



Swainson's Hawk
Technical Advisory Committee

City of Sacramento
North Permit Center
Department of New Development
2101 Arena Blvd, 2nd Floor
Sacramento, CA 95834

September 2, 2006

Subject: Comments on the Greenbriar Development Project DEIR

Dear City Staff:

The Swainson's Hawk Technical Advisory Committee (TAC) respectfully submits the following comments on the proposed Greenbriar Development Project Draft Environmental Impact Report (DEIR) (EDAW 2006). The TAC is an ad hoc group of research biologists formed in 1989 to facilitate research on the state-threatened Swainson's Hawk and to provide technical assistance to the California Department of Fish and Game and other state, federal, and local agencies regarding land use issues affecting this species. The following comments are specific to issues related to the Swainson's Hawk.

Page 6.12-10, last paragraph, last sentence.

While it is true that the Natomas Basin Habitat Conservation Plan (NBHCP) does not include specific provisions related to land use on the Greenbrier project site, the NBHCP assumes continued agricultural uses in all areas of the basin not included in the 17,500 acres authorized for development. This was the primary rationale used to support a conclusion that along with the enhancement of the NBHCP reserves, remaining undeveloped areas of the basin would be sufficient to sustain covered species populations.

The reserve system alone is insufficient to – and was never intended to fully offset impacts from development. The NBHCP includes a habitat compensation ratio of only 0.5: 1 (i.e., for every acre of land removed, one-half acre is acquired and included in the reserve system) and specifies that upland habitat (i.e., habitat suitable for Swainson's Hawk) on reserves will comprise only 25% of the reserve land base. Thus, because nearly all of the land that has been developed to date within the City of Sacramento's permit area was high quality upland habitat, the ultimate compensation ratio for Swainson's Hawk habitat has been approximately 0.125:1 (i.e., for every acre of land

removed, one-eighth acre is managed as upland habitat on Natomas Basin Conservancy [NBC] reserves). To account for this deficiency and still attempt to meet the goals of the plan, the NBHCP assumes that remaining areas of the basin not authorized for development are considered essential to sustain Swainson's Hawk (and other Covered Species) populations in the basin.

Page 6.12-19, Swainson's Hawk, second paragraph.

The second sentence notes that Central Valley Swainson's Hawks migrate only as far south as Mexico. While the bulk of the population appears, based on radio-telemetry studies, to winter in Mexico, some segment of the population also winters in Central America and South America.

Page 6.12-20, first complete paragraph.

The Natomas Basin Conservancy's most recent survey report is for year 2005. Available since April 2006, the DEIR should be updated accordingly. Only 45 sites were active in 2005 (compared with 59 active in 2004), which is similar to unpublished results for 2006. In addition, while it is accurate that the majority of nests in the basin occur along the western side of the basin, it seems relevant to note that development within the City of Sacramento's permit area has resulted in removal of several nest sites and inactivity of others. Thus, the data are beginning to demonstrate the effects of development permitted under the NBHCP.

Page 6.12-20, third complete paragraph.

Idle agricultural lands can provide high quality foraging habitat for Swainson's Hawks. Estep (1989) ranks fallow fields as a high value cover type. It depends on the vegetation structure and prey availability. The value of fields planted to wheat, while usually ranked lower than several other common agricultural crop types, should be assessed relative to other surrounding crop types. Wheat and other grains may still provide valuable foraging habitat in the context of a foraging habitat matrix, and because they are harvested relatively early in the season (June), may provide an important source of mid-season prey availability. However, the application of these distinctions may provide little current value in the Natomas Basin (see below).

Page 6.12-31, first paragraph.

This description of Impact 6.12-2 relies on the approach that evaluates the suitability of individual crop types rather than the importance of landscapes to foraging Swainson's Hawks (i.e., value versus area). While perhaps appropriate at a broader landscape level, this is a less effective method of evaluating impacts and assigning compensation in the Natomas Basin where the overall suitable landscape is diminishing rapidly. The concept relies on the rationale that foraging habitat can be increased through application of higher value cover types that support more robust and more accessible prey populations. However, with continued urbanization of the Natomas Basin, this concept for purposes of

habitat compensation realizes increasingly diminished return as the overall land base is reduced. While it may be possible to maximize the value of individual fields, Swainson's Hawks require large unbroken landscapes and are much less likely to use fragmented landscapes or isolated parcels regardless of their individual 'value'.

With the extent of upland habitat already lost in the southern portion of the basin due to urbanization and the likelihood of population declines that are expected to occur as a result of this loss, all upland habitats in remaining portions of the basin are considered essential to continued Swainson's Hawk occurrence and use of the basin. Describing impacts on the basis of somewhat subtle distinctions between 'moderate' and 'low' value foraging habitat, while important with respect to maximizing habitat value on reserves, is today less applicable in the Natomas Basin with regard to assessing development-related impacts and assigning appropriate levels of compensation.

In fact, if further development is allowed at all (which would be inconsistent with the intent of the NBHCP), the continuing reduction of Swainson's Hawk habitat and the inability of the NBHCP to fully compensate for this loss would argue for a significantly higher level of compensation for 'new' projects than currently required under the NBHCP.

Page 6.12-31. Second paragraph, second sentence.

Focused surveys would not necessarily reveal the importance of the project area to nearby nesting pairs. Intensive multi-year observation studies could determine the extent of use of the project area relative to the surrounding landscape; however, it would not address the effects of fragmentation or overall landscape changes as a result of urbanization. Data collected since 1999 in the Natomas Basin has indicated the effects of habitat fragmentation and urbanization on local Swainson's Hawk nesting. Many traditional nesting territories in the southern portion of the basin have either abandoned or are expected to abandon in the near future, not necessarily as a result of lack of foraging habitat near the nest, but rather as a result of an overall transformation from agricultural uses to urbanization.

As noted above, evaluating specific crop types is no longer an appropriate method for addressing impacts to Swainson's Hawk in the Natomas Basin. The project site lies on the northern edge of the 'upland' portion of the basin. Along with an approximately 1-mile edge along the Sacramento River, this is also the portion of the basin that has provided most of the available foraging habitat for Swainson's Hawks and is the area that continues to be urbanized. The loss of suitable upland foraging habitat in the basin has been dramatic since the late-1990s because development has focused in upland areas. Continuing loss of upland habitat within the southern portion of the basin, including the project area, contributes to this overall decline. So, characterizing the loss of habitat as a 'cumulative' loss is appropriate; however, the site-specific assessment of crop types has little relevance.

Page 6.12-31, Mitigation Measure 6.12-2.

The preceding impact section notes that the project will remove 546 acres of upland habitat suitable for Swainson's Hawk foraging. Mitigation Measure 6.12-2 would require implementation of Mitigation Measure 6.12-1, which would provide the following:

- 27.9 acres along Lone Tree Canal
- 100.6 acres at Spangler mitigation site
- 18.5 acres at North Natomas 130 site
- 49 acres to be acquired

The 27.9 acre buffer along the Lone Tree Canal will provide virtually no value to foraging Swainson's Hawks. Both sides of the canal will be urbanized, which will preclude use of a narrow isolated strip along the canal. If isolated within an otherwise unsuitable landscape, the 18.5 acres at the North Natomas 130 site would also provide little if any value to Swainson's Hawks. However, the 18.5 acres is assumed to be contiguous with a larger reserve, and if so may provide additional value to an existing reserve.

Of the 196 acres proposed as mitigation, 168.1 acres may have value to foraging Swainson's Hawks if managed to maximize foraging value and sufficient land is retained in the Natomas Basin to sustain the Swainson's Hawk population. Thus, the proposed mitigation would provide 168.1 acres of suitable habitat to offset the loss of 546 acres of suitable habitat.

The mitigation measure suggests that enhancing the foraging value of individual fields on 168.1 acres of mitigation land split into at least 4 separate fragmented parcels can offset the loss of 546 contiguous acres of foraging habitat area.

As noted above, the primary management issue for Swainson's Hawk in the Natomas Basin is available upland area, not specific crop type value, so to calculate mitigation responsibility on the basis of an evaluation of the foraging value of specific crop types on mitigation lands vs. impacted lands leads to deficient mitigation. Based on the above, the proposed mitigation is 0.3:1, or for every acre lost only 0.3 acres will be preserved. While mitigation lands can be, and should be, managed to maximize foraging habitat value, this does not offset the loss of suitable foraging landscape. As noted above, given the recent and ongoing loss of upland habitat in the basin and the current and anticipated loss of nesting Swainson's Hawks – in order to even conceptually meet the goals of the NBHCP – compensation for future projects (those not included in the City's permit area) should be expected to compensate at a rate significantly higher than the 0.5:1 ratio in the NBHCP.

Page 6.12-32. Significance after Mitigation

This section states the proposed mitigation would reduce this impact to a less-than-significant level. As noted above, a 0.3:1 ratio even with enhanced value on mitigation

lands does not fully mitigate the loss of upland habitat in the Natomas Basin for Swainson's Hawk. It assumes that Swainson's Hawk populations can be sustainable on smaller landscapes by increasing site-specific foraging value. There is no evidence to suggest that this is the case. The Swainson's Hawk is a wide-ranging, open plains species that requires large unbroken landscapes for successful foraging, reproduction, and population sustainability. The proposed mitigation is based solely on the foraging value of specific crop types and assumes less area is required if prey availability can be maximized on smaller areas, and does not acknowledge or address the full ecological needs of the species. The end result is that the foraging land base in the Natomas Basin will be further reduced and overall landscape value will decline, likely resulting in further declines of the Natomas Basin Swainson's Hawk population.

Page 6.12-42. Effect on the Conservation Strategy of the NBHCP, first paragraph.

This suggests that the conservation strategy for Swainson's Hawk in the NBHCP is an 'effective' strategy. While the NBC has masterfully maintained compliance with all aspects of the NBHCP, effectiveness of this strategy has not been demonstrated. The TAC commented similarly during preparation of the NBHCP noting in particular that the 0.5:1 compensation ratio was insufficient to sustain the current Swainson's Hawk population. Given this, using the NBHCP strategy as the baseline for 'effectiveness' is problematic and if effectiveness cannot be demonstrated relative to the goals of the plan, the proposed project would, in fact, further reduce the effectiveness of the NBHCP.

Page 6.12-42. Effect on the Conservation Strategy of the NBHCP, second paragraph.

This paragraph correctly states that the basis for the 0.5:1 mitigation ratio used in the NBHCP included:

- Much of the land to be developed was considered marginal habitat quality,
- NBC reserves would provide higher habitat quality, and
- The lands outside the permit area but within the basin would not be developed.

Irrespective of the deficiencies of the NBHCP strategy (i.e., most of the land that has been developed has been high value Swainson's Hawk foraging habitat; NBC reserves can provide only 25% upland habitat replacement – not the full 0.5:1 – and thus NBC reserve management alone cannot successfully mitigate impacts on Swainson's Hawk from urbanization in the basin), the third bullet above was a key assumption regarding the long-term sustainability of Swainson's Hawk in the basin. The concept was not based on specific crop-type habitat value, but rather the maintenance of the landscape as agricultural.

The second paragraph suggests that because mitigation lands would be enhanced to increase their foraging value, this would not be inconsistent with the third bullet above and thus would not affect the basis of the NBHCP 0.5:1 ratio. It argues that maximizing site-specific foraging habitat value on a smaller number of acres is sufficient to offset the

loss of larger landscapes, and thus while less land is available, these small islands of ‘enhanced foraging habitat’ will sustain the Swainson’s Hawk population in the basin consistent with the goals of the NBHCP.

As noted above, this assumption has no ecological basis with regard to Swainson’s Hawk and thus is an inappropriate method of addressing impacts and mitigation for this species in the Natomas Basin. The proposed mitigation (0.3:1 compensation ratio) is inconsistent with both the existing compensation requirements under the NBHCP (0.5:1 compensation ratio) and the intent and goals of the NBHCP relative to long-term Swainson’s population sustainability in the Natomas Basin.

Page 6.12-43, Second paragraph

This paragraph continues the same argument regarding enhanced foraging value as an appropriate means of offsetting the reduction of available landscape. There is no evidence to support this argument. While Swainson’s Hawk foraging ranges differ based on cropping patterns and individual fields can be enhanced on the basis of crop types, long-term sustainability requires maximizing landscapes, not individual fields. As less and less foraging landscape is available in the Natomas Basin, compensation on the basis of the value of individual fields is less relevant (i.e., as the landscape becomes less suitable, Swainson’s Hawk use of isolated fields or suitable habitats that occur within a highly fragmented environment will decline regardless of the value of individual fields). Again, maximizing foraging value on reserves using the proposed approach is essential as long as Swainson’s Hawks continue to use the Natomas Basin, but compensation for development-related impacts using this approach will result in an unmitigated loss of suitable open foraging landscape that will contribute to further loss of habitat in the Natomas Basin, and in turn may contribute to local population declines.

This concludes comments by the Swainson’s Hawk TAC on the proposed Greenbrier Development Project DEIR. We hope our comments are useful and provide some value in terms addressing the long-term sustainability of Swainson’s Hawks in the Natomas Basin. The TAC appreciates the opportunity to comment on this project and welcomes the opportunity to provide further comment or technical support.

Sincerely,

James A. Estep
Chair