



Envirolution

- **Project Recharge**
Empowering teaching through project-based learning
- **Career Quest**
Bridging the gap between sustainable businesses and future workforce
- **Sustainability Expedition**
Connecting young leaders with local and sustainable businesses
- **Introduce a girl to engineering day**
Inspiring female and genderqueer students to consider a career in engineering

Envirolution: A Legacy of Teaching and Learning.

Mission

To inspire and empower the next generation of leaders and workers who will drive the growth of a sustainable economy.

Vision

To live in a world wherein the social, environmental, and economic spheres of our lives are prosperous and in balance. We envision an educational system that employs an inquiry-based and practical approach that inspires and prepares our youth for this rapidly developing sustainable economy.

Core Values

- Collaboration
- Inclusion
- Innovative Impact
- Passion
- Authenticity
- Sustainability

Leadership Philosophy

The leader's primary role is to be a servant to their team and organization.

Annual Report 2022-2023

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BOARD OF DIRECTORS**Matt Rittenhouse***Board Chair**Branch Manager, Umpqua Bank***Breann Koep***Director**Project Controls Manager - Exyte***Antuan Cannon***Director**Director of Talent Development & Innovation -
Willdan***Mark Korinek***Director**Operations and Sustainability - Carson City Schools.
(Ret.)***Gina Nakahara***Director**Director High School Manufacturing Teacher Central
Technical Training Academy, Las Vegas, NV***Carlos Rendo***Director**Emergency Management Specialist at FEMA,
Oakland, CA***Lina Tanner***Director**Director and Attorney**Government Relations - Tanner Law & Strategy
Group, LTD. & Burning Man Project***Rhonda Chavez***Board Appointed Treasurer RHC Enterprises*

STAFF MEMBERS

Mishkat Al Moumin
Executive Director

Amy Rice
Director of Operations

Aimee Frugoli
*Director of Career
Programs*

Megan Weinhold
Curriculum Manager

Jessica Holden
*Educational Materials
Manager*

Nick Owens
Grant Manager

Liz Guillen
*Programmatic and Events
Coordinator*

Veljean Williamson
*Development and Marketing
Manager*

Chaja Hogeweg
*Marketing and Content
Coordinator*

Partners

ACKNOWLEDGEMENT OF ENVIROOLUTION PARTNERS

As Envirolution reflects upon a year marked by achievements and significant strides toward a sustainable future, the team extends its heartfelt gratitude to our esteemed partners who have made this journey not only possible but extraordinarily impactful. Your unwavering support, both in terms of generous funding and invaluable services, has been the keystone in amplifying our efforts to nurture an ecosystem of innovation, education, and environmental stewardship.

Your contributions have breathed life into our initiatives, empowering us to reach countless young minds and communities. Every project, program, and campaign has been fortified by your belief in our mission and your commitment to fostering a world where sustainability is woven into the fabric of every community. You have enabled us to transform ideas into actions, aspirations into tangible impacts, and challenges into steppingstones for unprecedented achievements.

Every statistic, story, and success in this annual report is a testament to your generosity and partnership. Together, we have embarked on a journey that transcends geographical boundaries and demographic diversities, uniting us in a common pursuit of a sustainable, innovative, and equitable future.

We are profoundly grateful for the trust, collaboration, and enthusiasm you graciously bestowed upon Envirolution. Each milestone achieved and every barrier overcome echoes the strength and synergy of our partnership. As the Envirolution team steps into another year of possibilities and progress, we are inspired by the unwavering support of partners like you, who stand with us in our commitment to shaping a world where the principles of sustainability are not just taught but are lived, celebrated, and cherished.

Thank you for being an integral part of this transformative journey. Your contribution is valued and vital in writing the narrative of a sustainable future of which we are all proud to be a part.

American Association of University

Women

Apple

Click Bond

Community Foundation of Northern

Nevada

E-STEM

Google

Lithium Nevada

McKinstry

Nevada Department of Education

NV Energy Foundation

NV STEM Network

Ormat

Pratt and Whitney

Redwood Materials.

Sol-Up

Tesla

Truckee Meadows Water Authority

Waste Management

Willdan

William H Moffat Foundation

Wood Rodgers

LETTERS FROM LEADERSHIP

Board Chair-Matt Rittenhouse

Dear Envirolution Community,

It is with great pride and gratitude that I address you as the Board Chair of Envirolution. Our organization has embarked on a remarkable journey, driven by a vision to create a sustainable and environmentally conscious future. We are immensely proud of the strides we have made, the projects we have undertaken, and our impact on our community and beyond. As we move forward, we remain committed to our mission, guided by innovation, collaboration, and a steadfast dedication to environmental stewardship. Our board and our entire team are inspired by your support and the tireless efforts of our staff, volunteers, and partners. Together, we will continue to make a difference and pave the way for a greener, more sustainable world. Thank you for your unwavering commitment to Envirolution.

Warm Regards,

Envirolution Board Chair

Departing Executive Director- Vanessa Robertson

Gratitude, honor, appreciation, and inspiration. These are just a few of the words that describe how I feel as I write my last Executive Director letter for another incredible Envirolution annual report. The last 9+ years have been a journey of a lifetime, and it has been truly my pleasure to have had the privilege of growing this organization and our programs through the recruitment and development of dedicated staff and committed community partners. It's never an easy decision to step away from something that you have poured your heart and soul into, sacrificed sleep for, and spent time away from your family for, all because of the mission, all because, in the end, you were making a difference. Reflecting on this year, I feel this more than ever, and I wouldn't change a thing! During the 2022/2023 school year, Envirolution resumed its annual Sustainability Expedition program after a 3-year pause due to the pandemic while also piloting a brand-new E-Power Energy Bike workshop. Project ReCharge continued to grow across the county while also receiving a prestigious EPA Environmental Education grant that will grow the curriculum and program here in Northern Nevada for the 2023/2024 school year. I'm confident that the programs and impact will continue to grow under the new leadership of Dr. Mishkat Al Moumin, who shares my unwavering dedication to our mission and passion for sustainability and education. I want to thank the board of directors and all our community partners for your trust in me over the years, and I look forward to hearing about all the great work that will be accomplished for years to come.

With gratitude and appreciation,

Executive Director 2016-2023

Incoming Executive Director- Dr. Mishkat Al Moumin

Becoming the Executive Director of Envirolution is a remarkable opportunity to lead an organization committed to driving sustainable change in our rapidly evolving world. Envirolution's mission to empower communities and individuals to adopt eco-friendly practices is both inspiring and timely. As Executive Director, I am dedicated to steering this organization toward new heights, leveraging innovative strategies to address pressing environmental challenges. My vision is to foster collaboration, strengthen partnerships, and develop cutting-edge initiatives that not only protect our planet but also promote environmental equity and social justice. Together, we will embark on a journey to redefine the environmental movement and inspire a new era of stewardship for our planet's well-being.

Respectfully,

Dr. Al Moumin

EXECUTIVE SUMMARY

Envirolution's Annual Report for 2022-2023 illuminates a year marked by significant accomplishments and strides toward an innovative and sustainable future. The team exceeded targets by training 540 educators. Thus, marking a pivotal progression in enhancing the quality and reach of STEAM education. Engagement metrics soared with 166,580 students immersed in STEAM and sustainability concepts. Therefore, Envirolution surpassed previous records. This success is underscored by a 50% average increase in student knowledge and interest in related careers. Envirolution achieved expanded reach and intensified impact as community outreach flourished, with 4,637 members engaged across 54 events.

A robust financial profile is evident in a 30% annual funding increase and a 54% diversification in funding sources, underscoring Envirolution's financial resilience, fiscal management prioritized core programmatic activities, organizational and fundraising endeavors, and R&D innovations. Academic milestones included the training of 18 master teachers under Project ReCharge, 56 facilitated events engaging 1,482 students through Career Quest, and the launch of the EDGE2 Initiative to foster the interests of female and genderqueer students in energy and engineering.

Project ReCharge made monumental strides, expanding into 17 cities across six states. Envirolution's 2024 blueprint promises innovative expansions and enriched educational engagements, including introducing the EmPower club, E-Power Bike Workshop expansion, and new collaborations under the EDGE2 initiative. The milestones achieved this year are emblematic of deepened impacts and broadened reach. Challenges encountered are viewed as catalysts for innovation and growth. Envirolution extends heartfelt gratitude to partners, educators, students, and the community for their role in this transformative journey, jointly weaving a tapestry of innovation, education, and sustainability to enrich future generations.

ENVIROOLUTION STRATEGIC PLAN

In the unfolding chapters of our journey towards fostering an innovative and sustainable future, we are pleased to present an update on our strategic plan for 2019/2020-2023/2024. The plan, rooted in our unwavering commitment to STEAM education and sustainability, outlines ambitious objectives designed to catalyze transformative change in our communities and beyond. As we reflect on the progress made in the 2022/2023 period, we are imbued with a sense of accomplishment and a renewed vigor to surmount the milestones ahead.

Analysis of the Strategic Plan Objectives

Objective 1

Our commitment to empowering science, math, and STEAM teachers is unwavering. With a target of reaching 500 teachers by January 2024, Envirolution exceeded its target by training a total of **540 teachers**, including providing 266 educators in 2023 with professional learning and ongoing resources in 2022/2023, marking a significant stride from the 274 reached in 2021-2022.

Objective 2

Envirolution exceeded its strategic goal of engaging 100,000 students in STEAM and sustainability concepts by January 2024. In total, Envirolution has engaged **166,580 students**, with 98,600 students already reached this year. This is remarkable progress from the previous year's 67,980, which highlights Envirolution's effective approach to engaging young leaders in inclusive and diverse education.

Objective 3

The efficacy of our programs is evident in the **50%** average increase in student knowledge and interest in STEAM and sustainability careers, surpassing our annual target of 25-50%. This growth builds on the 36% increase in 2021/2022 and highlights the resonating impact of our initiatives. Thus, over the last three years, Envirolution **achieved an 83% increase** in student knowledge based on our pre-and post-surveys.

Objective 4

Community engagement remains pivotal. In 2022/2023, we interacted with 4,637 community members across 54 events, exceeding our annual target of more than 30 events and marking an improvement from the **42** events held the previous year. This amplifies the reach and impact of our STEAM and sustainability programs.

Objective 5: Increasing Annual Funding by 15-20

Financial resilience and diversification of funding sources are crucial. Envirolution is proud to report a 30% increase in annual funding and a 54% diversification in funding sources, surpassing our annual targets and indicating an upswing from the 11% funding increase and 52% diversification achieved in 2021/2022.

Objective 6

The expansion of Project ReCharge is ahead of schedule. Initially aimed at five new cities by 2024, Envirolution has already marked our footprint in 17 cities across six states, indicating a significant leap from the six cities reached in the previous year.

The strides made in the 2022-2023 period are not just numerical achievements but are reflective of our initiatives' deepening impact and expanding reach. Each objective met and surpassed is a testament to our collective effort, resilience, and unwavering commitment to fostering a future where STEAM education and sustainability are at the forefront. As we march forward, each accomplishment fuels our journey, and every challenge presents an opportunity for innovation and growth.

ENVIROOLUTION FINANCIAL HEALTH

Financial Overview for September 2022-August 2023

Envirolution experienced a significant financial uplift in the program year, with a 30% increase in total revenue from the previous year, amounting to \$925,386. This financial augmentation is attributed to various sources of income, including government and corporate grants, foundations, individual donations, businesses, and in-kind services.

Revenue Breakdown

- Government and Corporate Grants: \$540,528.52
- Foundations: \$179,633
- Individuals: \$49,491
- Businesses: \$141,521
- In-kind Services: \$12,213

Expenditure Analysis

The total expenditures for the year were \$903,946, with a strategic allocation to programmatic activities, organizational and fundraising, and research and development (R&D).

- Programmatic Expenses: 61% (\$555,471)
- Organizational and Fundraising Expenses: 34% (\$311,434)
- R&D Expenses: 5% (\$37,041)

Detailed Expenditure Breakdown

- Organizational and Fundraising Expenses: \$311,434
- Advertising/Marketing: \$14,095
- Continuing Education/Development: \$1,486
- Travel: \$75
- Insurance/Licensing: \$42,626
- Accounting, Taxes, and Bank Professional Services: \$15,393
- Postage: \$1,425
- Food: \$8,098
- HR PEO Fee: \$15,474
- Employee Wages and Taxes: \$191,825
- Shared Expenses (Facilities/Rent/Utilities): \$18,268
- Subscriptions: \$1,538.50
- Printing/Copies/Office Supplies: \$1,130.30

Programmatic Expenses: \$555,471

- AmeriCorps: \$20,845
- Hands-on Materials: \$66,784
- Curriculum Development and Trainers: \$10,540
- Food: \$7,748
- Student Events, Projects, and Recognition: \$11,134
- Professional Services: \$7,625

- Travel: \$9,884
- Teacher and Intern Stipends: \$29,074
- Shipping: \$6,149
- Printing and Training Materials: \$8,669
- Program Promotions: \$10,920
- Value of In-Kind Services: \$8,863
- Employee Wages: \$311,067
- Shared Expenses (Facilities/Equipment/Rent/Utilities): \$38,820
- Subscriptions: \$4,947
- Printing/Copies/Office Supplies: \$2,402

3. R&D Expenses: \$37,041

- Employee Wages, Taxes, Materials: \$37,041

The program year 2022 was characterized by a robust financial performance, with a 30% increase in total revenue, amounting to \$925,386. The organization managed its expenditures effectively, totaling \$903,946, ensuring a positive net income and financial stability.

Revenue Sources Diversification

The revenue was diversified, with a significant portion coming from government and corporate grants (\$540,528.52), followed by foundations (\$179,633), businesses (\$141,521), individuals (\$49,491), and in-kind services (\$12,213). This diversification is crucial for reducing dependency on a single source of income and ensuring financial sustainability.

Expenditure Allocation:

The expenditures were strategically allocated to programmatic activities (61%), organizational and fundraising (34%), and R&D (5%). This allocation underscores the organization's commitment to its core programs while ensuring operational efficiency and investing in future innovations.

Future Plans

1. Enhance Individual and Business Contributions

While government grants and foundations contribute a significant portion of the revenue, there is an opportunity to engage businesses in Envirolution programs. Developing engagement programs can help businesses connect with the communities and empower students and teachers to engage in project-based learning, using business models as case studies.

2. Optimize Operational Expenses

A detailed review of the organizational and fundraising expenses, which constitute 34% of the total expenditures, can unveil opportunities for cost optimization. Streamlining operations, leveraging technology, and exploring cost-effective alternatives can enhance operational efficiency.

3. Invest in Research and Development (R&D)

The 5% allocation to R&D is commendable. However, considering the dynamic nature of the STEAM and sustainability landscape, restructuring R&D to improve grant deliverables will foster innovation, enhance program effectiveness, and ensure the organization remains at the forefront of educational and sustainability advancements.

4. Evaluate Programmatic Expenses

The allocation to programmatic activities is significant. Envirolution will assess the impact of its programs by providing quantitative and qualitative assessments to analyze the data into their effectiveness further.

5. Financial Resilience

With a positive net income, it is advisable to consider building a financial reserve or endowment. It can enhance the organization's financial resilience, ensuring it can navigate unforeseen challenges and seize emerging opportunities effectively.

The program year 2022 showcased solid financial performance and strategic expenditure management. Moving forward, focusing on diversifying revenue sources, optimizing operational expenses, and investing in innovation and impact evaluation can enhance the organization's financial health and capacity to deliver on its mission effectively. The organization is well-positioned to build on this financial performance, driving impact, innovation, and sustainability in the coming years.

ACADEMIC OFFERINGS AND PROGRAMS

Envirolution Programs are dedicated to fostering the next generation of eco-conscious leaders, engineers, and scientists who are well-equipped to tackle the pressing environmental challenges of our time. Among its flagship initiatives, Project Recharge empowers students to become energy auditors, developing their skills in science, technology, engineering, and math (STEM) while facilitating real-world change through energy efficiency.

In Career Quest, participants embark on an enriching journey exploring green careers, gaining invaluable insights and connections in the rapidly growing field of sustainability. The Sustainability Expedition offers a hands-on experience where students delve into the intricate balance of ecosystems, conservation, and human impact. Furthermore, Envirolution proudly supports "Introduce a Girl to Engineering Day," an event that breaks down gender barriers in STEM, inspiring young women to imagine a future where they are the innovators, makers, and leaders solving tomorrow's environmental issues. Through these transformative programs, Envirolution is not just educating but is actively seeding a world where sustainability is at the core of every community's ethos.

PROJECT RECHARGE

Overview

Project ReCharge stands as a beacon of innovative learning, embodying a hands-on, project-based curriculum in Science, Technology, Engineering, Art, and Mathematics (STEAM). It is meticulously designed to transform students into future sustainability leaders, equipping them with the tools and knowledge to tackle real-world problems. Teachers are empowered with comprehensive resources and training, fostering an environment where students are inspired to delve into STEAM sectors and become sustainability detectives.

Project Mission Statement

To transform communities through student-driven energy and sustainability solutions. We aim to empower educators and create equal opportunities for all students, irrespective of their background, by refreshing and providing comprehensive energy and sustainability curricula, materials, and training.

Progress Update

In the recent phase, Project ReCharge has witnessed expansion into five new districts, incorporating 56 new teachers and 12 new schools. The program has engaged 4,212 students from grades 4th-12th and invested \$37,132 in classroom resources. A total of 8 student projects are slated for implementation.

Feedback and Recognition

An overwhelming 95% of teachers would recommend Professional Learning (PL) training and 99% found it valuable. The project has been honored with the E-STEM Award and recognized on the Office of Science, Innovation, and Technology STEM list.

Cumulative Impact

To date, 218 teachers have completed the Project ReCharge curriculum, impacting 89,549 students across 135 schools and 18 districts in 7 states. A total of \$390,000 has been invested in classroom resources, contributing to 10,414 PL hours.

Energy Savings and Student Demographics

The implementation of 28 student projects has resulted in significant energy savings and a 50% increase in content knowledge. The project has a diverse student demographic, with a notable 64% being Title 1 students.

Advisory Board Accomplishments

The advisory board, having convened four times this year, has outlined the future trajectory of the Project ReCharge curriculum. The focus will be on middle and high school NGSS standards, with new lessons planned on Electric Vehicle, Food and Sustainability, Waste and Sustainability, and Battery Storage.

Curriculum Expansion

The curriculum has been enriched with three new lessons and 10 new activities, aligned with 5 Elementary and 2 Middle School standards. Continuous updates are informed by comprehensive evaluations and feedback from various stakeholders, ensuring the curriculum remains dynamic, relevant, and impactful.

Project ReCharge is not just a curriculum but a movement toward a sustainable future driven by empowered educators and inspired students. Every lesson, activity, and project is a step towards transforming communities and instilling a culture of sustainability, innovation, and inclusivity. The

journey ahead is filled with opportunities for growth, learning, and impact, and every stakeholder is a pivotal part of this transformative journey.

Master Teachers - 18 teachers

In the past year, a notable achievement for Project ReCharge was the successful training of 18 educators, marking a significant stride in our ongoing commitment to professional development and educational excellence. These dedicated professionals each completed four levels of professional learning, a testament to their commitment to honing their skills and enhancing their teaching methodologies. This rigorous training encompassed a comprehensive curriculum that was both diverse and intensive, ensuring that each teacher was adeptly equipped with innovative strategies, tools, and insights to foster a hands-on learning environment. The empowerment of these educators not only elevates the quality of instruction but also amplifies the impact of Project ReCharge as we collectively strive to nurture informed, engaged, and inspired students.

Level 4

- a. Dustin Coli: Reno - Wooster High School, CTE
- b. Krissi Hadley: Reno - Swope MS, Science
- c. Leigh Metcalfe: Reno - Doral Academy MS, Science
- d. Cali Holman: Reno - Heritage Homeschool Middle School
- e. Natalie Wierzbicki: Reno - Incline MS Science
- f. Michelle Hollis: Sparks Pinecrest Academy STEM specialist
- g. Tammy Borremans: Dayton - Carson Middle School 7th/8th Grade
- h. Cindy DeLeon: Elko - FlagView Intermediate School 5th grade
- i. Kim Tucker: Carson - Eagle Valley MS STEM
- j. Kristi Varner: Fernley - Fernley HS ENV Sci
- k. Lorenzo Worster: Truckee - Sierra Expeditionary School 6th grade

Level 3

- l. Lisa Daughtery: Las Vegas - Del Sol Academy HS physical science
- m. Eric Heiselt: Fernley - Silverland MS Project ReCharge elective
- n. Christen Vice: Gardnerville - CC Meneley ES

Level 2

- o. Peggy Lord: Arizona - Stapley Jr High - 7th-8th Grade
- p. Shelina Bouthillier: Carson - Bordewich Bray - 5th Grade
- q. Kaitlyn Van Kirk: Washoe - North Valleys HS - Biology and Environmental Science 9-12th
- r. Kerry Xavier: Carson - Carson Middle - STEM 6th-8th

Future Plans

Project ReCharge continues its expansion, reaching into Arizona, California, and Maine, backed by the support of a grant from NAAEE and EPA. In addition to geographic expansion, the project is also broadening its educational content. The PRC curriculum is undergoing continual updates, with plans to introduce new lessons on topics including Hydroelectric Power, Waste Sustainability, Battery Storage, and a second module on Transportation. Each update aims to enrich the learning experience, offering diverse and comprehensive insights into sustainable energy and environmental education.

Testimonials

It changed my thoughts about my future career because I realized that I could change what I don't feel like should be right. I can also help the community by using some of the things that I learned in PRC. - 6th Grader - Mount Rose MS.

Being more hands-on helped me decide to pursue mechanical engineering instead of civil engineering, as I wanted to work more with moving components and more with my hands and things that I could physically touch. - 12th Grader - Advanced Technologies Academy.

I believe these lessons reinvented my ideas of sustainability because they used to just be connected to recycling. But when you bring into the picture the energy grid of the world, it gets more interesting. I think the sustainability of the earth is important and that it could become a job option someday. - 10th Grader- Reed High School.

CAREER QUEST

BRIDGING THE GAP BETWEEN STUDENTS AND STEAM CAREERS

Overview

Career Quest has made significant strides in the 2022-2023 period, serving as a pivotal platform that bridges the gap between students and the world of STEAM and sustainability careers. This program, facilitated by Envirolution, has seamlessly connected businesses and students, offering a glimpse into the dynamic world of workplace STEAM opportunities through interactive presentations, industry tours, and hands-on activities.

Key Achievements

- Events Facilitated: 56
- Schools Engaged: 26 across nine districts
- Student Participation: 1,482 students
- Career Development Hours: 2,946.75
- Business Participation: 21, including industry giants like Tesla and Apple
- STEAM Guest Speakers: 18 professionals from diverse fields

Career Quest has introduced students to local career opportunities and fostered an environment where businesses meet their prospective workforce. The program's adaptability is showcased by its blend of in-person and virtual events, ensuring accessibility for classrooms globally.

Cumulative Impact

Since its inception, Career Quest has made significant strides in nurturing the future workforce. The program has marked its presence across 17 districts, reaching 77 schools and making a profound impact on 4,954 students. Through 178 meticulously crafted events, participants have accumulated a total of 8,558.75 career development hours, a testament to the program's comprehensive approach to professional growth. Moreover, Career Quest's collaboration with 50 businesses amplifies its effectiveness, ensuring that students are not just well-educated but also well-connected in the professional realm, ready to step into the future with confidence and competence. Each figure and fact underscores Career Quest's unwavering commitment to shaping young minds and preparing them for the opportunities and challenges of tomorrow's job market.

Future Plans

Envirolution is committed to a future of innovation and expansion, and as we look forward to next year, we are eager to share our forthcoming enhancements to the Career Quest program. Two new business collaborations are in the final stages of confirmation. This anticipated expansion is geared towards broadening the array of opportunities we offer by integrating a diverse mix of industries and expertise to benefit our participants.

In pursuit of organizational excellence, a significant upgrade is on the horizon - the deployment of a sophisticated scheduling system. This pivotal improvement is tailored to streamline event coordination, fostering an environment of efficiency and seamlessness. Participants, partners, and

organizers will experience enhanced interactions facilitated by this innovative system, crafted with user experience at its core.

Every stride we are poised to make stems from our unwavering commitment to amplifying the impact of the Career Quest program. Envirolution is dedicated to continuous improvement, and we are confident that these strategic initiatives will substantially elevate the participant experience and the program's overall efficacy in the coming year. Envirolution is not stopping there; the STEAM Guest Speaker list is set to grow by at least 10%. This will introduce a diverse range of expertise and perspectives, enriching the learning environment and offering students a broader view of the multifaceted STEAM fields.

Testimonials

One of my favorite things from my career quest experience was the fact that everyone who was working there was so open to taking us under their wing throughout their normal lives. They seemed very welcoming to our questions and wanted us to really consider taking the opportunity to work in the medical field. - 11th Grader, Reed High School

Without Career Quest, my students likely would not get to take field trips. Our school district is struggling with funding and Transportation, so Career Quest is making these activities possible for my students. The process to sign up is so easy, and I appreciate the hard work the Envirolution staff do to be able to offer field trips to my class. - Teacher, Eagle Valley MS

I think the biggest impact of this field trip is introducing students to a workplace focused on constant improvement and sustainability. Many students know little to nothing about other jobs available in their community, and this broadens their horizons quite a bit. - Teacher, Fritsch Elementary.

EMPOWERMENT AND DEVELOPMENT OF GIRLS IN ENERGY AND ENGINEERING (EDGE2)

Program EDGE2, designed to inspire the next generation of female and genderqueer STEAM leaders, is the newest addition to Envirolution’s innovative initiatives. It is crafted to ignite confidence and interest among girls and genderqueer students in science, technology, energy, and math careers, particularly focusing on energy and engineering. EDGE2 comprises week-long workshops and single-day events, offering a safe and inclusive environment for participants to delve into energy and engineering sectors. This initiative stems from the identified gap and underrepresentation of women and genderqueer individuals in these fields.

I. Introduce A Girl to Engineering Day Event: A Collaboration with Tesla

Introduce A Girl to Engineering Day (IGED) is a national initiative that Envirolution proudly participates in. In 2023, a collaboration with Tesla marked the 6th consecutive year offering both in-person and virtual experiences. The virtual event saw over 3,000 registrations from 42 countries and 43 states, offering participants exclusive virtual tours and insights from Women at Tesla.

University of Nevada, Reno Partnership

Unfortunately, a scheduled event with the University of Nevada, Reno, faced cancellation due to severe weather conditions. However, lessons learned have led to the incorporation of a make-up day in the 2024 event plan to mitigate such future challenges.

Reflection

The strides made in both Career Quest and Program EDGE2 underscore Envirolution’s commitment to introducing students to STEAM fields and ensuring diverse and inclusive participation. The blend of in-person and virtual events, the expansion of business tours, and the introduction of new programs like EDGE2 are testaments to the adaptability and forward-thinking approach of Envirolution. Each student engaged, every career development hour accumulated, and each partnership forged amplifies the impact, bringing us a step closer to a diverse, inclusive, and dynamic STEAM workforce of the future.

Milestones Achieved for 2022-2023

Total Students: 4560

Total Schools: 589

Total States: 45

Total Countries: 6

Total Volunteers: 690

Testimonials

Learning about all the cars and models and all of the advice from fellow women engineers. I also loved connecting with all of the other girls who were looking to become engineers in the future and CHANGE THE WORLD!! - Mount Olive MS.

Future Plans

In the forthcoming year, Envirolution is poised to amplify the impact of our Introduce a Girl to Engineering Day (IGED) initiative, as highlighted in our strategic roadmap outlined in this annual report.

A significant expansion is underway; Envirolution is in advanced discussions to forge new alliances with additional business entities and partners. This expansion is meticulously crafted to widen our reach and influence, enabling us to engage an increased number of girls both within our local communities and nationwide.

Central to our mission is sparking and nurturing interest in STEM fields among girls. The forthcoming enhancements to the IGED initiative are designed to create enriched, engaging, and diverse experiences that inspire participation and cultivate a deep-rooted interest in STEM disciplines. With these strategic enhancements, we anticipate a notable elevation in the scale and impact of the IGED initiative in the upcoming year, marking a significant milestone in our ongoing journey to foster diversity and inclusion within the STEM landscape.

II. Pilot E-Power Energy Bike Workshop Event

The pilot E-Power Energy Bike workshop was successfully executed over Carson City Spring Break April 3-7, 2023. Three teams from Carson Middle School and Eagle Valley Middle School became Energy Bike Ambassadors by building energy-generating bikes from scratch while learning about the various components, wiring methods, and all the tools involved. Envirolution held this STEAM workshop at Eagle Valley Middle School with the help of Enel, Tesla, and AAUW. Participants worked in groups alongside staff and local career professionals while they learned about the engineering design process, understanding basic circuitry/electronics, working in a team, problem-solving skills, and leadership. During the workshop's final day, students presented their bikes to family, friends, and community members, showcasing their work and knowledge of the system.

Milestone Achieved

- Eight students
- Three new bikes built
- 30 hours of hands-on learning
- 30% increase in content knowledge

Testimonials

My time at this E-Power Workshop was very interesting. There were a lot of things I enjoyed, like building the circuit board and wiring up the components. I liked the experience and how guest speakers were talking about their jobs and what they were doing in that job to make the world a bit more sustainable. I liked the trip to Tesla and the showing of what their plan was to get more energy efficient. This workshop was probably the best experience in learning about technology. - 7th Grader, Eagle Valley, MS.

Future Plans

Envirolution is eager to unveil its ambitious blueprint for 2024, marked by innovative expansions and enriched educational engagements that underscore our commitment to driving impact and fostering a culture of immersive learning.

A cornerstone of our 2024 strategy is the establishment of the EmPower club in a Nevada school. This initiative is designed to build upon the momentum and success of our E-Bike program. The objective is to cultivate an environment where students can immerse themselves in project-based learning opportunities, fostering a culture of innovation, creativity, and hands-on engagement.

Spring 2024 heralds another significant milestone with the rollout of the E-Power Bike Workshop to Washoe County students. This strategic expansion is a testament to our dedication to broadening our reach and making STEAM education accessible to a wider student demographic. The team is geared to provide innovative and interactive learning platforms that not only engage but also inspire students to delve deeper into the multifaceted world of STEAM.

These anticipated developments are reflective of Envirolution's unwavering commitment to elevating the quality and reach of our educational programs. Each initiative, meticulously crafted and strategically aligned, is indicative of our passion for fostering a dynamic, inclusive, and enriching learning ecosystem. Envirolution steps into 2024 with anticipation and confidence, poised to make impactful strides in nurturing the next generation of STEAM leaders.

III. Sustainability Expedition

In 2023, Envirolution marked its fifth year of hosting the esteemed Sustainability Expedition - a five-day immersive experience that unveiled the mesmerizing world of STEAM careers, renewable energy, and eco-friendly practices to northern Nevada youth aged 12 to 18. Nine bright minds from five diverse schools embarked on a journey that whisked them away to 10 iconic locations, including Patagonia, Tesla, and NV Energy, painting a comprehensive portrait of the local sustainability landscape.

Every day of the expedition was crafted around a guiding question, focusing the young explorers' attention on distinct aspects of sustainability and inviting them to ponder, question, and discover. Each site visit, from the Reno Food Systems to the Eco Recycling Center, offered a glimpse into the myriad of career paths carved in the bedrock of sustainability.

As the journey unfolded, 70% of the participants unveiled new career horizons, and an overwhelming 100% expressed their eagerness to recommend this enlightening expedition to peers. The adventure culminated in a communal cleanup at Moana Park, a tactile testament to the ease with which one can imprint a positive mark on their locale.

Participant N reflected on the expansive learning and explorative joy, lamenting only the constraint of time in their odyssey of discovery.

Participant S's words echoed the sentiment as she juxtaposed the active engagement of the expedition to a passive day at home, underscoring the privilege of exploring unseen and often inaccessible vistas of innovation and sustainability.

Each year, the Sustainability Expedition amplifies its impact, sowing seeds of awareness, curiosity, and responsibility in the fertile minds of the youth, preparing them to burgeon into the custodians of a world where technology and nature coexist and flourish.

COMMUNITY ENGAGEMENT

The impact of volunteerism and community outreach has been notably significant, marking 496 volunteer hours that have been diligently contributed across 181 diverse events. These efforts have enabled us to cast a wide net of influence, touching the lives of 4,638 individuals through 54 specifically designed community outreach initiatives.

A closer look at the student demographics in Nevada reveals a rich tapestry of diversity. A commendable 52% of the students hail from underrepresented communities, ensuring a multitude of perspectives and experiences that enrich the learning environment. Gender diversity is also celebrated, with females accounting for 49% of the student body.

The ethnic composition is varied and inclusive, with 1% American Indian/Alaskan Native, 9% African American/Black, 5% Asian/Asian American, and 44% identifying as Hispanic/Latinx. Native Hawaiian/Pacific Islanders make up 1%, while 33% of the students are White, and 7% identify as Multiracial. This mosaic of backgrounds not only reflects the program's commitment to inclusivity but also underscores the diversity that is woven into the very fabric of our community. Each student brings a unique perspective, contributing to a rich and varied learning experience for all involved.

MEDIA HIGHLIGHTS

In the 2022-2023 fiscal year, Envirolution enjoyed significant media exposure, showcasing the organization's efforts and impacts on sustainability and education. Each media feature underscores the strides made in engaging students, empowering educators, and promoting a sustainable future.

Featured Stories

- **Nevada Appeal (02/13/23):** Carson City students were spotlighted celebrating the success of sustainability initiatives spearheaded by Envirolution, accentuating the tangible impacts of environmental education.
- **2 News (02/17/2023):** Students from Pioneer Academy explored educational career options at Tesla, an experience facilitated by Envirolution's commitment to bridging classroom learning with real-world applications.
- **Carson Now (02/18/2023):** A spotlight on Pioneer High School students' visit to the Tesla Gigafactory showcased their exposure to cutting-edge technology and sustainability practices, marking another milestone in Envirolution's community engagement.
- **Fox Reno (KRXI) (05/10/23):** The Annual Project ReCharge Celebration was featured, highlighting the organization's dedication to celebrating and promoting renewable energy education.
- **Nevada Appeal (05/18/23):** Envirolution was at the forefront as student projects aiming to bolster planetary sustainability were showcased, underlining the organization's role in fostering innovative environmental solutions.
- **CBS Reno (KTVN) (7/25/23):** The spotlight shone on Project ReCharge as a pivotal initiative in teaching renewable energy concepts and amplifying Envirolution's contributions to the energy education landscape.
- **Energy Portal and ABC Reno (KOLO) (7/26/23):** The unveiling of the “ReCharge ReFresh Professional Learning” initiative and a collaborative effort with Ormat Technologies highlighted Envirolution's dedication to equipping educators with knowledge about renewable resources in Nevada.
- **Building Performance Association (8/29/23):** Envirolution's Project ReCharge was featured for shaping the future for educators in Maine on energy efficiency and clean energy jobs, underlining the national reach of the organization's impact.
- **Northern Nevada Business Weekly (9/5/23):** The recognition of a \$90K EPA grant to Envirolution illuminated the organization's continued pursuit of resources to amplify its mission and impact.

These media features exemplify the expansive reach and profound impact of Envirolution in the realms of education and sustainability. Each article, news feature, and spotlight echoes the organization's unwavering commitment to fostering an ecosystem where education meets innovation for a sustainable tomorrow. The team remains steadfast in its mission, drawing inspiration from the recognition and support received from the media, partners, and the broader community.