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THE EPISCOPAL CHURCH IN THE BAY AREA



California Interfaith Power & Light



Alliance of Nurses for Healthy Environments



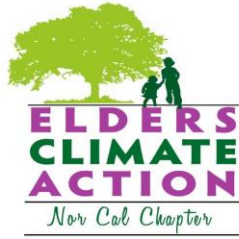
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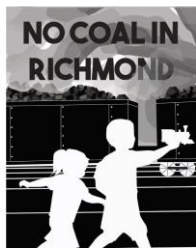
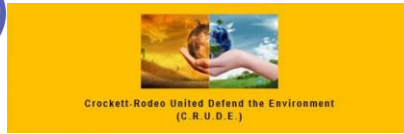
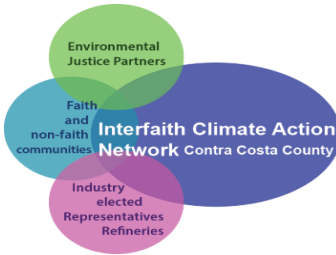
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EARTHWORKS



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January 16, 2024

Martha Guzman  
Regional Administrator, Region 9  
U.S. Environmental Protection Agency  
75 Hawthorne Street  
San Francisco, California 94105-3902

**Re: Underground Injection Control Permit Application for Montezuma NorCal Carbon Hub/Montezuma Carbon LLC, Project Application No. R9UIC-CA6-FY23-4**

Dear Administrator Guzman:

The undersigned 87 organizations write to express their alarm and concerns regarding the Class VI application for the Montezuma NorCal Carbon Hub/Montezuma Carbon LLC project (hereinafter, “Montezuma Carbon Hub” or “the project”). We also invite officials from EPA Region 9 to meet with community members to hear more about these concerns and to answer questions. Information on how to set up that meeting is at the end of this letter.

In summary, our concerns include the following:

**(1) The Montezuma Carbon Hub Will Aid in Prolonging Fossil Fuels and Other Dirty Industries.** As an initial matter, the Montezuma Carbon Hub—by proposing to accept carbon dioxide waste from sources such as a 530MW natural gas-fired power plant—will serve to prolong and greenwash fossil fuels while diverting resources from clean renewable energy. Carbon capture has repeatedly over-promised and under-delivered<sup>1</sup> on its capture rates while providing cover for dirty industries.<sup>2</sup> According to the Intergovernmental Panel on Climate Change (IPCC), carbon capture is not necessary as a climate solution.<sup>3</sup> The Montezuma project proposes to capture fossil fuel and other industry emissions for 40 years, or roughly until the 2060s. We need to rapidly reduce greenhouse gas emissions, especially the use of fossil fuels, far before that date. In order to actually decarbonize, we must stop permitting projects that further entrench and enable fossil fuels. Accordingly, we ask that EPA reject Montezuma Carbon Hub’s Class VI permit application.

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<sup>1</sup> IEEFA, “The Carbon Capture Crux” (Sept. 2022), <https://ieefa.org/resources/carbon-capture-crux-lessons-learned>.

<sup>2</sup> See, e.g., The Guardian, “Carbon capture project is ‘Band-Aid’ to greenwash \$10bn LNG plant, locals say” (Feb. 3, 2023), <https://www.theguardian.com/environment/2023/feb/03/carbon-capture-gas-exports-rio-grande-lng-nextdecade>.

<sup>3</sup> The IPCC-modeled pathway with the best chance of keeping warming at or below the target of 1.5°C makes no use of fossil fuels with carbon capture and storage (CCS) or bioenergy with carbon capture and storage (BECCS). IPCC, Summary for Policymakers in Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (2018) at 14, Section C.1.1., Figure SPM 3b (Pathway 1); see also *id.* at Ch. 2.3.3 and Table 2.SM.12. See also Center for International Environmental Law, *Confronting the Myth of Carbon Free Fossil Fuels* at 2, <https://www.ciel.org/wp-content/uploads/2021/07/Confronting-the-Myth-of-Carbon-Free-Fossil-Fuels.pdf>.

**(2) The Project’s Pipeline(s) Pose Substantial Public Safety Risks.** Compressed carbon is extremely dangerous and CO<sub>2</sub> pipelines are underregulated, yet the Montezuma Carbon Hub proposes to rely on lengthy (and potentially underwater) CO<sub>2</sub> pipelines that pass close to communities and could imperil wildlife and habitats. As Region 9 knows, a February 2020 CO<sub>2</sub> pipeline rupture in Satartia, Mississippi required hundreds to be evacuated and dozens hospitalized, with symptoms including extreme disorientation, gasping for air, unconsciousness, and seizures.<sup>4</sup> Even cars and emergency vehicles had a hard time working in the presence of the leaking CO<sub>2</sub>, making evacuation and access by emergency vehicles difficult.<sup>5</sup> Any presence of water with a CO<sub>2</sub> pipeline could produce carbonic acid and create resulting “zipper fractures” that could lead to dangerous and widespread leaks.<sup>6</sup> And it is not just people who are at risk; plants and wildlife of the San Francisco Bay and surrounding wetlands and other areas could also be harmed by a CO<sub>2</sub> pipeline leak.<sup>7</sup> Safety is also a concern with the Montezuma Carbon Hub because California is one of the most seismically active states in the U.S. and studies link CO<sub>2</sub> injection to earthquakes.<sup>89</sup> The Montezuma Carbon Hub’s Class VI application shows the presence of numerous fault lines in the project area.

**(3) The Project Will Harm and Endanger Overburdened and Environmental Justice Communities.** The project’s proposed injection site is in southern Solano County, and the proposed Phase I and II project footprint spans many miles—from Antioch to Richmond, California—into communities that are already heavily burdened by refineries and other large industrial facilities. Many of the communities along the project’s footprint are designated as “disadvantaged” by the California EPA because they are within the top 25% of communities with high pollution exposure rates combined with other vulnerabilities.<sup>10</sup> It is critical that EPA not only consider the environmental justice impacts of the project—including how it could perpetuate high levels of pollution and emissions and endanger communities where the carbon is compressed and will pass through on its way to the injection site—but that EPA *reject* the permit

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<sup>4</sup> Mississippi Emergency Management Agency, *Pipeline Ruptures in Yazoo County* (Feb. 23, 2020), <https://www.msema.org/news/pipe-ruptures-in-yazoo-county-dozens-hospitalized/>.

<sup>5</sup> Zegart, Dan, *The Gassing of Satartia*, Huffpost, Aug. 26, 2021, [https://www.huffpost.com/entry/gassing-satartia-mississippi-co2-pipeline\\_n\\_60ddea9fe4b0ddef8b0ddc8f](https://www.huffpost.com/entry/gassing-satartia-mississippi-co2-pipeline_n_60ddea9fe4b0ddef8b0ddc8f).

<sup>6</sup> Pipeline Safety Trust, “CO<sub>2</sub> Pipelines: Dangerous and Under-regulated,” <https://pstrust.org/carbon-dioxide-pipelines-dangerous-and-under-regulated/>.

<sup>7</sup> See, e.g., Lewicki J.L. et al., Natural and industrial analogues for leakage of CO<sub>2</sub> from storage reservoirs: identification of features, events, and processes and lessons learned, *Environ. Geol.* (2006); Smith, K.L. et al., Environmental impacts of CO<sub>2</sub> leakage: recent results from the ASGARD facility, UK, 37 *Energy Procedia* 791 (2013).

<sup>8</sup> Zoback, Mark D. & Steven M. Gorelick, Earthquake triggering and large-scale geologic storage of carbon dioxide, 109 *PNAS* 10164 (2012), <https://doi.org/10.1073/pnas.1202473109> (concluding that large-scale geologic storage of CO<sub>2</sub> has a “high probability” of triggering earthquakes). And “[b]ecause even small- to moderate-sized earthquakes threaten the seal integrity of CO<sub>2</sub> repositories, in this context, large-scale CCS is a risky, and likely unsuccessful, strategy for significantly reducing greenhouse gas emissions.” *Id.* See also Gan, Wei & Cliff Frohlich, Gas injection may have triggered earthquakes in the Cogdell oilfield, Texas, 110 *PNAS* 18786 (2013), <https://doi.org/10.1073/pnas.1311316110>; Foulger, Gillian R. et al., Global review of human-induced earthquakes, 178 *Earth-Science Reviews* 438 (2018), <https://doi.org/10.1016/j.earscirev.2017.07.008>; Sano, Yuji et al., Groundwater anomaly related to CCS-CO<sub>2</sub> injection and the 2018 Hokkaido Eastern Iburi Earthquake in Japan, 8 *Frontiers in Earth Science* 611010 (2020), <https://doi.org/10.3389/feart.2020.611010>.

<sup>9</sup> Zoback & Gorelick, *supra*.

<sup>10</sup> California Office of Environmental Health Hazard Assessment, *SB 535 Disadvantaged Communities*, <https://oehha.ca.gov/calenviroscreen/sb535> (last visited Aug. 25, 2023).

application upon finding that the project will perpetuate environmental injustice and cause harms to overburdened communities.

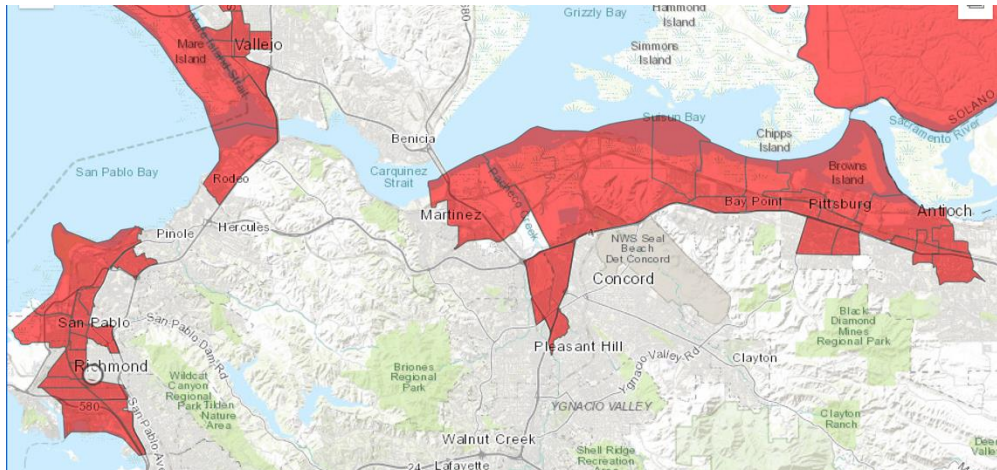


Figure 1: SB 535 Disadvantaged Communities along the Montezuma Carbon Hub corridor

While the California Environmental Quality Act (CEQA) requires assessment and mitigation of environmental justice impacts, the Biden Administration’s Executive Order 12,898 directs each federal agency “to the greatest extent practicable and permitted by law . . . make achieving environmental justice part of its mission by identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations . . . .”<sup>11</sup> Moreover, EPA’s own recently-updated Class VI guidance on environmental justice directs the agency to 1) identify communities with environmental justice concerns; 2) enhance public involvement; 3) conduct environmental justice assessments; and 4) minimize adverse effects.<sup>12</sup> Region 9 must act accordingly.

**(4) The Application Is Vague About, or Entirely Omits, Critical Information about Sources of Carbon.** We appreciate Region 9’s June 28, 2023 Notice of Deficiency letter informing the applicant that “EPA will need identification of the specific source(s)” of carbon dioxide “and the actual data on the physical and chemical characteristics of the injection fluid.” The updated information Montezuma Carbon provided in response to this letter, however, remains vague. For example, on page 4 of the Project Narrative, Montezuma offers only that CO<sub>2</sub> will come “from the PG&E Gateway Station near Antioch, California, with potential additional contributions from Calpine’s Delta Energy and Los Medanos power plant facilities in the same vicinity.” In July 2023, however, when asked by a reporter with E&E News about its possible

<sup>11</sup> The White House Environmental Justice Advisory Council has called CCS projects a “type[] of project that will *not* benefit a community,” noting that “it would be unreasonable to have any climate investment working against historically harmed communities.” White House Env’t Just. Advisory Council, Interim Final Recommendations at 55, 58 (May 13, 2021), [https://www.epa.gov/sites/default/files/2021-05/documents/whejac\\_interim\\_final\\_recommendations\\_0.pdf](https://www.epa.gov/sites/default/files/2021-05/documents/whejac_interim_final_recommendations_0.pdf) (emphasis original).

<sup>12</sup> EPA, Environmental Justice Guidance for UIC Class VI Permitting and Primacy (August 17, 2023), [https://www.epa.gov/system/files/documents/2023-08/Memo%20and%20EJ%20Guidance%20for%20UIC%20Class%20VI\\_August%202023.pdf](https://www.epa.gov/system/files/documents/2023-08/Memo%20and%20EJ%20Guidance%20for%20UIC%20Class%20VI_August%202023.pdf).

affiliation with the Montezuma Carbon Hub, Calpine denied any involvement.<sup>13</sup> The application's Phase II map lists even more potential sources of carbon, such as the Chevron and Marathon refineries, but without information about commitments from those operators or any mention of these sources in the application details. The public is not well served by this lack of information. The UIC regulations specify that the owner or operator of a proposed Class VI well "shall submit" proposed operating data for the site, including "the source(s) of the carbon dioxide stream" and "an analysis of the chemical and physical characteristics of the [CO<sub>2</sub>] stream."<sup>14</sup> We appreciate Region 9 informing Montezuma Carbon of this requirement, and EPA must continue to ensure that the applicant provides this information to the agency and the public in a timely manner.

**(5) The Southern Boundary of the Area of Review (AoR) Remains Undefined.** The project's maps and model predicted AoR (e.g., Figure B-14, excerpted below) include *actual question marks* inserted by the applicant, presumably indicating uncertainty as to the carbon and pressure plume's behavior along the southern portion of the AoR. This uncertainty would be a tremendous concern in any Class VI application, but here, the southern portion of the AoR aligns with many miles of densely populated areas, all of which are overburdened by pollution, and many are environmental justice communities. For example, the southern boundary reaches into Antioch, California, with a population of nearly 115,000. We urge EPA to require more certainty about the behavior of the CO<sub>2</sub> injection and pressure plumes along the AoR's southern border before the application can move forward. We would also urge EPA to deny the application because of the AoR's proximity to population centers (as well as environmental resources, as described above.)



*Excerpt from Montezuma Carbon's Class VI application, Area of Review Figure B-14, showing question marks provided by the applicant.*

## Conclusion

The Montezuma Carbon Hub project is dangerous, prolongs and greenwashes fossil fuels and other dirty industries, and threatens to take resources away from true and just climate solutions. Moreover, community members are disserved by the applicant's attempt to keep certain information shielded from the public eye, such as its sources of carbon. These and other concerns warrant Region 9's attention and a conversation with community members. To set up a meeting, please contact Kathy Kerridge at [kathykerridge@gmail.com](mailto:kathykerridge@gmail.com) and Marjaneh Moini at [marjaneh.moini@gmail.com](mailto:marjaneh.moini@gmail.com).

<sup>13</sup> E&E News, "Power company eyes first gas CCS plant in California" (July 14, 2023), <https://subscriber.politicopro.com/article/eenews/2023/07/14/power-company-eyes-first-gas-ccs-plant-in-california-00106112>.

<sup>14</sup> 40 C.F.R. § 146.82(a)(7).

Thank you,

1. 1000 Grandmothers for Future Generations
2. 350 Bay Area
3. 350 Contra Costa Action
4. Alliance of Nurses for Healthy Environments
5. Asian Pacific Environmental Network
6. Ban SUP (Single Use Plastic)
7. Bay Area Clean Air Coalition
8. Bay Area-System Change not Climate Change
9. Biofuelwatch
10. Breast Cancer Action
11. CA Youth vs. Big Oil
12. California Climate Voters
13. California Environmental Justice Coalition (CEJC)
14. California Interfaith Power and Light
15. California Nurses for Environmental Health and Justice
16. Center for Biological Diversity
17. Central California Environmental Justice Network
18. Citizens Committee to Complete the Refuge
19. Clean Water Action
20. Climate Action California
21. Climate Equity Policy Center
22. Climate Health Now
23. Climate Justice Team, Mount Diablo Unitarian Universalist Church
24. Climate Reality Bay Area Chapter
25. Comite Pro Uno
26. Communities for a Better Environment
27. Contra Costa MoveOn
28. Crockett-Rodeo United to Defend the Environment
29. Delta-Sierra Group of the Sierra Club
30. Earthworks
31. El Pueblo Para el Aire Y Agua Limpia de Kettleman City / The people for Clean Air and Water of Kettleman City
32. Elders Climate Action
33. Elders Climate Action, Nor Cal Chapter
34. Elected Officials to Protect America
35. Environmental Justice Coalition for Water
36. Episcopal Diocese of California
37. Extinction Rebellion San Francisco Bay Area
38. Food & Water Watch
39. Food Empowerment Project
40. Fossil Free California
41. Fresh Air Vallejo
42. Friends of the Earth
43. Good Neighbor Steering Committee
44. Greenaction for Health and Environmental Justice
45. Greenpeace USA
46. Healthy & Active Before 5
47. Healthy Martinez: Refinery Accountability Group
48. Idle No More SF Bay
49. Indigenous Environmental Network
50. Interfaith Climate Action Network of Contra Costa County
51. Labor Rise Climate Jobs Action Group
52. Little Manila Rising
53. Marie Harrison Community Foundation
54. Marin City Climate Resilience and Health Justice
55. Mount Diablo Unitarian Universalist Church
56. Movement Rights
57. No Coal in Richmond
58. No Drilling Contra Costa
59. Oil and Gas Action Network
60. Oil Change International
61. Partnership for Policy Integrity
62. PeaceHost.net

63. Physicians for Social Responsibility/Sacramento
64. Planning and Conservation League
65. Presente.org
66. Progressive Democrats of Benicia
67. Richmond Progressive Alliance
68. Richmond Shoreline Alliance
69. Rising Juntos
70. San Francisco Bay Physicians for Social Responsibility
71. Santa Cruz Climate Action Network
72. SEE (Social Eco Education)
73. Sequoia ForestKeeper
74. SF Baykeeper
75. Sierra Club Bay Alive Campaign
76. SOJA (Social Justice Alliance) of Interfaith Council of Contra Costa County
77. Stand.earth
78. Stop OAK Airport Expansion Coalition
79. Sunflower Alliance
80. Sustainable Contra Costa
81. Sustainable Rossmoor
82. Sustainable Walnut Creek
83. The Phoenix Group
84. tUrn climate awareness & action
85. Valley Improvement Projects
86. Vote Solar
87. West Berkeley Alliance for Clean Air and Safe Jobs

Cc: David Albright, EPA Region 9 Groundwater Protection Section Manager  
Emily Pimentel, EPA Region 9 Carbon Capture & Sequestration Policy Advisor