FY 22-26 *PROGRAM* PROPOSAL
EDUCATION AND OUTREACH

Does this proposal contain confidential information? ☐Yes ☑ No

Program Number and Title

Program Number: 22220400

Title: Community Organized Restoration and Learning [CORaL] Network

Primary Investigator(s) and Affiliation(s)

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Program Abstract (maximum 300 words)

The vision of the proposed **Community Organized Restoration and Learning [CORaL] Network** is to create and maintain an ongoing framework that builds the capacity of existing resources within the *Exxon Valdez* Oil Spill impacted region to ensure that current scientific information, skills, and activities are publicly accessible and serve ongoing needs as identified by local communities. The Alaska SeaLife Center submits this proposal as the administrative PI on a program that will be conducted collaboratively with Alaska Sea Grant, Alutiiq Museum and Archaeological Repository, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center. This network design, with seven pathways for participation that can be entered in any phase of the program, is inclusive of existing and future EVOSTC-funded projects. Through the activities in each pathway, the CORaL Network will ensure that: science outreach is relevant, co-created, and culturally responsive to our regional communities, leading to increased public utilization of available knowledge related to the EVOS; the participation of regional youth in community-based science projects increases diversity in future science projects; EVOSTC-funded Long-Term Research & Monitoring, Mariculture, and Restoration projects are integrated with community-identified needs; and increased understanding of Alaska Native knowledge and relations, cultural competency, and collaborative community research principles lead to active, community-informed restoration projects. By the end of 2026, the CORaL Network program intends to demonstrate that the impact of an active, collaborative, cross-sector network is greater than the sum of its parts and to maintain these ongoing collaborations as a legacy of the EVOSTC.

EVOSTC Funding Requested (round to the nearest hundred, must include 9% GA)

FY22	FY23	FY24	FY25	FY26	FY22-26 Total
$2,498,550	$2,508,119	$2,444,292	$2,445,434	$2,603,513	$12,499,908
FY27	**FY28**	**FY29**	**FY30**	**FY31**	**FY27-31 Total**
-	-	-	-	-	-
				FY22-31 Total	*$12,499,908*

Non-EVOSTC Funds to be used, (round to the nearest hundred) please include source and amount per source:

FY22	FY23	FY24	FY25	FY26	FY22-26 Total
-	-	-	-	-	-
FY27	**FY28**	**FY29**	**FY30**	**FY31**	**FY27-31 Total**
-	-	-	-	-	-
				FY22-31 Total	N/A

1. EXECUTIVE SUMMARY

The Alaska SeaLife Center proposes to collaborate with Alaska Sea Grant, Alutiiq Museum and Archaeological Repository, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center to design and implement the **Community Organized Restoration and Learning [CORaL] Network**. The goal of the CORaL Network is to leverage and build the capacity of existing resources within the *Exxon Valdez* Oil Spill impacted region to ensure that current scientific information, skills, and activities are publicly accessible and serve ongoing needs as identified by local communities.

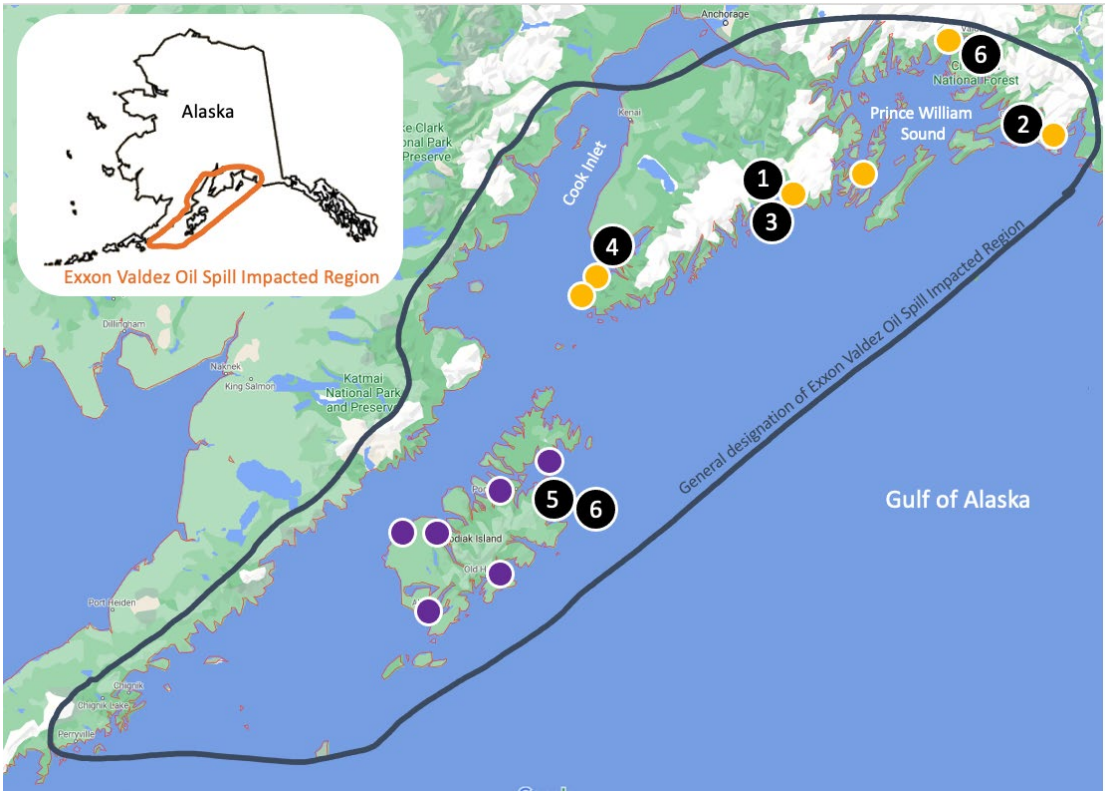

Figure 1. Locations of CORaL Network Reporting Partners within the EVOS Impacted Region

Figure 1 above shows the site locations of the six partners who have built the CORaL Network proposal. The numbers in the map correspond to the following organizations:

1. Alaska SeaLife Center (Seward)
2. Prince William Sound Science Center (Cordova)
3. Chugach Regional Resources Commission (Seward), with liaisons marked by yellow dots in the following communities – Chenega, Eyak (Cordova), Nanwalek, Port Graham, Qutekcek (Seward), Tatitlek, Valdez
4. Center for Alaskan Coastal Studies (Homer)
5. Alutiiq Museum and Archaeological Repository (Kodiak), serving as liaison to seven communities marked by purple dots - Akhiok, Chiniak, Karluk, Larsen Bay, Old Harbor, Ouzinkie, Port Lions
6. Alaska Sea Grant (Kodiak and Valdez offices)

This program uses the term “outcome” to refer to the changes over time that we expect to document as a result of the program’s activities; the term “outcome” can be used interchangeably with the concept of “goal”. We use the term “objective” to refer to specific, measurable, time-bound activities that the program intends to accomplish during the grant period.

Program Outcomes (Goals)

1. Science outreach is relevant, co-created, and culturally responsive to our regional communities, leading to increased public utilization of available knowledge related to the EVOS.
2. Regional youth participate in community-based pathways to science professions, building diversity among Alaska’s scientists and reinforcing an emerging community-based approach to future science and restoration projects.
3. Scientists are active partners in communicating and fostering STEM skills in communities where Long-Term Research & Monitoring, Mariculture, and Restoration projects are integrated with community-identified needs.
4. Network collaborations across the region are supported and sustained by capacity-building activities such as cultural and communication learning opportunities, internships, and community connections.
5. EVOSTC-funded resources across the region are effectively leveraged through an active, collaborative, cross-agency network of partners so that integrated projects demonstrate greater impact than the sum of individual projects.
6. Utilizing developmental evaluation techniques over the course of the 5-year program, the CORaL Network becomes a self-sustaining mechanism for ongoing collaborations and community-based restoration activities beyond the grant period.

The CORaL Network is designed to provide a framework for current and future community outreach collaborations between EVOSTC-funded projects in all focus areas happening across the region. To best

accomplish our intended outcomes, we have categorized objectives into six dimensions we refer to as inclusive pathways to collaboration.

Program Objectives: Pathways to Collaboration

CORaL NETWORK WEBSITE

One of the first activities the CORaL Network's core team will collaborate on is a website, which will act as a hub for resources and communications relevant to research, community science activities, and outreach in the spill impacted region. The target audience for this site is anyone who is interested in science-related activities happening in this region. Researchers designing a new project, for example, could visit the CORaL Network site to become connected with appropriate cultural, resource, and outreach liaisons from the communities relevant to their field work.

This site will also build a resource library that includes aggregating and organizing links to existing online data sources, visualizations, and collaborations, including EVOSTC-funded projects. This library would provide formal and informal educators with real-life data resources for curricula, as well as provide access to multiple data sources for community projects. Research projects would be recruited to provide data, videos, and tools to this library.

In addition to centralizing opportunities to share data, the website will include a discussion function where users can ask questions, collaborate on current and future projects, and make connections with local community resources. The website will offer an opportunity to subscribe to a CORaL listserv, so that information about learning opportunities and community meetings is broadcast in real time.

During the design phase of the website, the CORaL Network's core team will solicit input and resources from scientists, outreach specialists, educators, cultural experts, resource managers, and community members in the region to ensure that the design and content of the website are optimized for maximum accessibility and relevance to these regional stakeholders.

COMMUNITY SHARING

The CORaL Network will coordinate regular meetings between local Elders, community members, scientists, educators, and outreach specialists. It is anticipated that these meetings will be held adjacent to annual, existing conferences and summits in the region, as well as quarterly Chugach Elder council meetings and the Kodiak Rural Forum, a regular gathering of leaders from Kodiak's rural communities. Agendas for these facilitated sharing opportunities will rotate on a number of topics relevant to community, LTRM, Mariculture, and Restoration interests.

The meetings will be coordinated by the CORaL Network Program Manager and representatives from the Chugach Regional Resources Commission and the Alutiiq Museum and Archaeological

Repository. It is expected that these sharing events will result in specific collaborations where science and communities are mutually informed by co-created knowledge.

This activity will also directly support scientists spending non-research time engaging with cultural dimensions of the communities relevant to their field work by providing travel money outside of their field work and connecting scientists to local community liaisons. It is expected that these visits will support relationship building between scientists and communities and will foster the incorporation of local knowledge into future research design. We have budgeted to support these two-day "Scientists in the Community" opportunities for approximately four scientists annually. Applicants will work with Chugach Regional Resources Commission, Chugachmiut, and/or the Alutiiq Museum and Archaeological Repository to develop site plans before or after applying.

CULTURAL & COMMUNICATION COMPETENCY LEARNING OPPORTUNITIES

Core outreach partners will work closely with local culture bearers, traditional resource experts, and academic experts to create and organize learning opportunities for scientists, educators, and evaluators to become more adept in collaborative community research practices. Learning opportunities may also result in increased representation of Traditional Ecological Knowledge and the basics of archaeological site protection in outreach outputs and project designs. Included will be Alaska Native Relations courses facilitated by the Chugach Regional Resources Commission, which will offer a 3-day "capstone" course (e.g., "Applied Traditional Ecological Knowledge in Alaska) annually and a one-day "short" course (e.g., "Village Protocols") quarterly. We will also be continuing conversations with Drs. Courtney Carothers and Ginny Eckert about collaborating on learning opportunities that utilize what is being documented through the University of Fairbanks' Tamamta program, which is also working to bridge indigenous and western sciences through co-production of knowledge activities in other regions of Alaska (www.tamamta.org). In addition, Alaska Sea Grant, Alaska SeaLife Center, and the Center for Alaskan Coastal Studies are adept at creating science communication workshops (some of which used to be held annually through the Center for Ocean Sciences Education Excellence) and will use this expertise to add science communication modules.

Formative evaluation activities will be used in YRS 1-3 to create a comprehensive suite of learning opportunities, as well as to determine which opportunities would be available via Chugach Regional Resource Commission's online learning platform. Formative activities will also determine which learning modules may be offered by videoconference and which would best be delivered via in-person formats. All learning opportunities would be made publicly available and announced through the CORaL Network website.

INTERN INSTITUTE

The Center for Alaskan Coastal Studies will lead the development and implementation of a unique, immersive Intern Institute in collaboration with other members of the CORaL Network. The five-week Intern Institute will happen annually and be open to young adults from Alaska, with preference given to individuals from the spill-affected region. In each year, this intensive, hands-on opportunity will be offered to 10 participants. In order to make the experience accessible to individuals with financial need, all participants will receive a stipend.

The Intern Institute will be built around core experiences, each approximately 1 week in duration. We will partner with scientists, educators, and community members to design and deliver a diverse array of hands-on core experiences focused on relevant topics and practices in long term research and monitoring, mariculture, archaeology, restoration, animal care, science communication, community-based science, and place-based education. During this program, participants will travel alongside the Intern Institute Program Coordinator to Homer, Seward, Kodiak, and Cordova.

These core experiences will be complemented by opportunities for reflection, discussion, iterative feedback, leadership development, and building communication skills. In this way, the diverse core experiences will be organized into a cohesive, fun, and highly effective way to learn how scientific knowledge is being built and used in the region. We will help participants to attain internship related skills of research design, data collection, analysis, field work, cultural competency, and science communication. Activities will weave creativity, art, and stories alongside science, technology, engineering, and math for a holistic and culturally-sustaining "STEAM" (science technology, engineering, art, and math) experience. In addition, the Intern Institute will be designed to develop each participant's professional network and build their familiarity with research entities, education centers, and community organizations in the region. We will provide ample opportunities for participants to explore different career options, build connections with organizations that offer internships, and consider other possibilities for pursuing work in STEAM fields.

The goals of the Intern Institute area as follows:

a) Increased participation in internship opportunities by local young adults.

b) Foster STEAM identity and interest in science among young adults from the spill-affected region.

c) Build science understanding and skills among young adults which will help them to support EVOSTC-funded projects and community-based monitoring efforts.

d) Encourage stronger community-science connections through hands-on participation by young adults, such that Intern Institute participants can become ambassadors of EVOSTC-funded projects in their communities.

There are currently a number of internship opportunities with local science and education entities in the region, especially in the summer seasons. However, we see very few local youth applying for these internships because our youth aren't able to afford participating in unpaid internships and/or don't see themselves represented in science-related jobs. The Intern Institute is designed to recruit these youth into paid internship positions and help them build a competitive resume for future internship, job, and educational opportunities. In addition, the Intern Institute Program Coordinator will work individually with local youth who are interested in applying for internships beyond the Intern Institute by assisting them in finding, selecting and applying for relevant and appropriate internship opportunities.

When local youth don't have a strong resume of volunteerism or internships, it is difficult for them to compete in candidate cohorts with youth who have been able to gain and demonstrate these experiences. Historically, organizations who recruit for their seasonal internship programs understandably select those intern candidates with the strongest backgrounds who they assume will be able to work most independently on science and outreach projects. In addition to building a strong cohort of intern candidates among our local youth through the Intern Institute, we will also support those entities who hire interns in our region through an optional online mentorship discussion thread. The Intern Institute Program Coordinator will provide additional assistance, guidance, and problem-solving help as needed to both internship hosts and interns. These supports will build capacity and willingness among local organizations to select local interns while also fostering interest and developing needed skills among young adults so that their participation in local internships is meaningful, rewarding, and effective for the hosts and interns alike.

COMMUNITY SCIENCE & OUTREACH RESOURCES

In YRS 1-2, the CORaL Network core team will conduct a formative assessment of regional community participation in and utilization of publicly available science information. Key takeaways from this assessment will inform improvements to existing resources, the design of new tools, and the methods by which these resources are made available to stakeholders. In its design phase, the CORaL Network website will synthesize existing community science and outreach resources relevant to the region, including both best practices and data sets. Additional resources made available over the course of the grant period will continue to be integrated into the website design.

Our budget supports the capacity of the six core CORaL Network partners to develop and maintain additional resources in four categories:

a) Organizational Outreach Venues and Expertise

Rather than work with individual EVOSTC-funded projects to describe and fund dozens of separate outreach products, the core CORaL Network partners have budgeted for the ability to provide an annual suite of programs based on their unique outreach expertise.

These organizations will work with EVOSTC-funded projects to match ongoing science projects with these outreach products and services, creating specific work plans on an annual basis. Education and outreach programs in our organizations are generally not included in operational costs but must be directly supported by fees-for-service or grant funds. This usually requires securing multiple sources of funding annually for each outreach specialist.

Alaska SeaLife Center

The Alaska SeaLife Center's Education Department will produce the following outreach products annually: one distance learning program, four Virtual Visit programs, one Virtual Field Trip, two in-person programs, and content for one rotating mini-exhibit installation.

Alaska Sea Grant

Alaska Sea Grant will work closely with the EVOSTC funded project leads in all focus areas throughout the project to help connect scientists with educators and community members. Alaska Sea Grant will annually provide at least one video, a webinar series highlighting EVOSTC funded projects, one data visualization training event for mariculture stakeholders, one community outreach event as determined by community needs, printed materials communicating EVOSTC funded science projects, host booths at three conferences, and will work with school districts within the EVOS region to develop a program to get EVOSTC funded scientists/science into the schools and/or a teachers training program.

Alutiiq Museum and Archaeological Repository

The Alutiiq Museum and Archaeological Repository (AMAR) will develop educational resources aimed at sharing Kodiak archaeology, Alutiiq prehistory, Alutiiq harvesting traditions, and historic preservation messages with multiple audiences—students, educators, tribal members, land managers, researchers, and the public. In response to issues of vandalism related to the Spill, resources will teach the value of archaeological sites and promote historic preservation. This effort will include working closely with the Kodiak Island Borough School District to develop new curriculum and linked resources for elementary, middle, and high school use, providing opportunities for students to visit the museum and engage with archaeologists, traveling to rural schools to teach and share resources, supporting summer camp programs hosted by Kodiak area tribal and government organizations, and hosting an annual summer intern program in archaeological documentation and collections care at AMAR.

To share Kodiak archaeology and heritage preservation messages with the broader public the museum will produce printed materials, build a new website, lead a public education campaign in partnership with local media, create publications, and expand

and update its exhibits. New exhibits will include an Alutiiq history timeline tied to the development of the Alutiiq Center Building funded by EVOSTC, as well as displays on archaeology, rock art, and harvesting traditions all featuring archaeological information and artifacts. Publications will include a summary of Alutiiq artifacts and tool types, and a summary of the character and state of Kodiak archaeological record based on site stewardship projects carried out by the museum.

Resources produced as part of the project will be shared with organizations throughout the Kodiak Archipelago including tribes, Alaska Native Corporations, federal and state agencies, municipal governments, educational institutions, and libraries. In addition, the Alutiiq Museum and Archaeological Repository will provide opportunities for personnel from EVOSTC funded science projects to learn about Kodiak's unique heritage and rural communities and will provide avenues for scientists to share their research and solicit feedback from local community members, including hosting an annual lecture series.

Center for Alaskan Coastal Studies

The Center for Alaskan Coastal Studies (CACS) will produce the following outreach products annually: seven in-person visits and seven virtual, interactive, place-based programs to rural and remote communities in Kachemak Bay and/or the Alaska Peninsula; twelve in-person Onboard Oceanography programs in Kachemak Bay; the creation of an annual Teen Expedition in Kachemak Bay that focuses on topics related to EVOSTC-funded monitoring, mariculture and restoration and includes EVOSTC-funded scientists as speakers and activity leaders; the incorporation of EVOSTC-funded science into Onboard Oceanography programs, the curriculum for CACS's Alaska Coastal Ecology field trips, and professional development opportunities for all seasonal educators and interns.

Chugach Regional Resources Commission

The Chugach Alaska Regional Resources Commission will be annually providing one multi-day core course and four single-day short courses from their Alaska Native Relations training program.

Prince William Sound Science Center

The Prince William Sound Science Center will produce the following outreach products annually: six new in-person Discovery Room lessons, six *Field Notes* radio broadcasts, six Breakwater newsletter pieces, six *Delta Sound Connections* or similar news articles for lay audiences, and content for one rotating mini-exhibit installation.

b) Networked Video Kiosk Stations

To create a regional system of demonstrating current EVOSTC-funded work, the Alaska SeaLife Center, Alaska Sea Grant, Alutiiq Museum and Archaeological Repository,

Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center will each install at least one video kiosk at their site. Most of these kiosks will be assembled using tablet technology and may be mobile stations that can be used in different locations or in outreach programs. The Alaska SeaLife Center and the Prince William Sound Science Center will construct more robust kiosk stations appropriate to their exhibit halls with heavy visitation.

These kiosks will be linked to a video library, also available on the CORaL Network website. Videos will be created by these core partners with EVOSTC-funded scientists. The Valdez Museum has also expressed an interest in creating videos that integrate current scientific data with historical community contexts. These videos are expected to be 2-5 minutes long and may be played on a loop or be available for visitors to select from a touchscreen.

The ability to install a system of networked video kiosks, linked to a shared video library, is made possible by the fact that the core CORaL Network partners include visitor centers and outreach sites. These kiosks will provide current data to community members, tourists, and visitors across the region. We also anticipate that additional kiosks could be installed in ferry terminals, harbor areas, chambers of commerce, the Kodiak National Wildlife Refuge visitor center, Discover Kodiak, and other high traffic areas across the region.

c) Data Visualization App for Community Science

Alaska Sea Grant will lead the design of a new data visualization app for citizen scientists, mariculture operators and resource managers through a participatory stakeholder process. The intention is that mariculture operators and other community members will be able to record real-time observations while on the water. It is anticipated that a mobile app which can translate data into visualization dashboards will increase the immediate accessibility of information and, thus, the utilization of that data. The visualization dashboard will be available on a newly constructed website. Alaska Sea Grant will work closely with EVOSTC-Mariculture project leads to incorporate proposed farmer-led environmental monitoring efforts into the app. Alaska Sea Grant Education Specialist will work with EVOSTC-LTRM and EVOSTC-Restoration project leads to develop appropriate network pathways to include environmental data into the app as driven by community needs. We will also work with project leads and the app contractor to conduct data verification.

An annual training for the use of the app will be conducted throughout the life of the project. Training sessions will include the involvement of EVOSTC funded project leads, mariculture farmers, and community members. Throughout the data visualization app's iterative development process, we will continue to incorporate additional

environmental data as relevant to EVOS region stakeholders - expanding its application beyond the mariculture focus.

d) Community Pathways for Student Science [COMPASS]

The overarching goal of the COMPASS (Community Pathways for Student Science) activity is to establish a regional partnership of schools participating in the citizen science process. COMPASS will build on a successful community science-education partnership initiated in Seward in 2018 (originally called the SeeBird Project). This project created student-teacher-researcher partnerships and engaged high school students in hands-on data collection in the Resurrection Bay area (please see Letters of Reference from Kenai Peninsula Borough School District, Colin Mullaly, and Upward Bound). While the SeeBird project focused on monitoring of seabirds and their habitats, the COMPASS projects will address a broader suite of ecosystem components based on community interests.

The objectives of COMPASS are to (1) establish a regional network of schools involved in the development, implementation, and data transfer of citizen science projects and partnerships; (2) create a community network and communication platform to support STEM science education and generation of scientific data relevant to monitoring of the Gulf of Alaska and local community interests; (3) develop best practices and tools associated with implementing citizen science projects in secondary education; (4) support student competency skill development, diversity and inclusion, curriculum development, and professional career development in the region; (5) increase awareness and outreach about the Gulf of Alaska ecosystem, as well as EVOSTC-funded restoration and monitoring activities.

COMPASS will establish a regional network of school participants in three phases over YRS 1-6. The start-up phase (YRS 1-2) involves mapping and formational assessment of interests on the five school districts (Kenai Peninsula, Chugach, Cordova, Kodiak, Valdez). The phase involves communicating with districts, schools, and researchers to share ideas, scope interest to participate, gage interest in specific topics, discuss local questions and concerns, and build support. Pilot phase partners are identified, and shared goals are developed with the partners. The design step involves development of school-specific curriculum plans and logistics plans for the founder schools. The curriculum templates detail processes for selection of research questions, academic standards and practices, lesson plans, and student involvement activities. Logistics plans contain detailed schedules of events, milestones, and tasks. In the formational assessment, a broader network of interested participants will be engaged in a dialogue and planning effort to join the COMPASS network long-term.

In the build-up phase (YRS 2-5), the curriculum modules are delivered in pilot communities and the project is scaled to a network of members. The implementation phase may look different across partner schools, but will start with a spring-term

meeting, prior to classroom year one (CY1), with a selection of students, student-leaders, the school champion, and research partners in coordination with local teachers and the school. With student and community participation, the initial meeting will continue to build enthusiasm and refine the research topic, goals, objectives, timeline, and deliverables. The initial classroom workshops and training will take place in the fall-term of CY1 with the intent to hook participating students and teach the skills required to gather the data for the research question. Classroom visits will be supplemented with virtual instruction workshops and continue focus on the compilation of data, developing student-driven project-specific questions, analysis skills, and developing outreach products. The CY1 spring workshop will focus on finalizing the initial analysis and outreach products, communicating the findings, sharing outreach products, and teaching the CY1 student-leaders how to train the classroom year two (CY2) students. A summer summit will review the implementation and progress of CY1 with stakeholders and revise the curriculum plan for CY2. This process will repeat for CY2 and CY3 with a sustainability template and transition plan being developed during CY3.

During the dissemination phase (YR 6), the deliverables are finalized, and long-term plans solidified. The four outcome areas include educational, outreach, scientific, and sustainability outcomes. Feedback into design and implementation will be collected to develop best practices and template for other network schools. Student learning outcomes are evaluated with short-term goals (understanding of scientific process and local issues) and long-term goals (career pathways, STEM education). Acquired scientific data streams will be evaluated to ensure quality of data outputs, and for potential refinement of long-term data protocols. A guideline document of best practices and toolkit will be made available on the CORaL Network website and offered for dissemination via outreach channels such as the community-based monitoring handbook (Sea Grant 2015). Long-term sustainability for participating schools will be built into network plans via student alumni mentorships and working with communities to establish resources beyond the 3-year pilot phase.

ITERATIVE ADAPTATIONS

Program and activity evaluation will use a developmental or iterative approach that is intended to drive regular refinements or modifications to the specific activities and the network model as a whole [reference section 5(c) for a more detailed plan]. There will be multiple cycles of data generation and interpretation, aligned with key opportunities for decision-making. Network participants will be invited to participate in the design and interpretation of evaluation questions.

Sustaining for Impact

The CORaL Network workplan and budget are thoughtfully designed to support iterative improvements towards sustainability, so that regional cross-sector collaborations remain a legacy of EVOSTC beyond this 5-year grant

period. We have planned for a three-year coalescing period, wherein the first year anticipates a rigorous meeting schedule to operationalize immediate activities, conduct formative activities for emerging activities, and build an evaluation plan by December 2022. YRS 2-3 will continue an intense meeting schedule as activities are implemented and new partners are recruited.

Our plans anticipate focusing YRS 4-5 integrating additional partners into CORaL Network activities, as well as utilizing evaluation data to adapt ongoing activities. These two years will also see us focusing on seeking additional 5-years of funding. While we believe these first five years will allow us to create a strong foundation towards a self-sustaining network, a long-term self-sustaining model requires time to coalesce, maintain, and stabilize, before the full potential of a network is realized. The CORaL Network is developed with this end goal in mind.

2. RELEVANCE TO THE INVITATION

Relevance to the Education & Outreach Focus

The Community Organized Restoration and Learning [CORaL] Network's primary intention is to leverage and build the capacity of existing resources within the *Exxon Valdez* Oil Spill impacted region to ensure that current scientific information, skills, and activities are publicly accessible and serve ongoing needs as identified by local communities. This Network meets EVOSTC's call for the Education & Outreach Focus area to develop an infrastructure that supports "the dissemination of information, increased public knowledge of the Spill, and community involvement in research and restoration activities". In addition, the CORaL Network pathways are designed to increase community-driven research and restoration activities, which we posit will increase the relevance – and therefore the utilization of – ongoing scientific activities and data.

In alignment with EVOSTC's recognition that there is value in leveraging and supporting education and outreach resources that already exist in centers of expertise, the CORaL Network brings together six core partners who are trusted as community anchors, serve as liaisons between scientists and audiences, are experts in outreach development and deployment, and are capable of implementing large-scale partnership projects. Together, we bring content expertise in marine science outreach for school and public audiences, curriculum development, exhibit design, media creation, archaeological research and repositories, Alaska Native relations training, science communication, the facilitation of traditional ecological and western science knowledge, and community science practices. The Alutiiq Museum and the Chugach Regional Resources Commission have existing relationships with a total of fourteen villages in the spill region, providing an accessible network of liaisons to scientists and educators. Prince William Sound Science Center is the administrative PI of Gulf Watch Alaska, including the Herring Research and Monitoring Team. Alaska Sea Grant provides mariculture expertise and relationships with emerging mariculture projects. And as evidenced by the 33 Letters of Support included in our proposal, these six core partners regularly collaborate with numerous outreach, science, and community organizations in the region. Regardless of which LTRM, Mariculture, Restoration, or other programs and projects that EVOSTC funds in 2022-2031, the CORaL Network is well positioned to solidify existing relationships, build new collaborations, and integrate other activities into the broader impact of our adaptive network structure.

The CORaL Network is intended as a community of practice, rather than as a hierarchical structure that distinguishes between members and nonmembers. While the core team of six partners will facilitate the implementation, evaluation, and maintenance of network activities, their role is really to catalyze the collaborations and community input essential to designing the most effective activities. We take as our inspiration the network theories of Beverly and Etienne Wegner-Trayner who define a community of practice as "formed by people who engage in a process of collective learning in a shared domain of human endeavor." We see participants in the CORaL Network activities as co-practitioners who integrate scientific and local knowledge into community-driven restoration projects.

Networks thrive when participants recognize that collective learning and collaboration result in higher-impact projects; that is, when the network is greater than the sum of our individual activities. Networks are also sustained when collaborations become interdependent for the benefit of the whole. In this way, we envision the CORaL Network as a legacy output for EVOSTC. While the first three years of our activities will focus on coalescing the network, the longer term activities focus on sustaining the network relationships and activities beyond the grant period.

Our intention to build sustainability depends on the capacity and relationship-building activities in our proposal. The Learning Opportunities that we describe build capacity by generating understanding of local culture, traditional knowledge, effective science communication methods, and community participation practices. Furthermore, building these practices will also lead to stronger relationship-building between scientists, educators, tribal entities, and community members. The Community Sharing events then bring together these diverse stakeholders to facilitate effective knowledge sharing, which we anticipate will result in new partnerships and community science projects.

Target Audiences

The CORaL Network is designed to inclusively build the capacity of scientists, formal and informal educators, tribal entities, nonprofits, resource management agencies, and similar stakeholders to sustain a network of practice beyond the grant period. Our model assumes that, with appropriate evaluation, we will be able to demonstrate broad and effective impact within regional communities and the science field through these network activities.

Network Participation: The website and its resources will be publicly available, designed specifically to be used by researchers, resource managers, formal and informal educators, and community members who are doing work and/or are interested in science activities happening within the spill-impacted region. The website's dialogue feature, intended to drive conversation threads and encourage collaborative discussions, will be curated.

Community Sharing: Community sharing will be conducted through regular meetings between local elders as traditional bearers of cultural and ecological knowledge, community members, scientists, and outreach specialists. Meetings will be planned well ahead of time, with rotating agendas focusing on different aspects of resource knowledge. Adjacent audiences may include community members, social scientists and scientists from other sectors, or members of the public.

Cultural & Communication Competency Learning Opportunities: These learning opportunities will be provided by local culture and ecological knowledge bearers, tribal entities, and academic experts. Some may be provided online, in person, and/or in hybrid synchronous-asynchronous formats. The target audiences for these opportunities will be scientists, resource managers, and outreach specialists who work or intend to work with local tribal communities in the region. Adjacent audiences may be other outreach or science-oriented partners working in the community (e.g., seasonal kayak companies).

Intern Institute: The target audience of the intern institute will be young adults, especially those who may historically be underserved in science-related job opportunities and/or find unpaid internships a barrier to building their resumes for competitive paid positions. This activity will also target current and potential internship hosts as a means to increase the capacity of hosting sites to support local and/or novice intern candidates. Adjacent beneficiaries may include scientists, educators, or community members who provide field experiences for the interns and co-learn during the activities.

Community Science Resources: Resources (e.g., existing online data sets, manuals, visualizations) that are aggregated through the CORaL Network website will be publicly available. The Data Visualization App that will be designed and implemented in conjunction with the Mariculture Focus Area and will target mariculture farmers and stakeholders as its key demographic. Adjacent beneficiaries will be formal and informal educators who may utilize this tool in future curricula and programs. The key

beneficiaries of the Community Pathways for Student Scientists [COMPASS] activity will be formal educators, school districts, informal educators, and scientists who are interested in developing ongoing, community-driven science projects through classroom participation. Through this pathway, we will also provide direct programming to the general public and visitors to our education sites.

Iterative Adaptations: Evaluation is intended to improve CORaL Network activities for the benefit of all network stakeholders. Community members will be consulted during evaluation design and in interpreting resulting data.

3. PROGRAM PERSONNEL

Key personnel for the Community Organized Restoration and Learning [CORaL] Network are listed in alphabetical order by last name. CVs for each are attached as appendices to this proposal.

Lauren Bien, Education Director, Prince William Sound Science Center

Ms. Bien will represent the Prince William Sound Science Center on the program's core team and will oversee the development of internal programs at the Prince William Sound Science Center. She will participate at 50% FTE for the duration of the program.

April G.L. Counceller, Ph.D., Executive Director, Alutiiq Museum and Archaeological Repository

Dr. Counceller will oversee the Alutiiq Museum and Archaeological Repository's involvement in the CORaL Network as the museum's PI at 7% FTE annually. She will provide project leadership and review, share initiatives with the tribal community, and supervise reporting and evaluation. As a fluent Alutiiq speaker, she will also participate in developing Alutiiq language content for publications and exhibits.

Jeff Dillon, Senior Education Manager, Alaska SeaLife Center

Mr. Dillon will participate in core leadership meetings and oversee the development of internal programs at the Alaska SeaLife Center. He will participate at 5% FTE for the duration of the program.

Ginny Eckert, Ph.D., Director, Alaska Sea Grant

Dr. Eckert will participate in leadership meetings and oversee Alaska Sea Grant activities but is not included in the CORaL Network budget.

Katie Gavenus, Program Director, Center for Alaskan Coastal Studies

Ms. Gavenus will coordinate the Center for Alaskan Coastal Studies' (CACS) involvement in the CORaL Network and serve as a representative on the CORaL Networks core team. At 33% FTE annually, she will oversee CACS's overall work in the project and will coordinate, advise, and collaborate with staff leading CORaL Network education and outreach activities, especially the Intern Institute as well as CACS's Teen Expedition, Onboard Oceanography programs, and educational outreach visits and virtual programs.

Melissa Good, Mariculture Specialist, Alaska Sea Grant

Ms. Good is a Mariculture Specialist with Alaska Sea Grant, in the Kodiak offices, who will work with the CORaL Network at 8% FTE annually. She will serve as the liaison between mariculture researchers, mariculture-related partners, and the CORaL Network, and will lead CORaL activities in the Kodiak region.

Willow Hetrick-Price, Executive Director, Chugach Regional Resources Commission.

Mrs. Hetrick-Price will serve as the CRRC representative on the CORaL Network's core team at 10% annually, leading facilitation of scientist and educator collaboration and outreach in the Alaska Native community.

Katrina Hoffman, President and CEO of Prince William Sound Science Center, Executive Director of Oil Spill Recovery Institute

Ms. Hoffman will participate in core program meetings and oversee Prince William Sound Science Center activities. No salary support is requested.

Tuula Hollmen, Ph.D., Research Associate Professor of Marine Science (University of Alaska Fairbanks), Senior Scientist at the Alaska SeaLife Center

Dr. Hollmen will guide the development of the COMPASS curriculum as a community science resource for school districts in the region. While Dr. Hollmen is a member of the Alaska SeaLife Center team, her salary is paid through UAF and can be found in the contracts section of the budget. She will commit 16.7% FTE (2 months) of her time annually from YRS 1-6.

Molly E Odell, Director of Grants & Contracts/Archeologist, Alutiiq Museum and Archaeological Repository

Ms. Odell will serve as the Alutiiq Museum and Archaeological Repository's project manager and representative on the CORaL Network's core team, lead facilitation of scientist and educator participation in community learning opportunities, guide and participate in Alutiiq Museum and Archaeological Repository outreach programs and curriculum development, and lead intern training in archaeological field methods. Her involvement will vary from 40% to 42% FTE based on annual tasks.

Henry Reiske, Wynn Nature Center/Coastwalk Coordinator, Center for Alaskan Coastal Studies

Mr. Reiske will participate in activities related to the Intern Institute as well as other CORaL Network outreach and education projects. He brings extensive environmental community-based monitoring and high school/college intern mentorship experience that he will use to also assist the CORaL Intern Institute Program Coordinator during the first few years of the program. No salary support is requested.

Tara Riemer, Ph.D., President and CEO, Alaska SeaLife Center

Dr. Riemer will act as CORaL Network PI until the Alaska SeaLife Center hires a Chief Science and Education Officer. She will continue to participate in leadership meetings and oversee Alaska SeaLife Center activities. She brings extensive experience in managing large, complex federal grants containing numerous subawards. No salary support is requested.

Amy F Steffian, Chief Curator, Alutiiq Museum and Archaeological Repository

Ms. Steffian will lead the development of publications (video, website, books, media) and exhibits for the Alutiiq Museum and Archaeological Repository. She will supervise staff, develop and review content, and lead evaluation. Her involvement will vary from 11% to 25% FTE based on annual tasks.

Beth Trowbridge, Executive Director, Center for Alaskan Coastal Studies

Ms. Trowbridge will participate in leadership meetings and oversee the Center for Alaskan Coastal Studies' activities. No salary support is requested.

TBD, Education Specialist, Alaska Sea Grant

Alaska Sea Grant has hired an Education Specialist who will work on this project at 25% FTE annually. This person will work from the Valdez office and serve as the Alaska Sea Grant representative on the CORaL Network's core team and participate in Network education and outreach activities. This individual will also lead the creation and implementation of the Data Visualization App to support Citizen Science throughout the EVOS spill-affected region.

TBD, Chief Science and Education Officer, Alaska SeaLife Center

The Alaska SeaLife Center will hire a Chief Science and Education Officer in 2021. This position will become the CORaL Network PI, with responsibility for oversight of the program's administration, internal and external evaluation, the facilitation of decision-making by the CORaL Network's internal steering committee of six organizations, and communications with the EVOSTC. During the design phase of the CORaL Network Program (YRS 1-3), the ASLC CSEO will commit 30-40% of their time. Their involvement will be 25% FTE for the remaining years.

TBD, CORaL Network Program Manager, Alaska SeaLife Center

The CORaL Network Program Manager would be hired in YR 1 to oversee all administrative tasks, scheduling, compliance, reporting, and tracking for this program. This position would support all of the core partners and their activities at 100% FTE for all years of the grant period.

TBD, Senior Evaluation Manager, Alaska SeaLife Center

The Senior Evaluation Manager would be hired in YR 1 and would be responsible for managing the external evaluation contract, facilitating the creation of an evaluation plan in YR1, designing and implementing assessment tools for program activities, providing evaluation support to partner activities, and reporting on ongoing findings. The Senior Evaluation Manager will commit 100% of their FTE in YRS 1-3, 75% in YR 4, 50% in YR 5s.

TBD, Education Administrator, Alaska SeaLife Center

The Education Administrator would be hired in YR1 to oversee the development of RFPs, proposal reviews, and grantee management. This position would assume the role of a grants officer by developing relationships with grantees, and providing mentorship as appropriate. This position will also coordinate program support at the Alaska SeaLife Center. The Education Administrator will be committed to 75% FTE for all 5 years.

TBD, Education Specialists, Alaska SeaLife Center

The Alaska SeaLife Center will allocate and hire multiple Education Staff to implement annual outreach products such as Distance Learning programs, Virtual Visits, Virtual Field Trips, in-person programming, and exhibit content. In total, 168% FTE of Education Specialists are supported in the budget.

TBD, CORaL Network Intern Institute Program Coordinator, Center for Alaskan Coastal Studies

The CORaL Network Intern Institute Program Coordinator would be hired in YR 1 with 100% FTE dedicated to the activities of the CORaL Network for all 5 years. Specific emphasis of this position is on the planning, implementation, and follow-up from the CORaL Intern Institute, as well as program delivery for Teen Expedition, Onboard Oceanography programs, and educational outreach visits and virtual programs.

TBD, Education Specialist, Center for Alaskan Coastal Studies

The CACS Education Specialist with the CORaL Network would be hired in YR 1 with 100% FTE dedicated to the activities of the CORaL Network in all 5 years. Specific emphasis of this position is on the planning, implementation, and follow-up from CACS Onboard Oceanography programs, annual Teen Expedition, educational outreach programs in remote communities, and other education and outreach activities of the CORaL Network.

4. PROGRAM ADMINISTRATION

This proposed Community Organized Restoration and Learning [CORaL] Network program is a collaboration between the Alaska SeaLife Center, Prince William Sound Science Center, Alaska Sea Grant, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Alutiiq Museum and Archaeological Repository.

The Alaska SeaLife Center is submitting this proposal as the administrative PI on the program. Alaska Sea Grant, Alutiiq Museum and Archaeological Repository, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center will receive subawards to conduct the activities described in their letters of commitment (see attached). Formal subaward agreements will be signed upon the start of this program, and subawardees will be reimbursed for actual expenses based on monthly invoices submitted in a defined format. Subawardees have the option to request bimonthly or quarterly invoicing. Some subawards include contracts with other network partners (e.g., Chugach Regional Resources Commission will have a contractual relationship with Chugachmiut to build learning opportunities and a network of joint resource/cultural liaisons in community sites); the administration of these contracts will be the responsibility of the reporting subaward partner (in this case, Chugach Regional Resources Commission).

Subaward recipients who conduct a timely federal single audit (A-133 audit) with no recent history of noncompliance with federal grants will not be required to submit detailed invoice backup. Further backup (e.g., copies of receipts) will only be requested if review of the transaction list raises compliance questions. This process is used for North Pacific Research Board and Alaska Ocean Observing System subawards to meet federal grant standards for subaward monitoring.

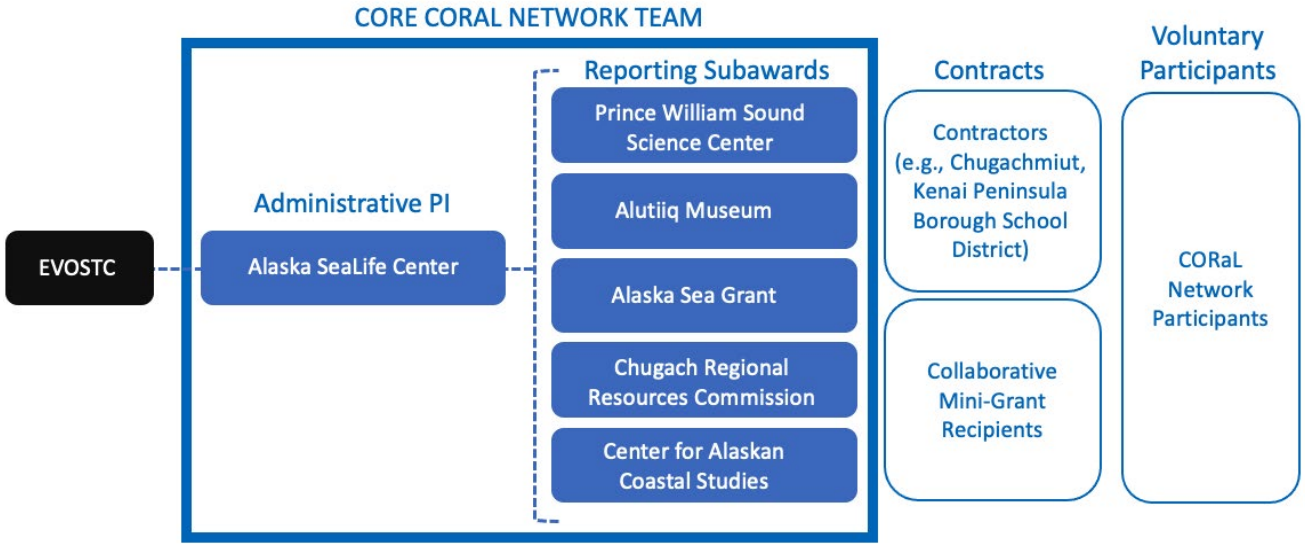

Figure 2. Organizational Chart for Community Organized Restoration and Learning [CORaL] Network Program

The Alaska SeaLife Center will create contracts with the five reporting subawards no later than Q2 of YR1 (2022) to include annual reviews of deliverables, reporting schedules, and policies for request modifications to the original scope or budget of the contract. Representatives from all five organizations are committed to attending monthly planning meetings coordinated by the Alaska SeaLife Center, which will provide consistent opportunities to monitor compliance. Contracts will include a quarterly option to cancel subawards, whether for noncompliance or the inability of an organization to maintain the necessary capacity to complete their activities. In such a case, the Alaska SeaLife Center will immediately propose to EVOSTC a change in budget, scope, or schedule to redistribute critical network activities to other partners.

Education & Outreach efforts rely heavily on human-to-human engagement rather than equipment or contract costs. Therefore, the CORaL Network partners have included adequate staff time in their budgets to participate in monthly planning and coordination meetings. It is anticipated that meetings may occur even more frequently in the first three years of the program, during the iterative design phase of the multiple projects that partners are implementing collaboratively. In addition, staff time has been included to implement network activities, build relationships with and between communities and scientists, evaluate specific projects and the program framework, adapt activities based on evaluation reports, and fulfill the administrative obligations of the grant. The CORaL Network supports staffing at the Alaska SeaLife Center, Alaska Sea Grant, Alutiiq Museum and Archaeological Repository, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center to a level that makes it possible for these organizations to build a sustainable network that delivers on ambitious regional outcomes while also supporting EVOSTC-funded science projects through existing program expertise. The CORaL Network also proposes hiring a program manager, an evaluator, and a part-time grants officer to fill skill gaps in the program framework, as well as approximately 5.5 FTE of staff time to fill gaps in implementation capacity. These additional staff hours will be essential to be able to serve the entire network, including all EVOSTC-funded scientists, regional community members, and outreach specialists.

The Seward Association for the Advancement of Marine Sciences, dba Alaska SeaLife Center, has a negotiated indirect cost rate of 49% for programs using facilities and a negotiated special indirect cost rate of 32% for

programs not using facilities. This indirect cost rate agreement is dated 2015 with an extension through April 30, 2022 (agreement and extension letter are attached). This rate was negotiated through the United States Department of Commerce, National Oceanic and Atmospheric Administration and includes facility costs such as utilities and maintenance, finance and grants management services, human resources services, and executive management. As most of the activities in this program do not rely heavily on the more expensive aspects of the Alaska SeaLife Center's facility and animal-related capabilities, we are utilizing the special indirect cost rate of 32% applied to modified total direct costs in the budget. Per federal indirect policies, the portion of subawards over $25,000 will not incur any Alaska SeaLife Center indirects. We have assumed that the reporting subawards will be in five-year increments under two separate prime awards over a ten-year program period.

The indirect cost rate details utilized in the subawards with Prince William Sound Science Center, Alaska Sea Grant, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Alutiiq Museum and Archaeological Repository are listed in the subaward budget details.

5. PROGRAM MANAGEMENT: DESIGN AND IMPLEMENTATION

A. Selection and implementation of an internal outreach steering committee

The internal outreach steering committee of the CORaL Network will be composed of leadership at the Alaska SeaLife Center, Alaska Sea Grant, Alutiiq Museum and Archaeological Repository, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center. This committee will meet monthly to provide leadership on program development, evaluation, and network collaborations. Each of these organizations is committed to close collaboration, as well as the deliverables outlined in their individual letters of commitment (attached).

The internal outreach steering committee will also recruit outreach specialists and social science experts to participate in the design phases of activities.

Distribution of and addressing program steering committee and EVOSTC work plan comments to the PIs

The CORaL Network is a fully collaborative program, with programmatic decision making created through discussions among the six core partners who comprise the program's steering committee. As Administrative PI, the Alaska SeaLife Center will provide staff to facilitate partnership meetings, track budgets, and facilitate reporting. The ASLC will serve as the liaison to EVOSTC, sharing EVOSTC work plan comments with the steering committee during regular monthly meetings. The Alaska SeaLife Center PI will represent the network in conversations with EVOSTC and will report on how recommendations by the EVOSTC are addressed.

B. Evaluation of project progress and measuring program success

The CORaL Network has included both internal and external evaluation capacity in its proposed plan. A Senior Evaluation Manager will be hired by the Alaska SeaLife Center to provide evaluation for discrete project components, such as the Intern Institute. This capacity does not currently exist at any of the partner organizations within the spill-impacted region and is essential for providing data-driven feedback to iteratively adapt and improve outreach outcomes.

The Senior Evaluation Manager and the external evaluation contractor will work closely with one another and the CORaL Network's core team to design an evaluation plan while simultaneously conducting needs assessment activities to inform program design. This formal evaluation plan will be shared with the EVOSTC for feedback no later than December 2022, and will clearly outline outcomes, objectives, methodologies, and timelines for multiple evaluation activities. The evaluation plan will use a developmental or iterative approach that may result in regular refinements or modifications to the grant program and network model. There will be multiple cycles of data generation and interpretation, aligned with key opportunities for decision-making. Evaluation summaries will be included in annual CORaL Network reports to EVOSTC and activity stakeholders. The evaluation will deliver results and feedback in user-friendly formats that effectively communicate to stakeholders of different backgrounds and professional roles or responsibilities.

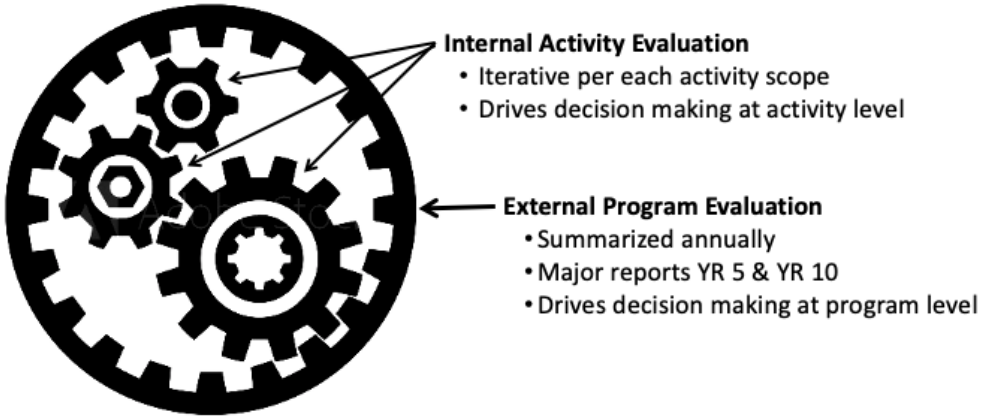

Figure 3. Relationship between internal and external evaluation activity timelines

Internal activity evaluation will be used to drive decision making and adaptations between each iteration of an activity (e.g., between the 2022 Intern Institute and the 2023 Intern Institute). External program evaluation will drive decisions about whether changes should be made to the CORaL Network model design. The final evaluation plan will utilize YR 5 as an opportunity to review program outcomes with EVOSTC and other stakeholders and propose adaptations to activity methods before YR 6.

Throughout the grant period, the internal Senior Evaluation Manager will be responsible for assessing the effectiveness of the activities such as the Intern Institute, the Mariculture data app, the COMPASS program in the schools, the CORaL Network resources, kiosks, and learning opportunities.

The Senior Evaluation Manager will focus on learning objectives organized by activity, such as:

- To what extent does the interactive website, community sharing, community science tools, cultural learning opportunities, and Intern Institute lead to high impact projects by fostering new collaboration partners across the spill-impacted region?
- What impact is the Intern Institute having on recruitment rates of local youth (vs. non-local youth) in the internship programs of our partner organizations?
- How are participants in the Cultural & Communication Competency Learning Opportunities utilizing new knowledge, skill sets, and relationships?

- Do community science tools such as a Mariculture Data App or the COMPASS program increase community participation in data collection? Do scientists gain the insight they are looking for through these community participation venues?

The External Evaluation Consultant will be responsible for determining whether the CORaL Network's activities effectively leverage existing resources within the EVOS spill-impacted region to ensure that current scientific information and activities are publicly accessible and serve ongoing, community-identified needs. To measure the broader impact of the program, the External Evaluation Consultant will focus on the collective impacts of community sharing activities, as well as the relationships within the network. In their role, this consultant will be able to provide anonymous and objective feedback on public perceptions of the network and how partnerships are performing.

The External Evaluation Consultant will focus on collective learning outcomes such as:

- To what extent – and in what ways – does the interactive website, community sharing, community science tools, and cultural learning opportunities work together to build partnerships and shared capacity across the region?
- Is the CORaL Network achieving more together, through this framework design, than as individual organizations and projects?
- What capacities are the most critical for sustaining ongoing partnerships and outreach activities beyond the scope of the grant timeline?
- Are there barriers or opportunities for network sustainability and collaboration that this program hasn't considered?
- What impacts do we see as a result of increased collaborations between scientists and local communities? How are these collaborations impacting sustainable restoration work in the oil spill-impacted region?

The Senior Evaluation Manager will dedicate 100% of their time in the first three years of the project, reduced to 75% in YR 4 and 50% in YR 5. An external evaluator will be contracted to provide program-level evaluation throughout the grant period for a total of $250,000 over 5 years. This robust evaluation effort will be critical for determining which activities need to be modified in order to build sustainable capacity.

6. PROGRAM DATA MANAGEMENT

The Alutiiq Museum & Archaeological Repository [AMAR] has a large, secure, well documented collections database. Final products from the CORal Network participants will be digitally archived annually in this system. AMAR will annually catalog and add items to a program archive. AMAR is both nationally accredited by the American Alliance of Museums and recognized by the State of Alaska as an official Natural and Cultural History Repository. Their curator of collections is extensively trained in digital collection care, and maintains a rigorous system of data backup (on site, off site, and cloud storage). Backups will also be incorporated into the existing system of the Alaska SeaLife Center [ASLC], which stores decades-worth of research and education data via a server system. In addition, the possibility of uploading materials to an Axiom-provided EVOSTC repository will provide additional backup on an annual basis, as appropriate.

In July 2021, Stacey Buckelew of Axiom Data Science reviewed this proposal and stated: "Upon review of your proposal 'Community Organized Restoration and Learning [CORaL] Network', the Data Management team concluded that the proposed project will not be recording or collecting any environmental data that requires data management services. While the project proposal has a citizen science monitoring component (i.e. COMPASS), this is in the context of classroom curriculum development and data quality evaluation to determine the efficacy of a more robust program. The provisional nature of this classroom-based data collection program does not substantiate formal data curation and archive at this point in time. The proposal PI and the Data Management Team have made a commitment towards data management services if the COMPASS program generates significant environmental data that substantiates formal data curation and archive. A letter of commitment is attached to the revised proposal, under which Axiom Data Science would contract directly to the Alaska Sea Life Center to provide data management services in accordance with the EVOSTC Data Management Procedures." A Letter of Commitment from Axiom Data Science has been included in Appendix D.

Data will be collected and utilized using outreach tools such as the Data Visualization App and/or Community Science Resource activities. The CORaL Network is focused on fostering outreach science projects that collect and use data from, by, and for local communities in the region. Data management from these community projects will be the purview of the scientists and community entities partnered on these activities, who must be committed to sharing this data and analyses with local stakeholders not only on an Axiom-created platform but publicly on the CORaL Network website.

As an Education & Outreach network, the majority of data produced directly by the CORaL Network's program activities will be related to evaluation of the entire program and/or specific projects. Evaluation methods will gather and analyze both quantitative and qualitative data from network participants, audiences, and stakeholders. Attributable data acquired during evaluation activities will be held confidentially by a third-party contractor and/or the Alaska SeaLife Center's education team for a period of three years after the conclusion of this grant in 2031. Evaluation summaries, which will include anonymized data, will be published and disseminated publicly in reports available on the website.

In addition, archaeological site data the Alutiiq Museum and Archaeological Repository collects as part of their internship program will be shared with the Alaska Office of History and Archaeology annually, per current practices. Additionally, the museum plans to preserve the deliverables in a project archive for its holdings, with annual additions and a finding aid. This is a standard procedure for heritage projects and creates a lasting, accessible record that provides publication-ready files for future reprints (e.g., for exhibit panels or publications).

7. COORDINATION AND COLLABORATION

A. With the Alaska SeaLife Center or Prince William Sound Science Center

This program proposal for the Community Organized Restoration and Learning [CORaL] Network is being submitted by the Alaska SeaLife Center in collaboration with Alaska Sea Grant, Alutiiq Museum and Archaeological Repository, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Prince William Sound Science Center.

B. **With the EVOSTC LTRM Program**

The proposed Community Organized Restoration and Learning [CORaL] Network program is designed as an outreach framework that will not only be inclusive of current and future projects but will foster new collaborations between scientists, educators, and community members. There are currently seven definitive pathways by which EVOSTC Long-term Research and Monitoring [LTRM] projects are encouraged to collaborate with our program, including participation in the online resources and discussions, community events, cultural and communication learning opportunities, the intern institute, new and existing community science resources, and/or the collaborative subgrants project.

Over the past few months, these pathways were shared with entities that we learned were creating LTRM proposals in response to Focus Area 1 of the EVOSTC RFP. The Gulf Watch Alaska and Herring Research and Monitoring program through Prince William Sound Science Center, as well as Ron Heintz at the Sitka Sound Science Center have included Letters of Support to our CORaL Network program proposal.

While we do not know who will be funded by EVOSTC during this grant period, the CORaL Network activities will be accessible to all relevant projects and our program's core team will actively recruit EVOSTC funded projects to participate and share resources.

With Proposed EVOSTC Mariculture Focus Area Projects

Similarly, the CORaL Network team communicated with two entities that we knew to be considering proposals under Focus Area 2 (Mariculture) of the EVOSTC RFP. To the best of our knowledge, only one of those programs moved forward with their application. Alaska Sea Grant Mariculture Specialist Melissa Good is working closely with the proposal leads for that program. This collaborative group consists of partners representing the Alaska Department of Fish and Game, Alaska Fisheries Development Foundation, Alaska Sea Grant, Native Village of Eyak, NOAA Alaska Fisheries Science Center, Prince William Sound Science Center, and the University of Alaska Fairbanks. They are submitting the proposal "Sustainable mariculture development for restoration and economic benefit in the EVOS spill area" to the FY22-31 call for proposals under the Mariculture Focus Area (Mariculture). A letter of support from the program team, led by Alaska Sea Grant's Kodiak Seafood and Marine Science Center, is attached to acknowledge their willingness to work closely with the CORaL Network program.

The outreach framework as proposed by the CORaL Network program fits their needs to connect scientists with educators and community members for projects happening across the region. Alaska Sea Grant has been identified to hold a key liaison role between Mariculture Focus Area project leads and the CORaL Network program. Alaska Sea Grant will coordinate with Mariculture project leads during the building phases of these two programs to develop network pathways that will continue to be available to EVOSTC-funded Mariculture projects over the life of the programs. Mariculture project leads will be members of the network and will actively participate in online resources and discussions, use of the online data portal, community events, cultural and communication learning opportunities, the intern institute, new and existing community science resources, and/or the collaborative subgrant projects.

C. **With Other EVOSTC-funded Projects (not within any of the Focus Areas)**

In response to EVOSTC's Restoration RFP, we have had conversations with Great Land Trust and the United States Fish and Wildlife Service office Soldotna about Restoration projects these agencies intend to propose. In addition, we spoke to a number of scientists, agencies, and nonprofits who were considering EVOSTC funding to

coordinate with them on future activities (e.g., radio programs, video creation, classroom curricula). Of those we talked to, the following have submitted Letters of Support for our proposal: State of Alaska Department of Natural Resources, Alaska Ocean Observing System, Alaska Office of History and Archaeology, UAF Geophysical Institute, Kenai Peninsula Borough School District, Kenai Watershed Forum, Kodiak Island Borough School District, KMXT Public Radio, Kodiak Public Broadcasting, Kodiak College, Pratt Museum, Seward High School, Upward Bound Program at UAF, Kodiak National Wildlife Refuge, and the Valdez Museum.

In addition, we anticipate being able to collect additional Letters of Support before the final proposal submission in August 2021.

D. **With Trustee or Management Agencies**

The CORaL Network core team is eager to work with all trustee and management agencies, and we have written into our proposal intentions to seek EVOSTC input on our evaluation plan and the design of the activities described herein. We consider the Trustee Council and Management Agencies to be stakeholders in the implementation and success of the CORaL Network.

Our program is designed for maximum flexibility to bridge in new programs or projects that might be funded by EVOSTC, even as those are not yet known as of today. Once the current portfolio of EVOSTC-funded programs and projects are determined, we will reach out to these entities to build the collaborations that are essential for the success of our Network. During the writing of this proposal, we were contacted by a variety of other projects and in all cases worked to integrate those proposed project concepts into our proposal. Most have been integrated as subawards.

E. **With Native and Local Communities**

The proposed CORaL Network is a collaboration between the Alaska SeaLife Center, Prince William Sound Science Center, Alaska Sea Grant, Center for Alaskan Coastal Studies, Chugach Regional Resources Commission, and Alutiiq Museum and Archaeological Repository. The Chugach Regional Resources Commission [CRRC] was established by the seven Tribes of the Chugach Region, each of whom holds a seat on the CRRC Board of Directors. The CRRC Board serves at the pleasure of each Tribal Council and are chosen specifically because of their natural resource management inclinations. As part of the CORaL Network, CRRC will be providing a CORaL Network Coordinator/Training Director that will serve as a liaison between CORaL Network partners as well as providing professional development to CORaL Network participants through their Alaska Native Relations training, which includes courses on cross-cultural communication, village protocols, collaborative management, and applied Traditional Ecological Knowledge. CRRC will also work closely with Chugachmiut, the social services and cultural education arm of the Tribes in the Chugach Region by contracting with Chugachmiut to work with their Local Cultural Coordinators in each of the seven communities. Through this partnership, the seven communities in the Chugach Region (Port Graham, Nanwalek, Valdez, Tatitlek, Chenega, and Cordova) will have natural resource and local culture coordinators on site to provide consultation and resources to the scientists and educators working in these areas.

The Alutiiq Museum and Archaeological Repository's (AMAR) founding and sustaining organizations include eight Kodiak area Alutiiq organizations—the Kodiak Area Native Association, Koniag Inc., Afognak Native Corporation, Akhiok-Kaguyak Inc, Leisnoi Inc., Natives of Kodiak Inc., Old Harbor Native Corporation, and Ouzinkie Native Corporation. Staff from AMAR will act as liaisons to the natural resource and cultural leaders of the Kodiak area communities, including the 10 federally recognized tribes of the Kodiak Archipelago. In addition

to the guidance provided by AMAR's board of directors, AMAR has three committees composed of both Alaska Native and non-Native community members who provide input on public programming and educational resources, collections development, and cultural arts initiatives. In addition to internal committees, AMAR staff members are involved throughout the community on other non-profit, tribal, and municipal boards and committees. These relationships strengthen AMAR's position as a community resource. Support letters from many of the museum's community partners demonstrate the relationships that will help AMAR develop, evaluate, and share project resources.

The CORaL Network Program also has a letter of support from the Seldovia Village Tribe, which is independent of the Chugach and Kodiak area tribal constituencies. The Seldovia Village Tribe works closely with multiple CORaL Network partners on coastal monitoring programs and will serve as a liaison to resources in Seldovia.

8. PROGRAM SCHEDULE

Project milestone and task progress by fiscal year and quarter, beginning February 1, 2022. C = completed, X = planned or not completed. Fiscal Year Quarters: 1= Feb. 1-April 30; 2= May 1-July 31; 3= Aug. 1-Oct. 31; 4= Nov. 1-Jan 31

FY 2022-2026

Milestone/Task	FY22				FY23				FY24				FY25				FY26			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Program Administration																				
Annual travel meeting of core partners			X				X				X				X				X	
Annual internal review for workplan development				X	X		X	X			X	X			X	X			X	X
Evaluation/Iterative Adaptations																				
Development of 5-year Evaluation Plan			X	X	X	X														
Formative assessments for Website, Data Viz App, & COMPASS			X	X	X	X	X													
Integration of evaluation activities into work plan				X	X		X	X			X	X			X	X			X	X
Assessment summaries inform annual meetings						X	X			X	X			X	X			X	X	
CORaL Network Website																				
Website design and build				X	X	X	X													
Aggregation of resources & dialogue integration				X	X	X	X	X												
Recruitment of users and shared resources						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Community Sharing																				
Stakeholder discussions to determine annual schedule and formats		X	X	X	X	X														

Agendas published prior to facilitated meetings	To be determined by above task																				
Design protocols for Scientists in the Community			X	X	X	X															
Publish Applications for Scientists in the Community						X				X				X				X			
Application Reviews				X			X				X				X				X		
Administer/Mentor visits			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cultural & Communication Learning Opportunities																					
Formative & development eval of competency needs			X	X	X	X	X	X	X	X	X	X									
Alaska Native Relations Capstone Course, annual						X				X				X				X			
Alaska Native Relations Short Course, quarterly			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Build & deliver ongoing, complementary offerings		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Intern Institute																					
Develop curricula & schedules with partners		X	X	X	X	X		X	X	X		X	X	X		X	X	X		X	
Recruit participants with local partners		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Implement 5-week course						X	X			X	X			X	X			X	X		
Post-institute follow-up with interns & partners								X	X			X	X			X	X				
Community Science & Outreach Resources																					
ASLC, ASG, AMAR, CACS, CRRC, PWSSC build five-year outreach products plan with EVOSTC-funded projects				X	X	X	X	X													
ASLC, ASG, AMAR, CACS, CRRC, PWSSC develop and deliver annual programs, products, and exhibits			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

ASLC, ASG, AMAR, CACS, CRRC, PWSSC install kiosk stations at 6+ sites.				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ASLC, ASG, AMAR, CACS, CRRC, PWSSC develop video library for kiosks, updated quarterly.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ASG designs & builds Data Viz App with contractor				X	X	X	X													
Data Viz App dissemination & training								X	X	X	X			X	X			X	X	
Data Viz App: Data verification												X	X			X	X			X
Assess additional data streams to incorporate into Data Viz App																	X	X	X	X
COMPASS Curriculum design				X	X	X	X	X												
COMPASS pilot school projects									X	X	X	X	X	X	X	X	X	X	X	X
Data analysis & review of COMPASS									X	X	X	X	X	X	X	X	X	X	X	X
Dissemination of best practices and outreach products from COMPASS												X				X				X
Build sustainability plans with COMPASS participants					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Reporting																				
Annual reports (due Mar1)					X				X				X				X			
FY work plan				X				X				X				X				
5-year review																	X			
Deliverables																				
Evaluation Plan			X	X	X	X														
Evaluation Summaries					X				X				X				X			
CORaL Network Website					X	X														
Community Sharing schedule and agendas				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Suite of communication, social science, and native relations					X				X				X				X			

learning opportunities – formats and specific outcomes TBD, reported annually																				
5-week Intern Institute program						X	X			X	X			X	X			X	X	
ASLC, ASG, AMAR, CACS, CRRC, PWSSC outreach products (curricula, distance learning sessions, podcasts, etc.)				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Network of kiosks across the region & video library				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Data Visualization App for Community Science			X	X	X	X	X													
COMPASS Community Science model for schools			X	X	X	X	X	X												

FY 2027-2031

Milestone/Task	FY27				FY28				FY29				FY30				FY31			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Program Administration																				
Annual travel meeting of core partners			X				X				X				X			C		
Annual internal review for workplan development			X	C			X	C			X	C			X	C			X	C
Evaluation/Iterative Adaptations																				
Integration of evaluation activities into work plan			X	C			X	C			X	C			X	C			X	C
Assessment summaries inform annual meetings						X	C			X	C			X	C			X	C	
CORaL Network Website																				
Ongoing recruitment of users and shared resources			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Sustainability plan for website developed									X	X	X	X	X	X	X	X	X	X	X	C
Community Sharing																				
Agendas published prior to facilitated meetings	Determined by formative conversations YR 1																			
Publish Scientists-in-the-Community Applications			X			X				X				X						
Application Reviews				X			X				X				X					
Administer/Mentor visits			X	X	X	X	X	X	X	X	X	X	X	X	X	X	C			
Cultural & Communication Learning Opportunities																				
Alaska Native Relations Capstone Course, annual						X				X				X				X		
Alaska Native Relations Short Course, quarterly			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	
Build & deliver ongoing, complementary offerings				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	

Intern Institute																			
Develop curricula & schedules with partners			X	X	X	C		X	X	C		X	X	C		X	X	C		
Recruit participants with local partners		X	X	X	X	C	X	X	X	C	X	X	X	C	X	X	X	C		
Implement 5-week course		X	X			X	C			X	C			X	C			X	C	
Post-institute follow-up with interns & partners				X	C			X	C			X	C			X	C		X	C
Community Science & Outreach Resources																				
ASLC, ASG, AMAR, CACS, CRRC, PWSSC build five-year outreach products plan with EVOSTC-funded projects	X	X	X	C																
ASLC, ASG, AMAR, CACS, CRRC, PWSSC develop and deliver annual programs, products, and exhibits	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
ASLC, ASG, AMAR, CACS, CRRC, PWSSC upgrade kiosks and develop ongoing video library.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Data Viz App dissemination & training		X	X			X	C			X	C			X	C			X	C	
Data Viz App: Data verification				X	X			X	X			X	X			X	X			C
Data Viz App upgrade		X	X	X	X	C														
Data analysis & review of COMPASS		X	X	X	X	C														
Dissemination of best practices and outreach products from COMPASS		X	X	X	X	X	C													
Build sustainability plans with COMPASS participants			X	X	X	C														
Reporting																				
Annual reports (due Mar1)					X				X				X				X			
FY work plan				X				X				X				X				
Final Report																	X	X	X	C

Deliverables																				
Evaluation Summaries					X				X				X				X			C
Website Adaptations & Maintenance			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Community Sharing schedule and agendas		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	
Suite of communication, social science, and native relations learning opportunities – formats and specific outcomes TBD, reported annually		X			X				X				X				X			C
5-week Intern Institute program		X	X			X	C			X	C			X	C			X	C	
ASLC, ASG, AMAR, CACS, CRRC, PWSSC outreach products (curricula, distance learning sessions, podcasts, etc.)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C	
Network of kiosks across the region & video library		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
Data Visualization App for Community Science		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C
COMPASS Community Science model for schools		X	X	X	C															

9. Budget

A. Budget Forms (Attach)

Budget Category:	Proposed FY 22	Proposed FY 23	Proposed FY 24	Proposed FY 25	Proposed FY 26	5-YR TOTAL PROPOSED	ACTUAL CUMULATIVE
Personnel	$1,108,919	$1,168,245	$1,201,966	$1,214,819	$1,195,726	$5,889,676	$0
Travel	$165,642	$171,396	$195,290	$194,549	$202,512	$929,388	$0
Contractual	$406,357	$437,642	$356,372	$353,658	$512,852	$2,066,881	$0
Commodities	$140,351	$84,131	$72,570	$69,152	$55,516	$421,721	$0
Equipment	$10,000	$15,000	$0	$0	$0	$25,000	$0
Indirect Costs (rate will vary by project)	$460,978	$424,612	$416,272	$411,340	$421,938	$2,135,141	$0
SUBTOTAL	$2,292,248	$2,301,027	$2,242,470	$2,243,517	$2,388,544	$11,467,806	$0
General Administration (9% of subtotal)	$206,302	$207,092	$201,822	$201,917	$214,969	$1,032,103	N/A
PROGRAM TOTAL	**$2,498,550**	**$2,508,119**	**$2,444,292**	**$2,445,434**	**$2,603,513**	**$12,499,908**	**$0**
Other Resources (In-Kind Funds)	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	

B. **Sources of Additional Funding**

Non-EVOSTC Funds to be used, please include source and amount per source:

FY22	FY23	FY24	FY25	FY26	FY22-26 Total
-	-	-	-	-	-
FY27	**FY28**	**FY29**	**FY30**	**FY31**	**FY27-31 Total**
-	-	-	-	-	-
				FY22-31 Total	*N/A*

The CORaL Network program budget does not include additional sources of funding. However, the program will continue to seek additional funding to support the sustainability of projects that emerge through collaboration activities that occur over the period of this grant.

10. LITERATURE CITED

Wenger-Trayner, B., & Wenger-Trayner, E. (2015). *Introductions to communities of practice*. https://wenger-trayner.com/introduction-to-communities-of-practice

11. SUGGESTED REVIEWERS (for new program proposals only)

Angela Linn, M.A., Senior Collections Manager, Department of Ethnology & History, University of Alaska Museum of the North, 907-474-1828, ajlinn@alaska.edu

Dr. George Matsumoto, Senior Education & Research Specialist, Monterey Bay Aquarium Research Institute [MBARI], 831.775.1757, mage@mbari.org

Anica Miller-Rushing, PhD Candidate (Curriculum, Assessment, and Instruction, STEM Education), Science Education Consultant and Coordinator of state-wide residential environmental education network, University of Maine, 207-664-9374, anica.miller.rushing@maine.edu

Bree Turner, Senior Coastal Management Specialist, 206-526-4641, Bree.Turner@NOAA.gov

Dr. Wei Ying Wong, Assistant Director for Science and Technical Assistance, Washington Sea Grant, 401-451-0399, wywong@uw.edu

Appendices
(include as separate documents)

A. Budget Spreadsheet

B. Administrative PI Documents: Seward Association for the Advancement of Marine Science dba Alaska SeaLife Center

1. ASLC Information Document
2. ASLC FY18 Audited Financials
3. ASLC FY19 Audited Financials
4. ASLC FY20 Audited Financials
5. ASLC 2020 Annual Report
6. ASLC/SAAMS Indirect Cost Rate Agreement
7. ASLC/SAAMS Indirect Cost Rate Extension

C. Curricula Vitae (in alphabetical order)

1. **Lauren Bien**, Education Director, Prince William Sound Science Center
2. **Dr. April Counceller**, Executive Director, Alutiiq Museum and Archaeological Repository
3. **Jeff Dillon**, Senior Education Manager, Alaska SeaLife Center
4. **Dr. Ginny Eckert**, Director, Alaska Sea Grant
5. **Katie Gavenus**, Program Director, Center for Alaskan Coastal Studies
6. **Melissa Good**, Mariculture Specialist, Alaska Sea Grant
7. **Willow Hetrick-Price**, Executive Director, Chugach Regional Resources Commission
8. **Katrina Hoffman**, President and CEO of Prince William Sound Science Center, Executive Director of Oil Spill Recovery Institute
9. **Dr. Tuula Hollmen**, Research Associate Professor of Marine Science, University of Alaska Fairbanks, Senior Scientist at the Alaska SeaLife Center
10. **Molly E Odell**, Director of Grants & Contracts/Archeologist, Alutiiq Museum and Archaeological Repository
11. **Henry Reiske**, Wynn Nature Center/Coastwalk Coordinator, Center for Alaskan Coastal Studies
12. [Program PI] **Dr. Tara Riemer**, President and CEO, Alaska SeaLife Center
13. **Amy F Steffian**, Chief Curator, Alutiiq Museum and Archaeological Repository
14. **Beth Trowbridge**, Executive Director, Center for Alaskan Coastal Studies

D. Letters of Commitment and Support (in alphabetical order)

1. Alaska Ocean Observing System
2. Alaska Office of History and Archaeology
3. Alaska Sea Grant
4. Alaska Sea Grant, Kodiak Seafood and Marine Science Center, Mariculture Focus Proposal
5. Alutiiq Museum and Archaeological Repository
6. Alutiiq Tribe of Old Harbor
7. Axiom Data Science
8. Center for Alaskan Coastal Studies
9. Chugach Alaska Corporation
10. Chugach Regional Resources Commission
11. Chugachmiut
12. City of Kodiak

13. College of Fisheries and Ocean Sciences, UAF, Tamamta Program
14. Discover Kodiak
15. Department of Natural Resources, State of Alaska, Division of Parks and Outdoor Recreation
16. Geophysical Institute, UAF
17. Great Land Trust
18. Kachemak Bay National Estuarine Research Reserve
19. Kenai Peninsula Borough School District
20. Kenai Watershed Forum
21. Kodiak Island Borough School District
22. KMXT Public Radio, Kodiak Public Broadcasting
23. Kodiak College
24. Koniag
25. Mullaly, Collin (Seward High School Student)
26. Native Village of Afognak
27. Native Village of Ouzinkie
28. Native Village of Port Lions
29. Pratt Museum
30. Prince William Sound Science Center
31. Prince William Sound Science Center, Gulf Watch Alaska and Herring Research and Monitoring
32. Seldovia Village Tribe
33. Seward High School
34. Sitka Sound Science Center, Project: *Pacific Herring and pink salmon trophic interactions*
35. Sun'aq Tribe of Kodiak
36. Tangirnaq Native Village
37. Upward Bound Program, UAF
38. United States Fish and Wildlife Service (USFWS, Soldotna)
39. United States Dept of the Interior, Kodiak National Wildlife Refuge
40. Valdez Museum