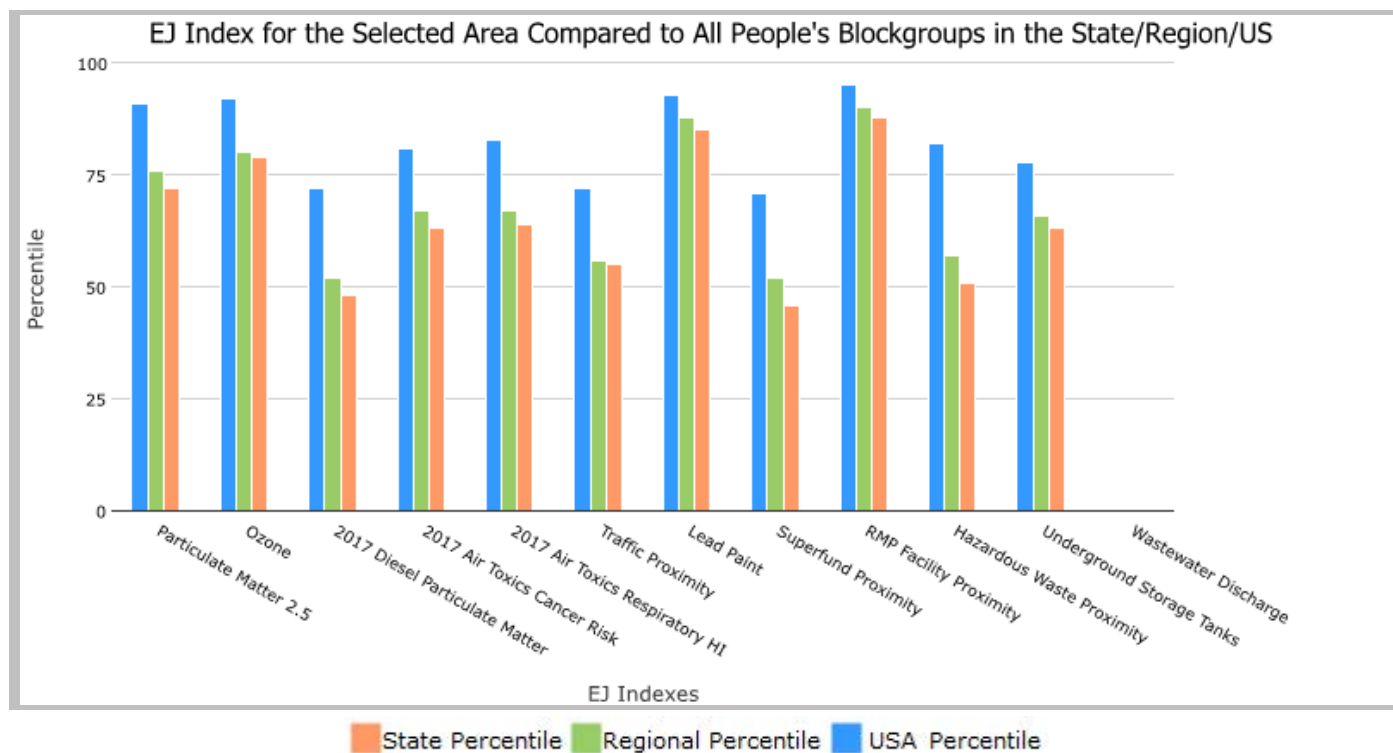


8 miles Ring around the Corridor, CALIFORNIA, EPA Region 9

Approximate Population: 8,026

Input Area (sq. miles): 262.20

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
<b>Environmental Justice Indexes</b>			
EJ Index for Particulate Matter 2.5	72	76	91
EJ Index for Ozone	79	80	92
EJ Index for 2017 Diesel Particulate Matter*	48	52	72
EJ Index for 2017 Air Toxics Cancer Risk*	63	67	81
EJ Index for 2017 Air Toxics Respiratory HI*	64	67	83
EJ Index for Traffic Proximity	55	56	72
EJ Index for Lead Paint	85	88	93
EJ Index for Superfund Proximity	46	52	71
EJ Index for RMP Facility Proximity	88	90	95
EJ Index for Hazardous Waste Proximity	51	57	82
EJ Index for Underground Storage Tanks	63	66	78
EJ Index for Wastewater Discharge	N/A	N/A	N/A

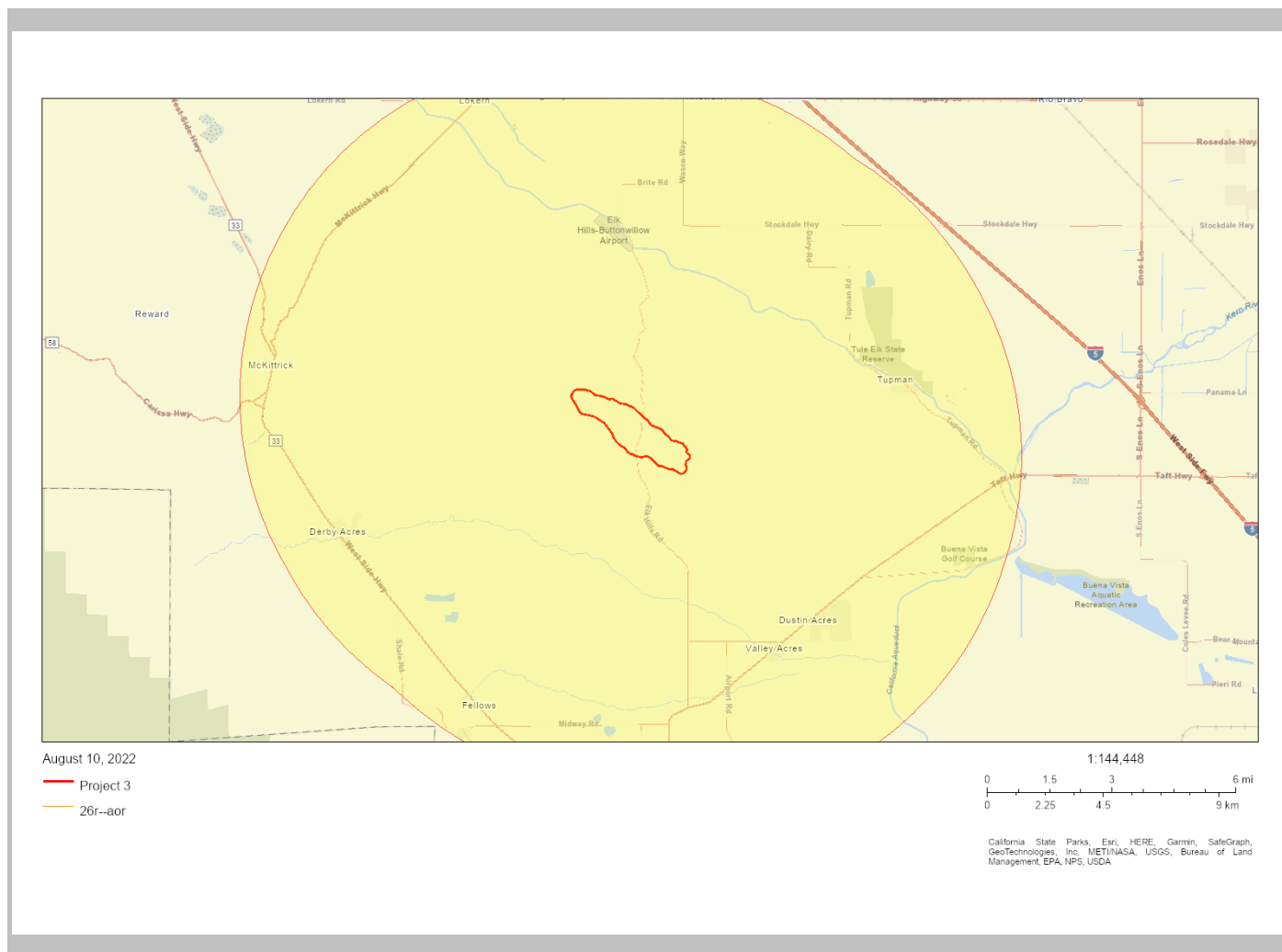


This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

8 miles Ring around the Corridor, CALIFORNIA, EPA Region 9

Approximate Population: 8,026

Input Area (sq. miles): 262.20



## Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	2

## EJScreen Report (Version 2.0)

8 miles Ring around the Corridor, CALIFORNIA, EPA Region 9

Approximate Population: 8,026

Input Area (sq. miles): 262.20

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
<b>Pollution and Sources</b>							
Particulate Matter 2.5 ( $\mu\text{g}/\text{m}^3$ )	11.7	11.7	45	10.8	56	8.74	93
Ozone (ppb)	58.5	48.1	79	49.6	79	42.6	96
2017 Diesel Particulate Matter* ( $\mu\text{g}/\text{m}^3$ )	0.0951	0.33	7	0.33	<50th	0.295	<50th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	25	31	44	30	<50th	29	50-60th
2017 Air Toxics Respiratory HI*	0.3	0.43	24	0.41	<50th	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	46	1300	20	1300	19	710	21
Lead Paint (% Pre-1960 Housing)	0.47	0.29	72	0.23	77	0.28	75
Superfund Proximity (site count/km distance)	0.017	0.18	7	0.15	12	0.13	14
RMP Facility Proximity (facility count/km distance)	2.5	1.1	87	1	89	0.75	93
Hazardous Waste Proximity (facility count/km distance)	0.98	5.2	17	4.4	23	2.2	56
Underground Storage Tanks (count/km <sup>2</sup> )	0.7	3.7	32	3.3	35	3.9	40
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	74	N/A	59	N/A	12	N/A
<b>Socioeconomic Indicators</b>							
Demographic Index	60%	47%	71	46%	73	36%	82
People of Color	58%	63%	41	60%	45	40%	70
Low Income	63%	31%	91	31%	90	31%	91
Unemployment Rate	12%	6%	88	6%	88	5%	89
Linguistically Isolated	19%	9%	84	8%	86	5%	92
Less Than High School Education	31%	17%	79	16%	81	12%	91
Under Age 5	8%	6%	75	6%	75	6%	77
Over Age 64	10%	14%	34	15%	34	16%	26

\*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

For additional information, see: [www.epa.gov/environmentaljustice](https://www.epa.gov/environmentaljustice)

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.



## Carbon TerraVault (CTV) I Community Engagement Summary

(Updated October 20, 2023; August 23, 2023)

This document provides a high-level summary of Carbon TerraVault Holdings, LLC's<sup>1</sup> community engagement to-date associated with its Carbon TerraVault (CTV) I carbon capture and sequestration (CCS) projects located in Kern County, CA within California Resources Corporation's (CRC) Elk Hills oil and gas field. A primary focus of the development and implementation of CRC's community engagement strategy is on the six (6) applications for the Safe Drinking Water Act (SDWA) Class VI Underground Injection Control (UIC) Program permits associated with CTV I.<sup>2</sup> Another focus of the community engagement is on the California Direct Air Capture (DAC) Hub (CalHub), which would remove atmospheric carbon dioxide and then utilize CTV I's Class VI UIC permitted injection wells to permanently sequester the carbon dioxide.

CRC's community engagement aligns with federal and state environmental justice policies, including the recent U.S. EPA guidance *Environmental Justice Guidance for UIC Class VI Permitting and Primacy* (Aug. 17, 2023). One purpose of this document is to provide an update to U.S. EPA Region 9 (Region 9) on CRC's community engagement to assist with Region 9's public engagement associated with the Class VI UIC permit applications and to collaboratively identify where supplemental community engagement associated with CTV I may be appropriate.

As illustrated in Figure 1 below, it is important for Region 9 to understand that there is no environmental justice community – or *any* community – within or near the Area of Review for the proposed 26R and A1/A2 injection wells. The planned sources of carbon dioxide, the transport of carbon dioxide, and the sequestration of carbon dioxide via the planned six (6) Class VI UIC injection wells are all planned to be located within the CRC owned Elk Hills oil and gas field. Notwithstanding this unique factual situation, CRC has proceeded – and will continue to proceed – with robust community engagement with elected officials, local organizations, and members of the communities nearest to Elk Hills.

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<sup>1</sup> Carbon TerraVault Holdings, LLC is a wholly-owned subsidiary of California Resources Corporation. When referring to CTV I-related community engagement, this document will identify CRC instead of CTV, to avoid confusion between the company (CTV) and the project (CTV I).

<sup>2</sup> There are two CCS projects (26R and A1/A2) on Elk Hills, which combined make up CTV I, and given the proximity to each other and the same communities, CRC has consolidated its community engagement for CTV I and the associated Class VI UIC permit applications. See A1-A2 (Nos. R9UIC-CA6-FY21-1 and R9UIC-CA6-FY22-3) and 26R (Nos. R9UIC-CA6-FY22-1.1, R9UIC-CA6-FY22-1.2, R9UIC-CA6-FY22-1.3 and R9UIC-CA6-FY22-1.4).



This document provides a narrative overview of CRC's implementation of its community engagement plan to-date and includes the following attachments:

- *Attachment 1:* Overview of CRC's use of environmental justice screening tools;
- *Attachment 2:* Illustration of CRC CTV I community engagement to-date; and
- *Attachment 3:* CalHub Community Benefits Plan.
- *Attachment 4:* CTV I information mailed to community residents
- *Attachment 5:* Community Engagement Intake Form and pictures from CRC door-to-door community engagement
- *Attachment 6:* Flyer and slide deck from September 24, 2023 movie and community event in Taft, CA

CRC's community engagement is ongoing and the expectation is this will be a living document to be updated, as appropriate, to reflect CRC's ongoing efforts. CRC intends to continue with its community engagement throughout (and after) the public comment period on the proposed CTV I Class VI UIC permits, while advancing the CalHub, and, as appropriate, in the context of any additional federal, state or local authorizations associated with CTV I.

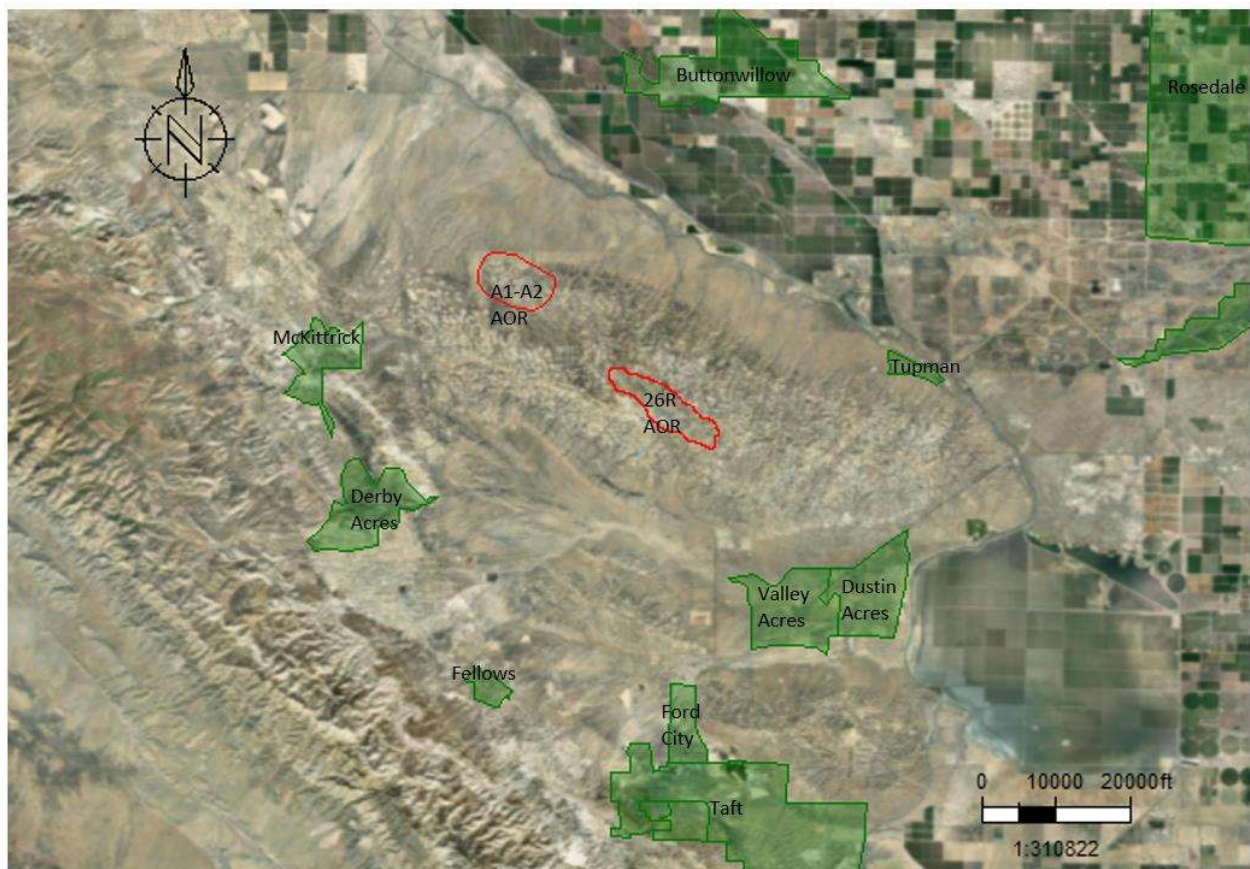


Figure 1: Area of Review for A1-A2 and 26R showing communities in the region.

The information below is a high-level narrative summary of CRC's community engagement and related information that CRC believes Region 9 may find helpful.

### 1. Community Engagement.

CRC is a fixture of the Kern County community and has a long history of extensive, successful community outreach. CRC has leveraged its longstanding relationships with elected officials, local institutions and community leaders and members to inform the community of its plans for CTV I. In addition, CRC has employed a varied approach to ensure meaningful engagement with community members outside of CRC's traditional relationships, including environmental justice (EJ)-focused outreach. This community engagement approach includes engagement with elected officials and other formal community leaders, with organizations centered on serving EJ communities in the area, and broader direct engagement with community members through public meetings, and other activities, including mailing information on CTV I directly to community residents in Taft and Ford City. *See Attachment 4.*

CTV I community engagement efforts began in earnest in early Fall 2021, and have expanded significantly since that time. An illustrative summary of CRC's community engagement efforts for CTV I is provided in *Attachment 2* to this document. As noted below, *Attachment 2* is not comprehensive, as it does not include the many, informal visits undertaken by CRC personnel leading the outreach efforts, including going door-to-door to local businesses, community group gatherings, and places of worship. As part of these engagement efforts specific to CTV I, CRC has undertaken a comprehensive community and EJ engagement strategy for the CalHub through its role as lead of the CalHub Consortium.

CRC is also engaging directly with community residents. For example, CRC employees have been walking through the communities near the AOR (Taft, Buttonwillow, Ford City, McKittrick, Derby Acres, Fellows, and Tupman) and going door-to-door and engaging directly with residents about CCS and CTV I and asking them their opinions, questions or concerns with the project. *See Attachment 5* (the Community Engagement Intake Form and pictures from the door-to-door engagement). Further, during each engagement, CRC asks whether the resident(s) have an interest in attending upcoming events, public meetings, or having one-on-one follow up conversations with CRC employees to ask further questions or obtain additional information about CTV I. On September 24, 2023, CRC rented the Fox Theatre in Taft, CA to show two movies, free to the public, in English and Spanish, and prior to the movies CRC staff spent 10 minutes walking through the attached slide deck on CTV I to provide the residents and the public information on CTV I. *See Attachment 6.*

Finally, CTV I will incorporate community engagement in the public comment process and public meeting and hearing associated with the EPA's Class VI UIC permit application process and the California Environmental Quality Act (CEQA) review process being led by Kern County. CRC will support both of these processes however it may be helpful to the respective agencies and will continue to perform its own, independent community engagement.

### 2. Community Leader Engagement.

CRC has held numerous meetings, in both one-on-one and group settings, with various leaders of the surrounding communities. These contacts have included local elected officials and boards

(e.g., Taft City Council, Shafter City Council, multiple Kern County supervisors, Kern Economic Development Board, Water Association of Kern County Board, Valley Water Management Company Board, Kern Groundwater Authority), educational institutions (e.g., Taft College, Kern Community College District, Kern County Superintendent of Schools), and business leaders (e.g., California Hispanic Chamber of Commerce, Kern County Hispanic Chamber of Commerce, Kern County Black Chamber of Commerce). These meetings are identified in *Attachment 2*.

### 3. Environmental Justice Community Outreach.

CRC has also made concerted efforts to engage with the EJ communities closest to Elk Hills and the AORs for 26R and A1/A2 to inform them of the project and solicit their feedback. This EJ community engagement was informed by the use of the federal and state EJ screening tools as discussed in *Attachment 1*. To accomplish this, CRC has engaged both with various organizations with missions to represent EJ community interests and more directly with EJ community members.

CRC has engaged with EJ community organizations with significant presence in Kern County, including, for example, the Dolores Huerta Foundation and the Center on Race, Poverty, and the Environment (CRPE). Meetings with these groups began in one-on-one settings and have grown to include small groups. In particular, CRC has discussed with these groups concerns about ensuring community outreach, pipeline locations, and sequestration-related requirements.

For direct community member engagement, CRC personnel responsible for community engagement have visited numerous local businesses and civic and community organizations and places of worship, to share information about CTV I, answer questions, and receive input and understand any concerns regarding the project. For example, in September 2023, CRC presented at a meeting of the African American Network of Kern County Board of Directors meeting to present on CRC's projects and importance to community residents of color. CRC has also engaged with leaders of local Tribes (Tejon Indian Tribe) regarding CTV I, including numerous engagements not identified in *Attachment 2*. To assist with these direct community engagement efforts, in 2023 CRC hired Nicole Parra as Vice President Community Affairs. Ms. Parra is a Kern County native with more than 30 years of public service, including as a California State Assemblywoman. Most recently, prior to joining CRC, Ms. Parra worked for the Kern Community College District (KCCD), including as the Director of the California Renewable Energy Laboratory at KCCD. Ms. Parra is leveraging her decades of personal and professional connection within Kern County to spearhead CRC's community engagement efforts and to lead development of the California DAC Hub Community Benefits Plan.

### 4. CalHub Consortium Community Engagement.

Because the intent is for CTV I to provide carbon dioxide sequestration capacity for CalHub, CTV I and the associated Class VI UIC permit applications have been included as part of the community engagement on CalHub. The CalHub Community Benefits Plan provides significant detail on the ongoing community and EJ engagement associated with the CalHub and is attached as *Attachment 3* to this document. The CalHub Consortium held initial community engagement meetings in the surrounding communities of Shafter, Taft, Southeast Bakersfield, and Arvin to inform the community about the DAC Hub proposal, describe how the community can actively

participate, and gather information regarding any questions. Feedback from these public meetings is being used to further CRC's community engagement, and identify any concerns and appropriate next steps. Initial questions identified in these public meetings relevant to CTV I included, for example, the location of carbon dioxide pipelines and the potential for risks associated with migration of carbon dioxide after injection. In addition, members of the communities noted that they are still recovering from the impacts of the COVID-19 pandemic and the desired outcomes they seek are primarily related to food and water security, good jobs and positive health trends. Additional community engagement actions are planned in the near term for the CalHub and will include information sharing and active discussions regarding CTV I and the Class VI UIC permit applications. These activities will include the creation of a community advisory committee, with members to be identified by community ambassadors. Public meetings will be located in accessible locations convenient to the communities near Elk Hills with services provided to enhance accessibility and attendance (*e.g.*, childcare or on-site activities, translation services, refreshments, etc.). On August 11, 2023, CalHub was selected to receive \$11.8 million funding from the U.S. Department of Energy under its Regional DAC Hubs Initiative related to the proposed development of California's first full-scale DAC plus storage network of regional hubs.

#### 5. Public Engagement in Regulatory Processes.

As you know, CTV I encompasses six (6) pending applications for Class VI UIC permits before Region 9. In response to the permit applications, we expect the draft permits will be made available to the public for review and comment, and we understand from Region 9 that at least one public meeting and hearing will be held in a community near Elk Hills. This meeting and public hearing will provide additional opportunity for elected officials, local institutions and the public, including members of EJ communities, to engage directly on CTV I and voice their opinions and ask questions associated with project. Relatedly, we understand CTV I will require a Conditional Use Permit from Kern County and there will be a review process consistent with CEQA. The CEQA review also incorporates both a public comment process and potentially a public meeting(s), which will provide additional opportunity for the public to engage on CTV I, including on issues beyond the scope of Region 9's authority under the SDWA and the Class VI UIC permitting program. While both of these processes are led by the responsible regulatory agencies—Region 9 and Kern County, respectively—CRC will endeavor to offer any assistance those agencies may want to support the processes and maximize opportunity for the public to engage in CTV I.

*Attachments 1-6* are below, which provide additional information.

## **Attachment 1**

### *(Overview of CRC's use of environmental justice screening tools)*

CRC utilized both federal and state EJ screening tools to help identify and understand any potential impacts of the CTV I project on environmental justice communities surrounding Elk Hills. Given the planned sources of carbon dioxide, the transport of carbon dioxide, and the sequestration of carbon dioxide via the planned six (6) Class VI UIC injection wells are all planned to be located within the CRC owned Elk Hills oil and gas field, CRC does not expect any disproportionate environmental burden on any community. However, CRC has evaluated both the EPA's EJSCREEN and California Environmental Protection Agency's (CalEPA) CalEnviroScreen 4.0 for CTV I and this has informed our community engagement strategy.

As noted above and reflected in Figure 1, there is no environmental justice community – or *any* community – within or near the Area of Review for the proposed 26R and A1/A2 injection wells. The closest community to the A1/A2 AOR is McKittrick at 3.1 miles.<sup>3</sup> The closest community to the 26R AOR is Valley Acres at 3.4 miles and it is 7.6 miles to Taft. When using EPA's EJSCREEN tool for planning its community engagement, CRC took an overly conservative approach given the facts above and examined communities within a 10-mile diameter surrounding a central location within CRC's Elk Hills property to reflect the broadest area of potentially affected population. The resulting data show that the communities nearest to Elk Hills may include EJ communities, in part, given the percentiles for EJ indexes for various environmental endpoints (*e.g.*, particulate matter 2.5). Information generated via EJSCREEN that is likely relevant to this assessment is identified below.

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<sup>3</sup> Measured at the closest point between the furthest extent of the AOR and the closest point between the AOR and the community.

10 miles Ring Centered at 35.278662,-119.467056, CALIFORNIA, EPA Region 9

Approximate Population: 18,839

Input Area (sq. miles): 314.03

Elk Hills Power LLC

Selected Variables	State Percentile	USA Percentile
<b>Environmental Justice Indexes</b>		
EJ Index for Particulate Matter 2.5	53	89
EJ Index for Ozone	82	93
EJ Index for Diesel Particulate Matter*	15	33
EJ Index for Air Toxics Cancer Risk*	24	55
EJ Index for Air Toxics Respiratory HI*	24	62
EJ Index for Traffic Proximity	37	53
EJ Index for Lead Paint	73	83
EJ Index for Superfund Proximity	16	36
EJ Index for RMP Facility Proximity	56	74
EJ Index for Hazardous Waste Proximity	32	74
EJ Index for Underground Storage Tanks	0	0
EJ Index for Wastewater Discharge	N/A	N/A

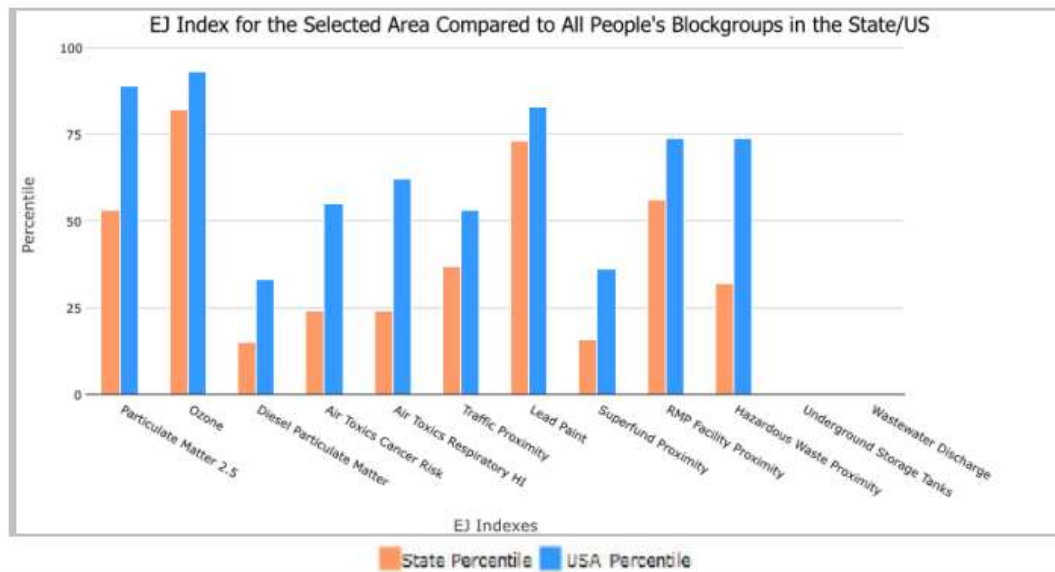


Figure 2: EJ Indexes Report from EJSCREEN for CTV I (2023)



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	3

Selected Variables	Value	State		USA	
		Avg.	%tile	Avg.	%tile
Pollution and Sources					
Particulate Matter 2.5 (µg/m³)	11.1	11.7	37	8.67	93
Ozone (ppb)	58.6	47.7	81	42.5	97
Diesel Particulate Matter* (µg/m³)	0.0909	0.33	8	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	22	31	28	28	<50th
Air Toxics Respiratory HI*	0.3	0.43	24	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	130	1400	34	760	38
Lead Paint (% Pre-1960 Housing)	0.47	0.28	69	0.27	71
Superfund Proximity (site count/km distance)	0.017	0.17	9	0.13	14
RMP Facility Proximity (facility count/km distance)	1.2	1.1	69	0.77	78
Hazardous Waste Proximity (facility count/km distance)	1.5	5.2	25	2.2	64
Underground Storage Tanks (count/km²)	0.0002	1.5	0	3.9	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	67	N/A	12	N/A
Socioeconomic Indicators					
Demographic Index	50%	44%	60	35%	75
People of Color	50%	63%	37	40%	66
Low Income	51%	29%	83	30%	81
Unemployment Rate	11%	6%	83	5%	84
Limited English Speaking	10%	9%	68	5%	85
Less Than High School Education	25%	16%	75	12%	86
Under Age 5	9%	6%	77	6%	78
Over Age 64	14%	14%	51	16%	42

\*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Figure 3: EJSCREEN Report for CTV I (2023)

CRC also evaluated California's state-specific EJ screening tool, CalEnviroScreen, which is now on version 4.0. While CalEnviroScreen is similar in some ways to EPA's EJSCREEN, we understand it assigns a cumulative impacts score to show the potential combination of exposures and public health or environmental effects from measured sources of pollution in a geographic area, while also accounting for sensitive populations. Based on our preliminary assessment, CTV I appears to be in an area that CalEnviroScreen 4.0 assesses as in the 80th to 90th percentile for cumulative impacts in California communities, and within the 90th to 100th percentile for overall burden in California.



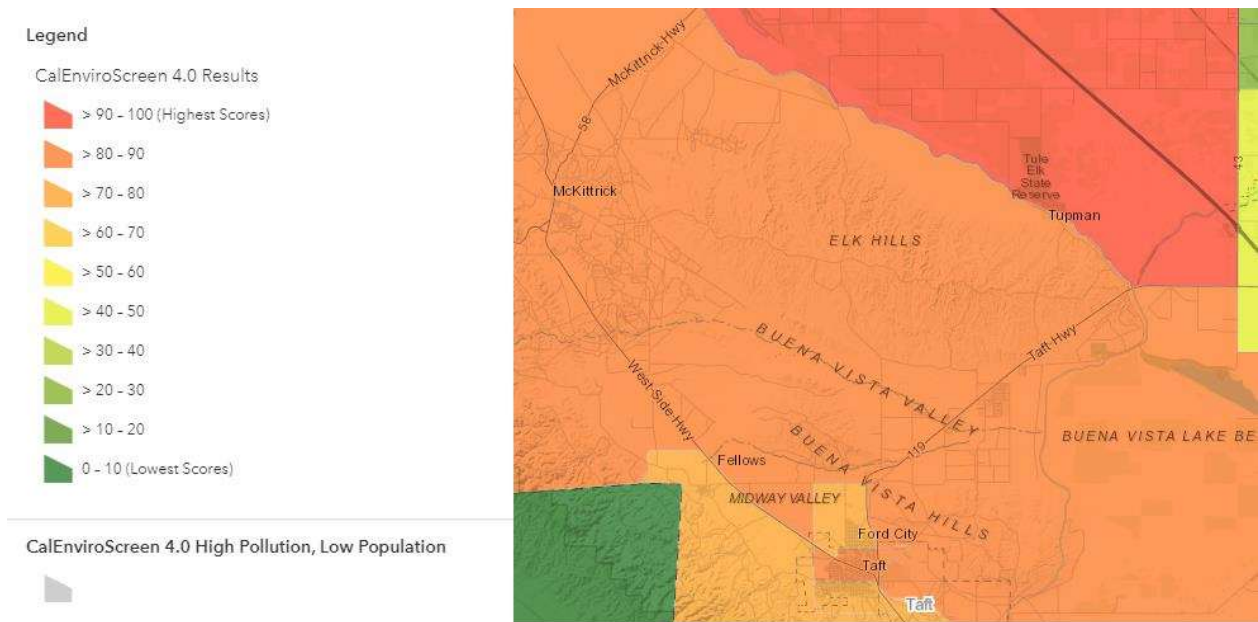


Figure 4: CalEnviroScreen 4.0 Cumulative Impacts Report for CTV I

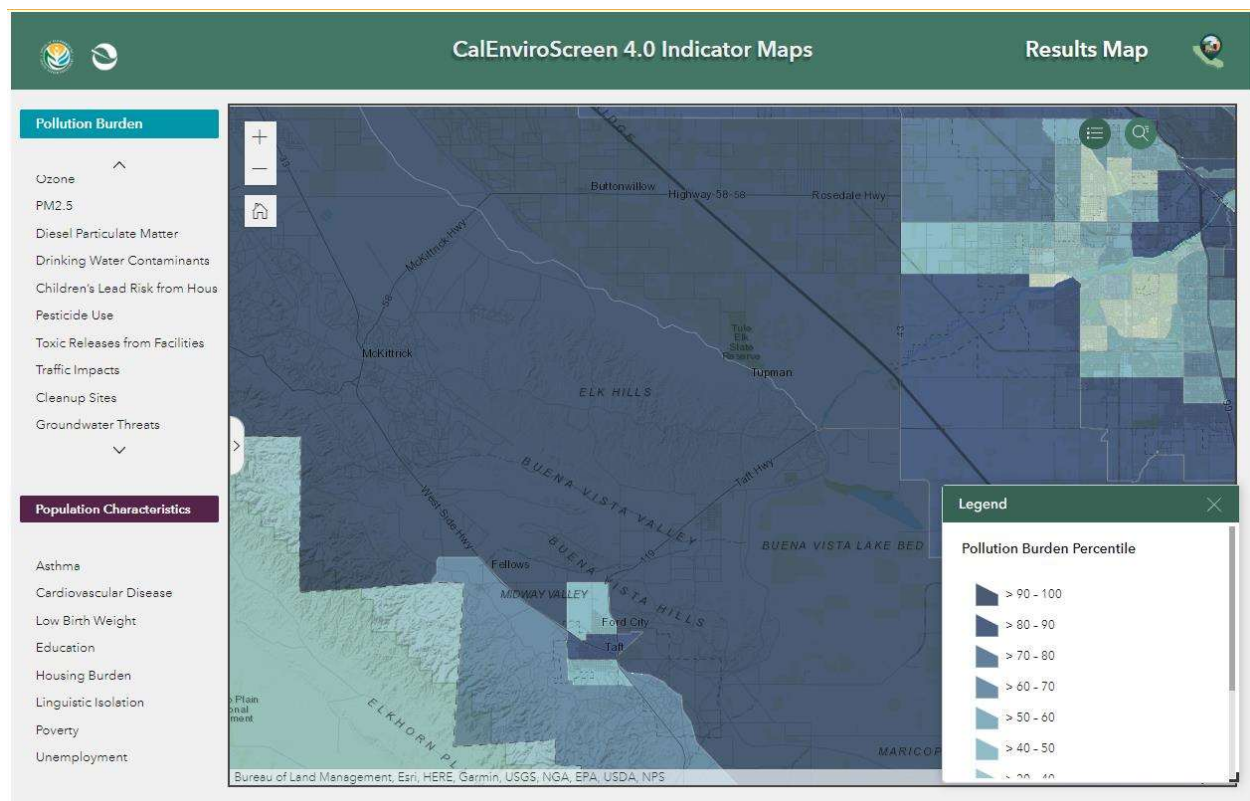


Figure 5: CalEnviroScreen 4.0 Pollution Burden Report for CTV I

For CTV I, based on our assessment of the federal and state EJ screening tools, there are communities within the conservative 10-mile area that appear to face some challenges associated with linguistic isolation and unemployment, as well as concerns with EJ index for air quality pollutants (*e.g.*, particular matter 2.5 and ozone). Even though these communities are well outside the AORs for 26R and A1/A2, these area the communities that are the focus of CRC's environmental justice and community engagement strategy.

## **Attachment 2**

### *(Illustration of CRC CTV I community engagement)*

Below is a summary of community engagement performed by CRC specific to CTV I, including the Class VI UIC permits. This is not an exhaustive summary, but an illustration of the community engagement to-date. Notably, this summary does not reflect the ad hoc and informal engagement CRC has had regarding CTV I with elected officials and members of the communities surrounding Elk Hills, including in the City of Taft.

<b>Date of Engagement</b>	<b>Community Engagement Participants</b>
9/7/2021	Representatives of Adventist Health Tehachapi Valley
9/17/2021	Representatives of Tejon Ranch Corporation
9/23/2021	Board members of Kern County Economic Development Board
9/23/2021	Kern County Supervisor Mike Maggard
9/23/2021	Kern County Supervisor Zack Scrivner
9/28/2021	Board members of Water Association of Kern County
10/7/2021	Representatives of Taft College, including Dr. Deb Daniels, President
10/11/2021	Board members of Valley Water Management Company
10/19/2021	CRC press conference at Kern Community College District associated with Valley Strong Energy Institute
10/20/2021	Kern County Department of Planning & Natural Resources, Director Lorelei Oviatt
10/27/2021	Kern County Hispanic Chamber of Commerce
10/27/2021	California Hispanic Chamber of Commerce
11/8/2021	Kern Community College District
11/18/2021	Kern Groundwater Authority
12/6/2021	Kern County Supervisor Leticia Perez
2/17/2022	Kern County Black Chamber of Commerce
3/1/2022	Board members of <a href="#">B3K Prosperity</a> , a collaboration among business, government, and civic stakeholders in the Bakersfield-Kern County Region
3/9/2022	Kern County Superintendent of Schools, Dr. Mary Barlow
10/25/2022	Representatives of the Dolores Huerta Foundation, National Renewable Energy Laboratory, and the California Energy Commission
10/25/2022 & 10/26/2022	Representatives of the Lawrence Livermore National Laboratory, the National Renewable Energy Laboratory, and the California Office of the Small Business Advocate in Bakersfield, CA
10/27/2022	Dolores Huerta Foundation, Lori Pesante, Community Outreach Director
11/16/2022	Tejon Indian Tribe, Octavio Escobedo, Tribal Chair, and Colin Rambo, Tejon Tribal Heritage Foundation (7871 NPO) and Cultural Resource Management Technician
11/16/2022	Kern Economic Development Corporation and Kern County Department of Planning & Natural Resources, Director Lorelei Oviatt, at Kern County Energy Summit

12/15/2022	Representatives of Dolores Huerta Foundation, Building Healthy Communities Kern, Central California Environmental Justice Network, and Representatives of Building Trades Council Kern, Inyo and Mono Counties
1/12/2023	Representatives of Building Trades Council Kern, Inyo and Mono Counties
1/18/2023	City of Bakersfield, Paul Saldana, Economic Development Director
1/31/2023	Tejon Indian Tribe, Octavio Escobedo, Tribal Chair
2/1/2023	Tejon Indian Tribe, including entering Memorandum of Understanding
2/20/2023	Representative of Shafter City Council
2/20/2023	Representative of Taft City Council
2/21/2023	Center on Race, Poverty, and the Environment
2/21/2023	Community meeting at Arvin High School in Arvin, CA
3/13/2023	Community meeting in Arvin, CA
3/13/2023	Community meeting in Lamont, CA
3/21/2023	Meeting hosted by California Renewable Energy Laboratory in Arvin, CA at Veteran's Hall. Attendees included Olivia Trujillo, Mayor of Arvin and representatives of the Kern Community College District, the County of Kern Supervisors, the U.S. DOE Office of Fossil Energy and Carbon Management, the White House Council on Environmental Quality and other attendees from local businesses, representatives from California state and local agencies, state elected officials, academia, NGOs, the Center on Race, Poverty, and the Environment, and members of the public
3/21/2023	Meeting hosted by California Renewable Energy Laboratory in Taft, CA at West Side Recreation & Park District. Meeting included representatives of the Kern Community College District, the County of Kern Supervisors, the U.S. DOE Office of Fossil Energy and Carbon Management, the White House Council on Environmental Quality and other attendees from local businesses, representatives from California state and local agencies, state elected officials, academia, NGOs, and members of the public.
3/21/2023	Meeting of representatives of Kern Community College District, including Sonya Christian, Chancellor; DOE Office of Fossil Energy and Carbon Management, including Brad Crabtree, Secretary, and Noah Deich, Assistant Secretary, and other local officials, <i>e.g.</i> , Kern County Department of Planning & Natural Resources, Director Lorelei Oviatt, in Bakersfield, CA.
4/17/2023	Meeting organized by Kern Community College District to discuss CalHub and included Olivia Trujillo, Mayor, City of Arvin, Dee Slade, President, African American Network Kern County, Brian Holt, Business Manager, International Brotherhood of Electrical Workers, and Martha Guzman, EPA Region 9, Regional Administrator
4/28/2023	Public information available at CRC staffed station at Kern County Career and STEM Expo

5/26/2023	Meeting with Westside Recreation & Park District Administrator, Les Clark III
6/9/2023	Meeting with City of Taft, Manny Campos, Community Leader
6/9/2023	Meeting with City of Taft Chamber of Commerce
6/24/2023	Engagement with City of Arvin Clean Energy Fair
8/1/2023	Meeting of the CalHub DAC consortium members in Taft, CA
9/10/2023	Door-to-door engagement with residents in the city of Taft, CA
9/13/2023	Information mailed to 5,500 households with CCS and CTV I Information in the communities closest to the AOR ( <i>Attachment 4</i> )
9/15/2023	Door-to-door engagement with residents in the cities of Taft and Ford City, CA
9/17/2023	Door-to-door engagement with residents in the cities of Taft and Buttonwillow, CA
9/22/2023	Door-to-door engagement with residents in the cities of Taft, McKittrick, Derby Acres, Fellows, and Tupman, CA
9/16/2023	African American Network of Kern County Board of Directors
9/24/2023	Community Event with Presentation on CCS/CTV I and Movie Screening at Fox Theatre in Taft, CA
9/27/2023	Meeting Alissa Reed/Executive Secretary Kern, Inyo Mono Counties Building and Construction Trades Council regarding community engagement partnership opportunities in West Kern with Labor
10/6/2023	Engagement with David Villarino, President of the Board of Directors and CEO of the Farmworker Institute of Education and Leadership Development (FIELD) about partnering with him and the students involved in the Cesar Chavez Environmental Corps and CRC/CTV community engagement community plans in West Kern. In person meeting scheduled for October 25, 2023 in Bakersfield, CA
10/6/2023	Engagement with Paul Chavez, Chairman and President of the Cesar Chavez Foundation about CRC/CTV work in Kern County. A meeting has been scheduled with Paul Chavez, Teresa Romero (UFW President), Connie Perez-Andreesen (UFW VP) with our CRC CEO Francisco Leon, CFO Nelly Molina and VP Community Affairs Nicole Parra for November 7, 2023 in Keene, California.
10/18/2023	Participation in Taft Rotary update regarding CRC/CTV community engagement

**Attachment 3**

*(CalHub Community Benefits Plan)*

**Community Benefits Plan**

**for**

**California Direct Air Capture Hub Front-End Engineering Design and Planning**

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## Introduction

Kern County (Kern) has been in the business of carbon management for over 100 years. Historically, managing carbon has meant extracting and utilizing it for energy production. But in today's California, one example of carbon management is extracting carbon from the atmosphere and sequestering it underground for the benefit of our communities.

Kern's leadership in carbon management has been supported by an extensive network of community and labor engagement and a skilled, diverse workforce. Kern's commitment to communities - through engagement and outreach, commitment to Diversity Equity Inclusion and Accessibility (DEIA) principles, and Justice 40 targets – will continue to support its leadership in carbon management for the next century. The California Direct Air Capture Hub (CalHub) will demonstrate Kern's commitment to uplifting its communities by prioritizing the four key policy priorities outlined by the Department of Energy and be a model for clean energy transitions across the country.

## Community and Labor Engagement

### Background

The CalHub Consortium is led by Carbon TerraVault Direct (CTV - Overall Lead and Technical Project Management Lead), Kern Community College District (KernCCD - Community Benefits Planning Lead) and Electric Power Research Institute (EPRI - Prime Recipient and Consortium Representative), the consortium includes organizations from industry, technology, academia, national laboratories, community, government, and labor, and will expand as appropriate based on future regional hub locations.

Core CalHub Consortium members came together in summer 2022 and set a shared investment agenda for the DAC Hub's community benefits, focused on eliminating disparities while promoting shared regional prosperity in the form of durable economic growth, quality jobs and environmental resilience for all Kern residents through the development of the DAC Hub.

KernCCD was chosen to lead development of the Community Benefits Plan (CBP) due to its experience as an impartial facilitator, bringing community stakeholders together to problem-solve and address community issues. KernCCD is a community college district serving more than 47,000 students across a 24,800-square-mile service area that spans Kern, Inyo, Mono, Tulare, and San Bernardino counties. KernCCD includes Bakersfield, Porterville, and Cerro Coso community colleges, two of which are Hispanic Serving Institutions (HSIs) with a high percentage of students in poverty. The KernCCD management team managed \$67.9 million in federal, and \$45 million in state awards in fiscal year 2021. KernCCD has a deep history of partnership with disinvested community groups, labor, employers, and industry, and significant history managing large multi-million-dollar collaborative projects.

KernCCD and Community Action Partnership of Kern (CAPK) have experience with outreach and labor engagement through their recent work together on the Community Economic Resilience Fund (CERF) program, a state initiative created to promote sustainable and equitable recovery

from the economic distress of COVID-19 by supporting new plans and strategies to diversify local economies and develop sustainable industries that create high-quality, broadly accessible jobs for all Californians. The effort requires engagement for a diverse set of stakeholders representing education, industry, community, labor, and social justice organizations.

CERF is led in Kern County by KernCCD, Better Bakersfield and Boundless Kern (B3K), a City of Bakersfield/County of Kern public-private partnership; Community Action Partnership of Kern (CAPK), an anti-poverty agency that serves more than 110,000 low-income clients; the Kern Inyo Mono Central Labor Council (KIM CLC); and Building Healthy Communities Kern (BHCK), a long-running community initiative aimed at improving health and education in rural and disinvested areas. Combined, these entities have decades of experience identifying economic development, community service, and workforce development resources. All but BHCK are part of the CalHub consortium, but BHCK remains engaged in ongoing dialog.

In addition to outreach to these established networks, CalHub held many face-to-face and small group meetings in the past nine months with various worker, union, civic, environmental justice and community groups with translation provided as needed to hear input and concerns. Engagement has focused on ways to bridge the gaps among disinvested communities and traditional economic actors, ensuring representation and shared decision-making within the consortium.

Figure A: Grant and State investments in Kern County



There is broad recognition among all stakeholders to diversify Kern's economy as jobs in oil and gas and related industries are phased out in the coming years. Generally, feedback from our engagement to date has been positive. Additional work is needed to reach and connect with certain groups. There are sizeable populations in Kern that are linguistically isolated and more needs to be done to reach and communicate with these groups. Dialog and transparent information-sharing also continues with several Kern environmental and social justice groups in the community as we endeavor to learn and understand their position and concerns.

Kern is committed to the economic mobility of its communities and has leveraged a strong network of community engagement and skilled workforce to position the region as California's energy leader. Funding CalHub as a regional DAC hub will continue the process of supporting and uplifting Kern's communities and serve as a model for other regions around the country. Figure A illustrates the significant financial investment Kern has received to ensure that transition to a clean energy economy benefits all residents – improving air quality, providing family supporting jobs, educating the public, and ensuring that the region's geologic storage opportunities are fully explored.

### **Social Characterization Assessment**

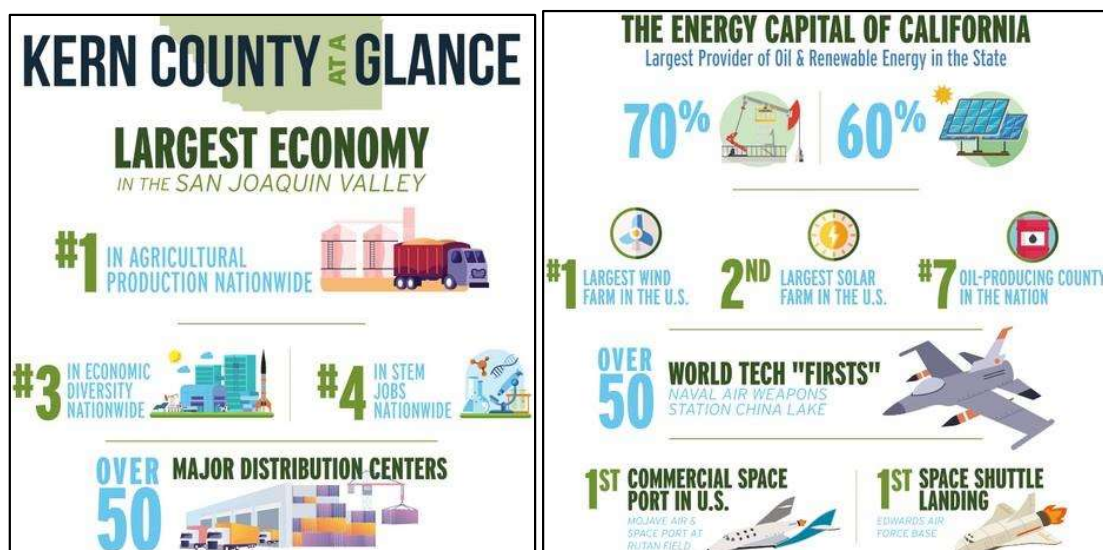
Kern is the third largest county (8,132.2 sq.mi.) in California, and home to nearly 917,673 people. The majority, roughly 56.1% of the population, is Hispanic, 31.1% are white, 6.3% Black, and Asian residents represent 5.6% of the total population. Approximately 18.3% of persons in the county are in poverty, and the per capita income in the past 12 months was \$23,858, with a median income of \$54,851. The Kern 2020 real GDP was \$48,674,498, a slight decline of -1.1% from the prior year. Out of 58 California counties, Kern ranked 21 in real GDP for 2020. (US Census Bureau, 2020, American Communities Survey 5-Year Estimates Subject Tables)

A 2022 analysis done by UC Merced as part of the High Road Training Partnership grant described below found that since 1979, Kern median wages have declined by 13 percent, the greatest decline among all California counties. Approximately 40 percent of wage earners reported making less than a living wage (the amount needed to avoid "consistent and severe housing and food insecurity"). The report also found that since 2009, 22 out of 30 industries in Kern have experienced job growth, but the majority has been in low-wage industries. As a result, while Kern's workforce grew by 51 percent between 2000 and 2019, which increased the overall GDP for the area, per capita GDP has been highly volatile, growing at 34.9 percent from 2000-2009 and then declining by 4.4 percent since 2009. (The State's Future: Kern County's Young, Growing, Diverse Population and Dynamic Economy, University of California Merced on behalf of the Kern High Road Training Partnership, March 2022).

There is wide recognition of the need to diversify Kern's industry and employment base; strengthen existing and emerging industry clusters; ensure social equity in economic development measures through targeted training and geographic areas of focus; provide greater resiliency and adaptation for the oil and gas and agricultural sectors as a result of the current policies affecting environmental, water management, and the general business climate; and leverage the range of benefits associated with opportunities for remote work, spurred by the Covid-19 pandemic. (City of Bakersfield, September 2021, Economic Development Strategic Plan, The Natelson Dale Group, Inc)

Kern's sub-regional economies are distinct. East Kern is dominated by government and military installations, commercial scale solar and wind, and aerospace. In West Kern, fossil fuels are the primary industry, and this area holds the most promise for carbon management and storage solutions. In the North, Central and South Kern subregions, agriculture, food manufacturing,

and business services, healthcare, retail, and logistics are the leading industry sectors. In West Kern, the fossil fuel industry is facing significant climate change related shifts toward carbon management and storage. In East Kern, the aerospace industries relocated outside California in the last few years although the Mojave Air and Space Port infrastructure is a critical component to growing area research, scientific, and technical industries. The North, Central and South Kern subregions are facing significant drought, extreme heat, increases in energy prices, and reduced grid stability affecting its agriculture, food manufacturing, healthcare, logistics, and retail industries. Several economic development and resiliency opportunities such as carbon management, transportation electrification, expansion of solar and wind commercial energy production, implementation of microgrid technology to offload energy demand from the grid, and other innovative energy solutions are being pursued in Kern.



The three frontline communities identified as potentially most impacted because they are closest to the sites envisioned for CalHub DAC facilities include: Taft (pop. 8,651), Shafter (pop. 20,678), and the southeast neighborhoods of Bakersfield City (pop. 11,205). These frontline communities face challenges of linguistic isolation and high unemployment (all three are in the 90th percentile statewide for unemployment) and breathe some of the unhealthiest air in the U.S. due to geography, ozone and PM 2.5 pollution.

CalHub recognizes that in addition to frontline communities, all potential communities impacted by the project over a dispersed area must be engaged -- such as local and regional workforces, those living along infrastructure and transportation routes, etc. --to understand the full range of impacts and vulnerable communities.

Map A shows the workforce development census tracts in the county. Map B shows the area with census tracts that fall in linguistically-isolated areas. Significant portions of the northwest and southeast of the County are also isolated linguistically presenting additional challenges to already underserved communities.



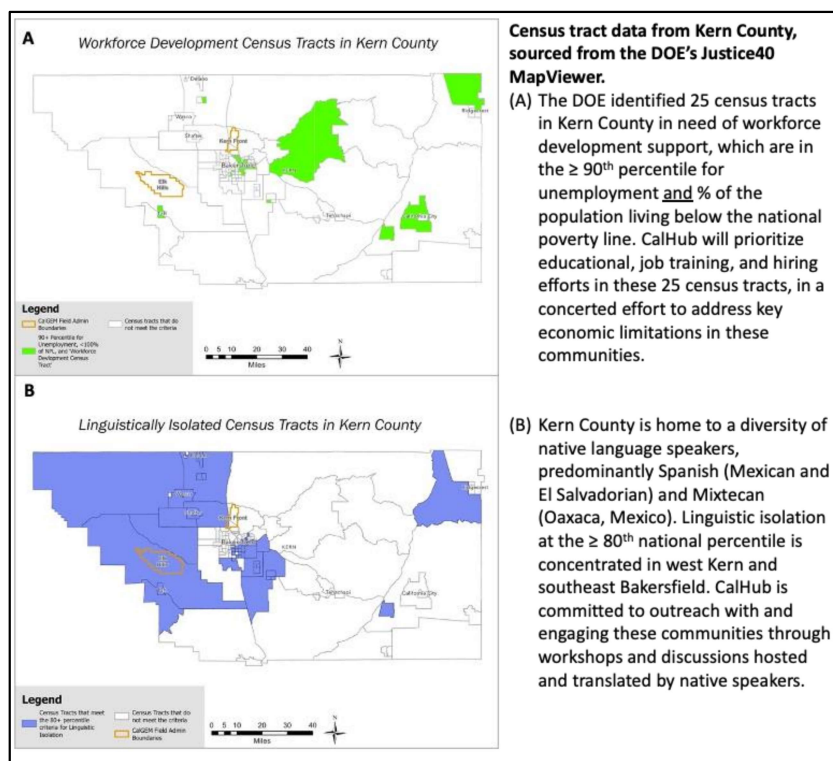
Kern's unincorporated community members tend to have lower educational attainment, lower-wage jobs, and higher unemployment than the average Californian. In addition, 70% of census tracts within Kern are also identified as environmental justice communities according to EPA's Environmental Justice Screening and Mapping Tool, EJScreen. These communities experience high exposure to environmental hazards, pollution, and toxicity which can have lasting health and economic impacts.

Kern's communities also face poor air quality and increasing energy prices. Low-income and energy cost-burdened communities are least likely to afford air filtration or air conditioning to improve indoor air quality and mitigate the impact of increasing and extreme heat days. Air quality in Kern is frequently unhealthy, averaging 36 unhealthy days per year, far exceeding the federal allowance of 3.2 days per year.

*Map A: Workforce Development Census Tracts in Kern and Map B: Linguistically Isolated Census Tracts in Kern.*

### Stakeholder Analysis

Kern has experienced significant economic shifts and challenges in the past two decades. California has adopted climate policies that have had significant impact on Kern's oil and gas extraction industry and related service industries including construction and business services and resulting in quality job losses.



Key consortium members involved in stakeholder analysis include the City of Bakersfield, the County of Kern, the Kern Economic Development Corporation (KEDC), and B3K, which provide leadership in developing research to support economic initiatives, incentives, planning and permitting. As key consortium members, they support the equitable and effective geographic representation and decision-making structure of CalHub. Recent economic assessments include: The Bakersfield Economic Development Strategic Plan, the Kern Comprehensive Economic Development Strategy, the KEDC 2022 Kern Market Overview, and the B3K Market Assessment. These analyses describe the economic landscape and identify threats, weaknesses,

strengths, and opportunities for economic diversification, expanding renewable energy, utilizing the regions' potential for carbon storage, electrification of transportation and supporting the California decarbonization and climate resiliency goals.

Some of the CalHub members' major economic development projects and initiatives include:

- **High Road Training Partnership Grant (H RTP)**- Strategic Workforce Development Planning Project (2022-2024) with KernCCD, Center on Race, Poverty and the Environment and UC Merced. Project included three major areas of work: 1) industry and workforce research; 2) coalition-building to deepen regional collaboration; and 3) identification, implementation, and expansion of high road training.
- **USDOE Communities LEAP grant**- awarded in 2022 to the City of Bakersfield, KernCCD, the Dolores Huerta Foundation, CAPK, and the Kern Farm Bureau to develop a roadmap for clean energy economic development with microgrids to mitigate rising energy costs for low-income households and decarbonize the agriculture.
- **USDOE Communities LEAP grant** – a technical assistance grant awarded in 2022 to develop a Kern Clean Energy & Carbon Management Business Park awarded to Kern government with support from Cal State Bakersfield (CSUB), KernCCD, the Dolores Huerta Foundation, Kern Economic Development Corporation, City of Bakersfield, Bakersfield Chamber of Commerce, Tejon Indian Tribal government, Kern Farm Bureau, Building and Trades Council, and International Brotherhood of Electrical Workers (IBEW).
- **California Energy Research Center** - engages CSUB faculty and students in collaborative research efforts with local energy-related industry and agencies for the benefit of the local community, the region, and the state of California.
- **City of Bakersfield Transformative Climate Communities Planning & Implementation Grant** - a community vision for neighborhood-level transformation and investments that reduce greenhouse gas emissions and provide economic, environmental, and health benefits.
- **October 2022 KernCCD Community Economic Mobility Pre-Summit** - brought together more than 300 people from dozens of organizations, businesses, environmental justice groups, renewable and legacy energy companies for a two-day conference about opportunities to collaborate on energy and climate initiatives, and understand future workforce needs.

Combined, these efforts provide a large repository of contacts and information to identify potential stakeholders for the DAC Hub.

In addition, initial community engagement meetings were held in the frontline communities of Shafter, Taft, Southeast Bakersfield, and Arvin to inform the community about the DAC Hub proposal, describe how the community can actively participate, and gather information about concerns. The responses recorded through these meetings will be used as an initial baseline for

community engagement and concerns. Initial concerns identified relate to pipeline locations, potential for underground leaks, and concerns over the true amount of carbon that will be captured with the technologies being proposed. Frontline communities are still recovering from the impacts of the COVID-19 pandemic and desired outcomes they seek are primarily related to food and water security, good jobs and positive health impacts.

### Engagement Methods and Timeline

The CalHub consortium has a multi-pronged plan for community and labor engagement over 24 months. Leveraging successful and trusted community engagement models, CalHub will focus on three areas: transparent communication, ongoing community engagement, and technical education. Engagement goals for Phase 1 of the DAC Hub are described in Table 2.

CalHub has also secured support from and will negotiate agreements with trusted messengers (see PartnershipDocs file) like the City of Bakersfield Community Ambassadors, African American Network of Kern County (AANKC), and Grandma Whoople, a popular children's educator, to conduct outreach, facilitate meetings and provide community education. CalHub member CAPK will leverage and strengthen community programs and services in our rural regions specifically supporting programs regarding education, employment, and food insecurity. One program suggested during initial community meetings was the establishment of a rural micro-loan community fund that we will pursue in the first few months, if awarded.

*Table 1: Community and Labor Engagement methods*

Engagement Method	Details	DOE Project Phases
Facilitate a series of community meetings that are physically accessible and linguistically diverse to engage stakeholders about the CalHub	Community meetings will be held in local community centers or minority- owned facilities that are physically accessible, with interpretation services including but not limited to English, Spanish, Punjabi and Mandarin (Chinese) languages, refreshments and childcare.	Phases 1- 4
Provide transparent communication via a linguistically diverse website, social media and other digital communications (podcast, newsletter, fact sheets)	Key information provided will include CBP plan, an FAQ, list of meetings, project proposals, agendas and minutes, newsletter, press release, a blog to help onboard community members, engineering and construction milestones, recordings of past meetings, archives.	Phases 1-4
CalHub Advisory Council (CAC) to serve as a voice for communities to provide feedback on the proposed project, to help identify community concerns, establish community benefits agreements and develop solutions to keep the project on track	CAC will be comprised of 15 members representing diverse stakeholder groups including labor, community organization, environmental justice, industry, government, and frontline community members.	Phases 1-4
Technical education, webinars, videos	Public carbon day at CSUB to provide information on carbon management strategies and their community impacts, Grandma Whoople	Phase 2-4



	elementary field trips for frontline community children.	
Listening session and discussions moderated by trusted messengers and community organizers	City of Bakersfield Community Ambassadors, AANKC community organizers, survey community members about concerns and benefits of the project and organize the Community Advisory Council	Phases 1-4

Table 2: Community and Labor Engagement goals and timeline

Goal	Activity	Resource	Duration
<b>Stage 1 – Project awareness and feedback</b>			
Engage community and labor to inform them of project, collect input and feedback through meetings and digital communications	Provide project awareness based on initial project plans, community and labor benefits meetings and digital media	KernCCD, AANKC	6 months
Address input and concerns raised in initial community engagement	Collate feedback from phase 1 C&L engagement and incorporate into technical work as appropriate	KernCCD	4 months
Hold community education events such as the public Carbon Day and K-12 level programs	Develop technical education series centered around carbon management, DAC technologies, and geological storage in preparation for Phase 2 C&L engagement	CSUB, KernCCD, LLF	3 months
<b>Stage 2 – Project updates and agreements</b>			
Continuing ongoing community engagement to inform of updates and timelines through meetings and digital communications	Provide project awareness relating on updated project plans and feedback from phase 1 C&L meetings and digital media	LLF, BC, KernCCD CSUB	6 months
Address input and concerns resulting from ongoing community engagement	Evaluate Feedback from Phase 2 C&L engagement and provide input into technical work	CSUB, KernCCD, LLF	3 months
Establish a 15-member CalHub Advisory Committee	Identify members of advisory team from with community and labor representatives	CSUB, KernCCD, LLF	2 months
Develop and execute plans to incorporate community and labor benefits into project	Develop preliminary Community Benefits Agreement and Project Labor Agreement drafts	CSUB, KernCCD, LLF	3 months

## Two-way Engagement Statement

CalHub's engagement strategy is designed to reach across Kern communities with a combination of in-person public meetings, educational events, and online and social media engagement ensuring two-way engagement is consistent, transparent and authentic. Community meetings will be held in local community centers or minority- owned facilities that are physically accessible, with written and verbal communication that is linguistically diverse to ensure maximum engagement, including but not limited to English, Spanish, Punjabi and Mandarin languages. Outreach will prioritize communities in close proximity to the CalHub. The

four key areas of concern identified by the frontline communities are food, water, health, and jobs. Additional public meetings will occur early in the planning process to invite more community members and stakeholders to provide feedback before engineering, construction, and operation of the California DAC Hub.

### **Project Agreements Statement**

The CalHub is committed to collaborating, engaging, and equitably distributing the economic benefits of the DAC hub through developing community benefits agreements, project labor agreements, and community workforce agreements. A Community Benefits Agreement will be developed with feedback from the CalHub Advisory Council and presented to community groups for engagement in drafting and accepting a final agreement. Carbon TerraVault is committed to negotiating Workforce and Community Agreements to ensure that the project prioritizes local hires and union jobs. The Workforce and Community Agreements will ensure that frontline communities benefit from the project by providing resources to help improve the quality of life and energy transition priorities. To ensure a robust engagement, the CalHub Advisory Council will help draft the agreements and will participate in community meetings to gain support and approval for the agreements.

### **Engagement Evaluation Strategy**

The first action item for community engagement will be to hire community organizers to be identifying and assessing preferred meeting modalities for various groups (Saturday meet-up at the park vs. virtual meetings for remote areas, etc.). This will allow CalHub to receive feedback and recommendations critical to initial outreach and prior to the advisory committee's establishment. All community engagement will be documented and input will be collected in digital and written form. This approach will allow for greater representation and input from all populations including those who have historically been marginalized or are from lower socioeconomic income households that may have economic challenges and less opportunities for participation in meetings. Additionally, participant surveys will be conducted at the close of each meeting to better identify what is working in the consensus-based process and what is not. Using a continuous improvement process methodology will enable the team to keep an eye on disproportionate participation and adjust engagement strategies to achieve the greatest participation possible from underserved and disinvested communities.

### **Resource Summary**

CalHub consortium members and lead partners are committed to a consensus-based decision-making model that is sustained and maintained long-term. As evidence of this, consortium has already demonstrated commitment through personnel and funding to provide management and leadership for all activities to date. The resources dedicated to ensuring community and labor engagement goals are met and detailed through cost share commitments by KernCCD, the City of Bakersfield, Lawrence Livermore Foundation (LLF), Global Economic Impact Group, and West Kern Water District in the Project Budget and letters of support in Appendix "X".

## Investing in the American Workforce

### Background

The consortium has a history of strong investment in the American workforce. The DAC Hub site owner, California Resources Corp. (CRC), is one of the few upstream oil and gas companies to actively partner with organized labor. CRC has had a Project Labor Agreement (PLA) in place with the California Building Trades for over seven years. This statewide PLA ensures that CRC's construction and maintenance contractors support the organized labor community and hire a highly qualified and fairly compensated workforce. Additionally, CRC is currently engaging with the (IBEW) to discuss a carbon management project with potential state-wide impact.

KernCCD was awarded a California Workforce Development Board (CWDB) High Road Training Partnership (HRTTP) grant as referenced in the Community and Labor Engagement section of this CBP. As part of this award KernCCD is also working with KIM CLC and Building Trades Council to conduct a needs assessment survey of workers and community members in Kern, which will be used to identify high road industry sectors that can provide quality wages and benefits, as well as equitable training and recruitment practices and a commitment to ensuring climate resilience. KernCCD's work with the Kern High Road Coalition has enabled partnerships with local labor unions, trusted community messengers, and high road industry leaders to develop a holistic infrastructure for recruitment, training, and upskilling of disinvested and incumbent workers. This work will be utilized in the DAC Hub quality jobs assessment and development.

### Quality Jobs

KernCCD classes and programs are informed by and support workers, labor, and management to ensure and increase the health, safety, and professionalization of quality jobs in the clean energy sector. The DAC Hub will create 280 quality operational jobs per year. The Consortium members, partnering with the KIM Workforce Development Board and the Bakersfield College Career Education & Student Employment Office, will connect graduates to high-quality jobs and training-related entry-level opportunities through a dedicated project job developer working with the National Electrical Contractors Association (NECA) and Energy Innovation Workforce Coalition (EIWC) member employers. The benefits will be crafted into job descriptions and included in the recruitment phases for construction and operations jobs associated with the DAC Hub project:

- Family-sustaining wages
- Employer-sponsored health insurance & pension/retirement coverage options work-family benefits
- Employer investments in training
- Caregiving support
- Predictable scheduling; and classification of workers as permanent employees.

### Workforce Development

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The H RTP labor market landscape analysis and needs assessment led to the development of the EIWC. EIWC members provide labor market demand and employment projections resulting from implementing state and federal climate initiatives that will accelerate demand. This work will serve as input into the Workforce development for the DAC project and employ strategies enlisted in the report for workforce development.

The 2021 quantitative assessment of the Kern workforce will be supplemented with qualitative stakeholder interviews and further quantitative analyses by the National Renewable Energy Lab's (NREL) JEDI models developed by NREL, and the EIWC stakeholder group. KernCCD, Taft College, LLF, and CSUB will also collaborate and leverage existing workforce development avenues and address the immediate demand for DAC job training beginning in 2024 - 2025.

### **Worker Rights**

The California DAC Hub jobs will prioritize worker voice as with the High Road Jobs by linking the training to the IBEW Local 428 Bakersfield. In addition, by including the Kern, Inyo, Mono Central Labor Council (KIM CLC) and the Building Trades Council (KIM BTC) in connecting underrepresented workers to the DAC jobs, CalHub will ensure workers and their families are represented in planning and workforce trainings opportunities. An Apprentice Program will be incorporated which ensures trainees learn about collectively bargained labor agreements and career opportunities.

Additionally, trainees will be provided with surveys for each training cohort to express ways in which connecting underrepresented workers to DAC Project can be improved.

### **Strategies, Milestones and Timelines**

A critical component of the workforce development section is the work to be done by the NREL using JEDI model. The economic impact analysis using the JEDI framework can estimate economy- wide absolute jobs, value-added, industrial output and occupations created from the construction and operation of DAC Hub projects and additional infrastructure. The development of the JEDI model for the DAC hub will occur within the first 6 months of the project. This data will be adjusted to reflect California's economy and labor market. Temporary and permanent, direct, indirect, and induced economic effects from construction and operation will be estimated using IMPLAN's economic datasets at both state and county levels. Underlying these analyses is a dataset of social accounting matrices (SAMs) that include sectoral, demographic, and governmental data reflecting how the economy of the region operates in a given year. Key Workforce activities are listed Table 3 and are linked to milestones detailed in the Integrated Project Schedule.

*Table 3: Investing in American Workforce goals and timeline*

Activity	Resource	Duration
Create JEDI model for 50, 000 and 1 million TPA DAC projects	NREL Team	6 months

Determine baseline labor capacity in Kern, adjacent counties and California for DAC related jobs and skills.	NREL Team CSUB Team	2 months
Identify gap between JEDI model and Baseline labor capacity.	NREL Team	2 months
Develop strategy to fill workforce/labor gap.	KernCCD, CSUB, BC, Taft College, CTEC, KIM CLC	3 months

## Resource Summary

The CBP will leverage decades of repeat successes in building the workforce of the future by KernCCD; Kern, Inyo and Mono (KIM) CLC and Bakersfield College, based on industry workforce needs and curriculum input from its community partners. This time-tested playbook has enabled the creation of a skilled workforce to meet the needs of the "Energy Capital" of California, Kern, and will be refined and readopted in the development, upskilling and reskilling of new and incumbent workers needed for the CalHub. CalHub members financial commitment to creating quality jobs, workforce development, and ensuring workers' rights are upheld is detailed through their cost-share and detailed support outlined in the Project Budget and Letters of Support in Appendix "X."

## DEIA

### Background

The CalHub Consortium highly values diversity, equity, inclusion, and accessibility. KernCCD is known for equitable and accessible educational opportunities, starting in high school, to put students on a pathway into post-secondary programs that lead to high quality, in-demand jobs in the local economy.

KernCCD's Early College program is one of the largest and most diverse programs in the state to provide college courses tuition-free to high school students. To date, more than 500 Kern students have earned an associate degree while in high school through Early College and thousands more have graduated high school having already earned college credits. Today, Early College offers a number of structured pathways to in- demand careers in healthcare, business and education through a structured Early College pathway. Four Kern High Schools were honored by California Department of Education as an Exemplary Dual Enrollment School for the 2022-2023 academic year.

The County of Kern and City of Bakersfield already supports DEIA policies and has been working with African American, Hispanic, and Indigenous communities in Kern for decades to educate and bring awareness to DEIA and their policies.

In addition, the Kern Black and Hispanic chambers of commerce have worked to highlight employers that have DEIA hiring policies in place.

The CalHub Consortium, specifically NREL has developed a framework ("Building Blocks") for DEI planning that includes integrating best practices in DEI 1) on the project team 2) in project

partnerships and 3) ensuring that disinvested communities are involved in and benefit from the project. Some of the strategies that may be applicable to this proposal include:

- DEI on project team: regular inclusivity training for all partners; development of an inclusivity standard for the collaboration; diversifying the project team from leadership to internships to technicians through targeted recruitment, inclusive job descriptions and capacity building; partnering with Historically Black Colleges and Universities and Hispanic Serving Institutions (NREL has been working to identify institutions with similar research interests).
- DEI in project partnerships: integrating community organizations into the research and workforce for the project itself (providing funding for long-term participation); small business procurement; partnerships with local colleges and universities, specifically serving local communities.
- Community involvement: Ensuring communities are involved in and benefit from the project: authentic community engagement; co-creation of solutions; community-based participatory research; adding research questions to understand community impacts.

### **Strategies, Milestones, and Timelines**

The DEIA team will work closely with the technical and the workforce development teams in analyzing the results from the NREL JEDI/SLIDE and CSUB IMPLAN models to understand employment and contracting opportunities associated with the CalHub project. Based on these outcomes the DEIA team will assess the diversity and minority database in the community and employ NREL's "Building Blocks" for DEIA planning, with local partners such B3K, CAPK, Greater Bakersfield Chamber of Commerce, Kern Black Chamber of Commerce, Kern Hispanic Chamber of Commerce (KCHCC), Mexican American Opportunity Foundation (MAOF), National Impact Mentoring and Training Program (NIMTP) to plan and implement the DEIA targets. Key DEIA activities and their duration listed in Table 4.

After receiving this insight from our partners, we plan to include the following in the DEIA policy:

- Develop a DEIA Mission and Vision Statement that includes having an inclusive workforce environment.
- Create a company DEIA team to teach employees the DEIA culture and company ethics, create and provide DEIA staffing data, milestones, and needs. Research certified minority businesses and contractors' data. Provide DEIA data results (annually) to partners, employment and training companies, minority groups, and all others when requested to ensure transparency.
- Our management team, employees, and contractors will be designed to represent our DEIA policies so that it includes providing contracting and procurement opportunities to disinvested businesses, minority, women, and/or veteran-owned businesses.



- Ensure that all communication, literature, employment opportunities, marketing efforts represent the languages spoken in Kern.
- Provide reasonable work accommodations if needed.

In addition, we will work with the workforce development and community and labor engagement teams to ensure that DEIA targets for project teams, project partners and community involvement are met.

An employment mentorship program will be designed to help college students from minority, disinvested or underrepresented communities to complete their courses, get hired and promote long-term retention. The goal of the mentorships program is to strengthen our labor pool, increase employee retention, and reduce employment turnover. This will provide a strong, experienced, and cohesive team at each level of employment.

The consortium will take the same approach when it comes recruiting, vetting, and securing minority subcontractors. We will work with government agencies at all levels to identify qualified minority contractors that can participate in our procurement processes. Our goal is to ensure that 30% of our contracts go to qualified minority vendors or sub-contractors.

*Table 4: DEIA goals and timeline*

Activity	Resource	Duration
Utilize NREL "DEI Building Blocks" to develop mission/vision statement and DEI inclusion plan	NREL, GEIG	4 months
Compile and promote CalHub DEIA opportunities working with the Community and Labor Engagement team	KernCCD, GEIG	3 months
Collect diversity data for CalHub project working with the CalHub consortium	KernCCD, GEIG	6 months
Develop DEIA implementation and monitoring plan for the CalHub project working with the CBP Workforce Development team	KernCCD, CSUB, BC, Taft College, CTEC, KIM CLC, GEIG	4 months

Our DEIA team will develop the blueprint for the following strategies:

- Employment Recruiting, Hiring and Training Programs
- Educating everyone at all levels of employment on DEIA culture
- Provide reports on status of DEIA goals and community outreach activities and events

### Resource Summary

Kern is geographically, economically, racially and socially diverse. The consortium will utilize these attributes as a strength for the DAC project by engaging and including underrepresented and disinvested communities to meet a 30% DEIA target in project spend and benefits. The resources dedicated to ensuring DEIA goals are met are detailed through NREL's, KernCCD, GEIG, and others cost share commitments in the Project Budget and letters of support in Appendix X.

### Justice40 Initiative



## Assessment

### Assessment of impacted communities and groups

CalHub is striving to design a strategic Community Benefit Plan for the proposed DAC Hub that deliberately addresses the unique demographics, needs, and concerns of Kern census tracts through multi- disciplinary engagement. The initial assessment for this proposal relies on previously reported data from DOE's Justice40 MapViewer and insights derived from the LLF's bilingual (English and Spanish) survey of 603 Kern residents in 2021, which assessed residents' top concerns, as well as familiarity with climate change, geologic carbon storage, and initial reactions to the concept of geologic carbon storage.

According to the DOE's J40 Map Viewer, top concerns in Kern (especially in the frontline communities) include: linguistic isolation, workforce development (unemployment and percent living below the national poverty line), loss of agricultural lands due to climate change, and air quality (PM2.5 and associated asthma rates). These geospatial results are consistent with LLF survey results, which indicate top concerns (>50% of respondents indicating a 'very serious or 'extreme' problem) for Kern residents include: poor air quality (74%), long-term water shortages (69%), unemployment (67%), and loss of jobs in the oil industry (61%). The majority (64%) of Kern respondents still, however, supported California's carbon neutrality goal.

To address community concerns, CalHub plans to invest greater than 40% of benefits to census tracts highlighted in the DOE's J40 MapViewer and design models that further address these top issues, as well as others outlined in the co-benefits and negative impact tables 5 and 6. To encourage transparency and trust in the monitoring, reporting, and verification (MRV) of these community benefits, Lawrence Livermore National Lab (LLNL) researchers will construct a benefit tracking database with census tract resolution and a geospatial dashboard for visualization. As the project's technical MRV approach for carbon accounting evolves, so too shall this similarly quantitative and transparent approach to community benefit MRV.

### Assessment of DAC Hub benefits and where they flow

A key project benefit, which we believe makes CalHub unique amidst other DAC hubs, will be receiving proposals from the communities on other impactful and meaningful benefits the communities propose will be of great value to them. These proposals will be reviewed and considered as part of the CalHub's commitment to a two-way engagement approach with communities.

In addition, public tax revenue increases, infrastructure improvements, bolstering agricultural land revenue through CO2 pipeline easements, and higher education investments for a skilled workforce are benefits we believe can be strategically flowed to communities surrounding the proposed DAC sites that need them most.

*Table 5: Potential Co-Benefits and Maximization of Co-Benefits for The Community*

Potential Co-Benefits to Communities	CalHub Design to Maximize Potential Co-Benefits
--------------------------------------	---

Direct Jobs	Direct hire projections will be quantified as a part of the economic modeling for the project in this design phase. Key points for labor/workforce agreements (e.g. local hiring commitments and equity enhancements) will be discussed with relevant unions.
Indirect Jobs	Will use JEDI, an open-source economic model constructed by NREL, to forecast potential indirect job creation and share results broadly. Preliminary data expected by 05/2024
County and State Tax Revenue	Economic model will forecast property and sales tax revenue increase for Kern and the City of Bakersfield as a result of the CalHub. Projected income will be compared to budgets to calculate 'benefit' flows and citizen advisory council will be asked for comment.
Funding for local causes	The project developer will negotiate community benefit agreements prioritizing the frontline communities
Early-Adopter Identity	CTV, local government, and community partners agree to publicize and share broadly their motivations in being an early adopter of DAC technology, as well as their experiences, as the project progresses to educate others about what being an early adopter of this nascent technology is like.
Infrastructure near site	Compensated community discussions will be held (in multiple languages) regarding infrastructure build-out opportunities (e.g. roads, culverts, broadband) to identify points for improvement with greatest shared benefit.
Financial assistance to farmers facing cultivation curtailment due to climate change	Pipeline easement agreements for CO2 transport between Kern Front and Elk Hills may cross through agricultural fields, which are facing drought-driven curtailment.
Water Production (at Avnos site)	Avnos' technology was specifically chosen to do their ability to produce much-needed water on-site, which will be diverted to external needs (e.g. agriculture). The Avnos site is expected to produce 1 - 2 billion gallons of water per year when fully operational.
Plugging abandoned oil and gas wells	The repurposing of a former oil and gas production site for geologic carbon storage necessitates the plugging and restoration of any idle/abandoned oil and gas wells. This remediation is expected to improve air quality (through reduced CH4 emissions) and encourage biodiversity (through revegetation), relative to its current state.
Investments in small, local and minority-owned businesses	Equity enhancements will be made regarding the preferential usage of small, local and minority-owned businesses wherever possible
Improved workforce diversity in the energy/carbon management field	CalHub will be evaluating demographics of its technical and non-technical staff currently, then comparing to the demographics of Kern. Underrepresented populations in these energy/carbon management jobs will have purposeful outreach conducted to improve the workforce pipeline with equity enhancements.
Air Quality Monitoring	Air quality monitoring will be continuous throughout the TA-2 period and an air quality base line will be established.

NREL will lead modeling efforts for the CBP, including air quality, renewable energy competition, and job impacts. To accomplish this effort, NREL will partner with local higher education institutions and use advanced air quality models (considering both specific to the DAC sources, such as SCICHEM, and regional, such as InMAP) to predict changes in air quality and public health, as well as the proportion of burdens and benefits received by disinvested communities identified through DOE Justice40 mapper and CalEnviro Screen. Prior State of

California assessments will establish a baseline for comparison, but the modeling team recognizes the incongruity of historical monitoring and prospective modeling in terms of metrics, time periods, etc. and will ensure commensurability. The air quality modeling will be performed using initial CalHub industrial partner plans (year 1). Under circumstances of air quality being modeled to worsen, the NREL-led team will develop and analyze proposals to abate the negative impacts in collaboration with the industry partner(s). Modeling results will be communicated to CalHub stakeholders and local community members through community partners to gain advice from their lived experience.

### Assessment of DAC Hub negative impacts and where they flow

The CalHub has identified an initial list of potential negative impacts to community that may occur starting in Phase 1 through Phase 4. The potential negative impacts outlined in Table 6 are primarily environmental and will be monitored and mitigated by the CalHub Technical team.

*Table 6: Potential Negative Impacts and Minimization of Impacts to The Community*

Potential Negative Impacts to Communities	CalHub Design to Minimize Potential Negative Impacts
Renewable Energy Demand	NREL will compare the land requirements for Kern's decarbonization to what renewable energy assets would be devoted to CalHub
Noise pollution	As part of the Environmental Information Volume (EIV), expected decibels from plant operations will be assessed for transfer from the DAC sites to the nearest residential zoned lands, based on site design and topography
Water Demand (at Climeworks site)	At the Climeworks DAC site, fresh water resources will not be used for DAC; instead, produced (non-potable) water will be utilized.
Land Demand	Construction will be confined to remote, oil and gas fields that are not vital to Kern's long-term growth plans
Chemical Use (On Site and Off Site)	Chemical use assessments will occur for <u>both</u> the DAC site and manufacturing locations regarding: workplace safety, track record of safety incidents, innovations and monitoring beyond regulatory requirements, risk analysis, and waste management plan for solvents/sorbents necessary for CO2 removal.
Infrastructure near site	Methane Leakage, Methane emissions from the transport, power, and operation of DAC facilities, as well as associated manufacturing plants, will be quantified and included in project's LCA
Community hesitancy or distrust	Early, broad, and accessible community education about DAC technology will occur as soon as possible (no later than 1 month after award notification)
Traffic Impacts	DAC facilities are being located in regions currently identified as unimpacted by traffic, according to the DOE J40 Screener
Incomplete Decommissioning	Plans (incl. site restoration), financial commitments, and carbon-intensity estimates that include future decommissioning of DAC plants will be shared pre-permitting

Construction Impacts	Key points for 'Good Neighbor Agreements' between CTV and residents adjacent to Kern Front and Elk Hills will be discussed as a part of the Environmental Impact Volume (EIV)
Risk Management	First responders will be engaged through their unions to discuss education/training options on how to respond in the unlikely event of a CO2 pipeline leakage, along with two-way community discussions on transparent pipeline monitoring.
Uncertain air emissions	Air quality modeling will be conducted by NREL

### ***Assessment of information gaps***

To address the poor constraints on job creation estimates from DAC facilities due to the nascency of the technology and lack of large build outs, a deliverable for this project, will be the modeling of direct and indirect hires using NREL's JEDI model, as well as direct tracking of hires and subcontractors employed as a product of this proposal to inform future DAC facilities and communities surrounding them.

Renewable energy and water competition derived from DAC facility operations is a key information gap in the industry. However, by partnering with Climeworks, who has already constructed, operated, and maintained a pilot DAC facility, CalHub is uniquely positioned to contribute to this information gap by integrating values from Climeworks' pilot facility and manufacturing partners in Iceland to inform on renewable energy and water competition factor, which we believe the community will want to discuss.

To ensure that modeling results, benefits, and potential negative impacts, as well as mitigation strategies, are communicated broadly, especially to the frontline communities, CalHub will partner with local CBOs to assist in linguistically appropriate outreach.

## **Implementation Strategy**

### **Background**

The CalHub will provide transparent, two-way engagement throughout the project to promote the economic and environmental benefits the DAC Hub will provide, as well as the negative impacts of the project. A trade-off analysis of benefits and negative impacts, shown in Tables 5 and 6 will be refined through community input during this project phase. Relevant models will be used to quantify potential negative impacts (e.g. air quality), while quantification of benefit flows will be conducted through the construction of a database with census tract-level resolution. A complementary dashboard for geospatial visualization will be collaboratively developed with community partners to ensure broad understanding, then made open-source for future CDR projects.

To address community concerns, CalHub plans to invest greater than 40% of benefits to census tracts highlighted in the DOE's J40 MapViewer and design models that further address these top issues, as well as others outlined in Tables 5 and 6. To encourage transparency and trust in

the monitoring, reporting, and verification (MRV) of these community benefits, LLNL researchers will construct a benefit tracking database with census tract resolution and a geospatial dashboard for visualization. As the project's technical MRV approach for carbon accounting evolves, so too shall this similarly quantitative and transparent approach to community benefit MRV.

### Milestones and Timelines

To ease the research burden on communities that CalHub aims to engage with, LLNL provided a review of potential co-benefits (predominantly economic) and negative impacts (predominantly environmental) for this proposed DAC hub. While it is not expected to be comprehensive at this stage, we plan to expand and refine it through community input and design a database and dashboard for the tracking of each milestone (e.g. modeling results) and resource (e.g. stipend/scholarship) deployed during this TA-2 design phase, in preparation for the larger scale construction phase, when transparent and quantitative tracking of benefits will be especially crucial to adhere to J40 Initiative requirements. Table 7 outlines J40 activities and their duration. The milestones are listed in the Integrated Project Schedule.

*Table 7: Justice40 goals and timeline*

Activity	Resource	Duration
J40 Section Lead, project oversight, impact tracking	K. Mayfield (LLNL)	6 months
Create database and dashboard technical engineer	A. Stanley (LLNL)	3 months
Renewable energy competition modeling	D. Heimiller (NREL)	3 months
Air quality modeling	G. Heath (NREL)	6 months

### Assessment of barriers to realizing benefits and minimizing negative impacts

Two key barriers identified thus far include: distrust between project development partners and environmental justice non-profits in Kern, as well as uncertainty around economic and environmental impacts due to technology nascency. To gauge trusted messengers, the CalHub Advisory Council, once formed, will propose and negotiate community benefit agreements working closely with the Cal Hub co-leads KernCCD and CTV.

### Resource Summary

Our team is optimally positioned to achieve our project goals via interdisciplinary and inter-institutional collaborations. Our team includes world-class expertise in CDR, environmental chemistry, engineering, and quantitative social science assessments. We anticipate collaborating with additional non-profits in the area not yet identified at the time of this proposal. The resources dedicated to ensuring Justice 40 goals are met are detailed through LLNL, LLF, NREL, and others' cost share commitments in the Project Budget and letters of support in Appendix X.

## Phase 2 - 4 CBP Strategy & Conclusion

The CalHub will bring community, stakeholders, educators, and industry together to create a blueprint for a clean energy ecosystem that can be a model for the country. This Community

Benefits Plan provides a roadmap to a process that prioritizes equity and inclusiveness while executing the four key policy priorities outlined by the Department of Energy. To diversify Kern's economy and employment base, strengthen existing and emerging industry clusters, and ensure social equity through workforce training and increased resource capacity in our rural communities, it is critical for us to get this right. With the support of the Department of Energy through this grant opportunity, we will have the resources to "Dare Mighty Things" and ensure that the pathway to a clean energy economy will benefit everyone.

*Table 8: Major milestones from the planning stage to construction stage*

	Phase 1	Phase 2	Phase 3	Phase 4
<b>Community and Labor Engagement</b>	Project awareness, education, community and labor feedback	Continue project progress update based on community feedback. Negotiate community and labor agreements	Continue project progress update based on community feedback. Execute community and labor agreements	Continue community education and provide project benefits update and solicit community feedback
<b>Investing in America's Workforce</b>	JEDI Analysis, Develop Workforce Development Roadmap	Refine and detail Workforce Development Roadmap. Offer workforce training programs	Update, refine and execute Workforce Development Roadmap. Offer workforce training programs	Retraining and upskilling Workforce
<b>DEIA</b>	Develop DEIA inclusion plan utilizing NREL "DEI Building Blocks" Create DEIA database	Implement and monitor DEIA plan and update database	Monitor and update DEIA plans and ensure goals for vendors, subcontractors and employees are met	Continue to promote and implement DEIA culture into operational policy
<b>Justice 40</b>	Develop J40 database and dashboard and air quality monitoring baseline	Refine and update J40 dashboard and continue air quality monitoring	Refine and mitigate negative project impacts identified by J40 dashboard and continue air quality monitoring	Continue to evaluate J40 benefits against J40 baseline and continue air quality monitoring



#### **Attachment 4**

*(Mailout to Households in Kern County)*

On September 13, 2023, CRC sent the below tri-fold mailer to 5,500 households in Kern County. The mailer presents information about CRC and the CTV I project in both English and Spanish and links resources where local residents can learn more. CRC also printed an additional 2,000 copies to hand out at future community meetings and events.



9600 Ming Ave., Bakersfield, CA 93311

PRSR-STD  
U.S. Postage  
**PAID**  
Permit 110  
Bakersfield, CA



## Estimado residente,

California tiene grandes metas en materia climática y nosotros tenemos soluciones reales. Probablemente ya tenga conocimiento que California tiene fuertes ambiciones en cuanto a la descarbonización. En California Resources Corporation (CRC) estamos trabajando en una solución tecnológica innovadora llamada captura y almacenamiento de carbono (CCS, por sus siglas en inglés). CRC es una empresa de energía y gestión de carbono comprometida con la transición energética y el desarrollo de proyectos de reducción de emisiones. Uno de los proyectos que estamos desarrollando es Carbon TerraVault I (CTV I), un proyecto de CCS planificado en nuestro yacimiento de Elk Hills, ubicado a unas 20 millas al oeste de Bakersfield. Los proyectos de CCS como CTV I no solo ayudarán a alcanzar los objetivos climáticos del estado, sino que también le beneficiarán a usted y a su comunidad. ¡Obtenga más información aquí!

*Sincerely,*  
*Chris Gould, Director General, Carbon TerraVault*

## Carbon TerraVault

### *Apoyando a California en la transición energética y avanzando hacia un futuro de cero neto*

Con algunos de los objetivos de descarbonización más ambiciosos del mundo, California lidera la búsqueda de soluciones tecnológicas innovadoras para alcanzar sus objetivos de reducción de emisiones y combatir el cambio climático. En CRC, estamos comprometidos con la transición energética y la descarbonización de nuestras economías locales en sintonía con los objetivos del estado.

Reconocida como una tecnología clave en la reducción de emisiones alrededor del mundo, la CCS es una de las mejores soluciones para ayudar a mitigar el cambio climático al ofrecer tanto beneficios inmediatos de descarbonización como una solución a largo plazo con el fin de alcanzar y mantener la neutralidad de carbono.





## Dear resident,

California has big climate goals and we've got real solutions. You probably already know that California has strong decarbonization ambitions. We here at California Resources Corporation (CRC) are pursuing an innovative technology solution called carbon capture and storage (CCS). CRC is an energy and carbon management company committed to the energy transition and developing emissions reducing projects. One project we are developing is Carbon TerraVault I (CTV I), a CCS project planned at our Elk Hills Field located about 20 miles west of Bakersfield. CCS projects such as CTV I will not only help achieve the state's climate goals, but also empower you and your community. Learn more inside!

*Sincerely,  
Chris Gould, Managing Director, Carbon TerraVault*

## Carbon TerraVault

### *Supporting California in the energy transition and advancing a net zero future*

With some of the most ambitious decarbonization goals in the world, California is leading the way in pursuing innovative technology solutions to achieve its emissions reduction goals and combat climate change. At CRC, we are committed to the energy transition and decarbonization of our local economies in alignment with the state's goals.

Recognized as a key technology in reducing emissions around the world, CCS is one of the best solutions to help mitigate climate change by offering both immediate decarbonization benefits and a long-term solution to reach and maintain carbon neutrality.



*Francisco J. Leon  
President and CEO, California Resources Corporation*

*"At CRC, we are excited to work in close collaboration with our local communities and businesses to provide transformational economic benefits to our communities, while helping decarbonize our economy and meet California's emissions reduction goals."*

*"En CRC, nos entusiasma trabajar en estrecha colaboración con nuestras comunidades y empresas locales a fin de proporcionar beneficios económicos transformadores para nuestras comunidades, mientras ayudamos a descarbonizar nuestra economía y cumplir con los objetivos de reducción de emisiones de California."*



### ¿Qué es la CCS y por qué la necesitamos?

La CCS es el proceso probado de captura segura de dióxido de carbono (CO<sub>2</sub>) procedente de procesos industriales, así como su transporte y almacenamiento permanente de forma subterránea. CRC se compromete a ayudar y trabajar con nuestras comunidades locales para que sean parte de la solución en la transición energética. Por eso lideramos la captura de carbono con varias iniciativas de descarbonización en el condado de Kern, como Carbon TerraVault.

### ¿Qué es Carbon TerraVault?

CRC lanzó Carbon TerraVault (CTV) como parte de su negocio de gestión del carbono para ayudar a impulsar la transición energética y contener el aumento de la temperatura global. Nuestro objetivo es desarrollar soluciones escalables, rentables y con bajas emisiones de carbono, como la CCS, y generar buenos puestos de trabajo e inversiones en energía limpia en nuestras comunidades locales.

### ¿Cómo funciona la CCS?

La CCS comprende tres pasos principales: 1.) capturar el CO<sub>2</sub> en la fuente de emisiones (como una instalación industrial), 2.) comprimirlo para su transporte e 3.) inyectarlo en las profundidades de formaciones rocosas donde se almacena y monitorea de forma segura y permanente.



### ¿La CCS es segura?

Todos los componentes de la CCS son tecnologías probadas que han sido utilizadas durante décadas a escala comercial. El monitoreo, la verificación, el registro y la evaluación hacen que el almacenamiento de CO<sub>2</sub> sea seguro, eficaz y permanente en diversos tipos de formaciones geológicas. La Agencia de Protección Ambiental de Estados Unidos (EPA, por sus siglas en inglés) es responsable de establecer y hacer cumplir los reglamentos relacionados con la inyección y el almacenamiento subterráneo de CO<sub>2</sub>. En 2010, la EPA estableció una nueva clase de pozos, la Clase VI, a fin de adecuar y validar la implementación segura de la tecnología de CCS. Como complemento a la supervisión de todo el sector proporcionada por las agencias federales y regionales, CRC cuenta con un historial probado de utilización de las prácticas de diseño, construcción y mantenimiento existentes mientras opera de manera segura en más de 100 campos de petróleo y gas con más de 8,000 millas de infraestructura de tuberías en todo California.

### ¿Qué es CTV I?

CTV I es un proyecto de CCS que se planea ubicar en el campo Elk Hills de CRC. El proyecto propuesto capturará y almacenará de manera segura fuentes de CO<sub>2</sub> procedentes de proyectos de transición energética, como una planta de hidrógeno propuesta y un proyecto de Captura Directa de Aire (DAC) ubicados conjuntamente en nuestro Campo de Elk Hills, así como la extracción de CO<sub>2</sub> de nuestro propio campo de gas de Elk Hills. El almacenamiento de carbono en este campo es ideal debido a la geología favorable, nuestra experiencia con operaciones de petróleo y gas natural, la infraestructura existente y el conocimiento del área.

### ¿Qué medidas se han establecido para controlar posibles molestias relacionadas con el proyecto, como el ruido, la luz y el tráfico vehicular? ¿A quién debo contactar si tengo algún problema?

Existe un mínimo de tráfico vehicular, ruido y luz asociados con un proyecto de CCS. Si alguna vez tiene alguna pregunta o duda, contáctenos al 661-763-6363 o visite CarbonTerraVault.com.

### ¿Qué formas y frecuencia de alcance y participación comunitaria debo esperar de CRC en lo que respecta a sus proyectos de CCS?

La comunicación, la participación y el contacto son muy importantes para nosotros. La información sobre los proyectos de CTV se compartirá continuamente antes y durante la operación a través de reuniones públicas, actualizaciones en la página CarbonTerraVault.com y comunicados de prensa. Cada proyecto de CTV cuenta con un Plan de Beneficios Comunitarios a fin de garantizar que las partes interesadas, los líderes comunitarios y el público en general participen y tengan la oportunidad de hacerse escuchar. Para más información sobre los Planes de Beneficios Comunitarios o para asistir a una reunión comunitaria/pública, comuníquese con Nicole Parra, Vicepresidenta de CRC, Asuntos Comunitarios, al 661-345-2271.



[CarbonTerraVault.com](https://CarbonTerraVault.com)





### ***What is CCS and why do we need it?***

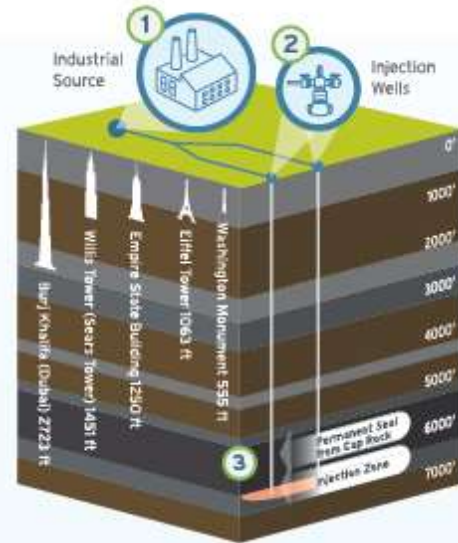
CCS is the proven process of safely capturing carbon dioxide (CO<sub>2</sub>) from industrial processes and transporting and permanently storing it underground. CRC is committed to empowering and working with our local communities to be a part of the solution in the energy transition. That's why we are leading carbon capture with several decarbonization initiatives in Kern County, such as Carbon TerraVault.

### ***What is Carbon TerraVault?***

CRC launched Carbon TerraVault (CTV) as part of its carbon management business to help advance the energy transition and curb rising global temperatures. We aim to do this by developing scalable, low-carbon, and cost-effective solutions, such as CCS, and bringing rewarding jobs and clean energy investments to our local communities.

### ***How does CCS work?***

CCS involves three major steps: 1.) capturing CO<sub>2</sub> at the source (such as an industrial facility), 2.) compressing it for transportation and 3.) injecting it deep into a rock formation where it is safely and permanently stored and monitored.



### ***Is CCS safe?***

All components of CCS are proven technologies that have been used for decades on a commercial scale. Monitoring, verification, accounting, and assessment make storage of CO<sub>2</sub> safe, effective, and permanent in various types of geologic formations. The U.S. Environmental Protection Agency (EPA) is responsible for establishing and enforcing regulations associated with injecting and storing CO<sub>2</sub> underground. In 2010, the EPA established a new class of well, Class VI, to accommodate and validate the safe implementation of CCS technology. Complementing the industry-wide oversight provided by federal and regional agencies, CRC has a proven track record of utilizing prevailing design, construction, and maintenance practices while safely operating in 100+ oil and gas fields with 8,000+ miles of piping infrastructure throughout California.

### ***What is CTV I?***

CTV I is a CCS project that is planned to be located at CRC's Elk Hills Field. The proposed project will safely capture and store CO<sub>2</sub> sources from energy transition projects, such as a proposed hydrogen facility and direct air capture (DAC) facility co-located at our Elk Hills Field, as well as extracting CO<sub>2</sub> from our Elk Hills field gas. Carbon storage at this field is ideal due to favorable geology, our experience with oil and natural gas operations, existing infrastructure and knowledge of the area.

### ***What safeguards are in place to control potential project-related disturbances such as noise, light and vehicle traffic? Who do I contact if I have an issue?***

There is minimal vehicle traffic, noise and light associated with a CCS project. If you ever have a question or concern, please contact us at 661-763-6363 or by visiting CarbonTerraVault.com.

### ***What forms and frequency of community outreach and engagement should I expect from CRC regarding its CCS projects?***

Communication, engagement and outreach are very important to us. Information about CTV projects will be shared continuously before and during operation through public meetings, updates on CarbonTerraVault.com and news announcements. Each CTV project has a Community Benefits Plan to ensure stakeholders, community leaders and the public are engaged and have opportunities for their voices to be heard. For more information about Community Benefits Plans or to attend a community/public meeting, contact Nicole Parra, CRC's Vice President, Community Affairs, at 661-345-2271.



CarbonTerraVault.com



## Attachment 5

### *(Community Walks)*

In September, CRC organized four “West Kern Community Walks” in which CRC/CTV team members walked door to door in the community to discuss CCS and the CTV I project. These walks took place on September 10, September 15, September 17, and September 22 across multiple towns in Kern County, including Taft, Buttonwillow, Ford City, McKittrick, Derby Acres, Fellows, and Tupman. The following form was used to document each engagement. Following the form are a number of photos taken with the community during these walks.

	<b>Community Engagement Intake Form</b>
---	---

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Home Phone \_\_\_\_\_ Cell Phone \_\_\_\_\_

Email \_\_\_\_\_

Did the person remember receiving the  
CRC/CTV mailer? Y or N? If yes,  
comments/questions about mailer? \_\_\_\_\_

Questions or Comments made during engagement:

<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____
<input type="checkbox"/>	_____

Is the person interested in learning more about CRC/CTV? Y or N?



Is the person interested in attending a future CRC/CTV public meeting? Y or N?

Is the person interested in attending a public meeting regarding CTV 1 Permits? Y or N?

Is the person interested in speaking in favor of the CTV 1 Permit?

---

Are the person/family  
members interested in  
attending the CRC/CTV  
sponsored movie at the Fox,  
Sunday, September 24<sup>th</sup>? Y or  
N?

---

Was a photo taken of  
engagement? Y or N?

Do we have permission  
to use photo? Y or N?

---

What is the name  
of the person who  
filled out Intake  
Form:

---

☐

Form completed.

Engaging in Taft, Ford City, McKittrick, Derby Acres and Fellows!











## **Attachment 6**

*(Community Event on September 24, 2023)*

CRC hosted a community event at the Historic Fox Theatre in Taft, California on September 24, 2023. This event included a presentation for attendees to learn about CCS, CTV I, and renewable energy projects, followed by a film screening of Expendables 4. The below flyers were posted and distributed in both English and Spanish. Following the flyers is the slide deck presented at the meeting by Travis Hurst and Eric Minor.



Sunday

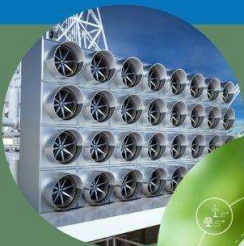
**SEPT  
24**  
12pm

Come join California Resources Corporation and Carbon TerraVault for a day at the movies and learn more about local Renewable Energy Projects and CTV I.



# RENEWABLE ENERGY PROJECTS

**CALIFORNIA**  
RESOURCES CORPORATION



## FREE MOVIES & REFRESHMENTS!

**FREE SHOWING:**  
**EXPENDABLES 4**  
**ENGLISH 12:00 PM**  
**SPANISH 3:00 PM**

**KID-FRIENDLY  
MOVIE**  
**ENGLISH 12:30 PM**  
**SPANISH 3:30 PM**

661.345.2271  
crc.com

661.763.4246  
wsrpdonline.com



**Historic Fox Theatre**  
**514 Center Street, Taft**







Domingo

SEPT  
24

12pm

Únase a California Resources Corporation y Carbon TerraVault para pasar un día en el cine y aprender más sobre la captura y secuestro de carbono (CCS) y CTV I.



# PROYECTOS DE ENERGÍAS RENOVABLES

CALIFORNIA  
RESOURCES CORPORATION



¡PELÍCULAS, REFRIGERIOS, Y PREMIOS  
DE RIFAS GRATIS!

PELÍCULA GRATIS:  
EXPENDABLES 4  
EN INGLÉS 12:00 PM  
EN ESPAÑOL 3:00 PM

PELÍCULA PARA  
NIÑOS  
EN INGLÉS 12:30 PM  
EN ESPAÑOL 3:30 PM

661.345.2271  
crc.com

661.763.4246  
wsrpdonline.com



Teatro Historico Fox  
514 Center Street, Taft





*"Positioned to be a premier carbon management provider in California"*

## California Resources Corporation & Carbon TerraVault Community Event

September 24, 2023



### California Resources Corporation & Carbon TerraVault



**Thank you to everyone for attending today's community movie event.  
We look forward to many more of these events where we can connect  
with the communities where we operate.**

*Supporting California in the energy transition and advancing a net zero future*

With some of the most ambitious decarbonization goals in the world, California is leading the way in pursuing innovative technology solutions to achieve its emissions reduction goals and combat climate change. At CRC, we are committed to the energy transition and decarbonization of our local economies in alignment with the state's goals.

Recognized as a key technology in reducing emissions around the world, Carbon Capture & Sequestration (CCS) is one of the best solutions to help mitigate climate change by offering both immediate decarbonization benefits and a long-term solution to reach and maintain carbon neutrality.



## California Resources Corporation & Carbon TerraVault

### What is Carbon TerraVault (CTV)?

- CRC launched Carbon TerraVault (CTV) as part of its carbon management business to help advance the energy transition and curb rising global temperatures.
- We aim to do this by developing scalable, low-carbon, and cost-effective solutions, such as CCS, and bringing rewarding jobs and clean energy investments to our local communities.

### What is Carbon TerraVault I (CTV I)?

- CTV I is a Carbon Capture & Sequestration (CCS) project that is planned to be located at CRC's Elk Hills Field (~20 miles west of Bakersfield)
- The proposed project will safely capture and store CO<sub>2</sub> sources from energy transition projects, such as a proposed hydrogen facility and direct air capture (DAC) facility collocated at our Elk Hills Field, as well as extracting CO<sub>2</sub> from our Elk Hills field gas.
- Carbon storage at this field is ideal due to favorable geology, our experience with oil and natural gas operations, existing infrastructure and knowledge of the area.



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## California Resources Corporation & Carbon TerraVault

### What is Carbon, Capture & Sequestration (CCS) and why do we need it?

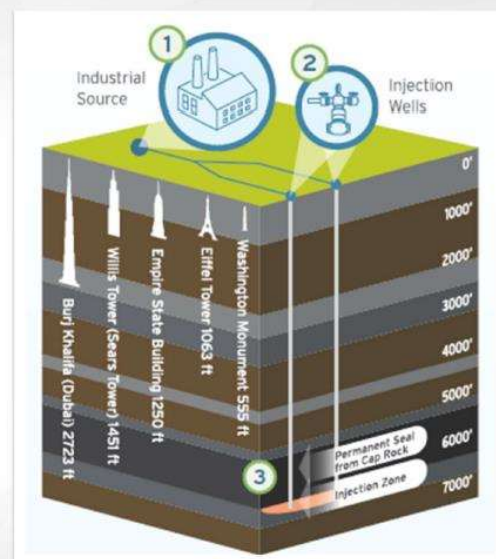
- CCS is the proven process of safely capturing carbon dioxide (CO<sub>2</sub>) from industrial processes and permanently storing it underground.
- CRC is committed to empowering and working with our local communities to be a part of the solution in the energy transition.

### How does CCS work?

- CCS involves three major steps: 1) Capturing CO<sub>2</sub> at the source (such as an industrial facility), 2) Compressing it for transportation and 3) Injecting it deep into a rock formation where it is safely and permanently stored and monitored.

### Is CCS safe?

- All components of CCS are proven technologies that have been used for decades
- Monitoring, verification, accounting, and assessment make storage of CO<sub>2</sub> safe, effective, and permanent.
- The U.S. Environmental Protection Agency (EPA) is responsible for establishing and enforcing regulations associated with injecting and storing CO<sub>2</sub> subsurface.
- Complementing the industry-wide oversight provided by federal and regional agencies, CRC has a proven track record of utilizing prevailing design, construction, and maintenance practices while safely operating in 100+ oil and gas fields with 8,000+ miles of piping infrastructure throughout California.



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## California Resources Corporation & Carbon TerraVault

What safeguards are in place to control potential project-related disturbances such as noise, light and vehicle traffic? Who do I contact if I have an issue?

- There is minimal vehicle traffic, noise and light associated with a CCS project.
- If you ever have a question or concern, please contact us at 661-763-6363 or by visiting CarbonTerraVault.com.

What forms and frequency of community outreach and engagement should expect from CRC regarding its CCS projects?

- Communication, engagement and outreach are very important to us. Information about CTV projects will be shared continuously before and during operation through public meetings, updates on CarbonTerraVault.com and news announcements.
- Each CTV project has a Community Benefits Plan to ensure stakeholders, community leaders and the public are engaged and have opportunities for their voices to be heard. For more information about Community Benefits Plans or to attend a community/public meeting, contact Nicole Parra, CRC's Vice President, Community Affairs, at 661-345-2271.

