

**Letter 9  
Response****Tahoe-Truckee Sanitation Agency  
Marcia A. Beals, General Manager/Treasurer  
August 27, 2012**

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9-1

The commenter requests information on the estimated average and maximum quantities of wastewater discharge (expressed in gallons per minute [gpm] and gallons per day [gpd]) and the constituents of the wastewater from the gasification system.

The information requested by the commenter is vendor-specific and are details that would be included in the sewer connection application submitted to the Tahoe-Truckee Sanitation Agency (T-TSA) subsequent to project approval and prior to groundbreaking. Because a specific gasification vendor has not yet been selected, the Draft EIR evaluates the range of possible wastewater discharge outcomes based on information obtained from several potential vendors.

With regards to wastewater volume, the text on pages 3-19 and 15-8 of the Draft EIR explains that the maximum continuous flow required by the gasification system would be up to 10 gpm and 14,400 gpd. The Draft EIR further states that the Applicant would limit vendor selection to those that could meet these specifications (page 3-19). This reflects the worst-case peak demand. The Draft EIR (Impact 15-2) determined that based on the worst-case demand that T-TSA has the available capacity to serve the project. The T-TSA's comment letter does not dispute the Draft EIR conclusion, but rather requests information that would be provided at a later date in support of an application to T-TSA for service. If the project is approved, a vendor will be selected and the details of wastewater generation will be submitted to T-TSA for review and approval.

With regard to the wastewater constituents, the text on pages 3-21 of the Draft EIR recognizes that “[d]epending on the specific gasification technology chosen for the project, there may be need for pretreatment of wastewater from the gasification system prior to discharge to the TCPUD sewer main that connects to the T-TSA sanitary sewer system...Prior to discharge this water would be pre-treated to the standards required by the sewer system.” The information requested by the commenter is again vendor-specific and would be included in the sewer connection application submitted to T-TSA subsequent to project approval and prior to groundbreaking. The application would include the following: (1) the name of all substances to be discharged to the system, (2) their concentrations, (3) the quantity of flow, (4) the proposed discharge point, (5) hours of discharge, and (6) other pertinent information necessary to determine possible effects. The project would be required to comply with all provisions of T-TSA Rules and Regulations, Pretreatment Ordinance 3-89, and Local Discharge Limits. The Applicant would work with T-TSA to refine the information in the application and determine the appropriate pre-treatment options, as necessary.

At least one of the vendors (Phoenix Technology, manufacturer of the gasification system at the Merced Facility) under consideration, has indicated that there system would yield no wastewater discharge from the site (except limited quantities of domestic wastewater from the proposed restroom at the facility), as is the case at their Merced Facility (Tornatore, pers. comm., 2012). This system uses an evaporator such that there would be no industrial wastewater discharge. The evaporator could be placed next to the cooling tower; the evaporator would be smaller than the cooling tower. It is possible that other vendors could use an evaporator to minimize or eliminate any discharge like the Phoenix Technology system. Use

of an evaporator, in lieu of discharging to the T-TSA sewer system, would result in residual solids and emissions of volatile organic carbons (VOCs) from the evaporator.

Based on input from Phoenix, use of an evaporator is estimate to generate about 346 lb/day or 1.2 tons/week of residual solids (Tornatore, pers. comm., 2012). It is estimated that this would generate up to one additional truck trip per month to off-haul the residual solids to an appropriate disposal facility. Phoenix has conservatively calculated that an evaporator generates 0.0016083 lbs/gallon of VOCs; these VOCs come from the wood itself and some are products of the gasification process. The proposed 2 megawatt (MW) system with a Phoenix gasifier is expected to emit up to 3.06 lbs/day of VOCs (Tornatore, pers. comm., 2012). The additional VOCs, even if all reactive organic compounds (ROGs), would still result in operational emissions that are below the 82 lb/day threshold for ROG (Table 9-7). Similarly, the addition of one truck trip per month would be within background traffic and emissions levels, such that the use of an evaporator would not alter conclusions regarding environmental impacts contained in the Draft EIR.

- 9-2 The commenter states that after wastewater quantity and quality is characterized, potential pretreatment requirements will need to be addressed. The commenter also provides additional information on pretreatment requirements and discharge restrictions, as well as connection fees and service charges for discharges. Excerpts from T-TSA rules and Regulations, T-TSA Pretreatment Ordinance 3-89, and T-TSA Local Discharge Limits related to discharge restrictions and pretreatment requirements are attached also attached to the comment letter.

The comment letter provides useful information for securing a sewer connection permit, if required. This comment does not specifically raise any issues with the environmental analysis provided in the Draft EIR, and as such no further response is necessary.

- 9-3 The commenter provides corrections to Impact 15-2 of the Draft EIR regarding the statement of T-TSA capacity. The commenter further notes that all sewer connections are made on a first-come, first-served basis. In response to this comment, the text of Impact 15-2 on page 15-8 of the Draft EIR is revised as follows; these changes are also reflected in Chapter 3 of this Final EIR:

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<b>Impact 15-2</b>	<b>Wastewater Conveyance and Treatment Capacity Impacts.</b> The T-TSA advanced water reclamation plant has a permitted <u>available</u> capacity, <u>on a first-come, first-served basis</u> , of approximately 3.2 mgd. At maximum peak use flow, the biomass facility would discharge 14,400 gpd, which would be less than 0.5 percent of the T-TSA's available capacity. Therefore, adequate treatment capacity is available to serve the proposed biomass facility and no new facilities would be required. This impact would be <b>less than significant</b> .
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These revisions do not constitute new significant information or alter conclusions regarding environmental impacts contained in the Draft EIR.

- 9-4 The commenter notes that there are errors in the description of the sanitary sewer collection system on page 15-8 in the Draft EIR. In response to this comment, the following revisions are made to the text in Impact 15-2:

An existing sanitary sewer collection system serves the existing Eastern Regional MRF and Transfer Station operations and TART and DPW facilities adjacent to the southern portion of the site. This collection system, which is owned by Placer County, would be extended to the site to serve the project. Currently, the site's sanitary sewer collection system ~~connects with the NTPUD~~ discharges into a TCPUD collection manhole, and then into T-TSA's Truckee River Interceptor, both of which are located in the Truckee River corridor near SR 89. ~~sewer main, which runs along SR 89.~~ Wastewater is conveyed via ~~NTPUD main and the T-TSA/TCPUD~~ sewer main to the T-TSA WRP located east of the Town of Truckee. As part of the project, the existing sewer line would be extended to the site within the existing road alignment. The impacts of this improvement are evaluated throughout this EIR. No additional wastewater conveyance improvements would be required to convey project wastewater to the T-TSA reclamation plant.

These revisions are also reflected in Chapter 3 of this Final EIR. These revisions do not constitute new significant information or alter conclusions regarding environmental impacts contained in the Draft EIR.

- 9-5 The commenter provides clarification on page 15-2 of the Draft EIR regarding ownership of the wastewater collection system at the MRF and Transfer Station site. In response to this comment, the following revisions are made to the first full paragraph on page 15-2 of the Draft EIR:

The Tahoe City Public Utility District (TCPUD) provides sanitary sewer service to the existing MRF and Transfer Station. Placer County owns the collection system that serves the existing MRF and Transfer Station. The boundaries of the District lie within both Placer and El Dorado Counties, extending from Emerald Bay to Dollar Hill, and along the Truckee River to the Nevada County line. Sewage collected from the site discharges into a TCPUD collection manhole, and then into the Tahoe-Truckee Sanitation Agency (T-TSA) Truckee River Interceptor, both of which are located in the Truckee River corridor near SR 89. The T-TSA Truckee River Interceptor ranges in size from 24 inches to 42 inches and supplies sewage to T-TSA advanced water reclamation plant located in Truckee. Sewage collected from the site flows in a 36" pipe along the Truckee River corridor to the Tahoe-Truckee Sanitation Agency (T-TSA) wastewater treatment plant located on the eastern side of Truckee. The Tahoe-Truckee Sanitation Agency (T-TSA) was founded in 1972 in response to the Porter Cologne Water Quality Control Act, promulgated to protect Lake Tahoe and Truckee River water quality. T-TSA provides regional wastewater treatment service to several Tahoe-area communities through the Agency's five-member sewage collection districts. The member agencies served by T-TSA facilities include:

These revisions are also reflected in Chapter 3 of this Final EIR. These revisions do not constitute new significant information or alter conclusions regarding environmental impacts contained in the Draft EIR.

## 2.4.4 ORGANIZATIONS



CENTER for BIOLOGICAL DIVERSITY

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September 10, 2012

Via e-mail: [cdraecs@placer.ca.gov](mailto:cdraecs@placer.ca.gov)  
 Hard copy to follow via U.S. Priority Mail

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 Placer County Community Development Resource Agency  
 Environmental Coordination Services  
 3091 County Center Drive, Suite 190  
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**Re: Cabin Creek Biomass Facility Project Draft Environmental Impact Report (SCH# 2011122032)**

Dear Ms. Krach:

The Center for Biological Diversity (“Center”) submits the following comments on the Draft Environmental Impact Report (“DEIR”) for the above-referenced Cabin Creek Biomass Facility (the “Project”). The Center is a non-profit environmental organization dedicated to the protection of imperiled species, their habitats, and the environment through science, policy, and environmental law. The Center has more than 378,000 members and online activists throughout the United States, including many members in the Lake Tahoe and Sierra Nevada regions. The goal of the Center’s Climate Law Institute is to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and public health. Specific objectives include securing protections for species threatened by the impacts of global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues.

Biomass energy generation, although often touted as a “clean” alternative to fossil-fueled generation, has potentially significant environmental impacts of its own. Absent proper consideration of these impacts—particularly air pollution, greenhouse gas emissions, and effects on forest habitat associated with the harvest and combustion of woody biomass—decision-makers and the public may be misled as to the benefits and environmental drawbacks of a biomass project.

Scrupulous compliance with the disclosure and mitigation requirements of the California Environmental Quality Act (“CEQA”) is therefore essential. Before the County may approve the Project, it must certify an EIR that complies with CEQA’s substantive and procedural requirements. *See generally* Public Resources Code section 21000 *et seq.*; *see also* 14 Cal. Code Regs. § 15000 *et seq.* (“CEQA Guidelines”). An

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EIR is “the heart of CEQA.” *Laurel Heights Improvement Ass’n v. Regents of University of California*, 47 Cal. 3d 376, 392 (1988) (citations omitted) (“*Laurel Heights I*”). It serves as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. Because the EIR must be certified or rejected by public officials, it is a document of accountability.” *Id.* (citations and internal quotations omitted). Where an EIR fails to fully and accurately inform decision-makers, and the public, of the environmental consequences of proposed actions, it does not satisfy the basic goals of the statute. *See* Pub. Res. Code § 21061.

10-1  
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As explained in detail below, the EIR fails to meet CEQA’s standards. In particular, the EIR fails to provide a complete, accurate, and consistent description of the Project. As a result, neither decision-makers nor the public can meaningfully assess the Project’s impacts or evaluate mitigation measures and alternatives to lessen those impacts. The EIR also fails to adequately disclose, analyze, and propose mitigation for the Project’s emissions of air pollutants including greenhouse gases, its potential effects on forest habitat and other biological resources, and its potential effects on groundwater supplies. For these reasons, as well as others described herein, the County cannot approve this Project unless and until it recirculates a revised draft EIR that meets all applicable legal standards.

**I. The Project Description is Inconsistent and Lacks Sufficient Detail to Permit Informed Consideration of the Project’s Environmental Impacts.**

In order for an environmental document to adequately evaluate the environmental ramifications of a project, it must first provide a comprehensive description of the project itself. An EIR must describe a proposed project with sufficient detail and accuracy to permit informed decision-making. *See* CEQA Guidelines §15124. Indeed, “[a]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.” *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus*, 27 Cal. App. 4th 713, 730 (1994), quoting *County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 193 (1977). As a result, courts have found that, even if an EIR is adequate in all other respects, the use of a “truncated project concept” violates CEQA and mandates the conclusion that the lead agency did not proceed in a manner required by law. *San Joaquin Raptor*, 27 Cal. App. 4th at 730. Furthermore, “[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.” *Id.* (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable. *See Communities for a Better Env’t v. City of Richmond*, 184 Cal. App. 4th 70, 82-83 (2010) (approval of EIR based on inadequate project description constitutes legal error).

10-2

As described below, the DEIR lacks consistency and detail regarding the Project’s fuel supply, the design of the gasifier and generator, the Project’s consistency with

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renewable generation goals, and the possible need for transmission upgrades to connect the Project to the grid. Absent consistent and adequately detailed information, neither the public nor the County’s decision-makers can properly evaluate the Project’s environmental consequences.

10-2  
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**A. Fuel Supply and Characteristics**

The DEIR’s descriptions of the sources and characteristics of Project biomass fuels are vague and inconsistent. The DEIR acknowledges in some places that fuel will be “derived from a variety of sources,” DEIR at 3-11, but in others appears to assume fuel will come from a far more limited range of sources (i.e., woody materials from hazardous fuels reduction, thinning and harvest residuals, and WUI-sourced materials). DEIR at 3-13. Still other portions of the DEIR suggest that construction and demolition materials may be accepted in the future. DEIR at 5-19 to 5-20. Similarly, although the DEIR makes clear that woody materials “already being processed” at the existing Materials Recovery Facility (“MRF”) will be used as fuel during the winter, DEIR at 3-5, 3-7, 3-10, it does not adequately describe what kinds of wood waste are currently processed at the existing facility or how the Project proposes to ensure compliance with fuel specifications. *See* DEIR at 3-13 to 3-15.

10-3a

The DEIR similarly neglects to describe how existing demand for wood currently processed at the MRF and “reused” for ski slope stabilization and other purposes will be met if that wood is diverted to the Project.<sup>1</sup> Presumably, that demand will have to be met from other sources as a result of Project implementation; the DEIR thus must evaluate the potential environmental effects of meeting that demand.

10-3b

Without a complete, internally consistent, and accurate account of the actual fuel mix, it is impossible to evaluate the Project’s direct and indirect environmental effects. The sources and characteristics of fuels have a direct bearing on disclosure and analysis of air pollutant and greenhouse gas emissions as well as potential indirect forest and habitat effects. Indeed, the Project Description’s inconsistencies and omissions make it impossible to determine whether the Project will facilitate additional forest thinning operations. Project objectives include supporting forest management through “already planned forest thinning operations,” DEIR at 3-7, but the Project lifespan is 40 years, well beyond any acknowledged planning horizon for forest management activities. *See* DEIR at 3-15. Neither the public nor decision-makers can determine from the information provided in the Project Description whether this Project will incentivize additional biomass harvest or forest management activities. This information is necessary to evaluate potential impacts to forest and biological resources.

10-3c

<sup>1</sup> The DEIR’s discussion of current uses of the wood processed at the MRF is inconsistent. In the Project Description, the DEIR states this wood is transferred to other biomass facilities, including SPI’s Lincoln facility, DEIR at 3-7, but in a later section, the DEIR says the cost of transporting wood to Lincoln is economically prohibitive. DEIR at 5-20.

10-3d

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The DEIR’s assumptions regarding transportation of fuels are similarly unclear. The document’s truck trip estimates appear to be based on transport of “bone dry tons” of wood. DEIR at 3-15 to 3-16, 8-12 to 8-13. The actual wood hauled to the facility, however, will not be “bone dry,” but rather may have up to 50% moisture content. DEIR at 3-13. The DEIR does not disclose whether the resulting weight difference is significant in terms of chip van capacity and vehicular weight limits on the roads to be used for transportation. In short, the difference between theoretical “bone dry” fuels and the *actual* fuels to be transported may affect the number of truck trips and associated air pollution, greenhouse gas, traffic, and road maintenance impacts. Again, without an accurate characterization of the actual Project, analysis of these impacts is impossible.

10-4

**B. Gasifier/Generator Design**

The DEIR does not disclose sufficient information about the gasification and generation technology proposed for the Project to permit intelligent evaluation of potential impacts. The document does not describe any particular technology, but rather makes reference to a “preliminary layout of proposed facilities.” DEIR at 3-10. Under CEQA, the Project has to be described in sufficient detail to permit evaluation of its environmental consequences. The promise of “additional environmental review” later if the actual Project falls outside these vague parameters, DEIR at 3-10, is not sufficient.

10-5

For example, the DEIR does not specify whether a “lean burn” or a “rich burn” generator will be used, DEIR at 3-10, or what the difference might be in terms of air emissions. Emissions calculations presented elsewhere in the DEIR show zero emissions from natural gas, DEIR at 9-19 and App. D, even though the Project Description states natural gas may be used at startup depending on the final choice of technology. DEIR at 3-21. These inconsistencies make it impossible to evaluate the DEIR’s discussion of air quality impacts.

Similar Project Description deficiencies impede discussion of water quality impacts. Depending on the choice of technology for producing and cleaning the syngas, the Project may or may not use wet scrubbers or electrostatic precipitators to remove “entrained solid particulate and condensed tars, and trace contaminants containing alkalis and halogens.” DEIR at 3-10. Absent more precise information about generation technology, it is impossible to determine or evaluate what hazards these materials might pose or what will happen to them once they are filtered out of the syngas (i.e., whether they will be discharged in wastewater or as solid waste). The necessity of wastewater pretreatment also apparently depends upon a choice of technology that has not yet been made. DEIR at 3-21. Again, there is no way to analyze the potential impacts of providing pretreatment or discharging wastewater without knowing what technology will be used in the Project.

10-6

The DEIR similarly lacks information about potential transmission line improvements that may be necessary to carry the electricity generated by the Project. The Project Description concedes that interconnection studies have not yet been done, but rather will be deferred until the “latter phases of design.” DEIR at 3-21. Construction of

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adequate transmission facilities, however, is at least a foreseeable consequence (if not an integral part) of the Project, and thus must be evaluated in this EIR. *See, e.g., Laurel Heights I*, 47 Cal. 3d at 396. The DEIR’s proposal to defer analysis of potentially necessary “offsite improvements” for transmission, DEIR at 3-21, constitutes improper “piecemealing” of environmental review.

10-7  
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The timing of environmental review under CEQA is of critical importance. While environmental review cannot be delayed past the point where important decisions have already effectively been made, an EIR should not be prepared “before the project is well enough defined to allow for meaningful environmental evaluation.” *Save Tara v. City of West Hollywood*, 45 Cal. 4th 116, 130 (2008). The Project here, at least as described in this DEIR, still lacks definition. Accordingly, a revised analysis must be prepared that better describes the proposed technology—or, at the very least, more fully describes each of the options potentially under consideration—so that the public and the County can fully and intelligently weigh their choices.

10-8

**C. RPS Eligibility/Permitting**

The DEIR’s discussion of the Project’s eligibility for consideration under the Renewable Portfolio Standard contains outdated and incomplete information. For example, the DEIR refers to a definition of “biomass fuels” under Public Resources Code section 25743(f), DEIR at 3-11, but that section was repealed earlier this year. Stats. 2012, ch. 39 § 100 (SB 1018) (effective June 27, 2012). As a result, the basis for the DEIR’s claim that the facility qualifies under the RPS is unclear. The Project may not qualify as a “gasification” or “municipal solid waste conversion” facility under section 25741(b) or section 40117 of the Public Resources Code due to its emissions of air pollutants. Yet it is also not a biomass combustion facility. Because the DEIR’s analysis and conclusions regarding greenhouse gases explicitly depend on the notion that the Project will be RPS-eligible, the DEIR must be revised to provide a more complete and accurate account of the basis for the document’s conclusions regarding RPS eligibility.

10-9

**II. The DEIR Fails to Adequately Disclose, Analyze, and Propose Mitigation for the Project’s Potentially Significant Environmental Impacts.**

The discussion of a proposed project’s environmental impacts is the core of an EIR. *See* CEQA Guidelines § 15126.2(a) (“[a]n EIR shall identify and focus on the significant environmental effects of the proposed project”). One of the “basic purposes” of CEQA is to “[i]nform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.” CEQA Guidelines, § 15002(a)(1). To this end, an EIR must contain facts and analysis, not just an agency’s bare conclusions. *Citizens of Goleta Valley v. Bd. of Supervisors*, 52 Cal. 3d 553, 568 (1990). Public agencies must make a good-faith effort to disclose all they reasonably can about a project and its effects. *See* CEQA Guidelines §§ 15144, 15151.

10-10

CEQA further prohibits public agency approval of projects with significant environmental effects unless all feasible mitigation measures or alternatives available to

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lessen those effects have been incorporated. *See* Pub. Res. Code §§ 21002, 21002.1, 21081. Accordingly, an EIR must identify feasible, enforceable measures to mitigate significant environmental impacts. CEQA Guidelines § 15126.4.

As explained below, the DEIR fails to disclose, analyze, and identify mitigation for the Project’s potentially significant impacts, including its effects on air quality, climate change, forest habitat, and water supplies. These inadequacies go to the heart of CEQA’s informational purpose—and thus require that the DEIR be revised to provide a complete and accurate analysis of the proposed Project’s significant environmental impacts and feasible mitigation for those impacts, as required by law.

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**A. Air Quality**

The DEIR’s disclosure and analysis of air pollutant emissions from the Project is incomplete. For example, the document neither discloses nor discusses the significance of operational carbon monoxide (“CO”) emissions from the Project. Estimated operational emissions were derived from a study conducted by TSS Consultants and the Placer County Air Pollution Control District. DEIR at 9-16, Table 9-5 n.2. According to that study, CO emissions from syngas production and combustion alone may range from 3.6 lb/hr to 6.5 lb/hr. TSS & PCAPCD 2011 at 12-15. This is not disclosed in the DEIR. Moreover, neither the DEIR nor the TSS/PCAPCD study clearly discloses CO emissions from other components of the Project. These emissions must be disclosed and their significance evaluated, regardless of whether the PCAPCD has adopted a threshold of significance for CO.

10-11

Although the DEIR references project-related PCAPCD thresholds of significance for other pollutants, it does not discuss the District’s cumulative threshold of significance for NOx and reactive organic gases (“ROG”). This threshold for both pollutants is 10 lbs/day; although the PCAPCD does not use this threshold in determining whether an EIR should be prepared, it nonetheless requires mitigation measures for emissions above this threshold.<sup>2</sup> Operational emissions of both NOx and ROG exceed this threshold. DEIR at 9-19, Table 9-7. Yet neither the Air Quality section nor the Cumulative Impacts section of the DEIR discusses this threshold or proposes any mitigation. The DEIR must be revised to disclose this threshold, properly evaluate the significance of emissions, and propose feasible mitigation.

10-12

The DEIR further fails to address the potential for objectionable odors from the biomass storage piles. Although the DEIR references certain biomass facilities that have not generated odor complaints, other biomass facilities have created significant odor problems.<sup>3</sup> The DEIR acknowledges anaerobic activity in storage piles could create

10-13

<sup>2</sup> PCAPCD Draft CEQA Air Quality Handbook 24-25 (2012), available at <http://www.placer.ca.gov/Departments/Air/CEQAHandbook.aspx> (last visited Sept. 7, 2012).

<sup>3</sup> For example, an EIR for a development project near the Wheelabrator biomass plant in Anderson (Shasta County) references “numerous” complaints about odors from the

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objectionable odors. DEIR at 9-23. Although the DEIR claims this potential would be diminished due to frequent mixing and throughput of fuels, *id.*, it concedes elsewhere that “there would be extensive storage of woody biomass fuels” on the site during winter months. DEIR at 16-14. The DEIR also references mitigation measure 16-4 as potentially effective in limiting odors, but that measure is primarily designed to minimize fire risk. DEIR at 16-15. Indeed, mitigation measure 16-4 does not require mixing storage piles frequently, which the DEIR at 9-23 suggests would minimize odors, but rather requires regular compaction of the piles. DEIR at 16-15. To the extent measure 16-4 explicitly addresses odors at all, it does so only by reference to a plan that will be prepared at some point in the future. Nothing in measure 16-4 sets forth specific performance standards or concrete mitigation commitments. As such, the DEIR impermissibly defers mitigation for this potential impact.

10-13  
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Finally, the DEIR contains contradictory statements regarding the significance of toxic air contaminant (“TAC”) emissions. Both the Air Quality and Cumulative Impacts sections of the document claim TAC emissions are less than significant. DEIR at 9-22 to 9-23; 18-38 to 18-39. Yet the DEIR also identifies cumulative TAC emissions (i.e., emissions in conjunction with other nearby sources of TACs) as a significant and unavoidable effect of the Project for which no additional feasible mitigation is available. DEIR at 18-26. If TAC emissions are not significant, the EIR must provide facts and analysis to support this conclusion. If TAC emissions *are* cumulatively significant, on the other hand, the EIR must discuss potentially feasible mitigation measures, and must provide evidence and explanation supporting any conclusion that mitigation is infeasible.

10-14

**B. Greenhouse Gases**

The DEIR falls short of CEQA’s requirements in two major ways. First, it uses an unlawful and unsupported threshold of significance that inappropriately minimizes the Project’s greenhouse gas emissions. Second, it does not demonstrate that the Project’s effects will be less than significant, even under this inappropriate threshold.

10-15

**1. Threshold of Significance**

The DEIR evaluates the significance of the Project’s greenhouse gas emissions in comparison to a threshold based on the overall “efficiency” of the California electrical generation fleet necessary to meet AB 32’s 2020 targets. DEIR at 10-10 to 10-11 (explaining threshold of .28 MTCO<sub>2</sub>e/MWh). This threshold is both inappropriate and insufficient.

10-16

The greenhouse gas reduction goals in the AB 32 Scoping Plan are a *projection* of planned reductions, based on business-as-usual emissions, that the state will strive to achieve by 2020. By evaluating the Project solely in light of these future projections, the DEIR limits its analysis to a comparison between the Project and a hypothetical future

facility. Enplan, Panorama Planned Development Project EIR at 4.3-32 to 4.3-33 (excerpt attached as Ex. 1).

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condition. Put simply, the DEIR ignores the Project’s effects as compared to existing environmental conditions. This is contrary to a long line of CEQA cases addressing the “baseline” for environmental analysis. *See, e.g., Communities for a Better Env’t v. S. Coast Air Quality Mgmt. Dist.*, 48 Cal. 4th 310 (2010); *Woodward Park Homeowners Ass’n v. City of Fresno*, 150 Cal. App. 4th 683 (2007); *Envtl. Planning & Info. Council v. County of El Dorado*, 131 Cal. App. 3d 350 (1982). The DEIR must be revised to include an evaluation of the Project’s emissions in light of existing conditions.

10-16  
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At best, the DEIR evaluates only the Project’s consistency with policy goals, and neglects to evaluate its effect on the actual physical environment. Even assuming for the sake of argument that the Project would be consistent with achievement of AB 32’s goals—which, as explained below, the DEIR does not adequately demonstrate—this consistency would not relieve the County of its responsibility to determine whether the Project’s actual cumulative contribution to climate change is nonetheless significant. *Protect the Historic Amador Waterways v. Amador Water Agency*, 116 Cal. App. 4th 1099 (2004).

Recent climate science makes clear that projects consistent with AB 32 may still contribute significantly to climate change. The goal of AB 32 is to reduce California greenhouse gas emissions to 1990 levels by 2020. Health & Saf. Code § 38550. However, far steeper reductions are necessary to avoid the most significant impacts of climate change. Even to stabilize atmospheric CO<sub>2</sub> concentrations at 450 ppm and limit global average temperature increases to 2°C—a level at which devastating effects may still occur<sup>4</sup>—industrialized countries will have to reduce emissions by 25-40% below 1990 levels by 2020.<sup>5</sup> Merely returning to 1990 emissions levels is not enough. Indeed, many scientists believe that avoiding the worst impacts of climate change will require reducing the concentration of CO<sub>2</sub> in the atmosphere to 350 ppm or below, which will require even steeper and more rapid reductions.<sup>6</sup> The DEIR must analyze the cumulative significance of the Project’s emissions in light of the emissions reductions needed to avoid contributing to the actual physical impacts of climate change, not just measure them against an efficiency metric derived from the AB 32 Scoping Plan.

10-17

For these reasons, a threshold of significance based on mass emissions is appropriate to evaluate the Project’s effects in light of existing conditions. The timing and severity of climate change impacts ultimately depend on long-term atmospheric

<sup>4</sup> Recognizing this fact, scientists and international climate negotiators have begun to explore pathways for limiting average global temperature increases to less than 1.5°C. *See, e.g., M. den Elzen, et al., United Nations Environment Programme, The Emissions Gap Report* (Nov. 2010) (attached as Ex. 2).

<sup>5</sup> M. den Elzen & N. Höhne, *Reductions of greenhouse gas emissions in Annex I and non-Annex I countries for meeting concentration stabilisation targets*, 91 *Climatic Change* 249 (2008) (attached as Ex. 3).

<sup>6</sup> J. Hansen, et al., *Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?*, 2 *Open Atmos. Sci. J.* 217 (2008) (attached as Ex. 4).

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concentrations of greenhouse gases. Analysis of mass emissions is directly relevant—indeed, essential—to any analysis of an individual project’s contribution to these impacts.<sup>7</sup> The vast majority of state and federal climate policies and regulations—including, for example, EPA’s monitoring and reporting programs and its recent rulemakings regarding PSD and Title V permitting—use mass emissions thresholds.<sup>8</sup> Evaluated at the smokestack,<sup>9</sup> the Project’s greenhouse gas emissions on a mass basis exceed thresholds of significance proposed by air pollution control experts and public agencies for use in the CEQA context.<sup>10</sup> The Project’s emissions should be evaluated in light of these thresholds, not merely by reference to AB 32’s policy goals.

10-17  
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<sup>7</sup> Indeed, current scientific work focuses on establishing a global “carbon budget” and defining the emissions reduction trajectories necessary to limit the worst environmental impacts. *See, e.g.,* Joeri Rogelj, et al., *Emission Pathways Consistent with a 2° Global Temperature Limit*, 1 *Nature Climate Change* 413 (2011) (attached as Ex. 5); Niklas Höhne and Sara Moltmann, *Sharing the Effort Under a Global Carbon Budget* (WWF and Ecofys 2009) (attached as Ex. 6). A mass-based significance threshold is essential to evaluation of a project’s impacts in the context of carbon budget limitations.

<sup>8</sup> *See* Mandatory Reporting of Greenhouse Gases; Final Rule, 74 Fed. Reg. 56,260 (Oct. 30, 2009) (imposing reporting requirements on emitters of more than 25,000 tons per year CO<sub>2</sub>e); Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Final Rule, 75 Fed. Reg. 31,514 (June 30, 2010) (requiring PSD and Title V permits for sources emitting more than 75,000 or 100,000 tons per year CO<sub>2</sub>e).

<sup>9</sup> The DEIR treats greenhouse gases and other air pollutants inconsistently. In the air quality context, purportedly “avoided” emissions from open burning are not included in the DEIR’s analysis, but in greenhouse gas context, these “avoided” emissions are subtracted (or “netted out”) from the Project’s smokestack emissions. Netting out reductions from off-site “avoided” emissions—emissions whose occurrence or non-occurrence is under the control of distant third parties and government agencies other than the County—is inconsistent with state and federal Clean Air Act practice and principles. Significance should be evaluated based on stack emissions alone.

<sup>10</sup> *See, e.g.,* Cal. Air Pollution Control Officers Ass’n, *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act* (Jan. 2008) at 42-57 (evaluating thresholds of zero, 900, 25,000, and 50,000 metric tons per year) (attached as Ex. 7); Cal. Air Res. Bd., Preliminary Draft Staff Proposal, *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases Under the California Environmental Quality Act* (Oct. 24, 2008) at 10 (attached as Ex. 8) (recommending a presumptive threshold of significance of 7,000 metric tons of CO<sub>2</sub> equivalent per year for industrial projects); South Coast Air Quality Mgmt. Dist., *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (Oct. 2008) at 3-18 (Table 3-4) (attached as Ex. 9) (adopting screening threshold of 10,000 metric tons of CO<sub>2</sub> equivalent for industrial projects); Bay Area Air Quality Mgmt. Dist., *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance* (Dec. 7, 2009) at 7

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The DEIR rejects a mass emissions threshold as inappropriate for a renewable energy facility based on the theory that larger renewable projects result in greater greenhouse gas reductions. DEIR at 10-10. But this assertion simply begs the question. To meet CEQA's requirements, an EIR must disclose and evaluate whether a renewable project *actually achieves* greenhouse gas reductions. All "renewable" energy technologies are not created equal when it comes to greenhouse gas emissions. Biomass generation is especially carbon-intensive, and has been shown to cause increases in atmospheric greenhouse gas concentrations over a period of decades to centuries depending on the feedstock.<sup>11</sup> Woody materials derived from forest thinning operations, even if intended to reduce fire risk, also result in long-term atmospheric CO<sub>2</sub> increases if combusted for bioenergy.<sup>12</sup> Even increased use of forest residuals represents a change in management practice that may affect overall greenhouse gas emissions.<sup>13</sup> Biomass generation may be defined as "renewable" under California law, but that definition alone says nothing about the high carbon emissions associated with bioenergy.

10-17  
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(attached as Ex. 10) (adopting threshold of 10,000 metric tons of CO<sub>2</sub> equivalent for stationary sources).

<sup>11</sup> See, e.g., Stephen R. Mitchell, et al., *Carbon debt and carbon sequestration parity in forest bioenergy production*, GCB Bioenergy (2012), doi: 10.1111/j.1757-1707.2012.01173.x (attached as Ex. 11); Ernst-Detlef Schulze, et al., *Large-scale bioenergy from additional harvest of forest biomass is neither sustainable nor greenhouse gas neutral*, GCB Bioenergy (2012), doi: 10.1111/j.1757-1707.2012.01169.x at 1-2 (attached as Ex. 12); Jon McKechnie, et al., *Forest Bioenergy or Forest Carbon? Assessing Trade-Offs in Greenhouse Gas Mitigation with Wood-Based Fuels*, 45 Environ. Sci. Technol. 789 (2011) (attached as Ex. 13); Manomet Center for Conservation Sciences, Massachusetts Biomass Sustainability and Carbon Policy Study: Report to the Commonwealth of Massachusetts Department of Energy Resources 103 (Walker, T., ed. 2010), available at <http://www.manomet.org/manomet-study-woody-biomass-energy>; T. Searchinger, et al., *Fixing a Critical Climate Accounting Error*, 326 Science 527 (2009) (attached as Ex. 14).

<sup>12</sup> See John L. Campbell, et al., *Can fuel-reduction treatments really increase forest carbon storage in the western US by reducing future fire emissions?* Front. Ecol. Env't, doi:10.1890/110057 (2011) (attached as Ex. 15); Tara Hudiburg, et al. 2011. *Regional carbon dioxide implications of forest bioenergy production*, Nature Climate Change, doi: 10.1038/NCLIMATE1264 (2011) (attached as Ex. 16).

<sup>13</sup> "[A] change in forest management practices, for instance, by decreasing the rotation length or increasing the use of harvest residues, also has a long-term impact on the landscape-level terrestrial stock or the stand-level C stock time-averaged over the rotation." Kim Pingoud, et al., *Global warming potential factors and warming payback time as climate indicators of forest biomass use*, Mitig. Adapt. Strateg. Glob. Change (2011), DOI 10.1007/s11027-011-9331-9 at 2 (emphasis added) (attached as Ex. 17); see also Anna Repo, et al., *Indirect Carbon Dioxide Emissions from Producing Bioenergy from Forest Harvest Residues*, Global Change Biology Bioenergy, doi: 10.1111/j.1757-1707.2010.01065.x (2010) (attached as Ex. 18).

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Indeed, California’s RPS is not at all sensitive to the wide range of greenhouse gas emissions associated with different types of renewable generation, and does nothing to ensure that all RPS facilities actually reduce emissions.<sup>14</sup> As a result, the DEIR’s logic is fatally flawed. While larger low-carbon renewable facilities—solar and wind installations, for instance—might arguably achieve greater greenhouse gas reductions, the same cannot be said for high-carbon biomass generation; larger biomass facilities produce more emissions, not less. Recent empirical research also has shown that renewable generation does not always displace fossil-fueled generation, but rather may simply add capacity to the grid, leaving any presumed greenhouse gas reductions from displacement unrealized.<sup>15</sup>

10-17  
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Greenhouse gas reductions from renewable facilities cannot be assumed. They have to be demonstrated on a project-by-project basis, in light of each project’s actual emissions to the atmosphere. The DEIR’s threshold of significance does not provide an adequate basis for this demonstration, and thus fails to serve CEQA’s informational purpose.

**2. Analysis of Significance**

Even using a flawed standard of significance, the DEIR fails to substantiate its conclusion that the Project’s greenhouse gas emissions will be less than significant. Indeed, the DEIR’s conclusion that the Project will achieve an efficiency of .22 MTCO<sub>2</sub>e/MWh is grounded in unsupported assumptions rather than substantial evidence.

The DEIR assumes every ton of fuel used by the Project would otherwise be burned in the open. DEIR at 10-13 (“only biomass that would otherwise be open burned would be hauled to the biomass plant.”). Using this assumption, the DEIR then subtracts emissions from “avoided” open burning from the Project’s actual emissions in order to arrive at the efficiency figure of .22 MTCO<sub>2</sub>e/MWh. DEIR at 10-14 to 10-15, App. D.

This fundamental assumption—critical to the DEIR’s conclusion that the Project’s greenhouse gas emissions are less than significant—is contradicted by other statements in the DEIR. For example, the Project will use fuels from the existing MRF facility during several months of the year—fuels that would otherwise be reused for non-combustion purposes like ski slope stabilization.<sup>16</sup> The DEIR also anticipates that the

10-18

<sup>14</sup> Indeed, “reducing emissions of greenhouse gases” is only one of the nine enumerated “benefits” of the RPS program; the other eight “benefits” have nothing to do with climate change. See Pub. Util. Code § 399.11(b).

<sup>15</sup> See Andrew K. Jorgenson, *Analyzing fossil-fuel displacement*, 2 Nature Climate Change 398 (2012) (attached as Ex. 19); Richard York, *Do alternative energy sources displace fossil fuels?* 2 Nature Climate Change 441 (2012) (attached as Ex. 20). York 2012 specifically finds that non-hydropower renewables, including biomass, do not displace fossil fuels at all, but rather simply add capacity.

<sup>16</sup> Although the DEIR states some of this fuel is currently trucked to other biomass plants, DEIR at 3-7, it also concedes this is economically prohibitive. DEIR at 5-20. In any

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Project will accept construction and demolition waste during its 40-year lifetime. DEIR at 5-19 to 5-20. The EIR also purportedly assumes up to a quarter of the fuel supply may come from WUI projects, DEIR at 3-13, which by definition may occur in residential areas where open burning may be more restricted and less common.

Contrary to all of these statements, the DEIR’s analysis of greenhouse gases seems to assume that the entire fuel supply will come from forest residuals. Yet nothing in the DEIR or the Project Description enforceably limits the fuel supply to forest residuals, much less only those residuals that “would otherwise be open burned.” The DEIR acknowledges that not *all* materials from forest management projects are burned in the open. *See, e.g.*, DEIR at 10-13, 18-6. Nothing in the DEIR explains how anyone associated with the Project will be able to ensure that only residual materials otherwise slated for open burning would be hauled to the biomass plant, when the harvesting, processing, and transportation of these materials will all be under the control of third parties. In short, the assumption that all Project fuel would otherwise be burned in the open is entirely unsubstantiated.

10-18  
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The DEIR also assumes in conclusory fashion that open burning would attain a remarkably high combustion efficiency of 95%. DEIR at App. D. Empirical evidence indicates otherwise. According to Forest Service research, fuel consumption in slash piles can range as low as 75%.<sup>17</sup> Combustion efficiencies for broadcast understory burning of coarse woody debris can be as low as 60%.<sup>18</sup> The DEIR thus overstates combustion emissions from purportedly “avoided” open burning operations—and as a result *understates* net emissions from the Project itself.

10-19

Due to these inconsistencies and unsupported assumptions, it appears highly unlikely that the Project will achieve a greenhouse gas efficiency below the DEIR’s threshold of significance of .28 MTCO<sub>2</sub>e/MWh. In order to meet this threshold, net Project emissions would have to be no higher than 4,905.6 MTCO<sub>2</sub>e—a mere 4.4% higher as a fraction of total emissions than the DEIR’s claimed net emissions of 3,809 MTCO<sub>2</sub>e. Accordingly, if only 5% of Project fuels (including construction and demolition waste and materials from the existing MRF) would not otherwise have been open burned, or open burning combustion efficiencies average only 90% (which is still higher than supported in the empirical literature), net Project emissions will be high enough to exceed the DEIR’s .28 MTCO<sub>2</sub>e/MWh threshold of significance. The DEIR has not justified its use of assumptions that dramatically underestimate the Project’s

10-20

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event, nothing in the DEIR substantiates the assertion that materials currently processed at the MRF “would otherwise be open burned.”

<sup>17</sup> Colin C. Hardy, *Guidelines for Estimating Volume, Biomass, and Smoke Production for Piled Slash*, U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Research Station, Gen. Tech. Rep. PNW-GTR-364 (1996) (attached as Ex. 21).

<sup>18</sup> *See* Eric E. Knapp et al., *Fuel Reduction and Coarse Woody Debris Dynamics with Early Season and Late Season Prescribed Fire in a Sierra Nevada Mixed Conifer Forest*, 208 *Forest Ecology & Mgmt.* 383 (2005) (attached as Ex. 22).

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actual net emissions—and thus has identified inadequate evidence to support its conclusion that those emissions will be less than significant, even under the DEIR’s own flawed threshold.

10-20  
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Although the DEIR itself does not offer any explanation, a note in Appendix D claims materials left in the forest would decompose anyway, and thus appears to suggest that decomposition and combustion may be treated as equivalent sources of atmospheric emissions. This assumption also lacks a scientific basis. Combustion and decomposition emissions enter the atmosphere in different amounts and at different times, and thus have different climatic consequences. Biomass materials left in the forest following fuels reduction and thinning projects decompose, but at a much slower rate, and a substantial fraction of carbon may remain sequestered even in the smallest residual materials for many decades.<sup>19</sup> Combustion, in contrast, instantly converts biologically stored carbon into atmospheric CO<sub>2</sub>.

This is a distinction with a very important difference. Recent climate science indicates global emissions must peak by 2020, and decline sharply and steadily thereafter, in order to preserve a likely chance of limiting average temperature increases to 2°C.<sup>20</sup> Near-term emissions increases also add to the risk of triggering climatic “tipping points”—aspects of the Earth’s climate system that could be switched into a “qualitatively different state” by relatively small increases in radiative forcing.<sup>21</sup> Because combustion emissions increase atmospheric greenhouse gas concentrations immediately—and because those concentrations may remain elevated for decades or even longer compared to what would have happened otherwise—bioenergy emissions cannot be considered equivalent to decomposition emissions in evaluating climate effects. The DEIR fails to disclose or consider the implications of this critical temporal aspect of the Project’s contribution to climate change.

10-21

In sum, the DEIR does not disclose complete and scientifically accurate information about the Project’s greenhouse gas emissions, and thus does not serve CEQA’s purposes. The DEIR also does not identify substantial evidence in support of its conclusion that the Project’s emissions will be less than significant. The DEIR must be revised and recirculated before the Project can be approved.

10-22

**C. Biological Resources**

The DEIR acknowledges forest management and biomass harvesting activities can affect forests and habitat, yet concludes the Project’s demand for fuel would not cause any changes in management in the Tahoe National Forest or the Lake Tahoe basin. See DEIR at 5-19 to 5-21. This conclusion is unsupported. The document claims there will be “substantial sources” of biomass materials from Forest Service projects over the

10-23

<sup>19</sup> See Repo 2010, supra note 13.

<sup>20</sup> Rogelj 2011, supra note 7.

<sup>21</sup> See, e.g., Timonthy M. Lenton et al., *Tipping elements in the Earth's climate system*, 105 Proc. Natl. Acad. of Sciences 1786 (2008) (attached as Ex. 23).

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next 10 to 15 years. DEIR at 5-19. The facility, however, is expected to be in operation for 40 years; aside from some general conclusory observations about the potential availability of non-forest-sourced fuels, DEIR at 5-19 to 5-20, the document lacks any analysis of the Project’s potential long-term impacts on local forests. The DEIR also states that the facility’s small size would prevent any increase in demand resulting from creation of a market for biomass fuels, DEIR at 5-20, but the document cites no evidence or analysis to support this conclusory statement. As a result, the DEIR’s conclusion that the Project will have no significant impact on forests or habitat lacks a basis in fact.

10-23  
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**D. Water Quality and Supply**

The DEIR’s discussion of water quality falls short of CEQA’s requirements. The document’s Cumulative Impacts section states hydrology and water quality impacts are potentially significant. DEIR at 18-41. Yet the DEIR fails to propose or discuss any feasible mitigation for this effect. See DEIR at 2-30 (summarizing mitigation measures). This is inconsistent with CEQA, which precludes Project approval absent adoption of all feasible mitigation to lessen or avoid significant environmental impacts. See Pub. Res. Code §§ 21000, 21081.

10-24

The DEIR’s analysis of water supply is also flawed. An EIR must demonstrate that water supplies will be adequate over the long term (i.e., the 40-year life of the Project). See generally *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova*, 40 Cal. 4th 412 (2007). Here, the DEIR does not provide any evidence that groundwater supplies are adequate, but rather claims there is a lack of evidence that supplies are inadequate. DEIR at 13-12. A lack of evidence of inadequacy is not evidence of adequacy. Indeed, the DEIR lacks any analysis of the actual groundwater basin and resources from which water will be drawn. The well supplying the Project is “not located within a mapped groundwater basin.” DEIR at 13-3. Information on the Martis Valley groundwater basin is thus not directly relevant to the Project’s potential impact on water supply or quality, and comparison to Martis Valley’s groundwater resources is not informative. The DEIR thus contains only conclusory, unsupported statements that water supply is sufficient. The County has a duty under CEQA to investigate these impacts and to support its conclusions with substantial evidence. It is clear from the DEIR that the County has not yet fulfilled these responsibilities.

10-25

**E. NEPA Compliance**

The Department of Energy (“DOE”) apparently has not yet determined whether to prepare an Environmental Assessment or an Environmental Impact Report for the Project pursuant to the National Environmental Policy Act (“NEPA”), or whether it will simply rely on the DEIR in issuing a finding of no significant impact (“FONSI”). DEIR at 1-1. This DEIR, however, cannot serve as the basis for a FONSI. The document lacks any discussion of NEPA’s requirements for an environmental assessment. See 40 C.F.R. §§ 1501.4, 1508.9. No opportunity has been provided for comments to DOE regarding this document’s adequacy as an environmental assessment. Similarly, there is no indication

10-26

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DOE has followed its own NEPA procedures, as outlined in DOE Order O 451.1B (particularly paragraph 5.a(8) and (9), paragraph 5.d(3) and (11), and paragraph 5.e(5)).<sup>22</sup>

10-26  
Cont'd

**III. Conclusion**

For the foregoing reasons, the DEIR cannot serve as the basis for Project approval under either CEQA or NEPA. The County must revise and recirculate a document that fully complies with the law before moving forward with the Project.

10-27

Sincerely,



Kevin P. Bundy  
Senior Attorney

Encl.

<sup>22</sup> DOE Order O 451.1B (attached as Ex. 24).

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List of Attached Exhibits  
 (Submitted as PDF Files via email and on enclosed CD)

Exhibit	Title
1	Enplan/Shasta County, Panorama Planned Development Project EIR (excerpt).
2	M. den Elzen, et al., United Nations Environment Programme, The Emissions Gap Report (Nov. 2010).
3	M. den Elzen & N. Höhne, <i>Reductions of greenhouse gas emissions in Annex I and non-Annex I countries for meeting concentration stabilisation targets</i> , 91 <i>Climatic Change</i> 249 (2008).
4	J. Hansen, et al., <i>Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?</i> , 2 <i>Open Atmos. Sci. J.</i> 217 (2008).
5	Joeri Rogelj, et al., <i>Emission Pathways Consistent with a 2° Global Temperature Limit</i> , 1 <i>Nature Climate Change</i> 413 (2011).
6	Niklas Höhne and Sara Moltmann, <i>Sharing the Effort Under a Global Carbon Budget</i> (WWF and Ecofys 2009).
7	Cal. Air Pollution Control Officers Ass'n, <i>CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act</i> (Jan. 2008).
8	Cal. Air Res. Bd., <i>Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases Under the California Environmental Quality Act</i> (Oct. 24, 2008).
9	South Coast Air Quality Mgmt. Dist., <i>Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold</i> (Oct. 2008).
10	Bay Area Air Quality Mgmt. Dist., <i>California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance</i> (Dec. 7, 2009).
11	Stephen R. Mitchell, et al., <i>Carbon debt and carbon sequestration parity in forest bioenergy production</i> , <i>GCB Bioenergy</i> (2012), doi: 10.1111/j.1757-1707.2012.01173.x.
12	Ernst-Detlef Schulze, et al., <i>Large-scale bioenergy from additional harvest of forest biomass is neither sustainable nor greenhouse gas neutral</i> , <i>GCB Bioenergy</i> (2012), doi: 10.1111/j.1757-1707.2012.01169.x.
13	Jon McKechnie, et al., <i>Forest Bioenergy or Forest Carbon? Assessing Trade-Offs in Greenhouse Gas Mitigation with Wood-Based Fuels</i> , 45 <i>Environ. Sci. Technol.</i> 789 (2011).
14	T. Searchinger, et al., <i>Fixing a Critical Climate Accounting Error</i> , 326 <i>Science</i> 527 (2009).
15	John L. Campbell, et al., <i>Can fuel-reduction treatments really increase forest carbon storage in the western US by reducing future fire emissions?</i> <i>Front. Ecol. Env't</i> , doi:10.1890/110057 (2011).
16	Tara Hudiburg, et al. 2011. <i>Regional carbon dioxide implications of forest bioenergy production</i> , <i>Nature Climate Change</i> , doi: 10.1038/NCLIMATE1264 (2011).

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17	Kim Pingoud, et al., <i>Global warming potential factors and warming payback time as climate indicators of forest biomass use</i> , <i>Mitig. Adapt. Strateg. Glob. Change</i> (2011), DOI 10.1007/s11027-011-9331-9.
18	Anna Repo, et al., <i>Indirect Carbon Dioxide Emissions from Producing Bioenergy from Forest Harvest Residues</i> , <i>Global Change Biology Bioenergy</i> , doi: 10.1111/j.1757-1707.2010.01065.x (2010).
19	Andrew K. Jorgenson, <i>Analyzing fossil-fuel displacement</i> , <i>2 Nature Climate Change</i> 398 (2012).
20	Richard York, <i>Do alternative energy sources displace fossil fuels?</i> <i>2 Nature Climate Change</i> 441 (2012).
21	Colin C. Hardy, <i>Guidelines for Estimating Volume, Biomass, and Smoke Production for Piled Slash</i> , U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Research Station, Gen. Tech. Rep. PNW-GTR-364 (1996).
22	Eric E. Knapp et al., <i>Fuel Reduction and Coarse Woody Debris Dynamics with Early Season and Late Season Prescribed Fire in a Sierra Nevada Mixed Conifer Forest</i> , <i>208 Forest Ecology &amp; Mgmt.</i> 383 (2005).
23	Timothy M. Lenton et al., <i>Tipping elements in the Earth's climate system</i> , <i>105 Proc. Natl. Acad. of Sciences</i> 1786 (2008).
24	DOE Order O 451.1B.

**Letter 10  
Response**

**Center for Biological Diversity  
Kevin P. Bundy, Senior Attorney  
September 10, 2012**

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Note: the attachments to the Center for Biological Diversity comment letter are included in Appendix B of this Final EIR.

10-1 The commenter provides information regarding the Center for Biological Diversity and discusses the requirements of the CEQA. The commenter makes a general statement that the EIR fails to adequately disclose, analyze, and propose mitigation for the project's emissions of air pollutants including greenhouse gases, its potential effects on forest habitat and other biological resources, and its potential effects on groundwater supplies. No specific comments on the EIR analysis are provided. Responses to specific questions and comments regarding these issues are provided below.

10-2 The commenter states that the Draft EIR project description is inconsistent and lacks sufficient detail to permit informed consideration of the project's environmental impacts. The commenter further states that the Draft EIR lacks consistency and detail regarding the project's fuel supply and the design of the gasifier and generator; the Draft EIR lacks consistency with renewable generation goals and lacks detail regarding possible need for transmission line upgrades to connect the project to the grid. This comment provides introductory statements only. Refer to the responses to comments 10-3 through 10-9, below.

10-3a The commenter states that the Draft EIR descriptions of the sources and characteristics of biomass fuels are vague and inconsistent. The commenter asserts that the Draft EIR states that woody material already being processed at the MRF Facility will be used in the winter (Draft EIR pages 3-5, 3-7, 3-10) and the Draft EIR does not adequately describe what kinds of wood waste are currently processed at the existing facility or how the proposed project proposes to ensure compliance with fuel specifications (Draft EIR pages 3-13 to 3-15). The commenter selects quotes and then takes them out of context. For example, the commenter states "although the DEIR makes clear that woody materials 'already being processed' at the existing Material Recovery Facility ("MRF") will be used during the winter, DEIR at 3-5, 3-7, 3-10..."

On Draft EIR page 3-5 the woody biomass material that is already processed at the MRF facility is noted as part of the description of the County's overall Biomass Program, and not referenced specifically to the proposed project. On page 3-7 in Section 3.4.1, Project Overview, the description of the existing wood waste processing operations at the MRF is given as background for current operations adjacent to the project site, in contrast to the description of the source of fuels for the proposed plant, which is described in the following paragraph.

Reference to use of the MRF-processed wood waste on pages 3-7 and 3-10 states "While not anticipated to be needed, if fuel supplies for the biomass facility are low (potentially during extended winter months), the wood waste material (forest waste biomass) already processed at the Eastern Regional MRF and Transfer Station *could be available* as additional biomass fuel supply for the biomass facility *provided the material meets all the of the necessary fuel specifications* (emphasis added) .... ." and refers the reader to the detailed description of woody biomass fuel specifications that are provided in the Section 3.4.3, pages 3-11 to 3-15. Therefore, the Draft EIR project description states that the MRF-sourced wood would only be used if it meets fuel source specifications and only if the need arises. Further on page 3-13, second

paragraph the Draft EIR states that “While the fuel assessment considered fuel availability within 30 miles that includes clean (untreated) construction and demolition wood from building/remodeling activities extending to Reno, Nevada, *the Applicant proposes to procure only forest-source material.*”(emphasis added)

Section 3.4.3 of the Draft EIR describes the woody biomass fuel supply. In response to this comment, the text of Section 3.4.3 (page 3-11) in the Draft EIR is revised as follows to clarify that clean urban wood waste and any treated wood would not be used, to update references to PRC sections regarding renewable energy facilities, and to eliminate reference to pine needles as a fuel source:

### 3.4.3 WOODY BIOMASS FUEL SUPPLY

The fuel supply for the proposed project would be solely woody biomass, derived from a variety of sources including forest-sourced material (hazardous fuels residuals [i.e., woody biomass material that poses a substantial fire threat to human or environmental health], forest thinning and harvest residuals [i.e., woody biomass generated from forest maintenance and restoration activities], and clean Wildland Urban Interface (WUI; generally areas within ¼-mile of urban centers where materials would otherwise be piled and burned)-sourced waste materials from ~~residential and commercial property defensible space clearing and property management activities; materials that would otherwise be piled and burned, which would include brush and yard clippings, tree trimmings and pine needles~~). The facility would be certified as a renewable energy facility by the CEC based on California Public Resources Code (PRC) Section 25740, 25741 et seq. ~~the proposed sole use of renewable woody biomass as its only fuel source. As stated in California Public Resources Code (PRC) Section 25743(f), the CEC categorizes facilities generating electricity from biomass energy as in-state renewable electricity generation facilities if they report to the CEC the types and quantities of biomass fuels used and certify to the satisfaction of the Commission that the fuel utilization meets certain requirements including:~~

- ~~▲ have been harvested pursuant to an approved timber harvest plan prepared in accordance with the Z’berg-Nejedly Forest Practice Act of 1973 (Chapter 8 [commencing with Sec. 4511] of Part 2 of Division 4, California PRC);~~
- ~~▲ have been harvested for the purpose of forest fire fuel reduction or forest stand improvement; and~~
- ~~▲ do not transport or cause the transportation of species known to harbor insect or disease nests outside zones of infestation or current quarantine zones, as identified by the California Department of Food and Agriculture or CAL FIRE, unless approved by those agencies.~~

Forest-sourced material for the proposed project would generally include:

- ▲ residuals as a result of forest fuels reduction and defensible space activities; and
- ▲ timber harvest residuals including limbs, treetops, and unmerchantable logs generated as byproducts of commercial timber harvest activities.

High-quality, recoverable WUI materials for the proposed project would generally include tree trimmings and brush. The facility would not accept any urban wood waste

from building materials or other potential sources that have been treated (e.g., painted or pressure-treated wood).

To generate 2 MW of power using a gasification system, the plant would consume between approximately 14,000 and 17,000 bone dry tons (BDT) of woody biomass fuel annually depending on the vendor ultimately chosen.<sup>a</sup> The analysis contained herein assumes a maximum of 17,000 BDT of woody biomass would be consumed annually. This material would be delivered to the project site processed (i.e., chipped versus whole trees, limbs, and brush). The woody biomass fuel supply is anticipated to originate from within and around the Lake Tahoe Basin, generally within a 20- to 30-mile radius from the project site. In general, the costs associated with transport of woody biomass limit the market area for fuel acquisition. However, biomass fuel sources could come from longer distances if economics allow. All material to be used in the power generating facility would be required to meet established fuel specifications (see discussion of source-material specifications below).

In 2010, Placer County commissioned a comprehensive study of biomass markets, resource availability, and current demand for biomass feed stocks in the greater Lake Tahoe region (*Fuel Procurement Plan for the Lake Tahoe Region Biomass Energy Generation Facility*, Placer County Planning Department, February 16, 2011) to determine supply availability to support a wood-to-energy biomass facility in eastern Placer County. The fuel procurement study used a 40-year planning horizon and determined that sufficient biomass material is available to sustain a 1 to 3 MW biomass power generation facility (Placer County Planning Department 2011). According to the study, approximately 112,440 BDT per year of biomass fuel is available within a 30-mile radius or approximately one-hour drive (Table 3-1). According to the study, current demand for woody biomass materials from other facilities amounts to about 40,350 BDT per year resulting in a net availability of 72,090 BDT per year (Placer County Planning Department 2011), an amount in excess of the maximum 17,000 BDT required for the proposed 2-MW gasification facility. Exhibit 3-7 shows the general location of the core fuel supply area (CFSA).

According to the biomass fuel procurement study, transportation costs are such that use of most of this material at other biomass power plants would be economically infeasible. Transport costs are significant and Placer County is working with land management agencies to cost share the collection, processing, and transport expenses for biomass material that is currently open pile burned or masticated (chipped and scattered) (Placer County Planning Department 2011).

While the fuel assessment considered fuel availability within 30 miles that includes clean (untreated) construction and demolition wood from building/remodeling activities extending to Reno, Nevada, the Applicant proposes to procure only forest-sourced material. There are no plans to procure biomass fuel from the Reno/Sparks area. The Applicant intends to primarily procure material from areas within 20 to 30 miles of the Cabin Creek facility and from sources consistent with the basic project objectives that support fuels management projects designed to reduce catastrophic wildfire risks and healthy forest management projects in the Lake Tahoe Region.

The Applicant has secured access to a majority of the forest-sourced woody biomass waste material from the Lake Tahoe Basin via a contract with the USFS, Lake Tahoe Basin Management Unit. With a Master Stewardship Agreement (MSA), Placer County has a 10-year period to remove the woody biomass waste material from federally managed forest lands (for projects that have completed National Environmental Policy Act [NEPA] review). All MSA contracts are limited to up to 10 years under current law. The MSA can be re-negotiated for extensions. Placer County is currently negotiating a similar contract with the USFS, Tahoe National Forest to conduct similar activities. Within these MSAs, the USFS would assist in the cost of the removal of material that would otherwise be piled and burned or masticated. Contractors to the Applicant would then process and remove material that would be brought to the facility for energy production at the Cabin Creek facility. Similar contracts with local public agencies (e.g., fire districts) and business are also being developed to support the facility and provide each agency with a sustainable option to remove tree waste biomass rather than open burning.

The fuel blend for the facility assumes that 75 percent of the facility's fuel usage would be sourced from hazardous fuels treatment activities, with the balance being made up of forest thinning residuals and WUI-sourced materials (primarily tree trimmings and pine needles) (Placer County Planning Department 2011).

Similarly, the text on page 3-14 of the Draft EIR is revised as follows:

## **WUI-SOURCED MATERIAL SPECIFICATIONS**

WUI waste would include primarily wood waste ~~from tree trimming and yard clean up (pine needles) for~~ from defensible space activities purposes. WUI-sourced material used at the facility would be required to meet the following fuel specifications developed by the Applicant (Placer County Planning Department 2010):

The last paragraph on page 5-19 is revised as follows to be consistent with the above project description revisions:

The proposed biomass facility would use woody biomass derived from forest sources and clean urban sources. The forest sources would include forest residuals generated from hazardous fuel reduction, forest thinning for stand-level management, wildlife habitat enhancement, or other forest management activities conducted by the Tahoe National Forest (TNF) and Lake Tahoe Basin Management Unit (LTBMU) of USFS. Placer County's intention is to primarily use biomass generated from these USFS projects especially in light of the substantial sources of these materials to meet the facilities needs over the next 10 to 15 years; ~~however, over its lifetime, the biomass facility may use clean urban sources of fuels, such as tree trimmings, pine needles, and clean (untreated) construction and demolition wood (e.g., pallets), and forest sources on state or private land as well. The facility would not accept any urban wood waste from building materials or other potential sources that have been treated (e.g., painted or pressure-treated wood).~~

The above revisions do not constitute new significant information or alter conclusions regarding environmental impacts contained in the Draft EIR.

Fuel record keeping described in Section 3.4.3 on Draft EIR page 3-16, states that “The facility operator would record the source location, volume/weight, moisture content, and date and time for all incoming loads of biomass material to project site.” and that “Data would be maintained at the site and made available to CEC and others as necessary.” Environmental Commitment Number 6, on Draft EIR page 3-23 states that “All biomass fuel consumed by the biomass facility shall comply with the fuel specifications identified in Section 3.4.3 above, including specifications about the HHV, ash content, moisture content, fuel size, excluded materials, and *third-party testing for forest-sourced and WUI-sourced biomass.*” (emphasis added)

Fuel specifications have been established to maximize plant operational efficiency and optimize energy production operational efficiencies. The recorded information on fuel source would be available to the County and other agencies with regulatory oversight and would be used to demonstrate compliance with CEC renewable energy resource requirements.

10-3b

The commenter asserts that the Draft EIR neglects to describe how existing demand for wood currently processed at the MRF and reused for ski slope stabilization and other purposes will be met if diverted to the proposed project, and that the Draft EIR must evaluate the potential environmental effects resulting from meeting the demand for these materials.

As described above, the biomass facility would only use the MRF-processed wood waste if needed, and if it meets fuel specifications. Furthermore, the majority of material that the ski slopes use for stabilization consists of pine needles. The proposed facility, which would use a gasification technology, would not accept pine needles as they are the least efficient of the material to gasify (Storey 2012); the revisions to the Draft EIR text to exclude pine needles are discussed above. The Draft EIR on pages 3-11 to 3-12 notes that the fuel procurement study (*Fuel Procurement Plan for the Lake Tahoe Region Biomass Energy Generation Facility*, Placer County 2011) used a 40-year planning horizon, and determined that sufficient biomass material is available to sustain a 1 to 3 MW biomass power generation facility (Placer County 2011). According to the Fuel Procurement Plan, approximately 112, 440 BDT per year of biomass fuel is available within a 30-mile radius or approximately one-hour drive. This includes 180 BDT of pine needles, which would not be used in the gasification process, and would continue to be available for ski slope and other land stabilization and erosion protection measures.

The Fuel Procurement Plan identifies current demand for woody biomass materials from other facilities to be about 40,350 BDT per year resulting in a net availability of 71,910 BDT per year (excluding pine needles)(Placer County 2011), an amount in excess of the maximum 17,000 BDT required for the proposed 2-MW gasification facility. According to the Fuel Procurement Plan, current markets for woody biomass material, other than fuel uses amount to approximately 11,350 BDT/year (Placer County 2011). Therefore, there would be excess wood waste and pine needles in the fuel procurement area to serve other uses.

10-3c

The commenter states that without a complete, internally consistent, and accurate account of the actual fuel mix, it is not possible to evaluate the project’s direct and indirect environmental effects. The commenter further states that the Project Description’s inconsistencies and omissions make it impossible to determine whether the project will facilitate additional forest thinning operations. The commenter also states “the Project Objectives include supporting forest management through ‘already planned forest thinning operations’, but the Project

lifespan is 40 years, well beyond any acknowledged planning horizon for forest management activities.”

See responses above and see the responses to comments 2-2 and 7-1.

10-3d

Finally, in Footnote 3, the commenter states that the Draft EIR is inconsistent in describing the current use of the MRF-processed wood; on page 3-7 the Draft EIR states that this wood is transferred to SPI’s biomass facility in Lincoln, and on page 5-20 the Draft EIR states that transporting the material to Lincoln is cost prohibitive.

The Draft EIR does state on page 3-1 that MRF-processed wood waste “...materials are hauled from the site to more distant biomass facilities (such as Sierra Pacific Industries biomass facility in Lincoln, California) and other sites for reuse (such as ski slope stabilization).” On page 5-20 the Draft EIR states “...TNF and LTBMU are currently not able to dispose of the woody debris generated from their forest management projects at a biomass facility...”. The source of the wood waste referred to in the second instance is material processed on the TNF and LTBMU, and is not wood waste processed at the MRF. Economies of scale, hauling distances, accessibility, and truck capacities differ for these operations. Also, in this instance Placer County by contract subsidizes the removal of materials from forest-lands that would otherwise be open burned. Historically, SPI has not operated within the CFSA with similar cost-sharing arrangements. Therefore, the Draft EIR statement that hauling wood waste directly off of the National Forests to the more distant biomass facilities may not be feasible from an economic standpoint is reasonable and the commenter offers nothing to disprove this statement.

10-4

The commenter expresses confusion about the haul capacity of trucks and the number of truck trips that would be used to transport forest-sourced biomass to the biomass facility. The commenter states, “[T]he actual wood hauled to the facility, however, would not be ‘bone dry’ but rather may have up to 50% moisture content.” Starting on page 3-15, the Draft EIR states “all biomass material would be hauled out of the forests in chip vans, which have a capacity of 12.5 BDT or 93 cubic yards and forest material would only be recovered from locations that are accessible by chip vans using existing roads. Based on the volume of material required to fuel the facility and the number of days that material could be delivered, it is estimated that up to 1,360 truckloads would be delivered per year or a maximum of 22 truck loads per day.” Table 8-6 on page 8-12 of the Draft EIR shows the mathematical relationships among the mass of the biomass consumed by the plant (expressed in BDT/year), the volume capacity of the haul trucks, the mass capacity of haul trucks (expressed in BDT), and the mass of biomass consumed by the facility (expressed in BDT). The number of truck trips analyzed in the Draft EIR is based on the volume of biomass material that is delivered, rather than the mass (expressed in green tons or BDT). Other operational details are provided in Appendix D to the Draft EIR, in a table titled “Operational Parameters.” A chip van can haul a volume of biomass that is equivalent to 12.5 BDT and the annual number of truck trips is based on the fuel demand of the proposed biomass facility (i.e., 14,000-17,000 BDT/year for the gasification alternatives and 17,000-20,000 BDT/year for the direct combustion alternatives). The tables called “Emissions from Trucks Hauling Biomass under Gasification Alternatives” and “Emissions from Trucks Hauling Biomass under Direct Combustion Alternatives” in Appendix D show that detailed calculations of haul truck emissions were based on the capacity of haul trucks expressed in BDT/load.

This comment does not directly raise environmental issues or concerns regarding the adequacy, accuracy, or completeness of the Draft EIR. The comment is noted for consideration during project review. No further response is necessary.

10-5

The commenter asserts that the Draft EIR does not include enough detail about the gasification technology that would be used by the biomass facility to permit intelligent evaluation of potential impacts.

Placer County is the project applicant, as stated on page 3-7 of the Draft EIR. On page 3-10, the Draft EIR explains, “The Applicant has not identified a preferred vendor of gasification system equipment. If the project is approved, the Applicant would select the manufacturer later in the process. However, the Applicant performed a detailed review of gasification systems from numerous credible vendors, and has obtained emissions and performance data and performed engineering analysis of these systems. Based on this information, the Applicant has identified a preliminary layout of proposed facilities based on an understanding of the gasification technology, information provided by prospective vendors, and the size of facilities that would be required to generate 2 MW of energy. This information has been used to develop the proposed project evaluated in this EIR, and based on this information the Draft EIR evaluates the range of possible impacts associated with each of the potential technologies. The Applicant would ultimately select a vendor that meets the design parameters evaluated within this EIR and any required mitigation described herein. If the selected vendor would require changes to the design or siting of proposed facilities, these changes would be subject to additional environmental review.”

The commenter expresses specific concern that the Draft EIR does not specify whether a “lean burn” or “rich burn” generator would be operated by the biomass facility or the associated difference in emissions. Note 2 of Table 9-5 on page 9-16 of the Draft EIR explains that emissions from the combustion of syngas were developed based on data from multiple technology providers and these estimates are published in a 2011 report prepared by TSS Consultants and PCAPCD (TSS Consultants and PCAPCD 2011). The two providers of gasification technology were Nexterra and Phoenix, as shown in the table called “Emissions of CAPs and Precursors from Power Plant Stack (Gasification and Direct Combustion)” in Appendix D to the Draft EIR. Note 2 of this table indicates that the Phoenix technology utilizes a “rich-burn” internal combustion engine. More specifically, the Phoenix technology would consume 28 Million Metric British Thermal Units per hour (MMBtu/hour); the Nexterra technology, which includes a “lean-burn” system, would consume 21 MMBtu/hour. For comparison, the direct combustion technology developed by Envio would consume 42 MMBtu/hour. For each separate pollutant, the maximum emission rate was used in the analysis of operational criteria air pollutants and precursors and the analysis of GHG emissions in order to be conservative. See Table 9-7 under Impact 9-2 and Table 10-3 under Impact 10-1.

The commenter expresses confusion about why the project description explains that natural gas may be used at startup depending on the provider of the gasification technology and the air quality impact analysis in Chapter 9 does not account for any emissions from natural gas combustion. Appendix D to the Draft EIR provides details regarding natural gas consumption in a table called “Combustion of Natural Gas for Start-Ups.” This table indicates that no natural gas would be used for start-ups under the gasification alternatives and 2.35 MMBtu would be used for each start-up under the direct combustion alternative. Additional detail is provided by Note 2 to this table, which is an e-mail communication with the County’s technology consultant,

Fred Tornatore, with TSS Consultants. The communication explains that start-ups are different for the two types of gasification technologies examined for the project. One would use electricity for start-ups and “the other uses a hand propane torch (basically a large cigarette lighter),” which is assumed to generate minimal emissions.

10-6

The commenter asserts that project description deficiencies impede discussion of water quality impacts. The commenter selects a quote from the EIR and then takes it out of context. The commenter states “Depending upon the choice of technology for producing and cleaning the syngas, the Project may or may not use wet scrubbers and/or electrostatic precipitator filters to remove ‘entrained solid particulate and condensed tars, and trace contaminants containing alkalis and halogens’”. That is not an accurate reflection of what the Draft EIR states. The text on page 3-10 reads as follows: “The syngas is cleaned through wet scrubbers and/or electrostatic precipitator filters to remove entrained solid particulate and condensed tars, and trace contaminants containing alkalis and halogens.”

What is important is the fact that the Draft EIR addresses this impact by evaluating the range of possible manufacturers based on a detailed review of gasification systems from numerous credible vendors.

Impact 13-3 in the Draft EIR discusses impacts related to water used in the gasification process as follows: “Depending on the specific gasification technology chosen for the project, there may be need for pretreatment of gasification-created wastewater prior to discharge to the regional sewer system. Some gasification systems require syngas conditioning with water scrubbing. This scrubbing removes the tars from the syngas stream, and transfers them to the water medium. Although the scrubber water is recycled to the maximum extent possible, ultimately some wastewater would require discharge. Prior to discharge, this water would be pre-treated to the standards required by T-TSA through the use of activated charcoal filters.” The exact pretreatment process required would be determined by the vendor selected in consultation with T-TSA. See also the responses to comments 9-1 through 9-3.

10-7

The commenter asserts that the Draft EIR lacks information about potential transmission line improvements that may be necessary to carry the electricity generated by the project and that the interconnection studies are being deferred to latter phases of design. The commenter states that construction of adequate transmission facilities is an integral part of the project that must be evaluated in the EIR.

The Draft EIR analysis is predicated on the fact that based on preliminary engineering conducted by Calpeco engineers and planners that no off-site electrical line improvements would be necessary, because the existing infrastructure would be adequate to distribute energy generated by the proposed 2 MW generating facility to the electrical grid. Calpeco owns and maintains the off-site lines and is best suited to speak to infrastructure adequacy. Specifically, as described on page 3-21 of the Draft EIR, “...the existing power line would have capacity to accommodate electricity generated at the project site such that off-site power line improvements (e.g., new poles and lines) would not be necessary.” The commenter offers no evidence to suggest that off-site transmission line improvements would be required. In response to this comment, Brett Storey of Placer County contacted Blaine Ladd, Calpeco Regional Engineer, and again was told that based on a preliminary engineering evaluation conducted by Calpeco that no off-site improvements are anticipated to be necessary. More specifically, Mr. Ladd reported that the initial thermal load study of the existing line completed by Calpeco

indicated that the existing line has a 2.7 MW capability. Because the proposed biomass facility would have a generating capacity of 2 MW, well within the capability of the line, no off-site improvements to the line would be necessary. As discussed with Calpeco and evaluated in the Draft EIR (described on page 3-21 and shown on Exhibit 3-2 on page 3-3), the County would be responsible to construct the electrical line connection from the generating plant to the existing line.

The interconnection study process, CPUC Electric Rule 21, is a standard requirement of any new or expanded power generating plant to interconnect or distribute energy to the electrical grid operated by the California Independent System Operator (ISO). The Rule 21 application process and interconnection study is standard protocol – it specifies standard interconnection, operating, and metering requirements for distributed energy generators. The application process involves technical information specific to individual pieces of equipment (e.g., year, manufacturer, and model of generator) that would be used. Upon selection of a vendor, the County and the technology manufacturer would complete Calpeco’s standard Rule 21 interconnection study application. There is no evidence to indicate that the outcome of that detailed evaluation would identify any off-site system improvements that would be needed. To evaluate potential outcomes that would result in new off-site infrastructure would be speculative at best and is not required under CEQA.

10-8 The commenter states that the project as described in the Draft EIR lacks definition. A revised analysis must be prepared that better describes the proposed technology so that the public and the County can fully and intelligently weigh their choices.

Refer to the responses to comments 10-3 through 10-7 that address specific comments raised about the project description. The Draft EIR project description provides adequate detail regarding the proposed technology to allow a reasoned analysis of potential impacts, and provides the public and decision makers with adequate information to make decisions regarding the proposed project. It is not feasible to provide additional detail until the specific vendor/technology has been chosen. The next step in the process would be to solicit bids and proposals from potential vendors, which cannot be accomplished until that time that the project has been approved by Placer County. CEQA compliance must be completed prior to this step. Nonetheless, the Draft EIR fully complies with the requirements of CEQA by describing the details of the project that are known, establishing environmental commitments and performance standards, and recommending mitigation where there may be potential impacts.

10-9 The commenter asserts that the Draft EIR discussion of the project’s eligibility for consideration under the Renewable Portfolio Standard contains outdated information because California PRC Section 25743(f), which provides the criteria by which the CEC categorizes facilities generating electricity from biomass energy as in-state renewable electricity generation facilities was repealed. The commenter is correct that Section 25743, which identified facilities generating electricity from biomass energy as renewable, is no longer part of the PRC. In Section 25741(a)(1) of the current California PRC, a biomass facility is identified as a “renewable electrical generation facility” eligible for meeting the goal, as stated in Section 25740, “to increase the amount of electricity generated from eligible renewable energy resources per year, so that it equals at least 33 percent of total retail sales of electricity in California per year by December 31, 2020.” See <<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=25001-26000&file=25740-25751>>. These changes to the California PRC are the result of the passing of Senate Bill 2, which was approved by the Governor

on April 12, 2011. See <[http://info.sen.ca.gov/pub/11-12/bill/sen/sb\\_0001-0050/sbx1\\_2\\_bill\\_20110412\\_chaptered.html](http://info.sen.ca.gov/pub/11-12/bill/sen/sb_0001-0050/sbx1_2_bill_20110412_chaptered.html)>.

As a legislative action, Senate Bill 2 amended portions of the PRC related to the renewable energy portfolio and renewable energy standards and usurped efforts by the California Air Resources Board to establish the Renewable Electricity Standard. Regardless, the proposed project would qualify to meet the renewable standards put forth under amended sections of PRC 25740, 25741 et seq.

Chapter 2 of the Draft EIR, Project Description has been revised to indicate the changes in the PRC affecting the renewable energy standards. See text revisions in the response to comment 10-3 and Chapter 3 of this Final EIR. These revisions do not constitute new significant information or alter conclusions regarding environmental impacts contained in the Draft EIR. The information was used to characterize CEC requirements for a “renewable” facility and was not by itself the basis for any impact conclusions.

- 10-10 The commenter asserts that the Draft EIR fails to adequately disclose, analyze, and propose mitigation for project’s potentially significant environmental impacts on: air quality, climate change, forest habitat, and water supplies. This comment is an introductory statement for the following comments, which address air quality impacts and greenhouse gas emissions. See responses to specific comments below.
- 10-11 The commenter asserts that the Draft EIR is incomplete because it does not discuss emissions of carbon monoxide (CO) associated with operation of the proposed biomass facility. CO is generally a pollutant of localized concern and best analyzed on a concentration-based level because it disperses rapidly with distance from the source under normal meteorological conditions. Thus, the potential for high concentrations of CO to result at roadway intersections affected by project-related traffic is analyzed under Impact 9-3 on page 9-21 of the Draft EIR. This analysis follows guidance from the August 3, 2012 draft of PCAPCD’s CEQA Air Quality Handbook (available at: <<http://www.placer.ca.gov/Departments/Air/CEQAHandbook.aspx>>). PCAPCD (as well as NSAQMD) does not recommend a mass emission threshold for evaluating CO emissions in its guidance largely because the Placer County portion of the Mountain Counties Air Basin is designated as attainment/unclassified with respect to the NAAQS and CAAQS for CO, as shown in Table 9-3 on page 9-4 of the Draft EIR.
- Nonetheless, mass emission levels of CO from operation-related activities are disclosed in Appendix D to the Draft EIR, including the following:
- ▲ Emissions of CAPs and Precursors from Power Plant Stack (Gasification and Direct Combustion) (82-156 lb/day for gasification depending on which vendor is selected and 134 lb/day for direct combustion);
  - ▲ Exhaust Emissions of Loader at Plant and Fuel Storage Area (2.8 lb/day);
  - ▲ On-Site Truck Emissions at the Plant Site (0.2 lb/day);
  - ▲ Emissions from Employee Commute Trips (3.2-3.6 lb/day depending on the alternative);
  - ▲ Off-Road Equipment Use for Chipping of Forest-Source Biomass (15-18 lb/day depending on the alternative);
  - ▲ Truck Hauling Biomass (0.8-0.9 lb/day depending on the alternative); and
  - ▲ Emissions from Trucks Hauling Biochar/Ash (0.3 lb/day).

Also, CO emissions associated with project construction are provided in the output file from CalEEMod called “Placer Biomass Construction CAP Output” (up to 2 lb/day).

The sum of CO emission from all of the project’s operational activities would not be as high as 181.8 lb/day. Conservatively assuming that all of these maximum daily emission levels would occur 365 days per year, this rate is equivalent to an annual rate of 33.1 tons per year (tpy). Chapter 9 also explains that the proposed biomass facility would be subject to the New Source Review permit requirements of PCAPCD Rule 502. Section 101 of Rule 502 states, “the purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct for such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.” With regard to CO, a criteria air pollutant that is attainment/unclassified in both the Mountain Counties Air Basin, where the plant would be located, and the Lake Tahoe Air Basin, the purpose of Rule 502 is to *maintain* the ambient air quality standards for CO.

Section 302 of Rule 502 specifically requires stationary sources that emit more than 550 lb/day to implement Best Available Control Technology (BACT) to limit emissions. Section 303 of Rule 502 requires that emissions offsets be purchased by any facility in the Mountain Counties Air Basin that would emit more than 99 tpy. Because the proposed project would emit less than 550 lb/day and less than 99 tpy it would comply with Rule 502 and, therefore, not violate the ambient air quality standards for CO. CO emissions associated with the proposed project would be less than significant. Further, while the system would fall below CO emission levels that trigger the BACT threshold, according to PACAPD the system would be designed and operated to use BACT for both CO and non-methane organic compounds (NMOC).

10-12

The commenter asserts that the Draft EIR did not discuss PCAPCD’s recommended threshold of significance of 10 lb/day for evaluating the cumulative contribution of operational emissions of ROG and NO<sub>x</sub> and points out that the project’s operation emissions of both ROG and NO<sub>x</sub> would exceed 10 lb/day.

PCAPCD’s draft guidance, *CEQA Air Quality Handbook: Assessing and Mitigating Air Quality Impacts under CEQA*, recommends a cumulative impact threshold of 10 lb/day for operational emissions of ROG and NO<sub>x</sub> (PCAPCD 2012). Additional clarification about this threshold has been provided by Mr. Yu-Shuo Chang, who supervises PCAPCD’s Planning and Monitoring Section and was one of the primary authors of the draft guide. Mr. Chang explained that PCAPCD established this threshold so that proposed land use development projects with operational emissions of ROG and NO<sub>x</sub> that do not exceed 82 lb/day would still be recommended to implement all feasible mitigation to reduce these emissions. Mr. Chang explained that the purpose of the cumulative threshold was to recommend that all feasible mitigation be implemented for all proposed projects that would generate operational emissions of ROG or NO<sub>x</sub> that exceed 10 lb/day. Mr. Chang explained that projects with operational emissions of ROG and NO<sub>x</sub> greater than 10 lb/day and less than 82 lb/day would not be cumulatively considerable if they implement all feasible mitigation to reduce these emissions (Chang, pers. comm., 2012).

Mr. Chang reviewed the Cabin Creek Biomass Project Draft EIR and stated that because the proposed facility would be regulated by District Rule 502 (New Source Review), the project shall meet the BACT requirement to reduce emissions of ROG and NO<sub>x</sub>, and as such the project’s emissions would not be cumulatively considerable even though they exceed 10 lb/day (Chang, pers. comm., 2012). Thus, the discussion of cumulative air quality impacts for operational

emissions of ozone precursors in the last paragraph on page 18-38 of the Draft EIR is amended as follows to provide additional clarity:

Air districts in California develop air quality attainment plans designed to reduce emissions of ozone precursors enough to attain the federal ozone standard by the earliest practicable date. Air quality attainment plans include a multitude of air pollution control strategies. When developing air quality attainment plans, air districts account for the emissions from all present and future development in the region by relying on city and county general plans. Because the proposed project would be consistent with the land use designation in the Placer County General Plan, emissions associated with development of the project are accounted for in PCAPCD's air quality attainment plan. Also, project-related construction and operational emissions would not exceed the applicable mass emission thresholds established by PCAPCD, NSAQMD, and EDCAPCD. Though operational emissions of ROG and NO<sub>x</sub> would exceed PCAPCD's cumulative impact thresholds of 10 lb/day, PCAPCD has confirmed that all feasible reduction measures were incorporated into the project description, as listed among the Environmental Commitments in Section 3.4.8 of the EIR, and the proposed facility would be regulated by District Rule 502 (New Source Review), which requires that the project shall meet the Best Available Control Technology (BACT) requirement to reduce emissions of ROG and NO<sub>x</sub> (Chang, pers. comm., 2012). Moreover, the quantitative analysis in Section 9, Air Quality does not account for levels of emissions associated with the open burning of forest thinning debris and hazardous fuels in area forests that would be avoided by the operation of the biomass plant. Thus, the contribution of short-term construction and long-term operational emissions of NO<sub>x</sub> and ROG by the proposed project, combined with other cumulative sources of ozone precursors in the region, would ~~be~~ not be cumulatively considerable.

Also, the analysis of operational ROG and NO<sub>x</sub> emissions under Impact 9-2 on page 9-18 of the Draft EIR is conservative because it does not account for the reduction in these pollutants that would result from less open burning in the region, though open burning of forest-sourced biomass is a substantial source of ROG and NO<sub>x</sub>. As shown in Table 9-7 of the Draft EIR, operation of the biomass facility would generate up to 77.5 lb/day of ROG and up to 77.7 lb/day of NO<sub>x</sub>. Assuming the plant operates at full capacity 365 days per year, it would emit approximately 14.1 tpy and 14.2 tpy of ROG NO<sub>x</sub>, respectively. Estimated levels of avoided emissions of ROG and NO<sub>x</sub> associated with the open burning of forest-sourced biomass are provided in Table 9-8 on page 9-21. As shown in Table 9-8, approximately 102 tons of ROG and 78 tons of NO<sub>x</sub> would be avoided annually. Based on these values, operation of the biomass facility would result in a net decrease of 87.9 tpy of ROG and a net decrease of 63.8 tpy of NO<sub>x</sub> and an overall beneficial effect to ambient air quality in the region.

The permitting process for stack emissions from the facility, which is the primary source of operational ROG emissions (as indicated in Table 9-7 of the Draft EIR), would also be subject to PCAPCD rules and requirements. Table 9-7 also shows that the primary source of operational NO<sub>x</sub> emissions would be generated by biomass chipping activity. Because this equipment is operated by independent contractors who are not under contract with the County, the County does not have the ability to require or enforce that certain emissions reduction measures be implemented. This is also true of the trucks that would be used to haul biomass to the biomass facility. Emissions associated with the use of heavy-equipment for forest thinning and hazardous

fuel reduction activities would be evaluated in separate environmental documentation prepared for those activities and mitigated as necessary.

Lastly, the Draft EIR is dated July 27, 2012, which is prior PCAPCD's release of its first written draft of CEQA guidance on August 3, 2012 and PCAPCD's guidance is currently in draft form and has not been approved by PCAPCD's Board of Supervisors. PCAPCD did, however, submit a comment letter dated January 23, 2012 during the scoping period for the project, which is included in Appendix B to the Draft EIR.

10-13

The commenter asserts that the Draft EIR fails to address the potential for the biomass storage piles to create objectionable odors. The commenter provides evidence that there have been odor complaints related to the Wheelabrator biomass plant in Anderson, California.

The potential for the biomass storage piles to generate objectionable odors affecting a substantial number of people is analyzed under Impact 9-5 on page 9-23 of the Draft EIR. The proposed biomass facility is different from the Wheelabrator biomass plant in a number of ways that are important with respect to odors. The Wheelabrator biomass plant has a generating capacity of 58 MW and processes 750,000 tons of mill waste and forest residues, as stated on page 3.2-49 of the SPI Cogeneration Power Plant Draft EIR (Shasta County 2010), whereas the proposed biomass facility would have a generating capacity of 2 MW and consume up to 17,000 BDT of woody biomass fuel. The SPI Cogeneration Power Plant Draft EIR further explains the source of the odors as follows:

Fuels that are stored outdoors at the Wheelabrator facility have been cited as the source of the odor. Odor generation is attributed to the varied fuel types and condition in which it is received; for example yard waste that may be in an advanced state of decomposition upon arrival at the facility; fuel stored on-site for lengthy periods of time; and lack of aeration of the fuel stored on site. At the Wheelabrator facility a wide variety and large volume of fuel is stored outdoors (open to the air), sometimes for lengthy periods. This leads to decomposition of the fuel being stored. The decomposition of fuel in turn generates odor.

The source of odor at the Wheelabrator plant (i.e., the type of fuel) is not comparable to the forest-sourced woody biomass that would be consumed by the proposed biomass facility at Cabin Creek. Forest-sourced woody biomass is different from yard waste, which typically includes high portions of other organic material including leafy material and possible fruits, is likely higher in moisture content, and "may be in an advanced state of decomposition upon arrival" to the Wheelabrator plant. For these reasons, the analysis under Impact 9-5 specifically focused on researching odor complaint records of other biomass facilities that have a similar feedstock, all of which had no previously recorded odor complaints.

The commenter also disputes the Draft EIR explanation that Mitigation Measure 16-4 would have the effect of limiting odors from the fuel storage area, but offers no evidence of how it would not limit odors from the fuel storage area. The commenter also states that Mitigation Measure 16-4 does not specifically require frequent mixing of storage piles, which is true.

However, the Draft EIR impact conclusion (Impact 9-5) is primarily based on the lack of documented odor complaints at similar biomass facilities using similar feedstock and material handling techniques. Nonetheless, although not articulated in Mitigation Measure 16-4 it is likely that the established procedures for management of biomass storage piles could include

mixing at a rate determined by the County Local Enforcement Agency (LEA), PCAPCD (as revised in Chapter 3 of this Final EIR), and the Truckee Fire Protection District.

The commenter further asserts that Mitigation Measure 16-4 does not establish specific performance standards or concrete mitigation commitments. The County disagrees. Mitigation Measure 16-4 on page 16-15 of the Draft EIR requires that written procedures shall be subject to review and input by the County LEA, PCAPCD, and the Truckee Fire Protection District prior to initiating operations at the site. In addition, Mitigation Measure 16-4 lists the minimum measures that would be required. In other words, the Applicant cannot operate the proposed biomass facility until the County LEA, PCAPCD, and the Truckee Fire Protection District, the agencies responsible for ensuring that nuisance odors and fires are minimized and/or prevented, approves of how biomass storage piles are managed to minimize odors and other nuisance impacts, and with regard to fire prevention.

10-14

The commenter recognizes that the Draft EIR contains contradictory statements regarding the significance of project-related TAC emissions because detailed discussion about toxic air contaminant (TAC) emissions on pages 9-22 and 9-23 concludes that project-related TAC emissions would not result in a significant impact and detailed discussion on page 18-39 concludes that the project's TAC emissions would not be cumulatively considerable but, on the contrary, the summary discussion on page 18-26 indicates that the project would result in a cumulatively considerable contribution to a cumulative TAC impact. The text on page 18-26 of the Draft EIR is in error.

In response to this comment, the two paragraphs in Section 18.6 on page 18-26 are revised to read as follows and no mitigation measures are necessary. These changes do not alter the conclusions of the Draft EIR.

~~Adoption and implementation of the proposed project would only result in one potentially significant and unavoidable impact associated with cumulative toxic air contaminant (TAC) concentrations. While the project would not result in significant impacts related to TAC concentrations in and of itself, it is possible that the levels of health risk exposure from the proposed project, in combination with health risk exposure of other nearby TAC-emitting facilities, could exceed acceptable levels which would be considered a significant cumulative impact. No additional feasible mitigation would be available to reduce this impact or the project's contribution to this impact. Therefore, the project's contribution would be cumulatively considerable.~~

All other environmental impacts of the project would be less than significant or less than significant with mitigation.

10-15

The commenter asserts that the Draft EIR fails to meet CEQA requirements because it uses an unlawful and unsupported threshold of significance that minimized the project's greenhouse gas emissions and it does not demonstrate that the project's effects will be less than significant using that threshold. This comment is an introductory statement and does not identify specific inadequacies of the Draft EIR. Refer to responses to specific comments below.

10-16

The commenter asserts that the efficiency-based threshold of significance used to analyze the project's GHG emissions is inappropriate and insufficient because it is based on the GHG reduction goals of the AB 32 Scoping Plan, which "are a projection of planned reductions." The commenter also asserts that the Draft EIR does not explicitly identify the baseline used for the

analysis of GHG emissions associated with the proposed project and that “the Draft EIR ignores the project’s effects as compared to existing environmental conditions.” The approach used in the Draft EIR addresses the two criteria from Appendix G of the CEQA Guidelines for analyzing climate change-related impacts, which are bulleted on page 10-10 of the Draft EIR. The first criterion is whether the project would “generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.” GHG impacts to global climate change are inherently cumulative, as stated on page 10-2 of the Draft EIR, because no single project alone would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climates. Thus, the Draft EIR focuses on whether GHG emissions from the proposed biomass facility would “conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases,” which is the second criterion from Appendix G of the CEQA Guidelines.

Another way to explain the approach used in the Draft EIR is outlined as follows:

- ▲ the cumulative level of GHG emissions being generated and previously generated in California and in the world have resulted in the negative impacts related to climate change,
- ▲ the State of California has established a plan (i.e., the AB 32 Scoping Plan) to reduce the level GHG emissions emitted in the state that is consistent with goals recommended by an international body, the Intergovernmental Panel on Climate Change, and
- ▲ the analysis under Impact 10-1 in the Draft EIR evaluates whether the proposed project is consistent with, or conflicts with the AB 32 Scoping Plan.

The commenter also asserts that the analysis relies on the project’s consistency with ARB’s Scoping Plan to make its significance determination, which does not satisfy the requirements of CEQA Guidelines Section 15064(h)(3). The commenter’s assertion implies that the significance determination is based solely on the project’s consistency with ARB’s Scoping Plan, which is not the case. The Draft EIR explains that no agencies have developed a threshold of significance for analyzing biomass facilities, other than Amador County, which also developed a GHG efficiency metric for evaluating GHG emissions associated with the Buena Vista Biomass Plant.

The California Office of Planning and Research (OPR) recommends that lead agencies under CEQA make a good-faith effort, based on available information, to estimate the quantity of GHG emissions that would be generated by a proposed project, including the emissions associated with construction activities, stationary sources, vehicular traffic, and energy consumption, and to determine whether the impacts have the potential to result in a project or cumulative impact and to mitigate the impacts where feasible mitigation is available (Governor’s Office of Planning and Research 2008). Subsequently, OPR prepared amendments to the State CEQA Guidelines, pursuant to SB 97 (Statutes of 2007) for adoption by the California Natural Resources Agency. The amendments added several provisions reinforcing the requirements to assess a project’s GHG emissions as a contribution to the cumulative impact of climate change. The amendments went into effect on March 18, 2010. The analysis under Impact 10-1 in the Draft EIR meets these recommendations and relies on information not only in ARB’s Scoping Plan, but also the requirements of the Renewable Energy Portfolio, to formulate a numerical threshold of significance and make a significance determination.

Moreover, the commenter does not identify another threshold for evaluating the project’s GHG emissions or, more specifically, for evaluating whether the project’s GHG emissions are cumulatively considerable.

Regarding the cited cases, the relevant CEQA inadequacies generally revolved around comparing the impacts of project to impacts that *would have resulted had the same project developed at a density allowed by the existing general plan*. In *Env'tl. Planning & Information Council*, for instance, the impacts of a project were claimed to be beneficial to the environment, because the project would be built at a lesser density than the general plan allowed, rather than its net contribution to existing environmental conditions. That approach, had it been employed here, would of course have been erroneous. But, the project's methodology was not this incorrect approach, but rather one endorsed by the CEQA Guidelines, as mentioned above. The State of California, in passing AB 32 and establishing the Scoping Plan, determined the metrics needed for the State to reduce its contribution to global warming to a less-than-significant level over time. The Draft EIR evaluated the contribution of the project's GHG to the environment, and determined if it would fit within the cumulative contributions of other projects that could contribute GHGs. The comment does not provide substantial evidence to dispute the State's metric. The EIR evaluated the potential for the project to "fit within" this metric, and found that it did. Thus, it concluded the project's contribution would not be considerable.

10-17

The commenter asserts that the Draft EIR determination that project-related GHG emissions are consistent with the AB 32 goal and applicable measures in the AB 32 Scoping Plan is inadequate and does not relieve the County of its responsibility to determine whether the project's cumulative contribution to climate change is significant and whether the project's GHG emissions adversely affect the actual physical environment. The commenter cites the court decision from *Protect the Historic Amador Waterways v. Amador Water Agency*. Refer to the response to comment 10-16 regarding the consistency of the Draft EIR's approach with guidance from OPR and the two significance criteria listed in Appendix G of the CEQA Guidelines concerning climate change-related impacts.

The commenter suggests that the Draft EIR should analyze the project's cumulative contribution of GHGs in light of recent climate change science which suggests that steeper reductions in GHGs than those required by AB 32 are necessary to avoid the most significant impacts of climate change. The commenter cites one study that concludes industrialized countries will have to reduce emissions by 25-40% below 1990 levels by 2020 and another study, which concludes that avoiding the worst impacts of climate change will require reducing the concentration of carbon dioxide (CO<sub>2</sub>) in the atmosphere to 350 parts per million or below.

It is recognized that estimates of the degree and timing of GHG emissions reductions needed to avoid dangerous climate change vary widely among the scientific community. However, the GHG emissions reduction goal identified by AB 32 does represent the State's policy determination about the appropriate share of GHG emissions reductions needed from California to address global climate change and the timeframe in which these reductions should occur.

The Draft EIR analysis focuses on the project's specific anticipated emissions and the significance of those emissions in relation to the project-specific significance threshold established by the lead agency. As stated on page 10-15 of the Draft EIR, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs in the electricity sector and the proposed project would not generate levels of GHG emissions that, either directly or indirectly, may have a significant impact on the environment. Therefore, the project's incremental GHG emissions would not be cumulatively considerable.

The project-specific significance thresholds that were used, described above, were reasonable and conservative. Many environmental analyses consider biomass to be “carbon neutral” by virtue that it is already part of the carbon cycle and does not add new carbon to the atmosphere. While this other approach could have been used, in response to public comments (including a comment on the NOP submitted by the commenter), the Draft EIR employed a far more conservative approach that attempts to consider all emissions associated with the construction and operation of the proposed biomass facility.

The commenter argues that a mass emission threshold would be more appropriate to evaluate the effects of the project’s GHG emissions in light of existing conditions. The Draft EIR summarizes the inadequacies of using a mass emission threshold to evaluate GHG emissions in Section 10.3.1, which begins on page 10-10. Footnote 7 on page 9 of the commenter’s letter mentions that “current scientific work focuses on establishing a ‘carbon budget’ and defining the emissions reduction trajectories necessary to limit the worst environmental impacts.” The State established its carbon budget when it adopted AB 32 and the efficiency-based standard used by the Draft EIR’s analysis is based on a carbon budget that is specific to electricity generation in California that was determined by the AB 32 Scoping Plan.

The commenter states that the mass of GHG emissions generated by the proposed project “exceeds thresholds of significance proposed by air pollution control experts and public agencies for use in the CEQA context” and cites a range of mass emission thresholds examined by the California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board (ARB), the South Coast Air Quality Management District (SCAQMD), and the Bay Area Air Quality Management District (BAAQMD). Both CAPCOA and ARB simply evaluated a range of mass emission thresholds; they did not ultimately recommend or adopt a specific mass emission threshold or any other type of threshold for evaluating GHGs. SCAQMD and BAAQMD developed their mass emission thresholds based on the inventory of GHGs in their respective jurisdictions and the proposed project, as well as the operational activities associated with the proposed project, are not located in the jurisdiction of either SCAQMD or BAAQMD. Also, BAAQMD is no longer recommending that its thresholds be used as a generally applicable measure of a project’s significant air quality impacts (see <<http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>>).

Footnote 9 on page 9 of the commenter’s letter asserts that the Draft EIR treats GHGs and other air pollutants inconsistently because the analysis of operational emissions of criteria air pollutants (CAPs) under Impact 9-2 did not account for avoided emissions associated with open burning. As explained on page 9-15 of the Draft EIR, this is because the air districts’ respective mass emission thresholds are for maximum daily emission levels and the timing of open burning is unknown. In other words, it is likely that there would be days when all the emissions sources listed in Table 9-5 (i.e., stack emissions, chipping, truck activity, loader activity and employee commute trips) would be in operation, but open burning of forest refuse would not be taking place. Another important distinction between CAPs and GHGs is that CAPs are pollutants of local and regional concern while the effect of GHGs is global in nature. Also, ozone, in particular is diurnal while GHGs persist in the atmosphere for much longer periods of time until some but not all are sequestered through ocean uptake, uptake by northern hemisphere forest regrowth, and other terrestrial sinks, as explained on page 10-2 of the Draft EIR.

Footnote 9 on page 9 of the commenter’s letter also asserts that the significance determination for the project’s GHG emissions should be based on stack emissions alone. This would not be

consistent with guidance from OPR. As stated on page 10-11 of the Draft EIR, OPR recommends that lead agencies under CEQA make a good-faith effort, based on available information, to estimate the quantity of GHG emissions that would be generated by a proposed project, including the emissions associated with construction activities, stationary sources, vehicular traffic, and energy consumption.

The commenter asserts that California's 33 percent Renewable Electricity Standard is not sensitive to the range of GHG emissions associated with different types of renewable generation (e.g., solar, wind, biomass) and that renewable electricity generation does not always displace carbon-intensive fossil fuel-based generation. This is why the Draft EIR analyzed all the construction- and operation-related sources of GHGs associated with the proposed project, as listed in Table 10-2 on page 10-12 of the Draft EIR. The emission calculations used to support the significance determination under Impact 10-1 do not account for the potential, however likely or unlikely, that operation of the proposed project would displace fossil-fueled generation. On page 10-11, the Draft EIR recognizes that "future electricity demand will be met by whatever source is available at the time, including fossil fuel-based facilities. Thus, if the project was not built, it would not be unreasonable to assume that the energy provided by the project would otherwise be provided by a more GHG-intensive fossil fuel plant. These potential 'avoided emissions' are not assumed in this analysis, however."

The commenter states that GHG reductions from renewable facilities cannot be assumed. The analysis of project-related GHG emissions under Impact 10-1 does not suggest that the proposed project would result in a reduction of GHG emissions. Rather the analysis addresses whether implementation of the proposed project would be consistent with the AB 32 Scoping Plan. See also the response to comment 10-16.

10-18

The commenter questions the assumption relied upon in the analysis of project-related GHG emissions under Impact 10-1 that all biomass fuel consumed by the facility would otherwise be open burned. The County acknowledges that this assumption is critical in the calculation of the facilities GHG efficiency. Refer to the response to comment 10-3, which provides clarification regarding the types of biomass fuel that would be consumed by the project.

Footnote 16 of on page 11 of the commenter's letter states, "Although the Draft EIR states some of this [biomass] fuel is currently trucked to other biomass plants, Draft EIR at page 3-7, it also concedes this is economically prohibitive. Draft EIR at [page] 5-20." On page 3-7, the Draft EIR states, "according to the biomass fuel procurement study, transportation costs are such that use of most of [the material that would be consumed by the proposed biomass facility at Cabin Creek] at other biomass power plants would be economically infeasible." On page 5-20, the Draft EIR states, "the relatively small size of the proposed facility would not result in an increased demand for woody biomass to the extent that any economic benefit could be realized by increasing production of biomass material." It is not clear how these two statements are contradictory, as the commenter asserts.

The commenter questions the assumption that materials from forest management projects are burned in the open. Page 10-13 of the Draft EIR explains that "an equivalent amount of forest-sourced material (i.e., equivalent to the amount of material consumed by the biomass facility) would be piled and open burned if the proposed biomass power plant were not built and operated. Open burning is the most common approach employed to dispose of slash after forest thinning and hazardous fuels reduction projects (Fournier, pers. comm., 2012; Conway, pers.

comm., 2012). The United States Forest Service (USFS) would continue to masticate and spread some of the biomass to support other forest management goals (e.g., habitat) but only biomass that would otherwise be open burned would be hauled to the biomass plant.” The existing practice of the USFS and other forest managers is to take some of the forest thinning or hazardous fuels and masticate and spread it on the forest floor to promote forest and soil health. The leftover biomass is piled and open burned. If the forest managers have a biomass facility to which they can economically deliver biomass material they would continue to use all that is needed to spread along the forest floor and haul the rest to the biomass facility. The analysis gained its understanding of current practices from correspondence with multiple USFS staff. This is also explained in Appendix D of the Draft EIR, in a paragraph about the methodology used in the calculation table called “Avoided GHG Emissions from Forest Slash Burning.” Thus, it is reasonable to assume that an equivalent the amount of material consumed by the biomass facility would otherwise be piled and open burned if the proposed biomass power plant were not built and operated—and this assumption is based on substantial evidence.

As described on page 3-13 of the Draft EIR, Placer County has signed a Master Stewardship Agreement with the USFS. The purpose and primary objective of this Tahoe Basin Biomass Master Stewardship Agreement is to reduce the number of acres of fuels burned annually on NFS lands within the Lake Tahoe Basin by entering into a stewardship agreement with Placer County for removal of biomass from NFS lands. The biomass removed as part of this project would be generated during implementation of fuels reduction and forest health treatments currently being conducted and/or planned within the wildland urban interface on NFS lands.

10-19

The commenter questions the combustion efficiency factor of 95% used in the estimation of avoided emissions from open burning and asserts that the Draft EIR has overstated the level of avoided GHG emissions associated with open burning. This value is used in the calculation table titled, “Avoided GHG Emissions from Forest Slash Burning” in Appendix D of the Draft EIR. In this calculation the combustion efficiency refers to the percent of biomass (by mass) that is not left over after a pile is burned, which is also sometimes referred to as the consumption efficiency of a burn. In this comment and response, the term “combustion efficiency” is not to be confused with the portion of carbon that is emitted as CO<sub>2</sub> relative to other carbon-containing gases (such as carbon monoxide and methane). Note 1 to the calculation table in Appendix D explains the assumption that forest contractors who burn their piles of forest slash seek to burn as much of the material as possible. This assumption was made because the objective of forest thinning projects is to reduce the hazardous fuels load in the forests. Further, PCAPCD staff have indicated that open pile burns in the semi-arid Sierra Nevada mountains are commonly reported and observed by Air District inspectors to consume essentially all of the material when the pile is stacked to allow for high temperature flaming.

The commenter specifically states, “Combustion efficiencies for broadcast understory burning of coarse woody debris can be as low as 60%,” and references a study by Knapp et al. in 2005. Upon review, it is not clear where in this study a value of 60 percent is discussed. The study’s abstract states that prescribed burns conducted for the purpose of reducing fuel loading consume 67 to 88 percent of dead and down organic matter. The combustion efficiencies identified for broadcast prescribed burns are not representative of the combustion efficiency of burn piles, which are built to maximize combustion and minimize smoke and are left to dry for one or two seasons (i.e., left to “season”) before being ignited. As stated in another publication mentioned by the commenter—a 1996 study by Hardy—, “in contrast with broadcast burning of the same

material, piled slash burns more efficiently, with notably less smoke produced per unit mass of fuel consumed” citing a 1989 study by Ward, Hardy, Sandberg, and Reinhardt. Generally, one of the primary purposes of a prescribed broadcast burn is to manage a low-temperature burn that burns the forest understory without harming mature trees. The fact that the 2005 study by Knapp et al. identified combustion efficiencies as high as 88% for broadcast prescribed burns is supportive of the Draft EIR assumption that seasoned piles would burn with an even higher combustion efficiency. Also, burn piles are often tended by crews to ensure that all of the material is consumed during the burn and that no living vegetation is unintentionally ignited. The commenter again references the 1996 paper authored by Hardy and published by the USFS Pacific Northwest Research Station, which states, “the percentage of wood mass consumed when piles are burned typically ranges between 75% and 95%. Smoke management-reporting programs in several Western States recommend either 85% or 90%. Experience and expert knowledge must be used to determine the most appropriate value for percentage of consumption.” However, Hardy does not cite a reference for any of these values or provide any reasoning to support why they were selected. The Hardy paper consists of guidance for estimating smoke emissions from slash piles. The paper guides how to estimate the volume of a slash pile based on its shape and dimensions, the density of the wood, and the “packing ratio,” which is the ratio of wood volume to total pile volume. It provides no guidance regarding what combustion efficiency rate to use in the emissions calculation, other than the text quoted above. This is peculiar because combustion efficiency is known to vary according to other parameters such as moisture content, species mix, and ambient humidity. Thus, it would be imprudent to use a combustion efficiency rate suggested by Hardy’s guidance, which was written for the purpose of estimating particulate matter emissions (and from another region of the USFS), in another methodology that was specifically developed for the purpose of estimating GHG emissions. Also, the guidance authored by Hardy has not been adopted by any air districts in California, ARB, the U.S. EPA, or the Intergovernmental Panel on Climate Change. Furthermore, an on-line search of the Science Citation Index reports that no publications have cited the 1996 paper by Hardy. Therefore, based upon all of this information, the County disagrees with the commenter’s assertion that the analysis overestimates the level of emissions from pile burning that would be avoided by the proposed project.

- 10-20 The commenter reiterates the importance of the combustion efficiency used to estimate the level of avoided GHG emissions associated with open burning. The commenter’s assertion that the combustion efficiency value is ultimately important to the net calculation of the project’s GHG emissions is accurate. Refer to the response to comment 10-19 for an explanation about why the combustion efficiency rate of 95% was used to estimate the level of avoided GHG emissions associated with open burning and why this rate is considered accurate.
- 10-21 The commenter questions the statement that biomass masticated and spread of the forest floor would result in GHG emissions associated with the decomposition of that material. This particular statement is included in the methodology note in the calculations table called “Avoided GHG Emissions from Forest Slash Burning” in Appendix D of the Draft EIR. The commenter asserts that the Draft EIR does not provide evidence to support this statement and this statement lacks scientific evidence. The Draft EIR’s estimation of avoided emissions associated with open burning does not attempt to include methane emissions associated with any portion of burn piles that are not combusted and remain on the forest floor. The amount of biomass masticated and spread on the forest floor during forest thinning activities would not be changed if the proposed biomass facility is constructed and operated. This is explained in greater detail in the response to comment 10-18.

10-22 The commenter asserts that the Draft EIR does not identify substantial evidence in support of its conclusion that the project's GHG emissions would be less than significant. The County disagrees. Refer to the responses to comments 10-15 through 10-21, above.

10-23 The commenter states that the Draft EIR's conclusion that management in the Tahoe National Forest or the Lake Tahoe Basin would not change is unsupported, that the Draft EIR lacks any analysis of the project's potential long-term impacts on local forests, and that the Draft EIR lacks evidence or analysis to support the conclusion that the facility would not increase a market demand for biomass fuels.

As described on Draft EIR page 5-20, the USFS develops forest management plans based on existing resources and desired future conditions. The objectives identified in the forest management plans determine the actions that the USFS takes at a local, management-unit level. Forest management projects are designed to fulfill a specific objective or combination of multiple objectives, such as hazardous fuels reduction, enhancement of wildlife habitat, scenic integrity, or stand-level management. Other land managers within the fuel supply area for the proposed facility, including California Tahoe Conservancy and California State Parks, have similar planning processes to develop management plans for their land. The operation of a biomass facility would not change the planning process for these agencies. The land managers would continue to identify objectives for forest management based on desired future conditions of the forest. Supplying biomass fuel to the proposed facility is not a management objective or priority for the Tahoe National Forest (TNF) or Lake Tahoe Basin Management Unit (LTBMU) (Conway, pers. comm., 2012; Fournier, pers. comm., 2012) and is not likely to be adopted by any of these agencies as a management goal in the future because it does not help to fulfill their missions.

The effect on biological resources from operation of the biomass facility over the long-term (40-year planning horizon) was evaluated in the Draft EIR in the Cumulative Impacts section (see pages 18-33 and 18-34). To reiterate, the proposed facility would not change the forest management objectives and priorities of the land managers in the surrounding area. The operation of the biomass plant would facilitate disposal of forest residuals at the plant. Although the proposed biomass facility may assist in a more efficient completion of forest projects and provide a economic offset, neither TNF or LTBMU expect the proposed biomass facility to substantially change the location, size, pace, objectives, or methods of their forest projects (Conway, pers. comm., 2012; Fournier, pers. comm., 2012). The planning and approval process for forest projects is the largest constraint to USFS operations and would remain unchanged with the proposed biomass facility. These forest projects are independent and are subject to separate environmental analyses and reviews. Biomass fuel would be obtained from projects that are in compliance with existing laws and regulations.

The Draft EIR describes (page 18-34) that the proposed project may result in forest management projects being completed more quickly because processing and hauling can occur in the same season as the management activity as compared to having to wait for piles to dry and then return later to burn piles (Fournier, pers. comm., 2012). The payment received for the materials may offset some project costs. However, this economic incentive would not substantially drive forest management activities, because the cost per acre for forest management projects is significantly more than the value of the biomass chips (Fournier, pers. comm., 2012; Conway, pers. comm., 2012). Again, the planning and approval process for forest projects is the largest constraint to USFS operations and would remain unchanged with the proposed biomass facility.

Placer County has signed a Master Stewardship Agreement with the USFS. The purpose and primary objective of this Tahoe Basin Biomass Master Stewardship Agreement is to reduce the number of acres of fuels burned annually on NFS lands within the Lake Tahoe Basin by entering into a stewardship agreement with Placer County for removal of biomass from National Forest System lands. The biomass removed under this project would be generated during implementation of fuels reduction and forest health treatments currently being conducted and/or planned within the wildland urban interface area on NFS lands.

The USFS has wildland fire protection responsibilities (Federal Responsibility Area) on NFS lands along with state responsibilities (State Responsibility Area) for wildland fire protection responsibilities on private and state lands within the Lake Tahoe Basin. USFS, Lake Tahoe Basin Management Unit manages approximately 165,000 acres of NFS lands within the Lake Tahoe Basin.

The USFS, LTBMU, and Placer County are both actively involved in implementing projects and programs aimed at reducing hazardous fuels and improving wildfire protection to local communities. These fuel reduction efforts are included in the Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (Basin Fuels Strategy), a comprehensive strategy for collaboratively conducting fuel reduction projects across all ownerships, involving all land management, fire protection and regulatory agencies within the Lake Tahoe Basin. This strategy identifies biomass utilization as an important alternative to piling and burning live and dead fuels from these projects.

10-24

The commenter states that Draft EIR Project Description deficiencies impede discussion of water quality impacts. Depending upon the choice of technology, the project may use wet scrubbers and/or electrostatic precipitator filters to remove entrained solid particulate and condensed tars, and trace contaminants containing alkalis and halogens. The necessity for wastewater pretreatment also depends upon the choice of technology that has not been made.

The Draft EIR provides a detailed description of gasification technology in Section 3.4.2 Technology Overview, of the Draft EIR. The Draft EIR further states in Section 3.4.6, Utility Improvements, that “Depending on the specific gasification technology chosen for the project, there may be need for pretreatment of wastewater from the gasification system prior to discharge to the TCPUD sewer main that connects to the Tahoe-Truckee Sanitation Agency (T-TSA) sanitary sewer system. T-TSA sanitary sewer lines extend along SR 89 to a treatment facility located east of the Town of Truckee. Some gasification systems require syngas conditioning with water scrubbing. This scrubbing removes the tars from the syngas stream, and transfers them to the water medium. Although the scrubber water is recycled to the maximum extent possible, ultimately some wastewater would require discharge. Prior to discharge this water would be pre-treated to the standards required by T-TSA, the agency charged with maintaining the quality of waste discharges.

The Applicant would select a vendor and technology in consultation with T-TSA, to ensure that the wastewater treatment standards would be met. No discharge could occur to the sanitary sewer system and to the T-TSA water reclamation plant without the consent of T-TSA. Section 5.C of the T-TSA Rules and Regulations states in part “A member entity and the Agency shall have the right, on behalf of the Agency, to reject the application for service for any property owner upon whose property industrial or commercial activities create a waste of unusual strength, character or volume if it appears likely that the strength, character, or volume

could adversely affect the treatment processes or equipment.” Section 5.D of T-TSA Rules and Regulations state in part “No person shall discharge or cause to be discharged any substances, materials, waters or wastes, if it appears likely to the Agency that such waste can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or will constitute a nuisance, or will violate standards established by the Regional Water Quality Control Board.” See also the responses to comments 9-1 through 9-3, above.

Compliance with the pretreatment requirements of T-TSA would prevent significant environmental impacts to water quality associated with the regional sewer system. Impact 13-3, on page 13-12 of the Draft EIR, is revised as follows to clarify this point and to revise the impact to reflect that it is the increase in stormwater runoff, and not discharges to the regional sewer system, that would be considered potentially significant.

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<b>Impact 13-3</b>	<b>Potential Long-Term Degradation of Water Quality.</b> Operation of the project would increase the intensity of use on the site, which could introduce new storm water pollutant sources. These pollutant sources could include oils and greases, petroleum hydrocarbons (gas and diesel fuels), nitrogen, phosphorus, and heavy metals. Pesticides, herbicides, and other landscape maintenance products could also be present and could adversely affect the quality of the site’s storm water discharges. Additionally, there may be need for pretreatment of gasification-created wastewater prior to discharge to the regional sewer system. <u>Compliance with the pre-treatment requirements of T-TSA would prevent significant environmental impacts to water quality from any wastewater discharged to T-TSA’s system.</u> However, <del>the</del> potential water quality degradation associated with polluted stormwater runoff and the resultant effect on water quality would be considered <b>potentially significant</b> .
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Implementation of the project would increase the intensity of use currently present on the project site, which would alter the types, quantities, and timing of contaminant discharges in storm water runoff relative to existing conditions. If this storm water runoff is uncontrolled and not treated, the water quality of the discharge could affect offsite surface water resources.

Water quality degradation from the discharge of industrial runoff occurs when storm water or landscaping irrigation runoff enters the downstream water bodies and/or groundwater carrying contaminants. Storm water may encounter oil, grease, or fuel that has collected on roadways and parking lots and convey these contaminants surface water and/or groundwater. The potential discharges of contaminated industrial runoff from the site could increase or could cause or contribute to adverse effects on aquatic organisms in receiving waters. Industrial contaminants typically accumulate during the dry season and may be washed off when adequate rainfall returns in the fall to produce a “first flush” of runoff.

The amount of contaminants discharged in stormwater from development areas varies based on a variety of factors, including the intensity of industrial uses such as vehicle traffic, types of activities occurring onsite (e.g., snow removal services), types of

chemicals used onsite (e.g., pesticides, herbicides, cleaning agents, petroleum byproducts), the pollutants on paved surfaces, and the amount of rainfall.

Depending on the specific gasification technology chosen for the project, there may be need for pretreatment of gasification-created wastewater prior to discharge to the regional sewer system. Some gasification systems require syngas conditioning with water scrubbing. This scrubbing removes the tars from the syngas stream, and transfers them to the water medium. Although the scrubber water is recycled to the maximum extent possible, ultimately some wastewater would require discharge. Prior to discharge, this water would be pre-treated to the standards required by TTSD through the use of activated charcoal filters. Compliance with the pre-treatment requirements of T-TSA would prevent significant environmental impacts to water quality from any wastewater discharged to the T-TSA system.

The potential for the project to contribute substantial additional sources of polluted runoff and to substantially degrade water quality during site operations would be considered a **potentially significant** water quality impact.

This revision does not constitute new significant information that would substantially alter the conclusions of the Draft EIR regarding the environmental impacts of the project.

10-25

The commenter states that the Draft EIR analysis of water supply is flawed. The commenter states that the Draft EIR does not provide any evidence that groundwater supplies are adequate, and instead claims there is a lack of evidence that supplies are inadequate (page 13-12 of the Draft EIR). The commenter states that because the project site is not located in a mapped groundwater basin, information on the Martis Valley groundwater basin has no relevance to potential impacts of the project on groundwater conditions.

While the County acknowledges that the project is not located in the Martis Valley Groundwater Basin, the analysis in the Draft EIR offers information regarding the Martis Valley Groundwater Basin to provide context about the nature and extent of groundwater pumping surrounding the project area. The project's impacts to the underlying groundwater basin were not based upon information pertaining to the Martis Valley Groundwater Basin (see Impact 13-2; page 13-12).

The existing well at the Eastern Regional MRF and Transfer Station site was installed in 1988 to a depth of 610 feet below ground surface (bgs) (Kleinfelder 2002; Placer County Facility Services 2004). A 15-horsepower submersible pump and motor were installed to a depth of 504 bgs. At that time the static water level was measured at 407 feet bgs, establishing a capacity that would allow the well to be drawn down up to 97 feet (the difference between the base static water level and the pump depth).

In 2002, on behalf of the Placer County Department of Facility Services, Kleinfelder conducted an aquifer test at the well site. The well was rated at a maximum production capacity of 100 gallons per minute (gpm) (144,000 gpd) (Kleinfelder 2002; Placer County Facility Services 2004). The test measured an average flow rate of 52.6 gpm.

The existing water system, the well, and three water storage tanks with a combined storage capacity of 460,000 gallons, supplies the domestic and fire suppression water requirements for the Eastern Regional MRF and Transfer Station site and includes fire hydrants located at the TART facility, the MRF, the MRF maintenance shop, and the Department of Public Works shop.

The water system is permitted under a Domestic Water Supply permit issued by Placer County Environmental Health Services (Public Water System No. 3105779) (Placer County Environmental Health Services 2004). The current maximum day demand for the site is 60,000 gallons per day (gpd), and the current pump capacity is 75,000 gpd (52 gpm) (Placer County Facility Services 2004: 3-2; 4-5).

As described in Impact 15-1 on page 15-7 of the Draft EIR, the existing well and pump would have adequate capacity to serve existing uses at the site as well as the worst case water demand for the proposed project. Pages 3-19 and 15-7 of the Draft EIR describe that the maximum (peak use) flow for the proposed biomass facility would be 10 gpm (14,440 gpd). When added to the existing maximum demand at the site (60,000 gpd), a total of approximately 74,400 gpd would be required. Together, the existing demand (42 gpm) and projected peak demand for the biomass facility would be within the limits of the pump's current capacity of 52 gpm. The Draft EIR notes that the frequency with which this peak rate of water would be needed would be rare and would require that peak demands from several onsite facilities (Eastern Regional MRF, Transfer Station, TART facilities, and the proposed biomass facility) occur simultaneously.

The aquifer test conducted by Kleinfelder also provided information on projected drawdown rates and the long-term water supply availability of the well. First, the aquifer test determined that based on a comparison of static water levels measured at the time of construction in 1988 (407 bgs) and at the time of the well test in 2002 (408.34 feet) that there was no change in aquifer water levels (the difference of about 1.5 feet can be attributed to the well casing above ground surface) after 14 years of pumping (Kleinfelder 2002).

The aquifer test results projected a drawdown rate of approximately 10 feet over a 20-year period if pumping occurred continuously at the pump's measured flow rate (52.6 gpm). Continuous pumping at the well capacity limit of 100 gpm would result in a drawdown of 20 feet over the same 20-year period. Based on the predictive components of the Kleinfelder aquifer test, even under a worst case scenario in which the pump were to operate at 52.6 gpm continuously over time, the facility could operate at this rate for a period well beyond 40 years, the operating life of the proposed project before the static water level reached the current pump depth at 504 feet bgs.

Further, prior to issuance of a Building Permit for the project, the Applicant would need to comply with the provisions of Title 22 of the California Code of Regulations (CCR) Section 64554, which require a qualified individual to demonstrate that the water system would have the capacity to meet the system's maximum day demand. The proposed redundant well would also be subject to certain requirements (CCR Section 64560), which would include source capacity testing, water quality testing, and an analysis that demonstrates that the two wells (the existing and proposed redundant well) would not intersect each other. Therefore, based upon what is known about the capacity of existing wells in relation to drawdown that can be supported by the groundwater basin and the fact that the Applicant would need to comply with Title 22 requirements addressing water system capacity, there is no evidence to suggest that significant groundwater depletion impacts would occur.

- 10-26 The commenter states that the Draft EIR cannot serve as the NEPA document for the Department of Energy (DOE) compliance with the National Environmental Policy Act (NEPA). The Draft EIR cannot serve as a Finding of No Significant Impact (FONSI) because it lacks any

discussion of NEPA's requirements for an environmental assessment (EA), and no opportunity has been provided for comments to DOE regarding the document's adequacy as an EA.

As discussed in the Draft EIR in Section 1.1.1, DOE will make independent findings regarding the appropriate documentation under NEPA. DOE may use the analyses contained in this EIR as a basis for determining the appropriate level of NEPA documentation, EA/FONSI, or environmental impact statement (EIS), and as a basis for the NEPA document. It was never the intent of the Draft EIR to serve as the NEPA documentation. Instead, the Draft EIR was prepared in a manner that addressed NEPA-specific topics (e.g., Chapter 17, Environmental Justice) that would otherwise not be addressed in a CEQA-only document, with the intent of providing sufficient information to streamline and minimize the extent of new analyses necessary for DOE to prepare the appropriate NEPA documentation.

In response to this comment, DOE has provided additional information regarding NEPA documentation for the project (Kerwin, pers. comm., 2012). Per DOE NEPA implementing procedures (Title 10 of the Code of Federal Regulations, Part 1021), DOE has determined that an EA will be required prior to authorizing the expenditure of federal funds for the proposed project. DOE will complete the EA in accordance with applicable regulations and requirements and will conduct scoping, complete required consultations, and provide opportunities for public comment on NEPA documentation prior to authorizing the expenditure of federal funds for this project. DOE will independently evaluate the information presented in the EIR and will rely upon and/or supplement the analysis as DOE deems necessary in the development of the EA.

10-27

The commenter concludes based on the issues raised in Comments 10-2 through 10-25 that the Draft EIR cannot serve as the basis for project approval under CEQA and the County must recirculate the document that complies with the law before moving forward with the project. The commenter further concludes the document cannot serve as the basis for project approval under NEPA.

For specific responses to each of the concerns raised by the commenter, demonstrating that Draft EIR does in fact meet CEQA's requirements, please refer to the responses to comments 10-2 through 10-25. See the response to comment 10-26 regarding NEPA compliance. Refer to responses to comments above regarding adequacy of the EIR under CEQA.

The commenter also asserts that the Draft EIR must be revised and recirculated so that the public decision-makers have adequate information to evaluate the project's impacts. As stated in Section 15088.5(a) of the State CEQA Guidelines, a lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR for public review but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (*Mountain Lion Coalition v. Fish and Game Com.* (1989) 214 Cal.App.3d 1043)

Under CEQA Guidelines Section 15088.5(b), recirculation is not required when new information added to an EIR merely clarifies or amplifies or makes insignificant modifications to an adequate EIR.

As the responses to comments 10-2 through 10-25 explain, none of the commenter's comments constitute "significant new information" that would trigger recirculation under CEQA Guidelines Section 15088.5. The responses to comments 10-2 through 10-25 do not constitute "significant new information," but merely clarify or amplify information presented in the Draft EIR.