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11 IN THE UNITED STATES DISTRICT COURT
12 FOR THE NORTHERN DISTRICT OF CALIFORNIA

13	SAVE STRAWBERRY CANYON,)	Case No. 3:10-cv-00797-VRW
14)	
14	Plaintiff,)	FEDERAL DEFENDANTS'
15)	CROSS-MOTION FOR SUMMARY
16	v.)	JUDGMENT AND MEMORANDUM
16)	IN SUPPORT
17	STEVEN CHU, et al.,)	
17)	
18	Defendants.)	Date: December 9, 2010
18)	Time: 10:00 a.m.
19)	Courtroom: 6
19)	Judge: Hon. Vaughn R. Walker

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40 C.F.R. § 1500.116

40 C.F.R. § 1501.45

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40 C.F.R. §§ 1502.1420

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40 C.F.R. § 1508.95, 18, 20

40 C.F.R. § 1508.2023

40 C.F.R. § 1508.277, 9

46 Fed. Reg. 18026 (March 23, 1981)18

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1		
2	APA	Administrative Procedure Act
3	ARXX	Citation to the document number on DOE's Administrative
4		Record Index (Dkt. # 15-2) ¹
5	ARSUPPXX	Citation to the to the document number on DOE's
6		Supplemental Administrative Record Index (Dkt. # 28-2) ²
7	BELLA	Berkeley Lab Laser Accelerator
8	CEQ	Council on Environmental Quality
9	DOE	Department of Energy
10	DOEXXXXXX	Citation to the Bates numbered page of DOE's Administrative
11		Record, lodged with the Court (Dkt. # 15) and manually filed
12		(Dkt. # 15-1) on June 4, 2010
13	DOE-SUPPXXXXXX	Citation to the Bates numbered page of DOE's Supplemental
14		Administrative Record, lodged with the Court on July 7 and 8,
15		2010 (Dkts. ## 28, 29) ³
16	EA	Environmental Assessment (DOE000071-274)
17	EIS	Environmental Impact Statement
18	FONSI	Finding of No Significant Impact (DOE000065-70)
19	Lab	Lawrence Berkeley National Laboratory
20	NEPA	National Environmental Policy Act
21		
22		

¹ A hyperlinked version of the Administrative Record Index is contained on the Administrative Record CD, which was manually filed with the Court. Dkt. # 15-1.

² A hyperlinked version of the Supplemental Administrative Record Index is contained on the Supplemental Administrative Record CD, which was manually filed with the Court. Dkt. # 28-1.

³ DOE's Supplemental Administrative record is primarily contained on one CD, which was manually filed with the Court. Dkt. # 28-1. One additional document that is part of DOE's Supplemental Administrative Record was filed using the United States District Court ECF System. Dkt. # 29.

1 **NOTICE OF MOTION**

2 United States Department of Energy (“DOE”); Steven Chu, in his official capacity as
3 Secretary of Energy; and Aundra Richards, in her official capacity as Site Office Manager, DOE,
4 Berkeley Site Office hereby respectfully notice this motion for summary judgment, to be heard
5 before the Honorable Vaughn R. Walker on December 9, 2010 at 10:00 a.m. Federal Defendants
6 request that the Court deny Plaintiff’s motion for summary judgment and grant their motion.
7

8 **INTRODUCTION**

9 Save Strawberry Canyon challenges the Environmental Assessment (“EA”) and Finding
10 of No Significant Impact (“FONSI”) for the Berkeley Lab Laser Accelerator (“BELLA” or the
11 “Project”) at the Lawrence Berkeley National Laboratory (“Lab”) pursuant to the National
12 Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4321-4370d. Save Strawberry Canyon
13 claims DOE should have completed an Environmental Impact Statement (“EIS”) instead of an
14 EA, and alleges deficiencies with its impacts analysis, alleged incorporation by reference, Project
15 description, alternatives analysis, response to comments, and mitigation measures. *See* Pl.’s Am.
16 Compl., Dkt. # 19. Federal Defendants satisfied NEPA’s requirements, and this Court should
17 grant their cross-motion for summary judgment, upholding the EA and FONSI.
18
19

20 **FACTUAL BACKGROUND**

21 **I. The BELLA Project’s Goal Is to Substantially Reduce the Size, Cost, Energy Usage,**
22 **and Environmental Impacts Associated with Future Particle Accelerators**

23 Accelerators are devices that use an electric or magnetic field to excite charged particles
24 to move at high speeds. DOE000141 (AR7). “[A]ccelerators can provide intense energy beams
25 for scientific and technological research to explore the properties of materials, probe the structure
26 of atoms and molecules, study biological specimens, and investigate chemical reactions and
27
28

1 manufacture microscopic machines.” DOE000079 (AR7). Accelerator-based research has the
2 potential to “shed light on some of the most profound mysteries of the universe.” DOE000819
3 (AR44).⁴ Over time, scientists have demanded particle accelerators with higher and higher
4 energy, resulting in larger and larger accelerators. DOE000784 (AR43). Today’s most powerful
5 colliders, such as the Large Hadron Collider in Switzerland and the Tevatron Collider at the
6 DOE Fermi National Accelerator Laboratory in Illinois, are multi-billion dollar undertakings,
7 miles and miles long. DOE000784-85 (AR43).

9 The BELLA Project is aimed at “substantially reduc[ing] the size, cost, energy usage, and
10 environmental impacts associated with future electron or positron accelerators.” DOE000067
11 (AR7). “[C]urrent accelerator technologies require path lengths of 300 meters or more to obtain
12 the same energy level” as BELLA’s one meter long laser plasma accelerator. DOE000081
13 (AR7); DOESUPP000004 (ARSUPP1). BELLA “could pave the way for future accelerators to
14 be hundreds of times shorter and more compact than currently required while still producing
15 electron beams with the same energy levels.” DOE000079 (AR7). Also, there are “likely to be
16 other science applications that can be realized at lower beam energies” as a result of the type of
17 research to be conducted in connection with the BELLA Project. DOE 0000784 (AR43).

20 **II. The BELLA Project Has Five Main Parts**

21 The BELLA Project has five primary components: (1) modifications to an existing
22 building to house the laser and laser plasma accelerator systems; (2) construction of the laser
23 system; (3) construction of the laser plasma accelerator system; (4) construction of ancillary
24 systems to support the laser and laser plasma accelerator; and (5) operation of the laser and laser
25

27 ⁴ Several administrative record documents provide more background on accelerators and their
28 importance. *See, e.g.*, DOE002043-50 (ARfn23); DOE000943-47 (AR46).

1 plasma accelerator for research and development. *Id.* Each of these will be described in turn,
2 including the difference between (2) the laser system and (3) the laser plasma accelerator system.

3
4 The modifications will be to Building 71, located in the northwest portion of the Lab
5 within Blackberry Canyon and the Berkeley City limit. DOE000082 (AR7). The construction
6 area consists of approximately 9,000 sq. ft. in the 53,700 sq. ft., two-story building. DOE000082
7 (AR7). Upon completion, Building 71 will include (1) a laser room housing the BELLA laser;
8 (2) an Experimental Cave housing the laser plasma accelerator; (3) a control room for remote
9 operations; and (4) a utility room to house the laser system's power, cooling, and vacuum
10 support modules.⁵ DOE000085 (AR7).

11
12 The laser system is currently being constructed by a commercial vendor. DOE000348
13 (AR14). Once completed, the laser system's peak power level will be approximately one
14 petawatt (10^{15} Watts). DOE000086, n.3 (AR7). The power will be delivered in very short
15 duration laser light pulses, each lasting for only 40 femtoseconds, i.e. 40 quadrillionths ($1/10^{15}$)
16 of a second. *Id.* While each one petawatt pulse is powerful, "its short duration means that it has
17 an average energy level equivalent to that drawn by a 40-watt light bulb." DOE000086 (AR7).

18
19 The laser plasma accelerator system consists of a one-meter long capillary tube, similar in
20 shape to a common 3-ft. long fluorescent lamp, and made of sapphire. DOE000087, 142 (AR7).
21 Laser light pulses, from the laser system described above, will be passed through the 300-600
22 micrometer diameter capillary tube filled with hydrogen to create a plasma wakefield.⁶ In the
23
24

25
26 ⁵ A wipe-down/gowning room, staging/assembly room, vestibule, observation room, electronics
27 support shop, and optical storage facility will also be included. *Id.*

28 ⁶ Plasma is a gas-like "state of matter in which positively and negatively charged particles like
protons and electrons are dissociated." DOE000207 (AR7). A plasma wakefield is "[a]n
FEDERAL DEFENDANTS' CROSS-MOTION FOR SUMMARY JUDGMENT AND MEMORANDUM IN
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1 plasma wakefield, free electrons are collected and accelerated such that a 10 gigaelectronvolt
 2 (“GeV”)⁷ electron beam, i.e. a stream of electrons, is generated. DOE000087, 141 (AR7). “The
 3 electron beam would have an average energy level equivalent to the power drawn by a 1-watt
 4 LED lamp.” *Id.*

5
 6 The ancillary systems are located throughout the BELLA area and “provide all needed
 7 technical systems to safely operate the laser system and to verify its performance specifications .
 8 . . .” DOE000344 (AR14). They include final focus diagnostics, post focus diagnostics, and
 9 controls for operating the laser diagnostics. DOE00087, 104 (AR7); *see also* DOESUPP000005
 10 (ARSUPP1). They also include equipment and personnel protection systems such as limited
 11 access, active radiation monitors, engineered interlocks, and monitoring/shutdown systems. *Id.*

12
 13 On June 17, 2009, DOE released a draft Project EA for public comment until July 18,
 14 2009. DOE000455-58 (AR18). DOE received comments from 16 individuals and organizations.
 15 DOE000161-234 (AR7). Save Strawberry Canyon submitted a comment letter on July 14, 2009.
 16 DOE000229-231 (AR7). DOE responded to all comments, including those of Save Strawberry
 17 Canyon, and revised the EA accordingly. DOE000235-73, 149-60 (AR7). The final EA was
 18 issued on September 4, 2009, and the FONSI was signed that same day. DOE000067-70 (AR7).
 19

20 LEGAL BACKGROUND

21 **I. The National Environmental Policy Act**

22 NEPA serves the dual purpose of informing agency decision makers of the environmental
 23 effects of proposed federal actions and ensuring that relevant information is made available to
 24
 25

26 oscillatory charge separation wave of electrons and ions in an ionized medium that results in
 27 electric fields that can be used to accelerate electrons.” DOE000142 (AR7).

28 ⁷ A GeV is a unit of energy equal to one billion electron volts.

1 the public so that they “may also play a role in both the decisionmaking process and the
2 implementation of that decision.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332,
3 349 (1989). NEPA does not mandate particular results or impose substantive environmental
4 obligations upon federal agencies. *Id.* at 351. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360,
5 371 (1989). Instead, NEPA ensures “that [an] agency will not act on incomplete information,
6 only to regret its decision after it is too late to correct.” *Id.*

8 An agency must prepare an EIS for “major Federal actions significantly affecting the
9 quality of the human environment.” 42 U.S.C. § 4332(C). Not every federal action or proposal
10 requires preparation of an EIS, and to determine whether an EIS is required, an agency may
11 prepare an EA. 40 C.F.R. §§ 1501.4(b), 1508.9. An EA is a concise public document that
12 briefly describes the proposal, examines alternatives, considers environmental impacts, and
13 provides a list of individuals and agencies consulted. 40 C.F.R. § 1508.9. “If the agency
14 concludes there is no significant effect associated with the proposed project, it may issue a
15 FONSI in lieu of preparing an EIS.” *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 451 F.3d 1005,
16 1009 (9th Cir. 2006); *see also* 40 C.F.R. § 1508.9(a)(1).

19 **II. The Administrative Procedure Act**

20 Judicial review of this action falls under the Administrative Procedure Act (“APA”), *Cal.*
21 *ex rel. Lockyer v. U.S. Dep’t of Agric.*, 575 F.3d 999, 1011 (9th Cir. 2009), which provides that a
22 court may set aside an agency’s decision only if it is “arbitrary, capricious, an abuse of
23 discretion, or otherwise not in accordance with law.” *Lands Council v. McNair*, 537 F.3d 981,
24 987 (9th Cir. 2008) (en banc) (quoting 5 U.S.C. § 706(2)(A)). Under this highly deferential
25 standard of review, a decision is arbitrary and capricious “only if the agency relied on factors
26 Congress did not intend it to consider, entirely failed to consider an important aspect of the
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1 problem, or offered an explanation that runs counter to the evidence before the agency or is so
2 implausible that it could not be ascribed to a difference in view or the product of agency
3 expertise.” *Id.* at 987 (quotation omitted).

4
5 A court’s review is based upon the administrative record. *Camp v. Pitts*, 411 U.S. 138,
6 142 (1973); *Friends of the Earth v. Hintz*, 800 F.2d 822, 829 (9th Cir. 1986). The role of a court
7 reviewing agency action is necessarily at its “most deferential” when assessing the agency’s
8 consideration of technical matters. *McNair*, 537 F.3d at 993 (citing *Forest Guardians v. U.S.*
9 *Forest Serv.*, 329 F.3d 1089, 1099 (9th Cir. 2003)). The court’s task is simply “to insure a fully-
10 informed and well considered decision, not necessarily a decision that [the court] . . . would have
11 reached had [it] been a member of the decisionmaking unit of the agency.” *Vt. Yankee Nuclear*
12 *Power Corp. v. Natural Res. Def. Council*, 435 U.S. 519, 558 (1978).

13 ARGUMENT

14
15 DOE prepared the EA to assess whether there were significant environmental impacts
16 associated with the BELLA Project. DOE000067 (AR7). The EA sets forth the purpose and
17 need of the Project, and thoroughly describes each of the five Project components and various
18 safety features such as radiation shielding, and a monitoring and control system. DOE000079-95
19 (AR7). The EA analyzed, in detail, many alternatives, including the no-action alternative and
20 location alternatives both off-site or in other Lab buildings as well as the affected environment,
21 environmental consequences, and cumulative impacts, taking into account other past, present, or
22 future projects in the vicinity of the BELLA Project. DOE000095-139 (AR7). Based on the
23 results of the environmental analysis in the EA, DOE determined that the BELLA Project is not a
24 major federal action that would significantly affect the quality of the human environment.
25 DOE000070 (AR7). Therefore, the preparation of an EIS is not necessary.
26
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1 **I. The Department of Energy Was Not Required to Prepare an Environmental Impact**
 2 **Statement**

3 NEPA requires the preparation of an EIS only for “major Federal actions significantly
 4 affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). Whether
 5 environmental impacts are significant depends on their “context” and “intensity.” 40 C.F.R. §
 6 1508.27. “Context” captures the notion that “[s]ignificance varies with the setting of the
 7 proposed action.” *Id.* § 1508.27(a). The term “intensity” refers to the severity of the impact. *Id.*
 8 § 1508.27(b). In evaluating intensity, agencies should consider ten criteria including:

10 (2) The degree to which the proposed action affects public health or safety.

11 . . .
 12 (4) The degree to which the effects on the quality of the human environment are
 likely to be highly controversial.

13 (5) The degree to which the possible effects on the human environment are highly
 14 uncertain or involve unique or unknown risks.

15 . . .
 16 (7) Whether the action is related to other actions with individually insignificant
 but cumulatively significant impacts.

17 *Id.* The determination that the action may have significant effects, not the “presence” of one
 18 factor, triggers the requirement to prepare an EIS. 42 U.S.C. § 4332(2)(C); *Pub. Citizen v. Dep’t*
 19 *of Transp.*, 316 F.3d 1002, 1023 (9th Cir. 2003), *rev’d on other grounds*, 541 U.S. 752 (2004).

20 In evaluating whether an agency’s decision not to develop an EIS is reasonable, a
 21 reviewing court must consider whether, after taking a “hard look” at the consequences of the
 22 proposed action, the decision was “arbitrary and capricious.” *Nat’l Parks & Conservation Ass’n*
 23 *v. Babbitt*, 241 F.3d 722, 730 (9th Cir. 2001); *Or. Natural Res. Council v. Lowe*, 109 F.3d 521,
 24 526 (9th Cir. 1997). Save Strawberry Canyon cannot show that any factors set forth in the CEQ
 25 regulations, such as uncertain risks or unique characteristics of the area, give rise to a
 26 requirement to prepare an EIS under NEPA. DOE correctly determined an EIS was not required.
 27
 28

1 **A. An Environmental Impact Statement Is Not Required Because BELLA’s**
 2 **Radiation Impacts Are Not “Controversial” Within the Meaning of the**
 3 **National Environmental Policy Act**

4 Save Strawberry Canyon’s claim, without further explanation, that “[t]he Project’s
 5 potential radiation emissions are hugely controversial” fails because mere “opposition to a use,”
 6 such as exists here in the comments submitted regarding the draft EA, does not establish that
 7 BELLA is “controversial” under NEPA. *Found. for N. Am. Wild Sheep v. Dep’t of Agric.*, 681
 8 F.2d 1172, 1182 (9th Cir. 1982) (“The term ‘controversial’ refers ‘to cases where a substantial
 9 dispute exists as to the size, nature, or effect of the major federal action rather than to the
 10 existence of opposition to a use.”) (citation omitted); *see also Nw. Env’tl. Def. Ctr. v. Bonneville*
 11 *Power Admin.*, 117 F.3d 1520, 1536 (9th Cir. 1997); *Cold Mountain v. Garber*, 375 F.3d 884,
 12 893 (9th Cir. 2004) (“[O]pposition does not automatically render a project controversial.”).

13
 14 Courts will find “controversy” sufficient to require an agency to prepare an EIS when
 15 “substantial questions are raised as to whether a project . . . may cause significant degradation of
 16 some human environmental factor,” or there is a “substantial dispute” regarding the “size, nature,
 17 or effect of a major federal action.” *Nat’l Parks*, 241 F.3d at 736 (citations and quotations
 18 omitted); *Wetlands Action Network v. U. S. Army Corps of Eng’rs*, 222 F.3d 1105, 1122 (9th Cir.
 19 2000) (citation omitted). “A substantial dispute exists when evidence, raised prior to the
 20 preparation of an EIS or FONSI . . . casts serious doubt upon the reasonableness of an agency’s
 21 conclusions.” *Id.* Criticism alone does not call into question the validity of the agency’s NEPA
 22 analysis. *See City of Carmel-by-the-Sea v. U.S. Dept. of Trans.*, 123 F.3d 1142, 1151 (9th Cir.
 23 1997); *Nw. Env’tl. Def. Ctr.*, 117 F.3d at 1536; *Tri-Valley Cares v. U.S. Dep’t of Energy*, No. C
 24 03-3926-SBA, 2004 WL 2043034, at *14-15 (N.D. Cal. Sept. 10, 2004) (Controversy may exist
 25
 26
 27
 28 “not because the majority of public comments opposed the project, but because the comments . . .

1 . created substantial dispute over the scientific conclusions” of the agency.), *rev’d and aff’d in*
2 *part on other grounds*, 203 F. App’x 105, 2006 WL 2971651 (9th Cir. Oct. 16, 2006).

3
4 Moreover, the “highly controversial” language is one of ten factors the agency is to
5 “consider” in evaluating the intensity of impacts, as part of the overall significance inquiry. 40
6 C.F.R. § 1508.27(b). Therefore, even if Save Strawberry Canyon could show that BELLA is
7 “highly controversial,” an EIS would not necessarily be required without a showing that some of
8 the other ten factors are implicated as well. *See Friends of the Earth, Inc. v. U.S. Army Corps of*
9 *Eng’rs*, 109 F. Supp. 2d 30, 42 (D.D.C. 2000) (because this list of characteristics “is not a
10 checklist,” the mere presence of one factor alone is not enough to require an EIS).

11
12 There is no need for this Court to entertain Save Strawberry Canyon’s unsubstantiated
13 conclusion that BELLA’s radiation emissions are highly controversial such that an EIS is
14 required. “[O]n a worldwide scale, multiple accelerators are in operation that generate electron
15 beam energies around or greater than 10 GeV and methods are established to ensure such
16 accelerators do not result in adverse impacts.” DOE 000081 (AR7). The EA explains that
17 because “accelerator systems are not new[,] . . . [t]heir impacts are therefore known, radiation
18 categorized and quantified, and documented.” DOE000237 (AR7).⁸ The “uncommon” aspect of
19 this Project is the laser mechanism for accelerating the electron beam, a part of the system that
20 *does not* generate radiation. *Id.* (emphasis added). The radiation emissions expected to be
21 generated by the laser plasma accelerator are sufficiently disclosed and addressed, *see I.B, infra.*
22
23 The mere fact that there is some opposition to the Project does not render an EIS necessary.
24
25

26
27 ⁸ Likewise, “[t]he laser-driven accelerator would not produce any new type of radiation. . . .
28 The[] types of radiation [produced] are the same as would be produced by any electron
accelerator of similar energy level.” DOE000254 (AR7).

1 **B. The Environmental Assessment’s Analysis of Potential Radiation Impacts**
 2 **Satisfies the National Environmental Policy Act**

3 Save Strawberry Canyon’s claim that the “[t]he EA makes virtually no effort to address”
 4 radiation emissions is not accurate. Pl.’s Am. Compl. ¶ 31. The EA explains that the laser
 5 plasma accelerator will accelerate electrons to an energy level of 10 GeV, creating an electron
 6 beam of energy that will be converted to radiation⁹ upon termination of the beam. DOE000103
 7 (AR7). To protect workers and the public, an Experimental Cave will be constructed using thick
 8 concrete, lead, and steel shielding that absorbs radiation. DOE000104 (AR7).¹⁰ The shielding is
 9 designed so that a “full-time worker positioned outside the Experimental [C]ave at the point of
 10 highest exposure . . . would receive less than 20 percent of the radiation allowed by the
 11 regulatory limit over the course of the year.” *Id.* “The dimensions of that shielding are based on
 12 proven Health Physics calculation models. . . . [and] [t]he radiation shielding design is well
 13 within established and proven parameters.” DOESUPP000007 (ARSUPP1).¹¹

14
 15
 16 With the shielding in place, “there is no foreseeable risk of radiation exposure above
 17 regulatory limits outside of Building 71” so the public is protected. DOE000104 (AR7). The
 18 EA discloses that radiation exposure will be less than one rem for workers over the course of a
 19

20
 21
 22 ⁹ Radiation is “energy emitted by electrons as they propagate through magnetic fields or
 23 material. It is absorbed by suitable material such as concrete, lead, and steel.” DOE000142
 (AR7).

24 ¹⁰ “The concrete wall would be 3 feet thick . . . where the electron beam would terminate. . . .
 25 [and] [t]here would be an additional 16 inches of lead, 36 inches of steel, and another 6 feet of
 concrete to absorb the radiation and reduce exposure levels outside the Experimental Cave”
 DOE000104 (AR7).

26 ¹¹ The BELLA Shielding memo estimates what the laser plasma accelerator’s radiation emission
 27 would be and used those estimates to calculate the amount of shielding. DOE000671-73 (AR31)
 28 (disclosing the parameters, assumptions, and model used for the shielding). The SHIELD11
 Computer Code is the model used to calculate shielding thickness. DOE001011-1055 (AR51).

1 year.¹² The potential radiation doses for the closest member of the public would be 1/3,600 of a
 2 rem per year (0.00028 rem), or 360 times less than the regulatory limit.¹³ Based on these
 3 calculations, the EA reasonably concludes that Project activities will be safe for workers and the
 4 public. *Id.*¹⁴

5
 6 Save Strawberry Canyon claims “nearby residents could be reasonably expected to spend
 7 more time in their homes than a worker would spend at LBNL,” thus being exposed to radiation
 8 over longer timeframes. Pl.’s Am. Compl. ¶ 31. This assertion is of no moment because, under
 9 normal operations, BELLA will not run continuously. DOE000246 (AR7). Instead, BELLA is
 10 expected to run no more than a few hundred hours per year. DOE000672 (AR31) (explaining
 11 the shielding calculations for both continuous running and running for a few hundred hours per
 12 year like DOE’s other laser projects). Thus, the relevant factor in any potential public exposure
 13 to Project-related radiation emissions would not be the total hours nearby residents are present,
 14 but rather the amount of time operations coincide with residents’ presence, which could be no
 15 more than a few hundred hours per year.
 16
 17

18
 19 ¹² 20% of the maximum exposure of 5 rem per year. DOE000103-04 (AR7). A rem is a unit of
 20 radiation dosage.

21 ¹³ The regulatory limit for members of the public is 0.1 rem per year. DOE000104 (AR7). The
 22 calculation for a worker’s annual radiation dose was based on a worker being three meters away
 23 from the emission source. DOE000671 (AR31). The nearest residence is located 590 feet (180
 24 meters) away from Building 71, or 60 times further away from the source than a worker.
 25 DOE000115 (AR7). Radiation levels diminish by a factor of four as distance from the source
 26 doubles. DOE000104 (AR7). Using this principle, which is called the inverse square law, the
 27 annual radiation dose for a residence located 590 feet (180 meters) away from Building 71 would
 28 be 1/3,600 of what a worker would receive, i.e. 0.00028 rem. More information on the inverse
 square law is available at [http://www.ndt-
 ed.org/GeneralResources/Formula/RTFormula/InverseSquare/InverseSquareLaw.htm](http://www.ndt-ed.org/GeneralResources/Formula/RTFormula/InverseSquare/InverseSquareLaw.htm).

¹⁴ Save Strawberry Canyon complains that draft EA comments specifically requested that the EA
 quantify BELLA’s radiation emissions (Pl.’s Am. Compl. ¶ 32), but such a specific request is not
 contained in the comments. *See generally* DOE000161-235 (AR7).

1 The EA’s calculations and estimations are more than sufficient under NEPA because the
 2 agency need only take a hard look at the problem and utilize a reasonable methodology. Courts
 3 are to be “particularly deferential” when reviewing an “agency’s predictive judgments about
 4 areas that are within the agency’s field of discretion and expertise . . . as long as they are
 5 reasonable.” *McNair*, 537 F.3d at 993. *See also Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87,
 6 103 (1983) (reviewing court must be at its “most deferential” when reviewing agency
 7 predictions); *Ctr. for Biological Diversity v. Kempthorne*, 588 F.3d 701, 712 (9th Cir. 2009)
 8 (“[W]e grant the [agency] great deference as it made a scientific prediction within the scope of
 9 its technical expertise.”). Thus, the EA’s analysis of radiation impacts is sufficient under NEPA.
 10
 11

12 **C. The Environmental Assessment Adequately Discloses and Discusses Potential**
 13 **Impacts from Hazardous Waste and Natural Disasters**

14 Save Strawberry Canyon argues “[t]he EA fails to adequately explain how the agency
 15 will dispose of the radioactive, hazardous materials that will be created during the demolition
 16 and operation phases of the Project. . . . [and] how the public will be protected from radiation and
 17 hazardous waste in the event of a natural disaster, such as, but not limited to, an earthquake,
 18 landslide, subsidence, or other ground failure.” Pl.’s Am. Compl. ¶ 33. A review of the EA,
 19 however, shows that Save Strawberry Canyon’s arguments lack merit.
 20

21 1. The Environmental Assessment Adequately Explains How Hazardous and
 22 Low-Level Radioactive Waste Will Be Disposed of Properly

23 The EA explains that “[d]ue to the limited quantities of [chemicals used during operation]
 24 there would be no adverse impacts related to toxic waste generated as a result of the . . .
 25 [P]roject.” DOE000106 (AR7). There is an extensive discussion in the EA explaining that the
 26 Project will generate hazardous waste and low-level radioactive waste, but not waste that is both
 27 hazardous and radioactive, and describing how it will be disposed of properly. DOE000237, 253
 28

1 (AR7). Under the Lab's Health and Safety program, Building 71 has been and will continue to
2 be sampled and surveyed "to characterize the types, locations, and degree of chemical or
3 radiological contamination." DOE000089 (AR7). The EA explains that after they are screened
4 and characterized "based on their location and the associated degree of potential hazard," all
5 disposable materials, ten percent of which are expected to have hazardous characteristics, will be
6 shipped to previously identified and approved disposal sites using trucks that are covered to
7 contain dust and other materials. *Id.*; DOE000094 (AR7).

9
10 During the demolition for new construction, hazardous materials will be removed after
11 the identification and isolation of building elements to be demolished is complete. DOE000092
12 (AR7). All excavations will be carried out under a Soil Management Plan, which will prescribe
13 soil handling and sample collection procedures. *Id.* Soil will be tested and, if found to be
14 contaminated, "kept in covered storage before being transferred to an appropriate off-site
15 landfill." DOE000093 (AR7). "If contaminants are found [in] the groundwater[,] [it] would
16 either be treated at the LBNL site . . . or sent to an off-site facility that is permitted for disposing
17 of contaminated groundwater." *Id.* The EA also explains how small amounts of low level
18 radioactive waste potentially resulting from eventual decommissioning of BELLA will be
19 disposed of properly. DOE000095 (AR7). "All hazardous and radioactive wastes will be
20 disposed of by the LBNL Waste Management Group in accordance with LBNL procedures at
21 properly licensed and permitted facilities." DOE000101 (AR7). The EA concludes "none of the
22 potential hazards such as radiation produced from the accelerator . . . or chemical or radiation
23 released during demolition are expected to result in adverse impacts." DOE000131 (AR7).

24 2. The Environmental Assessment Adequately Addresses Natural Disasters

25
26 The EA also fully addresses natural disasters. With respect to potential wildfires, the EA

1 explains “[t]he risk of fire and/or explosion from operating the BELLA laser and laser plasma
2 accelerator is essentially the same as that from any other piece of manufacturer-built electronic
3 research equipment.” DOE000105 (AR7). “The equipment is constructed to operate safely[,] . . .
4 . . . no flammable material [will be] in the path of the laser beam or the electron beam [and] [t]he
5 fire sprinkler system serving the area [will] be upgraded to meet current fire safety codes.” *Id.*
6 Thus, “there would be no change to the risk from fire and explosion as a result of the [Project].”
7 *Id.*; *see also* DOE000242 (AR7). There are already “extensive site-wide measures [at the Lab] . . .
8 . . . to minimize the risks associated with wildland fire” DOE000242 (AR7) (describing
9 particular measures); *see also* DOE000105-06 (AR7) (explaining fire and explosion risk).
10 Although the EA acknowledges that Building 71 is situated in a seismically active area, the EA
11 concluded that the Project will actually improve Building 71’s ability to withstand a seismic
12 event. DOE00099; *accord* 127-28 (AR7). Namely, the Project will enhance the structural
13 system supporting the utility room to meet current building codes for seismic stability. *Id.*
14

15
16 Save Strawberry Canyon’s particular contention that the Lab “is located atop a collapsed
17 volcano” (Pl.’s Am. Compl. ¶ 33) is simply not accurate. Throughout the history of the Lab,
18 DOE has conducted various in-depth geotechnical studies, but there has never been any
19 indication that the Lab was situated atop a collapsed volcano.¹⁵ *See, e.g.,* ARSUPPS5;
20 ARSUPPS6. NEPA does not require consideration of risks that are “merely speculative” or
21 “infinitesimal.” *No GWEN Alliance of Lane County v. Aldridge*, 855 F.2d 1380, 1386 (9th Cir.
22 1988); *Ground Zero Ctr. for Non-Violent Action v. U.S. Dep’t of the Navy*, 383 F.3d 1082, 1090
23
24

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28 ¹⁵ Save Strawberry Canyon waived the right to litigate this issue by not raising it during the
comment period. *See* VII., *infra*. Save Strawberry Canyon has raised this issue in the context of
another Lab project considered since this EA was finalized. *See* Comment Nos. SSC-2 & SSC-
13, at <http://www.lbl.gov/Community/SeismicPhase2B/assets/docs/Final-EA/AppxD.pdf>.

1 (9th Cir. 2004). DOE did evaluate the known conditions and respond to the specific concerns
2 raised in comments. Nothing more is required by NEPA.

3 **D. The Environmental Assessment Adequately Discloses and Discusses**
4 **Cumulative Impacts**

5 The EA's cumulative impacts analysis shows that such impacts are not significant.
6 Contrary to Save Strawberry Canyon's contention that "the EA fails to substantively assess the
7 Project's cumulative impacts," (Pl.'s Am. Compl. ¶ 36) the EA devotes an entire section to this
8 analysis. DOE000127-39 (AR7). The EA includes a description and discussion of many other
9 Lab projects including six DOE projects and five categories of University of California projects.
10 *Id.* The EA discusses potential hazards to human health, and concludes "[i]t is anticipated that
11 BELLA would contribute no measurable radiation at the LBNL property boundaries, whether
12 specifically or cumulatively with all other [Lab] activities" DOE000131-32 (AR7). The
13 EA also includes a thorough discussion and analysis of the following categories of impacts and
14 cumulative impacts: hydrology, water quality, and soil (DOE000132 (AR7)); energy use and
15 greenhouse gases (DOE000132-33 (AR7)); other utilities and service systems (DOE000134
16 (AR7)); visual quality (DOE000134-35 (AR7)); air quality (DOE000135-36 (AR7)); noise
17 (DOE000136-37 (AR7)); traffic (DOE000137-38 (AR7)); as well as biological resources,
18 cultural resources, intentional destructive acts, and socioeconomics and environmental justice
19 (DOE000139 (AR7)). Such a thorough discussion is adequate under NEPA.

20 **II. The Environmental Assessment Does Not Improperly Incorporate Documents by**
21 **Reference**

22 To ensure its EA was concise and streamlined, DOE cited to various documents instead
23 of cutting and pasting large sections or entire documents into the EA itself. *See, e.g.,*
24 DOE000088 (referencing ARfn4); DOE000101 (referencing ARfn6); DOE0000103 (referencing
25

1 ARfn8); DOE 0000104 (referencing ARfn10, ARfn11). This practice is consistent with the
 2 goals of NEPA, which seeks to further inform public disclosure and to improve decisionmaking,
 3 but does not require bureaucratic makework. *See, e.g.*, 40 C.F.R. § 1500.1(c) (“NEPA’s purpose
 4 is not to generate paperwork—even excellent paperwork—but to foster excellent action.”).
 5 NEPA regulations encourage agencies to avoid producing needless paper. *See, e.g.*, 40 C.F.R. §§
 6 1500.1(b), 1500.4, 1501.1(d), 1502.1.

8 Save Strawberry Canyon characterizes DOE’s citations as “incorporations by reference”
 9 and alleges the EA “is replete with excessive incorporations by reference that substantially
 10 hinder public access to essential information about the Project and its effects.” Pl.’s Am. Compl.
 11 ¶ 28. Save Strawberry Canyon only provides one example of this alleged “excessive
 12 incorporation by reference,” complaining about a citation to the Lab’s Site Environmental Report
 13 in footnote 9 of the EA (DOE000104 (AR7)) for the proposition that “[t]here is already a
 14 radiation monitor outside Building 71, which is part of the LBNL system.” *Id.*

17 Even if this citation is an “incorporation by reference,”¹⁶ DOE meets the standard for
 18 properly incorporating materials. The CEQ regulations state that “when the effect will be to cut
 19 down on bulk without impeding agency and public review of the action. . . material shall be cited
 20 . . . and its content briefly described” provided that “it is reasonably available for inspection by
 21 potentially interested persons within the time allowed for comment.” 40 C.F.R. § 1502.21.
 22 Plaintiffs argue that “incorporation is permissible only if three standards are met: (1) the
 23

24
 25 ¹⁶ The term “incorporation by reference” is used to describe the explicit incorporation by
 26 reference of an earlier environmental document into the NEPA document at issue, not the mere
 27 reference to a document. *See, e.g., North Slope Borough v. Minerals Mgmt. Serv.* 343 Fed.
 28 Appx. 272, 275 (9th Cir. 2009) (Certain impacts and mitigation measures “were adequately
 analyzed in the 2006 Final Programmatic Environmental Assessment, which was incorporated by
 reference into the [challenged] 2006 Environmental Assessment for Lease Sale 202”).

1 incorporated material must be ‘reasonably available,’ (2) the EA or EIS must be ‘understandable
2 without undue cross reference,’ and (3) the incorporation must ‘meet a general standard of
3 reasonableness.’” Pl.’s Am. Compl. ¶ 27 (quoting *Natural Res. Def. Council v. Duvall*, 777 F.
4 Supp. 1533, 1538 (E.D. Cal. 1991)). However the standard is framed, the citation in EA footnote
5 9 is proper. The citation cuts down on the EA’s bulk because it refers to the Site Environmental
6 Report’s multi-page discussion of radiation monitoring at the Lab and a figure showing the Lab’s
7 existing radiation monitoring stations instead of reproducing those materials in the EA itself.
8 DOE000104 (AR7). Save Strawberry Canyon admits the Report was publically available when
9 the EA was published, so there is no question that it was readily available. Pl.’s Am. Compl. ¶
10 28, n. 2. Upon viewing the Site Environmental Report’s index, a reader could easily identify
11 Figure 4-8 and Chapters 4 and 5 and review those materials.¹⁷ See ARfn9. Reviewing an index
12 is certainly not “undue cross-reference,” and such incorporation is reasonable. Like other
13 references throughout the EA, the footnoted material provides additional information such as
14 history, definition of a term used in the EA, identification of standards used as thresholds, and
15 other relevant background information—the footnoted material does not, for example, describe
16 the environmental analysis of the radiological impacts themselves. That discussion is described
17 fully in the EA itself. See DOE000103-04, 106-07, 131 (AR7).

18 Save Strawberry Canyon incorrectly claims that “incorporation by reference may not
19 properly be used in connection with an *Environmental Assessment*.” Pl.’s Am. Compl. ¶ 26
20 (emphasis in original). CEQ’s formal guidance soundly refutes this claim. An EA is intended to
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27 ¹⁷ As further proof that these documents were easily identifiable, Figure 4-8 was discussed and
28 provided as an attachment to comments received from the Committee to Minimize Toxic Waste.
DOE000179 (AR7).

1 be “a concise public document” that “briefly provide[s] sufficient evidence and analysis” and
2 includes “brief discussions of the need for the proposal, of alternatives . . . of the environmental
3 impacts of the proposed action and alternatives” 40 C.F.R. § 1508.9. “Since the EA is a
4 concise document, it should not contain long descriptions or detailed data which the agency may
5 have gathered. . . . To avoid undue length, the EA may incorporate by reference background data
6 to support its concise discussion of the proposal and relevant issues.” Forty Most Asked
7 Questions Concerning CEQ’s NEPA Regulations, 46 Fed. Reg. 18026 at 18037 (March 23,
8 1981). CEQ’s official interpretation of its regulations, including the “Forty Most Asked
9 Questions,” provide important guidance that is entitled to judicial deference. *See, e.g., American*
10 *Rivers v. FERC*, 201 F.3d 1186, 1200-01 (9th Cir. 1999) (citing CEQ’s “Forty Most Asked
11 Questions” as support for upholding agency’s brief discussion of no action alternative); *see also*
12 *Davis v. Mineta*, 302 F.3d 1104, 1125 n.17 (10th Cir. 2002) (recognizing CEQ’s “Forty Most
13 Asked Questions” as persuasive authority offering interpretive guidance).

14
15
16
17 In support of their incorrect proposition that EAs cannot incorporate documents by
18 reference, *Save Strawberry Canyon* cites two district court cases. Pl.’s Am. Compl. ¶ 25 (citing
19 *Duvall*, 777 F. Supp. 1533 at 1538; and *Sierra Club v. Babbitt*, 69 F. Supp. 2d 1202, 1217, 1218
20 (E.D. Cal. 1999)). Aside from the fact that these opinions are not binding precedent on this
21 Court, they do not contain blanket prohibitions on incorporation by reference in EAs. *Duvall*
22 recognizes that, while “the discussion of incorporation by reference in the text is premised on the
23 regulations governing an EIS, they appear to this court to be applicable by analogy to
24 incorporation into an EA, assuming that such incorporation is permissible at all.” 777 F. Supp. at
25 1539 n.13. *Babbitt* cited to *Duvall* and held only that the agency did not meet the standard for
26 incorporating particular documents, namely “open houses or project updates,” into their EA. 69
27
28

1 F. Supp. 2d 1202, 1217-1218.

2 More recently, district courts have distinguished *Duvall* and found that an EA may
3 properly incorporate documents by reference. *See Ctr. for Envtl. Law and Policy v. U.S. Bureau*
4 *of Reclamation*, --- F. Supp. 2d ---, No. CV-09-160-RHW, 2010 WL 2102632, at *6, 2010 U.S.
5 Dist. LEXIS 50556, at *16 (E.D. Wash. May 21, 2010) (“Court sees no reason why an EA could
6 not refer to other documents so long as it sufficiently summarizes the relevant portions of those
7 documents”); *Piedmont Envtl. Council v. Strock*, 394 F. Supp. 2d 803, 813 (N.D.W. Va. 2005)
8 (“Plaintiffs’ argument that the incorporation was barred by *Duvall* . . . is misplaced). *See also*
9 *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1203 n.13 (N.D. Cal. 2004) (“The
10 incorporation-by-reference regulation on its face applies only to EISs . . . however, given that an
11 EA is supposed to be a concise public document . . . it is reasonable to conclude that the
12 regulation applies, at least in principle, to EAs as well.”) (citations and quotations omitted).
13 Thus, DOE’s reference to documents in its EA was proper.

14 **III. The Environmental Assessment Includes an Adequate Project Description**

15 Save Strawberry Canyon complains that the Project description is inadequate because it
16 “does not mention the future disposal of end products or any potential use thereof, including in
17 its laser operation.” Pl.’s Am. Compl. ¶ 37. As an initial matter, the EA does include a section
18 describing the laser operation and future disposal. *See* DOE000088, 95 (AR7) (discussing
19 decommissioning); DOE000081, 86-87, 95, 105 (AR7) (discussing laser operation).

20 To determine whether a project description is adequate, courts examine whether the
21 agency has “provide[d] the public with sufficient environmental information, considered in the
22 totality of circumstances, to permit members of the public to weigh in with their views and thus
23 inform the agency decision-making process.” *Bering Strait Citizens v. U.S. Army Corps of*

1 *Eng'rs*, 524 F.3d 938, 953 (9th Cir. 2008). Here, this test is met because the description cited
2 above is thorough. The EA analyzed all the environmental impacts for all phases of the work
3 required to accomplish the Project. As explained in I.B. and I.C above, there is a thorough
4 description of how hazardous waste and radiation may be generated by operation, and how it will
5 be disposed of upon decommissioning. Based on this description, the public was able to weigh
6 in with their views by commenting. *See, e.g.*, DOE000237 (AR7) (Comment 3 discusses
7 radiation effects). Thus, the Project description is adequate under NEPA.
8

9 **IV. The Environmental Assessment Includes an Adequate Range of Alternatives**

10 NEPA requires agencies to consider only the “reasonable alternatives within the purpose
11 and need it has defined.” *Ilio'Ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1097 (9th Cir.
12 2006); *Angoon v. Hodel*, 803 F.2d 1016, 1021 (9th Cir. 1986) (“When the purpose is to
13 accomplish one thing, it makes no sense to consider the alternative ways by which another thing
14 might be achieved.”).
15

16 While an EA must consider a reasonable range of alternatives, the obligation is lesser
17 than for an EIS. 42 U.S.C. § 4332(E), 40 C.F.R. § 1508.9(b); *see Native Ecosystems Council v.*
18 *U.S. Forest Serv.*, 428 F.3d 1233, 1246 (Consideration of a preferred alternative and a no action
19 alternative was adequate because “an agency’s obligation to consider alternatives under an EA is
20 a lesser one than under an EIS”). CEQ regulations require agencies to evaluate reasonable
21 alternatives that respond to the purpose and need of a proposed action. 40 C.F.R. §§ 1502.13,
22 1502.14(a); *Westlands Water Dist. v. U.S. Dep’t of Interior*, 376 F.3d 853, 865 (9th Cir. 2004)
23 (“The stated goal of a project necessarily dictates the range of ‘reasonable’ alternatives.”).
24
25

26 Save Strawberry Canyon incorrectly contends that “[o]n-site alternatives and off-site
27 alternatives are dismissed with little to no explanation, and the possibility of an alternative site
28

1 not located in the middle of a major metropolitan area is never considered.” Pl.’s Am. Compl. ¶
 2 38. Constructing a new building was considered, but rejected because such extensive
 3 construction activities would have environmental impacts and costs that would be greater than
 4 those associated with renovating an existing building. DOE000096-97 (AR7). Four other
 5 existing Lab buildings were considered, but rejected because they were seismically unsafe, and
 6 were undergoing renovations for functions other than accelerator housing, or lacked adequate
 7 space. DOE000096 (AR7). Off-site locations, including leased space, were also considered, but
 8 rejected because “vacant accelerator facilities in the area are uncommon, and a large perimeter
 9 around the building might have to be leased and secured to provide an equivalent amount of
 10 protection from potential risk of radiation exposure to the public.” DOE000097 (AR7).
 11

13 **V. The Environmental Assessment Adequately Responds to Comments**

14 Save Strawberry Canyon complains that DOE failed to adequately respond to comments
 15 including “comments from two individuals who referred to a recent report . . . that concludes
 16 ‘even the smallest dose’ of radiation ‘has the potential to cause a small increase in risk to
 17 humans.’” Pl.’s Am. Compl. ¶ 40. It appears that Save Strawberry Canyon is referring to
 18 comments from the Committee to Minimize Toxic Waste and Mark McDonald regarding “BEIR
 19 VII: Health Risks from Exposure to Low Levels of Ionizing Radiation Report” (AR48).
 20

21 EA Appendix C responds in detail to all comments received, including those cited by
 22 Save Strawberry Canyon. DOE000235-73 (AR7). Also, the administrative record includes a
 23 letter from Dr. Ray Orbach, then-Director of DOE’s Office of Science, to the National Academy
 24 of Sciences expressing serious concerns about the BEIR Report, and refuting its conclusions.¹⁸
 25

26
 27
 28 ¹⁸The letter explains that a number of significant epidemiological studies of workers exposed
 occupationally to low dose radiation had been published, but many of these were left out of the
 FEDERAL DEFENDANTS’ CROSS-MOTION FOR SUMMARY JUDGMENT AND MEMORANDUM IN
 SUPPORT - 3:10-CV-00797-VRW

1 DOE001005-06 (AR48). Thus, the BEIR Report was addressed, and the response to comments
 2 was adequate under NEPA. *See Cal. Trout v. F.E.R.C.*, 572 F.3d 1003, 1016 (9th Cir. 2009)
 3 (citing 40 C.F.R. § 1503.4) (“NEPA does not require federal agencies to assess, consider, and
 4 respond to public comments on an EA to the same degree as it does for an EIS, [but] an agency
 5 must permit some public participation when it issues an EA.”) (internal quotations omitted)).

7 **VI. The Environmental Assessment Does Not Improperly Defer Formulation of**
 8 **Mitigation Measures**

9 Save Strawberry Canyon incorrectly argues that the EA violated NEPA because it
 10 “repeatedly relies on yet-to-be developed documents to ensure that the Project will not have
 11 significant impacts.” Pl.’s Am. Compl. ¶ 42. Save Strawberry Canyon provides only one
 12 example, complaining that the Lab will prepare two documents before operations begin “that will
 13 supposedly ‘ensure the facility’s safe operation.’” Pl.’s Am. Compl. ¶ 42 (citing EA at 19). But
 14 Save Strawberry Canyon’s characterization is misleading and is not an example of improperly
 15 deferred mitigation measures.¹⁹

17 The final component of the Project is the operation of the laser and laser plasma
 18 accelerator for research and development—the very purpose and need of the Project is to develop
 19 a high-energy particle accelerator “to explore and discover the laws of nature as they apply to the
 20 basic constituents of matter and the forces between them.” DOE000079; *accord* 81 (AR7). It is
 21 true that, before the operation of the laser and the laser plasma accelerator for research and
 22

24 Report. DOE001005-06 (AR48). The letter expresses great concern over the Report’s use of a
 25 particular linear hypothesis to extrapolate the risks of low doses of radiation in U.S. populations
 26 from a Japanese Atomic Bomb Life Span Study. *Id.* The letter also identifies issues with
 27 incorrect assumptions, and urges the Committee to act responsibly by acknowledging the
 28 existence of and more fully discussing newer data than the Atomic Bomb study. *Id.*

¹⁹ In fact, “NEPA does not require that [EAs] include a discussion of mitigation strategies.”
Akiak Native Cmty. v. U.S. Postal Serv., 213 F.3d 1140, 1147 (9th Cir. 2000).

1 development, the Lab “will prepare, and DOE will review and approve, a Safety Analysis
2 Document (SAD) and Accelerator Safety Envelope (ASE) in accordance with DOE Order
3 420.2B to ensure the facility’s safe operation.” DOE000095 (AR7). These documents will
4 provide the specific details of the safety features described in the EA.
5

6 The SAD and the ASE, however, are not mitigation measures. CEQ regulations define
7 “mitigation” to include:

- 8 (a) Avoiding the impact altogether by not taking a certain action or parts of an
9 action.
- 10 (b) Minimizing impacts by limiting the degree or magnitude of the action and
11 its implementation.
- 12 (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected
13 environment.
- 14 (d) Reducing or eliminating the impact over time by preservation and
15 maintenance operations during the life of the action.
- 16 (e) Compensating for the impact by replacing or providing substitute
17 resources or environments.

18 40 C.F.R. § 1508.20 (1987).

19 Mitigation measures addressing the environmental impacts are, however, described in the
20 EA. To mitigate the risk of a seismic event, the Project will further enhance Building 71’s
21 structural system to improve its capacity to withstand a seismic event. DOE000241 (AR7). To
22 mitigate the potential impacts resulting from radiation emissions, “[s]everal features of the
23 system design would minimize personnel exposure to radiation.” DOE000104 (AR7). These
24 mitigation measures include the shielding in the Experimental Cave as well as “[l]imited access,
25 engineered interlocks, and safety controls [that] would prevent accelerator operation while the
26 Experimental Cave was occupied.” *Id.* In addition to the monitoring system already in place,
27 radiation monitors will be installed outside the wall and roof of the shielding to check that the
28 shielding is working properly. *Id.*

1 Even assuming the SAD and the ASE are mitigation measures to be developed in the
2 future, the Supreme Court has held that NEPA does not require adoption of a complete
3 mitigation plan before an agency can act. *See Robertson*, 490 U.S. at 351-53 (“[I]t would be
4 inconsistent with NEPA’s reliance on procedural mechanisms—as opposed to substantive, result-
5 based standards—to demand the presence of a fully developed plan”); *see also U.S. Forest Serv.*,
6 451 F.3d at 1016 (EA for forest management project which contained very specific and detailed
7 information on how effects to wildlife and the watershed would be minimized, cross-referenced
8 detailed best management, and incorporated concurrent monitoring of effectiveness and
9 implementation of those practices, was adequate to satisfy agency’s responsibility under NEPA).
10

11
12 In this Ninth Circuit, “so long as significant measures are undertaken to mitigate the
13 project’s effects, they need not completely compensate for adverse environmental impacts.”
14 *Friends of Endangered Species, Inc. v. Jantzen*, 760 F.2d 976, 987 (9th Cir.1985) (finding an EA
15 was adequate and an EIS would not required because “[e]ven if the mitigation measures in the
16 present case would not completely compensate for all adverse environmental impacts, this
17 shortcoming would not be detrimental.”). The mitigation measures described in the EA are
18 sufficient to compensate for adverse environmental impacts. Thus, even if the Court finds that
19 the SAD and ASE documents are some sort of deferred mitigation measures, the EA is still
20 adequate under NEPA.
21

22 **VII. Save Strawberry Canyon Forfeited Challenges to Issues Not Raised in Their** 23 **Comments**

24 Save Strawberry Canyon raises several issues for the first time in litigation, instead of
25 properly raising them during the comment period for the EA. Its comment letter fails to mention
26 concerns about hazardous waste, seismic events, project description, incorporation by reference,
27
28

1 deferred mitigation measures or Project location alternatives. Additionally, it raised the
 2 groundless claim that the Lab is situated atop an alleged collapsed volcano for the first time in its
 3 Amended Complaint. Pl.'s Am. Compl. ¶ 33.

4 Save Strawberry Canyon has waived any legal claims based upon these concerns because
 5 DOE has no notice of them during the NEPA process. *U.S. Dep't of Transp. v. Pub. Citizen*, 541
 6 U.S. 752, 764-65 (2004) (Plaintiffs who “did not raise these particular objections to the EA, . . .
 7 have therefore forfeited any objection to the EA on [those] ground[s]”); *see also N. Idaho Cmty.*
 8 *Action Network v. U.S. Dep't of Transp.*, 545 F.3d 1147, 1156 n.2 (9th Cir. 2008) (“because the
 9 tunnel alternative was not raised and identified until . . . well after the notice and comment
 10 periods . . . closed, any objection to the failure to consider that alternative has been waived.”).

11 The record demonstrates that DOE examined all public comments very closely, even
 12 breaking them down into sub-comments, and provided detailed responses to every concern raised
 13 by the public. *See* DOE000235-73 (AR7). Had Save Strawberry Canyon commented on the
 14 alleged collapsed volcano issue during the NEPA process, as required, the record would have
 15 contained a detailed response.²⁰ Because it did not submit those comments, however, DOE does
 16 not have specific explanations in the record to defend against this baseless claim. This is exactly
 17 the type of gamesmanship that the waiver doctrine seeks to avoid, and Save Strawberry Canyon
 18 should not benefit from its failure to raise this issue in comments.

23 CONCLUSION

24 For the foregoing reasons, the Court should grant Federal Defendants' motion for
 25

26
 27 ²⁰ DOE responded in detail when Save Strawberry Canyon raised this issue in the context of
 28 another Lab project considered since this EA was finalized. *See* “Master Response 1,” at
<http://www.lbl.gov/Community/SeismicPhase2B/assets/docs/Final-EA/AppxD.pdf>.

1 summary judgment and deny Plaintiff's motion.

2
3 Respectfully submitted this 3rd day of September, 2010.

4
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Certificate of Service

I hereby certify that on September 3, 2010, Federal Defendants filed through the United States District Court ECF System the foregoing Federal Defendants' Cross-Motion for Summary Judgment and Memorandum in Support to be served by CM/ECF electronic filing on the following attorneys of record:

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