



City of San Rafael

Equitable Low Carbon Economy Project Plan



Good Green Work



SAN RAFAEL

THE CITY WITH A MISSION

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Executive Summary

Project Description

The purpose of the City of San Rafael [Equitable Low Carbon Economy Project](#) (the Project) is to increase local economic equity and vibrancy through actions that reduce negative impacts on the climate. The Project will combine Climate Action measures with workforce and economic development as a key part of implementing the City's [Climate Change Action Plan](#).

Key Strategies

The key strategies of the City of San Rafael's *Equitable Low Carbon Economy Project Plan* (the Plan) are:

1. **Pathways to Good Green Jobs:** Create or enhance *equitable pathways into good quality, local jobs* that support climate action,
2. **Transform All Jobs into Green Jobs:** Support the transition of *all jobs* in San Rafael into green jobs,
3. **Support Existing Businesses:** Help *current businesses* increase their economic vitality and create good jobs through climate actions, and
4. **Foster New Green Businesses:** Identify and support entrepreneurs to *establish new green businesses* that support climate action.

Guiding Question

The key question that guides this project is: "How can the City of San Rafael support local climate actions that have the greatest equitable benefit on the local economy and workforce?"

The City doesn't create or control the local economy, but the City can use the following tools to foster an equitable low carbon economy:

- Remove regulatory barriers
- Convene and connect partners
- Support fundraising for programs and services
- Modify City policies & procurement practices
- Conduct advocacy to higher levels of government

Key Definitions

Green Economy:

An economy that operates safely within planetary environmental boundaries.¹

Green Job:

A green job is any occupation where a worker can help the environment, such as reducing energy, waste, or water use at or through their work.

Categories of Green Jobs:

1. **New Green Jobs** — Jobs created by the green economy, such as a solar installer.
2. **New Green Skills** — Existing jobs with new green skills, such as an electrician who installs EV chargers or janitor who helps with waste sorting for recycling and composting.

Good Job:

A good job is described by the [Federal Good Jobs Principles](#) from the Department of Commerce and Department of Labor. Living wage jobs in Marin pay at least \$26 per hour, based on the needs of a single adult with no dependents, according to the [MIT Living Wage Calculator](#).

Green Business:

A green business balances the needs of the planet, people, and profits, applying the principles of sustainable development² to decision-making throughout the lifecycle of their products and services, from conception to disposal.

Categories of Green Businesses:

1. **Green Operations** — Businesses that work to reduce environmental harm and enhance benefits to people and the planet in their business and operational decisions, such as a grocery store that works to reduce food waste, compost and recycle, reduce water and energy use, and promote environmentally friendly products in their store.
2. **Green Products & Services** — Businesses with the core mission of providing products or services that replace demand for environmentally harmful products and/or services, such as a solar installation company.

¹ The [LinkedIn Green Skills Report](#)

² Sustainable Development "meets the needs of the present without compromising the ability of future generations to meet their own needs." UN World Commission on Environment and Development's (WCED) [Brundtland Report](#)

These key definitions are important to building a shared community understanding of the broad array of job and business opportunities included in the development of an equitable low carbon economy in San Rafael.

Summary of Findings & Recommendations

The following is a summary of the proposed policies, partnerships, programs, and fundraising activities the City of San Rafael can support in order to: create equitable pathways into good green jobs; transform every San Rafael job into a green job; support existing businesses to benefit from climate actions; and facilitate the launch of new green businesses that create good green jobs in San Rafael.

Strategy 1: Pathways to Good Green Jobs

Create or enhance *equitable pathways into good quality, local jobs* that support climate action.

Priority Sectors & Occupations

The ambitious goals of the [San Rafael Climate Action Plan 2030](#) will require that all San Rafael jobs become green jobs, as well as the identification of and investment in priority sectors, occupations, and job skills that have the greatest potential for reducing greenhouse gas emissions while increasing economic mobility.

Criteria to identify priority sectors & occupations:

- Good Jobs: High quality jobs for workers
- Accessibility: Jobs that are available to workers with limited education or work experience, and/or barriers to employment
- Demand: Evidence of a current labor shortage and/or growing demand, and
- Climate Impact: Climate action potential

Identified sectors in San Rafael that meet these priority criteria:

- Building & Construction Trades
- Clean Transportation
- Ecological Restoration

Recommendations

R1 - Support workforce development organizations and employers to develop or enhance specific programs that lead to priority green jobs.

→ R1-1 Facilitate partner convenings for each identified priority sector. Use partner convenings to identify the needs and opportunities to support the development or enhancement of high quality career pathway program(s) which include the workforce development triad:

- ◆ Employers
- ◆ Training Partners
- ◆ Recruitment and Wrap-Around Service providers

Needs may include identifying additional qualified faculty, funding, enhanced wrap-around services, and/or green skills curriculum specific to the priority occupations within the sector.

→ R1-2 Continue the process of investigating and identifying additional priority sectors and occupations in collaboration with the City of San Rafael's Economic Development Department and local employers.

R2 - Support green skill training for existing employees.

→ R2-1 Evaluate green skills training opportunities and needs for incumbent workers. Then develop a plan together with local employers, training partners, worker-supporting community-based organizations, and funders to provide paid training, ideally with career advancing credentials, to existing workers in the following key professions:

- ◆ Building operators
- ◆ Custodians
- ◆ Hospitality workers
- ◆ Healthcare workers
- ◆ Childcare providers and TK-12 educators
- ◆ Construction workers
- ◆ Clean mobility professionals
- ◆ Ecological restoration workers
- ◆ Government workers

R3 - Promote green career information.

→ R3-1 Create awareness of local green careers and pathway programs into them, with specific and attractive next steps, such as developing or promoting paid internship programs.

→ R3-2 Continue to engage with current green businesses in San Rafael to identify their evolving workforce needs, now and in the near future, and then share with students and job seekers. This may include the number of employees they expect to hire, skills and experience required, and job quality measures.

R4 - Increase the demand for and quality of local green jobs.

- R4-1 Develop model RFP language for climate-related RFPs that either requires or encourages quality local jobs and work experience.
- R4-2 Partner with local entrepreneurship education and support organizations to grow awareness of [policies that are driving demand](#) for green products and services in order to stimulate business and job creation.
- R4-3 Identify and promote local businesses with replicable models for on-the-job training with regular wage increases in order to support equitable career advancement and job quality improvements for existing employees.
- R4-4 Support actions that improve the quality of careers that have the potential for reducing greenhouse gas emissions in San Rafael.

Strategy 2: Transform All Jobs into Green Jobs

Support the transition of *all jobs* in San Rafael into green jobs.

Recommendations

R5 - Identify and collaborate with local non-profits and other partners to design and implement a city-wide Every Job a Climate Job campaign to transform all jobs into green jobs.

- R5-1 Test out existing resources by conducting a pilot with City of San Rafael staff. Synthesize the best available resources to design and document a program for implementation in businesses throughout the community.
- R5-2 Leverage the existing no-cost services provided by MCE, Marin Municipal Water District, Marin Sanitary Service, and the County Green Business Program to help employees reduce greenhouse gas emissions at work. Focus on providing resources, training, and consulting services to employees in key roles.
- R5-3 Support partner(s) to implement a replicable community-wide program based on the City's internal pilot.

Strategy 3: Support Existing Businesses

Help *current businesses* increase economic vitality and create good jobs that support climate action.

Recommendations

R6 – Evaluate the potential for a one-stop consulting service for businesses to reduce costs by reducing greenhouse gas emissions.

- R6-1 Design an implementation strategy to provide a free one-stop shop for businesses to gain awareness of and access to available services with ease.

- R6-2 Consider steps to foster a culture of connection and mutual support, which should be evaluated by inquiring with local business owners about whether they would participate in and benefit from this type of programming.

R7 - Support existing businesses to transition Heavy Duty Vehicles to Zero Emission Vehicles.

- R7-1 Convene major fleet businesses to identify ways to cost-effectively and efficiently transition heavy duty fleets to zero emission vehicles in order to comply with the California Air Resources Board (CARB) [Advanced Clean Trucks](#) (ACT) regulation.
- R7-2 Work with PG&E and MCE to identify ways to share information, leverage opportunities for collaboration, and support cost-effective compliance.

R8 – Support an initiative to drive additional demand and benefits for Certified Green Business services.

- R8-1 Support a communications campaign to increase sales for both existing and new Certified Green Businesses.
- R8-2 Identify additional potential benefits and promotional opportunities for Certified Green Businesses, such as expedited permits or discounts on business licenses.

Strategy 4: Foster New Green Businesses

Identify and support entrepreneurs to *establish new green businesses* that support climate action.

Recommendations

R9 – Create a campaign that establishes a new business norm that every San Rafael business is a Green Business.

- R9-1 Provide green business resources and messaging at every step in the process for entrepreneurs starting a new business. Update and refine the City’s new business portal and processes to reflect this norm and provide instant resources to entrepreneurs. When entrepreneurs apply for a business license, provide a resource kit that informs them about Green Business Certification, the supportive services available from partner organizations, and tips on green business practices.
- R9-2 Evaluate the viability and effectiveness of incentivizing becoming a green business by providing a business license discount and expediting permit approval for Certified Green Businesses.

R10 – Support the launch of new green businesses in and around San Rafael.

- R10-1 Work with entrepreneurship education and support organizations in Marin to help interested entrepreneurs to understand the green business norm, and to access the skills training, funding, and other supportive resources they need to launch new green businesses.
- R10-2 Build on this initial [catalog](#) of entrepreneurial ideas and share with potential entrepreneurs in the community via partner organizations.

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Introduction

Project Overview

The San Rafael *Equitable Low Carbon Economy Project* is designed to support existing San Rafael businesses; develop new local green businesses; and provide workforce development pathways into high road careers that decarbonize the local economy.

This Plan includes strategies to both shift the mindsets and practices in conventional occupations and create new ones, so that every job in San Rafael is a green job. Through the implementation of the Plan, San Rafael aims to create a local culture in which every worker and employer is contributing to lowering greenhouse gas emissions through their daily work practices, products, and/or services.

The Plan identifies and articulates the opportunities, priorities, and actionable next steps to support San Rafael's economic ecosystem to be more resilient and regenerative while growing pathways to high road green jobs³, especially for community members with barriers to employment from historically marginalized communities.



³ According to [California Labor Code](#): “High Road” means a set of economic and workforce development strategies to achieve economic growth, economic equity, shared prosperity and a clean environment. These strategies include, but are not limited to, interventions that:

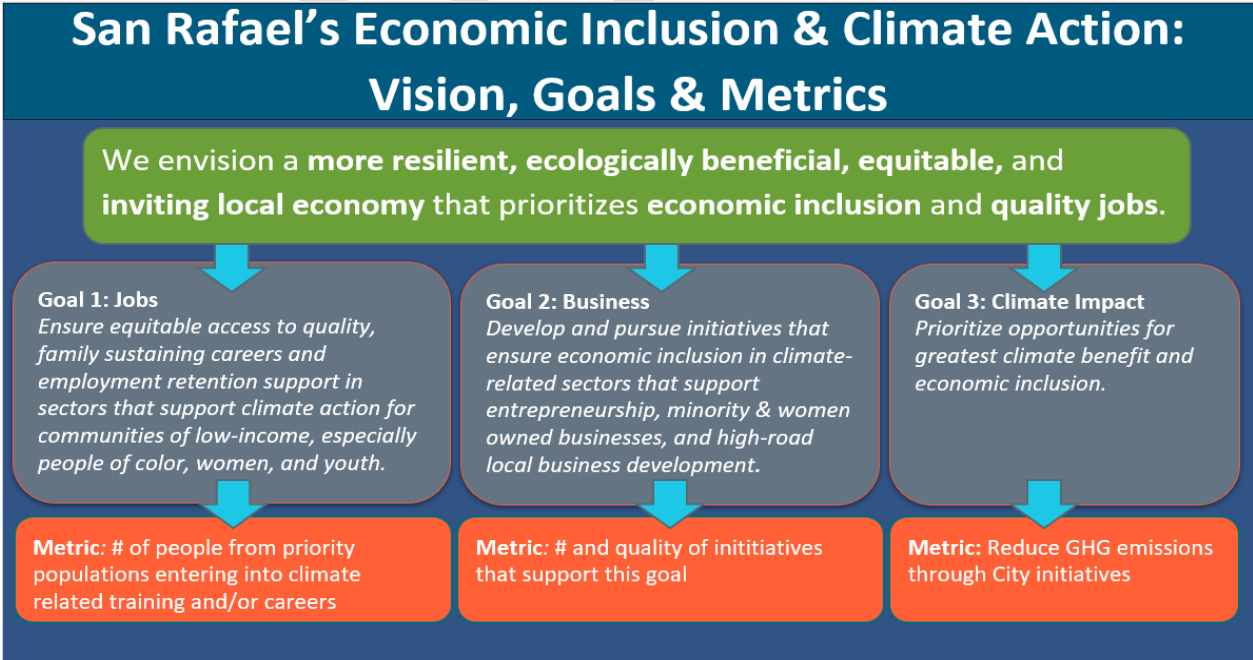
- Improve job quality and job access, including for women and people from underserved and underrepresented populations.
- Meet the skill and profitability needs of employers.
- Meet the economic, social, and environmental needs of the community.

For information on how this report defines a Green Job, see the [What is a Green Job?](#) section. For more information on how this report defines a Quality Job, see the [What is a Good Job?](#) section.

Project Background

In 2019 the City of San Rafael updated its Climate Change Action Plan with ambitious new greenhouse gas reduction targets of 40% reduction by 2030 and longer-term goals of reducing 80% by 2050 (now net-zero by 2045 as set by the City Council in 2021). International sustainable development goals place emphasis on three things: environment, economy, and equity. This new climate plan elevated the other two “e’s” economy and equity after hearing clearly from businesses and residents the potential unintended consequences of focusing primarily on the environment. Potential co-benefits such as better jobs, reduced business expenses, and other increased local economic benefits were identified by making sure the City worked more directly with workers, service providers, and businesses. Included in the 2019 CCAP was a [strategy](#) squarely aimed at identifying those co-benefits and working to achieve them.

In 2021 the City convened a small core group of advisors to begin exploration and to develop basic goals of the project. These advisors included Principal of the National Economic Education Delegation Jon Haveman, CEO of Community Action Marin Chandra Alexandre, San Rafael’s Economic Development Director Danielle O’Leary, San Rafael Sustainability Program Manager Cory Bytof, and SEI Climate Corps Fellows Travis Osland and Elinor Nichols. The core group engaged Inclusive Economics to help develop initial goals and identify what a second phase of the project might look like.



The core team developed the above Vision, Goals and Metrics. The City of San Rafael will be successful when the above are met while also meeting or exceeding the Climate Change Action Plan greenhouse gas reduction goals.

This second phase launched in January 2023 to conduct a community investigation to learn where the most compelling opportunities lay.

Methodology

To guide the design of the Plan, the City worked with Emily Courtney of [Good Green Work](#) and a core team of advisors including:

- Cory Bytof, Sustainability Program Manager at the City of San Rafael
- Micah Hinkle, Director of Economic Development & Innovation at the City of San Rafael
- Heather Bettini, Senior Director of Economic Justice at Community Action Marin
- Leigh Bakhtiari, Proprietor of City Carpets, Carpet One Floor and Home, and Chamber of Commerce Board Liaison with the Green Business Committee, and
- SEI Climate Corps Fellows Anna Oliva and Holly Lawrence

This team collaborated to design and engage targeted audiences, including local workers and job seekers, business leaders and entrepreneurs, community-based organizations, education partners, and government agencies.

The Plan is informed by: four surveys of these key audiences in English and Spanish; six listening session events with local leaders, workers, and job seekers, also in English and Spanish; and interviews with more than 35 local businesses, community-based organizations, education partners, and government agencies. See [Appendix A](#) for a list of organizations and individuals consulted in the development of the Plan.

Additionally, a literature review informed key aspects of this research and the recommendations presented here.

Findings

Key Definitions

The following definitions of “green job”, “job quality”, and “green business” provided a shared foundation for discussion when conducting research to gather the input of local business leaders and entrepreneurs, community-based organizations, education partners, government agencies, and local workers and job seekers, and these audiences provided input which further honed these definitions.

What is a Green Job?

There are several credible models for defining and categorizing Green Jobs. Please see [Appendix B](#) for the most commonly used definitions and categorization systems. The San Rafael *Equitable Low Carbon Economy Plan* recommends local alignment on a broad and accessible definition:

A green job is any occupation where a worker can help the environment, such as reducing energy, waste or water use at or through their work.

It is helpful to think of green jobs as falling into two broad, recommended Categories of Green Jobs:

1. **New Green Jobs** — Jobs created by the green economy⁴, such as a solar installer.
2. **New Green Skills** — Existing jobs with new green skills, such as an electrician who installs EV chargers or janitor who helps with waste sorting for recycling and composting.

What is a Good Job?

This can be a challenging question because, while it would be simpler to have a universal answer, the quality of a job, especially wages, varies by worker depending on factors including, but not limited to:

- The cost of living in a worker’s home region
- The number of working people in their household
- The number of dependents they are caring for
- The ages of their dependents
- The skills, experience, and education level of the worker

⁴ Green Economy Definition, from the [LinkedIn Green Skills Report](#): “An economy that operates safely within planetary environmental boundaries, notably with regards to a stable climate and healthy ecosystem biodiversity.”

- Their preferences, such as for working with their hands verses at a desk, and
- Barriers to employment, such as periods of unstable access to housing or substance use, or being impacted by the justice or immigration systems

While there is no standard criteria for defining a good job, the City of San Rafael is guided in this work by the [Federal Good Jobs Principles](#) from the Department of Commerce and Department of Labor, which include job quality measures in the following categories:

1. Recruitment and Hiring
2. Benefits
3. Diversity, Equity, Inclusion, and Accessibility (DEIA)
4. Empowerment and Representation
5. Job Security and Working Conditions
6. Organizational Culture
7. Pay
8. Skills and Career Advancement

See [Appendix C](#) for the federal descriptions of a quality job in each of these categories, as well as additional credible definitions of job quality.

In order to define a quality green job in San Rafael, one of the most important areas is what constitutes a living wage in Marin. [The MIT Living Wage Calculator](#) is a widely adopted tool for assessing living wages. The challenge, as described above, is that a living wage depends on a range of factors, including family type, making it impossible to name a common living wage for all people in San Rafael, but here are few Marin County examples according to the MIT Living Wage Calculator:

1 Adult, 0 Children	2 Adults, 2 Working, 2 Children	2 Adults, 1 Working, 2 Children
\$26.63	\$38.57	\$54.28

For comparison, the minimum wage in California is \$15.50.

[The Family Needs Calculator](#) is another living wage tool, developed by the Insight Center, which “measures the floor income necessary for an individual (under age 65 and without disability) or family to afford basic expenses in California.” It includes the cost of housing, food, child care, health care, transportation, and taxes—without accounting for public or private assistance. This calculator additionally differentiates by age and stage of the child(ren) in the family, i.e. Infant, preschool, school age, etc. The Family Needs Calculator estimates higher earning needs in

Marin than the MIT Living Wage Calculator, starting at \$31.88 per hour for a single adult with no dependents.

Wages are an important factor in what makes any job a good job, but of course there are many other factors, as described in [Appendix C](#) and verified by local workers and job seekers.

Worker Job Quality Criteria

Workers and job seekers expressed job quality goals that largely aligned with the [Federal Good Jobs Principles](#). They articulated job quality priorities that included but were not limited to: feeling appreciated, scheduling flexibility and predictability, healthcare for them and their family, sick days and other paid time off benefits, the option to work in person or remotely, a positive work culture, a living wage, feeling connected to the mission of the organization and the impact of the work, the ability to organize, the ability to influence decisions and feel heard, the ability to request changes at work without retaliation, feeling safe at work and for worker safety issues to be addressed promptly, personal and professional growth opportunities, a culture that includes everyone, and not being overworked.

What is a Green Business?

Green businesses apply sustainable development principles to decision-making throughout the lifecycle of their products and services, from conception to disposal.

According to the UN World Commission on Environment and Development's (WCED) [Brundtland Report](#), sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs." As described by the [Stillwater Green Business Directory](#), "A green and sustainable business aims to operate in a way that balances the needs of the planet, people, and profits. A green business...



Categories of Green Businesses:

1. **Green Operations** — Businesses that work to reduce environmental harm and enhance benefits to people and the planet in their business and operational decisions, such as a grocery store that works to reduce food waste, compost and recycle, reduce water and energy use, and promote environmentally friendly products in their store.
2. **Green Products & Services** — Businesses with the core mission of providing products or services that replace demand for environmentally harmful products and/or services, such as a solar installation company.

The Plan evaluates how to support existing businesses to continuously improve their Green Operations, and support the development of new Green Product & Services businesses in San Rafael that provide good green jobs.

Labor Market Supply and Demand

The LinkedIn Green Skills Report, released in 2022, identifies a supply and demand problem on the horizon. “Currently, the demand for green jobs matches the supply of people with those skills. But projections show that in [2026], demand will outstrip supply, meaning there is an urgent need for our workforce to level-up green skills.”⁵

Public policies and funding are highly influential in increasing the demand for green businesses and jobs. Forecasting the green skills and key occupations that are needed to protect the climate requires an understanding of the policies and public investments at the local, state, and federal level that are increasing demand for green jobs, skills, products, and services. A detailed description of these policies and programs, from the federal down to the local level, can be found in [Appendix D](#). Continuing to track and share influential policies can stimulate local growth of green businesses and good jobs.

The Recommendations to follow on [Pathways into Good Green Jobs](#) evaluate how to use the tools at the City’s

In the words of LinkedIn’s Action Plan for Climate Change, “The time for action is now. Policymakers must commit to green skills, be their champion, and prepare the workforce. Business leaders must invest in upskilling current and future green talent. The global workforce has to build green skills to power change and compete for the best jobs.”

⁵ [An Action Plan for Climate Change - LinkedIn](#)

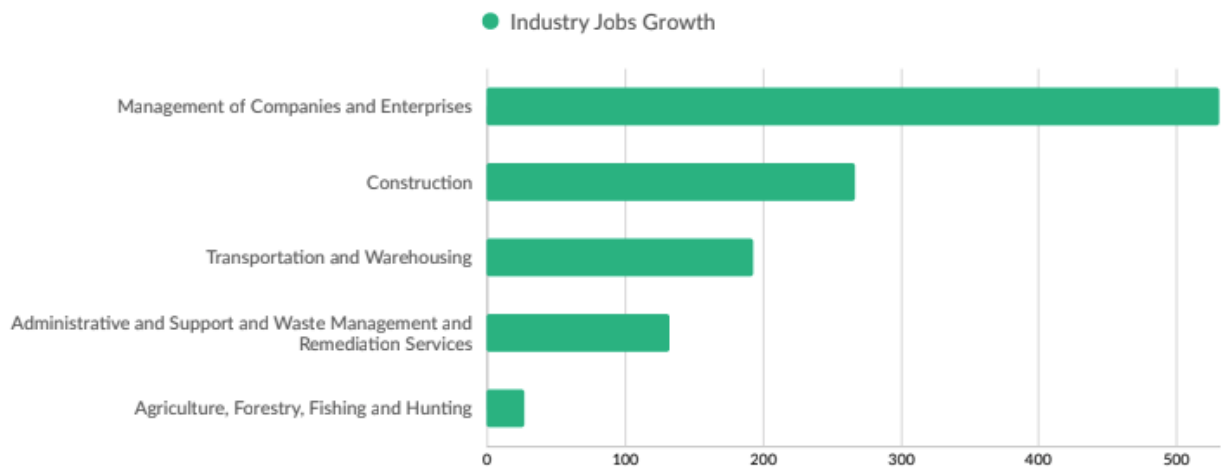
disposal to develop an equitable green economy that addresses this growing green skills gap.

The labor market is currently tight in Marin County with a [3.3% unemployment rate](#) as of July, 2023, the 3rd lowest county unemployment rate in the state behind San Francisco and San Mateo (the unemployment rate is 4.8% for California as a whole).

According to a Marin [Q3 2023 labor market report](#) from the Workforce Alliance of the North Bay, nearly 25% of those currently unemployed are 25-34 years old. This is a strong audience to target for recruitment messaging related to green career awareness and training.

The top growing industries in Marin, also according to the Workforce Alliance of the North Bay Q3 2023 report, provide significant opportunities for good jobs, entrepreneurship, and greenhouse gas emission reductions:

Top Growing Industries



The median household income in Marin was [\\$131,000 in 2021](#), \$62,000 above the national median household income of \$69,000, however many working people in the community are low income. In Marin the cutoff point for a low-income four-person household is \$114,480 (80% of median family income), according to the [Bay Area Equity Atlas](#). “3.5 million Bay Area residents — nearly one-half of the area’s total population — are either very low income or low income.” But the distribution of low income families by race/ethnicity is disproportionately Black and Latine. 60% of Black residents in Marin are very low income (<50% of median family income) and 53% of Latine community members, as opposed to 24% of White residents. The Canal neighborhood of San Rafael is [the most segregated in the Bay Area](#) for low-income Latine households. Over [700 low-income Latine households](#) live in the Canal Area, compared with

roughly 100 low-income white households and just a handful of high-income white households. A focus on retraining and career advancement support for low income residents into in-demand, local good green jobs can help to create a more vibrant and equitable local economy.

Priority Industry Sectors and Occupations

The ambitious goals of the [San Rafael Climate Action Plan 2030](#) to reduce emissions to 40% below 1990 levels by 2030 and the City Council’s resolution to be carbon-neutral by 2045 will require *all* jobs to become green jobs. Also, there is a need to identify and invest in entrepreneurship support and job training pathways for priority sectors, occupations, and job skills that have the greatest potential for reducing greenhouse gas emissions while increasing economic mobility and vitality. The Plan includes recommendations and resources to develop robust career pathway programs for each priority sector, transform every job into a climate job, and support the development and vitality of businesses in these sectors.

Critical Climate Industry Sectors

Restoring and preserving a “stable climate and healthy ecosystem biodiversity” requires that global and local education and workforce development systems inform, encourage, and prepare entrepreneurs, students, and workers for specific high-impact industries, skills, and occupations (“critical climate careers”) that are essential to meeting climate goals. The following are Key Industry Sectors for taking climate action, based on a synthesis of [O*NET](#) green sectors, Bay Area Centers of Excellence Green Career [Sectors](#), and the key sectors of the California [CARB Carbon Neutrality Scoping Plan](#):

1. Buildings: Green Construction, Energy Efficiency, and Building Electrification
2. Sustainable Manufacturing
3. Recycling and Waste Reduction
4. Clean Electricity Grid, Renewable Energy Generation, and Energy Storage
5. Research, Design, and Consulting Services
6. Transportation
7. Short-Lived Climate Pollutants
8. Agriculture, Forestry, and Natural and Working Lands
9. Carbon Dioxide Removal & Capture
10. Environmental Protection
11. Governmental & Regulatory Administration

Recommendations

The following Recommendations are designed to foster an equitable low carbon economy in San Rafael, based on the Project's four key strategies.

- 1** Create or enhance *equitable pathways into good quality, local jobs* that support climate action,
- 2** Support the transition of *all jobs* in San Rafael into green jobs,
- 3** Help *current businesses* increase their economic vitality and create good jobs through climate actions,
- 4** Identify and support entrepreneurs to establish *new green businesses* that support climate action.

Key Strategy 1 - Pathways into Good Green Jobs

Create and/or enhance equitable pathways into good quality, local jobs that support climate action.

Target Audiences

Target audiences were developed based on low unemployment, income inequality, and the high incidence of workers who are very low income or low income in San Rafael. These Recommendations should focus on retraining and career advancement support into high-demand, local good green jobs for low income workers and emerging professionals (youth from high school to 34) who are currently experiencing the highest rate of unemployment in the County.

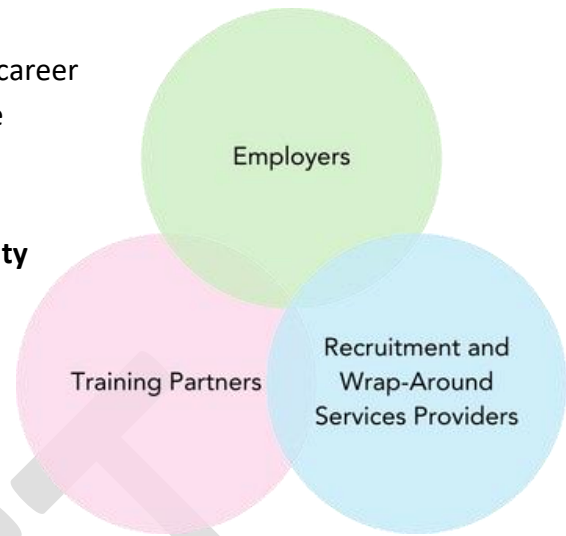
Recommendation 1 - (R1)

Support workforce development organizations and employers to develop or enhance specific programs that lead to priority green jobs.

The Workforce Development Triad

The key partners required to develop a high-quality career pathway program can be described as the workforce development triad.

R1-1 Facilitate convenings for each identified priority sector with employers and workforce development providers to identify the needs and opportunities to support the development or enhancement of high quality career pathway program(s) which include the workforce development triad.



The workforce development triad is exemplified by the [Education to Career Construction](#) (E2C) program, a partnership between the Canal Alliance (Recruitment and Wrap-Around Services Partner), College of Marin (Training Partner), and the Marin Builders Association (Employers) to create pathways into high-quality building and construction careers. In some cases a single organization will provide recruitment, training, wrap-around services, job placement, and jobs retention support, but in all cases high-quality workforce development programs will provide this suite of services at a high level, often requiring the expertise of multiple organizations.

Cross-Sectoral Worker Needs

Use partner convenings to further identify the barriers to meeting worker needs uncovered in this planning process and to design workforce pathway partnerships and programs to address worker needs, such as enhanced wrap-around services, green skills training specific to the priority occupations within the sector, funding, and distinct pathways for those with and without the right to work in the U.S.

Workers reflected that there is a lot of pressure on them and their families to meet the increasing costs of living in the San Rafael community in both the survey responses and in the local worker and job seeker listening sessions.

Wrap-around Services

Support partner fundraising efforts to expand, enhance, and sustain the wrap-around services provided to job seekers. In order to transition into and thrive in a new living wage green career pathway, workers need:

- Training to improve English proficiency, aligned at the level required to reliably communicate with one's supervisor and perform safely on the job.
- Support to secure a valid driver's license and a clean driving record.
- Drug and alcohol dependency support services, including support to clear a drug test that may still screen for marijuana, though legal for use in California.
- Support to expunge a criminal record, when possible, such as through [Clean Slate](#) events with the County.
- Social skills and professionalism training for the workplace. Employers commonly commented on the need for communication and professionalism skills, and noted that customer service and sales skills often lead to career advancement opportunities.
- Immigration support to gain the legal right to work in the U.S.
- Subsidized child care to workers and job seekers when providing training and to facilitate their retention in employment.
- Mental health support for depression, anxiety, and other mental health barriers to employment.
- Support for reliable transportation to work sites, which may include subsidies for public transportation, e-bikes, and a car plus fuel and repairs, as required by the work-place location(s), until the worker has stabilized in their new income and occupation.
- Work attire and tools, particularly for construction and automotive technician professions.

A model that is recommended for support and replication is the wrap-around services provided by Canal Alliance, which are tailored to the needs of each community member they serve and are provided for 2 years post job placement in order to support economic stabilization in their new occupation. Support through setbacks, such as an unexpected car repair, enables retention and secures economic mobility gains. Without this sustained support, the investment in training and placing local workers in good green jobs can be fragile, and therefore vulnerable to going to waste. Economic mobility outcomes for local workers requires sustained, significant, and differentiated services throughout the transition period, but the economic and well-being benefits of these investments can have a multi-generational familial and community impact, resulting in increased well-being and local tax revenue.

In summary, the City can support service needs through helping to facilitate and coordinate the workforce development triad to support worker recruitment, training, wrap-around services, placement and retention, with generous funding to meet the individual needs of workers and job seekers for two years after job placement.

Accessing Workforce Development Funding

Community-based organizations face barriers to supporting the workers they serve in accessing [Workforce Innovation and Opportunity Act](#) (WIOA) funding for supportive services. In particular it can be challenging for participants with limited English and digital literacy skills to sign up. Convene relevant partners who disburse WIOA funds, including the [Workforce Alliance of the North Bay](#), and those that serve workers in need of WIOA services, such as the Canal Alliance and Community Action Marin, in order to work in collaboration to identify and remediate the barriers to accessing the WIOA funds to which local workers are eligible and entitled.

Required Qualifications

Standard required qualifications can also be a barrier that stands between quality workers and quality green jobs. Work in collaboration with local employers and their industry sector to evaluate their common required qualifications, especially for educational credentials, and remove unnecessary requirements. Often a college degree, high school diploma, or GED may not really be needed in order to fulfill the work duties of an advertised job at an exemplary level, but the requirement is retained without evaluation because it has been the historical practice, inadvertently limiting the qualified applicant pool.

Accessing Workforce Development Funding

Community-based organizations face barriers to supporting the workers they serve in accessing [Workforce Innovation and Opportunity Act](#) (WIOA) funding for supportive services. In particular it can be challenging for participants with limited English and digital literacy skills to sign up. Convene relevant partners who disburse WIOA funds, including the [Workforce Alliance of the North Bay](#), and those that serve workers in need of WIOA services, such as the Canal Alliance and Community Action Marin, in order to work in collaboration to identify and remediate the barriers to accessing the WIOA funds to which local workers are eligible and entitled.

The Right to Work & Differentiated Pathways

The legal right to work in the U.S. is perhaps the most significant barrier workers face in the San Rafael community to accessing good green jobs. Prioritize additional funding for the Canal Alliance's [Immigration Support Services](#), the only affordable and comprehensive immigration legal services in Marin County.

In addition, evaluate the options for two distinct green career pathway programs: one for those with the right to work and one for those without current work authorization. Further research and facilitation of

“The legal right to work in the U.S. is perhaps the most significant barrier workers face in the San Rafael community to accessing good green jobs.”

collaborative ideation between key partners, including the San Rafael High School counseling department, the Canal Alliance, the Multicultural Center of Marin, and Community Action Marin, is recommended to identify next steps to establish green career and entrepreneurship pathways available to community members without the current right to work, while providing support to secure this authorization.

Training Needs

Work with employers to identify common training needs for workers and job seekers. Once identified, training should be offered through a diversity of options, including:



Virtual and in person options



Training in both Spanish and English



Training opportunities on weekdays and weekends



Both in the day and in the evenings

Listening sessions revealed that there is no one right training schedule, modality, or language for serving the San Rafael community of workers and job seekers, so providing a diversity of options is the best way to meet workers where they are at.

Additionally, when providing in-person training, workers also need support with transportation, food, and childcare during the trainings. Ideally, fundraising support will also allow workers and job seekers to be paid for their training time at the entry-level rate of pay for the occupation they are training for, and provide a completion bonus at the end. Without this pay, the opportunity cost for attending training can be too expensive for a low income worker if they have to forfeit paid work opportunities for training time, even if it will likely lead to higher earnings in the near future.

Training should be directly connected with work experience, during or immediately after the training period. For example, the [Redwood Construction Regional Occupation Program](#) connects completers with paid internships following their training. Support fundraising to hire a work experience intermediary to coordinate learn-and-earn experiences during or following training for each of the priority sectors and occupations, similar to the role that local green workforce non-profit SEI plays in the [MCE Green Workforce Program](#).

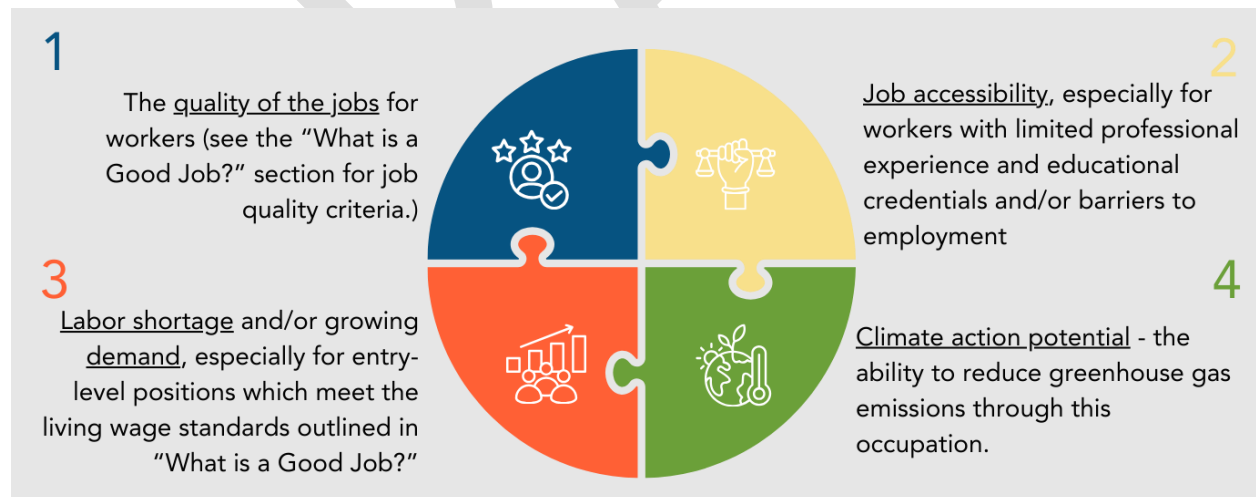
Trainings should also, where available, result in widely known, credible Industry Recognized Certificates. Identify the relevant industry-recognized certificates for each priority sector and occupation, and support training partners to offer these certificates as a part of the training program.

Priority Pathway Design to Meet Partner & Worker Needs

Use partner convenings to design workforce pathway partnerships and programs for priority occupations in order to address current barriers, which may include the need for additional faculty, funding, enhanced wrap-around services, and/or green skills curriculum specific to the priority occupations within the sector.

Criteria for Local Priority Climate Sectors and Occupations

Local Priority Sectors & Occupations should be identified based on the following key factors:



Using this criteria to focus the City's efforts on priority sectors and occupations will help to increase both local climate action and economic equity.

Local Priority Climate Careers: Key Industry Sectors & Occupations

Based on local research and the criteria for Priority Climate Careers, both industry sectors & key occupations above, the following initial areas of focus are recommended to create career pathways into good green jobs:

Building and Construction Trades, including energy efficiency, electrification, solar, and storage

Transportation, including automotive and truck service technicians and sales

Ecological Restoration

Evidence to support a focus on these sectors, based on the quality of jobs, their accessibility, demand, and climate action potential can be found in [Appendix E](#). For a discussion of other considered sectors and occupations that partially meet the priority criteria for inclusion in this report, see [Appendix F](#).

The following sections provide initial recommendations to develop or enhance career pathways into the quality careers in each sector. These recommendations will be further developed by convening relevant partners to discuss key needs and next steps.

Building and Construction Trades



Focus on enhancing and expanding local workforce development pathways into the building and construction trades because this sector meets the Criteria for Priority Sectors and Occupations. Justification for the inclusion of this sector can be found in [Appendix E](#).

Employers and workers report high job quality in both union and some non-union construction jobs, though pay and benefits differ between them. Union jobs generally offer a higher level of pay, training, benefits, and security, and there are many existing union trade apprenticeship programs. Collaborate with education and workforce development partners to promote worker participation in the [existing apprenticeship pathways](#) into union construction careers that reduce greenhouse gas emissions.

However, none of the construction apprenticeship training programs relevant to reducing greenhouse gas emissions are offered in Marin. To raise the floor on local job quality in the building trades: convene discussions with the North Bay Labor Council to explore bringing climate-relevant union apprenticeship training programs to Marin, and include and/or advocate for labor standards in publicly funded construction projects. Focus effort on publicly subsidizing residential renewable energy, electrification, energy efficiency, and/or energy storage projects where job quality tends to be lower. The [Bay Area High Road Training Partnership for Residential Building Decarbonization](#) is a good source of tools and support to improve job quality in building and construction occupations that reduce greenhouse gas emissions.

To further enhance accessibility, support existing and emerging construction training programs in the San Rafael area through participation in the Construction Education Advisory Committee, led by the Marin Builders Association. Collaborate, connect, and fundraise with these construction training programs through this Committee to ensure that local construction workforce development partners are connected and well-funded to provide: recruitment, wrap-around services, high quality training which includes green skills, and job placement and retention support. Support faculty recruitment, in partnership with the Marin Builders Association, as the availability of instructors is a key limiting factor in meeting the demand for a trained construction workforce.

Clean Transportation

As with the building and construction trades, focus on key clean transportation careers that meet the described Criteria for Priority Sectors and Occupations, including automotive technicians, automotive sales, and charging infrastructure installation and maintenance.

To build robust pathways into automotive technician occupations, first convene local employers and training partners to identify and develop a plan to train for the new green skills needed by technicians and auto shops, such as safety skills around high voltage, vehicle computerization, and vehicle battery architecture. To do this, research and convene employers and faculty to collaboratively identify core EV technician skills and available curriculum and Certificates, and then determine what support is needed for training organizations like COM to provide instructor training, including paid summer externships in which faculty work on site at automotive shops job shadowing and servicing EVs for a portion of the summer.

As with any sector, there are some barriers to entry for new workers. Automotive technicians are commonly required by employers to bring their own tools, and if they are required to supply their own tools, the California [Department of Industrial Relations](#) requires employers to

pay at least double the California minimum wage - \$31/hour. Support fundraising efforts to supply automotive technicians-in-training with the starting tool set they need to create equitable access to both entry-level technician jobs and this higher entry-level wage.

As with the building and construction trades, access can be expanded by providing wrap-around services to: develop English and digital literacy skills, establish a clean driving record, qualify for a driver's license, enhance social skills and professionalism, and establish the legal right to work in the US. Work with recruitment and wrap-around service providers, such as the Canal Alliance and Community Action Marin, to recruit community members for automotive technician training at College of Marin and provide wrap-around services to remediate barriers to automotive technician employment. However, the automotive program at COM is regularly fully enrolled. To expand access, support additional faculty recruitment by promoting available adjunct faculty roles at COM with local automotive technician employer partners.

EV charging infrastructure installation and maintenance is essential to accelerating the adoption of EVs. However, the barrier to entry for EV charger installation occupations is higher. Electricians are required to be certified in California. If a person wants to perform electrical work for a C-10 contractor and does not yet qualify to take the certification exam because of lack of work experience or related instruction, workers can do so legally by registering as an [electrician trainee](#) and enrolling in an approved [training program](#) to become a certified electrician. Unfortunately, the closest programs are in Santa Rosa, San Francisco, Napa, Oakland, Hayward, and San Jose. Assist with faculty recruitment to support the development of a state-approved electrician training program at the Indian Valley Campus of COM, with the inclusion of the Electric Vehicle Infrastructure Training Program (EVITP) certification and a subsidy for the [\\$275 online exam fee](#).

EV charger installation and maintenance occupations are forecasted to grow significantly, but research conducted in this planning process has not yet revealed evidence of tightness in the labor market for these two roles. Consider working in partnership with ChargerHelp! to first increase demand for charger maintenance occupations and then build career pathways into these new jobs by:

- Identifying owners of large numbers of charging stations in and around Marin,
- Coordinating the procurement of O&M services from ChargerHelp! by working with collaboratives such as the [Marin Climate and Energy Partnership](#), and then
- Working with local recruitment and wrap-around service providers, such as San Rafael High School, Community Action Marin, and the Canal Alliance, to identify and support job seekers in

- Participating in a [3-6 week training program](#) provided by ChargerHelp!,
- Leading to job placement with ChargerHelp! to maintain local charging infrastructure.

Automotive sales professionals can influence the purchase of electric vehicles. Evaluate local opportunities to provide automotive sales education programming on EVs by discussing this concept with employers and potential training partners to determine interest, needs, and next steps. Training on EVs for automotive sales people should cover: frequently asked questions from customers; multi-day test driving to include experiential learning on the charging experience; and financial analysis training to answer questions about available subsidies and comparative vehicle costs over the customer's expected useful life of the vehicle. Provide this training to existing and potential sales people as a means to both enhance green skills and recruit new trained workers to this influential position.

Ecological Restoration

According to a [report on the Restoration Economy](#) from *Conservation Works for America*, “the Restoration Economy includes economic activities that contribute to improvement and restoration of a functioning ecosystem. These activities that stimulate the economy include project planning, engineering, legal services, intermediate supply of inputs, earthmoving, forestry, and landscaping.” Focus on the last three occupations named here - earthmoving, forestry, and landscaping, due to their alignment with the priority criteria.



CCNB Trainees work together to remove invasive species

Picture Credit: Sally Bolger, Ecological Workforce Initiative

Ecological restoration work engages the skilled trades. To work appropriately in sensitive habitats requires specialized skills and knowledge. This training can be provided through a 10 hour instructional course offered by the [Ecological Workforce Initiative](#) (EWI). Support the expansion of career pathway programs into civil construction occupations that implement

ecological restoration projects in San Rafael. Develop workforce development triad partnerships with key collaborators. Partners might include:

- Industry associations such as the [California Ecological Restoration Business Association](#) (CaERBA),
- Training organizations such as the [Ecological Workforce Initiative](#), and
- Community-based organizations such as the [Canal Alliance](#) and [Conservation Corps North Bay](#) to collaboratively provide recruitment, wrap-around services, training, and job placement services to additional San Rafael community members.

Continue to Identify Local Priority Sectors and Occupations

R1-2 The Green Economy is dynamic. **Work continually with the City of San Rafael’s Economic Development Department, employers, training organizations, and community-based organizations to identify priority sectors and occupations as the labor market evolves.** When identifying priority sectors and occupations, start with the jobs. Using the Criteria for Local Priority Climate Sectors and Occupations above, **identify and investigate potential additional Priority Sectors by conferring with local employers in the sector.** Investigate the following key questions:

1. **Demand & Job Quality:** Are they hiring? Is it difficult to hire? What do they offer workers in starting pay and benefits, career advancement opportunities, and the measures of job quality identified in the [What is a Good Job](#) section?
2. **Accessibility:** What skills, experience, and aptitudes would the employer like entry-level applicants to have?
3. **Green Skills:** What green skills are needed? Is additional training needed for these skills for their incumbent workers and/or applicant pool?
4. **Career Pathway Potential:** Gauge the employer’s willingness to partner. Are they interested in collaborating with training partners to build their applicant pipeline? Will they create work-based learning and/or entry-level work opportunities for training participants?

If the results to these questions are favorable, identify and support key partners to attract, train, support, place, and retain local employees in these priority occupations.

Water and Wastewater Treatment is a sector with high promise for meeting these criteria. At present, evidence has not been collected to confirm a local labor shortage for jobs in this sector, but the other criteria make water/wastewater careers an excellent candidate for inclusion as a Local Priority Sector. Investigate the local demand for jobs in the Water and

Wastewater Treatment sector, beginning with inquiries to the key local employers in this sector using the key questions above.

Recommendation 2 - (R2)

Support green skill training for existing employees.

R2-1 Evaluate opportunities and needs for training existing workers, and then develop a plan together with local employers, training partners, worker-supporting community-based organizations, and funders to provide paid training, ideally with career advancing credentials.

Current employees in the following occupations are a priority for Green Skills training in order to maximize climate mitigation opportunities in the workplace:

- Building operators
- Custodians
- Hospitality workers
- Healthcare workers
- Childcare providers and TK-12 educators
- Construction workers
- Clean mobility professionals, and
- Ecological restoration workers
- Government workers

In each of these occupations, training for existing workers would result in benefits to workers and employers, as well as significant greenhouse gas emissions reductions. Training opportunities to evaluate for incorporation into a training plan for existing workers include:

- Working with the US Green Building Council of LA to offer their [Green Janitors Education Program](#) (GJEP) in San Rafael. Workers earn GJEP accreditation, and buildings with accredited GJEP staff use an average of 5.6% less energy than non-GJEP buildings.
- Facilitating [Building Operator Certification](#) (BOC) training and credentials for commercial building engineers and maintenance personnel. BOC graduates help their organizations substantially cut operating costs – as much as \$20,000 per year, and reduce energy use by [over 100,000 kWh per year](#).
- Identifying or advocating for a green skills education certification for teachers similar to this [European model](#), with a wage bump for educators who earn the Certification.

Recommendation 3 - (R3)

Promote green career information.

R3-1 Workers face awareness barriers to accessing good green jobs. Workers revealed that they want to contribute to a healthy environment and to their community but are not currently sure what good green jobs are available and what skills they require. To address this knowledge gap, **create awareness of local green careers and pathway programs into them, with specific and attractive next steps such as developing or promoting a paid internship program.**

Distribute clear and compelling information such as this [How to Find a Green Job](#) resource guide through training and wrap-around service partners to support job seekers in finding their green career. Community college and high school counselors, teachers, students, and their parents (who may also be interested in a good green job) will also be important partners for both creating awareness of available green careers and for developing a good green career pathway.

To maximize the impact of this outreach, use storytelling to attract local workers to green jobs by developing and sharing local green career pathway stories of workers who started in accessible green occupations and have advanced into high quality, high impact careers. Creating a sense of community around success stories will help workers feel empowered to pursue similar paths.

Recognize also that there is no one single method of outreach that will work for everyone. Workers and job seekers provided specific recommendations to that end: coordinate with multiple partners to get the word out; cross the digital divide by creating physical flyers as well as online outreach and application materials; and consider those in the community who do not know how to read or write by having short marketing videos designed for TikTok or Instagram in multiple languages.

R3-2 The landscape of available green careers is constantly changing. **Continue to engage with current green businesses in San Rafael to see what their workforce needs are and will be in the near future, including the number of employees they expect to hire, skills and experience required, and job quality measures.** Share these findings regularly with an established network of partners who can inform and inspire students and job seekers to pursue green skill training and in-demand good green jobs.

Recommendation 4 - (R4)

Increase the demand for and quality of local green jobs.

Increase Demand for Good Green Jobs Locally

R4-1 The City of San Rafael can support the creation of new good green jobs and work-based learning experiences by including workforce requirements and/or incentives in City-led Requests for Proposals (RFPs), and advocating for their inclusion at the county, regional, and state levels. **Develop model RFP language to be included in any climate-related RFP for the City that either requires or encourages targeted regional hiring, the development of work-based learning experiences for local residents, and labor standards to establish a minimum floor for the quality of climate jobs undertaken with public funding.** Share within Marin jurisdictions through the [Marin Climate Energy Partnership](#) (MCEP) to encourage County-wide adoption.

R4-2 The City can also help to increase demand by **partnering with local entrepreneurship education and support organizations to grow awareness of [policies that are driving demand](#) for green products and services in order to stimulate business and job creation to meet this growing demand.**

Opportunities to Improve Job Quality in Essential Green Careers

To develop an equitable low carbon economy, focus the City's effort and resources on supporting pathways into green jobs that pay at least \$26 per hour, based on the needs of a single adult with no dependents, according to the [MIT Living Wage Calculator](#). Investigate and focus also on jobs that reliably provide earning increases over the first five years to at least the annual income level required to afford market rate rent for a 1-bedroom in Marin, [currently \\$106,600 per year](#) (\$51.25/hour).

R4-3 There are, however, essential green jobs that do not pay at or above this starting or experienced hourly wage. One opportunity to raise the job quality floor for all jobs in San Rafael is to advocate for increasing the state minimum wage and/or to require a higher minimum wage in San Rafael. Additionally, the City could facilitate an opt-in Living Wage campaign to encourage employers to publicly commit to paying all employees at or above a local Living Wage for a single adult with no dependents. The City could also uplift job quality by **identifying and promoting local businesses with replicable models for on-the-job training with wage increases** in order to support career advancement and job quality improvements for existing employees.

R4-4 In addition to focusing on pathways into the identified priority sectors and occupations, **support actions that improve the quality of the following careers that have the potential for**

reducing greenhouse gas emissions in San Rafael, but do not currently meet the priority sector and occupation criteria because of poor wages or other job quality concerns.

Residential Decarbonization

Building decarbonization, including energy efficiency and electrification, are essential to meeting the goals of the San Rafael Climate Action Plan. These careers tend to have high job quality when working on commercial buildings, but job quality can vary significantly in the residential sector, as is true with residential construction in general. Use the tools, resources, and support of the [Bay Area High Road Training Partnership for Residential Building Decarbonization](#) to leverage local policy and programs to enhance job quality in this sector by including labor standards, and participate in policy advocacy for labor standards at the regional, state, and federal levels that is led by this group.

Residential Solar Installation

Solar installers are essential to meeting the goals of the San Rafael Climate Action Plan, but often entry-level residential solar installation jobs pay less than the living wage. Utilize the [IREC Solar Career Map](#) to convene a discussion with local training organizations like COM and employers to develop a plan to support ongoing skills development with existing solar installers to facilitate their rapid solar career advancement.



Early Childhood Education and TK-12 Education

Educators play an influential role in building ecological literacy and pro-environmental habits that have an enduring ripple effect at home, at school, and eventually at work for students and their families. Wages, especially for early childhood educators, are not sufficient to meet the financial demands of living in San Rafael, making it hard to attract and retain gifted educators, and build training and instructional cultures around practices that reduce greenhouse gas emissions at school, at home, and eventually at work. Evaluate pay equity for educators, first within the City, County, and school district pay scales to ensure that educators are receiving competitive compensation with occupations that have similar levels of skill, training, rigor, and importance. Advocate for early childhood education pay increases if disparities are identified.

Hospitality

Hospitality workers, including professionals working in hotels and restaurants, have a significant potential to reduce greenhouse gas emissions through practices such as composting and energy conservation. However, these jobs do not typically meet the living wage threshold, so are not included as a priority occupation. Consider convening a meeting with the leaders of the [High Road to Hospitality](#) project to identify strategies to increase job quality in the hospitality sector in San Rafael.

Janitorial Services

Custodians similarly have a significant potential to reduce greenhouse gas emissions through practices such as recycling, composting, and energy conservation, but these jobs do not typically meet the living wage threshold, so are not included in as a priority occupation. Consider convening a meeting with the leaders of the [High Road to Janitorial Services](#) project to identify strategies to increase job quality in the custodial sector in San Rafael.

The advancement of the recommendations provided in this section on “Pathways into Good Green Jobs” will help to create and enhance equitable local access to good quality, local jobs that support climate action.

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Key Strategy 2 - Transform Every Job into a Green Job

Support the transition of all jobs in San Rafael into green jobs.

Recommendation 5 - (R5)

Identify and collaborate with local non-profits and other partners to design and implement a city-wide Every Job a Climate Job campaign to transform all jobs into green jobs.

R5-1 The City of San Rafael requires an inclusive approach in order to meet the ambitious targets of the [Climate Change Action Plan](#) in which all business owners, managers, and employees are taking action to reduce climate impacts at work. Test existing resources by conducting a pilot with City of San Rafael staff. **Work in collaboration with a local non-profit, such as [Resilient Neighborhoods](#) or [SEI](#), to design, fund, and implement a city-wide initiative to transform all jobs into green jobs, starting with the City of San Rafael pilot.**

The City of San Rafael directly employs over 400 people across a wide array of job functions and institutions, including libraries, preschools, community centers, police, and fire stations. Support fundraising to pilot an initiative to inform, inspire, and support every City employee to take action to reduce climate impacts through their work. Then synthesize the best available resources to design and document a program for implementation in businesses throughout the community.

There are many existing [resources](#) and [affinity groups](#) to leverage when designing and piloting this program. Test out and synthesize these resources within the City to formulate a program for community implementation. In particular, leverage the [Job Function Action Guides](#) provided by Project Drawdown for employees in finance, government relations and policy, human resources and operations, legal, marketing, procurement, and sales and client-facing roles.

R5-2 To support implementing and then scaling this pilot to other organizations and businesses in San Rafael, leverage the following existing no-cost services to reduce greenhouse gas emissions at work:

- MCE provides resources, training, and support to engage employees in [Strategic Energy Management](#) at work, which can result in 3%-15% energy savings with little to no capital investment.
- Marin Municipal Water District (MMWD) provides [Water Conservation Assistance](#) consulting, which can train employees on workplace specific water conservation strategies.

- [Marin Sanitary Service](#) provides compost and recycling opportunity assessments, diversion planning, staff training, and posters to help employees recycle and compost successfully at work.
- The County of Marin [Green Business Program](#) provides no-cost technical assistance to businesses and their employees to implement green practices that reduce the organization's impact on the climate.

While the City envisions all jobs becoming green jobs in San Rafael, there are also key employees within organizations that have a high potential to lead greenhouse gas reductions at work. This initiative should focus on providing resources, training, and consulting services to employees in these key roles to make it easier and cost-effective for them to reduce greenhouse gas emissions in existing San Rafael businesses of all types. Key employees include:

- *Organizational leaders* who have the ability to make strategic decisions and transform institutional culture. To support this audience, make the business case for climate action at work in terms of employee recruitment, retention, operational cost savings, and marketing/sales potential.
- *Managers* are key to consistent implementation and monitoring of organizational change initiatives.
- *Facilities managers and building operators* have significant opportunities to reduce emissions from transportation, energy, water, and waste.
- *Custodial staff* also have the opportunities to reduce emissions from energy, water, and waste, especially energy use when buildings are unoccupied after hours and on weekends.
- *Procurement managers* can influence sustainability decisions, reducing emissions throughout organizational operations and supply chains.

R5-3 Once the model for transforming all jobs into green jobs is developed, tested, and refined through the City of San Rafael pilot, **support partner(s) to implement a replicable community-wide program with employers and employees throughout San Rafael.**

Key Strategy 3 - Support and Grow Current San Rafael Businesses

Help current businesses increase their economic vitality and create good jobs through climate actions.

There are a rich array of opportunities for action to reduce greenhouse gas emissions within current businesses. Project Drawdown provides a [Climate Solutions at Work](#) Guide to help organizations recognize and implement key climate action opportunities:



Click [here](#) to expand image.

The San Rafael *Equitable Low Carbon Economy Plan* presented here is particularly focused on opportunities to reduce climate impacts that *also* increase the economic vitality of existing San Rafael businesses. Increased profitability will hopefully additionally result in the ability of San Rafael businesses to hire more community members into good jobs that support climate action.

Help current businesses increase their economic vitality through climate action by *both*:

1. *Reducing costs* through actions and investments that reduce greenhouse gas emissions, and
2. *Increasing revenues* by promoting low-carbon, green businesses.

Strive to make San Rafael a great place to be a green business, with lots of support for and promotion of green business practices, ultimately creating a community culture in which being a green business is the desirable norm.

Recommendation 6 - (R6)

Evaluate the potential for a one-stop consulting service for businesses to reduce costs by reducing greenhouse gas emissions.

R6-1 Design an implementation strategy to provide a free one-stop shop for businesses to gain awareness of and access to these available services with ease. This evaluation should be done in consultation between the City, the [County Green Business Program](#), the [Marin Climate Action Network](#) (MarinCAN), and the [San Rafael Chamber of Commerce](#). In this process, evaluate which local organization has the most viable opportunity to add additional staff capacity to lead in helping businesses identify and navigate opportunities for technology upgrades, rebates, subsidies, low-cost financing, grants, and green skills training programs, etc. The goal is to fill in gaps to meet businesses needs and to make the following available business services more visible and accessible to existing businesses:

- MCE provides free [EV charging](#) infrastructure consulting and rebates for chargers.
- MCE's [Commercial Energy Efficiency](#) Program provides no-cost energy efficiency assessments, project management, rebates, and technical assistance.
- MCE's [Strategic Energy Management](#) Program provides incentives, consulting, resources, and training to achieve energy savings through operations and maintenance changes, and key stakeholder engagement.
- Marin Municipal Water District (MMWD) provides [Water Conservation Assistance](#) consulting to identify and implement specific water conservation strategies.
- [Marin Sanitary Service](#) provides compost and recycling consulting services to increase recycling and composting at work.
- The Transportation Authority of Marin (TAM) provides an [Electric Vehicle Toolkit](#) and support for transitioning business vehicles to EVs.
- TAM also provides Transportation Demand Management (TDM) services that help employers help their employees get to work. TAM sponsors a suite of [TDM services](#) that employers can implement at no cost.

Many additional services are available to residences, which can assist home-based businesses in reducing costs through climate action.

R6-2 Local businesses may also benefit from a culture of connection and mutual support, which should be evaluated by inquiring with local business owners about whether they would participate in and benefit from activities such as:

- Identifying clusters of climate champions in key industry sectors and supporting their collaborative learning, best practice identification, and sharing to both support one another and other businesses in their sector.
- Organizing events and cohorts to showcase successful business strategies and investments, as well as foster informal advisory connections between business owners such as was being done through the [Sustainable Enterprise Conference](#) and [peer advisory groups](#) hosted by VenturePad.
- Facilitating the business equivalent of the [Resilient Neighborhoods](#) program to bring businesses together for collective education, action planning, and mutual implementation support for cost-saving climate actions.
- Providing transferable verbiage to support businesses in featuring green practices in their recruitment and hiring materials, as well as resources to integrate green practices holistically into their workplace culture (see the Every Job a Green Job recommendations above) in order to support employee recruitment and retention.

Recommendation 7 - (R7)

Support Existing Businesses to Transition Heavy Duty Vehicles to Zero Emission Vehicles.

R7-1 The California Air Resources Board (CARB) [Advanced Clean Trucks](#) (ACT) regulation will require government fleets to be zero emission by 2035; 100 percent ZE refuse trucks and local buses by 2040; and 100 percent ZE-capable vehicles in utility fleets by 2040. This fleet conversation will be expensive for key community service providers, such as waste haulers and organizations providing transportation for the elderly and disabled. **Convene major fleet businesses to identify ways to cost-effectively and efficiently transition heavy duty fleets to zero emission vehicles. Coordinate community compliance efforts to reduce costs, if applicable.**

R7-2 Work with PG&E and MCE to identify ways to share information, leverage opportunities for collaboration, and support cost-effective compliance with CARB fleet regulations.

Recommendation 8 - (R8)

Support an initiative to drive additional demand and benefits for Certified Green Business services.

R8-1 Support a communications campaign to increase sales for both existing and new Certified Green Businesses.

The City of San Rafael can help current businesses increase their economic vitality through increasing revenue by promoting low-carbon, green businesses. The goal is to make San Rafael a great place to be a green business.



Evaluate opportunities to invest in a communications consultant for a one year pilot, either within the City or a local partner organization, to drive additional demand for certified green businesses through a coordinated campaign that is evaluated for efficacy. This could be in partnership with and expansion of the [Shop Local – Shop. San Rafael](#) campaign. The [Shop Local Novato](#) campaign is another model to investigate for replicable ideas and inspiration.

The City of San Rafael Economic Development and Sustainability Departments, County Green Business Program, downtown [San Rafael Business Improvement District](#), and the San Rafael Chamber of Commerce could collaboratively support this effort by utilizing their own communications channels and outreach budgets to highlight San Rafael green businesses. Spotlights of green businesses, their green practices, and how it has helped grow their profitability can be featured: in the City and Chamber newsletters; on banners across 4th Street that celebrate the Chamber’s Green Business of the Year; and through the State of the City event which could include additional Certified Green Business highlights. Consider setting and publicly tracking a communal goal to increase the number of certified green businesses as a part of this coordinated and evaluated campaign to drive community support for local green businesses and utilization of the certified green business directory.

Center the green businesses most in need of revenue support since many local businesses are still suffering the economic effects of years of depressed earnings due to Covid. Use this campaign to mobilize the local community to support good green businesses that are struggling to stay in business as a part of preserving and enhancing the core identity, community, and culture of the City of San Rafael. This campaign is an opportunity for the City Economic Development and Sustainability departments to collaborate in asking the community what kind of City they want, and to encourage community members to take an active, participatory role in actualizing those ideals by supporting the businesses they want to thrive.

R8-2 In addition to promoting certified green businesses, confer with local businesses, the County Green Business Program, and the San Rafael Chamber of Commerce to evaluate the

value of adding green business certification tiers and awards for going above and beyond the basic certification requirements. Additionally, the City should **evaluate opportunities to decrease business costs and incentivize Green Business Certification by expediting approval for permits for certified green businesses.**

To specifically support existing, diverse construction contracting businesses, partner with the [Emerald Cities Collaborative](#), and local partners such as the Canal Alliance and Marin Builders Association, to regularly host [E-Contractor Academies](#) in Marin. The E-Contractor program is led by the Emerald Cities Collaborative, a national nonprofit committed to helping small minority-, woman- and veteran-owned contractors and disadvantaged workers build careers in the energy efficiency, renewable energy, and green building sectors.

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Key Strategy 4 - Develop New Good Green Businesses in San Rafael

Identify and support entrepreneurs to establish new green businesses that support climate action.

Recommendation 9 - (R9)

Create a campaign that establishes a new business norm that every San Rafael business is a Green Business.

City of San Rafael New Business Portal

R9-1 Update and refine the City's new business portal and processes to reflect this norm and provide instant resources to entrepreneurs. Connect entrepreneurs with supportive resources for starting a green business by updating the webpage on starting a business in San Rafael, particularly the "Green Business" page, and prominently linking to it from the City [home page](#), [economic development](#) page, and move it up on the [sustainability](#) page.

For entrepreneurs wanting to start a new business in San Rafael, work to embed a "green ethic" and initial expectation for San Rafael businesses of green business practices by utilizing the City business license process to inform and persuade businesses to utilize the existing resources shared in the [Opportunities to Reduce Business Costs](#) section to green their business. When entrepreneurs apply for a business license, provide a resource kit that thanks them for doing business in San Rafael and communicates the message that the City and its partner organizations are here to support them in thriving economically and environmentally by providing a quick start guide that encourages them to pursue Green Business Certification and the supportive services described in this Plan from the SBDC, VenturePad, MCE, MMWD, and Marin Sanitary Service. This Business Greening Guide can also provide tips on green business practices, including Facilities Management, Construction, Operations, and Procurement.

Incentivize Becoming a Green Business

R9-2 Evaluate incentivizing becoming a certificated green business by providing a business license discount if they become a Certified Green Business, refunding their business license fee if a business becomes certificated in the first year, and/or expediting approval for permits for Certified green businesses. When businesses sign up for a business license, the City may benefit from collecting additional information, such as including a check box to indicate if they are already a certified Green Business, and, if not, to request support to become a green business, as well as key information including an email address requirement, if the business is home-based, and if the business owns their building(s).

Support the Launch of New Green Businesses

Policies and public funding at the local, state, and federal levels are driving new business opportunities, many of which are a good fit for San Rafael's unique context. Identifying and supporting interested entrepreneurs to launch these businesses in San Rafael will contribute to the development of a vibrant low-carbon economy that creates access to a growing number of good green jobs. The [policy section](#) included in the Appendix details the myriad policies that are driving demand for low carbon products and services in sectors including energy efficiency, renewable energy, energy storage, electric vehicles, EV chargers, electric appliances, electronics repair, zero-waste packaging, and compostable foodware.

This Plan recommends continuous research, updating, and sharing of new business ideas based on evolutions in policy, public funding, and technologies. The City has started this process with this growing [catalog of entrepreneurial opportunities](#) for new low-carbon businesses in San Rafael. Work with entrepreneurship education and support organizations in Marin to: create awareness of these emerging business opportunities; and to support interested entrepreneurs to access the skills training, funding, and other supportive resources they need to launch successful green businesses in San Rafael.

Key partnership organizations to create awareness of these opportunities and support their launch include:

- First and foremost, the [Marin Small Business Development Center](#) (SBDC), hosted at Dominican University, which provides interested entrepreneurs and established small businesses with a host of no-cost supportive services, including trainings and one-on-one advising on: developing a business plan, accessing capital, permits and licensing, financial projections, human resources, compliance, marketing, accounting, business taxes, legal services, insurance, inventory management, and other business needs;
- [VenturePad](#), a San Rafael-based co-working space, business accelerator, and entrepreneur support group host;
- The College of Marin, which offers business management and entrepreneurship [courses](#) and Business [degrees and certificates](#);
- The Marin County Office of Education and College of Marin Entrepreneurship [Summer Career Academy](#);
- The County of Marin, which has identified green business development as one of their Flagship Initiatives in the [Marin County Economic Vitality Strategic Plan](#);
- The Dominican University [MBA program](#); and

- Terra Linda High School’s Marin School of Environmental Leadership [Sustainable Enterprise course](#), in which each student develops a green business concept, writes a business plan, and pitches it to a panel of mock investors. The top businesses are then selected for implementation by a student team in the Spring semester.



Pictured: VenturePad coworking space. Photo credit: Tom Fox

Recommendation 10 – (R10)

Support the launch of new green businesses in and around San Rafael.

R10-1 Work with these existing organizations to provide: information on green business opportunities, and support to launch and grow green businesses. The primary additional needs that these services do not currently fully meet are: green business ideas and funding.

R10-2 Continue to gather ideas in the catalog above, inviting other subject matter experts to contribute their insights, and connect these service providers with additional potential funding partners, which may include: the [MCF Venture Impact Program](#), [Marin Sonoma Impact Ventures](#), bringing a [lending circle](#) to San Rafael by facilitating a collaboration between local non-profit partners and the Mission Asset Fund, and advocating for a revolving loan fund for new green businesses with possible funding from the California Jobs First Initiative, formerly the [Community Economic Resilience Fund](#), facilitated locally by the Canal Alliance.

Conclusion

In this planning phase of the San Rafael *Equitable Low Carbon Economy Project*, the City Sustainability Division and core team of advisors set out to answer the question: “How can the City of San Rafael support local climate actions that have the greatest equitable benefit on the local economy and workforce?” Since the City doesn’t create or control the local economy, what can the City do to foster an equitable low carbon economy with the tools available? As the local governing body, the City has the power to:

- Remove regulatory barriers
- Convene and connect partners
- Support fundraising for programs and services
- Modify City policies & procurement practices, and
- Conduct advocacy to higher levels of government

The recommendations in this Plan provide a menu of options to utilize these available tools to transform the City of San Rafael into a leader and model for creating a more fair, inclusive, and vibrant economy through climate action. The next steps are to prepare for implementation by:

1. Selecting and prioritizing the recommendations
2. Developing work plans for implementing the priority recommendations
3. Developing the Partnerships needed to implement the priority recommendations
4. Budgeting and resource planning to identify the funding needs and potential sources for each priority recommendation

The City aims to conduct implementation planning and begin the implementation of priority recommendations in 2024, continuing implementation through 2030. The implementation of this Plan will support the San Rafael [Climate Change Action Plan 2030](#) goal to reduce greenhouse gas emissions by 40% below 1990 levels while increasing local economic equity and vibrancy.

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Appendices

Appendix A: Participating Individuals and Organizations

Organization	Name	Title
Ava Community Energy (formerly East Bay Community Energy)	Brett Wiley	Senior Program Associate, Electric Mobility
Beckstrom Automotive	Donna Beckstrom	Owner
California Ecological Restoration Business Association	Mark Cederborg	Board Member
Canal Alliance	Aaron Burnett	Director of Policy and Civic Engagement
Canal Alliance	Air Gallegos	Director of Economic Mobility
Canal Alliance	Axel Flores	Senior Manager, Workforce Development
Canal Alliance	Diana Benitez	Senior Manager of Advocacy and Engagement
ChargerHelp!	Kianna Scott	Senior Vice President of Workforce Development
City of San Rafael	Kate Hagemann	Climate Adaptation and Resilience Planner
City of San Rafael	Micah Hinkle	Director of Economic Development and Innovation
College of Marin	Alina Varona	Dean of Workforce Development and Career Education
College of Marin	Ron Palmer	Teacher, automotive
College of Marin	Johnny Campbell	Farm Manager
Community Action Marin	Heather Bettini	Senior Director, Economic Justice
Community Action Marin	Chandre Alexandre	CEO
Conservation Corps North Bay	Kyle LaRue	Director of Zero Waste and Compliance
Conservation Corps North Bay	Tyler Pitts	Chief Program Officer
Ecological Workforce Initiative	Sally Bolger	Director
ERI	Evan Selander	Global Account Executive
Fibershed	Rebecca Burgess	Founder and Director

GRID Alternatives	Mina Defee	Program Manager, Workforce Development
Learn & Earn	Katheryn Horton	Senior Director of Operations
LIME Foundation	Leslie Biagini	NextGen Trades Academy Program Coordinator
Marin County	Mark Chhabria	Program Coordinator - Green Business, Residential Energy Programs
Marin County Office of Education	Jesse Madsen	Director
Marin Resource Conservation District	Kelsey Brewer	Working Lands Scientist
Marin Sanitary Service	Justin Wilcock	Director of Operations
Marin SBDC	Miriam Karell	Center Director
MCE	Joy Massey	Senior Customer Programs Manager
MCE	Martin Bond	Senior Business Development Manager
North Bay Labor Council, AFL-CIO	Jack Buckhorn	Executive Director
SEI	Jo Sorrentino	Program Manager - Energize Careers
SF Bay Goodwill	Julie Bryant	Director of Sustainability
VenturePad	Chris Yalonis	Founder and President
Volvo Auto Dealership	Diana Kennedy	General Manager
Volvo Auto Dealership	Chris Vann	Parts & Service Director
Workforce Alliance of the North Bay	Sita Williams	Community and Business Partnerships Officer
Zero Waste Marin	Kim Scheibly	Executive Director

Appendix B: What is a Green Job?

The following are definitions and categorization systems of green jobs:

Green Economy Definition

An economy that operates safely within planetary environmental boundaries, notably with regards to a stable climate and healthy ecosystem biodiversity.

Source: [LinkedIn Green Skills Report](#)

Bureau of Labor Statistics Green Job Definition

Green jobs are either:

- Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.
- Jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.

Source: US Bureau of Labor Statistics (BLS) Definition: [URL](#) and expanded definition in [PDF](#)

United Nations Environment Programme (UNEP)

UNEP considers green jobs to be “jobs that work in agricultural, manufacturing, research and development, administration, and service activities that contribute substantially to preserving or restoring environmental quality.” Green jobs need to be “good jobs which offer adequate wages, safe working conditions, job security, reasonable career prospects, and worker rights.”

Source: UNEP [Green Job Definition](#)

O*NET Green Occupational Categories:

- **Green New & Emerging** — The impact of green economy activities and technologies is sufficient to create the need for unique work and worker requirements, which results in the generation of new occupations.
- **Green Enhanced Skills** — The impact of green economy activities and technologies results in a significant change to the work and worker requirements of an existing O*NET-SOC occupation.
- **Green Increased Demand** — The impact of green economy activities and technologies results in an increase in employment demand, but does not entail significant changes in the work and worker requirements of the occupation.

Source: [Greening of the World of Work](#): Implications for O*NET®-SOC and New and Emerging Occupations, page 11

Jobs for the Future Categorization of Occupations on a Green Skills Continuum:

- Additive: gain a small subset of new green skills within a broader set of responsibilities but maintain traditional overall roles and functions.
- Blended: adopt broader sets of new green functions within existing roles and thus start to evolve.
- Job-changing: roles undergo a significant shift in skill sets; roles and functions are completely changed due to their full integration of green skills.

Source - JFF: [Growing Quality Green Jobs Report](#) - 2023

List of Green Occupations by Standard Occupation Code (SOC code)

Source: Bay Area Centers of Excellence - [methodology](#)

LinkedIn Green Skills Report Definitions

- Green skills: are those that enable the environmental sustainability of economic activities
- Green jobs: are those that cannot be performed without extensive knowledge of green skills
- Greening jobs: can be performed without green skills, but typically require some green skills
- Greening potential jobs: can be performed without green skills, but occasionally require some level of green skills
- Non-green jobs: are those that do not require green skills to be performed
- Green talent: a LinkedIn member who has explicitly added green skills to their profile and/or are working in a green or greening job

Source: [LinkedIn Green Skills Report](#)

Appendix C: What is a Good Job?

The following are additional resources used to define a good job:

The [Federal Good Jobs Principles](#) from the Department of Commerce and Department of Labor:

- Recruitment and Hiring: Qualified applicants are actively recruited – especially those from underserved communities. Applicants are free from discrimination, including unequal treatment or application of selection criteria that are unrelated to job performance. Applicants are evaluated with relevant skills-based requirements. Unnecessary educational credentials and experience requirements are minimized.
- Benefits: Full-time and part-time workers are provided family-sustaining benefits that promote economic security and mobility. These include health insurance, a retirement plan, workers' compensation benefits, work-family benefits such as paid leave and caregiving supports, and others that may arise from engagement with workers. Workers are empowered and encouraged to use these benefits.
- Diversity, Equity, Inclusion, and Accessibility (DEIA): All workers have equal opportunity. Workers are respected, empowered, and treated fairly. DEIA is a core value and practiced norm in the workplace. Individuals from underserved communities do not face systemic barriers in the workplace. Underserved communities are persons adversely affected by persistent poverty, discrimination, or inequality, including Black, Indigenous, people of color; LGBTQ+ individuals; women; immigrants; veterans; individuals with disabilities; individuals in rural communities; individuals without a college degree; individuals with or recovering from substance use disorder; and justice-involved individuals.
- Empowerment and Representation: Workers can form and join unions. Workers can engage in protected, concerted activity without fear of retaliation. Workers contribute to decisions about their work, how it is performed, and organizational direction.
- Job Security and Working Conditions: Workers have a safe, healthy, and accessible workplace, built on input from workers and their representatives. Workers have job security without arbitrary or discriminatory discipline or dismissal. They have adequate hours and predictable schedules. The use of electronic monitoring, data, and algorithms is transparent, equitable, and carefully deployed with input from workers. Workers are free from harassment, discrimination, and retaliation at work. Workers are properly classified under applicable laws. Temporary or contractor labor solutions are minimized.
- Organizational Culture: All workers belong, are valued, contribute meaningfully to the organization, and are engaged and respected especially by leadership.

- Pay: All workers are paid a stable and predictable living wage before overtime, tips, and commissions. Workers' pay is fair, transparent, and equitable. Workers' wages increase with increased skills and experience.
- Skills and Career Advancement: Workers have equitable opportunities and tools to progress to future good jobs within their organizations or outside them. Workers have transparent promotion or advancement opportunities. Workers have access to quality employer- or labor-management-provided training and education.

The [Department of Energy](#), the [California Labor Code](#), and the [Aspen Institute](#) all provide definitions in line with the Federal Good Jobs Principles. It is difficult to define a universal standard for high quality jobs because every individual or family's needs are different, and the factors that influence "quality" vary widely. The definitions provided in these resources share a common emphasis on good wages and economic stability, upward mobility, and a healthful, safe, and respectful work environment.

Jobs for the Future (JFF) Priority Criteria from the [Growing Quality Green Jobs Report](#) - Job Quality Measures:

- Access: What are the educational and/or professional requirements for the job? What credentials are required for this job? Is a job generally accessible with limited years of professional experience?
- Wage: Prioritizing a family-sustaining wage, generally defined in this paper as the income needed to support a minimum of one adult and one dependent.
- Growth: What is the anticipated employment growth for each occupation, using the BLS Occupational Outlook Handbook's 10-year employment projections.

[JFF Quality Jobs Framework](#):

- Compensation: the financial rewards people receive for the jobs they perform, including a living wage, access to quality health insurance, retirement benefits, and paid leave that includes sick leave and family leave.
- Agency and culture: the extent to which people are able to exercise choice in their individual work, have a voice in organizational decision-making, and feel they belong to a workplace that fosters diversity, equity, inclusion, and accessibility.
- Structure: the ways a job is arranged to ensure stability, safety, and predictability, including fair, consistent, and transparent scheduling—this includes following all laws regarding workplace health, safety, discrimination, and harassment.
- Advancement: the mechanisms by which people advance to jobs with greater compensation, autonomy, and authority, including defined career ladders for all roles and access to professional development with labor market value.

In Marin County, minimum wage sticks out as an area for great potential improvement in job quality. Many cities and counties in the Bay Area have a [higher minimum wage](#) than the State of California level. Still every minimum wage in the Bay Area still falls short of the lowest level of living wage for the 9-county Bay Area.

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Appendix D: Policies & Programs That are Driving Demand

Key Federal and State Policies

Inflation Reduction Act	The federal IRA is currently beginning to release \$369 billion in funding to mitigate climate change. Funding will stimulate a wide range of economic activities, including building energy efficiency, renewable energy installations, energy storage, electric vehicle purchases, EV charger installations, and electric appliances.
SB 32	The Global Warming Solutions Act requires California to reduce emissions 40% below 1990 levels by 2030.
AB 1279	The California Climate Crisis Act requires California to achieve net zero greenhouse gas emissions by 2045.

Renewable Energy, Energy Efficiency, Electrification, and Energy Storage

SB 100	The California Renewables Portfolio Standard requires electric utilities to procure electricity products from eligible renewable energy resources to achieve a 50% renewable resources target by 2026, a 60% target by 2030, and 100% by 2045.
SB 379	Requires jurisdictions to adopt an online solar permitting platform to streamline residential solar energy systems.
AB 525	Facilitates responsible offshore wind development in California.
Equitable Building Decarbonization Program	<p>The California Energy Commission (CEC) will soon launch the Equitable Building Decarbonization Program, which will provide \$922 million over four years to reduce greenhouse gas (GHG) emissions in homes and advance energy equity through appliance electrification. Additional CEC Programs provide funding and support for:</p> <ul style="list-style-type: none"> ● Energy efficiency ● EV infrastructure ● Electric buses ● Geothermal ● Clean hydrogen

	<ul style="list-style-type: none"> Breakthrough clean energy and climate change technologies, and more
SB 700	Extends the California Self-Generation Incentive Program (SGIP) for up to an additional five years, investing up to \$800 million of new incentive funds for energy storage.

Green Building

California's State Energy Code Requirements (Title 24, Part 6)	The 2022 update includes new electric ready requirements for space heating, cooking, and clothes dryers when gas equipment is installed. Electrical infrastructure must be provided to the equipment location for the future installation of electrical appliances. Gas water heater installations must provide a designated space for a future heat pump water heater (HPWH) installation. 2025 updates are anticipated to further increase energy efficiency, EV infrastructure, and electrification requirements.
SB 596	Develops a strategy to reduce carbon intensity from cement use and achieve carbon neutrality by 2045.

Clean Transportation

Executive Order N-79-20	By 2035 100% of new cars and light trucks sold in California will be zero-emission vehicles.
CARB's Advanced Clean Trucks regulation	<p>The California Air Resources Board (CARB) Advanced Clean Trucks (ACT) regulation requires medium- and heavy-duty manufacturers to produce Zero Emission Vehicles (ZEVs) as an increasing portion of their sales beginning in 2024. This regulation is expected to result in roughly 100,000 ZEVs by 2030 and nearly 300,000 ZEVs by 2035 operating in California. ACT sets the following targets for transitioning sectors to ZEVs:</p> <ul style="list-style-type: none"> 100 percent ZE drayage, last mile delivery, and government fleets by 2035; 100 percent ZE refuse trucks and local buses by 2040; 100 percent ZE-capable vehicles in utility fleets by 2040; and 100 percent ZE everywhere else, where feasible, by 2045.

Solid Waste: Recycling, Reduction & Composting

SB 707	Requires textile producers to implement and fund an extended producer responsibility program for recycling and reuse.
SB 615	Establishes a manufacturer-funded collection and recycling system for electric vehicle batteries.
SB 244	Right to Repair: Requires manufacturers to provide repair resources to consumers and third-party repair businesses.
AB 2	If passed, AB 2 will establish a statewide solar panel end-of-life program to recycle raw materials and other valuable components into new solar panels.
SB 54	Requires packaging to be recyclable or compostable and sets recycling targets for single-use plastic packaging. By 2032: <ul style="list-style-type: none"> • 100% of packaging in the state to be recyclable or compostable • 25% reduction in plastic packaging • 65% of all single-use plastic packaging be recycled
SB 343	Prohibits misleading recycling symbols on plastic products.
AB 1201	Prohibits the sale of products labeled with the term “compostable” or “home compostable” unless the product satisfies a specified criterion.
Marin Reusable Foodware Ordinance	Requires food vendors to provide reusables for dine-in and compostable foodware for take-out.
SB 1383	Aims to reduce organic waste disposal by 75% and increase recovery of edible food by 20% by 2025.
AB 1985	Helps local governments reach organic waste goals by connecting with farmers and community members in need.

Carbon Sequestration & Adaptation

CAL FIRE Urban & Community Forestry Program	Provides \$47 million in grants to help schools convert asphalt to green spaces and plant trees and other vegetation – adding cooler spaces essential to protecting kids from increasingly dangerous extreme heat while sequestering carbon.
NOAA Climate Ready Workforce	A \$50 million competitive funding opportunity to develop a Climate Ready Workforce to connect people across the country to good-paying jobs that boost climate resilience. NOAA is also offering a \$575 million Climate Resilience Regional Challenge for projects that build the resilience of coastal communities to the impacts of climate change.

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Appendix E: Justification for Local Priority Sectors and Occupations

As a reminder, the sectors and occupations highlighted in this report for local priority were selected based on the following criteria:

1. The quality of the jobs for workers
2. Job accessibility, especially for workers with limited professional experience and educational credentials and/or barriers to employment
3. Labor shortage and/or growing demand, especially for entry-level positions which meet the living wage standards outlined in the "[What is a Good Job?](#)" section, and
4. Climate action potential - the ability to reduce greenhouse gas emissions through this occupation.

Below is a summary of the key findings that led to the recommendation to prioritize these sectors and occupations in order to successfully implement Strategy 1: to create and/or enhance equitable pathways into good quality, local jobs that support climate action.

Building and Construction Trades

Job Quality

The quality of the jobs for workers varies in the construction trades, with unionized trades providing a living wage, quality benefits, job security, mechanisms for worker power and worker voice, and career advancement. Many non-union contractors also report providing wages that exceed the living wage threshold and good benefits, especially in relation to the relatively high level of job accessibility for the trades. The chart below includes information about existing union trade apprenticeship programs.

Union Construction Apprenticeships for Climate Change Mitigation

<p>UA Local 38 - Plumbers and Pipefitters</p>	<p>Apprenticeship training programs are located in San Francisco and Santa Rosa. Plumbing and pipefitter apprentices learn key skills for building decarbonization: heating, ventilation, and air conditioning (HVAC) and hot water heater installation and service skills. The installation and maintenance of all-electric heat pump water heaters and HVAC heat pumps that can be powered by clean, renewable electricity are essential to a low carbon future and are in high demand. Apprentices earn college credit attending training 2 nights per week for 5 years. Starting wages are</p>
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	currently either \$23.80/hour or \$28/hour depending on the work assignment. Journeyman wages are \$59.50/hour or \$70/hour depending on the assignment.
IBEW Local 6 & Local 551	The International Brotherhood of Electrical Workers (IBEW) has affiliated apprenticeship training programs in San Francisco and Santa Rosa . The Inside Wireman apprenticeship is 5 years with periodic, dedicated week-long training sessions. Apprentices earn a living wage while they work and learn, with salary starting at 40% of Journeyman wages. Current starting salary for a Santa Rosa beginning Inside Wireman apprentice is \$23.57/hour and \$33.80/hour in San Francisco. The Residential Wireman apprenticeship is 3 years, two nights a week. Apprentices earn a wage while they work and learn, with salary starting at 50% of Residential Journeyman wages. Over the course of the program, there are stepwise salary increases of 8%. Current starting salary for a beginning Residential Wireman apprentice in Santa Rosa is \$18.50/hr.
SMW Local 104	The Sheet Metal Workers also provide valuable HVAC training, but the closest training centers are located in Fairfield and Livermore.
Trades Introduction Pre-Apprenticeship Program	The North Bay Trades Introduction Program (TIP) is an approved pre-apprenticeship program offered in Novato that provides training and support to enter a union apprenticeship program.

Job Accessibility

Building and construction trades provide accessible entry-level opportunities, especially for workers with limited professional experience and educational credentials and/or barriers to employment. Access is currently limited by factors including English proficiency, a clean driving record, a valid driver's license, drug testing, a criminal record, social skills and professionalism, and immigration status. These are common barriers faced by workers. Recommendations to remediate these common barriers to employment are addressed in the [Worker Needs](#) section of the report. Despite these limiting factors, there are many short-term training programs with a track record of successful job placement with local employers in the San Rafael area, making the building and construction trades one of the most accessible career pathways available to low and moderate skilled workers.

Labor Shortage and/or Growing Demand

The [highest level of construction job openings ever in the US](#) was announced in July 2023. The construction industry in America is facing an extreme labor shortage - roughly 650,000 workers, slowing completion of construction projects, including solar installations, electrification projects, energy efficiency upgrades, energy storage installs, and the construction and remodel of buildings to holistic green building standards. For workers who seek construction jobs, the timing has never been better. "They're making more money. It's a workers' market," said Brian Turmail, vice president of public affairs and strategic initiatives at Associated General Contractors of America. "The construction industry is now paying 80% more than the average non-farm job in the United States." Local construction trades employers similarly report difficulty in hiring, leading to wage trends that exceed the living wage target. In particular there is evidence of the need for more heat pump installers - both HVAC and heat pump water heaters.

Climate Action Potential

Buildings account for [34% greenhouse gas emissions](#) in San Rafael. Building and construction trades professionals trained in green skills have the ability to significantly reduce greenhouse gas emissions through: energy efficiency, renewable energy, energy storage, electrification, green building materials selection, and building material reuse, composting, and recycling.

Clean Mobility

Job Quality

Automotive technicians are in demand and highly compensated. Local employers report starting junior technicians at \$25-\$30/hour, and earnings can increase quickly with high upper earning potential. For example, a local employer reported a technician with 12 years of experience who started as a car washer and now makes over \$200,000 per year working approximately 50 hours per week.

Automotive sales can be a lucrative career, however the earnings for this occupation can be variable based on commission and vulnerable to economic downturns. Further explore the quality of this job with local employers, and if determined to be sufficiently high quality, promote this occupation with partners such as the COM and San Rafael High School counseling departments.

Charging infrastructure installation is conducted by California State Certified electricians with the [Electric Vehicle Infrastructure Training Program](#) (EVITP) Certification. Certified electricians are well compensated. For example, inside wiremen for the IBEW Local 6 in San Francisco currently earn [\\$84.50 per hour](#) plus generous health and pension benefits. Local electrician

wages average \$41.46/hour according to [O*NET](#). Charger maintenance does not necessarily require a Certified Electrician. [ChargerHelp!](#), for example, offers charger operations and maintenance (O&M) services, training, hiring, and mentoring for their own O&M technicians. ChargerHelp! technicians earn starting pay of \$30/hour with benefits.

Job Accessibility

Entry-level automotive technicians and sales associates can gain entry with no or modest levels of training. The San Rafael Volvo dealership, for example, will hire workers with aptitude for sales positions with no prior automotive sales training or experience, and though automotive technicians ideally start with 5-10 years of experience, they have been hired internally from car washing and porter positions if employees demonstrate interest, professionalism, and mechanical aptitude. Entry-level automotive technicians have also been hired from local training programs, including the automotive technician training program at [College of Marin](#) (COM).

Labor Shortage and/or Growing Demand

Local employers report significant difficulty in hiring for automotive technicians, and training partners report ease in finding quality job placements for trainees, indicating that there are jobs readily available for additional trained automotive technicians. Local employers also report difficulty in hiring for automotive sales positions.

Climate Action Potential

The climate action potential for automotive technicians, automotive sales people, and charging infrastructure installation and maintenance technicians is significant. Local automotive technicians are often already spending 20-30% of their work hours servicing electric vehicles, EV infrastructure is essential to the transition of our transportation to clean electricity, and trained sales people can have a significant impact on the rate of adoption of EVs.

Ecological Restoration

Job Quality

Ecological restoration workers are almost always employed on public works projects that are subject to prevailing wage requirements, including health and retirement benefits, paid vacation and holidays, and no-cost training. Relevant crafts include:

- Laborers: Journeyman hourly rates of [\\$25-\\$37/hour](#), with apprentices paid no less than [\\$23/hour](#).
- Operating Engineer: Journeyman hourly rates of [\\$38-\\$49/hour](#), with apprentices paid no less than [\\$30/hour](#).

- Tree worker: Journey person hourly rates of [\\$23-\\$29/hour](#).
- Teamster: Journey person hourly rates of [\\$39-\\$41/hour](#).
- Landscape Maintenance Laborers: Journey person hourly rate of [\\$15.50/hour](#), but employers report paying higher wages for this classification due to tightness in the labor market and the local cost of living.

Prevailing wages are the minimum wages and benefits entitled to workers on public works projects, but as with the example of Landscape Maintenance Laborers, employers can and do elect to pay above and beyond prevailing wage. The classification of ecological restoration projects as public works sets a high minimum floor for job quality.

Job Accessibility

Ecological restoration work engages the skilled trades. To work appropriately in sensitive habitats requires specialized skills and knowledge, but this training can be provided through a 10 hour instructional course offered by the [Ecological Workforce Initiative](#) (EWI).

The EWI [curriculum](#) provides workers with a background in ecological concepts, an overview of environmental laws, an understanding of federal and state resource agencies, and an appreciation for why environmental regulations are in place. This training fosters informed on-site decision making and permit compliance, improving project outcomes. This 10 hour training provides job seekers with the skills they need to secure an entry-level position in ecological restoration, which is a low barrier to entry and opportunity cost relative to the wages and benefits provided. Additionally, both the Operating Engineers [Local 3](#) and the Laborer's [Local 261](#) unions offer Union Apprenticeship training programs.

As with both the building trades and clean transportation careers described above, access is limited by factors including English proficiency, a clean driving record, a valid driver's license, and immigration status. Recommendations to address these common barriers faced by workers are covered in the [Worker Needs](#) section.

Labor Shortage and/or Growing Demand

There is a demonstrated labor market shortage in the local ecological workforce. According to a study currently being updated by the [University of North Carolina](#), in 2014 national ecological restoration jobs outnumbered coal and logging combined.

Climate Action Potential

Ecological restoration services are essential to regenerating and enhancing the carbon sequestration potential of San Rafael's natural and working lands.

Appendix F: Sectors and Occupations that Partially Meet the Priority Criteria

Solid Waste

Solid waste careers do have evidence of good job quality, accessibility, and climate action potential. Though this is a growing field, there is no current evidence of a local labor shortage.

Solar Recycling

Solar recycling activity in the region is expected to increase if [AB 2](#) is passed, and these jobs are expected to be accessible to job seekers with limited experience, education, or barriers to employment, however the occupation connected to solar recycling in San Rafael would be the collection of solar panels, which lacks demonstrable job quality and the link to a career advancement pathway. Solar panel recycling is an essential green job needed to protect the environment, but does not have significant greenhouse gas reduction potential.

GIS

Geographic Information System (GIS) skills are in high demand for a wide range of equity and environmental careers, they are highly compensated, and they are relatively accessible. GIS skills can be honed in high school, but while workers do not necessarily need a post-secondary degree to execute the work, employers still commonly have a college degree as an entry-level requirement for GIS careers, making GIS occupations less accessible.

This career is also more commonly associated with climate adaptation planning than climate mitigation (greenhouse gas emissions reduction). For this reason, GIS careers are not included in the identified priority occupations, but leveraging sea level rise (and other) adaptation projects in San Rafael to create learn-and-earn workforce development opportunities to provide GIS work experience to students while getting their degree is recommended. Training and work experience partnerships could include: the San Rafael High School biology unit in which students participate in the [SEI Watersheds and Public Water Systems](#) GIS Storymapping project; [Truble.co](#)'s Mapping Justice summer internship program; College of Marin's GIS courses in the Geography and Statistics Departments; and work-based learning experiences with the companies selected to implement the San Rafael sea level rise projects that are currently in the planning stages.

Flood Modeling

This is an in-demand and growing occupation, which can be provided remotely, and is both relevant in San Rafael and needed by coastal communities all around the world and. However, it does not meet the accessibility criteria because it traditionally requires a master's degree to

qualify for entry into the field. However, the primary job skill is fluency in relevant softwares, a skill that could be learned through a coordinated on-the-job training program with willing employers while local students pursue a higher education degree in this field. This occupation is also focused on climate adaptation as opposed to mitigation, so is not directly aligned with the priority occupation criteria.

Bike Repair

Bike repair is an example of a vital Clean Transportation career that meets some, but not all of the Priority Criteria. There is a climate mitigation need to support micro-mobility by helping to meet the demand for trained e-bike and conventional bike repair technicians. This occupation needs both more people and green skills training to service e-bikes, but the quality of the jobs is not currently high enough. Work first with local bike shops to better understand and improve job quality, and then develop a plan to support the development of a career pathway program and provide upskill training to current bike repair technicians.

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