scoping residential program

New England Climate Adaptation Project, CBI | 2013

- Developed and implemented an outreach strategy in collaboration with local office of the National Estuarine Research Reserve and the Town of Wells, ME for participation of stakeholders in public workshops
- Facilitated role-play negotiation exercises intended to jump-start local participants' thinking about the planning challenges of adapting to climate change in their town

EDUCATION

M. City Planning MIT

Thesis: Social Marketing, Financial and Regulatory Mechanisms for Adoption of Water Conservation and Stormwater Management Practices by Single-Family Households

B.A, Urban Studies: Brown University, Providence, Rhode Island

CERTIFICATIONS

Envision Sustainability Professional
Permaculture Design

PROFILE



RICHARD SWANSON, Ph.D.

Senior Financial Analyst



OVERVIEW

Leading provider of economic and financial analyses for energy and climate-related projects and policy. Economic experience includes policy evaluation, cost-benefit assessments (CBA), project optimization, and tariff-setting recommendations. Financial experience includes project finance, financial modeling, and return on investment analysis. Expertise in financial and economic modeling and risk assessments for utilities, developers, and infrastructure banks. Performed sector analyses, demand forecasting, and policy evaluations. Strong technical, statistical and analytical background: Ph.D. in Civil Systems Engineering, M.A. in International Affairs, B.A. in Economics.

SELECTED WORK EXPERIENCE

Sonoma State University (SSU): Rohnert Park, CA

- **Economist:** Campus greenhouse gas emissions assessment and evaluation of scenarios for carbon neutrality strategy
- Analyzing GHG baseline and forecasting projected emissions utilizing Sustainability Indicator Management and Analysis Platform (SIMAP) tool

Asian Development Bank (ADB): Ngerulmud, Palau

- **Senior Economist:** Assessed economic and financial outcomes for policy-based lending (PBL) to corporatize national utility (electricity, water and wastewater) and upgrade policies to attract investment

United Farm Fund: (agricultural fund advisor within the Old Mutual Investment Group): The Hague, The Netherlands & Cape Town, South Africa)

- **Senior Finance Consultant:** Assessed financial and economic outcomes of Green Bond offering investments in off-grid energy and climate smart agriculture
- CSPDR (Engineering company performing feasibility study on Upper • Arun Hydroelectric Project): Kathmandu, Nepal

Asian Development Bank (ADB): Tashkent, Uzbekistan

- **Senior Economist:** Assessed economic and financial outcomes for results-based lending (RBL) to modernize electricity distribution system in three provinces

African Development Bank (AfDB): Abidjan, Ivory Coast

- **Senior Economist and Team Leader:** Delivered economic and financial models and analyses for solar PV generation facilities, with on-site battery storage system (208 MW), USD 270 million; and for regulatory reform

EDUCATION

Ph.D. in Civil Systems Engineering
M.A. in International Affairs,
B.A. in Economics

ADDITIONAL SKILLS & TRAINING

Financial / Economic Modeling:
NPV (project optimization, DCF, Real options, B/C analysis, Monte Carlo simulations: knowledge of Excel and R

CFA Candidate

PPIAF: Certified Public-Private Partnership Professional (CP3P)

Conversational Spanish:
Language Institute in San Jose, Costa Rica: lived in Salta, Argentina (1991 - 1992)

PROFILE

