(707) 668-5655
Fax: (707) 668-5916
www.bluelake.ca.gov

CITY OF BLUE LAKE
CALIFORNIA

111 Greenwood Road
P.O. Box 458
Blue Lake. CA 95525

Blue Lake City Council Agenda

Tuesday, June 7, 2022 ~ 7:00 p.m. ~Special Council Meeting
Skinner Store Building-111 Greenwood Road, Blue Lake-Behind City Hall
Zoom Option: The Public May Participate in Person, or Via Zoom at the Link Below:
Join Zoom Meeting:
https://us02web.zoom.us/j/89002831281?pwd=M2ZzZlRGRmFwUndsOFZoY3B4aVJGZz09
Meeting ID: 890 0283 1281 Passcode: 202859
Dial by your location
+1 669 900 6833

Unless Otherwise Noted, All Items on the Agenda are Subject to Action.

1. **Pledge of Allegiance and Establish a Quorum of the Council**
2. **Approve Agenda**
3. **Public Comment** – *The Public is invited to present petitions, make announcements, or provide other information to the City Council that is relevant to the scope of authority of the City of Blue Lake that is not on the Agenda. The Council may provide up to 15 minutes for this public input session. To assure that each individual presentation is heard, the Council may uniformly impose time limitations of 3 minutes to each individual presentation. The public will be given the opportunity to address items that are on the agenda at the time the Council takes up each specific agenda item.*
4. **Resolution Number 1197-A Resolution of the City of Blue Lake in Support of the Requirements set forth by the CalRecycle Local Grant Assistance Program** -Action
5. **Regional Climate Action Plan Presentation-**Presentation Only
6. **Council Correspondence**
7. **Reports of Council and Staff**
8. **Future Agenda Items**
9. **Adjourn**

A request for disability-related modification or accommodation, including auxiliary aid or services, may be made by a person with a disability who requires a modification or accommodation in order to participate in the public meeting, by contacting City Manager Amanda Mager, 668-5655, at least 24 hours prior to the commencement of the meeting.

CITY OF BLUE LAKE

Post Office Box 458, 111 Greenwood Road, Blue Lake, CA 95525
Phone 707.668.5655 Fax 707.668.5916

AGENDA REPORT

Item #: 4

Date: June 7, 2022

Item Subject: Resolution Number 1197: SB 1383-Local Assistance Grant Resolution

Submitted By: Mandy Mager, City Manager

General Information:

The City of Blue Lake has applied for grant funding through CalRecycle's SB 1383 Local Assistance Grant Program. Funding from the grant will be utilized to further the City's goal of increasing compliance with California Senate Bill 1383, the Short-Lived Pollutant Reduction program.

In order to qualify for the funding, the City must commit to future implementation strategies, including the development and implementation of an ordinance enacting specific compliance activities.

Background Material Provided:

Fiscal Impact: Grant Request-$20,000.00

Recommended Action: Adopt Resolution Number 1197

Review Information:

City Manager Review: [x] Legal Review: [ ] Planner Review: [ ] Engineer: [ ]

Comments:

RESOLUTION NUMBER 1197

A RESOLUTION OF THE CITY OF BLUE LAKE IN SUPPORT OF THE REQUIREMENTS SET FORTH BY THE CALRECYCLE LOCAL GRANT ASSISTANCE PROGRAM

WHEREAS, the State of California has adopted various bills related to the reduction of organic waste and the opportunity to increase food recovery efforts in the State of California; and

WHEREAS, the State of California has adopted Senate Bill 1383, the Short-lived Climate Pollutant Reduction Act of 2016, which, as amended, sets Statewide Organic Waste disposal reduction targets, and requires cities, residential households, commercial businesses, commercial edible food generators, haulers and food recovery organizations, to begin compliance in 2022; and

WHEREAS, the City of Blue Lake is committed to the reduction of organic and recyclable materials deposited in landfills from commercial and residential generators; and

WHEREAS, SB 1383 requires jurisdictions to adopt and enforce, by ordinance or other enforceable mechanism relevant provisions of SB 1383; and

WHEREAS, the City of Blue Lake, as a Low Population Jurisdiction, as defined by SB 1383, has applied for, and has been granted a waiver by CalRecycle for various aspects of SB 1383; and

WHEREAS, the City of Blue Lake does not currently have any qualified Tier 1 or Tier 2 organic waste generators within the City limits; and

WHEREAS, the City of Blue Lake is committed to continuing efforts to meet State mandates and is actively participating in a County wide effort to identify and develop resources and facilities to increase organic waste recycling efforts; and

WHEREAS, the City of Blue Lake has applied for funding from CalRecycle's SB 1383 Local Assistance Grant Program to assist the City in capacity planning and implementation activities; and

WHEREAS, the City of Blue Lake is committed to the development of an enforceable and compliant ordinance to meet the requirements of SB 1383; and

WHEREAS, the City of Blue Lake will utilize funding from the SB 1383 Local Assistance Grant Program to identify compliance strategies and implementation actions, as well as the development of an enforceable and meaningful ordinance; and

WHEREAS, the City of Blue Lake complies with the provisions of the State of California's Model Water Efficient Landscape Ordinance as amended, be it therefore

RESOLVED, that the City of Blue Lake commits to implement those requirements of SB 1383 that are relevant to the City of Blue Lake; and

RESOLVED, that the City of Blue Lake will utilize funding from the CalRecycle Local Assistance Grant Program to develop programs and outreach campaigns to educate the community about organic waste reduction; and

RESOLVED FURTHER, that the City of Blue Lake will develop an enforceable ordinance, or other enforceable mechanism to meet the applicable requirements of SB 1383 in a timely and effective manner.

NOW, THERFORE IT IS HEREBY RESOLVED, ORDERED AND FOUND, by the Blue Lake City Council of the City of Blue Lake, State of California, that the City of Blue Lake is committed to the enforcement of the applicable regulations set forth by California State Senate Bill 1383, and will utilize funding from the CalRecycle Local Assistance Grant Program to further the City's capacity to reduce organic waste and to develop an enforceable mechanism to further the intentions of SB 1383.

PASSED AND ADOPTED by the City Council of the City of Blue Lake, State of California this 7th day of June 2022, by the following vote:

Ayes:

Nays:

Abstention:

Absent:

_____

Adelene Jones, Mayor

_____

Amanda Mager, City Clerk

CITY OF BLUE LAKE

Post Office Box 458, 111 Greenwood Road, Blue Lake, CA 95525
Phone 707.668.5655 Fax 707.668.5916

DATE: June 2, 2022

FROM: Garry Rees, City Planner

TO: Blue Lake City Council

RE: Regional Climate Action Plan

Background

Since early 2019, Humboldt County and the seven cities within the County have been working on a regional Climate Action Plan (CAP). At the beginning of the process, the County and seven cities entered into a Memorandum of Understanding committing them to develop a CAP with a greenhouse gas target, inventory, and reduction measures. The primary goal of the CAP is to reduce greenhouse gas (GHG) emissions from local sources because the scientific consensus is that significant reductions in human-caused GHG emissions are needed by the mid-21st century to prevent the most catastrophic effects of climate change.

The CAP begins with an inventory of baseline GHG emissions for the region in 2015 which leads to an understanding of where emissions are being generated and begins to reveal where effective emission-reduction strategies might be targeted. The inventory shows most local emissions come from transportation (53%), a difficult sector to address. Most of the remaining emissions are from livestock (13%), stationary combustion sources such as the use of natural gas and propane within buildings (12%), and electricity consumption (11%). Based on the inventory results, the CAP makes forecasts of what countywide GHG emissions will be in the future out to the year 2040. It compares the projected emissions to the statewide target, and proposes measures that can be implemented locally to hit that target.

The primary GHG reduction measures identified in the CAP will result in measurable, quantifiable reductions in emissions. The CAP also includes supporting measures, which are qualitative measures that are difficult to quantify but will still contribute to achieving local GHG reductions. While the measures included in the CAP are geared towards reducing GHG emissions, many will also result in environmental or economic "co-benefits," including improvements to public health. Implementation of the measures in the CAP will require the jurisdictions adopt new ordinances, programs and projects.

Monitoring is an important aspect of the CAP to ensure the region is on track to achieve the GHG reduction targets. The CAP assumes regular updates of the baseline information at least once every five years to track the community's progress on CAP implementation. If statewide targets are met, jurisdictions may use the CAP to streamline the analysis of project-level GHG emissions during environmental review, pursuant to CEQA Guidelines Section 15183.5. Projects that are consistent

with the CAP have no further GHG impact analysis requirements, which could save applicants thousands of dollars in permitting large projects.

Environmental Review of Draft CAP

At this stage in the process, the City Council is being asked to evaluate the draft CAP for completeness prior to beginning the environmental review phase of its adoption by the County and all the cities. This is intended to be a high-level, "thumbs up/thumbs down" decision by the Council. A more careful and thorough review of the document will occur when the Planning Commission and City Council hold public hearings considering adoption of the CAP after environmental review is complete, which is anticipated to begin in Fall 2023. There will also be ample opportunity for public review of the draft CAP throughout the environmental review process prior to those future public hearings.

Recommendation

That the City Council:

1. Receive and consider the staff report and 4-7-22 Public Review Draft Humboldt County Regional Climate Action Plan (CAP); and
2. Receive a presentation from the Humboldt County Planning and Building Department staff; and
3. Open the item for public comment and accept public comment; and
4. Close the item for public comment; and
5. Direct staff to proceed with environmental review of the CAP.

Attachments

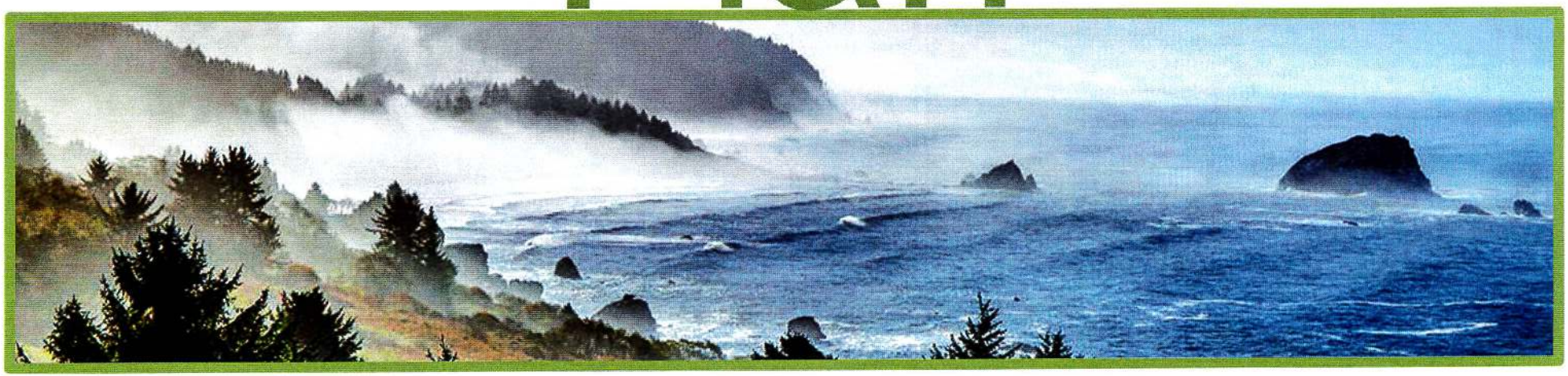
Attachment 1: Presentation on Climate Action Plan
Attachment 2: 4-7-22 Public Review Draft Humboldt County Regional Climate Action Plan (CAP)

Attachment 1:

Presentation on Climate Action Plan

HUMBOLDT REGIONAL

Climate Action Plan



Blue Lake City Council 6-7-22

Purpose of the Agenda Item:

- To determine whether member jurisdictions are comfortable with commencing environmental review of the draft CAP.

Project Goal

A regional Climate Action Plan, adopted by each jurisdiction, to reduce greenhouse gas emissions throughout Humboldt County

Climate Action Planning Steps

State GHG Targets

2020: 1990 levels (AB 32)

2030: 40% below 1990 levels (SB 32)

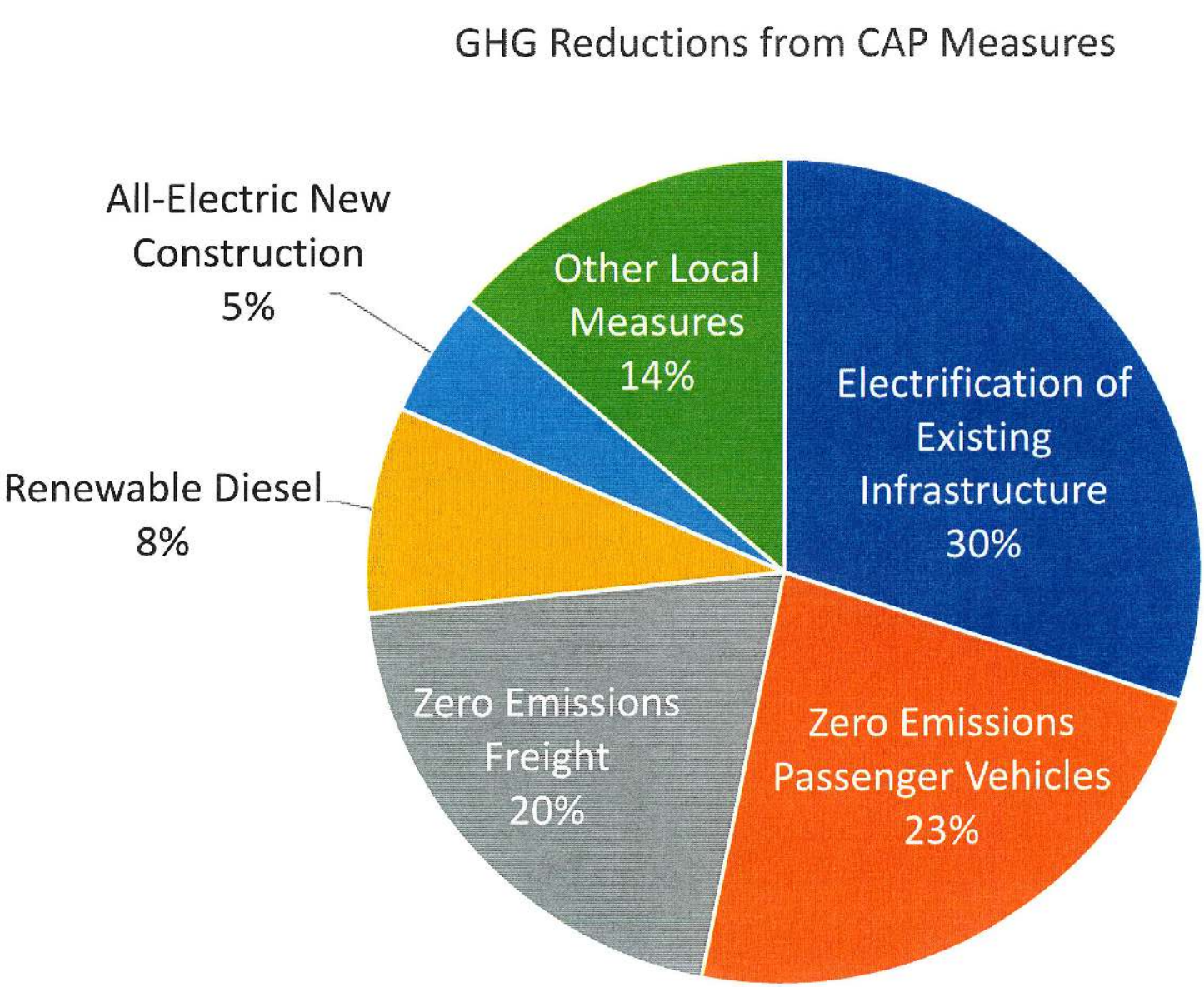
2045: Statewide carbon neutrality by 2045 (net zero; EO B-55-18)

Recommended Humboldt County Target

40% below 1990 levels by 2030

Humboldt County CAP

Reductions From Top 5 Measures



High-Level Timeline

Humboldt Regional Climate Action Plan

Public Review Draft

April 7, 2022

Preparers of this draft included staff from each of the cites; Jerome Carman, Environmental Indicator Accounting Services (EIAS); Aisha Cissna, Redwood Coast Energy Authority (RCEA); Michael Furniss, Furniss and Associates; Katy Gurin, EIAS; Connor McGuigan, County of Humboldt; Michael Richardson, County of Humboldt; and Sam Smith, RCEA

Table of Contents

List of Acronyms and Abbreviations

Acronym	Expansion
A	Amp
AB	Assembly Bill
AC	Alternating Current
AMRTS	Arcata-Mad River Transit System
BAU	Business As Usual
BEV	Battery Electric Vehicle
BMP	Best Management Practice
C&D	Construction and Demolition
CAISO	California Independent Systems Operator
CalEPA	California Environmental Protection Agency
CAP	Climate Action Plan
CAPE	Comprehensive Action Plan for Energy
CARB	California Air Resources Board
CAT	California Action Team
CCE	Community Choice Energy
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CNG	Compressed Natural Gas
CO_2	Carbon Dioxide
CPUC	California Public Utilities Commission
CSU	California State University
EIAS	Environmental Indicator Accounting Services
EIR	Environmental Impact Report
EO	Executive Order
EV	Electric Vehicle
FCEV	Fuel Cell Electric Vehicle
FIT	Feed-in Tariff
FTE	Full Time Equivalent

FY	Fiscal Year
GHG	Greenhouse Gases
GPU	General Plan Update
HCAOG	Humboldt County Association of Governments
HFC	Hydrofluorocarbon
HSU	Humboldt State University
HTA	Humboldt Transit Authority
HWMA	Humboldt Waste Management Authority
ICLEI	International Council for Local Environmental Initiatives
ICT	Innovative Clean Transit
IEPR	Integrated Energy Policy Report
IPCC	Intergovernmental Panel on Climate Change
LCA	Life Cycle Analysis
LEED	Leadership in Energy and Environmental Design
MFH	Multi-Family Home
MMT	Million Metric Tons
MT	Metric Tons
MW	Megawatt
NCRAQMD	North Coast Regional Air Quality Management District
NCRP	North Coast Resource Partnership
NCUAQMD	North Coast Unified Air Quality Management District
NEM	Net Energy Metering
O&M	Operations and Maintenance
OPR	Office of Planning and Research
PEV_FleEt	PEV Fleet Evaluation Tool
PG&E	Pacific Gas & Electric
PHEV	Plug-in Hybrid Vehicle
PRC	Public Resources Code
PSPS	Public Safety Power Shutoff
RCAA	Redwood Community Action Agency
RCEA	Redwood Coast Energy Authority

RPS	Renewable Portfolio Standard
RTS	Redwood Transit System
SB	Senate Bill
SCS	Sustainable Communities Strategies
SEEC	Statewide Energy Efficiency Collaborative
SERC	Schatz Energy Research Center
SIP	State Implementation Plan
SLCP	Short-Lived Climate Pollutants
SOC	Soil Organic Carbon
SUV	Sport Utility Vehicle
TMA	Transportation Management Association
U.S. EPA	United States Environmental Protection Agency
UNFCCC	United Nations Framework Convention on Climate Change
V	Volt
VMT	Vehicle Miles Traveled
WUI	Wildland Urban Interface
ZEB	Zero Emission Bus
ZEV	Zero Emission Vehicle

EXECUTIVE SUMMARY

This Public Review Draft Humboldt Regional Climate Action Plan (CAP) is a collaborative effort between the County of Humboldt, City of Arcata, City of Blue Lake, City of Eureka, City of Ferndale, City of Fortuna, City of Rio Dell, and City of Trinidad to craft a regional approach for addressing the challenges of climate change. A regional approach leverages staff time and resources, making the overall effort less of a burden compared to each jurisdiction drafting a CAP from scratch. It also enables improved coordination which will maximize the effectiveness of GHG reduction measures and may prove useful in securing grant funding.

The primary goal of the CAP is to reduce greenhouse gas (GHG) emissions from local sources because the scientific consensus is that significant reductions in human-caused GHG emissions are needed by the mid-21st century to prevent the most catastrophic effects of climate change.

The CAP begins with an inventory of baseline GHG emissions for the region in 2015 which leads to an understanding of where emissions are being generated and begins to reveal where effective emission-reduction strategies might be targeted. The inventory shows most local emissions come from transportation (53%), a difficult sector to address. Most of the remaining emissions are from livestock (13%), stationary combustion sources such as the use of natural gas and propane within buildings (12%), and electricity consumption (11%).

Geographically, emission sources loosely follow population figures, so Humboldt County with more than half of the region's population contributes the most (61%), followed by the Cities of Eureka (18%) and Arcata (12%). All the other cities combined contribute less than 10% of the countywide GHG emissions.

Based on the inventory results, the CAP makes forecasts of what countywide GHG emissions will be in the future out to the year 2040. Several scenarios are compared - one scenario uses a "Business as Usual" prediction assuming no GHG emission reduction measures will occur, and this scenario results in the highest emission rate in the future – 1.4 million metric tons of carbon dioxide equivalent ($MTCO_2e$) per year for the region by 2030.

A second scenario incorporates emissions reductions anticipated as the result of previous State and local actions, such as the waste reduction requirements mandated by SB 1383, without considering the measures in the CAP. This "legislative adjusted" emissions scenario forecasts a reduction in the emission rate to 1.2 $MTCO_2e$ by 2030. This amount is well short of the statewide goal of 0.96 $MTCO_2e$ per year for the region by 2030.

The third scenario assumes all the emission reduction measures in the CAP are implemented as well as the statewide measures. Only this third scenario – the one involving local efforts – is forecasted to achieve the statewide planning goals. It results in a forecasted GHG emission rate of 0.54 $MTCO_2e$ per year in 2030 for the region. This scenario meets the State's 2030 goals and puts the region in position to meet the longer-term goal of net-zero emissions by 2045 per Executive Order B-55-18.

Following examples from other CAPs and guidance from the International Council for Local Environmental Initiatives' *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* (Community Protocol) the draft CAP proposes an inventory that

excludes project-level industrial sources of GHG emissions, also known as "point source" emissions. This approach makes sense considering local governments normally have no discretion over industrial air pollutants which are regulated by the North Coast Unified Air Quality Management District.

But there is room for debate on this issue, and because of the closure of pulp mills on the Samoa Peninsula and other industrial uses since 1990, an inventory that includes point source industrial emissions would show the County is closer to meeting statewide planning targets for 2030. This will be a topic of discussion for jurisdictions as the draft CAP moves forward to adoption.

The proposed GHG reduction measures in the CAP build on a long history of Humboldt residents' actions on climate change. The City of Arcata took an early lead in addressing GHG emissions in 2000 by establishing an Energy Committee and joined the International Council for Local Environmental Initiatives' (ICLEI) Cities for Climate Protection campaign. The City of Blue Lake adopted its first Climate Action Plan in 2014, and Humboldt County and the local energy provider Redwood Coast Energy Authority committed to 100% renewable energy sources by 2025.

The primary GHG reduction measures identified in the CAP will result in measurable, quantifiable reductions in emissions. Supporting measures are qualitative measures that are difficult to quantify but will still contribute to achieving local GHG reductions.

The top five measures in the CAP that achieve the most local GHG emissions reductions by the year 2030 include:

- Measures 1.1.1.2 and 1.1.1.3: Replacing gas powered vehicles with electric vehicles will reduce annual emissions by 69,301 $MTCO_2e$.
- Measures 3.2.1.1 and 3.2.1.2: Replacing gas/propane residential water heating systems with electrically-powered systems will reduce emissions annually by 38,623 $MTCO_2e$.
- Measure 3.2.6.1: Replacing gas/propane commercial heating systems with electrically-powered systems will reduce emissions annually by 20,928 $MTCO_2e$.

While the measures included in the CAP are geared towards reducing GHG emissions, many will also result in environmental or economic "co-benefits," including improvements to public health. The CAP also discusses some GHG reduction measures that have not yet been quantified, but with further study may make important contributions to meeting the GHG reduction targets. For example, wetland restoration and enhancement projects such as those in the sloughs around Humboldt Bay are highly effective in sequestering additional carbon over time and holding it out of the atmosphere for long periods. Wetland restoration and enhancement projects also achieve the co-benefits of improvements in aquatic diversity and ecosystem health and productivity, and increase the resilience of these biologically rich systems to climate warming and sea level rise.

Implementation of the measures in the CAP will require the jurisdictions adopt new ordinances, programs and projects. Monitoring is an important aspect of the CAP to ensure the region is on track to achieve the GHG reduction targets. The CAP assumes regular

updates of the baseline information at least once every five years to track the community's progress on CAP implementation.

If statewide targets are met, jurisdictions may use the CAP to streamline the analysis of project-level GHG emissions during environmental review, pursuant to CEQA Guidelines Section 15183.5. Projects that are consistent with the CAP have no further GHG impact analysis requirements, which could save applicants thousands of dollars in permitting large projects.

Local actions to reduce GHG emissions and adapt to climate change require active and ongoing partnerships between residents, businesses, the cities and County, and many other agencies and organizations in the region. Refinement and adoption of the CAP is an important step in a long series of local actions that have and will be taken toward reducing the effects of climate change.

1. Introduction: The Framework for Humboldt County Climate Action

The Humboldt Regional Climate Action Plan (CAP) is the product of a multi-year, collaborative effort between:

- the County of Humboldt,
- City of Arcata,
- City of Blue Lake,
- City of Eureka,
- City of Ferndale,
- City of Fortuna,
- City of Rio Dell
- City of Trinidad, and
- the Redwood Coast Energy Authority (RCEA).

The following paragraphs summarize the chapters in the CAP:

Chapter 1 provides background on how and why this plan was created and how it will work. This chapter also contains a brief overview of GHG's, climate science and policy, as well as context on existing efforts to curb GHG emissions within the community.

Chapter 2 details GHG emissions in Humboldt County. In this chapter, GHG inventories are presented by sector with a discussion of baseline inventory years, data collection and the choice of sectors included in the analysis. Results are presented by sector and jurisdiction.

Chapter 3 presents a vision for our region in the coming decades, as well as broad goals to help achieve that vision. These goals are translated into GHG emissions targets and compared to business-as-usual forecasts. This vision and set of goals and targets are placed in the context of State, national, and global efforts.

Chapter 4 presents a plan for reducing our region's emissions to meet our targets. Strategies for each sector, including the potential for emissions reduction for individual sectors, are presented at the beginning of each sub-section. The rationale for focusing on certain strategies, legal and regulatory limitations, and the impacts of existing legislation and rulemaking are provided. Individual measures are the "tactics" that fit into these overall, sector-based strategies.

Co-benefits are also described in Chapter 4. These are other noteworthy benefits of the implementation measures beyond GHG reduction. For instance, encouraging commuters to use bikes instead of gas-powered vehicles to get to work not only reduces GHG emissions, but has health co-benefits as well.

Chapter 5 includes high-level actions to enhance carbon storage on Humboldt County's natural and working lands (forest lands, agricultural lands, and wetlands) and in its urban areas.

Chapter 6 describes how the region will work together in the coming years to maximize the effectiveness of the CAP and contains jurisdiction commitments, along with specifics of implementation, updating, monitoring, and adaptive management. It also includes reference citations for each chapter.

1.1 KEY OUTCOMES

Key outcomes of the Humboldt Regional Climate Action Plan include:

Reduce greenhouse gas emissions. The immediate goal of the draft CAP is to reduce greenhouse gas emissions to 40% below 1990 levels consistent with statewide targets. Achieving this goal will improve the chances our region can meet the state's longer term goal to become carbon neutral by 2045.

An integrated approach. This effort was founded on the principle that more can be achieved by working together. An important outcome of this plan will be enhanced regional coordination on GHG emission reduction programs and other initiatives addressing climate change. A staff position dedicated to CAP coordination, referred hereafter as the "CAP Coordinator" and described in section 6.1, will be created to facilitate coordination between jurisdictions and implementation of the CAP.

Public engagement. Development of the draft CAP was guided by public input at several workshops, and an extensive public outreach effort will be undertaken for environmental review and adoption of the CAP. Implementation of this plan will require active participation and engagement from the community, as well as with agencies' management and elected officials. A stakeholder group is anticipated to be convened after adoption of this CAP, and public education and outreach will occur throughout implementation of the CAP's action items.

Permit Streamlining. Adoption of a CAP that meets State requirements enables a streamlined path through the analysis of project-level GHG emissions during environmental review. Finding consistency with the CAP is the only documentation needed for analysis of GHG emissions, which could save applicants thousands of dollars in permitting large projects.

Clean energy jobs. This plan encourages investments in renewable energy workforce development and clean energy infrastructure. By 2030 local electricity is expected to be 100% renewable which will support this new workforce.

Waste diversion. SB 1383 Short-Lived Climate Pollutants, adopted in 2016 by the State Legislature, establishes a target to divert 75 percent more waste from landfills by 2025 to help reduce carbon emissions. Measures to divert organic waste from landfills will help our community achieve State mandates as emissions are cut. Limiting the amount of waste sent to landfills helps conserve valuable materials and reduces burden on the environment.

More accessible communities. Implementing this CAP will make it easier, cheaper, and more fun to get around the County and the cities by improving accessibility of public transit, expanding shared mobility, promoting active transportation modes like walking and biking; and making communities more compact and connected.

Leveraging the carbon sequestration ability of natural and working lands. Efforts to restore, manage, and conserve natural and working lands (forest and agricultural lands) can have profound impacts on the climate and our ability to adapt. This CAP includes a high-level overview of carbon sequestration and wildland adaptation, along with measures to support conservation and restoration of natural and working lands.

Cleaner indoor and outdoor air. Several CAP measures encourage fuel-switching from fossil fuels like gasoline, diesel, natural gas and propane to all-electric in homes and vehicles. In addition to emitting GHGs, the burning of fossil fuels releases pollutants that can harm human health. Electrification measures presented in Chapter 4 of the CAP helps us reduce GHG emissions and breathe healthier air.

1.2 Overview

Climate change is increasingly negatively affecting local ecosystems, human health, economic values, infrastructure, and water supplies. For example, the Humboldt Bay region is experiencing the highest rate of sea level rise on the west coast of North America, and flooding in coastal communities such as Fairhaven, Fields Landing, and King Salmon is expected to become more commonplace in the coming decades. In California, wildfire hazards are intensifying due to higher temperatures, which affects air quality, and in turn, health. As global GHG emissions continue to rise, these problems are expected to intensify.

In the meantime, communities, governments, and businesses have been working to cut emissions and end fossil fuel dependence. Per Executive Order N-79-20, California will no longer allow sales of new gas or diesel-powered vehicles in the State past 2035. General Motors, one of the world's largest automakers, has pledged to stop making gasoline or diesel-powered vehicles by 2035 as well. In California, communities are ending the construction of new fossil fuel infrastructure in homes by passing decarbonization ordinances. For instance, the City of Petaluma recently banned the construction of new gas stations to become carbon neutral by 2030. It is clear that an energy transition is coming, but how will that affect Humboldt County?

Climate action planning provides an opportunity to make global and statewide efforts relevant at the local level. Cities and counties typically control land use, infrastructure, and community services; thus, local governments have an important role to play in collaborative efforts to address climate change.

This CAP recognizes local actions to reduce GHG emissions and adapt to climate change requires active and ongoing partnerships between residents, businesses, the cities and County, and many other agencies and organizations in the region. This CAP outlines strategies to be implemented between 2022 and 2030 to reduce county-wide GHG emissions[1] to 40% below 1990 levels by 2030 and make progress toward the State's goal of zero net emissions by 2045.

In California, local climate action planning is typically comprised of the following six planning steps:

[1] Net-zero emissions means that any greenhouse gas emissions from human activity are balanced by additional efforts to capture and store carbon

Approval of this draft CAP by jurisdictions will complete the first three steps and sets a course for completion of all the rest.

The GHG inventories in Chapter 2 of this CAP (Step 1) include the following sectors:

- Mobile Combustion (transportation)
- Livestock
- Electricity
- Stationary Combustion (e.g. home heating)
- Solid Waste
- Wastewater Treatment
- Leaked Refrigerants

Site-specific or "point source" industrial sources of GHG emissions are also described in some detail. The draft CAP proposes to exclude these emissions from the inventory following examples from other CAPs and guidance from the International Council for Local Environmental Initiatives' *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* (Community Protocol). While this approach has merit, other considerations suggest industrial point sources should be included in the GHG inventory, so it will be an alternative for discussion. More information on the issue is presented in Chapters 2 and 3.

Based on the inventory of GHG emissions this CAP articulates a set of goals, strategies, objectives and quantified measures to reduce emissions from:

- Mobile Combustion (transportation)
- Electricity
- Stationary Combustion (e.g. gas and propane appliances)
- Solid Waste

High-level unquantified measures to sequester carbon on working lands and natural areas will supplement the measures reducing GHG emissions and position the region to become carbon-neutral by 2045. These measures were reviewed by representatives from each jurisdiction with input from public workshops, and they will be refined by more extensive public outreach during the environmental review and adoption phases. Community meetings in 2022 will help each jurisdiction select the measures that best fit, and they will all be combined together to form the Regional CAP.

The proposed measures in this CAP achieve GHG emission reductions that meet the State's target for 2030 (40% below 1990 levels), and if the final adopted version also meets that target, the CAP will be helpful for streamlining environmental review of future development. It should be noted that some communities in California have chosen a different path, approving instead CAPs that are more aspirational and don't meet State targets. In these communities, permitting development of large projects can be more cumbersome because of the project-level GHG analysis required, which adds time and costs to the permit review process. While to date there has been no support expressed for this alternate approach for the CAP, it is an option available to Humboldt County jurisdictions.

Ultimately, this CAP will be a commitment by the County of Humboldt and the seven cities within its boundaries to a set of measurable, concrete actions that will enable meeting targets agreed upon by member jurisdictions. It is anticipated a staff position will be created and a stakeholder group formed after the CAP is approved to assist local governments implement and monitor the CAP measures, and guide future updates.

In developing and implementing the CAP, this region recognizes its place in solving a global problem. It demonstrates how Humboldt County's local governments are committed to working in partnership with the State to address the impacts of climate change.

1.3 Climate Science Background

There is broad consensus in the scientific community that the Earth's climate is changing rapidly, primarily because of human activity—namely, the release of heat-trapping GHGs into the atmosphere. The impacts of rising temperatures will be wide-ranging, with different areas facing unique sets of challenges. A 2018 study of projected climate change impacts in California's North Coast region—encompassing Mendocino, Humboldt, Del Norte, Lake, Trinity and Siskiyou Counties—found the following:[2]

- Average annual maximum temperatures are likely to increase by 5-9 °F throughout the region through the end of the 21st century. Interior regions will experience the greatest degree of warming, with less warming projected along the coast.
- Annual precipitation is not expected to change significantly but will likely be delivered in more intense storms and within a shorter wet season. As a result, the region is expected to experience prolonged dry seasons and reduced soil moisture, even if annual precipitation stays the same or moderately increases. Less precipitation will fall as snow, snow will tend to melt more quickly and average snowpack will fall to historically low levels.
- A rise in extreme precipitation events is likely to increase the frequency and extent of flooding in low-lying areas, particularly along the coast, where food production will be impacted by rising sea levels.

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[2] Grantham, Theodore (University of California, Berkeley). 2018. North Coast Summary Report. California's Fourth Climate Change Assessment. Publication number: SUM-CCC4A-2018-001. Disclaimer: This report summarizes recent climate research, including work sponsored by the California Natural Resources Agency and California Energy Commission. The information presented here does not necessarily represent the views of the coordinating agencies of the State of California.

- Streamflow in the dry season is expected to decline, and peak flows in the winter are likely to increase.
- Sea level rise projections vary along the coast but are greatest for the Humboldt Bay region and Eel River delta, threatening communities, prime agricultural land, critical infrastructure and wildlife habitat. Rising sea levels will result in rising groundwater levels near the coast, causing increased backwater flooding from reduced stormwater drainage capacity and emerging groundwater.
- Wildfires will continue to be a significant disturbance in the region. Future wildfire projections suggest a longer fire season, an increase in wildfire frequency and severity and an expansion of the area susceptible to wildfire.

These changes will have significant consequences for ecosystems, working lands and the built environment. These include:

- Increased flood and landslide risks to critical infrastructure, including major transportation corridors, water supply systems, wastewater treatment plants and energy and communication networks.
- Increased public health risks from wildfire, floods, heat waves, and disease. These risks are greatest for vulnerable populations along the coast and in remote inland communities.
- Reduced productivity of rangelands.
- Habitat loss for sensitive plant and wildlife species, including cold-water fish species such as salmon.

The Humboldt Bay Area Plan Sea Level Rise Assessment, released in 2018, projects the impacts of sea level rise in the coming decades. With a sea level rise of three feet near Humboldt Bay, which, in a business-as-usual emissions scenario, is projected to occur by 2070, "roughly 35 miles of barrier shoreline could be overtopped. King tides could reach that level as early as 2050, based on current high projections for sea level rise. In addition, approximately 10,000 acres of agricultural land; Highways 101 and 255; municipal water and wastewater lines; electrical distribution infrastructure, gas lines, and optical fiber communications lines; and the communities of King Salmon, Fields Landing and Fairhaven, could all become tidally inundated if tidal waters on Humboldt Bay rise three feet."

The findings of two reports mentioned above likely represent just a fraction of potential impacts of climate change on Humboldt County. Research on potential climate change outcomes is ongoing; these impacts are complex and will ripple throughout communities.

These planning documents have been prepared to reflect a "business-as-usual" or "high" emissions scenario where emissions continue to rise to the end of the century. Much of the harm done to communities, infrastructure and ecosystems is unavoidable because of the emissions that have already been released and the warming that has already occurred; however, there is still time to reduce emissions and stave off some of the very worst impacts of climate change.

In December of 2015, most of the world's countries came together at the United Nations Framework Convention on Climate Change (UNFCCC) annual meeting in Paris. The international treaty adopted there, known as the "Paris Agreement," set a goal of limiting global average temperature rise to below 2° Celsius relative to pre-industrial average temperatures. Current data suggests global average temperatures have risen 1° Celsius since the beginning of the industrial revolution, so we are halfway to the limit set by the Paris Agreement.

Emissions targets set at the local, state and federal levels reflect targets set in international agreements. International agreements are based on recommendations from the IPCC. The IPCC collaboratively evaluates worldwide scientific efforts to model climate change and its impact on earth systems. To achieve the goal of the Paris Agreement, nations will need to transition to renewable energy resources for transportation, home heating, and electricity generation by 2045. As that transition progresses, vehicles and buildings will need to become more energy efficient. To offset any remaining human-caused GHG emissions, we must also find ways to maximize carbon sequestration in forests and agricultural lands, and develop technological solutions and other innovations to sequester carbon.

1.4 Regulatory, Legislative, and Agreements Framework

To stabilize GHG emissions and reduce the impacts of climate change, international agreements, as well as federal and State actions have been occurring since as early as 1988. This section highlights some key State agencies, programs and regulations that are relevant to this climate action planning effort.

California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs in California. In this capacity, CARB conducts research, sets air quality standards, compiles emissions inventories for GHGs and other pollutants and develops suggested control measures.

Assembly Bill 32, "Global Warming Solutions Act of 2006" and Senate Bill 32 (2016)

In 2006, the California State Legislature passed the Global Warming Solutions Act, a bill that established GHG reduction targets for the State and sketched out a program of action to reach those targets. AB 32 required CARB to adopt rules and regulations directing State actions to reduce GHG emissions to 1990 statewide levels by 2020.

In October 2007, CARB published its Final Report for Proposed Early Actions to Mitigate Climate Change in California. Resulting from this were three new regulations, including a low carbon fuel standard and improved standards for landfill methane capture.

In 2008, CARB adopted the Climate Change Scoping Plan, detailing California's strategy to achieve its 2020 GHG target. The Scoping Plan proposes a comprehensive set of actions designed to reduce overall GHG emissions in the State, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs and enhance public health. An update to the Scoping Plan occurred in 2017, and a 2022 Scoping Plan Update is currently in development.

In 2016 with passage of Senate Bill 32 the California State Legislature updated the 2006 law to set a new target ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below 1990 levels no later than December 31, 2030.

California Code of Regulations (CCR) Title 24, Parts 6 and 11 Building Code Energy Efficiency Standards

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 update includes a requirement for all new residential buildings under three stories to install solar panels.

On January 12, 2010, the California Building Standards Commission adopted the 2010 California Green Building Standards Code, otherwise known as CALGreen (CCR Title 24, Part 11). Like Part 6 described above, these standards are updated every three years with 2019 being the most current version (soon to be 2022). The list below identifies the most significant CALGreen requirements. Additionally, CALGreen encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce air pollutant emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction. CALGreen includes the following provisions (amongst other requirements):

- A 20 percent mandatory reduction in indoor water use, with voluntary goal standards for 30 percent, 35 percent, and 40 percent reductions.
- Separate indoor and outdoor water meters to measure nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects.
- Diversion of 50 percent of construction waste from landfills.
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure all are working at their maximum capacity according to their design efficiencies.
- Mandatory use of low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard.

CEQA Guidelines (Section 15183.5): Tiering and Streamlining the Analysis of Greenhouse Gas Emissions

In 2010, the State revised California Environmental Quality (CEQA) Guidelines to address the analysis and mitigation of GHG emissions. CEQA Guidelines Section 15183.5 allows a Climate Action Plan to provide streamlining benefits for agencies leading the CEQA process for a project if the CAP meets certain requirements, including demonstration that the CAP's emission reduction measures, implemented on a project-by-project basis, will collectively achieve the plan's target. This Climate Action Plan is designed to fulfill these requirements. Once the CAP is adopted, future projects subject to CEQA may address GHG impacts by demonstrating compliance with the applicable measures in the CAP.

Renewable Portfolio Standard

The State's Renewable Portfolio Standard (RPS) was established in 2006. The RPS program requires sellers of electricity to provide renewable energy. The initial goal of RPS was 20% renewable energy production by 2010. In 2018, the State adopted RPS goals of 60% renewable electricity by 2030 and 100% carbon-free electricity by 2045.

Vehicular Emissions Regulations

In 2002, Assembly Bill (AB) 1493 ("Clean Car Standards") was passed, which required CARB to develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state." These regulations required automakers to produce vehicles that, on average, reduced GHGs by approximately 30% from 2002 levels by 2016. A second set of regulations "Low Emission Vehicle (LEV) III GHG" covers model years 2017 through 2025.

Executive Order S-1-07 (2007). established a goal of reducing the carbon intensity of transportation fuels sold in California. A recent update established a goal to reduce the carbon intensity of transportation fuels by 20% by 2030.

Organic Waste Regulations

In September 2016, the State Legislature set methane emissions reduction targets for California in a statewide effort to reduce emissions of "short-lived climate pollutants" (SLCP). The targets must reduce organic waste disposal 50% by 2020 and 75% by 2025, and reduce by 20% the amount of currently disposed surplus food by 2025.

1.5 Building on Existing Climate Action Efforts in Humboldt County

In addition to advancing local government efforts, this CAP seeks to build on existing initiatives outside the scope of city and county agencies. Throughout Humboldt County, educational institutions, nonprofits and tribal governments have shown leadership in climate action. A few examples of such leadership are highlighted below.

California Polytechnic University, Humboldt

Cal Poly Humboldt (formerly "Humboldt State University" or "HSU") adopted a Climate Action Plan on December 12, 2016, that sets goals to reduce GHG emissions to 1990 levels by 2020, to 80% below 1990 levels by 2040, and to become carbon neutral by 2050. Cal Poly Humboldt's CAP includes strategies to curb GHG emissions resulting from the university's energy consumption and indirect emissions from related activities – business travel, student and employee commute, and solid waste disposal. The plan calls for cutting energy-related emissions through energy efficiency and energy conservation projects, on-site renewable energy generation and the purchase of power generated by renewable sources. Cal Poly Humboldt's CAP calls for reducing indirect emissions through campus-wide waste reduction strategies and alternative transportation and public transit programs that will lessen business travel and lead to reductions in single-occupant vehicle commuter trips.

Tracking and reporting progress towards achieving reduction targets takes place on an annual basis. The Cal Poly Humboldt reviews its CAP every five years to update its strategies and reduction targets. The university released a draft update, "CAP 2.0," in early 2022 and will publish a final draft in April 2022.

North Coast Resource Partnership (NCRP)

The North Coast Resource Partnership (NCRP) is a stakeholder-driven collaboration among local governments, watershed groups, Tribes and interested partners focused on a sustainable environmental and socio-economic framework for the North Coast. The NCRP coalition (formerly known as the North Coast Integrated Regional Water Management Plan) consists of seven north coast counties (Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Mendocino, and Sonoma), the Sonoma County Water Agency, the Mendocino County Water Agency, and North Coast Tribes. The NCRP focuses on attracting funding to the North Coast Region.

The NCRP planning team has identified and described key issues of concern in the North Coast region. The themes that have guided the NCRP's work are:

- Beneficial uses of water
- Salmonid enhancement
- Energy independence
- Climate adaptation/mitigation
- Economic vitality
- Local autonomy
- Intraregional cooperation
- Adaptive management

Redwood Coast Energy Authority (RCEA)

RCEA is a local government Joint Powers Agency founded in 2003 whose members include the County of Humboldt, the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell,

and Trinidad and the Humboldt Bay Municipal Water District. RCEA develops and implements sustainable energy initiatives that reduce energy demand, increase energy efficiency and advance the use of renewable resources.

RCEA's guiding strategic document is RePower Humboldt. It was initially adopted in 2012 and updated in 2019. The first RePower plan outlined how Humboldt County could transition to a low-carbon, renewable energy-powered economy by 2030. A key recommendation in the plan was to create a local Community Choice Energy (CCE) program. In 2017, RCEA launched Humboldt County's CCE program, which provides service to most Humboldt County electricity customers.

The State's Renewable Portfolio Standard (RPS) puts California on a path toward 100% zero-carbon electricity by 2045. RCEA plans to meet this goal in an accelerated timeframe for Humboldt County. The RePower Plan update establishes a goal to procure only local renewable sources of electricity by 2030.

Native American Tribes

(Note: this discussion will be added with tribal consultation during the review of the Environmental Draft. It is acknowledged some tribes are way out in front of many jurisdictions in their climate action planning efforts.)

- Blue Lake Rancheria
- Bear River Band of the Rohnerville Rancheria
- Hoopa Valley Tribe
- Karuk Tribe
- Trinidad Rancheria
- Wiyot Tribe
- Yurok Tribe

2 GHG Emissions in Humboldt County

2.1 Introduction to GHG emission inventories

GHG emissions inventories identify and quantify emissions sources in the community which is critical for development of effective emission-reduction strategies.

To Initiate the Climate Action Plan (CAP) process, Redwood Coast Energy Authority (RCEA) inventoried local emissions in the past, present and future.

The **2015 Emissions Inventory** described in detail later in this chapter beginning on page 2-5 gives a snapshot of local emissions from a variety of sources and activities in the year 2015. For the purposes of this CAP, it serves as an estimate of present-day emissions.

The **1990 Emissions Inventory** provides historical information that puts current emissions levels in perspective. This historic data serves as a baseline for this CAP's target of reducing emissions 40% below 1990 levels by 2030. The participating cities and the County chose 1990 as a baseline year to follow the State of California's lead—Assembly Bill (AB) 32 and Senate Bill (SB) 32 set statewide targets that use 1990 emissions levels as a baseline.

The **Countywide Emissions Forecasts** model future emissions scenarios using the 2015 inventory data as a starting point.

The inventories use RCEA's Humboldt County GHG Inventory tool which was developed in accordance with the International Council for Local Environmental Initiatives' (ICLEI) *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* (Community Protocol). The Community Protocol is the standard methodology for emissions accounting in local government Climate Action Plans. For more information on RCEA's inventory methodology, see Appendix G - County-Wide 2015 Emissions Inventory Report.

The inventories serve primarily as a tool to inform policies, rather than a comprehensive analysis of all the ways our communities contribute to climate change. They estimate the primary sources of emissions that can be reduced through the actions of local governments and regional entities. The Inventory Methodology in Appendix G details the rationale used to select the categories included in the inventory.

Following adoption of this CAP, it is anticipated RCEA will regularly prepare inventory updates to monitor progress towards emissions targets.

2.2 Comparing GHGs

The largest contributor to climate change is CO_2, and it is also the most recognized GHG. However, the Humboldt County inventories also include emissions of other GHGs such as methane, nitrous oxide, and refrigerant gases. Compared to CO_2, these GHGs are emitted in lower quantities locally. Still, they are important to include in the analysis due to their potency in trapping heat in the atmosphere.

Global Warming Potential (GWP) is the most common means of comparing the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of one ton of a gas will absorb over a given period of time (how much heat it will trap in our atmosphere), relative to the emissions of one ton of carbon dioxide (CO_2). The time period usually used for GWPs is 100 years.