A Conservation Corps Case Study

*Developed in collaboration with Texan Nature*
Executive Summary

The primary purpose of this case study is to provide guidance, lessons learned, and best practices for organizations inspired to create a conservation corps program in their community.

**Project Description:**
Launched in 2021 by Trinity Park Conservancy and Groundwork Dallas, the Trinity River Crew provides meaningful, paid conservation work experience, education, leadership skills, and professional development training to high-potential youth from historically marginalized areas along the Trinity River. The program encourages and empowers local youth through cultivating their leadership skills and providing educational and professional development opportunities as they complete meaningful conservation projects.

**Key Points:**
- The Trinity River Crew received 354 applications for 13 available Crew positions, indicating a demand for the opportunity.
- Conservation corps programs are an innovative way to meet the needs of all stakeholders including conservation non profits, the local community, interested youth participants, and municipalities.
- If launching a joint program, collaboration is key for all aspects of program development, communication, and execution. Additionally, collaboration with conservation partners, educators, and local environmental organizations is important for creating a comprehensive curriculum for a conservation corps program.
- Fundraising should be based on the goals of the program; for example, public funding may be available for broad, measurable clean-up efforts while corporate funding may be available for workforce development with career-building skills and foundation dollars more appropriate for education programming. This will vary based on geography and local funding communities. The first cohort of Trinity River Crew was funded by a mix of public, corporate, and foundation dollars. Funders appreciated collaboration between non-profits rather than competition.
- Remove any barriers to conservation corps participation in order to make this opportunity accessible to all.
- Administer knowledge based quizzes and surveys to collect and report data on the positive impact your conservation corps program is having.

**Project Impact Results:**
- The Trinity River Crew received 354 applications in their first year for 13 available positions.
- 61% of the Crew members selected for the 2021 pilot program were from the Trinity River priority zip codes and the ages ranged from 15 - 18. Gender identity for selected applicants was 8 female and 5 male.
- Knowledge-based quizzes were presented to the Trinity River Crew. For the blackland prairie ecosystem assessment there was a 35.58% increase in the average knowledge improved/gained when comparing pre and post assessments. For the wetland ecosystem assessment there was a 24.06% increase in the average knowledge improved/gained when comparing pre and post assessments.
- Environmental impact included removing a total of 300 lbs of trash from two locations and removing a total of 1,230 lbs of invasive plants from 6 locations. Trinity River Crew members also conducted water quality and macroinvertebrate surveys at 8 sites across Dallas.
**Model Expansion Statement:**
The Trinity River Crew program is a collaborative youth employment framework that can act as a model throughout the entire Trinity River Corridor and in other geographies.

**Contact Information**
Contact Texan by Nature at info@texanbynature.org or Trinity Park Conservancy at info@trinityparkconservancy.org if you would like to learn more about the Trinity River Crew.

**Table of Contents**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>2</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>3</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Mission and Vision</td>
<td>4</td>
</tr>
<tr>
<td>Process and Implementation</td>
<td>5</td>
</tr>
<tr>
<td>Staffing, Responsibilities, &amp; Budget:</td>
<td>6</td>
</tr>
<tr>
<td>Knowledge-based Quizzes and Surveys:</td>
<td>7</td>
</tr>
<tr>
<td>Environmental Assessment Types:</td>
<td>7</td>
</tr>
<tr>
<td>Presentation Opportunities:</td>
<td>8</td>
</tr>
<tr>
<td>Results &amp; Impact</td>
<td>9</td>
</tr>
<tr>
<td>Recruitment and Outreach Demographics Tracking Results:</td>
<td>9</td>
</tr>
<tr>
<td>Knowledge-based Quizzes Results:</td>
<td>9</td>
</tr>
<tr>
<td>Beginning and End of Program Survey Results:</td>
<td>10</td>
</tr>
<tr>
<td>Environmental Impact:</td>
<td>10</td>
</tr>
<tr>
<td>On-Going Engagement</td>
<td>11</td>
</tr>
<tr>
<td>Challenges, Problems, Issues, and Lessons Learned</td>
<td>11</td>
</tr>
<tr>
<td>Recreating and Expanding the Trinity River Crew Model</td>
<td>11</td>
</tr>
<tr>
<td>Contact Information</td>
<td>12</td>
</tr>
<tr>
<td>Appendix</td>
<td>12</td>
</tr>
<tr>
<td>Crew Member Quotes from Exit Interviews:</td>
<td>12</td>
</tr>
<tr>
<td>Additional Resources:</td>
<td>13</td>
</tr>
<tr>
<td>Creating an Impact Measurement Framework Example:</td>
<td>14</td>
</tr>
</tbody>
</table>
Introduction

The purpose of this case study is to provide a framework, guidance, lessons learned, and best practices for organizations inspired to create a conservation corps program in their community. The following content provides an overview of how two organizations launched a conservation corps program and reports on year 1 results of the program. Best practices, lessons learned, and additional process and implementation information are included.

This case study is a result and deliverable of Trinity Park Conservancy’s and Groundwork Dallas’ involvement in Texan by Nature’s Conservation Wrangler program. The Trinity River Crew was selected as a Texan by Nature Conservation Wrangler in 2020 based on the program’s positive impact to people, prosperity, and natural resources.

The Trinity River Crew (Crew) educates and inspires the next generation of environmental leaders while enhancing conservation efforts throughout 10,000 acres of the Trinity River Corridor. With the guidance and expertise of Trinity Park Conservancy (Conservancy) and Groundwork Dallas, Crew members support habitat restoration efforts of the City of Dallas and other local partners.

The goals of the Trinity River Crew program are to:

- Inform and raise awareness of the Trinity River and its environmental challenges (through community engagement, environmental education programs, and partnerships to bring attention to this public space)
- Foster a sense of ownership of the river (through volunteer engagement and conservation work opportunities)
- Support leadership development of volunteers and paid youth Crew members to encourage long-term stewardship of the river, our environment, and our communities

Through this youth leadership program, both organizations in the partnership built their capacity to track the impact of their conservation efforts to restore or develop public green spaces in the Trinity River Corridor. Environmental assessments including water quality, macroinvertebrate, trash, plant, and bird surveys were led by Trinity River Crew members at the river to provide the data needed to evaluate and drive conservation projects.

Mission and Vision

The Trinity River Crew provides meaningful paid conservation work experience, education, leadership skills, and professional development training to high-potential youth from historically marginalized areas along the Trinity River. The primary purpose of this program is to encourage and empower local youth through cultivating their leadership skills and providing educational and professional development opportunities as they complete meaningful conservation projects. This program is a collaborative youth employment framework that can act as a model throughout the entire Trinity River Corridor and in other geographies. This Crew creates a pipeline of conservation leaders that will continue to advocate for the Trinity River within their communities.
The short-term goal is for these young leaders to support existing conservation efforts by helping to recruit for and conduct volunteer projects, assist in outreach efforts about park design and improvements, and share their experiences at the Trinity River with others in their community.

The long-term goal is that they remain active in decision-making processes concerning their environment, their communities, and their city, continue to be dedicated stewards of the river, and perhaps even pursue careers in conservation.

Process and Implementation

Both Groundwork Dallas and the Conservancy work to support conservation efforts along the Trinity River in Dallas by building trails, parks, and investing in the long-term care of these areas through its park, recreation area, trail operations, and volunteer and youth programs, with the goal of increasing equitable access to the river for all Dallas residents. The organizations’ missions are aligned:

Groundwork Dallas is dedicated to improving the natural surroundings of Dallas and beyond. We work closely with citizens, like-minded organizations, and the city to help realize a vision of a safer, cleaner, and healthier environment. A healthy urban forest is essential for maintaining the quality of air and water in our community.

The Trinity Park Conservancy champions the transformation of the Trinity River to become the heart of Dallas. With the community, we will design public spaces that unite us, enrich people’s lives through access to nature, create economic development opportunities, and inspire protection for the river ecosystems in this shared natural treasure.

In 2018, Groundwork Dallas started a summer youth employment program called the Green Team Conservation Corps. The seven-week job training opportunity provides teens with environmental career experience. Using this successful program as a model and taking inspiration from the Corps movement across the nation, Groundwork Dallas and the Conservancy developed a collaborative conservation corps focused on the Trinity River: the Trinity River Crew. This program is an opportunity to join together to educate and inspire the next generation of environmental leaders while enhancing conservation efforts throughout the Trinity River Corridor.

It is important that any barriers to participation are removed in order to make this opportunity accessible to all.
The Trinity River Crew launched in June 2021. The summer program was seven weeks from June to August. For the program, Crew members worked an allotted number of hours per week, were paid for their work, and were provided transportation:

- Crew members work four days a week for a total of 30 hours per week.
- Youth are paid $11.15/hour, $3.90 above the $7.25 minimum wage in Dallas County (2021).
- The program provides transportation as needed to and from Crew member’s homes or neighborhoods to work everyday, safety equipment, work shirts and other gear, lunch snacks, and all tools and supplies needed to complete conservation projects.

See a recap blog of 7-weeks with the Trinity River Crew [here](#).

**Staffing, Responsibilities, & Budget:**

Groundwork Dallas and the Conservancy planned collaboratively for the program from logistics to curriculum development to coordination with project partners and speakers. The success of this program hinges on both organizations’ networks and collaborations with conservation partners. Both Groundwork Dallas and the Conservancy recruit youth from local schools and communities, networks that have been developed over the years and continually nurtured in order to build trust and confidence in worthwhile programming. In addition to recruitment, the partnership’s network was key to securing conservation projects at partner sites and educational speakers. See the job posting for the 2021 Trinity River Crew [here](#).

The theme for the 2021 Trinity River Crew program was water. Relevant educational topics and projects that could be completed within a specific time frame were chosen by Trinity Park Conservancy and Groundwork Dallas in collaboration with partner organizations. A variety of conservation projects were planned throughout the length of the program so that the Crew was not always doing the same type of work (cleanups, invasive species removal, planting, etc.). Some environmental assessment methods taught to Crew members were conducted at multiple sites across Dallas.

In 2021, during the Trinity River Crew’s first year:

- **The program received 354 applications for 13 available Crew positions.**
- Staff from the Conservancy and Groundwork Dallas reviewed applications, prioritized applicants based on predetermined criteria (e.g. applicants from neighborhoods in close proximity to the Trinity River), and conducted interviews.
- Together, the organizations choose their top choices for the 13 spots and then the onboarding and orientation process begins.

Groundwork Dallas takes on the majority of the operational responsibilities when the program begins, including the transportation of youth. Groundwork also manages the tools and supplies needed for all projects because of their technical expertise and storage capacity in their warehouse.

Each organization provides one full-time staff member to execute the program and lead Crew members on a daily basis and the program staff coordinate with the project partners and speakers with whom they have the primary relationship.
The Conservancy and Groundwork Dallas secured foundation and corporate funding for the Trinity River Crew program. The organizations worked together on joint grant proposals or coordinated with each other to support one organization’s funding or in-kind request. The pilot program had a $88,000 budget:

- $62,000 represents joint program costs
- $26,000 represents the combined costs of each organization’s personnel, which they were responsible for covering separately

All water quality education was funded and supported by an [EPA Healthy and Resilient Gulf of Mexico](https://www.epa.gov/healthy-and-resilient-gulf-mexico) Trash Free Water Grant.

**Knowledge-based Quizzes and Surveys:**

To evaluate the program impact on the Crew, weekly or bi-weekly knowledge-based quizzes were administered at the beginning and end of each theme presented. An additional overall program survey was administered at the beginning and end of the seven-week program to determine whether or not this program is reaching its goals of raising awareness, fostering a sense of ownership of the Trinity River, and supporting leadership development.

**Environmental Assessment Types:**

To evaluate the conservation project impacts on the Trinity River, environmental assessments including water quality, macroinvertebrate, plant, and bird surveys were conducted in 10 locations: Hines Park, Frasier Dam, Bachman Lake, Pavaho Retention Pond, Trammell Crow Park, Twelve Hills Nature Center, John Bunker Sands, Trinity River Audubon Center, Lewisville Lake Environmental Learning Area, and John Wilt’s Blackland Prairie Reserve in Ferris, Texas.

The following assessments were conducted at all or most of the locations where applicable by the Crew for the team to learn how to be citizen scientist, develop an understanding of the different ecological interactions that occur along the Trinity River, and to learn how to develop their own inferences about the different variables and human influences that can affect an ecosystem based on data collected. Three knowledge-based quizzes were presented to the Trinity River Crew that aligned with the environmental assessments, see the results below.

- **Water Quality Assessment:** These chemical water tests were facilitated by the Texas Stream Team Kits. The Trinity River Crew learned how to measure the conductivity, pH, dissolved oxygen, and water clarity of their sample sites. This data mainly indicates the water quality of the site at the moment of the assessment. Conditions of the environment such as recent rainfall or temperature can easily influence the results so this assessment needs to be conducted several times a year to have a good understanding of the general water quality at each location.

- **Macroinvertebrate assessments:** Macroinvertebrates were collected from different bodies of water such as nearby creeks and retention ponds connected to the Trinity River. The Crew would use small nets to capture living organisms out of the water at the edge of the aquatic system. Using microscopes the Crew was tasked with identifying and counting the amount of different species collected. Each animal is categorized in different pollution tolerance levels. Based on this information, citizen scientists can draw conclusions about the quality of water and level of pollution in the body of water. This type of...
assessment gives a less quantitative analysis of the quality of water compared to chemical tests, but it is a better indicator of the health of the surrounding environment. Biological indicators of water quality need long sustained levels of the same water quality to be able to reproduce and develop into full grown adults in an environment.

Bird Surveys: There are several methods to conduct bird surveys, but they all consist of the same premise. Our team learned how to use binoculars to get a visual identification and how to use bird songs for an audio identification of a bird species at a specific location. Bird surveys help us understand what kind of species use urban green spaces as permanent homes or how many migrating birds use the same area as a temporary rest stop or seasonal home. The amount of birds and the level of biodiversity found in an area throughout the year are also good biological indicators of the health of the surrounding area.

Plant Surveys: The Crew team learned how to identify plants and their percent coverage at several points in different reconstructed prairies in the Dallas area. Assessing the plant diversity can give insight on the type of native wildlife an area can sustain. Plant surveys are also useful in identifying native and invasive species present at each location and the severity of the influence of an invasive species at the location. These types of surveys accompanied by different types of maintenance practices are used to measure the effectiveness of restoration efforts in the area.

Through Texan by Nature’s Conservation Wrangler program an Impact Measure Framework was provided for the Trinity River Crew - see the appendix for an example.

**Presentation Opportunities:**

Trinity Park Conservancy is part of the national High Line Network, a group of infrastructure reuse projects and the people who are helping them come to life. The network hosted a virtual Summer Series for its members in July highlighting a number of themes including Youth Education / Leadership: The voices of our future: A youth-led discussion on supporting the next generation of parks and open space leaders.

One Trinity River Crew member was invited to speak on the panel to share their experience in the youth program, what issues in their city are most important to them, what makes a successful youth program and what can be improved, and how this network can be a resource to them in addressing those issues and staying connected with their peers from across the country. 49 participants from across North America joined the presentation and the Trinity River Crew member’s insights and ideas were very well received. Nevena Cail was selected to represent the Crew on this panel and shared a few innovative aspects about the program:

- Approach issues from as many angles as possible so it is more likely to resonate with the Crew members in the youth program and they are more likely to pursue those newfound interests with the goal of continuing to participate in helping their community.
- The Trinity River Crew addresses inequality in education by intentionally recruiting and hiring Crew members from different backgrounds and different neighborhoods. This is important so that participants are bringing back to their communities what they learned. This will benefit all parts of the city and not just concentrate the knowledge and experience in one area.
The Trinity River Crew connects Crew members to community partners. In addition to visiting different nature centers and preserves in Dallas, leaders at these organizations spoke to the Crew about conservation and the river and future volunteer or employment opportunities with their groups.

Crew members also gave final presentations during the last week of the program to present on research projects they worked on during their time on the Trinity River Crew.

After the conclusion of the program, the Dallas Sierra Club invited the Trinity River Crew to present at their monthly meeting on September 14, 2021. Two members of the crew volunteered to present a general overview of the program as well as a brief summary of the data collected.

Results & Impact

The partnership tracked its reach during the recruitment and outreach process as well as the Crew member selection process. It was important to both organizations that youth from historically marginalized areas adjacent to the Trinity River were reached and selected to participate in the program in order to establish a long-term connection and engagement in stewardship efforts.

Recruitment and Outreach Demographics Tracking Results:

- Nine priority zip codes along the Trinity River in Dallas were identified.
- 135 applications or 38% of the total 354 applications were received from those priority zip codes.
- Neighborhoods with the most application submissions were South Dallas, West Dallas, Oak Cliff, and Cedar Crest, all target areas adjacent to the Trinity River.
- 61% of the Crew members selected for the 2021 pilot program were from the Trinity River priority zip codes and the ages ranged from 15 - 18.
- The breakdown of gender identity was 8 female and 5 male.

Knowledge-based Quizzes Results:

Three knowledge-based quizzes were presented to the Trinity River Crew over the following topics: macroinvertebrate survey and analysis, soil chemistry, pollinator identification, natural and invasive species, wetland ecosystems, and phytoremediation. Each quiz was spread over a bi-weekly period and readdressed throughout the weeks at each of our various sites. Students were asked at the beginning of the program if they had ever learned about macroinvertebrates, pollutant sources and the ecosystems in Texas, to which all of the students responded that they had no prior knowledge of these concepts. The assessments were partially built on top of these basic ideas and the pre- assessments for the following weeks helped gauge the amount of information retention from previous lessons. Quiz results included:

- After the initial introduction to macroinvertebrate analysis in our first week, the Crew scored an average of 95.10% on a comprehensive quiz identifying types of macroinvertebrates, ecosystems, and pollutant sources.
- For the second quiz, the Crew's understanding of the natural blackland prairie ecosystem was assessed. In comparison to their initial pre-survey score of 51.92%, Crew members significantly improved with an average score of 87.50% - a 35.58% increase in the average knowledge improved/gained.
Crew members learned how to identify types of soil typically found in the Dallas ecosystem, the key nutrients and services they provide, the types of animals and pollinators they sustain, and the difference between natural and invasive species commonly seen in our area.

- For the final quiz, Crew members were able to test their understanding of wetland ecosystems. In comparison to their initial pre-survey score of 60.10%, Crew members significantly improved with an average score of 84.16% - a **24.06% increase in the average knowledge improved/gained**.
- Throughout their time working at John Bunker Sands Wetland Center and the Audubon Center in South Dallas, the Crew was able to identify the different ecosystem services provided by the aquatic landscape while removing invasive species and assessing water and macroinvertebrate qualities.

**Beginning and End of Program Survey Results:**

All participants were asked to fill out a survey at the beginning and end of the program to understand their relationship with conservation, leadership and community involvement. On average, the pre-assessment indicated that they all understood on a very basic level that conservation work was important, and only a small percentage of them have ever held a leadership position in school and extracurricular organizations. Most of the participants also expressed discomfort in taking initiative and engaging with their community. The post surveys showed an overall increase in confidence from the team and an improvement in their understanding on the connection between conservation and their community.

After the program, all of the students returned to school. Several students have shown interest in continuing to engage in volunteer work and activities with Groundwork Dallas during the school year. The presentation given at the end of the program thoroughly impressed the Dallas Sierra Club and a small group of the Trinity River Crew members volunteered to present what they accomplished and learned during the program to other students and members of the community in mid-September. This kind of student-lead community engagement will bring more attention to the program for future years.

Crew member quotes from Trinity River Crew program exit interviews can be found in the [Appendix](#).

**Environmental Impact:**

Environmental impact included removing a total of 300 lbs of trash from Frasier Dam Recreation area (150 lbs) and Hines Park (150 lbs) and removing a total of 1,230 lbs of invasive plants from the following locations:

- 180 lbs of Johnson grass removed at Hines Park
- 400 lbs of ragweed from Trinity River Audubon Center and the John Bunker Sands Wetland Center
- 200 lbs of Johnson grass at Twelve Hills Nature Center
- 350 lbs of privet at L.B. houston
- 100 lbs of privet at Lake Lewisville Environmental Learning Area

Trinity River Crew members also conducted water quality and macroinvertebrate surveys at 8 sites across Dallas.
On-Going Engagement

The goal of the Trinity River Crew is to encourage a life-long engagement in conservation whether through volunteerism or employment. The program will continue to follow its Crew members beyond the summer program to track how their experience with the Trinity River Crew has supported their personal goals. All of the conservation projects that Crew members did during the program are projects that they could support as volunteers with partner organizations in the future.

Engagement Tip: Explore ways to engage program participants post-program through emails/newsletters, Facebook groups, and LinkedIn. This is a great way to:

- Re-engage past participants in volunteering, jobs, speaking opportunities, and more
- Stay up to date on past program participants careers and how your program influenced their career path
- Gather additional data and contact information

Challenges, Problems, Issues, and Lessons Learned

As with all work outdoors at the Trinity River, weather events such as flooding and extreme heat during the summer are always a concern. The planning team created backup projects that could be conducted indoors and anticipated having to be flexible day to day. One of the main lessons learned as coordinators was to have time and activities embedded in the curriculum based on the personal interest of the participants. The students involved were more engaged during the program when we took time out of the day to learn and hold discussions based on specific conservation problems or efforts.

Finding a diverse group of partners to work with was the most beneficial aspect to the success of the program. By exposing the participants to a variety of career fields dedicated to conservation it encouraged them to consider how their personal passions can be channeled towards environmental efforts in ways they may not have thought possible.

Recreating and Expanding the Trinity River Crew Model

The Trinity River Crew program is a collaborative youth employment framework that can act as a model throughout the entire Trinity River Corridor and in other geographies. This Crew creates a pipeline of conservation leaders that will continue to advocate for the Trinity River within their communities.

To create a successful youth conservation corps program, it is important to assess the organization’s ability to plan and execute the program on their own versus with a partner or multiple partners. With the Trinity River Crew, it was important that there be a collaboration between the Conservancy and Groundwork Dallas. The shared Dallas youth community and related projects at the Trinity River meant there was no need or desire to be in competition with one another.

Upon deciding the structure of the program and parties involved, develop, define, and consider the following:

- Clear Memorandum of Understanding (MOU)
- Joint program budget and fundraising plan
● Define the roles of assigned program staff and staff involved in decision-making processes
● Create shared plans and templates for communication about the program and for recruitment
  ○ If working with a partner organization with whom you have a working relationship, the lead time
    for this type of summer program should be no shorter than 6 months to the start of the program
    announcement and outreach
● In addition to supporting each organization's existing projects, collaboration with conservation partners,
  educators, and local environmental organizations, is important for creating a comprehensive curriculum
● Program evaluation and measuring project impact should be considered as the curriculum is being
  developed
  ○ Developing pre and post assessments to measure and report the beneficial impact your
    program is having helps create credibility, science-based data to secure funding, and helps you
    evaluate and refine the provided educations and curriculum as needed
● Constant and clear communication with program partners is key to executing a successful youth
  conservation corps program regarding logistics, expenses, and desired outcome

Contact Information

Trinity Park Conservancy
info@trinityparkconservancy.org

Groundwork Dallas
Contact page

Texan by Nature
info@texanbynature.org

Appendix

Crew Member Quotes from Exit Interviews:

● Denise Almazan (18 attending UNT Dallas in Fall 2021): This program taught me so much about
  nature. I had little to no previous knowledge about any of the things I learned this summer. I would go
  home and talk about everything I learned to my friends because I thought it was so interesting.
● Nevena Cail (18, attending Texas A&M University at Corpus Christi in Fall 2021): This program has
  made me much more attentive to variety in nature. I feel like I am more curious about and compelled to
  identify and gain knowledge about plants and animals and insects I see daily.
● Samantha Conejo (16, Junior at Irma L. Rangel YWLS): Being a part of the Trinity River Crew has
  increased my knowledge of environmental science and conservation. It has also helped me consider
  environmental science and conservation as a career path. It has also helped me build friendships and
  connections with a variety of people.
● Ricardo Corpus (16, Junior at The Barack Obama Male Leadership Academy): This program made me
  more aware about environmental career paths, I didn't know so many existed and how much they
  actually impact neighborhoods and the surrounding environments.
• Tanhar Islam (16, Sophomore at Townview Health Professions in Dallas): This program gave me more experience in the environmental field and helped me learn so much more about the environment than before I joined.
• Miriam Monreal (15, Sophomore at Irma L. Rangel YWLS): This program taught me a lot about a lot of subjects in environmental science. I also learned about programs in my community that I didn’t know about before.
• Christian Perry (16, Junior at Grand Prairie High School): This program gave me a better understanding of the basic elements of life, it gave me more experience and knowledge about the things I love and gave me a new perspective on conservation.
• Samantha Prado (17, senior at Irma L. Rangel YWLS): This program further encouraged me to pursue a career in environmental conservation. I had an initial interest in the environment, but struggled narrowing it down to one career path. My time being a part of this program provided equally valuable hands-on experience and educational learning opportunities that has pushed me to consider helping more people understand the significance of the environment through engaging community programs.
• Christian Rodriguez (16, Junior at Judge Barefoot Sanders- Law Magnet at Townview): Due to this program I now have a greater interest and understanding about native birds and plants.
• Adrian Sanchez (17, Senior at The Barack Obama Male Leadership Academy): Throughout these past 7 weeks I've had the opportunity to meet so many amazing people all while having fun doing it. The experience alone has helped me in so many ways in regards to my future after high school. Before I was very lost in how I wanted to go about higher education and a career as a whole, but thanks to River Crew, I have a much clearer vision in mind.

Additional Resources:

• Trinity River Education Guide
• Texas Conservation Corps
• “A youth Civilian Conservation Corps will build a trail of justice and hope” (2020). Featured in The Hill. Written by Stephanie Meeks, chief executive officer and president of the Student Conservation Association.
• Harold Simmons Park - Equitable Development Toolkit & Implementation Roadmap
• High Line Network Best Practices Toolkit
Creating an Impact Measurement Framework Example:

The following framework was provided through Texan by Nature's Conservation Wrangler program.

Data is a valuable resource for all organizations - relevant, accurate, and actionable data largely contributes to the success and growth of an organization. For the Trinity River Crew, data capture and reporting will be important for outreach, strategic plan development, and goal creation in addition to helping maximize resource and fund expenditure, attract new funding sources, and identify any programmatic gaps and growth opportunities. All of these factors combined will work together to increase the Trinity River Crew program's impact and enhance crew member experience.

Steps to Capture & Report Impact Metrics:

1. Define: Why does the Trinity River Crew exist?
   ○ Note: What is changing in the community because of your intervention? How is this measurable?

2. Define: How do you measure success?
   ○ What is your ideal outcome? Workforce development, conservation stewards, community leaders, etc.

3. Define: Who are you trying to reach?
   ○ Such as: new donors, certain demographic groups, conservation organizations and professionals, etc.

4. Create a list of metrics that you want to track.
   ○ Preliminary ideas for Trinity River Crew:
     ■ Programmatic reach on:
       ■ Demographics
         ■ Race, sex, locality, and economic status
       ■ Leadership
         ■ Amount of leadership opportunities pursued and obtained following participation
         ■ Change in career paths/plans post highschool
       ■ Career skills
         ■ Resume building, budgeting, etc.
       ■ Natural resources knowledge
         ■ Wildlife, ecology, plants, ecosystems, conservation organizations, etc.
       ■ Maintenance and tools knowledge and skills gained

5. Create an impact measurement methodology (collect, aggregate, and analyze data).
   ○ Preliminary ideas:
     ■ Evaluate ways to standardize and streamline future participant impact measurement
     ■ Participant pre- and post-assessments
- Show the increase of knowledge after program participation
- Ensure a timeline is built to capture impacts overtime for program participants - what does the lifetime of a Trinity River Crew member look like from start to finish?
- Such as continued surveys/check-ins post program: 1-month, 3-months, 6-months, 1 year, 5 years, and 10 years.
  - Build out at Trinity River Crew Network for easy, consistent reach out and future data capture
    - Note: explore creating a private overarching Facebook group or similar networking group. If GroundWork Dallas doesn’t already have something like this, this may be a good way to engage crew members from previous years and then plug new crew members in as the program progresses. Utilize this group as a home-base for retroactive data capture reach out.
  - Evaluate survey methods and tools
    - SurveyMonkey, GoogleForms, Qualtrics

6. Assess Relevant Partnership Opportunities
   - Are there organizations that have analytics and conservation expertise to help with data collection and reporting?

7. Learn and Report
   - Learn from your findings
     - Metrics to can help guide organizational decisions
   - Report any meaningful impacts to your constituents
     - Publish data and programmatic impacts on your website and social channels
     - Utilize metrics for fundraising communications to solicit programmatic support

Suggestions for Capturing and Quantifying Metrics with Targeted Questions:
- Have tests be digital for easy manipulation of information/data.
- Categorize questions by topic, covering specific areas of natural resources/conservation. Average out test improvements from crew members based on categories.
  - Categories could include some of the metrics ideas mentioned above
- Average out all pre- to post-test improvements for the Trinity River Crew - this can show average knowledge increase

Results Example:
- 40% increase in the total number of questions answered correctly = 40% in knowledge gained in x,y,z areas as a result of participating in the Trinity River Crew program.
- This could also be broken down into categories to parse out what percentage of participants gained skills/knowledge in certain areas. This is great to pull in potential donors that have a focus on STEM and youth to show that your program is having an impact in that area, especially if it can be related to workforce development, for example through changes in career paths/plans.