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Subject: Comments on the Notice of Preparation of a Draft Environmental Impact Report for the proposed Renewable Energy Ordinance, Los Angeles County (SCH# 2014051016).

Dear Ms. Hua:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Notice of Preparation (NOP) for the proposed Renewable Energy Ordinance (Ordinance) which would amend Title 22 of the County Code. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the Project (California Environmental Quality Act, [CEQA] Guidelines § 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed Project that come under the purview of the California Endangered Species Act (Fish and Game Code § 2050 *et seq.*) and Fish and Game Code section 1600 *et seq.* The Department also administers the Natural Community Conservation Planning (NCCP) program.

The Ordinance applies to the unincorporated portions of the County of Los Angeles (Lead Agency), over which the Lead Agency has land use jurisdiction. The Ordinance would create a Renewable Energy Ordinance, amending Title 22 of the County Code to establish regulations and development standards for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological (MET) towers.

The Department acknowledges the difficulty anticipating all potential impacts associated with future projects developed under the Ordinance. The Department recommends the Lead Agency develop effective standards that are measurable and enforceable to be incorporated into the Ordinance.

The Department offers the following comments and recommendations to assist the Lead Agency to avoid, minimize, and/or mitigate potential project related impacts on biological resources.

Specific Comments

Zoning

1. According to the Zoning and Approval Process hosted on the County website under "Current Regulations," a renewable energy project proponent may not be specifically required to file for CEQA review if located within the following zoning classifications:

M-1.5 (Restricted Heavy Manufacturing), M-2 (Heavy Manufacturing Zone), M-3 (Unclassified Zone) or M-4 (Unlimited Manufacturing Zone).

Generally speaking, renewable energy projects have a wide-ranging scope of potential impacts to biological resources which include, but is not limited to; direct collisions, navigational disruptions, habitat changes or conversions, predator subsidies, disorientation, light polarization and glare, solar flux, and restrictions to wildlife movement. Many of the impacts associated with the renewable energy projects can occur in any zone or location, and warrant an analysis specific to any one project. Given the complex interactions of utility-scale renewable energy projects with wildlife resources, the Department recommends the Ordinance require a biological evaluation of any utility-scale renewable energy project regardless of the zoning.

2. Renewable Energy Permit Requirements (Table 22.52.1620-A). The Ordinance establishes a ministerial zoning conformance review process for the development of structure and ground mounted small-scale renewable energy systems and a site plan review process for structure-mounted, utility-scale renewable energy projects. While the Department encourages the development of renewable energy systems within the least impactful locations, flat reflective surfaces (i.e., solar panels), without regard to size, polarize light may have significant impacts. Early accounts indicate that avifauna, including bird and bat species (Grief et. al), may mistake these reflective structures for bodies of water, a phenomenon referred to as the lake effect. Lake effect may result in direct collision, increased predation, or may serve as a biological trap (Hovarth et. al). For these reasons, the Department recommends that all projects be evaluated for their potential impacts to avifauna and consider the use of emerging technologies (e.g., anti-reflective film overlays) to reduce the potential impacts associated with solar panels of all sizes and configurations.
3. Wind energy projects (Table 22.52.1620-A). Renewable Energy Permit Requirements in the Ordinance also administratively cover small-scale and structure-mounted utility-scale wind development projects. The Department recommends the Lead Agency consider retaining discretionary approval over wind energy projects, and/or limit the number of turbines which may be installed.

Absent discretionary approval over small-scale energy systems and structure-mounted utility-scale wind energy facilities, the Lead Agency will not retain the ability to develop mitigation measures or influence the project design to avoid potential biological impacts unique to future projects and their locations.

4. Small-scale solar thresholds. Small-scale solar energy systems are defined by the Ordinance as producing no more than 150% of the on-site energy demand. The Department recommends that the Lead Agency consider developing an enforceable standard whereby the Lead Agency may intervene, as appropriate, should this threshold be exceeded.

Applicability

5. According to the Ordinance "The provisions serve as the basis for development standards applicable to other renewable energy technologies, including but not limited to biomass, geothermal, hydrogen, hydropower, ocean, and any future viable energy technology." The Department appreciates the Lead Agencies' proactive approach to addressing future technologies. The Department recommends the Lead Agency consider providing a mechanism to amend or augment the Ordinance's requirements to address new technologies that may have different environmental effects.

Access Roads

6. Access roads should be designed to utilize existing roadways when feasible.. Additionally, the Department recommends that access roads be prohibited from impacting sensitive biological resource areas (e.g., County designated Significant Environmental Areas) or lands designated or conserved as natural open space.

Lighting and Aviation Safety

7. Birds that migrate at night are the most common fatalities at wind energy facilities. To minimize bird collisions during nighttime migration, continuous lighting and light colors of any kind except red should be avoided. If aviation or other lighting is required, then the Department recommends red flashing lights with a long dark interval and short flash-on time to minimize bird strikes.

The Ordinance should be evaluated to consider the following conditions to minimize bird strikes:

The published scientific literature demonstrates a significant rate of mortality of migratory and resident species from guy wire collisions caused by tower lighting during foggy or wet conditions. Non-strobe tower lighting is thought to pose a higher danger of bird collisions with guy wires. To the extent practical, the Department recommends that all lighting be restricted to the minimum necessary to meet FAA standards, and consideration be given to lowering tower heights to avoid the need for lighting. The Department recommends the Lead Agency consider the following standard be added to the Ordinance to state substantially similar to the following: "All tower-lighting shall be designed to strobe, and constant-tower lights shall be avoided to the extent feasible by FAA regulation."

Avoid Guy Wires

8. Guy wires supporting communications and meteorological towers can kill birds at high rates, including birds protected by Fish and Game Code (Kerlinger et al. 2008, Longcore et al. 2008). Both the CEC-DFG Guidelines (2007) and the US Fish and Wildlife Service (2000) recommend using freestanding tower designs due to the known avian mortality impacts from guy wires. The Department recommends the Lead Agency require the use of mono-pole structures (when feasible), or otherwise utilize other technologies that do not use guy wires.

Setbacks

9. The Department recommends the Lead Agency consider a requirement for setbacks for all wind energy facilities and meteorological towers from significant ridgelines and Significant Environmental Areas at a minimum of twice the height of the proposed facility to reduce the potential impacts to migratory birds and other avifauna.

Fencing

10. The Department recommends the Lead Agency consider a requirement for wildlife-permeable fencing for target species when appropriate, including but not limited to; kit fox, desert tortoise, small mammals, and reptiles. Wildlife-permeable fencing should be tied to the species' life history and physical requirements.

Collector Lines and Transmission Lines

11. The Department recommends the Lead Agency consider a requirement that all collector lines and transmission lines associated with new renewable energy project be appropriately routed through a protective conduit, when feasible. The Department makes this recommendation following observations of fossorial animal burrows near or through self-shielded collector lines, posing both a safety hazard to animals and a system reliability issue for the utility itself.

General Comments

1. Wetlands. The Department has responsibility for wetland and riparian habitats. It is the policy of the Department to strongly discourage development in wetlands or conversion of wetlands to uplands. We discourage development or conversion which would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. Development and conversion include but are not limited to conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. Mitigation measures to compensate for impacts to riparian corridors must be included in the DEIR and must compensate for the loss of function and value of a wildlife corridor resultant of future projects developed under the Renewable Energy Ordinance.
 - a) The Project area supports aquatic, riparian, ephemeral and wetland habitats; therefore, a jurisdictional delineation of the creeks and their associated habitats should be a requirement of the Renewable Energy Ordinance for future projects. The delineation should be conducted pursuant to the U. S. Fish and Wildlife Service wetland definition adopted by the Department (Cowardin). Please note that some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers.

- b) The Department also has regulatory authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed. For any such activities, the project applicant (or "entity") must provide written notification to the Department pursuant to section 1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, the Department determines whether a Lake and Streambed Alteration Agreement (LSA) with the applicant is required prior to conducting the proposed activities. The Department's issuance of a LSA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. The Department as a Responsible Agency under CEQA may consider the local jurisdiction's (lead agency) Negative Declaration or Environmental Impact Report for the project. To minimize additional requirements by the Department pursuant to section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA.
2. CESA-listed Species. The Department considers adverse impacts to a species protected by the California Endangered Species Act (CESA), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085). Consequently, if the Renewable Energy Ordinance, subsequent project construction, or any subsequent project-related activity during the life of the project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the Department recommends that the subsequent project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from the Department may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b),(c)). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of an ITP unless the project CEQA document addresses all project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, the Department recommends that the Renewable Energy Ordinance require biological mitigation monitoring and reporting proposals of sufficient detail and resolution to satisfy the requirements for a CESA ITP for future projects which may have the potential for take of any endangered, threatened or candidate species.
 3. To enable the Department to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish and wildlife, we recommend the following information be included in the DEIR.
 - a) An inventory and map (directly within the Renewable Energy Ordinance or by reference) of known sensitive biological areas (e.g. Significant Environmental Areas) to be explicitly avoided, and areas for which specific species-focused surveys will be required. The Renewable Energy Ordinance should also identify a regular interval to update the inventory and mapping of known sensitive biological areas.

- b) An enforceable standard requiring future projects to provide a complete discussion of the purpose and need for, and description of, the proposed project, and temporary MET tower locations including all staging areas and access routes to the construction and staging areas.
- c) An enforceable standard requiring future projects to provide a range of feasible alternatives to ensure that alternatives to the proposed project are fully considered and evaluated; the alternatives should avoid or otherwise minimize impacts to sensitive biological resources. Specific alternative locations should be evaluated in areas with lower resource sensitivity where appropriate.

Biological Resources within the Project's Area of Potential Effect

- 4. The Ordinance should include an enforceable measure to require future projects to provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats. The DEIR should include enforceable measures that require the following information to be addressed by future projects.
 - a) Per CEQA Guidelines, section 15125(c), information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis should be placed on resources that are rare or unique to the region.
 - b) A thorough, recent floristic-based assessment of special status plants and natural communities, following the Department's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see <http://www.dfg.ca.gov/habcon/plant/>). The Department recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the project site and neighboring vicinity. The Manual of California Vegetation, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
 - c) A current inventory of the biological resources associated with each habitat type on site and within the area of potential effect. The Department's California Natural Diversity Data Base in Sacramento should be contacted at www.wildlife.ca.gov/biogeodata/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.
 - d) An inventory of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, § 15380). This should include sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.

5. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be required of future projects through enforceable measures addressed in the DEIR.
 - a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage should also be included. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. The discussions should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and the potential resulting impacts on the habitat, if any, supported by the groundwater. Mitigation measures proposed to alleviate such impacts should be included.
 - b) Discussions regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, Significant Ecological Areas, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP/DRECP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated by future projects.
 - c) The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.
 - d) A cumulative effects analysis should be developed as described under CEQA Guidelines, section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

6. The DEIR should include mitigation measures for adverse Project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of future project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.
7. For proposed preservation and/or restoration, the DEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

8. The Department recommends that measures be taken to avoid project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Title 50, § 10.13, Code of Federal Regulations). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Proposed project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1- September 1 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, the Department recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors). Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.
9. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful.
10. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Eric Weiss at (858) 467-4289 or eric.weiss@wildlife.ca.gov.

Sincerely,



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Environmental Program Manager I
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cc: Erinn Wilson, CDFW, Los Alamitos
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