

The Urban Wildlands Group, Inc.

P.O. Box 24020, Los Angeles, California 90024-0020, Tel (310) 276-2306

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California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Vincent Thomas Bridge Lighting Project

Honorable Chair Sara Wan and Commissioners:

The Urban Wildlands Group, Inc. offers the following comments on the proposed Vincent Thomas Bridge Lighting Project. (Please note, this information is being sent simultaneously to Commission staff member Al Padilla at the Long Beach office and Executive Director Peter Douglas at the San Francisco office). The Urban Wildlands Group is a California non-profit corporation dedicated to addressing issues concerning native wildlife and habitats at the urban-wildland interface. The proposed bridge lighting project is of interest because it represents a conflict with a wild process, the migration of birds along the Pacific Flyway. Problems with the proposed project are fourfold: 1) it has not been subject to the proper level of environmental review; 2) it would have a significant negative environmental effect in the coastal zone by creating an attractive nuisance to migrating birds and generally disrupting natural circadian cycles; 3) it would degrade the night sky in the coastal zone; and 4) it does not minimize energy consumption as is required for new development in the coastal zone.

The staff recommendations are insufficient to protect coastal zone resources and would not bring the project into compliance with the relevant Coastal Act policies. The project as modified by staff would still endanger migratory birds, degrade the night sky in the coastal zone, and fail to minimize energy consumption.

1. Project Not Subject to Proper Level of Environmental Review

The applicant determined that the proposed project merited a Categorical Exemption from review under the California Environmental Quality Act and a Categorical Exclusion from review under the National Environmental Policy Act. Both of these determinations are inappropriate. To be eligible for a Categorical Exemption from CEQA review, a project must have no significant impacts on the environment (Public Resources Code §21084, subd.(a); CEQA Guidelines §15300). The Technical Report submitted with the determination included the conclusion that significant impacts may result from the project and further proposed mitigation measures for those impacts. This conclusion renders the project ineligible for either a Categorical Exemption from CEQA or for a Categorical Exclusion from NEPA. Thus the applicant has forwarded faulty

documentation to the Commission for review. It is therefore critical that the Commission fully evaluate the environmental impact of the proposed project, because the applicant has failed in its own duty to do so.

The project, even as modified and conditioned by staff, does not conform with the relevant policies of Chapter 3 or Chapter 8 of the Coastal Act or the California Environmental Quality Act. There are feasible mitigation measures available that would lessen the significant adverse impacts of the project on the environment. The Commission would therefore err if it approved the project as recommended by staff. Explanation of the impacts of the project and mitigation measures are discussed below.

2. Project Poses Grave Danger to Migrating Birds

A substantial literature exists describing the death of migrating birds that are attracted to and strike lighted structures. Professor Hartmut Walter of UCLA describes some of these dangers in his letter to the Commission (enclosed). He indicated in his letter that the most comprehensive review of the subject is the monograph, *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds* (Ogden 1996) (also enclosed).

The Technical Report prepared by Caltrans contained comments made by noted experts in the field of light impacts to birds. Although most indicated that the Skytracker lights would pose the gravest danger to birds, Dr. Robert Beason, Professor of Biology at State University of New York, indicated that in his opinion the banks of floodlights would pose the greater danger, especially during times of low cloud cover (Caltrans Technical Report, p. 8). This suggests that there is reason to be concerned about both types of lights, and that neither type should be approved for use. However, staff recommendations do nothing to minimize the danger from floodlights and would allow their installation as proposed.

Staff recommendations to minimize the impact to migratory birds from the Skytracker lights are insufficient as well. Staff would have the Commission allow the installation of all of the lights requested by the applicant, but would restrict lighting of the Skytracker lights to New Year's Eve, 1999–2000. Despite the proposed agreement that any future amendment to the permit for use of the Skytracker lights could not rely on the expense of installation as a justification for additional permitted use, allowing the installation in the first place sets up an invitation to apply to the Commission until permission is granted. Such permission may come under this Commission or a Commission ten years hence, but once the lights are installed it is unreasonable to believe that they will not ultimately be lit.

Staff establishes two conditions under which the Commission would consider an application to amend the permit to allow for continued operation of the Skytracker lights. As written, these conditions would not provide the Commission with additional information that could justify permitting these lights. In the first condition, staff proposes “a detailed study” describing the birds that migrate through the area and assessing the impact of high intensity lights on birds. The proposed study would have to be based on the existing literature, the most relevant of which is already in the record for this project. The birds that migrate in the Pacific Flyway are known,

and the impacts of bright lights and tall artificially lit structures on birds are similarly established. To suggest that the applicant would be able to justify additional use of the lights with such a study is to ignore the existing literature and the expert opinion presented for this permit application. In the second condition, the Commission should be more interested in the review by the resource agencies and their opinion of the potential for significant environmental impacts than on the determination of whether or not formal “approval” by the agencies is required. In this instance, the jurisdiction of the Coastal Commission is greater than that of the resource agencies, which must wait for an infraction to enforce the relevant protections.

Staff includes a condition that if mortality of birds is observed, the lights will be turned off and mitigations devised. Mortality from bridge lighting has not been documented in the literature probably for two reasons. First, most lights on bridges are much less extensive than those proposed for this and similar recent projects, so there has not been time for studies to be completed. Second, birds that die while circling lighted bridges or striking bridges are most likely fall either into the water below or onto a roadway. It is unlikely that Caltrans is going to monitor the heavily trafficked roadway for dead birds — which would be hard to distinguish from road kill — or to detect the death of birds falling into the water or Port facilities below. The scientific literature is clear that tall, lighted structures present a serious hazard to wildlife. There is no need to make the same mistakes over and over again to prove the harm for each particular project. It is important also note that bird mortality events at lighted structures can be rare but serious. Why wait for the wrong combination of season and climatic conditions to kill 10,000 birds in a single night before acting to minimize the hazard? If the Commission wishes to accept this recommendation, which we would urge it not to do, it should prescribe a monitoring protocol for the detection of bird mortality that has a statistical likelihood of detecting that mortality should it occur. Without a rigorous, defined monitoring plan, the applicant can claim that mortality has not been detected, when in fact there is no effort to detect it, or such efforts are not sufficiently rigorous to result in any statistical certainty that mortality is not occurring. In this context, note that failure of the building engineer at the Skytracker light in Long Beach to observe bird mortality in weekly light inspections does not indicate that mortality has not occurred. Dead birds would be dispersed around the structure, rapidly scavenged, and would not be detected by inspections of the lights. For the staff recommendation to be effective, a scientifically credible monitoring protocol should be prescribed to run for the life of the project, which would perforce involve a substantial financial commitment on the part of the applicant. It would seem a more prudent approach to eliminate the hazard instead.

3. Project Would Degrade the Night Sky

Light pollution is a significant environmental problem independent of its effect on wildlife; it interferes with the view of the night sky. The Vincent Thomas Bridge lighting project as currently designed would degrade the experience of the night sky in the coastal zone throughout the Palos Verdes peninsula and northern Orange County. It would interfere with research by amateur and professional astronomers alike. The National Parks and Conservation Association recently completed a survey that revealed light pollution to be a widespread problem at National Parks and that those parks considered a dark night sky to be an important resource (Simon 1999). The Commission should also recognize the importance of this resource in the coastal zone and act

to identify and eliminate this form of pollution. The magnitude of the lighting proposed in the current project would significantly increase the sky glow from Los Angeles, visible from parks up and down the coast.

Light pollution is widely recognized by the environmental community as a serious problem. The Natural Resources Defense Council published an article on light pollution in its quarterly newsletter *The Amicus Journal* (Upgren 1996). The author of that report recently presented a conference paper specifically on some of the negative environmental impacts of lighted bridges (Upgren 1999). Both of these are enclosed for review.

The staff recommendations do very little ameliorate light pollution. From a light pollution standpoint, the floodlights, which are still allowed in the staff recommendations, are at least as damaging to the night sky as are the Skytrackers. The floodlights are not shielded at all, and therefore scatter light broadly. Both the Skytrackers and the floodlights would contribute significantly to light pollution and both are unnecessary.

4. Project Fails To Minimize Energy Consumption

Section 30253 of the California Coastal Act states: "New development shall: ... minimize energy consumption and vehicle miles traveled." The proposed project, constituting new development in the coastal zone, does not minimize energy consumption. The Caltrans Technical Report, citing Ron Merlo of the Los Angeles Department of Water and Power, states that the project would use 30 million kwhr/year (Caltrans Technical Report, p. 10). This would be an outrageous amount of energy necessary to light one bridge. It is possible, however, that this number may be an error, actually overestimating the amount of energy required. Independent calculations based on the publicly available project plans place the consumption at closer to 1 million kwhr/year (Robert Gent, pers. comm., Oct. 26, 1999). The number presented by the applicant seems to be a miscalculation that warrants investigation (either LADWP staff miscalculated, Caltrans misreported, or there are additional lights not evident in the plans provided to Coastal Commission staff). However, the use of even 1 million kwhr/year constitutes an enormous waste of energy, shining into the night sky, with the Skytracker lights visible from the Moon (Dr. Arthur Upgren, pers. comm., Oct. 19, 1999).

The waste of energy shining into the sky comes at a time when electric power supplies in California are quickly approaching capacity and are in danger of lagging behind demand. This information was reported recently in the *Los Angeles Times*. The article quoted from a 1999 California Energy Commission staff report, which concluded that power reserves will be so thin in the near future that in three years peak power demand periods "could seriously threaten system reliability" (Brooks 1999). It is foolish to increase the frivolous use of electricity when power supplies are dwindling. There are serious environmental costs to the generation of electricity, and this project will contribute to the need to construct new power generating facilities in the not-too-distant future.

Staff fails to consider the energy consumption and the relevant Coastal Act section in its analysis. This can possibly be attributed to the extremely tight schedule imposed on the project

by the applicant. Nevertheless, the Commission has an obligation under Section 30253 of the Coastal Act to ensure that the proposed project minimizes energy consumption.

5. Conclusion

The project objective of lighting the Vincent Thomas Bridge could be accomplished with shielded tracer lights ("Christmas-tree" lights) of low wattage that outline the bridge but that would not significantly cause a hazard to birds, increase light pollution, or waste energy. The Urban Wildlands Group therefore opposes the project as currently designed and urges the Commission to deny the permit application before it. The Commission could approve a project that allows "the placement of decorative lighting on the bridge" by conditioning the approval so that the lights are low wattage, tracer-type lights outlining the bridge structure while prohibiting floodlights and Skytrackers. Lighting of this type is illustrated in Dr. Upgren's 1999 paper on bridge lighting, which is enclosed, and meets the stated project goal of decorative lighting.

Sincerely,

Catherine Rich
Executive Officer

enclosures

Literature cited

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Upgren, A. 1999. Poster paper presented at Preserving the Astronomical Sky, IAU Symposium No. 196, July 12-16, Vienna, Austria.