

APPENDIX J

SANTA ROSA PLAIN CONSERVATION STRATEGY TEAM QUESTIONS FOR PEER REVIEWERS

The Santa Rosa Plain Conservation Strategy Team has prepared an Administrative Draft Conservation Strategy for the Sonoma County population of the California tiger salamander (CTS) and the listed plant species (many-flowered navarretia, Sonoma sunshine, Burke's goldfields, and Sebastopol meadowfoam) located in the Santa Rosa Plain. The Team determined that it would be appropriate to have the biological components of this strategy reviewed by qualified professionals (peer reviewers).

In carrying out this review, the Team requests that each peer reviewer consider the following list of questions. This has been compiled for two reasons--first, as an indicator of the type and range of issues that arose or were confronted by the Team in preparing the strategy, and second, to identify particular biological questions to which the team would like to direct the reviewers' attention. How the questions are addressed in their analysis is left to the judgment of individual reviewers. For example, written answers to some or all the questions can be provided, or such answers may generally be incorporated into the reviewer's written analysis of the strategy. The team also asks the reviewers to identify any data or information, or the sources of any data or information, as applicable, that supports any assumptions, opinions, or conclusions reached in the course of their analysis.

1. Are the minimum preserve acreages established by the strategy for the conservation areas (see Table 1) adequate to support both CTS aestivation and breeding within these areas over the long-term? Are these preserve acreages adequate to also meet the needs of the federally listed plants? Will fragmented preserve areas, resulting from economically driven selection of noncontiguous parcels within areas of rural residential and agricultural lands, be adequate for long term preservation of CTS? Are the criteria for selecting preserve sites within areas of rural residential and agricultural lands as described in the Administrative Draft sufficient to guide the assemblage of the preserve system?
2. An economic analysis conducted in connection with the strategy provides estimates for the costs of meeting its preserve requirements which, based on proposed acreage requirements, are very considerable. Would establishing smaller minimum preserve acreages for the conservation areas, or a range of acreages within which specific minimums that would be determined through time (e.g., based on further study and Implementation Review), constitute biologically acceptable alternatives to the minimum acreages currently specified? The following alternative to Table 1 in the Conservation Strategy is provided for consideration:

APPENDIX J

Alternate Table 1: Minimum Preserve Acre Goals¹				
Conservation Areas	Acreage of Habitat Minus Developed Land	Minimum CTS Preserve Acreage Goals²	Acreage of Existing Preserve Land	Minimum Acreage to be Preserved
Alton	688	350	56.1	294
Wright	678	350-450	209.7	140-240
Kelly	708	350-450	0	350-450
Llano	1748	630-900	294.2	336-606
S.W. Santa Rosa	235	230 ³	103.2	58-127
Stony Point	1396	630-900	177.5	452-722
NW Cotati	900	350-450	0	350-450
SE Cotati	941	350-450	0	350-450
SW Cotati	1637	350-450	0	350-450
TOTALS	8931	3590-4630	550	2680-3789

¹ Suggested by the private landowner community as an alternative to the approach shown in Table 1 of the conservation strategy.

² The upper ends of these ranges are the acreage figures provided by FWS & DFG in Table 1 of the draft strategy; the lower ends were determined by the private landowner community by computing a simple proportion based on the 350- to 500-acre range originally considered by the team as a potential range of preserve sizes; i.e., “x” (FWS’s/DFG’s figures in Table 1 of draft strategy, used to establish the high end of ranges given in 3rd column above) is to “500” (high end of 350-500 range) as “y” (quantity to be solved for to establish the low-end of the ranges suggested in 3rd column above) is to “350” (low end of the 350-500-acre range). Thus, taking the Wright Conservation Area as an example, the low-end of the private-landowner suggested range for this area is computed by the proportion $450/500 = y/350$, or $y=315$; however, since 350 is the minimum allowed by the 350-500 range, 350, not 315, appears as the low-end of the range for the Wright area (similarly, 350 is the low end of the ranges for the Kelly and three Cotati areas).

³ This figure for the S.W. Santa Rosa area is an exception to the 350-acre minimum because its purpose is primarily linkage of existing preserves to each other and to other conservation areas.

3. Would allowing up to 20% of the strategy's preserve lands to be established outside the conservation areas, under the conditions specified and assuming the preserve selection criteria are appropriately applied, be likely to result in excessive fragmentation of its overall preserve system? If so, what, if any, additional measures could be incorporated to prevent this?

4. The conservation strategy requires CTS migration corridors averaging 500 feet in width with a 200-foot minimum. Specifically corridors are identified in the Southwest Santa Rosa Conservation Area to connect existing preserves and potential preserves within the conservation area and to connect these preserves to the adjacent conservation areas. Given the size of the preserves, please comment on the potential effectiveness of such a preserve design in providing for a viable CTS population in the Southwest Santa Rosa Conservation Area. On the broader issue of corridors, (a) what generally would be a biologically acceptable corridor, length and width, (b) what attributes should the corridor have, and (c) what, if any, relevant scientific information upon which to base CTS corridor requirements is currently available? Are the proposed migration corridors

APPENDIX J

adequate for seed dispersal and genetic exchange between isolated populations of listed plant species? How would narrowing of the corridors affect this?

5. Are the measures set forth in the Administrative Draft sufficient to provide for CTS movement between conservation areas bisected by roads, streams, or flood control channels?

6. Is the Southwest Santa Rosa conservation area of sufficient size and configuration to provide a viable preserve area for CTS?

7. Are the measures outlined in the Administrative Draft adequate to facilitate migration within the proposed corridors (i.e., raised curbs, road under-crossings, or other protective measures)?

8. Do CTS migration patterns differ from population to population, and if so, what factors are thought to influence these patterns, and why?

9. Are the preserve management actions set forth in the Administrative Draft, including Appendix D, sufficient to adequately protect the preserve lands as habitat for CTS and listed plant species?

10. Are the suitability criteria set forth in the Administrative Draft sufficient to adequately identify lands that will contribute to the conservation objectives of the Conservation Strategy?

11. Are the translocation criteria set forth in the Administrative Draft, including Appendix B, sufficient to support establishment of new populations of listed plant species?

12. Are the translocation criteria set forth in the Administrative Draft sufficient to support reintroducing CTS, minimizing project impacts, and conserving the genetic diversity of CTS on the Santa Rosa Plain?

13. Was the methodology used to create Figure 2 appropriate?

14. Will the preserve areas within the collective nine conservation areas proposed in Sections 4 and 5 of the Strategy, to be secured during the expected 5-10 year period of the Strategy, be sufficient to establish long term preservation of the CTS and listed plants within the range?

15. Will the proposed Conservation Strategy yield viable conservation preserves on a time scale sufficient for CTS preservation? Are other mitigation strategies potentially more effective?

16. To address impacts to wetlands on the Santa Rosa Plain, project proponents are required to create, restore or enhance wetland on at least a 1:1 basis. Wetlands creation

APPENDIX J

results in the conversion of uplands to wetlands. Some of this conversion is expected to occur in areas occupied by CTS. Is the conversion of upland habitat to wetlands a concern? If so, what considerations should be taken in designing such projects to assure that CTS are not adversely affected?