

Program Application: 83481934

Linked Pre-Application Form - DO NOT DELETE

Discover our Bay

Grant Amount Requested

\$60,000.00

Organization Name

Marine Science Institute

Urban Grant Program Application Questions

Overview

Type of project (check all that apply)

Grant category (check all that apply)

Environmental Stewardship and Restoration, Environmental Education

Project Location: Address / Neighborhood

What is the physical location of the project? If there is no physical location, please enter "N/A." If the project will be in multiple locations, please list all. Note: project location(s) must be within the Authority's jurisdiction.

Marine Science Institute main facility is located at 500 Discovery Parkway in Redwood City, CA 94063. With our mobile aquarium, MSI plans to serve students who reside within Open Space Authority jurisdiction. With Open Space Authority funds, we will prioritize school groups in various urban neighborhoods across San José, Milpitas, Campbell, and Morgan Hill. Participants are primarily from Title I schools and BIPOC communities historically underserved by outdoor science education.

Project Location

Open Space Authority District of Project Location(s)(check all that apply)

Authority District 1, Authority District 2, Authority District 3, Authority District 4, Authority District 5, Authority District 6, Authority District 7

Who does the project serve? Please indicate which Open Space Authority Districts are served (where do the people served by the program live) (check all that apply)

Authority District 1, Authority District 2, Authority District 3, Authority District 4, Authority District 5, Authority District 6, Authority District 7

Project Abstract

The Marine Science Institute's Inland Voyage Program opens the door for underserved youth from Santa Clara County to experience the wonders of the San Francisco Bay through hands-on, inquiry-based marine science education. For many of these students, this is their first encounter with the diverse marine life that thrives just beyond their community. The program provides a unique, immersive opportunity to bridge the gap between inland and coastal environments, helping students understand their connection to the Bay's ecosystems and the role they play in sustaining them.

At the heart of the Inland Voyage Program is an experiential learning expedition. During their voyage, students transform into marine scientists for the day, engaging directly in the practices of scientific investigation. They collect and analyze real-world data, examine plankton and benthic invertebrates under microscopes, measure water quality, and identify local fish and invertebrate species. Through this process, they gain firsthand insight into the complexity and interdependence of marine ecosystems.

The program emphasizes the importance of learning by doing—a core philosophy of the Marine Science Institute (MSI). Activities are designed to align with Next Generation Science Standards (NGSS) and Common Core curriculum goals, ensuring that every moment spent aboard the vessel supports classroom learning objectives while igniting natural curiosity. Teachers often report that students return to school with increased enthusiasm for science, improved critical thinking skills, and a stronger grasp of environmental concepts that are otherwise abstract in a traditional classroom setting.

Beyond its academic benefits, the Inland Voyage Program serves as a catalyst for environmental awareness and stewardship. Many students who participate come from communities with limited access to nature and environmental education. By immersing them in the living laboratory of the Bay, MSI helps them see their local watershed as part of a larger ecological system that extends from their neighborhoods to the Pacific Ocean. Through guided reflection and discovery, students learn how their daily choices—from water use to waste disposal—affect the health of the environment. This connection builds a foundation for lifelong environmental responsibility.

MSI's educators are trained in inclusive, culturally responsive teaching practices that make science accessible and engaging for all learners. The program intentionally reaches schools serving students from underrepresented backgrounds, providing equitable access to high-quality science education. By empowering youth to see themselves as capable scientists, the Inland Voyage Program also broadens participation in STEM fields, inspiring future careers in environmental science, sustainability, and related disciplines.

Ultimately, the Inland Voyage Program exemplifies the Marine Science Institute's mission to cultivate a responsibility for the natural world through experiential learning. By bringing inland students to the Bay—often for the first time—it transforms curiosity into understanding, and understanding into stewardship. Through science, exploration, and connection, students discover that caring for the ocean begins in their own communities.

Project Planning

Describe the proposed project.

The Marine Science Institute's Inland Voyage Program provides an extraordinary opportunity for students from inland and urban communities—particularly in Santa Clara County—to directly experience the possibilities with marine science. Many of these students live miles away from the coast and have never visited the ocean, yet their everyday actions and environments are deeply connected to it through local watersheds. The program fills this gap by bringing live animals to the school sites and facilitating a full day of hands-on scientific exploration on the San Francisco Bay.

During their voyage, students become marine scientists for the day. Working in small groups, they rotate through interactive learning stations led by MSI's trained science educators. Participants perform real-world water quality tests—measuring temperature, salinity, pH, and dissolved oxygen—to understand the environmental health of the Bay. Using microscopes, they observe plankton samples collected from the water, discovering the tiny but essential organisms that form the base of the marine food web. They handle and study live marine invertebrates and fish from the Bay, gaining firsthand experience with the incredible biodiversity that thrives just beyond the urban shoreline. Each activity is designed to foster curiosity, build confidence in scientific inquiry, and make tangible connections between classroom concepts and real ecosystems.

A key strength of the Inland Voyage Program lies in its accessibility and relevance. It primarily serves students from Title I schools and youth-serving organizations, ensuring that children who might otherwise lack access to field-based science opportunities can participate. The program intentionally removes barriers related to cost and transportation, providing an inclusive learning experience that sparks lifelong curiosity about science and the environment. For many students, this is their first time participating in a hands-on scientific investigation with animals an experience that often leaves a lasting impression.

The curriculum is carefully aligned with the Next Generation Science Standards (NGSS), supporting teachers in meeting grade-level learning goals while deepening students' understanding of key earth and life science concepts. Lessons are inquiry-driven and incorporate elements of the Common Core standards in both math and writing, encouraging students to collect, analyze, and communicate scientific data in meaningful ways. MSI educators also ensure that the content is culturally responsive and grade-appropriate, with adaptations for students in grades 4 through 8. This approach makes the material relevant to students' own communities and lived experiences, strengthening their sense of connection to local environments and the global ocean system.

Beyond academic learning, the Inland Voyage Program nurtures environmental responsibility. Students leave the exhibit with a deeper appreciation for the role their local creeks, rivers, and storm drains play in the health of the Bay and ocean ecosystems. They begin to see that science is not distant or abstract—it is something they can do, understand, and use to make a difference. By empowering young people with knowledge, skills, and inspiration, the Inland Voyage Program helps cultivate the next generation of environmentally literate citizens and future scientists who will care for our planet's waterways and coasts.

Describe key project deliverables and estimated completion dates.

The Inland Voyage Program is designed as a comprehensive, multi-year initiative to provide hands-on marine science education to underserved students in Santa Clara County. The project deliverables for Years 1 and 2 are carefully structured to ensure thorough planning, effective staff preparation, strategic recruitment, seamless program delivery, and robust reporting, resulting in a high-quality and equitable educational experience for all participants.

Year 1: March 2026 – August 2027

The first year begins with a planning and marketing phase from March through June 2026. During this period, MSI will finalize program curriculum, develop culturally responsive instructional materials, and coordinate with school districts and community organizations to identify high-need student populations. Outreach efforts will focus on schools with limited access to environmental education, ensuring that Title I and BIPOC students are prioritized for participation. This initial phase establishes the foundation for program delivery, aligning objectives with Next Generation Science Standards (NGSS) and integrating Common Core literacy and math skills where appropriate.

From September through October 2026, MSI staff will participate in intensive training designed to prepare educators for delivering immersive, hands-on instruction aboard the research vessel. Training will include field-based pedagogy, safety protocols, student engagement strategies, and culturally responsive teaching practices. During this time, MSI will also continue marketing the program to schools and community partners, ensuring broad awareness and support for student recruitment.

Between September and December 2026, marketing and scheduling efforts will be finalized. MSI will confirm school participation, coordinate transportation logistics, and develop a detailed program calendar to optimize access for all students. Scheduling will account for academic calendars, seasonal considerations, and equitable distribution of program opportunities.

Program delivery will take place from September 2026 through June 2027. Students will engage with animals and local samples, conducting water quality testing, studying plankton, and exploring watershed-to-ocean connections. These activities are designed to foster environmental literacy, critical thinking, and long-term stewardship among participants.

From June through August 2027, MSI will conduct comprehensive reporting and evaluation. This includes collecting feedback from educators and students, analyzing participation and learning outcomes, and documenting lessons learned to inform Year 2 program refinements.

Year 2: September 2027 – August 2028

Year 2 follows a similar framework, emphasizing continuity, program refinement, and sustained impact. Staff training and program marketing will take place from September through October 2027, allowing MSI educators to refresh instructional skills, integrate improvements based on Year 1 evaluation, and prepare for new cohorts of students.

From September through December 2027, MSI will complete marketing and scheduling, confirming school and community partner participation, coordinating transportation, and finalizing program logistics.

Program delivery for Year 2 will occur from September 2027 through June 2028. Students will participate in immersive field-based science experiences, following the refined curriculum to deepen understanding of marine ecosystems, environmental stewardship, and watershed connections.

Finally, from June through August 2028, MSI will conduct reporting and evaluation for Year 2, summarizing program outcomes, student impact, and operational insights to guide future program planning and sustainability.

This structured, multi-phase timeline ensures that the Inland Voyage Program is implemented efficiently, equitably, and with lasting impact, providing students from underserved communities with meaningful opportunities to connect with the Bay and gain real-world scientific experience.

Does this project require permission, permits, or other approvals? If so, please describe the status of these.

No permits are required. The Marine Science Institute maintains all necessary maritime and educational permissions for operating the mobile aquarium.

What is the lifetime of this project? If applicable, describe plans for operating and maintaining the project in the future.

This grant will support the full implementation of the Inland Voyage Program over two academic years, 2026–2027 and 2027–2028, providing students from underserved communities in Santa Clara County with immersive, hands-on marine science experiences. The funding ensures that all components of the program—from curriculum development and staff training to vessel operations and student engagement—are fully resourced and delivered with fidelity. By supporting two complete academic years, the grant allows MSI to establish a strong foundation for sustained program operations, setting the stage for long-term impact on students, schools, and the broader community.

MSI has the infrastructure, staffing, and expertise in place to continue the program beyond the period covered by this grant. The institute operates the fully equipped a mobile aquarium that allows students to experience real-world field science on the Bay. This vessel is integral to the program's hands-on, inquiry-based learning model, enabling students to conduct water quality testing, plankton sampling, and other authentic scientific investigations. MSI has laboratories, teaching materials, and digital resources to support student learning, ensure curriculum alignment with Next Generation Science Standards (NGSS), and integrate Common Core math and literacy objectives. The combination of physical infrastructure, resources, and an experienced educational team ensures that the program can be delivered reliably and scaled to serve additional students over time.

Partnerships with schools, community organizations, and regional agencies, including the Santa Clara Valley Open Space Authority, further support program sustainability. MSI has longstanding relationships with Title I schools and youth-serving organizations, which facilitate student recruitment, culturally responsive curriculum adaptation, and logistical coordination such as transportation and scheduling. These collaborations not only ensure equitable access for underserved students but also embed the program within the broader educational ecosystem, creating a network of committed stakeholders who support its long-term continuation.

The curriculum itself is designed for durability and adaptability. Developed and refined over decades of MSI's operations, the content is standards-aligned, culturally responsive, and appropriate for grades 4–8. Lessons and hands-on activities are structured to allow for iterative improvements based on teacher and student feedback, ensuring that the program evolves while maintaining its core goals of building environmental literacy, fostering stewardship, and connecting students to the Bay and their local watersheds.

Looking beyond the two funded years, MSI and its partners are committed to continuing the Inland Voyage Program annually, contingent on sustained funding. The combination of proven curriculum, strong partnerships, and established vessel and laboratory infrastructure makes long-term continuation both feasible and practical. With continued support, the program will continue to provide equitable, high-quality science education to inland and urban youth, inspiring future generations of scientists, informed citizens, and environmental stewards.

By providing a strong operational foundation, strategic partnerships, and a tested curriculum, this grant ensures that the Inland Voyage Program will have lasting educational and environmental impact, extending far beyond the two-year funding period. It establishes a sustainable model for experiential, place-based science education that can continue to grow and benefit students, schools, and communities throughout Santa Clara County for years to come.

Describe the project's readiness for implementation.

The Inland Voyage Program is a fully developed, well-established, and operational initiative of the Marine Science Institute (MSI), a trusted leader in hands-on marine and environmental science education. Drawing upon more than five decades of experience, MSI has refined this program to provide a transformative educational experience for students from inland and urban communities across the Bay Area. The program's strength lies not only in its proven design but also in the extensive infrastructure, skilled staff, and community partnerships that support its seamless delivery.

At the core of the Inland Voyage Program is a unique opportunity for students—many of whom have never experienced the ocean—to participate in a real scientific expedition. This mobile aquarium is fully equipped with the tools and technology needed to bring marine science to life. Students work alongside experienced marine educators and naturalists to perform authentic scientific investigations, including water quality testing, plankton identification, and the handling and observation of live marine organisms. Through these activities, they gain direct insight into the health of the San Francisco Bay ecosystem and explore how inland watersheds connect to the ocean.

The Inland Voyage Program is built on a robust and standards-aligned curriculum that meets Next Generation Science Standards (NGSS) and integrates Common Core mathematics and literacy elements. Lessons are intentionally designed to foster scientific inquiry, critical thinking, and environmental stewardship. Each program is tailored to meet the developmental level and learning needs of participating students, ensuring that activities are both rigorous and accessible. MSI educators also embed culturally responsive teaching practices that validate students' backgrounds, experiences, and ways of knowing, helping them see themselves as scientists and stewards of their local environments.

One of the distinguishing features of this program is its strong commitment to equity and access. The Inland Voyage Program primarily serves students from Title I schools and youth-serving organizations that work with underrepresented populations in STEM fields. MSI partners closely with educators and community organizations in Santa Clara County and other inland regions to remove barriers to participation, including transportation and cost. Through these partnerships, thousands of students each year gain access to high-quality, hands-on science experiences that connect classroom learning to the natural world.

Because the Inland Voyage Program is long established, implementation can begin immediately upon receipt of funding. All essential components—staffing, curriculum, safety protocols, equipment, and vessel operations—are already in place. MSI's seasoned education team manages logistics, coordinates school schedules, and ensures smooth communication with teachers and administrators. With funding support, MSI can expand program capacity, subsidize participation for underserved groups, and increase the number of students who experience this impactful learning journey.

In short, the Inland Voyage Program represents the culmination of 50 years of educational excellence, community partnership, and scientific engagement. It is not a pilot or a concept—it is a proven, scalable, and deeply meaningful program ready for immediate deployment. With continued investment, MSI will continue inspiring the next generation of environmental stewards and ensuring that all students, regardless of their zip code, can explore, understand, and protect the Bay and ocean ecosystems that sustain us all.

Project Budget

Budget Summary - Grant Request & Budget Summary - Matching Funds

Grant request: Personnel

\$46,474.00

Grant request: Contracted Services

\$1,625.00

Grant request: Supplies / Materials

\$3,426.00

Grant request: Other Direct Costs

\$7,827.00

Grant request: Indirect Costs

\$8,488.00

Total Matching Funds

\$7,840.00

Total Budget

\$67,840.00

Please upload a detailed version of your budget by accessing the link below:

MSI Santa Clara Valley Open Space Authority Budget.docx

Materials and Budget Template (item #9) found here: <https://www.openspaceauthority.org/programs/grant.html#Materials>

Provide a brief budget narrative to explain the expenses listed in each of the budget categories (e.g. Personnel).

Payroll and Benefits includes salaries for 12 office staff members and the primary boat captain, wages for approximately 11-18 instructional staff members, payroll tax, the employer share of health insurance benefits, and the employer contribution to the retirement plan.

Outside Services expense includes the costs of fieldtrips hosted by parks and museums, accounting fees for our annual financial review and tax return preparation, other consulting services, and web-based services such as annual or monthly fees to Constant Contact, Adobe, PayPal, and LogMeIn.

Supplies and Operating Expenses include the cost of supplies to run our programs and ground facilities which include the aquarium, classrooms, and office. This category of expense also covers ADP payroll process fees, leasing and usage of our copier and postage machines, and telecommunication fees.

Other Direct Costs

a. Travel and Fuel expense includes bus transportation for schools to attend our programs, stipends for instructors when they are performing programs that require over-night stays, fuel for the vessels and vehicles, employees' mileage reimbursement, and costs of attending conferences for training.

b. Occupancy covers our utilities costs, janitorial services. Utilities costs include electricity, water, sewage, and garbage collection.

c. Insurance, Repairs, Other expense includes workers compensation insurance, other liability insurance, repair & maintenance of our vessel, vehicles, and ground facility, IT expense, staff development and training costs, harbor fees, interest expense, marketing, and other miscellaneous expenses.

Indirect costs includes depreciation on fixed assets such as: four vehicles and equipment for mobile aquarium.

Award Amount: The Board reserves the right to award partial funding on projects. If your project were to receive partial funding, what would this mean for your project?

If partial funding is awarded for the Inland Voyage Program, the Marine Science Institute (MSI) would implement a focused, strategic plan to ensure that program quality, educational integrity, and equity goals remain uncompromised. While a reduction in total funding would limit the number of students and schools served, MSI would maintain its commitment to delivering high-quality, hands-on marine science experiences for youth from underrepresented and underserved communities in Santa Clara County.

In this scenario, MSI would prioritize participation from the highest-need schools and youth-serving organizations—particularly those classified as Title I and those serving large populations of students from low-income households or communities historically excluded from outdoor science opportunities. The organization has a well-established system for identifying and partnering with such schools, working closely with district administrators, teachers, and community partners to ensure that resources are directed where they will have the most meaningful impact. This data-informed and equity-driven approach allows MSI to preserve its core mission: providing equitable access to transformative science education.

Even with fewer total voyages, the educational quality of each trip would remain fully intact. Every Inland Voyage would continue to feature the same rigorous, standards-aligned curriculum that meets the Next Generation Science Standards (NGSS) and integrates Common Core elements in math and literacy. Students would still engage in authentic scientific inquiry with conducting water quality analyses, studying plankton under microscopes, handling live marine organisms, and examining the intricate connections between inland communities and coastal ecosystems. MSI's experienced marine educators would continue to provide culturally responsive instruction, ensuring that learning experiences remain relevant, inclusive, and empowering for all participants.

While MSI would temporarily scale back the number of program sessions or reduce the overall student capacity, the organization would take deliberate steps to minimize disruption for schools with established partnerships. Where possible, MSI would schedule programs during peak seasonal windows to serve the greatest number of students efficiently. Additionally, MSI would leverage its strong network of regional supporters, corporate partners, and individual donors to pursue supplementary funding that could restore full program capacity. This effort would include targeted outreach to foundations, local businesses, and community donors who have historically supported MSI's mission of connecting youth to the Bay through science.

The organization's decades-long reputation for excellence, accountability, and impact would serve as a powerful foundation for these fundraising efforts. MSI has over 50 years of experience adapting to changing financial landscapes while maintaining program quality and mission fidelity. The staff and leadership are adept at designing scalable program models that allow for flexibility without sacrificing educational outcomes.

Ultimately, even with reduced funding, MSI's priority remains clear: to ensure that students who are most in need of equitable, experiential science learning opportunities continue to have access to the Bay as their living laboratory. Through strategic adjustments and proactive fundraising, MSI would sustain its commitment to high-quality, life-changing marine science education for the communities that benefit most from it.

Project Goals

Describe the specific problems, issues, or unserved needs the project will address.

The Inland Voyage Program directly supports the Santa Clara Valley Open Space Authority’s vision of connecting people and nature by expanding equitable access to outdoor science education for youth in inland and urban areas. Through immersive, hands-on learning experiences on the San Francisco Bay, students discover how their local creeks and open spaces are part of a living watershed system that supports biodiversity, community health, and climate resilience. These goals align with OSA’s priorities of promoting environmental stewardship, equitable access, and the next generation’s connection to nature.

1. Expand Equitable Access to Nature and Environmental Science for Underserved Youth

Increase opportunities for students from inland and urban communities in Santa Clara County—particularly those attending Title I schools—to participate in immersive, outdoor science experiences. By removing barriers related to cost, transportation, and geographic distance from the coast, the Inland Voyage Program ensures that every student can meaningfully engage with the natural environment. This goal directly supports the Open Space Authority’s mission to expand equitable access to nature for all residents, particularly those historically excluded from such opportunities.

2. Deepen Understanding of Watershed–Ocean Connections and Regional Climate Resilience

Strengthen student awareness of how local open spaces, creeks, and wetlands are part of a larger watershed system that flows to the San Francisco Bay. Through hands-on investigations aboard the Robert G. Brownlee research vessel, students conduct real-world water quality testing and study aquatic organisms to observe how human activity, habitat conservation, and climate patterns influence ecosystem health. This experiential approach reinforces the importance of watershed protection and open space conservation in building climate resilience across the region.

3. Cultivate the Next Generation of Environmental Stewards through Place-Based, Experiential Learning

Inspire a lasting sense of connection and responsibility toward the environment by engaging students in authentic scientific exploration. By observing marine life, collecting data, and drawing connections between their local communities and the Bay, students develop environmental literacy and agency. The program helps young people see themselves as future scientists, conservationists, and informed citizens who play a role in protecting the natural landscapes and waterways of the Santa Clara Valley.

4. Strengthen Community Partnerships and Regional Environmental Impact

Collaborate with local school districts, community-based organizations, and environmental partners to expand the reach and sustainability of the program. MSI works closely with educators, administrators, and OSA-aligned partners to ensure that programming complements local environmental education efforts and supports shared regional goals. Through these collaborations, the Inland Voyage Program builds a stronger network of environmental learning opportunities, increases community engagement with open space and watershed health, and amplifies collective impact across Santa Clara County.

How does this project serve the community?

Number of people served

1,500

Number of youth served

1,456

Number of programs provided

50

Other Grantee Goal #1 (optional)

Other Grantee Goal #2 (optional)

Impact

Describe the lasting impact of the project. Please include whether the program is open to the public and whether any materials developed will be available to the public.

The Inland Voyage Program delivers lasting community impact by expanding equitable access to nature, fostering environmental literacy, and empowering youth from underserved and marginalized communities in Santa Clara County to see themselves as scientists, problem-solvers, and environmental stewards. Through hands-on, inquiry-based learning with marine life from San Francisco Bay, students experience the natural world as an accessible, relevant, and inspiring place for discovery and growth. For many, the Inland Voyage represents their first time seeing the Bay or engaging directly with a living marine ecosystem. This experience breaks down barriers—geographic, financial, and psychological—that can separate youth from nature. It invites them to understand that they are connected to the Bay through their own local watersheds, creeks, and storm drains, and that their communities play an essential role in protecting the region's environmental health.

By stepping into the role of scientists, students gain new perspectives on their own potential and develop a personal connection to the natural systems that sustain their communities. The program's culturally responsive curriculum ensures that lessons resonate with students' lived experiences, validating their identities and showing that science is something they can do—and belong in.

By reaching students who might otherwise have limited exposure to outdoor learning, the Inland Voyage Program contributes directly to the Open Space Authority's goal of ensuring equitable access to nature for all. The program helps build environmental literacy across diverse populations and lays the foundation for a new generation of community members who understand and value the interconnectedness of Santa Clara Valley's open spaces, watersheds, and coastlines.

Over time, these experiences create ripple effects that extend into families and neighborhoods. Students share what they learn with peers and parents, inspiring broader community interest in environmental conservation and outdoor exploration. Many participants go on to seek further opportunities in science, environmental education, or civic engagement, embodying the long-term impact of experiential, nature-based learning.

Through this program, the Marine Science Institute and the Santa Clara Valley Open Space Authority work in partnership to build a more environmentally literate, inclusive, and resilient community—one where every child, regardless of zip code, has the opportunity to connect with and care for the natural world that surrounds them.

Climate Resilience

How does this project enhance and/or raise awareness about climate resilience? Please include any metrics that can be used to help quantity or understand the climate benefits of the project.

The Inland Voyage Program provides students with a unique opportunity to explore climate change and its effects on marine ecosystems through hands-on scientific investigation. Students engage directly with the Bay's living environment, collecting and analyzing real-world environmental data. By measuring key indicators such as pH, salinity, temperature, dissolved oxygen, and biodiversity, participants gain a concrete understanding of how marine ecosystems respond to both natural processes and human impacts. These experiences allow students to move beyond abstract concepts in the classroom, seeing first-hand how science operates in real ecosystems and how environmental monitoring informs decision-making.

Through these investigations, students develop a deep awareness of the interconnectedness of inland and coastal environments. They learn that rivers, creeks, and storm water systems in their own communities ultimately flow to the Bay and, from there, the ocean. This understanding highlights the significance of local actions, such as pollution prevention, water conservation, and habitat restoration, in shaping the health of downstream ecosystems. By connecting local behaviors to global environmental outcomes, the program fosters climate literacy and encourages students to consider their personal and community role in environmental stewardship.

Beyond collecting data, students analyze and interpret their findings, learning to recognize patterns and trends that reflect larger ecological phenomena, including the effects of climate change. For example, shifts in water temperature or pH levels can have cascading impacts on plankton populations, fish, and other marine life. Students explore these cause-and-effect relationships through guided discussion, observation, and reflection, strengthening their critical thinking, scientific reasoning, and quantitative analysis skills. The curriculum integrates Common Core math and literacy elements, so students practice graphing, data interpretation, and written explanation while learning to communicate scientific findings effectively.

The program also emphasizes the human dimension of climate and environmental issues. Students examine how urbanization, agriculture, and storm water management affect water quality and habitat health, helping them understand the social and policy contexts of environmental challenges. By placing climate change and watershed science in a local context, students recognize that they are not passive observers—they are part of a system that can be influenced through informed action. This approach empowers youth to become active participants in environmental solutions, reinforcing the broader goal of cultivating informed, responsible, and resilient citizens.

Finally, the program's experiential design ensures that climate education is engaging, culturally responsive, and developmentally appropriate for students in grades 4–8. By combining fieldwork, inquiry-based learning, and reflective discussion, the Inland Voyage Program not only builds scientific knowledge but also nurtures curiosity, confidence, and a sense of agency. Students leave with a lasting appreciation for marine ecosystems, a better understanding of climate impacts, and a recognition of how local actions contribute to global environmental outcomes. In doing so, the program supports the development of environmentally literate youth who are equipped to make thoughtful, positive decisions for the health of both their communities and the planet.

Community Engagement / Stakeholder Support / Community Building

Describe the community support and/or community engagement process. Please upload any community support letters in the Documents Upload section below.

The Marine Science Institute (MSI) prioritizes strong collaboration with educators, schools, and community organizations to ensure that the Inland Voyage Program meets the unique needs of the communities it serves. From program design to implementation, MSI views these stakeholders as essential partners in shaping educational experiences that are both impactful and culturally responsive. This collaborative approach ensures that the program is not only scientifically rigorous but also relevant, accessible, and meaningful for all students.

MSI works closely with teachers to align program activities with classroom curricula, grade-level learning goals, and the Next Generation Science Standards (NGSS). Teachers provide valuable insight into students' prior knowledge, learning styles, and academic needs, allowing MSI educators to tailor lessons and hands-on investigations to maximize engagement and learning outcomes. Through pre- and post-program communication, teachers help guide recruitment, identify students who will benefit most from the program, and offer suggestions for instructional adjustments. This partnership strengthens the connection between field-based learning and the classroom, ensuring that students' experiences on the research vessel reinforce and extend concepts they encounter in school.

Community organizations play an equally important role in shaping the program. MSI collaborates with local nonprofits, youth-serving organizations, and Title I school networks to identify populations that face barriers to outdoor and marine science education. These organizations help recruit students, advise on logistical considerations such as transportation and accessibility, and provide feedback on content and delivery methods to ensure that lessons are culturally responsive and inclusive. By incorporating the perspectives of community partners, MSI can design experiences that respect and reflect the diversity of the student population, increasing engagement, relevance, and long-term impact.

Ongoing feedback from all stakeholders is central to MSI's program model. Following each voyage, MSI gathers input from teachers, school administrators, and partner organizations to assess the effectiveness of curriculum, instruction, and logistics. Feedback is collected through surveys, interviews, and informal discussions, allowing MSI staff to evaluate what worked well and identify areas for improvement. This iterative process informs refinements to future programming, ensuring that each year builds on prior experience and continues to evolve in response to community needs. For example, feedback may lead to adjustments in the balance of hands-on activities versus discussion, modifications to scientific content to better match student grade levels, or enhancements to the cultural relevance of examples and teaching materials.

This continuous cycle of collaboration and evaluation strengthens MSI's ability to deliver high-quality, equitable, and responsive science education. By listening carefully to teachers, schools, and community partners, MSI ensures that programming is not delivered in isolation but is embedded within the broader educational and community context. The result is a program that reflects local priorities, empowers students from underserved communities, and maximizes the impact of experiential, place-based marine science learning. Through this partnership-driven approach, the Inland Voyage Program fosters meaningful connections between youth, educators, community organizations, and the natural environment, creating lasting benefits for both participants and the broader community.

Underserved Communities

Describe how the project addresses open space needs for sensitive populations such as residents of park-poor neighborhoods, underserved, or disadvantaged communities, youth, seniors, persons with disabilities, or is located within an under-resourced community.

The Inland Voyage Program is designed with equity at its core, prioritizing students who face barriers to environmental education and outdoor learning opportunities. Specifically, the program focuses on students from Title I schools and BIPOC communities in Santa Clara County who have historically had limited access to hands-on science experiences in natural environments. These students often live in urban or inland areas, far from the coast and from open spaces, which can create both physical and social barriers to participation. MSI recognizes that meaningful access requires more than simply offering programming; it requires intentional design, thoughtful support, and culturally responsive materials that meet the needs of diverse communities.

To ensure accessibility, MSI provides all instructional materials in both English and Spanish. This bilingual approach guarantees that students who are English language learners—or who come from homes where Spanish is the primary language—can fully engage with the curriculum. By presenting science content in students' home languages, MSI removes linguistic barriers that might otherwise hinder participation, understanding, or confidence. Additionally, this inclusive approach affirms students' cultural identities, showing that their language and experiences are valued in the context of STEM and environmental education.

Transportation is another critical barrier that the program addresses proactively. Many participating schools and community organizations are located far from the San Francisco Bay or lack the resources to facilitate field trips to coastal ecosystems. MSI brings mobile aquarium to the school sites, ensuring that distance and logistics do not prevent students from accessing high-quality, place-based science learning. By taking responsibility for transportation, MSI removes a major obstacle that often limits participation among underserved populations, enabling equitable access to the full experiential learning opportunity offered aboard the research vessel.

Financial barriers are also addressed directly. Participation in hands-on marine science programs can be costly when considering transportation, materials, or field trip fees. MSI offsets these costs entirely, providing free programming for eligible students. By eliminating financial constraints, the program ensures that all students—regardless of their family's economic situation—can participate fully in the Inland Voyage experience. This model of equitable access reflects MSI's commitment to serving communities most in need and aligns with broader goals of environmental justice and inclusivity in STEM education.

Beyond logistics, the program is intentionally designed to provide culturally relevant, engaging, and affirming experiences. By prioritizing Title I schools and BIPOC students, MSI ensures that these youth encounter marine and environmental science in ways that resonate with their own lives and communities. Students gain firsthand knowledge about local watersheds, ecosystem health, and the human-environment connection, building both scientific understanding and personal agency. In doing so, the program not only develops environmental literacy but also empowers youth to see themselves as capable scientists, informed citizens, and future stewards of their local environment.

Through its comprehensive approach—bilingual materials, transportation support, financial accessibility, and culturally responsive programming—the Inland Voyage Program removes systemic barriers to participation. It ensures that underserved and marginalized students have meaningful, high-quality access to outdoor science learning that can shape their academic paths, environmental awareness, and lifelong connection to nature.

Organizational Capacity

Briefly describe the organization and its ability to successfully implement this project. This might include successful past projects, key staff qualifications, financial resources, etc.

The Marine Science Institute (MSI) has a long-standing history of delivering high-quality, hands-on environmental and marine science education, having served over one million students across more than five decades. With deep roots in the San Francisco Bay region, MSI is uniquely positioned to implement programs that connect youth in Santa Clara County to the natural world, including local open spaces, watersheds, and coastal ecosystems. The organization's experience, infrastructure, and demonstrated impact provide a strong foundation for scaling programs like the Inland Voyage Program while ensuring they meet the Open Space Authority's priorities of equity, stewardship, and community engagement.

Central to MSI's capacity is its experienced and dedicated staff. The institute employs a team of marine scientists, environmental educators, and program specialists who are highly trained in experiential, inquiry-based learning methods. Staff members have expertise in climate science, ecology, watershed systems, and environmental justice, allowing them to deliver culturally responsive instruction to students from diverse backgrounds. MSI educators are adept at engaging students from Title I schools and BIPOC communities, creating inclusive learning experiences that empower youth to see themselves as capable scientists and stewards. Support staff manage program logistics, curriculum development, evaluation, and partnerships, ensuring that programs run smoothly and achieve measurable learning outcomes.

MSI's robust infrastructure further enhances its ability to deliver high-quality programs at scale. MSI maintains laboratories, classroom materials, and technological resources that support hands-on investigation and data collection. Combined with a well-established system for scheduling, transportation, and safety, these resources allow MSI to efficiently serve large numbers of students while maintaining program integrity and rigor. Over decades, MSI has refined operational systems for coordinating with schools, transporting students, and implementing experiential curriculum, ensuring reliability, safety, and a seamless educational experience.

MSI has a proven track record of achieving lasting impact in the region. By providing high-quality, standards-aligned programming, MSI has strengthened students' environmental literacy, climate awareness, and connection to local ecosystems. The institute's programming emphasizes watershed education, demonstrating how local actions affect open spaces, waterways, and coastal environments. Feedback from teachers, community partners, and students consistently highlights the program's ability to inspire stewardship, curiosity, and long-term engagement with science and the environment.

Finally, MSI's strong network of partnerships with schools, community-based organizations, and regional agencies—including those aligned with the Open Space Authority's mission—enhances program reach and sustainability. These collaborations ensure programming is responsive to community needs, prioritizes underserved youth, and integrates seamlessly with regional conservation and education initiatives.

With decades of experience, a skilled and dedicated staff, robust infrastructure, and deep community partnerships, MSI is fully equipped to implement and manage the Inland Voyage Program at scale. The institute is committed to providing equitable access to transformative environmental education, fostering stewardship, and connecting youth throughout Santa Clara County to the region's open spaces, watersheds, and Bay ecosystems.

Leadership & Innovation

Describe how this project employs innovative approaches or encourages collaboration and partnerships.

The Inland Voyage Program represents an innovative approach to connecting inland urban youth to the ocean and to environmental science, combining rigorous field-based learning with a strong commitment to equity and access. Many students who live in inland and urban areas of Santa Clara County have limited exposure to natural ecosystems, particularly marine environments, and may face barriers to participation in hands-on, outdoor science experiences. The Inland Voyage addresses this gap by bringing students directly to the San Francisco Bay aboard MSI's 90-foot research vessel, transforming the ocean into a living classroom where abstract scientific concepts become tangible, relevant, and inspiring.

What sets the Inland Voyage apart is its intentional integration of equity into every aspect of program design. The program prioritizes students from Title I schools and BIPOC communities, providing bilingual materials in English and Spanish and eliminating financial and logistical barriers through transportation and full funding for participation. By intentionally serving populations that have historically lacked access to field-based science education, the program ensures that every student—regardless of background—can engage meaningfully with the natural world. These experiences empower youth to see themselves as capable scientists and environmental stewards while fostering environmental literacy, curiosity, and long-term engagement with conservation.

The program's innovative model extends beyond the classroom or vessel itself. Its success relies on strong, multi-level partnerships between MSI, schools, and regional agencies such as the Santa Clara Valley Open Space Authority (OSA). Teachers and school administrators provide critical guidance on curriculum alignment, student recruitment, and grade-level appropriateness, while community-based organizations help ensure equitable access and cultural responsiveness. Partner agencies like OSA contribute regional knowledge, logistical support, and alignment with broader conservation and stewardship goals. This collaborative approach ensures that programming is not delivered in isolation but is embedded within the broader educational and community context, maximizing both impact and relevance.

This partnership-driven framework is highly replicable and scalable. By working closely with local schools, districts, and regional agencies, MSI has developed a model that can be adapted to different communities and geographic contexts while maintaining fidelity to core program goals. The structure—combining a mobile classroom, standards-aligned curriculum, and community partnership—is flexible enough to accommodate varying student populations, logistical considerations, and funding scenarios. It is also evidence-based, relying on ongoing feedback from students, educators, and partners to continuously refine programming and ensure alignment with community needs.

Beyond scalability, the Inland Voyage fosters measurable outcomes in science learning, environmental literacy, and stewardship. Students gain direct experience in water quality testing, plankton sampling, and biodiversity assessment, deepening their understanding of local watersheds, ocean ecosystems, and the interconnectedness of inland and coastal environments. They leave with not only new knowledge and skills but also a personal sense of responsibility to care for their local environment and watersheds, translating scientific learning into meaningful, actionable stewardship behaviors.

In sum, the Inland Voyage Program represents a uniquely innovative and equitable model of environmental education. By blending rigorous field science with intentional access and culturally responsive practices, and by leveraging strong, cross-sector partnerships, the program provides a replicable and scalable framework for connecting youth to the natural world. It demonstrates how collaboration between MSI, schools, and agencies like OSA can deliver transformative learning experiences that empower students, advance environmental literacy, and foster long-term stewardship across Santa Clara County and beyond.

Documents Section

Document Uploads (please combine into one file if possible)

Additional files (if needed)

Additional files (if needed)

Submitted Date - Internal

Summary Field:

Name: Average Score (no bonus)

Form: Staff Review

Summary Type: average

Field: Base Score Total

Decimal: 2

Currency: No

Description/Help Text: NONE

Short Name: NONE

Field Purpose: NONE

Filter:

- ALL:
 - isComplete | is | true

Summary Field:

Name: Total Count of Submitted Reviews

Form: Staff Review

Summary Type: count

Field: NONE

Decimal: NONE

Currency: No

Description/Help Text: NONE

Short Name: NONE

Field Purpose: NONE

Filter:

- ALL:
 - isComplete | is | true
 - Folder | is | Submitted

Program Application: File Attachments

Please upload a detailed version of your budget by accessing the link below:



Santa Clara Valley Open Space Authority 4/1/2026 - 6/31/2028

	Grant Budget	School Portion	Total Project
<u>Revenue</u>			
Contributed Revenue	\$60,000		\$60,000
Program Service Revenue		\$7,840	\$7,840
Total Revenue	\$60,000	\$7,840	\$67,840
<u>Expense</u>			
Payroll and Benefits	\$41,108	\$5,366	\$46,474
Outside Services	\$1,437	\$188	\$1,625
Supplies and Operating Expenses	\$3,029	\$397	\$3,426
Travel and Fuel	\$1,880	\$246	\$2,126
Occupancy	\$1,364	\$179	\$1,543
Insurance, Repairs, Other	\$3,677	\$481	\$4,158
Depreciation	\$7,505	\$983	\$8,488
Total Expense	\$60,000	\$7,840	\$67,840
Net Income (Loss)	\$0	\$0	\$0
 # of Programs			 56
Total # of Participants			1,456
Average Cost per Program	\$1,072	\$140	\$1,212
Average Cost per Participant	\$41.21	\$5.39	\$46.60

Expense Descriptions

Payroll and Benefits

Payroll and Benefits expense includes salaries for 12 office staff members and the primary boat captain, wages for approximately 11-18 instructional staff members, payroll tax, the employer share of health insurance benefits, and the employer contribution to the retirement plan.

Outside Services

Outside Services expense includes the costs of fieldtrips hosted by parks and museums, accounting fees for our annual financial review and tax return preparation, other consulting services, and web-based services such as annual or monthly fees to Constant Contact, Adobe, PayPal, and LogMeIn.

Supplies and Operating Expenses

Supplies and Operating Expenses include the cost of supplies to run our programs and ground facilities which include the aquarium, classrooms, and office. This category of expense also covers ADP payroll process fees, leasing and usage of our copier and postage machines, and telecommunication fees.

Travel and Fuel

Travel and Fuel expense includes bus transportation for schools to attend our programs, stipends for instructors when they are performing programs that require over-night stays, fuel for the vessels and vehicles, employees' mileage reimbursement, and costs of attending conferences for training.

Occupancy and Depreciation

Occupancy and Depreciation covers our utilities costs, janitorial services, and depreciation of fixed assets. Utilities costs include electricity, water, sewage, and garbage collection. Our fixed assets include our vessel, four vehicles, aquarium, building improvements, docks, and ground improvements.

Insurance, Repairs, Other

Insurance, Repairs, Other expense includes workers compensation insurance, other liability insurance, repair & maintenance of our vessel, vehicles, and ground facility, IT expense, staff development and training costs, harbor fees, interest expense, marketing, and other miscellaneous expenses.