Jodi McGraw
PO Box 221
Freedom, CA 95019

Cannabis Comments
c/o Matt Johnston
Planning Department
701 Ocean Street, 4th floor
Santa Cruz, CA 95060

October 31, 2017

RE: Santa Cruz County Cannabis Draft EIR

Dear Mr. Johnston et al.:

Thank you for inviting comments on the Santa Cruz County Cannabis Draft EIR. As a conservation scientist and practitioner, as well as a County-approved biologist who has assisted landowners with County permitting, I am very concerned about the potential impacts of cannabis cultivation in areas not currently zoned for commercial agricultural on sensitive habitat, endangered species, and landscape permeability.

The following are specific comments including recommendations and questions, which I offer as suggestions to improve the DEIR. They reflect my experience gained in more than 24 years of research and professional work in the region, including preparation of the *Sandhills Conservation and Management Plan* (McGraw 2004), *Santa Cruz Mountains Redwoods Conceptual Area Protection Plan* (McGraw 2013), *Santa Cruz Mountains Linkages Conceptual Area Protection Plan* (McGraw 2012), and *Conservation Blueprint for Santa Cruz County* (Mackenzie et al. 2011).

1. **Sandhills Habitat Protection Measures Are Insufficient:** Thank you for excluding Sandhills habitat from those lands eligible for licensed cannabis cultivation. Sandhills habitat and habitat for Santa Cruz long-toed salamander are extremely rare and subject to many other threats such that permitting additional commercial activities would result in significant impacts to endangered species persistence.

   I recommend the following changes to the permitting process to goal of avoiding impacts to sandhills species and habitat.

   a. <u>Sandhills Habitat Mapping Must Be Updated; The Current Maps are Incomplete/Inaccurate:</u> The layer used to map sandhills habitat does not incorporate all areas that support the listed species. I created the layer in 2004 (McGraw 2004) and our collective understanding of where sandhills species and habitat occur has increased dramatically during the ensuing 13 years such that those maps are no longer accurate.

Notably, the **sandhills quarries all support endangered sandhills species** including the two listed insects (Mount Hermon June beetle and Zayante band-winged grasshopper) and other special-status species. These areas are excluded from the sandhills mapping used in the EIR and shown as "barren" in the 'habitat map' (Figure 3.4-1).

The County should update its Sandhills mapping to help ensure cultivation in the sandhills; the updated sandhills map should also be used by the County to evaluate land use or other development projects that would impact endangered species or sensitive sandhills habitat.

b. Expert Site Examination Needed to Evaluate Sandhills Habitat and Species: Even with enhanced mapping, avoiding impacts to listed sandhills species will require on-site examination of habitat conditions and in some cases, surveys. Trained County environmental planners with significant experience evaluating sandhills habitat conditions can perform initial evaluations; however, areas with potential to support listed species should be evaluated by focal species experts prior to permitting any cultivation operations near potential sandhills habitat (NOTE: This recommendation applies to any County-permitted land use or development activity).

c. Impact Bio-2**:** The discussion states "The County's existing policies and regulations protect known location resources, including the Santa Cruz Sandhills, which are protected by the Sandhills Interim Habitat Conservation Plan (HCP)." As you are likely aware, this statement is not accurate. The Interim Programmatic HCP for the sandhills (USFWS et al. 2011) is a permitting document that enables residential development in existing high-density residential areas within the sandhills. It does not does not protect the vast majority of sandhills habitat, which occurs outside of the IPHCP planning units.

2. **Habitat Map:** The map depicting 'habitats of Santa Cruz County' map (Figure 3-4.1) uses very coarse scale data and a highly generalized classification of land cover; in doing so, it fails to accurately depict the numerous mapped sensitive habitats in Santa Cruz County. The layer is not the best available data and as a result, does not adequately depict the occurrence of other sensitive communities and habitats. Specific deficiencies include:

    a. Areas of sandhills habitat are mapped as 'barren'. Sandhills habitat should be 'burn into' the composite data to avoid the current conflicts in the mapping as illustrated in comparing Figures 3.4-1 and 3.4-2.

    b. Figure 3.4-1 doesn't depict numerous sensitive habitats including northern maritime chaparral, Santa Cruz cypress forest, or other unique edaphic endemic communities which are just mapped as 'shrubland'.

c. Figure 3.4-1 doesn't map and the EIR text does not sufficiently discuss the biological significance of the coastal prairie grasslands as well as the pocket grasslands located within the mountains in the county.

d. Figure 3.4-a fails to highlight areas of old-growth redwood forest.

These and other additional unmapped sensitive habitats support numerous special-status plants and animals. Several of the sensitive habitats occur inland from the coastal fog and feature open canopies and other abiotic conditions that could render them suitable for cannabis cultivation.

I recommend the DEIR incorporate more fine-scale mapping to adequately depict the known spatial distribution of sensitive habitats, and as outlined below, cross walk these to the habitats for the county's numerous special-status species. The vegetation layer developed for the *Conservation Blueprint of Santa Cruz County* (Mackenzie et al. 2011), which I developed by modifying a more regional dataset (CALVEG 2002) to capture sensitive habitat in the region, should be used unless other more recent or better data are available.

3. **Species Habitat Mapping:** To facilitate avoidance, minimalization, and mitigation of impacts to special-status species, the EIR should include a comprehensive list of all of the special-status species in the County, and for each, identify the vegetation/plant communities (i.e., 'habitats') in which they occur. Such a comprehensive crosswalk between vegetation/land cover and species should be used to evaluate and accurately characterize the impacts of cultivation in the DEIR, which currently does not appear to accurately depict the potential for special-status species to be impacted by cultivation.

   The crosswalk between vegetation and special-status species would also be an invaluable resource for County staff and others involved with processing license applications, to avoid and mitigate impacts as described below. Because most land cover mapping is based on remote sensing, a habitat assessment should be used to evaluate potential special-status species habitat and occurrences within proposed sites. Since many special-status species can occur in developed as well as undeveloped habitat, even some developed or agricultural areas may need to be examined, not just areas where vegetation removal or grading will occur.

   As outlined below, the process for triggering review by a County-approved biologist with expertise in the plants and animals of the region should be specified and refer to the use of such a spatial database; as written, the DEIR is unclear about the criteria that will be used to trigger an assessment, making it impossible to evaluate the potential impacts.

4. **Methods for Avoiding and Mitigation Impacts to Special-Status Species Unclear (MM Bio 1.1a, MMBio-4.2):** It is unclear how the County would determine whether a habitat assessment needs to be conducted by County-approved biologist to protect special-status species and how the County will screen projects for impacts to Sandhills or Santa

Cruz long-toed salamander. Will County staff be trained on how to detect the various habitats associated with each of dozens of special-status species that occur in the county? Will they create and maintain a spatial database to conduct an initial desktop review to screen areas? If so, what habitat and species mapping layers will be used (e.g. what old-growth redwood forest mapping will be used for marbled murrelet)? Will they identify a suite of habitat indicators for each species to evaluate on the ground during their sites assessments? What process and criteria will be used to request a habitat assessment by a County-approved biologist, so that an expert can be involved in these assessments?

These steps and details are essential to evaluating whether this mitigation measure will be effective in actually avoiding impacts to sensitive habitat and special-status species, or identifying suitable mitigations for permitting projects. As currently written, it is not at all clear that the process for permitting cannabis cultivation will avoid mitigation and/or identify impacts for mitigation.

5. **Habitat Compensation (MM Bio-1.1b):** Why does this mitigation measure identify ratios for SCLTS if impacts to that species are precluded by MM Bio-4.2? There may be a reason for this but it was unclear to me based on my review so should perhaps be clarified.

   Also, I would recommend that this section discuss how projects impacting state or federally listed species will require incidental take permits (ITPs) and how the County will work with applicants to ensure that they take the steps to obtain ITPs prior to issuing licenses. It should note that the process to obtain ITPs, including through preparation of an HCP (federal), may influence the ratios requested by the County (i.e., the state and federal wildlife agencies may require higher ratios).

6. **Analyze Impacts of Cultivation on Landscape Connectivity:** I am very concerned that the permitted cannabis cultivation as well as the unpermitted cultivation it will spurn will decrease the permeability of the habitat in the Santa Cruz Mountains, by increasing habitat fragmentation and human presence with extensive tracks of land currently used for infrequent (once every 10 year) timber harvest or as open space. The installation of infrastructure (e.g., greenhouses) and utilities (e.g., electricity and water lines), will remove and fragment areas of intact habitat, and the process of cultivation will increase the human activity in forests and other habitats. Aspects of the ordinance, including limiting the area of cultivation per parcel (rather than applicant or consolidated ownership) and requiring cultivation to occur on parcels with residences, may have unintended consequences; specifically, it will cause multiple, smaller grows to be scattered throughout a series of commonly-owned parcels rather than consolidating the impacts into one area, and promote additional residential development on TPZ or other undeveloped parcels (to meet County requirements for licenses).

This intensified land use and human activities will reduce the permeability of the landscape for wildlife, particularly species that are sensitive to human activity such as mountain lions. Dotting the landscape with commercial agriculture and attendant facilities and infrastructure will also render more difficult vegetation management including prescribed fir, which are essential to maintain fire-adapted species and prevent the risk of catastrophic wildfire in the region.

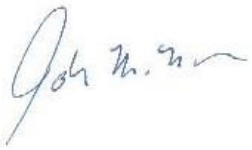
In the section on 'Wildlife Corridors' within Section 3.4.2, the DEIR briefly talks about the importance of riparian areas and other corridors of suitable habitat facilitating animal movement through areas of unsuitable habitat, such as urban areas. However, I did not see addressed in the document the biologically more significant and relevant impacts of intensified land use and human activity within intact habitat areas in the Santa Cruz Mountains on regional connectivity and permeability of the landscape. Dr. Chris Wilmers et al. have done extensive work examining such impacts as part of their research on mountain lions in the Santa Cruz Mountains. Theirs and other's work addressing landscape permeability should be evaluated and integrated into a more complete characterization of the impacts of the DEIR.

7. **Permit Cannabis Cultivation in Areas Zoned for Commercial Agriculture:** Given all of the implications for cultivation on biodiversity in the Santa Cruz Mountains, to say nothing of its impacts to water resources and numerous other impacts that are out of the scope of my letter but which I trust will be addressed by experts in these fields, I recommend the County consider licensing cultivation in areas zoned for commercial agriculture (CA). Such areas generally lack the sensitive habitat and species and are not as important for regional landscape connectivity. They also feature the necessary infrastructure including fire protection services, that will be conducive to safe and low-impact land use.

   The County could at least start by licensing commercial cultivation in CA-zoned lands and then, if the demand for additional land for cultivation is still present in Santa Cruz County say 10 years from now, revisit the ordinance and consider expanding use or altering areas zoned CA. This would avoid potentially long-lasting effects of habitat conversion, degradation, and fragmentation caused by an initial 'green rush' into the Santa Cruz Mountains, where cultivation may ultimately not be economically viable given the extensive areas of suitable arable land elsewhere in the region and state (i.e., the Salinas Valley and the Great Central Valley).

Thank you for your consideration of these comments. I hope you will not hesitate to contact me if you have any questions.

Sincerely,



Jodi McGraw, Ph.D.

References

Mackenzie, A., McGraw, J. and M. Freeman. 2011. A Conservation Blueprint: An Assessment and Recommendations from the Land Trust of Santa Cruz County. Land Trust of Santa Cruz County, Report and GIS data for multibenefit areas, priority streams, plant and insect hotspots, rare species occurrences, vegetation and sensitive habitats, protected lands, the conservation lands network, and regional park and trail connectors. May 2011. 223 pages. Available at: http://www.landtrustsantacruz.org/blueprint/conservation-blueprint_low-res_110522.pdf

McGraw, J. M. 2004. Sandhills conservation and management plan: a strategy for preserving native biodiversity in the Santa Cruz Sandhills. Report submitted to the Land Trust of Santa Cruz County, Santa Cruz, CA. 354 pages. http://santacruzsandhills.com/articles/Sandhills%20Conservation%20and%20Management%20Plan%20June%202004.pdf

McGraw, J. M. 2012. Santa Cruz Mountains Linkages Conceptual Area Protection Plan. Reported prepared submitted to the Peninsula Open Space Trust and California Department of Fish and Wildlife. February 2012. 280 pages.

McGraw, J. M. 2013. Santa Cruz Mountains Redwoods Conceptual Area Protection Plan. Reported prepared submitted to the Sempervirens Fund and California Department of Fish and Wildlife. October 1, 2013. 280 pages.

United States Fish and Wildlife Service (USFWS), County of Santa Cruz, and City of Scotts Valley. 2011. Interim Programmatic Habitat Conservation Plan for the Mount Hermon June Beetle and Ben Lomond spineflower. January 2011. 96 pages.

United States Forest Service (USFS). 2000. Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG) for the existing vegetation on the central coast. http://www.fs.fed.us/r5/rsl/clearinghouse/aa-ref-sec261a.shtml