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PERMIT AND RESOURCE  
MANAGEMENT DEPARTMENT  
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24 February 2008

Mr. Steve Dee,  
Senior Environmental Specialist  
County of Sonoma  
Permit and Resource Management Department  
2550 Ventura Ave.  
Santa Rosa, CA 95403

RE: DRAFT ENVIRONMENTAL IMPACT REPORT FOR DUTRA HAYSTACK  
LANDING ASPHALT AND RECYCLING FACILITY

Dear Mr. Dee:

Audubon Canyon Ranch (ACR) has conducted activities in conservation science, habitat protection, and nature education in the San Francisco Bay area since the mid-1960s ([www.egret.org](http://www.egret.org)). We also own and manage a system of wildlife sanctuaries in Marin and Sonoma counties, including a large nesting colony of herons and egrets at Bolinas Lagoon that we have studied intensively since 1967. As Director of Conservation Science and Habitat Protection at ACR, I would like to comment on the efforts to protect of the heron and egrets that nest at the site of the proposed Dutra asphalt facility.

My comments are supported by my scientific work on herons and egrets conducted since 1990 at all known heronries in the San Francisco Bay area (selected references listed below). I have provided scientific information regarding the protection of heronries to numerous environmental consulting groups (including LSA, as cited in their report on the Dutra Haystack Landing project), planning agencies (including the County of Marin on the DeSilva Island development discussed in the LSA report on the Haystack Landing project), and natural resource agencies (including Marin Islands National Wildlife Refuge, California Department of Fish and Game, and the National Park Service). Recently, I provided expert opinion to the California Coastal Commission regarding the protection of a heronry at Channel Islands Harbor. I have published numerous scientific papers on birds, on topics including nest predation, human disturbance, foraging ecology, breeding behavior, and habitat relationships.

B6-1

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The following points should be considered when determining the risks of heron and egret colony site abandonment associated with the proposed Haystack Landing development:

1. Mitigation Measure BIO-4a: The proposed dates used to define "nesting" and "non-nesting" seasons may not be accurate or effective. (1 September to 14 February is generally proposed as the non-nesting period in the DEIR, but the recommended date span is not consistent throughout the document; e. g., see page II-24.) The proposed "nesting" and "non-nesting" periods may not protect nesting Great Blue Herons, which often select nest sites in January. The intraseasonal timing of heron and egret nesting activity in this region is highly variable among years and species. Based on many years of monitoring (Kelly et al. 2007), the most accurate and reasonable period for protecting nesting colonies is 1 January through 31 August (and rarely, into September). Nesting activity may begin any time in January, February, or March, and can be delayed into April. It is important that the colony site at Haystack Landing is protected from disturbance during this early part of the nesting season because birds are most likely to be deterred from using the area when they begin to select nest sites.

B6-2

In some years, nesting activity may be completed earlier than predicted. A qualified observer should be used to accurately determine if nesting activity ends before 31 August. As indicated in the DEIR, season-long monitoring by a qualified observer should be used to determine if construction activities disturb the nesting birds. A reasonable frequency for monitoring would provide colony site observations twice weekly during courtship and nest initiation for each species, and weekly through the end of the nesting season.

2. Mitigation Measure BIO-4a: The DEIR indicates that "most" of the eucalyptus trees in the vicinity of the nesting colony would be retained but does not provide justification for the removal of specific trees. The planned removal of any trees should be specifically indicated and justified with regard to protection of the heronry. The protection of perimeter trees in the nesting patch could be important not only to provide visual screening from human disturbance but also to ensure suitable thermal conditions (e.g., protection from wind), protection from nest predators, or other habitat requirements needed to sustain the colony. California Coastal Commission biologist Jonna Engels recently wrote a report indicating that patches of non-native trees that provide suitable nesting substrate for herons or egrets in areas surrounded by human development should qualify as Environmentally Sensitive Habitat Areas (ESHA) worthy of complete protection. Such protection could be important in sustaining the number of herons and egrets that occur throughout the upper Petaluma Marsh area.

B6-3

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3. Mitigation Measure BIO-4b: The proposed buffer distances between the heron and egret colony site and construction or asphalt facility operations are not large enough to ensure the protection of nesting herons or egrets. Published (peer-reviewed) scientific recommendations for avoiding disturbance to nesting herons and egrets range from 320 to 960 feet (Kelly 2002, Kelly et al. 2006, and references therein). Such recommended distances are far greater than the setbacks proposed in the DEIR. In addition, these scientific recommendations (as well as the 110-foot disturbance distance indicated in the LSA report on the proposed project) are based on disturbances caused by only 1-2 humans approaching on foot. Additional people and construction activities are likely to disturb the colony at greater distances, increasing the risk of colony site abandonment. The persistence of the heronry at DeSilva Island in Marin County should not be used to discount such recommendations, as suggested in the LSA report on the Haystack Landing project, because the responses of nesting birds at DeSilva were not typical of regional patterns of colony site persistence or abandonment. At other sites in the region, disturbance from nearby construction activities have resulted in partial or complete abandonment of colony sites (Kelly et al. 2006). Thus, the tolerance of specific colonies to nearby disturbance cannot be precisely predicted. To provide an area of protection that is more reasonably aligned with the evidence and recommendations from peer-reviewed science, the buffer zone around the nesting colony should be extended beyond the area indicated in the DEIR.

B6-4

4. Mitigation Measure BIO-4d: Lowering the height and visually screening the conveyor are likely to be important features of the proposed project to help minimize disturbance. However, these features are unlikely to mitigate the close proximity of the conveyor to the colony, which presents a serious risk to the nesting birds. In addition, the episodic nature of off-loading and conveyor activities near the colony site might be unpredictable to the nesting birds and, consequently, result in repeated disturbance events, increasing the risk of abandonment. To minimize this risk, the conveyor should cross the railroad tracks farther to the south.

B6-5

5. The proposed firehouse on Area B is too close to the nesting herons and egrets to safely avoid abandonment of the colony site. Although the planned use of the fire station is limited to monthly training, maintenance, and equipment storage, such use could involve episodes of substantial human activity, including the movement and maintenance of fire trucks and equipment. The likelihood that fire station activities would cause herons and egrets to abandon the nesting colony hinges not only on the frequency of use of the fire station but also on the peak intensity of noise and other activity during the nesting season. Reasonable protection of the nesting colony would require relocating the fire station farther south.

B6-6

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6. LSA report, submitted to the Dutra Group on April 6, 2007: This assessment of impacts to the heron and egret nesting colony includes unsubstantiated or erroneous assumptions leading to recommendations that would strongly increase the risk of heron and egret colony abandonment.

First, there is no published scientific evidence that herons and egrets habituate to human activity (habituation requires a change in individual behavior over time). Although heron colonies occasionally occur near areas with considerable human activity, evidence from other colony sites in the San Francisco Bay region suggest strongly that such tolerance reflects choices made when nesting birds establish new colonies and that those sites may be subsequently abandoned in response to changes in the frequency or intensity of human activity. Therefore, suggestions to introduce noise, artificial lights, conveyor activity, or any other potential disturbance to promote habituation are likely to increase the risk of colony site abandonment, especially early in the nesting season when birds are the most sensitive.

B6-7

Second, successful relocation of heron or egret colony sites has never been scientifically demonstrated or confirmed. Crouch et al. (2002) documented a relocation attempt at the U. S. Naval Station in Long Beach but that project subsequently failed. Therefore, there is no scientific support that any attempt to relocate a colony would be successful or provide feasible mitigation for disturbance. The lack of scientific support for relocating heronries led to decisions against the proposed relocation of a heronry at Napa State Hospital and against the creation of new nesting sites at Marin Islands National Wildlife Refuge.

B6-8

Third, the suggestion by LSA that, if the colony site was abandoned, birds would simply "relocate to another site and breed that season" is not necessarily true. Herons and egrets that abandon nesting attempts may not reneest in the same season, depending on foraging conditions and intraseasonal timing. In addition, if the birds abandon the colony site, there is no scientifically substantiated indication that they would remain in the upper Petaluma Marsh wetland area. I have evidence from other areas that colony site abandonment is often associated with a net decline local nesting abundance. Therefore the loss of this colony site might reduce the number of herons and egrets in nearby wetlands.

B6-9

The considerations above indicate that approval of the proposed project would result in serious threats to the heron and egret nesting colony. The Reduced Production Alternative B reduces the frequency of potential disturbance to the colony site, but it provides little protection from activities that might cause abandonment of the colony site. Alternative C eliminates the recycling facility, reducing associated noise and other potential sources disturbance, and includes additional measures to shield the heronry from construction and operation of the asphalt facility, but the conveyor system remains dangerously close to the nesting colony and the proximity of proposed construction and

B6-10

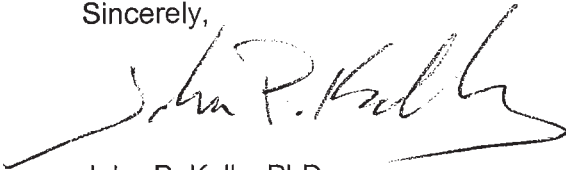
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facility operations indicate a substantial risk of colony site abandonment. Therefore, Alternative D is the only option likely to provide reasonable protection to the heron and egret nesting colony.

B6-10  
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Thank you for this opportunity to comment.

Sincerely,



John P. Kelly, PhD  
Director, Conservation Science and Habitat Protection

#### References

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