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8 UNITED STATES DISTRICT COURT
9 FOR THE NORTHERN DISTRICT OF CALIFORNIA

10
11 SAVE STRAWBERRY CANYON, a non-)
12 profit corporation,)

13 Plaintiff,

14 vs.

15 DEPARTMENT OF ENERGY, a federal)
16 agency; et al.)

17 Defendants.)

) Case No.: C11-01564 WHA

)
) **PLAINTIFF’S NOTICE OF MOTION**
) **AND MOTION FOR SUMMARY**
) **JUDGMENT; BRIEF IN SUPPORT OF**
) **MOTION FOR SUMMARY JUDGMENT**

) Hearing Date: October 20, 2011

) Time: 8:00 a.m.

) Courtroom: 9, 19th Floor

) Judge William H. Alsup
18)

TABLE OF CONTENTS

1

2 INTRODUCTION AND SUMMARY 1

3

4 FACTUAL BACKGROUND 2

5

6 PROCEDURAL BACKGROUND 3

7

8 LEGAL BACKGROUND 3

9

10 STANDARD OF REVIEW 4

11

12 ARGUMENT 4

13

14 I. The CRT Project May Have a Significant Effect on the Environment

15 From the Extensive Noise that will Occur During the Project's Construction

16 and Operation 5

17

18 A. The University's previous conclusions that the CRT Project's construction

19 noise will be significant and unavoidable raises a substantial question

20 that the project may have a significant environmental impact 5

21

22 B. The EA arbitrarily concludes that noise levels found along Hearst Avenue represent

23 existing noise levels at the Nyingma Institute's meditation garden 6

24

25 II. The CRT Project May Have a Significant Traffic Effect By Exacerbating

26 the Existing, Unacceptable Traffic at Nearby Intersections 8

27

28 A. The University's previous EIRs for the CRT Project, the LBNL LRDP

and the University's LRDP all find significant, cumulative impacts from

traffic 9

B. The EA's traffic analysis fails to acknowledge the cumulative traffic impact

from the CRT Project and other listed near-term projects 9

C. The EA's traffic analysis is arbitrary because it uses higher 2002 traffic

volumes that artificially reduce the CRT Project's incremental increases

in existing traffic levels 11

D. The EA's traffic analysis double-counts traffic from projects completed in

2004 and 2007 and includes projected traffic from future projects that may

never be built 12

III. The CRT Project "may establish a precedent for future actions with significant

effects" and is "related to other actions with individually insignificant but

cumulatively significant impacts" given that the Project further implements

the LBNL LRDP 13

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

IV. The CRT Project May Have a Significant Effect on the Environmental Because of Its Substantial Releases of Greenhouse Gases 14

A. The draft CEQ guidance does not instruct DOE to avoid analyzing the significance of projects' indirect GHG emissions 15

B. The effective date of BAAQMD’s significance threshold for state agencies does not eliminate the substantial question raised that the CRT Project’s exceedance of the threshold may cause a significant environmental effect 17

C. The EA arbitrarily underestimates the CRT Project’s greenhouse gas emissions by incorrectly assuming that LBNL’s power supply has a higher percentage of hydropower than PG&E..... 19

V. The CRT Project May Have a Significant Effect on the Environment Based on its Proposed Location in a Highly Controversial and Uncertain Geologically Unstable Area..... 21

VI. The Court Should Order the Preparation of an EIS 23

VII. The Court Should Enjoin Construction Activities In Furtherance Of The CRT Project Until DOE Complies With NEPA 23

A. Allowing the CRT Project to proceed unchecked will result in irreversible procedural harm to plaintiff 24

B. Failure to comply with NEPA will result in harm to the environment 24

C. The balance of harm favors Plaintiff 25

D. Issuing an injunction favors the public interest 25

CONCLUSION..... 25

TABLE OF AUTHORITIES

FEDERAL CASES

Cases

American Rivers v. FERC, 201 F.3d 1186 (9th Cir. 1999)..... 11

Amoco Prod. Co. v. Village of Gambell, 480 U.S. 531 (1987)..... 24, 25

Blue Mountains Biodiversity Project v. Blackmore, 161 F.3d 1208 (9th Cir. 1998)..... 3, 4

Cal. ex rel. Lockyer v. USDA, 575 F.3d 999 (9th Cir. 2009)..... 1, 3

Cal. Wilderness Coalition v. United States DOE, 631 F.3d 1097 (9th Cir. 2011) 4, 17

Conservation Law Found. v. FHA, 2007 DNH 106 (D.N.H. 2007) 12

Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.,
538 F.3d 1172 (9th Cir. 2008) 3, 4, 19, 23

Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002)..... 8

Earth Island Institute v. USFS, 442 F.3d 1147 (9th Cir. 2006) 25

High Sierra Hikers Ass’n v. Blackwell, 390 F.3d 630 (9th Cir. 2004)24

Humane Soc’y of the United States v. Locke, 626 F.3d 1040 (9th Cir. 2010) 22

Idaho Sporting Cong. v. Alexander, 222 F.3d 562 (9th Cir. 2000) 24

Idaho v. Interstate Commerce Comm’n, 35 F.3d 585 (D.C. Cir. 1994) 16

Kalur v. Resor, 335 F. Supp. 1 (D.D.C 1971)..... 16

Klamath Siskiyou Wildlands Center v. Boody, 468 F.3d 549 (9th Cir. 2006) 4

N.C. Alliance for Transp. Reform, Inc. v. United States DOT,
151 F. Supp. 2d 661 (M.D.N.C. 2001) 13

Nat’l Parks & Conservation Ass’n v. Babbitt, 241 F.3d 722 (9th Cir. 2001)..... 22

Native Ecosystems Council v. U.S. Forest Serv., 418 F.3d 953 (9th Cir. 2005)..... 13

Northwest Motorcycle Ass’n v. United States Dep’t of Agric., 18 F.3d 1468 (9th Cir. 1994)..... 4

Ocean Advocates v. United States Army Corps of Eng’rs, 402 F.3d 846 (9th Cir. 2005)..... 4

ONRC v. U.S. Forest Serv., 445 F. Supp. 2d 1211 (D. Or. 2006) 20

Save the Yaak Comm. v. Block, 840 F.2d 714 (9th Cir. 1988)..... 25

Seattle Audubon Society v. Evans, 771 F. Supp. 1081 (W.D. Wash. 1991) 25

1 *Sierra Club v. United States DOT*, 1990 U.S. Dist. LEXIS 7811 (N.D. Cal. Apr. 2, 1990) 8, 16

2 *Stand Up For Berkeley, et al. v. Regents of the University of California,*

3 Case No. 10499854 (Alameda County Superior Court) (Nov. 29, 2010) 13

4 *South Pasadena v. Slater*, 56 F.Supp.2d 1106 (C.D.Cal. 1999) 24

5 *Steamboaters v. F.E.R.C.*, 777 F.2d 1384 (9th Cir. 1985)..... 25

6 *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985)..... 25

7 *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472 (9th Cir. 2011)..... 3, 19

8 *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 102 S.Ct. 1798 (1982) 23

9 *Winter v. NRDC, Inc.*, 129 S. Ct. 365 (2008) 25

10 **FEDERAL STATUTES**

11 42 U.S.C. § 4332(c) 3

12 **FEDERAL REGULATIONS**

13 40 C.F.R. § 1500.1(b) 12, 13

14 40 C.F.R. § 1501.4 16

15 40 C.F.R. § 1502.16 15, 17

16 40 C.F.R. § 1508.7 10, 19

17 40 C.F.R. § 1508.9 3

18 40 C.F.R. § 1508.27 4, 16

19 40 C.F.R. § 1508.27(b)(2)..... 4

20 40 C.F.R. § 1508.27(b)(4)..... 4, 22

21 40 C.F.R. § 1508.27(b)(5)..... 4, 22

22 40 C.F.R. § 1508.27(b)(7)..... 4

1 NOTICE IS HEREBY GIVEN that on October 20, 2011 at 8:00 a.m., or as soon thereafter as
2 counsel may be heard by the above-entitled Court, located at 450 Golden Gate Avenue, San Francisco,
3 California, Plaintiff SAVE STRAWBERRY CANYON will and hereby does move the Court for
4 summary judgment against Defendants DEPARTMENT OF ENERGY and STEVEN CHU (“DOE”)
5 and Defendants A. PAUL ALIVISATOS, et al. (“UC Defendants”) on the ground that there is no
6 genuine issue as to any material fact and that Plaintiff is entitled to judgment as a matter of law.

7 **INTRODUCTION AND SUMMARY**

8 The Court should order DOE to vacate its Finding of No Significant Impact (“FONSI”) and
9 Environmental Assessment (“EA”) and enjoin the Computational Research and Theory Facility Project
10 (“CRT Project”) pending DOE’s preparation of a full environmental impact statement (“EIS”). The
11 threshold that triggers an EIS under the National Environmental Policy Act (“NEPA”) is “relatively low:
12 ‘It is enough for the plaintiff to raise substantial questions whether a project may have a significant
13 effect on the environment.’” *Cal. ex rel. Lockyer v. USDA*, 575 F.3d 999, 1012 (9th Cir. 2009).

14 Substantial questions of the CRT Project’s significant environmental effects are apparent from
15 the administrative record for several obvious environmental impacts that were sidestepped or obfuscated
16 by DOE. These include DOE’s arbitrary application of noise levels measured on busy Hearst Avenue as
17 representative of noise levels experienced by members and guests of the Nyingma Institute, a meditation
18 center whose currently quiet meditation garden faces directly toward the proposed project site. DOE
19 misleads the public about the existing traffic volumes at intersections admittedly affected by the CRT
20 Project. DOE underestimates the traffic impacts by utilizing outdated traffic data from 2002, ignoring
21 lower traffic counts gathered in 2006, 2007 and 2008, adding in additional traffic from two garages that
22 already were built in 2004 and 2007 and adding in traffic from a parking garage that the University has
23 admitted is delayed indefinitely. DOE’s noise and traffic analyses also fail to give adequate
24 consideration to the University’s previous findings that the CRT and other development at LBNL and
25 the Berkeley campus will have significant and unavoidable noise and traffic impacts on the surrounding
26 area, and fails to substantiate the distances between the Project and sensitive receptors.

27 DOE also fails to confront the Project’s significant contribution of greenhouse gas (“GHG”)
28 emissions associated with its massive 17 megawatt (“MW”) power needs – three times as much power
as the entire LBNL campus currently requires. The production of that much electricity will emit 35,782

1 Metric Tons Carbon Dioxide Equivalent (“MTCO₂e”) of greenhouse gases per year, which is over 11
2 times above the one relevant threshold of significance of 1,100 MTCO₂e per year established by an
3 expert agency, the Bay Area Air Quality Management District (“BAAQMD”).

4 DOE also fails to acknowledge the CRT Project’s highly controversial and uncertain effects of
5 the Project’s location in an area that an expert geologist believes lies below an ancient collapsed
6 volcanic caldera and is highly unstable. Lastly, DOE fails to acknowledge the CRT Project’s obvious
7 precedent for future actions with significant effects given the Project’s significant role in the expanded
8 development of LBNL mapped out in LBNL’s 2025 Long Range Development Plan (“LBNL LRDP”) –
9 a plan that has never been reviewed by DOE pursuant to NEPA. Each of these points raises a substantial
10 question that the CRT Project may have a significant effect on the environment.

11 **FACTUAL BACKGROUND**

12 The CRT Project includes the construction and operation of a new four-level 139,700 gross
13 square feet (“gsf”) computer building and the relocation of DOE’s supercomputers at its National
14 Energy Research Scientific Computing Center (“NERSC”), currently located in downtown Oakland.
15 Complaint, ¶ 28; DOE Answer, ¶ 28. More than 3,000 computational scientists from around the
16 country remotely use NERSC. AR 4917. The CRT Project will include office space to house about 300
17 staff. *Id.* Five 20-foot high cooling towers needed to cool the supercomputers would be installed on the
18 southeast side of the building. *Id.*

19 The CRT Project is proposed to be located on a 2.25 acre site located approximately 400 feet east
20 of the Hayward Fault and adjacent to Cafeteria Creek. Compl., ¶ 30; DOE Ans., ¶¶ 6, 30. The site
21 currently is vegetated, including approximately 75 mature eucalyptus trees, a number of oak and bay
22 trees, and grassy areas. Compl., ¶ 32; DOE Ans., ¶ 32, ln. 1. The site is a very steep hillside that, with
23 the exception of an existing pedestrian staircase, is undeveloped and located in a seismic landslide
24 hazard area. Compl., ¶ 30; DOE Ans., ¶ 30. A previous landslide underlies a portion of the building
25 site. *Id.* In order to construct the proposed building, approximately 15,500 cubic yards of soil will be
26 removed from the hillside and approximately 12,200 cubic yards of fill will be imported to the site. *Id.*

27 The CRT Project is part of an overall development program that is ongoing at LBNL under the
28 guidance of the LBNL LRDP that will add 660,000 net new occupiable gsf of new development at
LBNL and another 1000 workers at LBNL. *See* AR 11078-79. DOE’s approval of the CRT Facility

1 implements in part the LRDP. AR 33. That development plan has never been reviewed by DOE
2 pursuant to NEPA. DOE Ans., ¶ 4, ln. 4.

3 PROCEDURAL BACKGROUND

4 On September 14, 2010, DOE released a draft environmental assessment for a 30-day public
5 comment period. Compl., ¶ 42; DOE Ans., ¶ 42. Plaintiff as well as a number of its members, several
6 public agencies, including BAAQMD, the Nyingma Institute and other members of the public, provided
7 comments on the draft EA. *See, e.g.* AR 754-55, 759, 768, 772-1461, 1571-72, 1575-76. Those
8 comments raised concerns about the CRT Project's impacts on traffic, noise, greenhouse gas emissions,
9 geologic stability, and cumulative impacts, among other things. *See id.* On February 25, 2011, DOE
10 issued a finding of no significant impact and, on March 1, 2011, DOE released a final environmental
11 assessment deciding not to prepare an EIS for the CRT Project. Compl., ¶ 42; DOE Ans., ¶ 42.

12 LEGAL BACKGROUND

13 NEPA "is our basic national charter for protection of the environment." *Ctr. for Biological*
14 *Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1185 (9th Cir. 2008). NEPA "is a
15 procedural statute intended to ensure environmentally informed decision-making by federal agencies."
16 *Cal. ex rel. Lockyer*, 575 F.3d at 1012. NEPA "does not 'mandate particular results, but simply provides
17 the necessary process to ensure that federal agencies take a hard look at the environmental consequences
18 of their actions.'" *Id.* "The 'hard look' 'must be taken objectively and in good faith, not as an exercise
19 in form over substance, and not as a subterfuge designed to rationalize a decision already made.'" *W.*
20 *Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 491 (9th Cir. 2011). Nor can an EIS or EA's
21 discussion of adverse impacts "improperly minimize negative side effects." *Id.* at 491.

22 NEPA requires that an EIS be prepared for all "major Federal actions significantly affecting the
23 quality of the human environment." 42 U.S.C. § 4332(C). The "threshold question in a NEPA case is
24 whether a proposed project will 'significantly affect' the environment, thereby triggering the
25 requirement for an EIS." *Blue Mountains Biodiversity Project v. Blackmore*, 161 F.3d 1208, 1212 (9th
26 Cir. 1998). As a preliminary step, an agency may prepare an EA to decide whether the environmental
27 impact of a proposed action is significant enough to warrant preparation of an EIS. 40 C.F.R. § 1508.9.
28 An EA is a "concise public document that briefly provides sufficient evidence and analysis for
determining whether to prepare an EIS or a finding of no significant impact." *Id.*; 161 F.3d at 1212.

1 Where an agency decides it does not need to prepare an EIS, “it must supply a ‘convincing statement of
 2 reasons’ to explain why a project’s impacts are insignificant.” 161 F.3d at 1212. “Whether an action
 3 may ‘significantly affect’ the environment requires consideration of ‘context’ and ‘intensity.’” *Ctr. for*
 4 *Biological Diversity*, 538 F.3d at 1185. *See* 40 C.F.R. § 1508.27.

5 Intensity refers to the “severity of impact,” which includes both beneficial and adverse
 6 impacts, “[t]he degree to which the proposed action affects public health or safety,” “[t]he
 7 degree to which the effects on the quality of the human environment are likely to be highly
 8 controversial,” “[t]he degree to which the possible effects on the human environment are
 highly uncertain or involve unique or unknown risks,” and “[w]hether the action is related to
 other actions with individually insignificant but cumulatively significant impacts.”

9 *Ctr. for Biological Diversity*, 538 F.3d at 1185-1186; 40 C.F.R. § 1508.27(b)(2), (4), (5), (7). “An
 10 action may be ‘significant’ if one of these factors is met.” 538 F.3d at 1220 (citations omitted).

11 STANDARD OF REVIEW

12 Federal Rule 56(a) requires that summary judgment may be granted when the evidence
 13 demonstrates that “there is no genuine issue as to any material fact and that the moving party is entitled
 14 to a judgment as a matter of law.” Summary judgment is the usual procedure for courts to decide the
 15 merits of claims under NEPA based on the review of an administrative record. *See Northwest*
 16 *Motorcycle Ass’n v. United States Dep’t of Agric.*, 18 F.3d 1468, 1472 (9th Cir. 1994).

17 “An EIS must be prepared if ‘substantial questions are raised as to whether a project . . . may
 18 cause significant degradation of some human environmental factor.’” *Ocean Advocates v. United States*
 19 *Army Corps of Eng’rs*, 402 F.3d 846, 864-865 (9th Cir. 2005). To trigger an EIS, “a plaintiff need not
 20 show that significant effects will in fact occur, but raising substantial questions whether a project may
 21 have a significant effect is sufficient.” *Id.* at 865. “This is a low standard.” *Klamath Siskiyou*
 22 *Wildlands Center v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006); *Cal. Wilderness Coalition v. United*
 23 *States DOE*, 631 F.3d 1072, 1097 (9th Cir. 2011).

24 ARGUMENT

25 Plaintiff readily meets the “low standard” triggering an EIS, raising substantial questions as set
 26 forth below that the CRT Project may have significant impacts on noise, traffic, GHG emissions, and
 27 cumulative development at LBNL.
 28

1 **I. The CRT Project May Have a Significant Effect on the Environment From the Extensive**
2 **Noise That Will Occur During the Project’s Construction and Operation.**

3 There is no dispute that the two-years of construction of the CRT project will be very noisy.
4 Cutting trees, ground clearing, excavating, filling, building foundations, erecting, and finishing work are
5 expected to create noise levels from 78 decibels to as high as 89 decibels. AR 9044. These high noise
6 levels will occur a short distance from two sensitive receptors – a meditation center and student housing.

7 **A. The University’s previous conclusions that the CRT Project’s construction noise will be**
8 **significant and unavoidable raises a substantial question that the project may have a**
9 **significant environmental impact.**

10 DOE is the first agency that has considered the CRT Project or the overall development plan at
11 LBNL that has decided that construction noise will not result in significant environmental impacts at
12 properties adjacent to LBNL. The EA relies for the most part on the same noise measurements taken by
13 the University’s consultant to evaluate noise impacts in the University’s EIR. AR 96. The University,
14 in the EIR prepared for the CRT Project, concluded that noise during the two-years of construction of
15 the CRT Project would have a significant and unavoidable impact on the environment. AR 7955.¹
16 Likewise, several years earlier, the University concluded the same thing for construction noise
17 associated with all of the development contemplated by the long range development plan for LBNL.
18 AR 11125 (“noise impacts related to construction and demolition activities. (Significant and
19 Unavoidable)”, 11128 (cumulative construction noise significant and unavoidable”).² These prior
20 unanimous conclusions by DOE’s managing partner at LBNL raise a substantial question that the CRT
21 Project may have a significant noise impact on the surrounding environment.

22 Indeed, the University concludes that repetitively scheduled construction operations “could
23 exceed the Berkeley Noise Ordinance limits within approximately ... 500 to 1000 feet from a multi-
24 family residence.... Given no other attenuating factors, where these circumstances are met construction-
25 generated noise from stationary equipment would be expected to exceed limits set forth in local noise
26 ordinances.” AR 13236. DOE estimates, albeit without evidentiary support, that the CRT Project is
27 about 790 feet from the Nyingma Institute and 685 feet from the nearest student housing. AR 95. *See*
28

¹ *See also* 9043; 9044; 9045; 9520; 7851; 8792.

1 also AR 5192.³ That close proximity raises a substantial question of a potential impact.

2 **B. The EA arbitrarily concludes that noise levels found along Hearst Avenue represent**
 3 **existing noise levels at the Nyingma Institute’s meditation garden.**

4 The EA claims that the meditation uses at the nearby Nyingma Institute are presumed to occur in
 5 the middle of Hearst Avenue and that noise from the CRT Project site would not be noticeable to people
 6 at the Institute because they already experience the same levels of noise as occur on Hearst Avenue.
 7 The portion of the Nyingma Institute’s grounds that lies closest to the proposed CRT Project site is a
 8 meditation garden on the east side of the Institute’s property behind the two buildings that make up the
 9 Institute. AR 97; 1571; 8803. The eastern side of the Institute’s property borders LBNL and looks out
 10 directly on the CRT Project site with no intervening noise barriers. AR 149 (“there would be a direct
 11 line of sight between the Nyingma Institute and the CRT construction site, so no acoustical shielding
 12 was assumed” in the noise modeling). The front of the Institute’s building that looks out on Hearst
 13 Avenue does not face the CRT site but rather faces the Foothill Student Housing building. AR 97.

14 The noise readings for the Institute were measured on the north side of one of the two Institute
 15 buildings. AR 95 (“Site 3 was at the north side of the Tibetan Nyingma Institute, representing another
 16 sensitive receptor”). “The average daytime noise level at this site was 48 dB(A), and noise levels ranged
 17 from 46 dB(A) L90 to 57 dB(A) Lmax.” AR 95-96. *See also* AR 9034. This noise measurement
 18 location was not located near Hearst Avenue but on the far side of one, possibly two buildings, away
 19 from Hearst Avenue in a location that is more representative of the Institute’s garden rather than a busy
 20 street. AR 5192 (“The EIR reported ambient noise measurements on the north side of the Institute,
 21 ***away from Hearst Avenue traffic noise***, at 48 dBA L_{eq}, with levels ranging from 46 to 57 dBA”)

22
 23
 24 ² The University also consistently found unavoidable noise impacts from the implementation of
 25 the University’s own long range development plan, further confirming that construction noise is loud
 26 whether being reviewed by the University or DOE. *See* AR 13235. *See also* AR 13247.

27 ³ It is not clear from the record where these distances were measured from at the referenced
 28 parcels. However, a cursory review of distances between the Project site and the sensitive receptor
 parcels shows that DOE’s numbers cannot be accurate. Using Google Earth’s ruler tool, the distance
 between the noise monitoring location for the Foothill Student Housing complex and the nearest side of
 the CRT Project site is approximately 350 feet – over 300 feet closer than claimed in the EA. *See* Dec’1
 of Michael Lozeau (“Lozeau Dec.”), Ex. 3; AR 9033. Likewise, according to the Google Earth map,
 the Institute is about 620 feet from the construction site, rather than the 790 feet estimated by the EA.
See, id., Ex. 4. Because noise levels attenuate over distance, DOE’s use of greater distances than are

1 (emphasis added). “[N]oise levels during construction would range from 61 to 66 dB(A) at the
2 Nyingma Institute. . .” which is a 9 to 20 decibel increase in noise levels within the grounds of the
3 Institute. AR 150. The upper range is above the Berkeley maximum noise level for construction of 65
4 dB. AR 149-150. And, the upper end of that calculated noise range *exceeds* the construction noise limit
5 of 5 dB applied by the University in its EIR for the Project. AR 9039 (noise significant where “[a]n
6 increase of 5 dBA DNL, where the noise levels without the project are 50 to 65 dBA DNL for residential
7 uses” and standards currently met).

8 Rather than acknowledge that the marked increase in noise that will occur at the Institute may
9 have a significant impact on that sensitive receptor, DOE arbitrarily played down its calculation of noise
10 levels in excess of the ordinance. First, DOE tries to downplay the importance of the City of Berkeley’s
11 noise limit, which the agency itself had selected as its point of comparison, labeling its consultant’s
12 calculations as “theoretical” and retreating from its own worst case scenario. AR 150; AR 5912.

13 Second, and more flagrantly, DOE attempts to reorient the Nyingma Institute’s buildings in order
14 to make it appear that the Institute’s users – even people using the meditation garden which does not
15 border Hearst Avenue – currently hear all of the traffic noise on Hearst Avenue as if they were sitting on
16 the curb of that street. Ignoring the data collected at the Institute’s north side, away from Hearst
17 Avenue, DOE in its EA reasons that “the Nyingma Institute adjoins Hearst Avenue and the portions of
18 the building that would be oriented towards the construction site are already exposed to noise from
19 traffic on Hearst Avenue.” AR 150. DOE then emphasizes the “[a]mbient noise measurements along
20 Hearst Avenue at Highland Place near the Nyingma Institute show an average noise level of 64 dB(A),
21 with noise levels ranging from 57 to 80 dB(A) as vehicle traffic fluctuates” (AR 150) and that Hearst
22 Avenue traffic noise “better represent the existing levels in areas [at the Nyingma Institute] that would
23 be exposed to CRT construction noise.” AR 5912. Having now shifted the focus from the grounds of
24 the Institute to the front of one its buildings that looks out on Hearst Avenue, DOE then concludes that
25 “[c]onstruction noise levels during finishing activities would not substantially exceed existing hourly
26 average noise levels and would fall within the range of existing traffic noise levels in the area
27 (Illingworth & Rodkin 2010a).” AR 150. *See also* AR 5193-94. With this sleight of hand, DOE
28

apparent from the publicly available maps means the calculated decibel levels at Nyingma and Foothill Student Housing would have been substantially underestimated.

1 attributes all of the noise that currently occurs on Hearst Avenue and transports it to the Institute's
 2 meditation garden and grounds and, misleadingly claims that is the level of noise currently experienced
 3 by the Institute's members and guests. That is, of course, not the case, the ambient noise levels for the
 4 Institute already having been established at 48 dB(A), and noise levels ranged from 46 dB(A) L90 to 57
 5 dB(A) Lmax." AR 95-96.⁴ By failing to address the noise that will result in the Institute's meditation
 6 garden and grounds – which are largely unaffected by Hearst Avenue – DOE is proposing to increase
 7 the noise in those quiet areas to levels comparable to Hearst Avenue.

8 An agencies' misleading use of noise data has led courts to reject EAs and EISs as arbitrary. *See*
 9 *Sierra Club v. United States DOT*, 1990 U.S. Dist. LEXIS 7811, 14-16 (N.D. Cal. Apr. 2, 1990) (where
 10 agency made noise levels appear higher by treating measuring device's detection limit as actual noise
 11 level held to be misleading and erroneous); *Davis v. Mineta*, 302 F.3d 1104, 1124-1125 (10th Cir. 2002)
 12 (significant noise impact under NEPA where project would increase "serene island of quiet" noise levels
 13 of from 45 to 57 dBA to over 65 dBA). By arbitrarily assigning Hearst Avenue noise levels as proxies
 14 for noise levels on the grounds of the Nyingma Institute where its members and guests would be
 15 affected by the CRT Project's construction, DOE's conclusion that "[n]oise impacts from construction,
 16 as well as operation of the Proposed Action, are expected to be minimal" is not supported by a reasoned
 17 discussion and is an abuse of discretion. AR 10.

18 **II. The CRT Project May Have a Significant Traffic Effect By Exacerbating the Existing,**
 19 **Unacceptable Traffic at Nearby Intersections.**

20 DOE fails to take a hard look at the CRT Project's traffic impacts on already overcrowded
 21 intersections near the site. The EA applies thresholds of significance for traffic established by the City
 22 of Berkeley. The standards state:

23 For signalized and all-way-stop intersections, traffic impacts were considered significant if
 24 the Proposed Action caused: [1] intersection operations to degrade from Level of Service
 25 (LOS) D to LOS E or worse and there is more than a 2-second increase in delay; or [2] more
 26 than a 3-second increase in delay at intersections operating at LOS E without and with the
 27 project; or [3] intersection operations to degrade from LOS E to LOS F and there is more
 28 than a 3-second increase in delay; or [4] at intersections operating at LOS F without the
 project, the volume-to-capacity ratio to change by more than 0.01. AR 155-156.

⁴ All of this misdirection is included in the EA despite evidence in the record that the existing traffic noise on Hearst Avenue "does exceed noise levels considered compatible for residential type uses, particularly a meditation center." AR 750.

1 **A. The University’s previous EIRs for the CRT Project, the LBNL LRDP and the**
 2 **University’s LRDP all find significant, cumulative impacts from traffic.**

3 The EA contradicts the University’s consistent determinations that the CRT Project, the LBNL
 4 LRDP, and the University LRDP each will have cumulative impacts on traffic. At a minimum, those
 5 findings by the University in its NEPA-like environmental reviews under CEQA raise a substantial
 6 question that the CRT Project may have a significant effect on traffic impacts.

7 The University concludes that “the proposed CRT project, together with other planned future
 8 development, would result in significant impacts on traffic and transportation.” AR 7713. *See also* AR
 9 9448.⁵ Likewise, the University found that “[i]mplementation of the 2006 LRDP would degrade level of
 10 service at certain local intersections,” and that impact is “Significant and Unavoidable.” AR 11569.⁶ At
 11 least three local intersections adversely affected by the LRDP include three of the four intersections
 12 identified in DOE’s EA. AR 10724-25 (“With implementation of the 2006 LRDP, significant
 13 deterioration in LOS would occur at three intersections”). For one of the intersections – Hearst and
 14 Gayley – the EA projects no traffic impacts from the CRT Project despite that intersection projected to
 15 operate at LOS E during afternoon peak hours in 2018. AR 158 (Table 5.0-6). The LBNL LRDP’s
 16 impact report projects that, as of 2025, the “LRDP would cause the p.m. peak hour service level to
 17 degrade to LOS F. . . .” AR 11569. For want of space, no mitigation of traffic impacts is available at
 18 the Hearst and Gayley intersection. AR 11573. The CRT Project is part of the LRDP. The EA
 19 completely ignores this evidence of cumulative impacts at the intersections affected by the CRT Project,
 20 which raises a substantial question that the CRT Project may have a significant impact on the
 21 environment requiring DOE to prepare a full EIS. AR 155-164, 99-102.⁷

22 **B. The EA’s traffic analysis fails to acknowledge the cumulative traffic impact from the**
 23 **CRT Project and other listed near-term projects.**

24 Rather than analyze the CRT Project’s true cumulative traffic impacts along with those traffic
 25 impacts associated with other upcoming projects, the EA arbitrarily treats other allegedly upcoming

26 _____
 27 ⁵ *See also* AR 7775; AR 8799; AR 9148; AR 9150; AR 9160.

28 ⁶ *See also* AR 11584-85; AR 10724-10725; AR 13247; AR 13281; AR 13247.

⁷ Likewise, the EIR for the University’s 2020 long range development plan indicates, “[t]he EIR
 noted that significant traffic volume growth on certain streets in the City could occur with build out
 under the General Plan. Despite mitigation and policies encouraging alternative transit modes, this
 impact was anticipated to remain significant and unavoidable.” AR 12871. *See also* AR 12917.

1 projects' traffic impacts as existing. The traffic analysis included in the record provides the current
2 levels of service and volume to capacity ratios present at the four intersections addressed in the EA. AR
3 2467 (Table 1) ("Fehr & Peers"). For the LOS F Bancroft Way/Piedmont Avenue intersection, the
4 existing volume to capacity ratios ("v/c") are 0.95 during the morning commute and 0.84 during the
5 evening commute. In 2018, five years after construction of the CRT Project as well as the projected
6 construction of six other projects, the EA forecasts the resulting volume to capacity ratios for that
7 intersection as 1.02 and 0.88 – increases to the existing ratios of .07 and 0.04, respectively. Applying
8 the Berkeley standards of significance for traffic relied upon by DOE, these cumulative increases in
9 traffic and the volume to capacity ratio at Bancroft Way and Piedmont Avenue exceed the standard of
10 0.01 by multiples of seven and four, respectively.

11 The EA, however, does not mention the actual existing conditions identified in the traffic
12 analysis report. *Compare* AR 2467 and 158. Rather than compare the cumulative impacts of all of the
13 anticipated projects on the existing traffic, the EA makes believe that projects that may be built as far
14 out as five years beyond the CRT are actually existing projects. The forecasted traffic increases for
15 those six projects are treated as part of the existing traffic baseline. And the only cumulative traffic
16 impact is calculated based on one project – the CRT Project – and its incremental traffic impact on not
17 only the existing traffic levels but the future traffic levels. A proper cumulative impact analysis under
18 NEPA requires the agency to add up the impacts from past, present and future actions, including the
19 proposed project. 40 C.F.R. § 1508.7 (cumulative effects are defined as “the impact on the environment
20 which results from the incremental impact of the action when added to other past, present, and
21 reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person
22 undertakes such other actions”).⁸ Because the anticipated projects in the LBNL area are forecast by
23 DOE's own consultant to increase the existing v/c ratio at the Bancroft Way/Piedmont Avenue
24 intersection by .07 in the morning and .04 in the afternoon – well above the 0.01 threshold – raises a
25

26 ⁸ CEQ guidance provides an example using air pollution, the “*combined* emissions create an effect
27 on air quality, the significance of which can be determined by comparing the concentration of pollutants
28 emitted to threshold concentrations specified in [ambient air quality standards].” AR 14849 (emphasis
added). In the EA, DOE did not combine the CRT Project's impacts to past and future impacts and then
evaluate their impact – DOE separated the CRT Project from those other actions and only analyzed the
CRT Project's impacts in isolation from the past, present and future actions, treating the other past and
future impacts as the existing baseline for comparison.

1 substantial question that the CRT Project's cumulative traffic impacts may be significant.

2 Similarly, at Stadium Rim Way and Gayley Road, Fehr & Peers measured the existing morning
3 traffic at LOS D with an average 30 second delay. AR 2467. Currently, that intersection complies with
4 the local traffic standards. AR 99 ("The LOS standard for City of Berkeley intersections is LOS D").
5 However, once the CRT Project and the other six projected projects are completed, that intersection is
6 forecast to operate at LOS F with a greater than 60 second delay and a v/c of 1.15. This entire
7 cumulative impact, not just the CRT Project's impact in isolation, must be evaluated.

8 The same flawed analysis also was applied Hearst Avenue and Gayley Road. Currently, that
9 intersection is operating at an insignificant traffic level of LOS D in the evening with a 49 second delay.
10 Once the CRT Project and the other six projected projects are implemented, that intersection's LOS
11 degrades to LOS E and a delay of 57 seconds. Where a single project causes an intersection to go from
12 LOS D to LOS E with an increase in delay of two seconds is deemed significant pursuant to Berkeley's
13 (and the EA's) significance standards. AR 156. Where the cumulative impacts of seven projects causes
14 the intersection to go from LOS D to LOS E and increases the traffic delay by eight seconds is no less
15 significant. See AR 156 (traffic impact significant where "intersection operations to degrade from Level
16 of Service (LOS) D to LOS E or worse and there is more than a 2-second increase in delay"). The
17 increases above DOE's selected threshold raise a substantial question that the CRT Project's cumulative
18 traffic impacts will be cumulatively significant and that the EA's analysis is arbitrary and capricious.

19 **C. The EA's traffic analysis is arbitrary because it uses higher 2002 traffic volumes that**
20 **artificially reduce the CRT Project's incremental increases in existing traffic levels.**

21 Although claiming to apply conservative assumptions to its analysis, the EA invariably applies
22 baseline assumptions that dilute the traffic impacts of the CRT Project. Where an agency distorts the
23 environmental baseline, the resulting environmental analysis has no value. "[B]aseline is not an
24 independent legal requirement, but rather, a practical requirement in environmental analysis often
25 employed to identify the environmental consequences of a proposed agency action." *American Rivers*
26 *v. FERC*, 201 F.3d 1186, 1195 (9th Cir. 1999), quoting 54 Fed. Reg. 23756 (1989). "[W]ithout
27 establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will
28 have on the environment and, consequently, no way to comply with NEPA." *American Rivers*, 201 F.3d
at 1195. See also AR 14848 (Council on Environmental Quality ["CEQ"]) ("The concept of a baseline

1 against which to compare predictions of the effects of the proposed action and reasonable alternatives is
2 critical to the NEPA process”). DOE distorts the traffic baseline by using outdated 2002 traffic counts.
3 Fehr & Peers notes that “[m]ore recent count data at the various study intersections was collected in
4 2006, 2007 and 2008” but then claim, “however, the 2002 data were used because the 2002 traffic
5 volumes are generally higher than the more recent volumes and thus would result in a more conservative
6 analysis.” AR 2466. Although reassuring in tone, the claim is clearly wrong. Each of Berkeley’s
7 traffic standards are based on reviewing incremental increases in traffic from existing levels. AR 155-
8 156. Obviously, where existing levels are artificially increased – for example by using outdated nine-
9 year old traffic counts – the relative incremental increase from any one project will be less. The EA
10 does not disclose what the traffic volumes were in 2006, 2007 and 2008, but given the fact that even a
11 slight reduction in the existing traffic volumes could result in a slight increase in the volume to capacity
12 ratio resulting from the CRT Project, exceeding the 0.01 v/c standard, DOE was unreasonable to rely
13 upon the outdated and higher traffic numbers. *See Conservation Law Found. v. FHA*, 2007 DNH 106
14 (D.N.H. 2007) (reliance on outdated population growth forecasts in EIS was in error).

15 **D. The EA’s traffic analysis double-counts traffic from projects completed in 2004 and**
16 **2007 and includes projected traffic from future projects that may never be built.**

17 The EA also is arbitrary because, in addition to utilizing the higher traffic counts from 2002 as
18 the baseline in 2009, DOE pads those 2002 traffic counts by adding in traffic anticipated from two
19 garage projects already completed in 2004 and 2007. The Lower Hearst Parking Structure – which the
20 EA projects will add cars using “100 net new parking spaces” – was completed in 2004. Lozeau Dec.,
21 Ex. 2. The Underhill Parking Structure, which the EA adds traffic using 690 additional parking spaces,
22 was completed in 2007. *Id.* Despite the presence of those two completed projects, DOE indicates that
23 traffic counts in 2007 and 2008 were lower than in 2002. AR 2466. Thus, not only does DOE use the
24 arbitrarily higher traffic counts from 2002, DOE further distances the traffic numbers from reality by
25 projecting additional traffic from these two garages and adding that additional traffic to the 2002 figures.

26 DOE’s use of higher, overstated traffic counts distorts the baseline and renders the EA arbitrary.
27 “Accurate scientific analysis, expert agency comments, and public scrutiny are essential to
28 implementing NEPA.” 40 C.F.R. § 1500.1(b). “[T]he decision to purposefully include the higher,
significantly overstated estimates of traffic projections in the FEIS conflicts with one of the major policy

1 goals of NEPA and fails to accurately examine an important aspect of the project.” *N.C. Alliance for*
 2 *Transp. Reform, Inc. v. United States DOT*, 151 F. Supp. 2d 661, 688 (M.D.N.C. 2001). Like the
 3 agency in *N.C. Alliance*, DOE also violated NEPA by purposefully including inaccurate data in the EA.
 4 *See also Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005) (“To take
 5 the required ‘hard look’ ... , an agency may not rely on incorrect assumptions or data in an EIS”).

6 Lastly, one of the remaining “near-term” projects listed in the EA’s traffic analysis is not
 7 expected to occur either by 2013 or 2018. The EA treats the Maxwell Field Family Parking Structure as
 8 a near term project. AR 157. The EA’s traffic analysis adds traffic associated with 546 parking spaces
 9 anticipated for that project. *Id.* However, prior to the issuance of the final EA and FONSI, it was public
 10 knowledge and undisputed by the University that “[t]here is no question that the MFF Parking Structure
 11 has been delayed ‘indefinitely.’” Lozeau Dec., Ex. 1 (Slip op., *Stand Up For Berkeley, et al. v. Regents*
 12 *of the University of California*, Case No. 10499854, p. 8 (Alameda County Superior Court) (Nov. 29,
 13 2010). *See also id.*, pp. 3-4. The notion that the Maxwell Family Field parking structure is a “near-term”
 14 project is not supported by any evidence in the record and is, in fact, purely conjectural by DOE prior to
 15 its issuance of the FONSI. DOE violated NEPA by overstating and misrepresenting traffic counts at the
 16 affected intersections. 40 C.F.R. § 1500.1(b); *Native Ecosystems Council*, 418 F.3d at 964.

17 **III. The CRT Project “may establish a precedent for future actions with significant effects”**
 18 **and is “related to other actions with individually insignificant but cumulatively significant**
 19 **impacts” given that the Project further implements the LBNL LRDP.**

20 The CRT Project sets an important precedent of implementing LBNL’s LRDP and is apparently
 21 a cornerstone of that long-term plan. Although reviewed by the University under CEQA, DOE has
 22 never independently reviewed the environmental impacts of the LBNL LRDP. Nevertheless, the CRT
 23 Project is designed to implement that Plan. By approving the construction of the CRT Project at LBNL,
 24 DOE makes it much more likely that the agency and LBNL will continue to build projects on the
 25 crowded, and dangerous hill campus rather than an alternative site.

26 As the EA frankly acknowledges, “[t]he 2006 LRDP is now the governing land use plan for the
 27 LBNL site.” AR 33. The LRDP calls for expanding the LBNL by 1000 employees over the next 14
 28 years. AR 11078. Numerous demolition projects and new buildings are anticipated. *See* AR 11079;
 AR 10740. With the new employees come environmental concerns, including significant and
 unavoidable impacts on construction and vehicle traffic, toxic air emissions, visual impacts, impacts to

1 historic resources, and noise. *See supra*, pp. 5-6, 9; AR 10602-605, 10613, 10617, 10626, 10632,
2 10635. The CRT Project is an integral part of that Plan. “[T]he CRT facility is an element of the
3 growth projected under the 2006 LRDP. AR 33. A main goal of the LRDP is to concentrate facilities
4 on the LBNL hillside and develop research clusters throughout the site. The CRT Project again is an
5 integral component of that vision. AR Supp. 232. In its Ten Year Site Plan for LBNL, DOE already has
6 sanctioned the growth plan established in the LRDP. AR 16484. “The growth envelope of the LRDP
7 includes both DOE and DOE-authorized Non-Federal buildings at the LBNL site[,]” including the CRT
8 Project. *Id.* DOE also emphasizes the scientists who rely on the NERSC computers to be housed at the
9 CRT facility and that “[l]aboratories need to be consolidated near offices, and improvements and
10 expansion of laboratories are needed over the next ten years.” AR 16466. By approving the CRT
11 Project, DOE is setting a precedent for implementing the LRDP and expanding development at LBNL.
12 And, importantly, despite playing into that plan, DOE has never reviewed the LRDP under NEPA. As a
13 result, the preparation of an EIS now for the CRT Project must address the obvious future actions it is
14 linked to in the LBNL LRDP, including alternative sites for all the projects.

15 **IV. The CRT Project May Have a Significant Effect on the Environment Because of Its**
16 **Substantial Releases of Greenhouse Gases.**

17 The CRT Project’s electric power demand is comparable to the power needed for *two new LBNL*
18 *campuses*. The entire LBNL campus consumes about 71,100-megawatt hours (“MWh”) of electrical
19 power. AR 165. At full build-out, the CRT Project will require 17 MW of electric power “which
20 corresponds to 148,900 MWh of power consumption per year and represents a three-fold increase in
21 electricity consumption at LBNL.” *Id.* To put that power demand in further perspective, the entire
22 University of California system, including all ten of its campuses around the State, has set a goal of
23 reducing the University’s reliance on GHG emitting power sources by providing “10 megawatts of local
24 renewable power by 2014.” AR 6968. The CRT Project by itself more than wipes out whatever GHG
25 emission reductions the entire University hopes to achieve over the next several years.

26 That massive proposed increase in power demand at LBNL correlates to a very large increase in
27 greenhouse gas emissions. DOE itself claims that the CRT project will emit up to 35,782 Metric Tons
28

1 Carbon Dioxide Equivalent (“MTCO_{2e}”)⁹ of greenhouse gases per year because of its power demand.
 2 Because that level of GHG emissions is more than *eleven times* the significance threshold established by
 3 BAAQMD and DOE failed to address the impacts of those indirect emissions, a substantial question
 4 exists that the CRT Project may have a significant impact on GHG emissions and global warming.

5 Under NEPA, DOE must not only analyze a project’s direct impacts, but its indirect impacts as
 6 well. 40 C.F.R. § 1502.16 (detailed statement “shall include discussions of ... (b) Indirect effects and
 7 their significance”). Instead of selecting an appropriate significance level from which to weigh the CRT
 8 Project’s substantial indirect emission of GHGs caused by its very large 17 MW power demand, DOE
 9 chose not to discuss at all the significance of the Project’s indirect greenhouse gas emissions.

10 **A. The draft CEQ guidance does not instruct DOE to avoid analyzing the significance of**
 11 **projects’ indirect GHG emissions.**

12 DOE avoids taking the requisite hard look at the CRT Project’s GHG emissions by inflating and
 13 mischaracterizing the scope and content of CEQ’s draft guidance document. The EA claims that CEQ’s
 14 “Draft NEPA Guidance On Consideration Of The Effects Of Climate Change And Greenhouse Gas
 15 Emissions” “recommends a threshold of 25,000 CO₂-equivalent metric tons (MTCO_{2e}) of direct
 16 emissions as a threshold for analysis within NEPA documents” and that:

17 The guidance suggests that emissions below this threshold would not be relevant to and
 18 would not need to be discussed within a NEPA analysis. The draft NEPA guidance
 19 focuses on direct emissions only (GHG emissions that would be generated on site by the
 20 project) and does not include off-site indirect emissions such as those generated by
 vehicle trips to and from the project site or from the generation of electricity used by the
 proposed project.

21 AR 141. Contrary to the EA’s characterizations, the draft guidance does not establish any “threshold”
 22 nor does it suggest that agencies should not address indirect emissions or state-enacted thresholds.

23 The draft guidance expressly states that it is not establishing any thresholds of significance and
 24 leaving that duty to the respective agencies:

25 *CEQ does not propose this reference point as an indicator of a level of GHG emissions*
 26 *that may significantly affect the quality of the human environment*, as that term is used
 27 by NEPA, but notes that it serves as a minimum standard for reporting emissions under
 the Clean Air Act. Evaluation of significance under NEPA is done by the *action* agency

28 _____
⁹ “The CO₂ equivalent emissions are commonly expressed as “metric tons of carbon dioxide
 equivalent (MTCO_{2e}).” AR 37.

1 based on the categorization of actions in agency NEPA procedures and action-specific
2 analysis of the context and intensity of the environmental impacts.

3 AR 5201 (citing 40 C.F.R. §§ 1501.4, 1508.27) (emphasis added).¹⁰ And although the draft guidance
4 does discuss a reference point for projects with direct GHG emissions, it also makes clear that the
5 agencies must address impacts of indirect emissions under NEPA:

6 CEQ proposes to advise Federal agencies to consider, in scoping their NEPA analyses,
7 whether analysis of the direct *and indirect GHG emissions* from their proposed actions
may provide meaningful information to decision makers and the public.

8 AR 5199 (emphasis added). CEQ expressly advises agencies to compare the relative energy demands of
9 a proposed project and its alternatives, including mitigation measures to reduce GHG emissions:

10 Within [an EIS's] description of energy requirements and conservation opportunities,
11 agencies should evaluate GHG emissions associated with energy use and mitigation
opportunities and use this as a point of comparison between reasonable alternatives. ...

12 **CEQ proposes that this analysis should also consider applicable Federal, State or**
13 **local goals for energy conservation and alternatives for reducing energy demand or**
GHG emissions associated with energy production.”

14 AR 5203 (emphasis added). All of a project's energy requirements and mitigation opportunities of such
15 uses are about indirect GHG emissions. Because DOE, in the EA for the CRT Project, assumes all of
16 the project's indirect GHG emissions are irrelevant to its analysis and do not affect any significant
17 environmental impact, it did not attempt to analyze alternatives including additional GHG emission
18 mitigations.¹¹

19 An agency's environmental analysis is arbitrary where it attempts to fashion a significance
20 threshold from a guidance or regulations that disavow such an intent. *Sierra Club v. United States DOT*,
21 1990 U.S. Dist. LEXIS 7811, 13-14 (N.D. Cal. Apr. 2, 1990) (misrepresentation of a federal “design
22 noise level” as a “Federal standard” where noise level disavowed any such intention rendered EIS
23

24 ¹⁰ At one point in the EA, DOE acknowledges that the CEQ draft guidance “has not proposed this
25 threshold to evaluate whether the impact of a project would be substantial. . . .” AR 143. Even that
26 acknowledgement is less than frank about the contents of the draft guidance, where no “threshold” at all
is proposed. *See* AR 5201. Nevertheless, DOE proceeds throughout the EA to continue to refer to a
significance threshold that does not exist, even in draft form.

27 ¹¹ Even if CEQ had finalized a GHG threshold, DOE would still be precluded from relying on that
28 standard established by another agency without DOE independently assessing the standard. *Idaho v.*
Interstate Commerce Comm'n, 35 F.3d 585, 595-596 (D.C. Cir. 1994). *See also Kalur v. Resor*, 335 F.
Supp. 1, 14-15 (D.D.C. 1971) (under NEPA, although agency can recognize standards established under
water pollution control law, “[a]bduction to them, however, is not authorized”).

1 meaningless and misleading). The CRT Project's EA is similarly misleading and the Court should not
 2 defer to DOE's plainly self-serving and inaccurate interpretation of the draft guidance.

3 **B. The effective date of BAAQMD's significance threshold for state agencies does not**
 4 **eliminate the substantial question raised that the CRT Project's exceedance of the**
 5 **threshold may cause a significant environmental effect.**

6 On June 2, 2010, the expert California agency – BAAQMD – adopted thresholds of significance
 7 for operational-related GHG emissions to be applied when evaluating projects under CEQA. As
 8 BAAQMD's resolution establishes: “[t]he *Thresholds of Significance* for operational-related GHG
 9 emissions are: ... For land use development projects, the threshold is . . . annual emissions less than
 10 1,100 metric tons per year (MT/yr) of CO₂e.... Land use development projects include residential,
 11 commercial, industrial, and public land uses and facilities.” AR 4709. It is the conclusion of that expert
 12 agency, that “[i]f annual emissions of operational-related GHGs exceed these levels, the proposed
 13 project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively
 14 significant impact to global climate change.” AR 4709. Rather than seriously consider that final
 15 standard to formulate a significance threshold of its own from which to evaluate direct and indirect
 16 operational emissions, DOE instead hangs its entire analysis on BAAQMD's policy judgment under
 17 CEQA that agencies need not apply the significance threshold to projects for which evaluation under
 18 CEQA already had begun as of June 2, 2010. *See* AR 9 (“[t]he new GHG thresholds adopted by the
 19 BAAQMD on June 2, 2010, do not apply to this project as the project review was commenced much
 20 before the District's adoption of the thresholds”).¹²

21 DOE cannot hide behind the effective date of BAAQMD's GHG thresholds for state agencies.
 22 Plaintiff need only demonstrate the presence of a substantial question that the CRT project and its
 23 indirect emission of 35,782 MTCO₂e per year may cause significant degradation of the environment.
 24 *Cal. Wilderness Coalition*, 631 F.3d at 1097; 40 C.F.R. § 1502.16. The relevant question under NEPA
 25 is not whether a state agency has established a policy that, under the state's environmental review law, a
 26 threshold will apply at a certain date, but whether the established GHG threshold itself raises a

27 ¹² DOE also asserts in the EA that the CRT Project was not one of the types of facilities considered
 28 by BAAQMD in the formulation of that agency's significance threshold for GHG emissions. AR 1710.
 BAAQMD inquired about this assertion via e-mail during the comment period, clarifying that the CRT
 project did fall within the land uses covered by the threshold. AR 1580. Despite BAAQMD's
 clarification, DOE arbitrarily chose to maintain its incorrect assertion in the final EA. AR 142.

1 substantial question that the CRT Project, with emissions exceeding that final threshold by 11 times or
2 more may result in a significant environmental impact. BAAQMD's policy decision of which date the
3 threshold will apply under CEQA is not relevant to the question to be answered pursuant to NEPA.

4 Moreover, nothing prevented DOE from considering and applying the BAAQMD threshold in its
5 ongoing preparation of the EA and its discussion of GHG emissions. The BAAQMD standard was
6 proposed in December 2009, a mere six days after DOE issued its notice of preparation of the EA.
7 Lozeau Dec., Ex. 5; AR 6784. The BAAQMD threshold was adopted in final form on June 2, 2010.
8 AR 4687. The EA was still being drafted subsequent to that date and not released in draft form to the
9 public until September 14, 2010. As of January 2011, DOE and its consultant were still sorting out
10 several incorrect assumptions they had made regarding electricity use and indirect GHG emissions from
11 the CRT project. AR 449-452; AR 490. Indeed, DOE's consultant was readily performing
12 comparisons to BAAQMD's significance threshold both before the issuance of the draft EA and while
13 preparing corrections to the draft EA. AR 490 ("the project's net emissions will be about 12,000 MT,
14 which is still over the BAAQMD number"). In addition, between September 2010 and January 2011,
15 DOE adjusted other numbers critical to its GHG emission calculations – in particular the amount of
16 power being consumed by the supercomputer(s) at the existing Oakland Science Center. *See id.*; AR
17 Supp. 0001. Nothing precluded DOE from applying that new consumption rate to its calculation of net
18 emissions from the CRT Project included in the final EA. Likewise, DOE confronted no reasonable
19 obstacle to substantively weighing the BAAQMD significance threshold.¹³

20 Avoiding applying a relevant significance threshold prepared by an expert agency based on a
21 purely procedural gimmick that DOE began its NEPA process six or seven months prior to the adoption
22 of the threshold does not amount to the hard look required by NEPA. Comparing the CRT Project's
23 expected direct and indirect GHG emissions to BAAQMD's significance threshold manifestly raises a
24 substantive question that the CRT Project and its GHG emissions may have a significant effect on the
25 environment. The EA estimates the CRT Project will emit 35,782 MTCO₂e per year. AR 144 (Table
26 5.0-3). Subtracting the estimated annual GHG emissions of 23,309 MTCO₂e at the existing Oakland
27 Science Center, the net GHG emissions from the proposed CRT project will be 12,473 MTCO₂e per
28

¹³ Lastly, DOE applied the BAAQMD threshold to a programmatic seismic improvement project for which a final EA was issued by DOE in early August 2010 – about six weeks prior to DOE's release

1 year. *Id.* Assuming DOE’s numbers are accurate, the CRT project’s net GHG emissions are eleven
 2 times greater than the BAAQMD threshold. Although not “binding” on DOE, the BAAQMD is
 3 nevertheless very compelling expert evidence of a significance threshold for GHG emissions which
 4 raises a substantial question that the project may have a significant environmental impact. The
 5 significance of the CRT Project’s GHG emissions is underscored by BAAQMD’s comments, including
 6 that “[t]his Project’s operation emissions could potentially hinder the State’s ability to reach goals set
 7 forth in AB32 and therefore we recommend mitigation measures to decrease the Project’s GHG
 8 emissions.” AR 1579. *See also* AR 754 (“the project will still have a large energy demand and
 9 associated GHG emissions which will have impacts: [BAAQMD] [s]taff urges the DOE to commit to
 10 all possible steps to minimize these impacts”). DOE improperly sidesteps BAAQMD’s expert agency
 11 comment and opts to ignore the CRT Project’s potential adverse impact on California achieving its
 12 statewide GHG reduction goals. AR 5203. *See W. Watersheds Project*, 632 F.3d at 493 (where state
 13 and other agency comments were not responded to “objectively and in good faith” nor resulted in
 14 “responsive changes” to the project, agency failed to take hard look).¹⁴

15 The omission from the EA of any evaluation of the incremental impact the project’s GHG
 16 emissions “will have on climate change or on the environment more generally in light of other past,
 17 present, and reasonably foreseeable actions” is a fatal flaw. *Ctr. for Biological Diversity*, 538 F.3d at
 18 1216. DOE has “the duty of assessing the effects of its actions on global warming within the context of
 19 other actions that also affect global warming.” 538 F.3d at 1216; 40 C.F.R. § 1508.7.

20 **C. The EA arbitrarily underestimates the CRT Project’s greenhouse gas emissions by**
 21 **incorrectly assuming that LBNL’s power supply has a higher percentage of**
 22 **hydropower than PG&E.**

23 The EA arbitrarily changes the GHG emissions for the Project and skews the comparison of
 24 alternatives to the Project by incorrectly asserting that Western Area Power Administration (“WAPA”)

25
 26 of the draft EA for the CRT Project. *See* AR 2530, 2677-2682.

27 ¹⁴ BAAQMD also identified feasible mitigation measures. AR 754. The EA vaguely lists several
 28 larger scale solar projects for LBNL that presumably would mitigate to some extent the CRT Project’s
 emissions. But no detail or discussion of the project’s feasibility is mentioned or how much power
 could be generated. *Id.* Plaintiff certainly acknowledges some of the positive building design
 components that have been incorporated into the Project. *See* AR 144-145. However, compared to the
 enormous indirect GHG emissions resulting from the Project’s demand for 17 MW of power, those

1 power uses more non-GHG emitting power sources than PG&E. *See ONRC v. U.S. Forest Serv.*, 445 F.
2 Supp. 2d 1211, 1224-1225 (D. Or. 2006) (where data relied upon by NEPA document is inaccurate,
3 consideration of alternatives is rendered inadequate). Nothing in the record substantiates DOE's
4 assertion. PG&E operates a vast network of hydroelectric dams. *See Lozeau Dec.*, Ex. 8. PG&E
5 obtains upwards of 48 percent of its power from non-GHG emitting sources. *Id.*, Ex. 6, 7 & 9.
6 Comparing that percentage to the 20 percent hydropower attributed to WAPA, if anything, DOE had to
7 assume an *increase* – not a decrease – in indirect GHG emissions when proposing to switch from PG&E
8 power to WAPA power.

9 In the EA, DOE calculates that electricity from WAPA will produce about 20 percent less GHG
10 emissions per unit of power produced compared to PG&E power. *See* AR 144. As a result, the EA uses
11 PG&E's "published and verified [GHG] emissions factor" for the existing Oakland Science Center and
12 the off-site alternatives. However, for the proposed Project and on-site alternative, the EA reduces that
13 PG&E factor by 20 percent. *See* AR 144; AR 450. In other words, the EA assumes that PG&E does
14 not derive any of its power from hydropower or other non-GHG emitting sources.

15 The EA's GHG emission adjustments for the LBNL-based alternatives are patently arbitrary.
16 First, although the record identifies a question about what percentage of power PG&E obtains from non-
17 GHG emitting sources, the record includes no evidence that DOE bothered to answer that critical
18 question. Before crediting the WAPA-powered proposed alternative, the obvious question any
19 reasonable person had to ask is what percentage of hydropower does PG&E use, a percentage that
20 already would be factored into PG&E's "published and verified [GHG] emissions factor." Indeed, on
21 January 21, 2011, DOE asked that very question of its consultant. AR 490 ("Is there a percentage of
22 hydropower in the PG&E calculation?"). Although a response was sent to that e-mail, no answer to that
23 question is included in the record. AR Supp. 0001. For that reason alone, DOE's application of a 20
24 percent reduction on GHG emissions for WAPA powered project's is not supported by any evidence in
25 the record and is arbitrary and capricious.¹⁵

26 The arbitrariness of DOE's 20 percent GHG reduction for WAPA power is confirmed by readily
27 design components do not make a significant dent in the additional GHG emissions that will result from
28 the Project, as DOE acknowledges. AR 349.

¹⁵ Likewise, even the 20 percent figure applied to WAPA is based on uncorroborated conjecture.
See AR 703-04; AR 660; AR 449.

1 verifiable public documents that show the breakdown of PG&E's power sources in 2009 (the same year
 2 the EA drafters estimated for WAPA's hydropower use). As PG&E reports, 47.9 percent of its power
 3 comes from non-GHG emitting sources:

4 The power mix we provided to our customers in 2009 consisted of non-emitting nuclear
 5 generation (20.5 percent), large hydroelectric facilities (13.0 percent) and renewable
 6 resources (14.4 percent), such as wind, geothermal, biomass and small hydro. The
 7 remaining portion came from natural gas (34.6 percent), coal (1.3 percent), unspecified
 8 sources (15.0 percent), and other fossil-based resources (1.2 percent).

9 Lozeau Dec., Exhibits 6, 7 & 9 (p. 14).¹⁶ Of course, 47.9 percent is a much higher percentage than the
 10 20 percent attributed to WAPA. Rather than reduce the WAPA-powered alternatives' GHG emissions
 11 from their electrical power consumption, DOE should have increased their GHG emissions by as much
 12 as 27.9 percent *above* PG&E's "published and verified [GHG] emissions factor." Applying that factor
 13 would generate a GHG emission estimate for the proposed CRT Project of greater than 55,000
 14 MTCO₂e, an emission volume well above the off-site alternatives. Because DOE's attempt to tip the
 15 GHG emission scale in favor of selecting alternatives located at LBNL is unsupported by any evidence
 16 and plainly unreasonable given PG&E's well-documented non-GHG emitting power sources, it raises a
 17 substantial question regarding the significance of the CRT Project's GHG emissions and improperly
 18 skews the comparison of alternatives in the EA.

19 **V. The CRT Project May Have a Significant Effect on the Environment Based on its Proposed**
 20 **Location in a Highly Controversial and Uncertain Geologically Unstable Area.**

21 Expert comments available to DOE for several years prior to the release of its draft EA and
 22 reiterated in comments on the EA, establish a substantial question of possible geologic and related
 23 landslide effects of the CRT Project that are highly controversial and are highly uncertain. As early as
 24 May 2008, Professor emeritus Garniss Curtis of U.C. Berkeley raised significant concerns about the
 25 stability of the hillslopes and underlying rocks and the possible presence of a collapsed, ancient volcanic
 26 caldera at LBNL above the CRT Project's proposed location. *See* AR 1469-71; 7589-90; 768; 5023
 27 (transcript of video presentation by Dr. Curtis). Nothing in the administrative record questions Dr.
 28 Curtis' expertise. *See, e.g.* AR 14958-63; AR 16414 (Dr. Curtis thesis advisor for study included in

¹⁶ Notably, the DOE consultant's original inquiry to WAPA regarding the mix of its power sources requested a percentage for all non-GHG emitting sources. AR 704 ("I need to find out what the mix of

1 record); AR 764 (Dr. Curtis LBNL geologist's "mentor").

2 In deciding whether an action has a significant impact, the agency should consider "[t]he degree
3 to which the effects on the quality of the human environment are likely to be highly controversial." 40
4 C.F.R. § 1508.27(b)(4). The agency also should consider "[t]he degree to which the possible effects on
5 the human environment are highly uncertain or involve unique or unknown risks." *Id.* § 1508.27(b)(5).
6 "The term 'controversial' refers 'to cases where a substantial dispute exists as to the size, nature, or
7 effect of the major federal action rather than to the existence of opposition to a use.'" *Humane Soc'y of*
8 *the United States v. Locke*, 626 F.3d 1040, 1057 (9th Cir. 2010). "A substantial dispute exists when
9 evidence . . . casts serious doubt upon the reasonableness of an agency's conclusions." *Nat'l Parks &*
10 *Conservation Ass'n v. Babbitt*, 241 F.3d 722, 736 (9th Cir. 2001) (emphasis added); *See id.* at 731-32.

11 Dr. Curtis' comments were submitted initially as part of public comments on the University's
12 EIR prepared for the CRT Project in early 2008. Despite over two years to evaluate Dr. Curtis's
13 comments, in its draft EA, DOE chose to ignore the serious scientific dispute raised by Dr. Curtis. AR
14 1642-46, 1681-83, 1749. Dr. Curtis reiterated some of his main concerns in a comment submitted on the
15 draft EA, questioning the "strength of the westward dipping shale rocks which the building will rest on,
16 particularly during a strong earthquake when the rocks are water-soaked." AR 768.

17 Only after receipt of that additional comment did DOE proceed to retain a technical consultant to
18 address the issue and gather in several e-mails between an LBNL geologist and a geologist from the
19 U.S. Geological Survey discussing some of Dr. Curtis' views. Only in the response to comments
20 published with the final EA did DOE disclose this controversy to the greater public and agencies
21 (although many members of the public were aware of the controversy because of the efforts of Plaintiff
22 in circulating Dr. Curtis' views). *See* AR 773-774 (Save Strawberry Canyon comments); AR 329-39;
23 AR 5222. The level of effort made by DOE to rebut Dr. Curtis, including retaining a consultant, shows
24 that his expert comments raised a highly controversial issue regarding the effects and location of the
25 CRT Project. *Id.*, AR 736-749. Rather than be buried in the final EA beyond the reach of further public
26 criticism, DOE should disclose this controversy and uncertainty in an EIS in order to assure that the
27 public is notified and may critique the agency's last minute rebuttals.

28
energy sources is (wind, oil, coal, hydro, etc) for the power that WAPA provides in the SNR. Need this
data asap for a study").

1 The substantive nature of Dr. Curtis' comments also is underscored by the time and energy put
 2 into them by an LBNL geologist and his e-mail exchanges with a geologist at the U.S. Geological
 3 Survey. See AR 3288 ("I don't have any information that would verify or deny the presence of an
 4 ancient caldera in the LBL area"). *Id.* ("[p]resumably the caldera would largely be filled by subsequent
 5 volcanic deposits, and that matches my scattered observations in the LBL area") *Id.* ("[i]nstability could
 6 be caused by thin layers of mudstone within the volcanic pile if the local orientation was unfavorable in
 7 relation to the local slope, but again that is a site specific question") *Id.*¹⁷

8 Whether or not Dr. Curtis is correct or not, given his familiarity with the LBNL site and the level
 9 of response by DOE and LBNL, the record shows that Dr. Curtis' comments of geologic instability in
 10 the area of the CRT Project raises serious doubt about the reasonableness of DOE's analysis of the
 11 seismic and landslide issues at the site. DOE's relegation of that serious concern to the final EA –
 12 despite two-year's advance knowledge of the comments and LBNL's own geologist's inquiries –
 13 precluded the public and Dr. Curtis from commenting on DOE's rebuttal and did not eliminate the
 14 uncertain impacts described by Dr. Curtis.

15 **VI. The Court Should Order the Preparation of an EIS.**

16 "[I]f the court determines that the agency's proffered reasons for its FONSI are arbitrary and
 17 capricious and the evidence in a complete administrative record demonstrates that the project or
 18 regulation may have a significant impact, then it is appropriate to remand with instructions to prepare an
 19 EIS." *Ctr. for Biological Diversity*, 538 F.3d at 1225. Although Plaintiff has pointed out DOE's refusal
 20 to straightforwardly address all of the CRT Project's impacts, Plaintiff believes that is not as a result of
 21 an incomplete record.

22 **VII. The Court Should Enjoin Construction Activities in Furtherance of the CRT Project Until 23 DOE Complies With NEPA.**

24 The Court considers the same traditional equitable principles whether considering a preliminary
 25 or a permanent injunction. *Weinberger v. Romero-Barcelo*, 456 U.S. 305 (1982). Once liability has
 26 been established, an injunction is the appropriate remedy when an environmental statute has been

27
 28 ¹⁷ In a follow-up e-mail, Mr. Graymer stated that, to the extent Dr. Curtis concluded there is an
 "undeformed body of caldera," Mr. Graymer did "not find the idea of an undeformed body of caldera fill
 persuasive." AR 3279. However, Dr. Curtis did not opine there was an undeformed but rather a
 collapsed caldera. See AR 1469-71.

1 violated absent unusual circumstances. *South Pasadena v. Slater*, 56 F.Supp.2d 1106, 1143 (C.D.Cal.
 2 1999). “Environmental injury, by its nature, can seldom be adequately remedied by money damages and
 3 is often permanent or at least of long duration, i.e., irreparable.” *Idaho Sporting Cong. v. Alexander*,
 4 222 F.3d 562, 569 (9th Cir. 2000) (quoting *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 545
 5 (1987)). In this case, at least one of the defendants – the Regents – already admits that the project
 6 anticipates significant environmental impacts because it prepared an EIR for the CRT Project pursuant
 7 to CEQA concluding as much. *See supra*, pp. 5-6, 9.

8 **A. Allowing the CRT Project to proceed unchecked will result in irreversible procedural harm**
 9 **to plaintiff.**

10 Defendants’ failure to comply with NEPA has deprived Plaintiff, as well as the public at large, of
 11 the unique, independent environmental review process required by federal law. As a result, Plaintiff and
 12 the public have been deprived of their right to comment on the Project and influence the outcome of the
 13 federal action pursuant to NEPA. Dec’l of Janice Thomas (“Thomas Dec.”); Dec’l of Laurie Brown
 14 (“Brown Dec.”); Dec’l of Lesley Emmington Jones (“Emmington Dec.”).

15 **B. Failure to comply with NEPA will result in harm to the environment.**

16 Without appropriate NEPA review, the CRT Project’s construction and operation will have
 17 significant environmental impacts. The building will further crowd the hillside, permanently destroy
 18 2.25 acres of vegetation including a grove of 72 trees mapped as “highly suitable potential habitat” for
 19 the endangered Alameda whipsnake, and be plainly visible from various locations in Berkeley. *See AR*
 20 *8904-05; 8907; 7610; 7612; 8809* (“Approximately 72 trees would be removed for the construction of
 21 the project”); *8926; Thomas Dec.*, ¶ 4-5, 7-8, 12; *Emmington Dec.*, ¶ 9-10. In terms of noise and
 22 traffic, the University’s EIR determined that the CRT Project would have “significant and unavoidable
 23 project-specific and cumulative impacts” which effects are readily apparent to Plaintiff’s members. *AR*
 24 *8792, 8799. See Thomas Dec.*, ¶ 6, 10; *Brown Dec.*, ¶ 4-5; *Emmington Dec.*, ¶ 9-10. Thus, failing to
 25 prepare an EIS for the CRT Project will result in certain harm to the local environment. *See High Sierra*
 26 *Hikers Ass’n v. Blackwell*, 390 F.3d 630, 642 (9th Cir. 2004) (“In the NEPA context, irreparable injury
 27 flows from the failure to evaluate the environmental impact of a major federal action.”).¹⁸

28

¹⁸ The declarations of Save Strawberry Canyon members Janice Thomas, Laurie Brown, and Lesley Emmington Jones also demonstrate Plaintiff’s standing to bring this action.

