

WILD Equity INSTITUTE

*Building a healthy and sustainable global community for people
and the plants and animals that accompany us on Earth*

June 30, 2013

Brian Lusher
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RE: Comments on the proposed initial Major Facility Review Permit for Gateway Generating Station, LLC under Title V of the 1990 Clean Air Act Amendments, the Federal Operating Permit Program, and the District's Regulation 2, Rule 6 - Major Facility Review.

Dear Mr. Lusher:

On behalf of the Wild Equity Institute, I submit these comments to inform the Bay Area Air Quality Management District (BAAQMD) and the U.S. Environmental Protection Agency (EPA) about specific Clean Air Act (CAA) requirements applicable to Gateway Generating Station, LLC's (Gateway) application for a Title V Major Facility Review Permit (Title V Permit or Permit) that are not incorporated into the proposed Title V Permit.

We have carefully reviewed Gateway's application, the history of Gateway's construction and operation, as well as the CAA and its implementing regulations governing both EPA and BAAQMD. These reviews indicate that EPA has failed to comply with mandatory provisions of the CAA regarding the Gateway Generating Station by failing to obtain incidental take authorization for listed species affected by Gateway, either through an Incidental Take Statement and Biological Opinion issued through consultation with the U.S. Fish and Wildlife Service (Service), or through an Endangered Species Act (ESA) Section 10 Incidental Take Permit. Because Title V requires every major facility review permit to include all "applicable requirements," 42 U.S.C. § 7661d(b)(1), and because the CAA, its regulations, and governing agreements between EPA and BAAQMD make such incidental take authorization from the Service an applicable regulation, the EPA and BAAQMD may not issue this Permit until the incidental take authorization is obtained and incorporated into the Title V permit.

This letter discusses the areas affected by Gateway's operation, the interplay between the ESA's incidental take provisions and the Title V and the PSD programs, and the ways Gateway's Permit application falls short of Title V requirements.

The Antioch Dunes National Wildlife Refuge.

During an inter-glacial period approximately 140,000 years ago a network of sand dunes and desert environments stretched from the location of the modern-day Mojave Desert across the Central Valley to the San Joaquin River. As the climate changed, the deserts retreated, but left behind a stretch of sand dunes in Antioch, California, known today as the Antioch Dunes. These dunes were subsequently nourished, at least in part, by sandy soils scrubbed from the Sierra Nevada Mountains by retreating glaciers. These sandy soils were delivered to the Dunes by the Sacramento and San Joaquin River Systems.

The isolation of this area in Antioch from other desert systems allowed species found at the Antioch Dunes to evolve into unique forms of life found nowhere else on Earth. Today the Antioch Dunes National Wildlife Refuge (Antioch Dunes) in Contra Costa County protects the remnants of these habitats, upon which three federally protected species depend: the Contra Costa Wallflower, the Antioch Dunes Evening Primrose, and the Lange's Metalmark Butterfly.

Prior to European settlement, the Antioch Dunes were probably several hundred acres in size. Currently, because of past sand mining, agriculture, and urban development, only about 70 acres of the sand dune habitat remains, all within the Antioch Dunes National Wildlife Refuge.

The Lange's Metalmark Butterfly.

The Lange's Metalmark Butterfly (*Apodemia mormo langei*) is a brightly colored, fragile, and highly endangered butterfly that has been protected by the Federal Endangered Species Act since 1976. 41 Fed. Reg. 22,041 (June 1, 1976). The species is endemic to the Antioch Dunes, which contains the only known extant population of the species.

Between 50 to 100 years ago, the population size of the Lange's Metalmark Butterfly at the Antioch Dunes is estimated to have been approximately 25,000 individuals. However, by 2006, the number had plummeted to a total of 45 adults. For the past seven years, the number of adults observed in the wild has continued to remain at critically low levels.

The sole food plant for the larval (caterpillar) stage of the butterfly is the naked-stemmed buckwheat (*Eriogonum nudum* ssp. *auriculatum*), which grows best in areas with good drainage and nutrient-poor soils. The Lange's metalmark butterfly is entirely dependent on the population of naked-stemmed buckwheat at the Antioch Dunes, and there is a direct positive correlation between the population size of this plant and the population of the butterfly.

However, today the buckwheat is only found in a limited portion of the Antioch Dunes National Wildlife Refuge, and this remaining area is threatened with extirpation due to the prolific overgrowth of non-native, invasive plant species, none of which provide food for the butterfly's caterpillar stage. Although the naked-stemmed buckwheat is not threatened with global extinction, the loss of the plant at the Antioch Dunes National Wildlife Refuge will surely lead to the extinction of the Lange's Metalmark Butterfly.

The Antioch Dunes Evening Primrose and the Contra Costa Wallflower.

The Antioch Dunes Evening Primrose (*Oenothera deltoids* ssp. *howellii*) is a beautiful perennial plant. It has white flower petals with long yellow stamens, and is host to a rare sweat bee species. The Contra Costa Wallflower (*Erysimum capitatum* var. *angustatum*) is a fragrant and highly structured wildflower with yellow petals. Both species have been protected as endangered under the Federal Endangered Species Act since 1978, 43 Fed. Reg. 7,972 (April 26, 1978), and critical habitat has been protected for both species since 1978 as well. 43 Fed. Reg. 39,042 (Aug 31, 1978).

Like the Lange's Metalmark Butterfly, the Contra Costa Wallflower and the Antioch Dunes Evening Primrose are endemic to the Antioch Dunes National Wildlife Refuge. Although the population sizes of these plants fluctuate greatly, the long-term trend indicates both species are in decline. In both cases, the overgrowth of invasive non-native plant species is reducing the available area for colonization and growth of these endangered species.

The Endangered Species Act.

Section 7 of the ESA describes EPA's consultation requirements. Section 7(a)(2) states:

Each Federal agency shall, in consultation with and with the assistance of the Secretary [of the Interior or Commerce], insure that any action authorized, funded or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat

16 U.S.C. § 1536(a)(2). "Its very words affirmatively command all federal agencies to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of endangered species." *TVA v. Hill*, 437 U.S. 153, 173 (1978). Reinitiation of consultation is required and must be requested by EPA where discretionary federal involvement or control over the action has been retained or is authorized by law, and new information reveals effects of the action that may affect listed species or critical habitat in a manner not previously considered during consultation. 50 C.F.R. § 402.16(b).

Title V.

Title V was enacted to make the CAA permitting process more transparent. *See Com. of VA v. Browner*, 80 F.3d 869, 873 (4th Cir. 1996) ("The permit is crucial to the implementation of the Act: it contains, in a single, comprehensive set of documents, all CAA requirements relevant to the particular polluting source.") (citations removed). It applies to facilities like Gateway. *See* 42 U.S.C. §§ 7602 (defining major stationary source) and 7661a(a) (applying Title V to major sources). The Permit must contain, *inter alia*, "applicable requirements" of the Clean Air Act. 42 U.S.C. § 7661d(b)(1) (requiring the EPA Administrator to object to a permit if it does not contain the requirements of the CAA); BAAQMD regs. 2-6-202 (Defining "Applicable Requirements" as "[a]ir quality requirements with which a facility must comply pursuant to the District's regulations, codes of California statutory law, and the federal Clean Air Act, including all applicable requirements as defined in 40 C.F.R. 70.2. ").

The PSD program is one of the “applicable requirements” of the Title V program. 42 U.S.C. §§ 7470-7479 and 7661a(f)(3); 40 C.F.R. § 70.2 (defining applicable requirements to include Subchapter I, Part C – the PSD program); *see also Sierra Club v. Johnson*, 541 F.3d 1257, 1261 (11th Cir. 2008) (“Among the many air quality requirements included in an operating permit, if applicable, are [PSD] limits.”); 57 Fed. Reg. 32250, 32250 (July 21, 1992) (Title V permits must contain all pollution control obligations, including those in State Implementation Plans, as well as New Source Performance Standards, such as PSD). As a major stationary source, Gateway is subject to the PSD program. 40 C.F.R. § 52.21(b)(1). Both EPA and BAAQMD recognize that the PSD program applies to Gateway. *See e.g.*, Complaint, *U.S. v. Pacific Gas & Elec.*, 776 F.Supp.2d 1007 (N.D. Cal. 2011) at 9 (“PG&E constructed [Gateway] . . . without first obtaining an appropriate PSD permit. . .”); BAAQMD, Permit to Operate, Gateway Generating Station, Condition No. 18138 (PTO) (listing conditions of operation, noting where PSD limits apply).

While BAAQMD issues PSD permits in the Bay Area, it does so under a delegation agreement, where the EPA Administrator delegates responsibility to a state agency to issue PSD permits while the Federal PSD program is in effect. 40 C.F.R. 52.21(u); Agreement for Partial Delegation of the Federal Prevention of Significant Deterioration (PSD) Program Set Forth In 40 C.F.R. Section 52.21 by the United States Environmental Protection Agency, Region 9 to the Bay Area Air Quality Management District (Delegation Agreement). EPA considers such permits EPA-issued. *See, e.g., In re: Russell Energy Center*, 2010 WL 5573720, 7 (E.P.A.) (Nov. 18, 2010). Per the delegation agreement, BAAQMD must “notify the [FWS] and EPA when a submitted PSD permit application has been deemed complete, in order to assist EPA in carrying out its non-delegable responsibilities to consult with FWS under section 7” of the ESA. Delegation Agreement at 7 (Section VI.2.b).

This provision makes it clear that EPA must consult with FWS over potential effects to endangered species during the PSD application process. If, during consultation, the agencies find that the action will likely adversely affect an endangered species – as the FWS believes will occur here – the FWS may issue a Biological Opinion which will contain an “Incidental Take Statement” (ITS). 16 U.S.C. § 1536(b)(4); *Arizona Cattle Growers Ass’n v. U.S. Fish and Wildlife, Bureau of Land Management*, 273 F.3d 1229 (9th Cir. 2001). The ITS may, among other things, attach conditions to the activity in an area where endangered species are present and immunizes the actor for any harmful activity incidental to the activity on that land. 16 U.S.C. § 1536(o); *Arizona Cattle*, 273 F.3d at 1239. These statements are permits to take endangered species under the ESA.

The ITS is a key part of the PSD program and a possible component of EPA’s non-delegable duties under the ESA that must be performed before a Federal agency (or delegated local authority) may issue a PSD permit. Since the PSD program is an “applicable requirement” of the Title V permit, the ITS is also an applicable requirement. 42 U.S.C. 7661d(b)(1).

Previous Consultation Efforts.

In 2001, when this project was known as Contra Costa Power Plant Unit 8, Pacific Gas & Electric’s (PG&E) predecessor, Mirant, received a PSD from BAAQMD, issued under a prior delegation agreement. *U.S. v. Pacific Gas & Elec.*, 776 F.Supp.2d 1007, 1013 (N.D. Cal. 2011). Since the PSD permit issuance was a Federal action, EPA engaged in informal consultation with FWS and the U.S. Army Corps of Engineers. FWS Letter at 2. However, this consultation concluded that there would

be no adverse effects on those species. *See* Letter from Gerardo Rios, Acting Chief, Permits Office, Air Division, EPA Region IX to Jan Knight, Chief, Endangered Species Division, FWS (30 May, 2001) at 2 (“... the following species are identified as ... not likely to be adversely affected by the project: ... Lange’s metalmark butterfly ... Contra Costa Wallflower ... Antioch Dunes evening primrose ...”)

The facility did not become operational until 2009, and in the intervening time the PSD permit expired because of a lapse in construction. *See* Second Amended Consent Decree, *U.S. v. Pacific Gas & Elec.*, 776 F.Supp.2d 1007 (N.D. Cal. 2011) at 1-2. (N.D. Cal. 2011). After receiving approval for the consent decree, PG&E applied for the agreed amendments to the Permit to Operate from BAAQMD, which it granted on September 13, 2011, and subsequently renewed in November 2012. *U.S. v. Pacific Gas & Elec.*, 776 F.Supp.2d 1007 (N.D. Cal. 2011); *see also* BAAQMD, 2012 PTO; BAAQMD, 2011 PTO.

FWS has Requested EPA Consultation Regarding Endangered Species in Antioch Dunes.

Since 2001, FWS has learned of “new scientific information relating to the adverse effects of nitrogen deposition on listed species and natural ecosystems ...” *Id.* In a letter to EPA, FWS raised these new concerns, specifically requesting EPA to reinitiate consultation with FWS in order to determine the effects that operation of Gateway will have on the endangered species in Antioch Dunes.

The Gateway Generating Station will have significant nitrogen emissions. Letter from Cay C. Goude, Assistant Field Supervisor of the Fish and Wildlife Service to Jared Blumenfeld, Region 9 Regional Administrator at 2-3 (June 29, 2011) (FWS Letter). As described in The FWS letter, the long-term chronic adverse biological effects of nitrogen deposition on native ecosystems and associate animals have been described in a number of scientific papers. *See e.g.*, Brooks, Matthew L., “Effects of increased soil nitrogen on the dominance of alien annual plants in the Mojave Desert” 40 *J. of Applied Ecology*, 344-353 (2003). Sand dunes like the Antioch Dunes are nitrogen deficient, and the changes in plant and microbial communities resulting from increased amounts of the airborne deposition of this chemical has been documented to cause cascading negative effects on ecosystem processes and the species that depend upon the native plant community. One of the primary adverse effects is the enhancement of environmental conditions for the invasion of non-native weeds, which outcompete native plants. *See* Padgett et al., “Differential responses to nitrogen fertilization in native shrubs and exotic annuals common to Mediterranean coastal sage scrub of California” 144 *Plant Ecology* 93-101 (1999); Allen et al., “The Effects of Organic Amendments on the Restoration of a Disturbed Coastal Sage Scrub Habitat” 6 *Restoration Ecology*, 52-58 (1998).

Currently, the Antioch Dunes Wildlife National Refuge receives nitrogen deposition from the surrounding atmosphere at a rate of 6.51 kilograms per hectare per year. This is above the 5 kg/ha/yr threshold at which nitrogen deposition effects can result in adverse impacts to native plant communities, and therefore when levels are this high there must be an assessment of the landscape to determine the extent of the impacts on species and ecological communities. California Energy Commission, Revised Staff Assessment of the Marsh Landing Generating Station (08-AFC-03), Sacramento, California (2010); Weiss, S.B. 2006. Impacts of nitrogen deposition on California ecosystems and biodiversity. California Energy Commission, PIER Energy-Related Environmental Research, CEC- 500-2005-165 (May 2006). Gateway is roughly $\frac{3}{4}$ of a mile from the Antioch Dunes

and its operations deposit nitrogen into the Wildlife Refuge. FWS Letter at 1.

The Lange's Metalmark Butterfly, the Antioch Dunes Evening Primrose, and the Contra Costa Wallflower are all highly endangered, and even small changes in the plant distribution at the dunes could take these species, adversely modify critical habitat, impede recovery, and even cause the species to go extinct. In particular, the Lange's Metalmark Butterfly is so critically endangered that a single failure in the productivity of the species host plant could lead to the permanent extinction of the species. FWS believes that "nitrogen deposition is likely to result in adverse affects" to these species. FWS Letter at 3.

FWS' Request for Consultation Shows that the Title V Application is Incomplete.

FWS has requested consultation over the Antioch Dunes' endangered species.¹ FWS Letter at 2. The FWS Letter shows that the actions clearly meet the ESA's "may affect" threshold requiring consultation. *California ex rel. Lockyer v. U.S. Dept. of Agriculture*, 575 F.3d 999, 1018-19 (9th Cir. 2009) (noting that "any possible effect" triggers the "may affect" threshold) (citations and quotation removed); FWS Letter at 3 ("... nitrogen deposition at [Antioch Dunes] is likely to result in adverse effects . . .") (emphasis added). Without consultation, the Title V permit will be lacking a key part of the PSD permitting program, the ITS for the endangered species at Antioch Dunes.

The PSD permit has been issued without consultation and without an incidental take statement.² As such, the Title V Permit application is incomplete, because it has not satisfied this applicable requirement of the Clean Air Act's PSD program.

Proposals.

The APCO should deny Gateway's Title V permit for failure to include a PSD permit that has been issued in conformity with the consultation requirements of the ESA under BAAQMD Regulation 2 Rule 6, section 313. Until the PSD permit reflects the findings of ESA consultation between EPA and

¹ Even without the FWS Letter, EPA would still be required to consult with FWS, either because the consent decree is a new federal action, or because Federal Agencies are required to reinitiate when new scientific information becomes available (here, nitrogen deposition) or when an action is modified (here, by the new terms of the PSD permit included in the 2011 Permit to Operate). 50 C.F.R. §§ 401.16 (b),(c). Under the terms of the consent decree, PG&E requested modification of its applications for its permit to operate and Title V operating permit on April 4, 2011, in a letter to Brian Lusher. Since all parties to the consent decree agree that the old permit expired, the amended Permit to Operate necessarily contains a new PSD permit, a Federal action requiring section 7 consultation.

² Additionally, Gateway operations likely violate section 9 of the ESA, which prohibits the take of any species. 16 U.S.C. § 1538(a)(1)(b). "Take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. *Id.* § 1532(19). FWS "is concerned that the indirect and cumulative effects of the deposition of additional nitrogen at ADNWR resulting from operation of [Gateway and other stations] will result in adverse effects to the Contra Costa wallflower and the Antioch Dunes evening primrose and their critical habitat and in take of the Lange's metalmark butterfly." FWS Letter at 2.

FWS, the Permit cannot be considered complete, as it will not contain all applicable requirements of the major facility review permit.

Sincerely,

/s/

Barry Bryan, Summer Clerk
Wild Equity Institute