

April 2, 2025

California Fish and Game Commission
715 P Street
PO Box 944209
Sacramento, CA 94244

Re: Comments for Western Joshua Tree Conservation Plan

Dear Commissioners,

We are concerned scientists affiliated with the Ecology and Evolutionary Biology department at the University of California, Santa Cruz. We have expertise in California ecosystems and climate change. We appreciate the tremendous effort that has gone into the draft Western Joshua Tree Conservation Plan, and we urge the commission to consider the following comments.

1. Incorporate more realistic emissions scenarios to predict regional climate refugia

The IPCC's low-emissions scenario (SSP 2-4.5) is an overly optimistic projection. At present, the plan defines refugia as areas which will "continue to provide suitable habitat conditions...based on the low emissions scenario," and builds much of its prioritization scheme around these projections. For effective planning, the more probable moderate and high emission scenarios (SSP 3-7.0 and SSP 5-8.5) should be considered as well.

2. Prioritization should not automatically exclude areas with projected climatically suitable habitat loss

The draft plan gives lower priority to populations in areas projected to lose climatically suitable habitat under the low-emissions scenario – areas also frequently under high threats from development (WJTCP report p. 4-33, 4-40). However, populations within these areas may still be valuable and worth prioritizing. Consider the following examples:

a) Local refugia: While the current plan defines refugia as the climatically suitable habitat projected to remain within the existing range, a broader definition of refugia (e.g., McLaughlin et al. 2017) includes local environments *within areas projected to lose climatically suitable habitat* that may remain suitable for small populations because of landscape features that ameliorate water stress and temperatures (e.g., persistent groundwater availability). These local refugia can provide important remnant habitats.

b) Genetic resources: Trailing-edge populations (located within areas of projected climatically suitable habitat loss) could harbor high genetic variation and climate change-adaptive alleles (Rehfeldt et al. 2002; Matías et al. 2019; Klockow et al. 2020, Hampe and Petit 2005). Because these individuals are at the driest and warmest parts of their range, they may contain the genetic resources needed to help the species adapt to climate change in other parts of the range. Maintaining these populations could maintain the species' evolutionary potential.

c) Healthy adult stands: The western Joshua tree has a long lifespan (averaging 150 and up to 300 years, with some even longer estimates), and adults appear to be less climate-sensitive than seedlings. Without severe fires, current healthy adult stands could persist into the foreseeable future, even if they are no longer reproductively viable, and support cultural and biodiversity values, genetics conservation, and ecosystem structure and function.

3. Recognize the importance of facilitated dispersal

Projected climatically suitable habitat loss under realistic climate scenarios, and western Joshua tree's low natural dispersal indicate the likely necessity of facilitated dispersal (assisted migration). The

draft plan discounts facilitated dispersal as prohibitively costly and logistically complex, in favor of prioritizing projected refugia. However, under more realistic emissions scenarios, there will likely be little remaining suitable habitat within the current distribution. The draft plan cites Ricciardi and Simberloff (2009) on ecologists' concerns around assisted migration. However, since this publication, the field of climate change ecology has developed considerably. Assisted migration is now a frequently recommended strategy by scientists for climate-adaptive management of high climate-risk species (McLaughlin et al. 2022a). In collaboration with tribal partners, it is urgent to begin the process of facilitated dispersal. Experimental plantings in newly climatically suitable habitat could offer opportunities to refine facilitated dispersal strategies, validate projected future habitat suitability, and support genetic rescue for declining populations (e.g. McLaughlin et al. 2022b).

4. Prioritize research on groundwater

Western Joshua tree is identified as a phreatophyte (Lichvar and Dixon 2007), however there is little research on the species' use of groundwater, whether groundwater can buffer climate change impacts (groundwater refugia), or sustainable levels of extraction to allow for continued support of this groundwater dependent ecosystem. If groundwater is buffering western Joshua trees from the impacts of climate, development impacts could include both direct take and increasing groundwater loss.

5. Expand effectiveness criteria

Habitat suitability analyses provide our best understanding of potential future ranges of western Joshua tree, but these predictions may be modified in light of actual range shifts, dieback, survival and recruitment, or on updated understanding of western Joshua tree physiology, and/or local effects of future climate change (as noted in Section 5.3.1, Effectiveness Criteria for Conservation). Therefore, the plan should include provisions for monitoring demographic trends, enabling an adaptive management response, with regularly updated critical thresholds.

6. Prioritize recruitment and nurse trees

Given the value of nurse plants for regenerating western Joshua trees (WJTCP report page p. 5-10), mature trees or other plants that act as nurse plants for recruits should be prioritized. Suites of adult nurse trees and recruits also should have a higher buffer of protection than trees that are not nursing seedling recruitment. In addition, healthy juveniles should be prioritized similarly to adult trees since they may have already been selected for success in a changing climate, and since they represent the future of the species.

The draft plan is an important step toward incorporating climate change into conservation planning for western Joshua tree. In closing, we emphasize the importance of incorporating more realistic emissions scenarios, the need to begin facilitated dispersal and the potential value of stands in projected areas of loss. We also recommend increasing research on groundwater interactions with climate change, expanding the effectiveness criteria to include regular monitoring, and prioritizing recruitment and nurse trees.

Respectfully,

Dr. Ioana Anghel, Postdoctoral Scholar, UC Santa Cruz
Kat Bernier, Graduate Student, UC Santa Cruz
Dr. Paige Kouba, Postdoctoral Scholar, UC Santa Cruz
Dr. Blair McLaughlin, Researcher, UC Santa Cruz
Kelly Zilliagus, Specialist, UC Santa Cruz

References:

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April 1, 2025

Erika Zavaleta
President
California Fish and Game Commission
715 P Street, 16th Floor
Sacramento, CA 95814

RE: April 16-17 Agenda Item 14: Western Joshua Tree – Draft Conservation Plan

Dear President Zavaleta,

CalCIMA appreciates the opportunity to provide continued feedback on the Draft Western Joshua Tree Conservation Plan (Plan) to the California Fish and Game Commission (Commission). We look forward to receiving a complete western Joshua Tree Conservation Plan which we will be able to submit final comments and analysis of prior to the Summer. We look forward to working with the Commission and the Department to ensure we achieve the legislature's vision of the Plan and Act, a vision best expressed by Assemblymember Juan Carrillo on the Assembly Floor as SB 122 was voted upon:

"This bill is not just about preservation of a remarkable species, it is a testament to the ability to strike a delicate balance between safeguarding our natural heritage and providing a pathway for the much needed economic development that our district yearns for."

We have expressed many comments in our previous comments and we have attached our comments from March 3rd, 2025 as well as our comments from January 30, 2025. These letters highlight our many concerns and requests for clarity and a complete plan. As indicated in our March 3rd letter, we feel this meeting needs to give the public clarity on which climate refugia map and territory will be used. In addition the plan needs to explain why the various effectiveness criteria provisions included within the plan are necessitated by the science described in the plan. In order to comment effectively we need to get to a complete plan and further we need all of the resource data we were to have during the stakeholder process.

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In order to review the plan we also need to have the complete report required by Fish and Game Code 1927.7 which will provide the commission and stakeholders invaluable information on actual implementation of the act including;

1. Number of permits issued
2. Number and sizes of trees authorized for take
3. Number of trees lethally removed
4. Number and location of western Joshua Trees relocated
5. Number and location of WJT Woodlands developed
6. Type, scope and scale of mitigation undertaken by permittees
7. Number and location of WJT woodlands conserved
8. Quality of the acres conserved
9. Amount of fees paid

Currently based on information released by the department we know at least 44 permits were applied for from a 2023 press release. In the 2024 release we were told over 25 WJTIP's have been issued, but we still don't have the breakdown of the items above to assist in the evaluation of the plan to actual successful and implementable permits that have been issued. Were more permits applied for, why aren't all 44 issued as this was streamlining using an in-lieu fee and it is 2025, two years after those first applications? That doesn't appear to be keeping with the intent of the legislature in adopting the WJTCA and is an indication something may be improper in the procedures as it isn't meeting the goal of providing a pathway for economic development.

CalCIMA strongly believes stakeholders need adequate time, between 60 and 90 days with a complete Western Joshua Tree Conservation Plan and underlying essential state data and justifications for effectiveness criteria, in order to provide deliberative comments and considerations for your final consideration before adoption. We hope at the conclusion of April's meeting we will know when we will receive such a document.

We encourage the Commission to ensure stakeholders have access to the resources and documents the legislature intended in order to help ensure fair deliberations. We look forward to being able to provide comments and debate effectiveness criteria based upon the department and commissions explanation of why such criteria are considered necessary.



Adam Harper
Senior Director of Policy
CalCIMA



March 3, 2025

Charlton "Chuck" Bonham
Director,
California Department of Fish and Wildlife
715 P Street
Sacramento, CA 95814
Via: WJT@wildlife.ca.gov

Erika Zavaleta
President
California Fish and Game Commission
715 P Street, 16th Floor
Sacramento, CA 95814
Via: fgc@fgc.ca.gov

Re: Comments WJT Conservation Plan – CALCIMA – {electronically delivered}

Dear Director Bonham and President Zavaleta;

In light of the February 12, 2025 Commission meeting on western Joshua tree ("WJT") and the deliberations and discussion which occurred relating to the draft Western Joshua Tree Conservation Plan ("Plan"), CALCIMA wanted to add these comments to the discussion as the Plan process heads towards workshops, meetings, and the April commission meeting. The draft Plan has a long way to go to being a complete plan suitable for approval. We are committed to the development of a Plan which properly uses the Legislature's in-lieu fee system to protect the species while also enabling and facilitating project permitting: a structure clearly intended by the Legislature under the Western Joshua Tree Conservation Act ("Act"). We believe the dual purposes of the Act can be met, and we commit to providing methods and examples of structures from our members' collective experience that the Commission and Department can use to do so. Including by detailing how the plan does impact, interface, and effectively control western Joshua tree incidental take permit ("WJTCA ITP") process if it is adopted as specified by the Legislature and Governor.

The Plan before the Commission is Incomplete

There are **multiple** elements within the Plan which are incomplete. For example, the Plan submitted for review provides no justification for the effectiveness criteria selected and therefore does not

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demonstrate how it is protecting the WJT from becoming listed under the California Endangered Species Act. We hope that the Department and Commission justify the standards using the scientific data.

The Plan also doesn't have an accurate climate refugia map that affected stakeholders can use to see if their property is impacted and scheduled to be effectively taken by the Department's proposed action. Unilaterally declaring that around 90% of private property inside the refugia is necessary to meet the Plan objective necessitates that landowners who's lands have been identified by the Department for acquisition and/or Department management have, 1) access to meaningful maps, 2) enough time for substantive review, and 3) understand potential impacts to their lands proposed by the Department, 4) an opportunity to meaningfully collaborate with the Department and Commission and other stakeholders. Stakeholders and affected landowners have yet to have that opportunity and, as a result, the Department clearly missed the December 2024 deadline to present a complete Plan before the Commission. No Plan was Agendized and presented at the Commission meeting on December 11-12, 2024. Simply listing it on the agenda under the public receipt of documents and noting it would be heard at future meeting was not sufficient. Following the February 12 meeting, it is now clear that we won't have a complete plan until April at the earliest because the Department and Commission are not aligned on which refugia scenario to use and have not even addressed the other incomplete portions of the Plan.

Below we highlight key sections of the Plan approval process that empower the Commission to oversee this process, as well as oversee the Department's implementation of permitting by properly ensuring the development and application of appropriate avoidance mitigation and relocation protocol guidance documents.

"1927.6. (a) The department shall develop and implement a western Joshua tree conservation plan **in collaboration with the commission**, governmental agencies, California Native American tribes, **and the public**. The conservation plan shall incorporate a description of management actions necessary to conserve the western Joshua tree and objective, measurable criteria to assess the effectiveness of such actions. The conservation plan **shall also include guidance for the avoidance and minimization of impacts to western Joshua trees and protocols for the successful relocation of western Joshua trees**. The department **shall present a complete draft conservation plan** at a public meeting of the commission, **for its review and approval, by December 31, 2024**. The commission shall take **final action on** the conservation **plan by June 30, 2025**. The department and commission shall, if necessary, periodically update the conservation plan **to ensure the conservation of the species.**" (emphasis added).

President Zavaleta's BAU Climate Refugia Vs. Department Climate Refugia

Given the differing views of the Commission and the Department, CalCIMA encourages the Commission, and particularly President Zavaleta to participate in the Department's workshops between now and the Commission's approval of the Plan to ensure necessary collaboration between Department and Commission. The ongoing refugia issue underscores that not enough collaboration between the Department and Commission has occurred. Additionally, it is essential to know which climate refugia area we are discussing: the Cole 2011 BAU or the yet to be released federal Climate Refugia Map, which the Department prefers. Fundamental due process demands that Stakeholders be provided maps with sufficient detail to track property ownership and anticipated impacts so that stakeholders know they are stakeholders and that their lands are in jeopardy of being declared vital western Joshua tree habitat.

Agreeing upon a climate refugia model should be achieved before or at the April Commission meeting. CalCIMA believes Commission President Zavaleta has the proper recommendation.

While the Commission briefly discussed the moral concerns of terraforming within the Plan, our current conservation challenges require evolution and change; not stagnation. It is time we moved past the stale vision of the western biologic community that nature must be frozen in the position first sketched on a notepad by a colonist getting off a boat claiming ownership of land, animals, and plants for crown and king.

Climate change reality dictates we must accept evolution occurs particularly in our policies of preservation and conservation, including migratory evolution of region based on climactic factors. The Commission and Department's mission is to draft a Plan that prevents the WJT becoming listed. Where scientific evidence indicates that the identified climate refugia are the only places that the species will survive and breed, that information will be necessary to meet the legislatures direction. It is the Legislature's and Governor's domain to adopt the Act to preserve the species and facilitate in-lieu permitting in a manner that "traditional" conservation methods do not stall economic development and adaptation. The Plan must adequately reflect this reality.

The Plan Is All About WJTCA ITP Permitting Criteria

At the February Commission meeting, concerns were expressed regarding the state of WJT incidental take permitting ("WJTCA ITP") under the Act. The Commission pondered that they may have no say in the Department's implementation of WJTCA ITP. The Commission's concern is not accurate, based on the Legislature's clear directives.

The Plan incorporates WJTCA ITP processes, and therefore the Commission, as final approval body, has broad authority over WJTCA ITPs, particularly in the development of all significant criteria, from avoidance and mitigation to relocation protocols, for the in-lieu fee program.

This in-lieu fee program is an alternative to a project developer being required to acquire conservation land and fund an endowment themselves before starting the project. Enabling vital projects, such as housing, infrastructure, flood safety, fire safety, and energy development to occur quickly, is a central goal of the Act.

The Plan impacts permitting criteria by establishing the avoidance and minimization criteria. And while the Plan does contain discussion of avoidance and minimization measures, as required, it doesn't show or provide the scientific data necessary to support the identified measures, such as a 50 feet buffer to protect roots at the base of the tree (which uses inconsistent data from multiple species, rather than observable WJT data) nor does it appear to recognize the Legislative mandate that When various measures are available to meet this obligation, the measures required shall maintain a WJTCA ITP permittee's objectives to the greatest extent possible.. Properly evaluating and vetting the information in the Plan, and ensuring its accuracy, is well within the Commission's jurisdiction.

The Commission, by exercising its authority over the Plan, can define the scope of avoidance and mitigation measures that can be implemented during the WJTCA ITP process while maintaining the CA Legislature's direction to protect a permittee's objectives when applying for a WJTCA ITP.

The Plan Determines Cost and Fees Paid By Permittees

The Plan will determine the program cost and the Commission needs to provide careful oversight of the Department's proposed permitting and associated costs. The data we shared in our initial comments is that permitting fees are currently approximately a billion dollar "voluntary fee" a year imposed on development in the Plan area. That is based on published CESA ITP costs for western Joshua Tree being nearly twelve thousand an acre and targeting between 3% and 5% of Joshua tree range be conserved every 2 years. That estimated cost, however, cannot be readily translated into a per tree fee because the Department has not yet shared any data on permitted takes under the WJTCA ITP. They missed the legislatively mandated deadline of January 2025 to provide the Legislature and Commission that detail which would have helped inform this process.

"1927.7. (a) Beginning in 2025, by January 31 of each calendar year, the department shall submit an annual report to the commission and the Legislature assessing the conservation status of the western Joshua tree, including, but not limited to, by detailing the number of permits issued, the number and size class of western Joshua trees authorized to be taken, the number of western Joshua trees lethally removed, the number and location of western Joshua trees relocated, the number and location of acres of western Joshua tree woodlands developed, the type, scope, and scale of mitigation measures undertaken by permittees, the number and location of acres of western Joshua tree woodlands conserved, the quality of the acres conserved, the amount of fees paid, the amount of all expenditures from the fund, the projects and actions funded by expenditures from the fund, the adequacy of the fees to conserve the western Joshua tree, actions taken pursuant to the conservation plan, and other relevant information. The department's annual report shall summarize the information provided by counties and cities pursuant to agreements entered into pursuant to subdivision (c) of Section 1927.3 and subdivision (b) of Section 1927.4. (emphasis added).

Timely providing this data, just a month after the first mandated public presentation of the Plan in December of 2024, is essential to appropriately informing the immediate discussion of the fundamental criteria in the Plan, as well as evaluating the projected economics of Plan implementation. Without data on permits issued, relocation achieved, the type, scope, scale of mitigation measures and associated costs implemented by permittees, it is difficult to effectively inform the development and maintenance of the Plan's criteria. The report must be provided, with sufficient time for evaluation and public comment, before the Commission approve the Plan.

The Data we submitted in our initial comments indicates the current draft Plan would cost approximately \$1 billion a year to implement. The Plan, targets between 97,000 and 161,000 acres every 2 years for land acquisition. We believe the Commission should focus carefully on cost to implement, potential fees and that impact on the dual purpose of the act. Carefully defining acquisition lands between efforts to forge federal partnerships and identification of what private lands will be sought for voluntary acquisition is one way to narrow the fee debate on these lands. We also believe the plan should clearly note that it will only seek voluntary partners for land acquisition.

Missing Legislative Deadlines

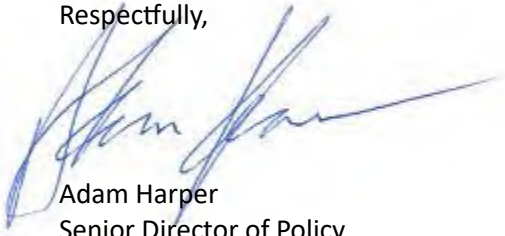
Finally, we wish to emphasize the need to timely provide necessary information to the public and the Commission during this process. While we agree missing legislative deadlines should not be planned for, it does happen. The Department has clearly missed multiple legislative deadlines: to provide a

comprehensive report to the commission and legislature on actions under this Act and providing a complete plan for the Commission's review in 2024.

We believe trying to meet the Legislature's deadline is good and we are committed to the effort. But if we don't get there, particularly because of delays in the availability of necessary information, we hope the Commission is also willing to miss this deadline. Adopting a broken plan could be a significant cost, and inhibitor, for both development and species conservation. Getting it right matters!

We look forward to participating in workshops to clarify and improve the draft. We also appreciate and the efforts of the department reflected in the Draft in front of us, but perhaps the historic scope of this project was more than anticipated.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Adam Harper', is written over a light blue circular stamp. The signature is fluid and cursive.

Adam Harper
Senior Director of Policy



January 30, 2025

Samantha Miller
President
California Fish and Game Commission
715 P Street, 16th Floor
Sacramento, CA 95814

RE: Western Joshua Tree – Draft Conservation Plan – Initial Comments

Dear President Miller,

CalCIMA appreciates the opportunity to provide feedback on the Draft Western Joshua Tree Conservation Plan (Plan) to the California Fish and Game Commission (Commission). Ensuring the conservation of this iconic species is an important undertaking as is realizing the significant promise of the Western Joshua Tree Conservation Act, this was perhaps best expressed by Assemblymember Juan Carrillo on the Assembly Floor as SB 122 was voted upon:

“This bill is not just about preservation of a remarkable species, it is a testament to the ability to strike a delicate balance between safeguarding our natural heritage and providing a pathway for the much needed economic development that our district yearns for.”

The dual functions of this Act were clearly expressed; namely, to preserve the iconic western Joshua tree from climate change while enabling local economic development.

CalCIMA strongly supports both missions and with the Legislature and Governor’s bold action we should recognize the western Joshua tree is no longer conceivably threatened or endangered. It should also be recognized that drastic actions are not necessary, but the plan does not seem to reflect that and is seeking to place over 479,000 acres into durable conservation by 2033¹ despite the tree currently occupying over 3.23 million acres including 1.8 million acres of ecologically core and ecologically intact habitat, equal to 25% of the total developed acres of humans in California. We

¹ Appendix II – Table II – Calculation of effectiveness criteria 2 Acreage from Table 4-10 Conversion

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also believe the Plan is incomplete and therefore deficient. And finally, we have several innovative suggestions to preserve the tree and promote local opportunity. We discuss these issues at length in this letter.

Background

CalCIMA is the statewide voice of the construction and industrial materials industry. With over 500 local mines, production plants, and facilities throughout the state, producing aggregate, concrete, cement, asphalt, essential minerals, and precast construction products, our members produce the natural materials that build our state's infrastructure, including public roads, rail, and water projects; homes, schools and hospitals; they assist in growing crops and feeding livestock; and play a key role in manufacturing consumer products.

The continued availability of our members' materials is vital to California's current and future economy and environment, and local sources of these materials are essential to reducing the supply chain emissions of manufacturing and delivering the technologies we will need for a climate-smart future as well as building our homes and transit systems.

The Western Joshua Tree Conservation Plan area covers all or most of three aggregate production-consumption regions in California. The three regions are expected by the State Geologist to consume 1.6 billion tons of construction aggregate to meet human natural resource demands over the next 50 years and only 436 million tons of these vital natural resources are currently under permit². We offer some specific ideas regarding improving mineral resource conservation and development for society within the mission of the conservation plan later.

The Conservation Plan is incomplete.

The legislature gave the California Department of Fish and Wildlife (CDFW) and the Fish & Game Commission a clear mandate with precise criteria. They gave direct guidance on the scope of the conservation plan in two parts. First, they defined conservation and next they specified the types of actions which would be taken within the required conservation plan. The legislature and governor defined Conservation as,

““Conserve” or “conservation” means to use, and the use of, methods and procedures that are necessary to bring species listed pursuant to Chapter 1.5 (commencing with Section 2050) of Division 3 to the point at which the measures provided pursuant to Chapter 1.5 (commencing with Section 2050) of Division 3

² Map Sheet 52 (Updated 2018), Aggregate Sustainability in California, (Table 1 Data for; Barstow-Victorville P-C region; Palmdale P-C Region, and San Bernardino P-C Region) California Geological Survey, 2018.

are no longer necessary, and for species that are not listed to maintain or enhance the condition of the species so that listing will not become necessary.³

The legislature recognized that the western Joshua tree is both 1) only a candidate species, and 2) CDFW recommended NOT Listing. The definition therefore provides clear instruction that the conservation plan for the western Joshua tree must describe ***“the means to use, and the use of methods and procedures that are necessary to maintain or enhance the condition of the species {western Joshua Tree}, so that listing will not become necessary”*** while also providing authorities should the Commission list. That is the purpose and objective of the conservation plan as clearly defined by the legislature. Further under Sec. 1927.6, the Conservation plan was specified as using these methods,

*“The department shall develop and implement a western Joshua tree conservation plan in collaboration with the commission, governmental agencies, California Native American tribes, and the public. The conservation plan shall incorporate a **description of management actions necessary to conserve the western Joshua tree and objective, measurable criteria to assess the effectiveness of such actions.** The conservation plan shall also include **guidance for the avoidance and minimization of impacts to western Joshua trees and protocols for the successful relocation of western Joshua trees.** The department shall present a complete draft conservation plan at a public meeting of the commission, for its review and approval, by December 31, 2024. The commission shall take final action on the conservation plan by June 30, 2025. The department and commission shall, if necessary, periodically update the conservation plan to ensure the conservation of the species.”*

Unfortunately, the plan was not complete as provided to the Commission and as a result analysis of its methods and procedures are difficult and it is challenging to determine feasibility of the plan before the Commission. Incomplete aspects of the Plan include:

1. The Plan does not define what condition of the WJT population and/or distribution of the WJT in California would maintain the current CDFW recommendation that the species need not be listed. For example, how many WJT, distributed how broadly, and in what regions?
2. The Plan fails to define the primary effectiveness criteria level in measurable terms only stating generally, *“Global greenhouse gas emissions are reduced to a level that ensures the species is not at risk of extinction from climate change impacts in California.”⁴*
 - a. This statement is not a method, procedure, or measurable.

³ Fish and Game Code §1927.1 (c)

⁴ Draft Western Joshua Tree Conservation Plan, California Department of Fish and Wildlife, P 5-45

3. Key property acquisition criteria rely extensively on information not available to reviewers (Shyrock et al. forthcoming.) and cannot be peer reviewed.
4. The unavailable information shapes Tables 4-9 to 4-12 and is used to set effectiveness criteria, and defines the Climate Refugia CDFW wants to acquire 90% of by 2033 – (Over 479,000 acres).
5. The Plan fails to provide the Commission with background information on ongoing western Joshua tree ITP permitting and effectiveness in WJT conservation. For example, the volume of acres and trees and take fee generated income received to date.
 - a. The Plan is financed by the ITP fee's, and such data is vital to analysis of Plan scope and implementation feasibility by the Commission. It is currently the only identified income for the program and should be provided to the Commission, so the Commission is aware of what financial resources are available to the Plan.
6. The Plan fails to include estimated costs and resource requirements of implementing the Plan. In **Appendix IV** we provide a list of 50 duties the Department takes upon itself in the Plan and the memorandum of understanding (MOU'), if enabled, would add many more. At this time the Commission does not have the information needed to quantify, or evaluate, the financial burden these new costs will impose upon the Department.
7. We are getting our first public discussion and explanation two months late in February 2025 not December 2024.
 - a. Final adoption should be extended **at least** 2 months to ensure full review and comment and to ensure the Department, Commission, and stakeholders get a complete Plan with all detail for review and comment

Due to this incomplete data, the Commission currently lacks the information necessary to complete the task delegated to it by the legislature, namely, approving a conservation Plan using measurable criteria and providing guidelines to prevent the western Joshua tree becoming a listed endangered species under CESA. Clear measurable guidelines enable advanced planning, adaptation and help the region enable economic opportunity. Unclear or infeasible guidance may result in delay, uncertainty and economic harm on development and the species. We need a clear objective that is defined and measurable and achievable by Californians. The legislature recognized this and required a complete measurable plan be submitted by CDFW. We recommend seeking clarity from the department on these issues before proceeding. Further, you must verify CDFW has the capacity, finances, and resources to implement the Plan. Or the unmet objectives could become obstructions to permitting and preservation.

No Demonstrated Capacity to Implement Plan

A significant reason the state ended up with a Western Joshua Tree Conservation Act instead of managing the species under the California Endangered Species Act (CESA) was due to the Department's statements to the Commission and the legislature that they lacked the resources to manage the western Joshua tree as a traditional species under CESA. This was because of the tree being "widespread and abundant"⁵. Commissioners discussed and expressed concerns and hopes for another way as well. As noted during the petition review, Director Bonham stated,

"I'd be remiss, it's not I think a criteria for you per se but the practical effect of a listing here for the department is pretty enormous at the workload level, because unlike other listings it is a species with right now abundance in the millions across a large range. That will create practical challenges."

The Plan before the Commission requires significantly more capabilities and resources of the Department than traditional CESA does. In Appendix IV we attach a list of 50 different mandates and roles that CDFW is assigned within the Plan, not even considering what mandates and authorities they may take upon themselves in a MOU with an agency or tribe. Further, the counting of 1-inch sprouts as well as the Department's hyper focus on western Joshua tree relocation appears to have made this act's permitting system at least as complex as the traditional CESA system. We know of no incidental take permit issued yet in the new method although urgent hazard permits have been. Incidental take permits issued under the new system should be provided to the commission and public and uploaded to the document library for transparency. Finally, under this Plan the department is seeking to evaluate and acquire tens to hundreds of thousands of acres of durably protected lands annually. Which is far more than the 3,136 acres of compensatory mitigation we found in 21 CESA incidental take permits issued over 3.5 years. In short, the Plan requires far more resources from the Department than a CESA managed program would.

Further, the potential cost of the extensive planned CDFW acquisitions should be a concern to the Commission. CalCIMA reviewed 21 single species covered ITPs issued under CESA regulations between 2022 and 2024, which were uploaded to the CDFW Document Library⁶. Our analysis is included as Appendix I, with results summarized in Table 1. We focused on single species ITP's as they facilitate knowing impact and mitigation acreages as they apply to the specific species. While we could identify CESA ITP permits we were not able to identify a single WJT ITP issued to a permittee under the new act. We would presume some of the 44 applications noted as having been filed in the 2023 annual report should have been processed by now⁷. The summary of the analysis is in Table 1.

⁵ Report to the Fish and Game Commission Status Review of the Western Joshua Tree, CDFW 2022 P. 54

⁶ <https://nrm.dfg.ca.gov/documents/DocViewer.aspx>

⁷ Western Joshua Tree Conservation Updates, CDFW, Feb 2, 2024

Table 1: Totals - Single Covered Species Incidental Take Permits for Western Joshua Tree (2022-2024)

Total WJT Permits	Total WJT Acres Impacted	Total WJT Acres Compensated	Ratio	Total Security Cost	Security Cost Per Compensated Acre
21	1187.81	3136.98	2.64 to 1	\$37,414,282.72	\$11,926.87

If we apply those security costs and per acre costs to the anticipated acreage acquisitions in the Plan that CDFW has proposed, acquiring 3-5% of western Joshua tree range annually results in acreage targets of between 97,000 and 161,000 acres annually with a potential cost of \$1.1 billion to \$1.9 billion. This seems to be outside the capacity of funding from permitting impacts to trees. Real, achievable, and feasible targets are needed in the Plan. The Plan fails to demonstrate a need for these vast acreages.

As we reviewed the Plan, we saw opportunities for innovation and use of existing resources to promote the western Joshua tree's well-being. As we view the Act, the legislature defined a finite task—to plan to prevent the Joshua tree becoming listed as a species under CESA. Considering the trees' abundance, broad range and long life, the Plan should not require drastic action to prevent the tree from becoming a threatened species.

The department seems to prioritize taking private and multi-use lands allocated for human uses and entering into MOUs rather than focusing conservation on already public and conserved lands and tracking the implementation of guidelines into plans by agencies. Considering the strength of the western Joshua tree as detailed within the Plan we think the latter approach—conservation and monitoring under current authorities—is preferred. Our table 2 converts the CDFW percentage data in table 4-9 to acre data to demonstrate how much land is already protected for the tree. The Department identified 740,000 acres as in areas with land protections using the total of wilderness lands and those with preservation and light recreation⁸. This ignores Defense lands governed by the Sikes act which the Plan specifically notes includes a 52,000 acre maintained woodland and total over 572,000 acres⁹. For comparison the city of Los Angeles land area is just under 300,000 acres.

Table 2: Conversion of Draft Table 4-9 “Percent of Western Joshua Tree Range in California within Conservation Value Categories by Management Unit” to Acres

⁸ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 4-62)

⁹ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 2-27)

	Ecologically Core (Acres)	Ecologically Intact (Acres)	Moderately Degraded (Acres)	Highly Converted (Acres)	Not Categ (Acres)	Total (Acres)
Little or No Protection	97,023.36	206,983.17	468,946.24	294,304.19	84,086.91	1,148,109.76
Mixed Use	142,300.93	326,645.31	61,448.13	3,234.11	249,026.62	779,420.99
Defense	336,347.65	181,110.27	42,043.46	9,702.34	-	572,437.82
Wilderness	119,662.14	203,749.06	3,234.11	-	135,832.70	459,243.90
Preservation with Light Recreation/Other Use	109,959.81	97,023.36	22,638.78	3,234.11	38,809.34	271,665.41
Tribal Land	-	3,234.11	-	-	3,234.11	3,234.11
Total	805,293.89	1,018,745.28	595,076.61	310,474.75	504,521.47	3,233,820.93

We know the Commission understands the reality of climate change. We are in the most significant transition of society in human history and the cost of the accelerated transition of energy is going to be enormous and stretch our society to the breaking point. The only way political support is maintained for direct action in a democracy is making the costs of the transition economically bearable by the population. Applying mandates that cost millions and generate climate emissions for no reasonably foreseeable benefit is harmful to the mission of the Commission and preservation of the Joshua tree and should therefore be avoided. This Plan is applying the costs of climate change to the public of California. Future homeowners, workers and energy consumers will pay in the cost of development. Help mitigate those climate costs.

CalCIMA commissioned an economic analysis of the potential cost impacts of SB 122 and the western Joshua tree Conservation Act on our sector back in 2023. The analysis found that the impact of the law was likely to increase construction aggregate (rock and sand), costs on state and local government for infrastructure by between \$130-\$170 million annually¹⁰. And that's rocks not renewable energy. The Plan

¹⁰ Impact of SB 122 Western Joshua Tree Provisions in Aggregate Mining Operations and the Economy, Capitol Matrix Consulting Williams/Genest – October 2023

impacts three significant aggregate production and consumption regions. Added material costs won't only impact on the cost of developing infrastructure but costs to build and maintain homes, hospitals and workplaces. Natural resources, energy, minerals, food, and water are the foundations of our human well-being and productivity.

This issue is especially critical to minerals and renewable energy as we need to enable the new energy systems of the future to develop. California has deposits of all 50 critical minerals and the regions covered by the plan are mineral rich areas. Inhibiting development could deprive our economy of the opportunity to be a economic leader in new energy materials and manufacturing by inhibiting permitting and development of the natural resources necessary to develop those sectors.

Knowledge Derived from Plan Regarding western Joshua Tree

As we reviewed the Plan we were again struck by the vast acreage and range of the western Joshua tree detailed above, as well as other information.

- There are currently 1.8 million acres of Ecologically Core and Ecologically Intact western Joshua tree habitat¹¹ = equal to 25% of the total human developed land¹² in California.
- The Plan predicts a climate refugia in the reasonably foreseeable future of 756,000 acres representing an area 2.5 times the City of LA's land area and 23% of current Joshua tree habitat area and equivalent to 11% of lands currently developed by humans in California.
- Approximately 22.6 percent of the western Joshua tree range (740,000 Acres) in California is within areas that already have land protections and are being managed for conservation¹³.
- Approximately 36.4 percent of the predicted climate refugia category is within areas that already have land protections in place and are generally being managed with conservation in mind¹⁴.
- There are currently 572,000 acres of Defense lands within the range of western Joshua tree.
- Edwards Air Force Base maintains an INRMP for 52,719 acres of Joshua tree woodland under the Sikes Act¹⁵ and operates a planting program.

¹¹ Appendix 3 – Table 4-9 Conversion to Area and Analysis – CalCIMA 2025

¹² California's Nature-Based Solutions Climate Targets, Administration of Governor Newsom, (pg. 22) April 2024

¹³ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 4-62)

¹⁴ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 4-64)

¹⁵ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 2-27)

- Edwards has identified all Joshua trees over 3 meters and reports that populations are stable and increasing¹⁶.
- In addition, Yoder et al. (2024) found that the median interval between flowering years has decreased from historical (i.e., early 20th century) levels of flowering every 5 years to every 4 years¹⁷.
- The Plan discusses extensive use of the western Joshua tree by Native Americans over thousands of years as a material and food¹⁸.
- Joshua tree roots were harvested selectively by tribes and collected in batches to provide rest periods for the plants¹⁹.
- Pruning and cutting plants are strategically done to enhance plant growth as well (Anderson 2005, 2018)²⁰.
- The density observed in Joshua tree woodlands suggests that Joshua trees were stimulated to grow in the desert, especially near culturally important sites (Stoffle et al. 1989, 98; Stoffle et al. 2022, 23)²¹.
- There are documented accounts of Native Americans saving the seeds of agave, yucca, and desert fan palms and planting them in specific locations within the Mojave Desert, demonstrating the integral nature of plant cultivation in Native American cultural systems.²²
- Joshua tree is abundantly present and has a wide habitat range in the desert Southwest because of this skillful knowledge and practice. The sustainability of Native American practices allows natural vegetation and human inhabitation of the landscape to coexist²³.

We select these facts and quotes from the Plan as evidence of the range and resiliency of the Joshua tree both currently and in the reasonably foreseeable future. There is a reason the Department did not recommend listing and the Commission has not acted on the petition. Listing isn't justified on these facts and population alone.

In addition, we selected those that demonstrated the extensive use and resiliency of western Joshua tree to human interaction, including those that indicate symbiotic benefits to the tree and humans from the interaction. They speak to the potential for innovative management and programs. They clearly demonstrate that low level human

¹⁶ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 2-28)

¹⁷ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 4-24)

¹⁸ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 3-4 to 3-6)

¹⁹ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 3-6)

²⁰ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 3-8)

²¹ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 3-10)

²² Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 3-10)

²³ Draft Western Joshua Tree Conservation Plan, CDFW December 2024 (Pg 3-11)

impacts, including agriculture and other land uses, do not harm the species and may even enhance and spread it. It demonstrates that our agricultural expertise can also be utilized to improve the species' condition.

Those facts open the door to substantial innovation within the Plan and indicate there is no need for criteria targeting the purchase and creation of hundreds of thousands of additional acres of conserved lands. The Plan identifies vast conserved lands already occupied by the trees. Further, science establishes it will take centuries if not millennia for Joshua tree range to shrink due to climate change. The data proves human agricultural practice, traditional ecological knowledge (TEK) in this instance, and use can benefit or at least not harm the tree. Finally, the state has decided to conserve the tree actively, not just protect it from harm. More than TEK, items like genetics will inform management and restoration establishment activities.

The tree isn't threatened under these facts, and we don't need a massive Plan to ensure it doesn't become threatened. The target the legislature and governor gave CDFW, and the Commission doesn't require drastic action. We can undertake steps to manage the climate, and fire threats the Plan identifies as the species' primary threat. We can provide guidance for local agencies to include in policy as directed by the legislature. These include science and activities such as, determining which tree populations handle predicted climates and ranges best, identifying whether relocation or planting is best, providing safe harbors to private landowners to spread trees beyond conserved areas, and promoting the creation of populations outside primary population and fire threat areas.

We don't yet need to be using the scarce resources collected in impact fees, a finite number, to fund acquisition of lands a climate model says will be suitable in 70 years, we have the time to wait and know much more considering the existing population and range of the Joshua tree before making acquisitions and significant financial resource investment decisions.

Delete MOU Effectiveness Criteria

The Plan appears to utilize the effectiveness criteria requirement of MOUs to leverage local agencies to enter MOUs. First, single agency control is undesirable for preventing a threatened status to the species. We can't place all our eggs in one basket and fortunately our system of government separates powers so we can have federal managers and state managers, and local managers as we already do to benefit the species. This is a benefit, not a harm to the species survival.

The Plan should respect other agencies' authorities and expertise and instead use guidance as directed by the legislature to broadly and transparently direct action to benefit the species. Adoption of guidance can measure implementation just as effectively and a lot more cheaply than active engagement in a MOU. It is simply far easier and less expensive to measure adoption of guidance than to manage fire districts and local agencies' Joshua tree activities via MOU. We recommend Incorporating the

guidance the legislature asked for within the Plan then and have the department report on local agency adoptions and implementation in the two-year reviews.

If MOUs are for some reason a priority, a justification should be included in the Plan of why MOU's and breaching the separation of powers is desirable over providing guidance and reporting on agency implementation. How is it necessary to prevent listing as threatened or endangered? The statutorily defined objective of the Plan at this time. Why are MOUs and department control important? What is the extra necessary benefit? Why are the federal land managers and structures such as the Sikes Act functionally deficient? What will be included in the MOUs?

If MOUs are pursued and included as effectiveness criteria a complete list of potential MOU partners should be included in the Plan for evaluation of the criteria thresholds. We will also need the approximate areas they manage in relation to the Plans coverage area and the species range. The effectiveness of the effectiveness criteria cannot be evaluated without knowing the universe the criteria apply to and how it relates to the range of the tree. Our knowledge, as well as agency and districts' knowledge, and the Plan is incomplete without providing such measurable data to inform the review of sufficiency of the criteria.

Finally, considering scarce resources, the Commission may even wish to prohibit CDFW from the cost and liability of engaging in MOU activities particularly related to fire management, except those consistent with Fish and Game Code § 1927.2 (h) under the authority of the Plan,

“(h) This section shall not preclude the department from authorizing, by permit or memorandum of understanding, the taking, possession, purchase, or sale within the state of a western Joshua tree to aid the conservation and recovery of the western Joshua tree, or entering into memoranda of understanding with California Native American tribes to provide for the taking and possession of western Joshua trees for tribal cultural purposes, or as otherwise required by applicable law.”

Empower Native American Tribes on Their Lands

The Plan clearly demonstrates tribes are not a threat to the Joshua tree and have substantial knowledge and cultural practices dependent on the tree. Their widespread low-level impacts had no identified harms and were speculated to help the tree by multiple authors. The Plan should specify the tribes whose takes are authorized under the Plan and recognized to have no threat to the species. Obviously, CDFW's use of traditional tribal knowledge may require a MOU to protect the tribes' rights and privacy but that's between the tribes and CDFW. Tribes should not need a MOU to gather seeds or take trees based on the data within the Plan. The Commission should ensure in keeping with its JEDI doctrine that the sovereignty of the tribes is empowered based on the data and facts presented.

We also think Native Americans, if willing, could be key partners to a transformational new way for interaction with our natural lands.

Create a Cultivators Program with Safe Harbors

We think the core action to take early, aside from beginning science efforts, is to empower the people who love the Joshua tree, to plant, nurture and provide citizen science on the Joshua tree. The reasons are many, but Commissioner Sklar provided an epiphany when during initial deliberations he said,

“Not only is CESA outdated but it is limited in a fundamental way it does nothing to ensure conservation and restoration although it encourages it.”

Of course, if you make doing anything to help a species hard and expensive people won't be able to help a species, and only necessary impacts will be permitted. Requiring any contact with a WJT specimen to be permitted and the structure and cost of those permits will prevent people from independently doing good. We can now plan a way around that in this Plan. We can manage human behavior as validated by economic philosophy which has been proven many times over. The moment we made doing good for a species cost money, voluntary acts to assist the species disappear as they are economically harmful to people.

This is the predictable harm committed by acts like CESA and the Native Plant Act if they are applied to an abundant and widespread species like the Joshua tree. Which means under climate change impacts CESA and the Native Plant Act are broken. However, CESA is exactly the tool you want when you have a Bakers Longspur with only 9 plants where only the experts should be acting to preserve it. Joshua trees on the other hand should be available in my local nursery and planting one shouldn't degrade my property's value. That alone would preserve the species. We love them, they are iconic.

CDFW included the beginnings of such programs but fails to call for safe harbor for cultivators of trees on their own private property. CalCIMA urges you to empower mankind, the greatest agricultural species to ever evolve, to voluntarily do good for Joshua trees well beyond the adopt-a-tree concept in the rule. We request the Commission create “safe harbors”, so a citizen's property is not harmed by helping the tree voluntarily.

In the Plan you should include a criterion for the department to establish a database for citizen cultivators to plant and care for Joshua trees on their property. Citizen cultivators should be able to report their assessor's parcel number for the purpose of providing safe harbor protection to their property from the cultivation of the tree. The system could include online video training on cultivation, reporting on planting techniques and climate of the grow site. Such “cultivated” trees wouldn't be subject to fees on take as well. Contact information could be used to request data over time. It can become both a garden study and known reservoir of the Joshua trees genetic

diversity outside the regions where cataclysmic climate driven fire is a concern for the primary population and genetic diversity of the Joshua tree. As such it creates resiliency, begins generating growth and propagation data now to the changed climate, and informs future restoration and or migration assistance in future years.

As the Plan is currently drafted it prevents the people who love the tree from voluntarily propagating it on their property without fines and penalties. Please create a simple path to let them plant and care for Joshua trees by removing the economic penalty for doing so. Use the Plan to create a new cultivated Joshua tree program and cultivated trees sheltered from permit obligations.

Eco-Restoration Licensing

We think the State should consider an eco-restoration license similar to the fishing and hunting license programs. A program where there are electronic educational materials on planting various species and restoring various landscapes. You can't do that for the state, but you could for Joshua tree and the Plan area. The Plan could specify the criteria and construct the program with the stakeholders.

Large and significant costs of durably conserving land is the endowment, maintenance and restoration. Enabling structures where people volunteer to participate as recreation and potentially even offer a voluntary certification fee to ensure knowledge of proper propagation techniques could help create a more effective plan that isn't solely funded by local development and the citizens of the Plan area. We can seek to empower beneficial actions and reduce community costs. We could just as easily license and enable restoring our environments as we license hunting and fishing.

Climate Refugia Identification

While we find it unfortunate that accurate plotting of the intended climate refugia maps has not been provided as the work is forthcoming, we support the concept of climate refugia. The primary threat identified is climate change and where the trees can reasonably foreseeably exist matters. Further as climate change is the dominant threat to Joshua tree the commission needs to limit the range of mandatory relocations ordered by CDFW permitting staff to a reasonable range as well as make it clear that if no landowner is willing to accept Joshua trees under the liabilities created to their property by the Plan and statute, then mandatory relocation shall not be required. The legislature was told this program would expedite permitting, not slow it.

We have basic principles we think should apply under the Plan based on what the climate refugia definition represents. Climate refugia is the state's belief of where in the reasonably foreseeable future Joshua trees will be able to survive and live. By extent, everywhere outside that climate refugia is a location where it is reasonably foreseeable to the State experts that the Joshua tree will not be able to survive.

Under no circumstance should mandatory mitigation occur to any location outside the identified climate refugia where California's scientists don't think Joshua trees will

survive in 70 years. Voluntary project actions, yes. Mandatory actions ordered by CDFW, no. Such mandatory actions would add costs for no foreseeable benefit and are therefore harmful to the survival of the species.

Mineral Resources Policy Suggestions

One item CalCIMA has been hoping for is a functional debate of how we can better integrate mineral resources and working land resources into our climate adaptation debate. The natural resource needs of humans must be carefully considered as we begin diverting scarce resources to other important priorities. We are also aware that lovers of natural resources want ways to capture more value from working land development. We think creative solutions can accommodate both objectives.

This plan enables the Commission to consider better integration of resource development for humans and preservation for the Joshua tree, if desired. Indeed, the larger than the state of Massachusetts size of the conservation plan area necessitates such considerations. The Commission only includes discussion of working with agricultural and grazing interests, not water resources, not minerals, not energy resources and working with these other necessary and vital working land users is important. Stakeholder groups to discuss how to develop both the natural resource values and the working land values for humanity should be added to this Plan.

As mentioned previously, the region where the western Joshua tree lives is expected to need over 1.6 billion tons of construction aggregates over the next 50 years²⁴. If we don't produce it there, it will be mined elsewhere and shipped, causing emissions and traffic, worst case, imported through our ports. We prefer to provide construction aggregate materials from local sources, since distance matters. Construction aggregates do not include the critical strategic minerals of the new energy age which California also has important deposits of and the plan has made no consideration for their potential development. Ensuring compatibility with all vital natural resources including those humanity will need should be a key design goal of the Plan for the benefit of all Californians and the Joshua tree.

The tree's long life, extensive range, numbers in the millions, and human commitment to preserve under state law create opportunity and legal certainty to be more creative than we have been historically. Humans are the undisputed keystone agricultural species. If it can be grown humans can grow it and the tribal data on Joshua tree validates this. In addition, we have the time for careful management to reduce costs on humans while preserving and restoring the tree.

²⁴ Map Sheet 52 (Updated 2018), Aggregate Sustainability in California, (Table 1 Data for; Barstow-Victorville P-C region; Palmdale P-C Region, and San Bernardino P-C Region) California Geological Survey, 2018.

The species has an extensive range ensuring a large area of productive habitat during any temporal impacts of necessary human resource development and there are numerous plants to provide seeds for restoration. This isn't a species that can die tomorrow, it will take centuries for the range to change, and we will have active human management due to SB 122 and this Plan. Temporal impacts are very important when there are nine individuals, not when there are between 3 and 9 million and they live hundreds of years. Temporal impacts are largely immaterial if restored with planting after a project or by reclamation such as is required of mines.

Because of that we think, the following activities should be directed for exploration for possible development inclusion in a future amendment.

- Encourage the Department to work with the State Mining and Geology Board (SMGB), the mining community and other stakeholders to develop criteria for Joshua tree reclamation.
 - Enable Conservation Plan managers to engage in Natural Resource Mineral development (Mining) provided they use such a restoration plan design.
 - This would enable conservation areas becoming mine landlords returning revenues from working land development to natural resource preservation and controlling restoration of the land under binding legal obligations.
 - This would enable necessary mineral production for the human species.
 - Ensure Joshua tree restoration via the reclamation criteria.
 - Allow the conservation manager to use their endowment to secure reclamation costs – and credit them from take fees for the to-be-restored trees.
- Add criteria to ensure that priority conservation lands are not structured to overlay state classified or designated mineral resources where avoidable.
- Where not avoidable place policies that encourage conservation land managers to consider the feasibility of making such resources available in their conservation plan.
- Add to the avoidance discussion explicit recognition, that necessary natural resource development such as mineral resource development that can not avoid impacts is expected and acceptable for such vital natural resource development.

Mineral resources are a recognized vital natural resource in California, whose production and conservation are encouraged and considered necessary. As the legislature has stated in public resources code §2711 (f),

“(f) The Legislature further finds that the state’s mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California.”

The Plan covers multiple aggregate production consumption zones and has no clear plans to coordinate or manage the potential impacts of the Plan with other vital resources. Not even guidance to agency to work to address such other key issues. The development of minerals will occur, humanity’s needs as a technological species will be met. It’s up to us to find the most efficient ways to do so.

We recognize the concept of mitigation after impact is unthinkable in a traditional endangered species scenario. We believe it is appropriate to consider these conservation areas and under the specific facts of the western Joshua tree. It is well established that the western Joshua tree is an abundant and widespread species. It is also an extremely long-lived species. During the petition process Jeb McKay Bjerke of the CDFW Habitat Planning Branch presented evidence to the Commission that when a similar warming occurred 11,700 years ago, it wasn’t until 3,700 years later that the fossil record had retreated to the Joshua tree’s current range²⁵. We have centuries, if not millennia, to manage the western Joshua tree range and population due to the characteristics of the species. As a result, conservation plans would seem ideally suited to be authorized to mitigate natural resource production by restoration. It can reduce costs, increase solvency and capacity of the conservation plan areas, provide important resources to society and the community, and help conserve western Joshua Trees. In the case of the Joshua tree, we can make this work.

Conclusion

We encourage the Commission to be sure of its data and science before buying Joshua tree conservation land. In the interim, empower the good of people to benefit the species, create more data, and integrate considerations for vital working land resources into the long-term plan. The Plan impacts an area larger than the State of Massachusetts and mistakes could have drastic consequences on people and the region and on the continued political will to combat climate change.

We look forward to ongoing discussions and hope we create a terraforming Plan that accommodates humanity as well as the Joshua tree. As noted in Assemblymember Carrillo’s comments on the bill, this is about striking a “delicate balance” between conservation and economic development.

²⁵ Fish and Game Commission Hearing June 15, 2022, CDFW Presentation to Commission (Bjerke)

Do we have what it takes to integrate humanity's needs, and species needs while terraforming our state due to climate change? We believe so, but it will take working together with trust and respect. And it will require seizing the time and restoration advantages available due to the western Joshua tree's widespread abundance, long life, iconic status and the affirmative commitment of California to prevent the tree from becoming threatened.

Respectfully,



Adam Harper
Senior Director of Policy
CalCIMA

Appendix I

Single Covered Species ITP Permits (WJT) – Issued Under CESA 2022-2024

Background:

As a result of SB 473 (Hertzberg) of 2018 Incidental Take Permits (ITP's) are now published online in the [CDFW Document Library](#) providing transparency for department activities to the public. That law requires, “**Commencing January 1, 2019, the department shall post each new permit issued pursuant to subdivision (b) on its Internet Web site within 15 days of the effective date of the permit.**” There are many CESA permits available as a result.

The Department does not appear to be adhering to this publishing practice for Western Joshua Tree Incidental Take Permits issued under the Western Joshua Tree Conservation Act or has issued no such permits. We therefore have no data from those permits if they exist. None of the WJTITP's our membership has filed under the new law have been processed to completion and none of their annual updates has yet mentioned any such ITP issuances although in 2023 we know 44 were filed from the 2023 Update.

The Department has issued many WJT permits under traditional CESA permitting processes and the data below is from single covered species ITP's to be sure acreages and costs apply only to the western Joshua Tree impacts. Some permits go through amendments and the final amended permit is listed and linked.

The actual costs incurred may be higher or lower than the security cost as only the permit at signature of the permittee is published within 15 days of receipt according to the law. The law did not require filing of the actual cost and final paperwork which demonstrates the permittee meeting the obligations. **As the security amounts represent the Departments estimated cost per acre of durably conserving WJT habitat the data does represent the Departments beliefs in cost per acre to durably conserve WJT habitat and is best suited for our purposes in analyzing the projected direct costs of the WJT conservation plan proposed by the Department.**

Table 1 provides the totals for the single covered species permits issued 2022 through 2024 and calculates the per acre security cost for compensated acres. Table 2 provides the individual permit details and links to the individual permits.

Appendix I

Single Covered Species ITP Permits (WJT) – Issued Under CESA 2022-2024

Table 1: Totals - Single Covered Species Incidental Take Permits for Western Joshua Tree (2022-2024)

Total WJT Permits	Total WJT Acres Impacted	Total WJT Acres Compensated	Ratio	Total Security Cost	Security Cost Per Compensated Acre
21	1187.81	3136.98	2.64 to 1	\$37,414,282.72	\$11,926.87

These numbers do not represent all Western Joshua Tree ITPs amended or processed in the period 2019-2024 as we excluded multiple species ITP's, the format was not conducive for identifying acres of impact to specific species, and amendments to historic ITP's to add western Joshua Tree were also problematic to review including only changed sections. And we do not know what WJTITP's have been issued under the new law as we did not find any of those plans. Number of tree's individuals was also not universally present due to acres being the criteria.

Actual costs for these permits in this table and those not analyzed should be on file with the department and may be higher or lower.

Detail included in Table 2 with links to the permits.

Table 2: Western Joshua Tree Single Species ITP's under CESA (2019-2024)

Permit Link	Permittee	Project	Acres Impact	Acres Comp	Total Security Amount
2081-2021-001-06-A1	CalTrans District 8	SBD-138 CONSTRUCT MEDIAN AND STANDARD SHOULDERS	2.87	4.31	\$71,960.00
2081-2021-010-06	Copart Inc.	COPART ADELANTO 2 PROJECT	48.48	193.92	\$1,834,024.00
2081-2021-012-05-A1	Lockheed Martin Aeronautics	Site Plan Review 20-009 Project Solar	67.5	120	\$1,200,000.00
2081-2021-026-06-A1	Silverwood Development Phase 1, LLC	SILVERWOOD (TAPESTRY PHASE I) PROJECT	578.7	1621.9	\$15,158,774.00
2081-2021-038-06	Covington Development Partners +	HESPERIA COMMERCE CENTER II PROJECT	202.14	585.9	\$6,308,980.00
2081-2021-044-06	LADWP	ADELANTO SWITCHING STATION EXPANSION PROJECT	74.33	148.66	\$1,674,236.00

Appendix I

Single Covered Species ITP Permits (WJT) – Issued Under CESA 2022-2024

Permit Link	Permittee	Project	Acres Impact	Acres Comp	Total Security Amount
2081-2021-054-06	Pacific Communities Builder, Inc.	TENTATIVE TRACT MAP 16751 PROJECT	21.98	54.95	\$680,910.00
2081-2021-055-05	Palmdale Investors, LLC	STRATA WEST PALMDALE APARTMENTS AND STRATA COMMONS	12.76	25.52	\$1,763,000.00
2081-2021-059-06	Pacific Communities Builder, Inc.	Tentative Tract Map 17243 Project	8.34	15.7	\$264,860.00
2081-2021-067-06	Pixior LLC	PIXIOR DISTRIBUTION CENTER	21	42	\$560,755.00
2081-2021-070-05	Maison's Palmdale 170, LP	TENTATIVE TRACT MAP 73068 DEVELOPMENT PROJECT	23.17	56.65	\$2,541,150.00
2081-2021-099-04	Tumbleweed Solar, LLC	Tumbleweed Energy Storage Project	29.31	58.62	\$711,823.72
2081-2022-013-06	Harris Homes, Inc.	HARRIS HOMES PROJECT	28.21	84.63	\$987,055.00
2081-2022-029-06	Pathways to College Charter School	Education - K-8 School Project	10.77	21.54	\$757,564.00
2081-2022-041-06	City of Hesperia	RANCHERO ROAD CORRIDOR WIDENING PROJECT	0.65	1.3	\$112,220.00
2081-2022-043-06	Arman Petrosyan	ASTER 2	1.25	3.125	\$145,315.00
2081-2022-060-06	Southern California Edison (SCE)	SCE WESTERN JOSHUA TREE EMERGENCY VEGETATION MANAGEMENT	0.9	0.9	\$107,980.00
2081-2022-077-06	Prologis SCLC Investments/Lot 44 LLC and +	LOT 44 AND LOT 45 DEVELOPMENT PROJECT	24.45	24.45	\$357,610.00
2081-2022-080-06	Poplar 18 LLC	POPLAR 18 PROJECT	10.9	32.7	\$445,060.00
2081-2022-087-05	Paraclete High School	PARACLETE HIGH SCHOOL PROJECT	7.5	15	\$1,365,446.00
2081-2024-010-06	CRP/NC Hesperia Owner, LLC	MESA LINDA LOGISTICS CENTER	12.6	25.2	\$365,560.00

Appendix II
Conversion of Table 4-10 to Sq. Mi and Acres (CalCIMA 2025)

Table 4-10 Percent of Predicted Climate Refugia Overlapping Conservation Value Categories and Management Units Management Units (Page 4-63)	Ecologically Core	Ecologically Intact	Moderately Degraded	Highly Converted	Not Categ	Total
Mixed Use %	2.20%	16.00%	0.50%	0.10%	9.90%	28.60%
Wilderness %	8.20%	14.60%	0.10%	0.00%	5.30%	28.20%
Little or No Protection %	0.70%	3.90%	5.70%	9.60%	1.80%	21.70%
Defense %	5.20%	8.10%	0.10%	0.00%	0.00%	13.30%
Preservation with Light Recreation / Other%	3.20%	1.90%	0.20%	0.10%	2.90%	8.20%
Tribal Land %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total %	19.50%	44.50%	6.40%	9.60%	19.90%	100.00%

Determination of Climate Refugia Size		
The predicted climate refugia category makes up 23.4 percent of the western Joshua tree Range in California. (Page 4-63)		
For purposes of this Conservation Plan, the range of western Joshua tree is considered to be approximately 13,088 square kilometers (5,053.3 square miles) (Page 8-6)	23.4% of 5053.3 =	1182.4722
Climate Refugia Size (Square Miles) =		1182.472

Table 4-10 Percent of Predicted Climate Refugia Overlapping Conservation Value Categories and Management Units Management Units (Conversion to Square Miles and Acres - CalCIMA)													
	Ecologically Core (Sq. Mi.)	Ecologically Intact (Sq. Mi.)	Moderately Degraded (Sq. Mi.)	Highly Converted (Sq. Mi.)	Not Categ (Sq. Mi.)	Total (Sq. Mi.)	Acres Per Square Mile	Ecologically Core (acre)	Ecologically Intact (acre)	Moderately Degraded (Acre)	Highly Converted (acre)	Not Categ (acre)	Total
Mixed Use (federal BLM USFWS ETC)	26.01	189.20	5.91	1.18	117.06	338.19	640	16,649.21	121,085.13	3,783.91	756.78	74,921.43	216,439.67
Wilderness Square Miles	96.96	172.64	1.18	0.00	62.67	333.46	640	62,056.13	110,490.18	756.78	-	40,109.45	213,412.55
Little or No Protection (Private)	8.28	46.12	67.40	113.52	21.28	256.60	640	5,297.47	29,514.50	43,136.58	72,651.08	13,622.08	164,221.71
Defense Square Miles	61.49	95.78	1.18	0.00	0.00	157.27	640	39,352.67	61,299.35	756.78	-	-	100,652.02
Preservation with Light Recreation/Other Use	37.84	22.47	2.36	1.18	34.29	96.96	640	24,217.03	14,378.86	1,513.56	756.78	21,946.68	62,056.13
Tribal Land	0.00	0.00	0.00	0.00	0.00	0.00	640	-	-	-	-	-	-
Total Land	230.58	526.20	75.68	113.52	235.31	1,182.47	640	147,572.51	336,768.03	48,434.05	72,651.08	150,599.63	756,782.08

Appendix II
Conversion of Table 4-10 to Sq. Mi and Acres (CalCIMA 2025)

CalCIMA Table II – Calculation of Effectiveness Criteria 2 Acreage from Table 4-10 Conversion Data

Predicted Climate Refugia Overlapping (Derived by converting Table 4-10 to Area from Percent)	Sq. Mi	Acres
Ecologically Core+ Ecologically Intact + Moderately Degraded =	832.46	532,774.58
Effectiveness Criteria 2 (Protect 90% Above by 2033) Page 5-45	749.21	479,497.13
Wilderness + Preservation with Light Recreation/ Other Uses + Tribal (Sq. Mi)	430.42	275,468.68
Mental Comparisons		
City of Los Angeles	468.7	299,968.00
City of Sacramento	100.1	64,064.00
City of San Diego	325	208,000.00

CalCIMA Table I: Totals - Single Covered Species Incidental Take Permits for Western Joshua Tree (2019-2024) (Appendix I - for Detail)

Total WJT Permits	Total WJT Acres Impacted	Total WJT Acres Compensated	Ratio	Total Security Cost	Security Cost Per Compensated Acre
21	1187.81	3136.98	2.64 to 1	\$37,414,282.72	\$11,926.87

Estimated Effectiveness Criteria 2 Cost if All Land Purchased and Endowed: 479,497.13 * \$11,926.87 = **\$5,718,899,885.84 Billion**

Appendix III
Conversion of Table 4-9 to Sq. Mi and Acres with Analysis (CalCIMA)

Table 4-9 Percent of Western Joshua Tree Range in California within Conservation Value Categories by Management Unit Management Unit														
							Within Western Joshua Tree Range				Sq.Mi.	Acres		
							Western Joshua Tree Range Square Miles (Page 8-6) =				5,053.30	3,234,112.00		
							Ecologically Core+ Ecologically Intact + Moderately Degraded (Sq. Mi.)				3,779.87	2,419,115.78		
							Wilderness + Preservation with Light Recreation/ Other Uses + Tribal (Sq. Mi)				1,147.10	734,143.42		
							Mental Comparisons							
							City of Los Angeles				468.70	299,968.00		
							City of Sacramento				100.10	64,064.00		
							City of San Diego				325.00	208,000.00		
Western Joshua Tree Range														
	Ecologically Core	Ecologically Intact	Moderately Degraded	Highly Converted	Not Categ	Total	Acres per Sq.Mi.	Ecologically Core (acre)	Ecologically Intact (acre)	Moderately Degraded (Acre)	Highly Converted (acre)	Not Categ (acre)	Total	
Little or No Protection (Private)	3.00%	6.40%	14.50%	9.10%	2.60%	35.50%	640	97,023.36	206,983.17	468,946.24	294,304.19	84,086.91	1,148,109.76	
Mixed Use (Federal)	4.40%	10.10%	1.90%	0.10%	7.70%	24.10%	640	142,300.93	326,645.31	61,448.13	3,234.11	249,026.62	779,420.99	
Defense	10.40%	5.60%	1.30%	0.30%	0.00%	17.70%	640	336,347.65	181,110.27	42,043.46	9,702.34	-	572,437.82	
Wilderness	3.70%	6.30%	0.10%	0.00%	4.20%	14.20%	640	119,662.14	203,749.06	3,234.11	-	135,832.70	459,243.90	
Preservation with Light Recreation/Other Use	3.40%	3.00%	0.70%	0.10%	1.20%	8.40%	640	109,959.81	97,023.36	22,638.78	3,234.11	38,809.34	271,665.41	
Tribal Land	0.00%	0.10%	0.00%	0.00%	0.10%	0.10%	640	-	3,234.11	-	-	3,234.11	3,234.11	
Total	24.90%	31.50%	18.40%	9.60%	15.60%	99.99%	640	805,293.89	1,018,745.28	595,076.61	310,474.75	504,521.47	3,233,820.93	

Appendix IV

CDFW Duties and Roles

Draft WJT Conservation Plan

CDFW Duty	Page
the conservation management actions will be implemented through continued collaboration between CDFW and local, state, and federal agencies by establishing interagency written agreements or written memoranda of understanding and by developing co-management written agreements and written memoranda of understanding with tribal collaborators.	1-17
CDFW will monitor conservation management actions that have been implemented, including those in progress since the species' candidacy for listing under CESA, and others that have been developed specifically in response to WJTCA and the western Joshua tree population condition.	1-17
CDFW will gather and evaluate new knowledge from the scientific community, agencies, and Tribes needed to achieve or improve effectiveness of management actions. As	1-17
CDFW will report on the performance of the permitting and mitigation program and provide an assessment of the conservation status of western Joshua tree in annual reporting, described in Section 6.8.1,	1-17
CDFW will also recommend Conservation Plan amendments to the Commission every 2 years at a public meeting, as necessary	1-17
CDFW will have the opportunity to collaborate with CSP on management actions to be implemented at Hungry Valley and Onyx Ranch SVRAs in support of western Joshua tree conservation.	2-49
Identification of high priority areas for protection to further the conservation of western Joshua tree will be completed as needed by CDFW and partners and will be supported by information produced by the research and tribal communities. While it would be ideal to complete steps 1 through 4 before prioritizing areas for protection, CDFW must begin work to conserve western Joshua tree immediately and must therefore begin initial prioritization of areas for protection based on the best, currently available information.	5-5
Protect priority areas while accommodating compatible existing and emerging land uses. Informed by the results of step 5, high priority areas should be protected while accommodating existing and emerging land uses that are compatible with the overall western Joshua tree conservation strategy (Henson et al. 2018).	5-6
CDFW will use the Conservation Fund to conserve priority lands.	5-6

Appendix IV

CDFW Duties and Roles

Draft WJT Conservation Plan

With finite resources available for conservation efforts, CDFW will define criteria for prioritizing lands that are most suited to the persistence of western Joshua tree. The criteria will help guide agencies, NGOs, Tribes, and others in protecting conservation land.	5-18
On a local scale, CDFW will identify priority conservation lands based on the best available site data relevant to western Joshua tree's ecological needs for long-term viability. Available information will be analyzed initially, and additional information will be collected to properly assess the relative conservation value of the evaluated lands.	5-20
CDFW will work with land managers to develop long-term monitoring and management plans or conservation easement stewardship agreements for conserved lands.	5-23
CDFW will seek to establish written MOUs or other written agreements with state and federal agencies for long-term monitoring and management to benefit western Joshua tree on priority conservation lands. Approximately 28 percent of these lands are within predicted climate refugia, which increases the importance of managing these lands to conserve western Joshua tree.	5-23
Develop written MOUs or other written collaboration agreements between CDFW, California Native American tribes, and relevant entities that would embody co-management principles	5-35
At minimum, one written MOU or other written collaboration agreement incorporating co-management principles has been established between CDFW or other land managers and California Native American tribes by 2028.	5-46
In addition, CDFW will continue to consult with Tribes and federal, state, and local agencies to plan and implement activities consistent with western Joshua tree conservation; identify opportunities to conserve western Joshua tree on CDFW-owned lands; integrate protective measures for western Joshua tree into CDFW guidelines and regulations for public use and into land management plans; implement restoration or enhancement of western Joshua tree habitat; receive relocated western Joshua trees; and manage wildland fire risk.	6-2

Appendix IV

CDFW Duties and Roles

Draft WJT Conservation Plan

CDFW will continue to collaborate with interested federal agencies to coordinate management actions and share conservation information. The extent and type of federal lands in the Conservation Plan's geographic focus area are described in more detail in Section 2.3.3, "Federal Land Management." A summary of responses from potential federal agency collaborators to outreach meetings and the questionnaire is provided below:	6-4
CDFW will prioritize the execution of a written MOU or other agreement with USFWS to document shared goals and aspirations for conservation of western Joshua tree.	6-4
CDFW will also seek feedback on aspects of the permitting process and written delegation agreements, ways to foster public awareness and engagement in western Joshua tree conservation in their communities, and creative solutions for specific projects to promote consistency with the conservation of western Joshua tree and WJTCA. In	6-7
CDFW will oversee all expenditures from the Conservation Fund and ensure funding is only allocated to eligible activities and entities. CDFW will prioritize expenditures and mitigation activities on properties with the highest conservation value to western Joshua tree, determined using a model-based land prioritization framework and mapping tool developed primarily by CDFW and NFWF.	6-16
Federal agencies with existing management plans or practices related to western Joshua tree conservation may agree to entering into a written MOU or other agreement with CDFW to implement management actions in the Conservation Plan.	5-6
Use Conservation Fund to Preserve priority Lands	
CDFW will define criteria for prioritizing lands that are most suited to the persistence of western Joshua tree.	5-18
CDFW will continue to review the science including TEK on western Joshua tree during implementation of the Conservation Plan and update impact avoidance buffers as appropriate.	5-12
As additional information generated from steps 1 through 4 becomes available, CDFW will incorporate it into decision making and future updates of the Conservation Plan.	5-6
On a local scale, CDFW will identify priority conservation lands based on the best available site data relevant to western Joshua tree's ecological needs for long-term viability. Available information will be analyzed initially, and additional information will be collected to properly assess the relative conservation value of the evaluated lands.	5-20

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CDFW Duties and Roles

Draft WJT Conservation Plan

CDFW will work with land managers to develop long-term monitoring and management plans or conservation easement stewardship agreements for conserved lands.	5-23
CDFW will seek to establish written MOUs or other written agreements with state and federal agencies for long-term monitoring and management to benefit western Joshua tree on priority conservation lands.	5-23
In collaboration with other agencies and institutions, CDFW will develop and adopt standards and protocols for western Joshua tree seed collection strategies to maximize genetic seed diversity.	5-29
Tribes and CDFW will collaborate to incorporate cultural burning where it would be an effective tool (outlined under Management Action LC&M 3) for reduction of wildland fire risk or enhancement of western Joshua tree population conditions on tribal lands.	5-35
CDFW will coordinate with California Department of Forestry and Fire Protection (CAL FIRE) and others on developing additional fuel treatment methods for western Joshua tree habitat, including manual and mechanical treatment methods.	5-39
CDFW will work with Tribes to support tribal priorities for education and outreach to their communities. The following are examples of undertakings or materials that may be developed to support tribal-led and tribal-designed efforts:	5-41
§ ethnobotanical studies, § lesson plans and curricula for various age groups, § professional certification programs (e.g., for tribal cultural monitors, TEK practitioners, fire and restoration specialists), § printed materials designed to strengthen cultural knowledge, and § workshops.	5-41
CDFW will work with partners to develop accessible informational items for distribution to the public in multiple languages. The informational items may be handouts, brochures, presentations, digital materials, surveys, interactive web pages, or other outreach tools.	5-41
CDFW will support and encourage volunteer opportunities by promoting them on their website, social media, and printed media (e.g., handouts, newsletters). Special focus will be given to providing opportunities for underserved	5-43
CDFW will coordinate with partner organizations to encourage development of newsletters and conduct western Joshua tree–focused social media campaigns.	5-43

Appendix IV

CDFW Duties and Roles

Draft WJT Conservation Plan

CDFW will coordinate with agricultural organizations to encourage development of guidance regarding grazing best practices in western Joshua tree habitat and make it available to ranchers, rangeland managers, and others in the grazing community.	5-44
CDFW will coordinate with local governments to encourage the development of educational materials for private residential and other property owners with western Joshua trees to participate in urban conservation and recovery efforts.	5-44
CDFW will reach out to partners to encourage organizations to develop opportunities for an adopt-a-Joshua tree program .	5-43
CDFW will seek to protect an additional 3 to 5 percent of occupied western Joshua tree range every 2 years until the effectiveness criteria related to land protection for conservation of western Joshua tree in California are achieved.	5-46
CDFW will use total cost accounting when determining the adequacy of the fees for ensuring conservation of the species.	6-16
If CDFW determines land is eligible for acquisition or protection, CDFW will work with the landowner to prepare a lands package consisting of real estate documents and land surveyor products (e.g., boundary, improvements or encumbrances maps, deed, preliminary title report).	6-17
For lands requiring conservation easement acquisitions, CDFW will evaluate and approve an easement holder (grantee), land manager, and endowment holder to ensure compliance with Civil Code sections 815–816 and Government Code sections 65965–65968.	6-17
In the final stage of the land acquisition process, the real estate transaction will be completed (e.g., coordinate escrow, title, closing). The transaction will be funded with monies from the Conservation Fund, as directed by CDFW.	6-17
If the conservation easement or land acquisition includes restoration, enhancement, translocation, interim management, long-term land management, or monitoring, CDFW must review and approve a plan outlining these activities to ensure they are completed.	6-17
CDFW will review potential enhancement and restoration projects for those lands, in accordance with the process shown in the CDFW Western Joshua Tree Conservation Act Enhancement and Restoration Projects Assessment (see Appendix H, “Enhancement and Restoration Prioritization Assessment”)	6-17 to 6-18

Appendix IV

CDFW Duties and Roles

Draft WJT Conservation Plan

CDFW is required by WJTCA (Fish & G. Code, § 1927.7, subd. (a)) to provide annual reports to the Commission and the Legislature. These annual reports will document metrics related to the performance of the permitting and mitigation framework included in WJTCA and described above in Section 6.5, as well as metrics related to the conservation status of western Joshua tree, including the following information:	6-18
CDFW will prepare an updated status review report for western Joshua tree and submit it to the Commission no later than January 1, 2033. The Commission will then determine whether western Joshua tree should be listed as endangered or threatened pursuant to CESA.	6-19
In accordance with WJTCA, starting in 2026 and at least every 2 years thereafter, the Commission will review the effectiveness of the Conservation Plan in conserving the species (Fish & G. Code, § 1927.8). CDFW will make recommendations to the Commission concurrent with the Commission's review of the status of western Joshua tree. As part of this review, CDFW will recommend proposed amendments to the Conservation Plan, if needed. Any Conservation Plan amendments must be reviewed and adopted by the Commission.	6-20
CDFW will also continue to seek input from the general public regarding implementation of the Conservation Plan and its effectiveness in conserving western Joshua tree.	6-20

Impact of SB 122 Western Joshua Tree Provisions on Aggregate Mining Operations and the Economy

October 2023

Prepared for:

**California Construction and Industrial Materials Association
(CalCIMA)**

Prepared by:

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About the Authors

The authors are partners with Capitol Matrix Consulting (CMC), a firm that provides consulting services on a wide range of economic, taxation, and state-and-local government budget issues. Together, they have over 80 years of combined experience in economic and public policy analysis.

Brad Williams joined Capitol Matrix Consulting in 2011, after having served in various positions in state government for 33 years. Mr. Williams served for over a decade as the chief economist for the Legislative Analyst's Office, where he was considered one of the state's top experts on the tax system, the California economy, and government revenues. He was recognized by the Wall Street Journal as the most accurate forecaster of the California economy in the 1990s, and has authored numerous studies related to taxation and the economic impacts of policy proposals. Immediately prior to joining CMC, Mr. Williams served as a consultant to the Assembly Appropriations Committee, where he advised leadership of the majority party on proposed legislation relating to taxation, local government, labor, and banking.

Mike Genest founded Capitol Matrix Consulting (originally Genest Consulting) in 2010 after concluding a 32-year career in state government, which culminated as Director of the California Department of Finance (DOF) under Governor Arnold Schwarzenegger. Prior to his four-year stint as the Governor's chief fiscal policy advisor, Mr. Genest held top analytical and leadership positions in both the executive and legislative branches of government. These included Undersecretary of the Health and Human Services Agency, Staff Director of the Senate Republican Fiscal Office, Chief of Administration of the California Department of Corrections and Rehabilitation, and Director of the Social Services section of California's Legislative Analyst's Office.

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Executive Summary

In June 2023, the Governor signed SB 122 (Chapter 51 of the Statutes of 2023), which was a “trailer bill” to the 2023 Budget Act. The bill imposes several conditions for any “taking” of a Western Joshua Tree (WJT) including the requirement that the permittee (1) minimize the impacts of takings as much as practicable; (2) mitigate the takings of the WJT and insure that adequate funding is available to do so, or pay per-tree in-lieu fees; and (3) relocate trees as directed by the California Department of Fish and Wildlife using guidelines yet to be adopted. In view of the potentially major implications of SB 122 for aggregate mining operations in Southern California, The California Construction and Industrial Materials Association (CalCIMA) engaged our firm to provide estimates of financial and economic impacts of SB 122 on the aggregates industry. Our key findings are as follows:

- ▶ Aggregates are basic construction materials that go into residential and commercial building construction, highways, roads and public transit, and other public infrastructure ranging from schools, courts, public administration, parks and natural resources. Without an adequate supply of aggregates, the housing crisis and homelessness will worsen, and traffic congestion will increase.
- ▶ Local production is important. This is because transportation costs are extraordinarily high given the weight and bulk of aggregates, making imports from other regions expensive.
- ▶ Mining operations located in the WJT territories in the high deserts of Los Angeles, San Bernardino, Riverside, Kern, Inyo and Mono Counties account for about 13 percent of total permitted acreage in California, and about 32 percent of permitted acreage in Southern California.
- ▶ All regions of California face long term shortfalls in supplies of aggregates from permitted lands. For the Southern California region served by mines in WJT territories, permitted aggregate reserves cover about three quarters of total projected demand over the next 50 years. Thus, the region needs more permitted lands and aggregate mining supplies.
- ▶ SB 122 will significantly increase costs to mining operations in WJT territories, discouraging production. Companies report that additional costs related to the in-lieu fee and tree-relocation provisions of the bill could range into the tens of millions of dollars for larger operations.
- ▶ Companies also reported that impacts on their specific mining projects would be uneven, depending on WJT density, reserve depths and other factors.
- ▶ Estimates we prepared indicate that cost increases associated with in-lieu fees and tree location could be as high as \$17 million for a single 200 acre project located in an area with high WJT density. Based on the methodology described in the main body of this report, we estimate that prices would need to rise by between \$5.50 and \$7.00 per ton (increase of between 37 percent and 47 percent relative to current prices excluding delivery costs) to offset these added expenses.
- ▶ These price increases would have significant impacts on residential and commercial construction, raising building costs for a typical home by between \$2,200 and \$2,800, and costs for a typical school or hospital by between \$85,000 and \$105,000.
- ▶ They would have major impacts on freeway construction projects, where aggregates account for between 8 percent and 10 percent of total construction costs. Price increase of \$5.50 to \$7.00 per ton would raise construction costs for an 8-lane freeway by between \$1.7 and \$2.1 million per mile.
- ▶ Overall, we estimate that annual costs to state and local governments for infrastructure spending would rise by between \$130 million and \$170 million annually, with about one-half attributable to the state of California and the other half attributable to local governments located in the Southern California region.

California's Aggregate Mining Industry

Aggregate mining is an essential industry. Sand, gravel and rocks (for convenience, we refer to all these products as aggregate throughout this report) are basic materials used throughout much of the construction industry¹:

- ▶ 34 percent of all aggregate is used in residential construction,
- ▶ 17 percent goes to commercial construction,
- ▶ 26 percent goes to build and maintain highways, roads and public transit, and;
- ▶ 17 percent goes to other public infrastructure.

Without these materials construction in the state would come to a halt, homelessness would increase, roads and other infrastructure would deteriorate.

Anyone reading this analysis is likely sitting in a chair that rests on a concrete floor (or on a wooden floor resting on concrete footings), in a building which would not stand without concrete; they might well have driven to work on a road that was built and maintained with asphalt (which is 92 percent aggregate) or concrete (75 percent aggregate) or ridden to work in a light-rail system built mostly of concrete.

“We are the least known industry with whom you have an intimate relation,” operator of an aggregate mine in California’s WJT area.

Aggregate mines are subject to a variety of laws and regulations and local permitting requirements. (These are described in detail in the section below on SB 122.)

Aggregate mines need to be sited near local demand

According to the California Department of Conservation²:

“Aggregate is a low-unit-value, high-bulk-weight commodity, and it must be obtained from nearby sources to minimize both the dollar cost to the aggregate consumer and other environmental and economic costs associated with transportation. If nearby sources do not exist, then transportation costs may significantly increase the cost of the aggregate by the time it reaches the consumer.”

“Increased aggregate haul distances not only increase the cost of aggregate to the consumer, but also increase environmental and societal impacts such as increased fuel consumption, carbon dioxide (CO₂) emissions, air pollution, traffic congestion, and road maintenance.”

In order to minimize environmental disruption and the costs of building new homes and other essential buildings and maintaining, replacing and expanding roads and other infrastructure, the state needs to ensure aggregate continues to be mined as close as possible to each area of the state where it is needed. The importation of aggregate from abroad or from one region of the state to another region miles away, will increase construction costs as well as CO₂ and other emissions.

¹ California Department of Transportation Memorandum to District Directors, “2018 Aggregate Resource Policy Statement and Tools”, March 1, 2018.

² Map Sheet 52 (Updated 2018) Aggregate Sustainability In California, 2018; California Geological Survey, Department of Conservation.

In fact, the Legislature itself has recognized the vital role that localized mining of aggregate plays in the state's economy:

"The Legislature further finds that the production and development of local mineral resources that help maintain a strong economy and that are necessary to build the state's infrastructure are vital to reducing transportation emissions that result from the distribution of hundreds of millions of tons of construction aggregates that are used annually in building and maintaining the state³."

California needs to open new aggregate mines to meet projected demand

The Department of Conservation estimates that California will need 11 billion tons of aggregate over the 50-year period 2018-2068 (see Figure 1) and that the amount that is available in mines that already have permits to operate is only 69 percent of that need.⁴ On the other hand, the Department also estimates that the state has 74 billion tons lying underground in acreage for which there are currently no permits granted to extract it.⁵ Clearly, the state needs to expand the amount of land on which aggregate mining is permitted and to do so in all areas nearby local demand where existing permitted mining is inadequate to meet long-term demand. The only alternative sources for end-users is more imports into local regions via additional trucking and through California's ports, both of which are expensive alternatives.⁶

Figure 1
California Aggregate Demand/Supply
Statewide and Area Containing Western Joshua Trees

Aggregate Study Area	50-Year Demand (million tons)	Permitted Aggregate Reserves (million tons)	Permitted Aggregate Reserves Compared to 50-Year Demand (percent)	Projected Years Remaining
Statewide	11,045	7,628	69%	10 to >50
WJT Area	3,587	2,711	76%	<10-40
WJT Percent	32%	36%		

SB 122's Western Joshua Tree Provisions

Prior Law. The Western Joshua Tree (WJT) is a common and widespread species naturally occurring in the desert and scrub brush regions of Southern California and the southernmost portions of Northern California. There are millions of individual WJTs primarily located in 6 counties that also include aggregate mining operations: Kern, Inyo, Los Angeles, Riverside, Mono and San Bernardino.

Under the Surface Mining and Reclamation Act (SMARA) California mining operators have an obligation to reclaim mined lands. The reclamation standards are set during a project's approval (*e.g.*, approval of a reclamation plan), according to various statutory and regulatory standards, which generally

³ Public Resources Code Section 2711 (d)

⁴Map Sheet 52 (Updated 2018) Aggregate Sustainability In California ,2018; California Geological Survey, Department of Conservation.

⁵ Ibid.

⁶ Currently, some aggregates supplies are shipped to Southern California from mines in Quebec Canada.

include revegetation on the mined lands. For many mining operations within the area covered by the WJT, these reclamation standards were established, in part, by requirements in the Native Plant Protection Act and Desert Native Plant Act, which set removal and revegetation requirements for, among other plants, the WJT. The costs for complying with these respective provisions are site- and project-dependent, based on the original approval conditions, variations in annual costs (*e.g.*, nursery maintenance, if applicable), and the required success criteria. Mining operations are also subject to the same general laws and regulations — for example, the California Environmental Quality Act — as other businesses.

Additionally, the California Endangered Species Act (CESA), requires the Fish and Game Commission to establish a list of endangered species and to add or remove species from the list if it finds, upon the receipt of sufficient scientific information that the action is warranted. The Department of Fish and Wildlife has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. CESA prohibits the “take”⁷ of listed endangered, threatened and even “candidate species” (“Listed Species”), except under certain conditions. The WJT was listed as a candidate species under CESA in September of 2020, based on a petition for listing filed by the Center for Biological Diversity on October 21, 2019. Under CESA, the Department of Fish and Wildlife may authorize, by permit, the take of a listed species if certain conditions are met. CESA applies to any actual take of a listed species, and serves to protect and mitigate the impacts from any authorized take.

Accordingly, CESA listings have the potential to alter, conflict with, and/or increase SMARA reclamation and revegetation obligations. It is noteworthy that this applies even to “candidate species” — that is, any species that is under consideration for listing, which currently includes the WJT. For example, SMARA revegetation obligations may require the recovery of WJT seeds for later planting.

SB 122. SB 122 (Chapter 51 of the Statutes of 2023) is a “trailer bill” to the 2023 Budget Act and as such is an omnibus bill with many statutory provisions affecting state laws regarding the implementation and management of various programs relating to Natural Resources. Among these provisions are several that relate to authorizing the take of any WJT. These provisions are entitled the Western Joshua Tree Conservation Act (WJTCA). Specifically, the WJTCA imposes the following rules and conditions:

- ▶ **Removes the WJT from regulation under prior statutory regimes**, including the Native Plant Protection Act, the Desert Native Plant Act and the CESA, thus superseding the permitting requirements of these statutes.
- ▶ **Mandated mitigation.** Prohibits the take of western Joshua tree within the State of California unless the person has a take permit granted under either CESA (while the WJT is a candidate species) or the SB 22 WJTCA, *whether or not the Commission ultimately lists the WJT as an endangered species.*
- ▶ **Provides alternative take authorization to CESA during WJT candidacy:** The WJTCA provides an *alternative* method to authorize a take during any time period where the WJT is either (1) a candidate species under CESA; or (2) not listed under CESA. During any period the WJT is a candidate species, take authorization may also be obtained by obtaining a CESA incidental take permit.
- ▶ **Gives the Department of Fish and Wildlife authority to permit takings of the WJT.** Specifically, SB122 sets the following conditions on the granting of a takings authorization by the Department of Fish and Wildlife:

⁷ The term “take” is a term of art used throughout the CESA. It encompasses not just the removal of a species, but any action that affects the potential viability of any covered species, including encroachment and trimming as well as actual removal or relocation.

- The permittee must give the DFW a detailed census of the WJT on the acreage for which a permit is requested;
 - The permittee must minimize the impacts of takings as much as practicable;
 - The permittee must mitigate the takings of the WJT and ensure that adequate funding is available to do so.
- **In-lieu Fees.** SB122 allows permittees to pay a per-tree fee (“in-lieu fee”) based on the survey instead of undertaking the mitigation and minimization measures mentioned above. The fee amounts are shown in Figure 1. The proceeds of these fees will go into a fund to be used by the Department of Fish and Wildlife solely for the purposes of acquiring, conserving, and managing WJT conservation lands and completing other activities to conserve the WJT.
- **Relocation.** The permittee must relocate trees as directed by the Department of Fish and Wildlife using guidelines yet to be adopted. This requirement applies whether or not the permittee pays the in-lieu fees.

Figure 2
In-lieu Fees Authorized by SB 122

Height of WJT	Fee range (depending on location)
Less than 1 meter	\$150 to \$340 per tree
Between 1 and 5 meters	\$200 to \$500 per tree
Five meters or greater	\$1,000 to \$2,500 per tree

Essentially, SB 122 adds a new and additional permitting cost to both existing and new operations that supersede the site-specific conditions of approval and other requirements generally embodied in each mining operation's individual permit approval and/or reclamation and revegetation requirements.

Because SB 122 usurps the CESA process relating to determination of the WJT as an endangered species, this report attributes all *new* mitigation costs for each site to the bill. As noted above, the California Fish and Game Commission has designated the WJT as a candidate species under CESA, mandating that mine operators obtain "take authorization" for any to-be-affected WJT, regardless of whether such taking was already authorized and accounted for during the mine's approval process. Without the SB 122 mandate it could be asserted that mine operators could have faced even more dramatic cost increases in the permitting process, since the takings conditions under CESA are quite stringent and often impossible to satisfy economically. In this regard, SB 122 could even be theoretically credited for reducing permitting costs, since it would at least provide a path forward for mining operations.

However, this line of reasoning does not take into account the fact that the ultimate listing of the WJT as an endangered species was highly uncertain, arguably even unlikely. The Department of Fish and Wildlife recommended against such a listing in its report issued in March 2022 and the Fish and Wildlife Commission deadlocked in its initial vote in June 2022. After all, in any objective sense the WJT is clearly *not* an endangered species since there are millions of the trees thriving in the state. SB 122 prejudged the scientific merits of naming the species as endangered and instead imposed "take" requirements on a permanent basis, even if the Commission ultimately determines listing is not warranted. Thus, SB 122 imposes mandatory permanent protections, even if the WJT does not actually warrant listing under CESA, significantly increasing costs for existing and future mine operator entitlements.

In addition, other provisions of SB 122 suggest that the in-lieu fees might not actually reduce permitting costs and difficulty. Specifically, new law allows (but does not require) the DFW to:

“include permit conditions that require the permittee to relocate one or more of the (WJT). If relocation is required, the permittee shall implement measures to assist the survival of relocated trees, and to comply with any other reasonable measures required by the department to facilitate the successful relocation and survival of the western Joshua trees...”

It is not clear whether and to what extent relocation will be required as a condition of the approval for new mining permits. Until this is clarified, any estimate of the costs to mine operators of SB 122 will necessarily be somewhat speculative. At a minimum, however, mine operators will be required to obtain SB 122 take authorization – through either mitigation compliance or fee payment – for all WJT’s that must be removed, damaged or interfered with on a mine’s property.

For all these reasons, this analysis assumes that SB 122 imposes all new costs, relative to prior law.

Economic Impacts of SB 122

SB 122 will have substantial impacts on the aggregate industry operating in WJT territory, and by extension, final users of aggregate products in the California economy. There are 59 mining operations in areas populated by WJTs in California and thus directly affected by SB 122. These operations have about 22,000 acres operating under current (i.e., pre-SB 122) permits, which represents about 13 percent of the statewide total, and about 30 percent of the total permitted acreage for the 10 Southern California counties served by the mines in the WJT areas.⁸

In this section, we discuss the impact of SB 122 on costs and return-on-investment for mining operations within WJT territories, and how these impacts will affect aggregate supplies and prices in Southern California markets.

Survey of Mining Operators

As a key part of our analysis, we surveyed the 6 companies that have annual production within WJT territories. These companies’ annual production of aggregate range from less than 300,000 tons to over 10 million. Key findings of this survey include:

Main markets. Most of the product supplied by these companies is sent to users in Los Angeles, Riverside, and San Bernardino Counties, with lesser amounts shipped to Orange, San Diego, Inyo, Imperial, Kern, Mono and Ventura counties. About one-half of their products are used for public infrastructure, with the other half used primarily for residential and commercial construction.

Costs of SB 122. The companies reported cost increases resulting from SB 122 ranging from under one-half million to the low tens of millions of dollars. Variation in costs reported by companies primarily reflected differences in the size of current active operations, the planned amount of future development, and the density of WJTs in their project areas. These estimates were based primarily on in-lieu fee payments and costs to relocate trees. Some of the companies reported that actual costs could be much

⁸ As noted above, there are 6 counties in the WJT area that have aggregate mines. According to the operators of these mines, they sell their products to customers in Ventura, Orange, Imperial, and San Diego counties, in addition to customers located in their own counties.

higher depending on how the Department of Fish and Wildlife implements SB 122⁹, although our estimates below do *not* include such costs.

Variability of impacts. Representatives we spoke to emphasized that SB 122 will have uneven impacts on specific projects within their permitted lands. While some current and planned projects have relatively few WJTs, others are in areas with dense WJT populations. A challenge presented by SB 122 is that project development on permitted lands takes place in carefully planned phases that have gone through extensive planning and regulatory approvals. Altering development patterns to avoid high cost areas would be disruptive and impractical for mining companies.

Bottom line from survey. SB 122 will materially increase the cost of mining operations, especially in areas where WJT populations are dense. If directly passed along to consumers, these cost increases will materially raise prices that governments and private sector construction contractors will pay for aggregates. If mining operations are not able to pass along these increases, the main near-term impact will likely be less investment and less mining in the WJT areas, resulting in fewer supplies of aggregate being available in Southern California markets. Because of the extremely high transportation costs associated shipping of aggregates from one region to another, fewer supplies from local sources will translate into higher prices paid by consumers in these markets. These price increases will lead to higher costs of residential housing, commercial buildings, roads, highways, schools and other public infrastructure.

Range of Impacts on Specific Mining Projects

In this section we calculate the range of costs imposed by SB 122 on a typical project (or project phase) located in WJT territory. We then put these costs into context by calculating their potential impact on the project's return on a project investment.

Mining Project Cost Impacts

Figure 3 provides our estimate of the additional costs authorized by SB 122 for in-lieu fees and tree relocation requirements, as well as other mitigation requirements that could be imposed as a condition for a WJT takings. These costs are based on a mid-sized, 200-acre project located in WJT territories with varying tree densities.

Costs for in-lieu fees and tree census. As indicated in Figure 3, total costs could range from \$600,000 for a project located in the lower-fee zone and on land having an average density of 7 WJTs per acre. However, the fee would be much higher - \$5 million - if the project is located in the higher-fee zone and has a density of 30 trees or more per acre. The range of costs could be higher if the Department of Fish and Wildlife adopts counting methodologies that results in a higher count of trees. Section 1927.3(b) of the Public Resources Code requires that “each western Joshua tree stem or trunk arising from the ground shall be considered an individual tree, regardless of its proximity to any other western Joshua tree stem or trunk.” The concern expressed by company representatives is that this language gives the Department discretion to adopt aggressive counting practices, leading to multiple fees for what is in fact a single tree.

Tree relocation. As noted earlier, SB 122 authorizes the Department of Fish and Wildlife to require tree relocation as a condition of receiving a takings permit, even if the permittee has paid the in-lieu fee. The costs of complying with tree relocation provisions of SB 122 depends on (1) WJT density in the project

⁹ Specifically, these mine operators believe, based on their past experience with the Department, that it might attempt to interpret the bill to allow it to require even those operators who pay the in-lieu fee to also purchase and maintain conservation easements. However, we do not read SB122 to allow the Department to require mine operators who have paid the in-lieu fees to also purchase conservation easements. The in-lieu fee, after all, goes to a fund that would be used by the Department for purchasing and maintaining such easements. In addition, the specific language of the bill waives such expensive mitigations for those who pay the in-lieu fee. Thus, we do not include any such costs in our estimates below.

areas, (2) the Department's decisions regarding whether some or all of the trees need to be moved, and (3) additional measures that the permittee would be required to take to ensure the survival of relocated trees.¹⁰

Figure 3
Additional Mining Project Costs From SB 122 - 200 Acre Project

Provision	Cost Range	Factors Affecting Costs
In lieu fees + tree census	\$0.6 million to \$5.0 million	Location in low fee or high fee zone, average number of trees per acre, mix of trees by height
Tree relocation	\$1.1 million to \$12 million	Number of trees, cost per tree, and amount of follow-up care.

As indicated in Figure 3, we estimate that relocation costs could range from \$1.1 million to \$12.0 million for a typical 200 acre project. The low-end estimate assumes an average of 7 trees per acre and relocation costs of \$1,000 per tree (a typical cost cited by mining company representatives) and a per tree endowment of \$500 for ongoing monitoring. The high-end estimate assumes that an average of 30 trees per acre are relocated, per-tree relocation costs of \$1,000, and a per-tree endowment of \$1,000 for monitoring and other measures that the Department of Fish and Wildlife may determine are needed to assist in its survival.

Total costs. Payment of mitigation fees and required relocation of trees on disturbed lands would result in new project costs of between \$1.7 million and \$17 million for a 200 acre project.

Range of Impacts on Investment Returns

While a successful mining operation can yield significant profits over a large number of years, these earnings only occur after an enormous amount of time and money is spent up-front on development costs (e.g. water, power, and road improvements), equipment, other pre-production activities, permitting and regulatory reviews, and financial commitments for site reclamation. Even before the WJT was made a candidate for endangered species, a typical 200 to 300 acre project could take well over a decade to receive conditional use permits and regulatory approvals from state and local governments. As discussed in the nearby box, mining operators incur major expenses over this pre-production period for land, equipment, exploration, and for satisfying numerous regulatory and permitting requirements, including site reclamation.

Combined, these costs can run into the millions to tens-of-millions of dollars, depending on project size, location, and conditions placed on permit approvals. For a project to be financially viable, profits during the active mining phase must be sufficient to cover these up-front costs and generate a satisfactory "rate of return" on the initial investment. Projects failing to generate a minimum rate of return will not receive investment funding, which for larger multi-state companies will flow to other regions with higher investment returns.

¹⁰ Subsection (a) of Section 1927.3 of the Public Resources Code requires that "(i)f relocation is required, the permittee shall implement measures to assist the survival of relocated trees, and to comply with any other reasonable measures required by the department to facilitate the successful relocation and survival of the western Joshua trees."

SB 122 Adds to Already Hefty Up-Front Costs for Mining Operations

Aggregate mining is a capital intensive industry that involves large up-front investments for purchases of land and equipment including backhoes, front-end loaders, bulldozers, conveyers, hoppers, conveyor belts, and crushers. It also involves considerable expense for exploration activities, materials sampling, and geophysical surveys to determine the location, volume, extent and quality of sand and gravel deposits in a reserve. For projects that move forward to the production stage, further pre-production costs are incurred for site design removal of overburden from the surface, and the installation of culvert pipes, ditches and collection pools to drain surface runoff and prevent erosion.

Substantial pre-production costs are also incurred for permits and regulatory reviews at the state and local level. The process includes numerous public meetings, preparations of a major environmental impact report as required by the California Environmental Quality Act (CEQA), court challenges, numerous mitigation requirements, and project revisions.

Mining site reclamation has also been an integral part of the local government project review and permitting process. Site reclamation includes removal of waste, supplies and equipment from the site, reducing the slope of quarry walls, replacement of topsoil and overburden, and revegetation consistent with the plan for post-mining uses. As noted previously, reclamation of mining operations within WJT areas includes revegetation of the WJT and other plant species, consistent with requirements of Native Plant Protection Act and Desert Native Plant Act. Project approval can also be contingent on the operator agreeing to prepare the land for other specified end uses, such as housing, agriculture, a reservoir, or commercial development. Companies are required to provide financial assurances for reclamation costs, which can run into the millions of dollars for a typical project. One concern raised by mining company representatives is that previously agree-to and funded reclamation agreements with local governments may be in conflict with takings provisions in SB 122.

Impacts of SB 122 on financial viability of mining projects. SB 122 will increase up-front project costs and significantly lower the rate of return on both existing and future projects. To provide a quantitative estimate of how large the impact on investment returns could be, we developed a simplified cash flow model for a typical mining project in WJT territory. This model compares upfront costs and ongoing earnings on a present value basis. Companies evaluating and prioritizing potential mining projects often use such models for comparing investment opportunities.

We then calculated internal rates of return for these investments, first excluding, then including the costs required by SB 122. The general parameters for our estimates are based on data from public mining companies annual reports and other public documents, and thus are intended to be reasonable estimates of costs and revenues associated with mining investments. We recognize, however, that the actual costs and revenues can vary significantly from one project to another. Thus the focus of this analysis should be on the *differences* in investment returns under the different alternatives, as opposed to the *levels* of baseline investments, production and profits.

Specifically, we calculated a “baseline” internal rate of return¹¹ for a 200-acre mining project under the following assumptions: an average per-acre yield of 100,000 tons (see nearby box); up-front costs of \$20 million for land, equipment, permitting, reclamation assurances, and pre-mining expenses; average production of 800,000 tons per year for 25 years; pre-tax profits on sales of \$6.00 per ton; and a combined federal and state income tax rate of 30 percent. As indicated in Figure 4, the up-front costs for this project would be \$20 million and annual after-tax cash flow would average \$3.8 million per year during the 25 year active mining period. The internal rate of return for this project would be 17.3 percent.

Figure 4
Impact of SB 122 on Investment Returns of a 200 Acre Project

	Baseline	Alternative A (Low WJT Density Area)	Alternative B (High WJT Density Area)
Up-Front Costs Excluding SB 122 Impacts	\$20.0	\$20.0	\$20.0
Additional Up-Front Costs from SB 122	0	\$2.9	\$17.1
Total Up-Front Costs	\$20	\$22.9	\$37.1
Average annual after-tax profits over 25 years of production.	\$3.8	\$3.8	\$3.8
Internal Rate of Return	17.3%	14.8%	8.5%

We then recalculated the internal rate of return incorporating the additional costs related to the in-lieu fees and tree relocation requirements authorized by SB 122. We show the results under two alternatives

- ▶ The first alternative assumes the project is located in the lower-fee zone and is in an area with relatively sparse WJT populations of 7 trees per acre, consistent with the low-end estimates shown in Figure 3. For this project, SB 122 would reduce the internal rate of return only modestly, from 17.3 percent to 14.8 percent. We estimate it would take about a \$1-per ton increase in price to offset the added costs and fully restore the return on investment under this alternative.
- ▶ The second alternative assumes the project is located in the higher-fee zone and is in an area with a dense WJT population, consistent with the high-end estimates shown in Figure 3. For this project, SB 122 would reduce the internal rate of return by over 50 percent, from 17.3 percent down to 8.5 percent.
- ▶ The reductions shown in Figure 4 are understated for companies that have to borrow to cover the additional up-front costs authorized by SB 122. For example, companies financing the \$17.1 million in additional costs shown under Alternative B would incur total expenses of \$34.9 million (\$24.3 million in today’s dollars) to repay the debt over 25 years.¹²

We estimate that it would take a \$5.50 increase in the per-ton sales price of aggregates to offset the negative impacts of SB 122 under the second, high-cost, alternative. For companies using debt to finance

¹¹ The internal rate of return (IRR) is a metric used in financial analysis to estimate the profitability of potential investments. IRR is a discount rate that makes the net present value (NPV) of all cash flows equal to zero in a discounted cash flow analysis. Generally speaking, the higher an internal rate of return, the more desirable an investment is to undertake. IRR is uniform for investments of varying types and, as such, can be used to rank multiple prospective investments or projects on a relatively even basis.

¹² This assumes an average interest rate of 7 percent and level annual payments over the 25 year period.

the higher costs, the price increase needed to fully restore investment returns would be as much as \$7 per ton.

Impact of SB 122 on End Users

Impact on Product Prices

The bottom line from both our survey and our modeling is that SB 122 will materially increase costs of mining operations, especially those in areas of high WJT density. If these costs are directly passed along to consumers, prices paid by governments and private sector construction contractors will rise commensurately. If mining operators are not initially able to pass along cost increase to consumers, the near-term impact will likely be less mining investment and fewer projects in the WJT areas. This will lead to a reduction in local supply into Southern California markets and product shortages, which will in turn drive up prices in the region.¹³

Thus, while the exact mechanism by which price increase will occur is unclear, higher costs imposed by SB 122 will almost certainly result in higher prices to consumers in Southern California, who will directly pay more for newly constructed housing and commercial buildings, and - as taxpayers - will pay more for highways, schools, and other public infrastructure.

For purposes of our subsequent discussion of impacts on end-users, we are using the \$5.50 to \$7.00 price increase increase needed to restore investment returns for projects in areas with WJTs as a general indicator of how much WJT would boost aggregates prices into Southern California markets.

¹³ In competitive commodity markets, prices are established by several factors, including price elasticity of demand of consumers and production costs of suppliers. If the initial response to SB 122 is less investment and lower supplies by the affected mining operators, there will be a shortage in the Southern California aggregates markets. Such a shortage will cause prices to be "bid upward" to the point where a combination of reduced consumer demand and new supplies into the market restore the balance between supply and demand. Given that demand for aggregates is relatively inelastic most of the adjustment will likely have to come from additional supplies. And, given the high cost of imports and already tight supplies in California aggregate markets, a logical source of these incremental supplies would be mines in high-density WJT areas. In this regard, \$5.50 to \$7 per ton increase provides a reasonable measure of how much prices would have to rise in Southern California markets to restore production incentives to mines operating in WJT territories and eliminated the gap between supply and demand in Southern California aggregates markets.

Impact of Reserve Depth and Volume Yields on SB 122 Costs

Our internal rate of return calculations in Figure 3 show differing impacts from SB 122 based primarily on the number of WJTs per project acre. A second source of variation, not shown in Figure 3, is the per-acre yield of aggregate product. For purposes of our calculations we assumed the typical project would be in areas with average reserve depth of 50 feet, and that about 90 percent of the product would be marketable. While we believe these are reasonable averages, there can be variations in both measures, but in particular reserve depth. Alluvial deposits in WJT territory are mostly between 40 feet and 60 feet deep, but some areas exceed 100 feet. To provide a general indication of the relationship between acreage and tonnage of reserves, if we assume (1) sand and gravel deposit depths averaging 40 feet, (2) 90 percent of the materials are marketable, and (3) average weight of about 1.4 tons per cubic yard, each acre will yield about 90,000 tons of marketable product. If the reserves are assumed to be 100 feet deep and the other assumptions are held constant, the per-acre yield would be about 225,000 tons. The implication is that the per-ton cost of a specific level of in-lieu fees, tree relocation or compensatory land purchases per acre will be 2 to 3 times greater for projects in shallow reserves than for projects in deep reserves.

Impact of Higher Product Prices on Typical Construction Projects

According to the American Equipment Association (AEM), 400 tons of aggregate are needed to construct the average home, 15,000 tons are needed to construct the average-size school or hospital, and 38,000 tons of aggregates are necessary to construct one mile of a single lane of an interstate highway.¹⁴ Based on these amounts, a \$5.50 to \$7.00 increase in the price of aggregates would raise construction costs for a typical single family home by between \$2,100 and \$2,800, the costs for a medium-size hospital, or school facility by \$85,000 and \$105,000, and the cost of an eight-lane interstate freeway by between \$1.7 million and \$2.1 million per mile.

Figure 4

Impact of a \$5.50 to \$7.00 Increase in Aggregates Prices on Various Construction Projects

Type of Construction Project	Type of Construction Project
Interstate Freeway	\$1.7 million to \$2.1 million per one-mile of an 8-lane freeway.
Hospital or school	\$85,000 to \$105,000 for average facility
Residential housing	\$2,200 to \$2,800 for an average single family home

Broader Impacts of Higher Prices on Selected Economic Sectors

Residential construction. Approximately 61,000 residential permits for new construction were issued in Southern California during 2022.¹⁵ Assuming a weighted average of 300 tons of aggregate per unit (a weighted average based on a mix of single family homes and multifamily units), total aggregate demand for new residential construction was about 18.3 million tons during the year. A \$5.50 to \$7.00 per-ton

¹⁴ Source: Association of Equipment Manufacturers (AEM). "Construction Aggregates 101: What They Are (And Why They Matter)." August 7, 2023.

¹⁵ Source: "Building Permits by MSA." U.S. Census. <https://www.census.gov/construction/bps/msamonthly.html>

price increase would translate into additional residential construction costs totaling between \$100 million to \$130 million for the Southern California region.

Given all of the factors affecting California housing markets, it seems unlikely that a \$5.50 to \$7.00 per ton increase would, by itself, be enough to keep most residential construction projects from moving forward. It could, however, make a difference in projects where developer profits are already squeezed by state and local regulatory requirements (e.g. inclusionary zoning), developer fees, rising interest rates, high costs and supply chain issues for other commodities (such as lumber), and high costs for land and labor. At a minimum, the price increases would make California's ambitious goals for new construction a little less attainable.

The more likely alternative is that projects will move forward with the added costs embedded in the price of the home. In these cases, the main effects will be higher rents and mortgages in an area already impacted by extraordinarily high costs in these areas. The impacts on individual homebuyers or renters would be modest. For example, if the \$2,900 cost increase for an average single family home were added to a mortgage balance, the annual cost to the homeowner would be about \$240 per year. Collectively, however, the impacts of higher rents and mortgages will add up. The additional \$130 million in construction costs, if passed along to consumers, will reduce discretionary incomes and spending on other goods and services. These reductions will have negative ripple effects on employment, wages, and profits of companies throughout the region.

Non-residential construction. Federal and state governments have stopped producing detailed data on non-residential permits valuations. Older data, however, as well as indirect information from property tax roll data, suggests that the impacts on the non-residential side of the market would be in the range of \$50 million to \$100 million in added costs, which if passed along to consumers would generate the same type of leases, and discretionary income and employment as described for the residential construction markets.

State and local governments. The impacts of higher aggregate prices would be substantial for state and local government in the Southern California region. This reflects the large amount of construction-related spending by state and local governments generally, and in particular the large amount of spending on roads and highways, which require substantial amounts of aggregates. The California Department of Transportation has estimated that between 8 percent and 10 percent of highway construction costs are attributable to aggregates.¹⁶

According to the *U.S. Census of State and Local Governments*, \$49 billion was spent by state and local governments in California for construction-related capital outlay in 2021, including about \$10 billion for transportation.¹⁷ Based on these totals, we estimate that about \$1.2 billion was spent by state and local governments throughout California on aggregates during the year.¹⁸ Of this statewide total, we estimate that about one-third, or \$400 million was spent by state and local governments for projects in Southern California counties supplied by mining operations in WJT territories. A \$5.50- to \$7-per ton increase in the price of aggregate would raise state and local government costs in this region by about **\$130 million and \$170 million annually**. About one-half of these totals would impact state

¹⁶ See page 9 of "Aggregate Resource Availability in the Conterminous United States, Including Suggestions for Addressing Shortages, Quality, and Environmental Concerns." William H. Langer, U.S. Department of Interior, U.S. Geological Survey. https://pubs.usgs.gov/of/2011/1119/pdf/OF11-1119_report_508.pdf

¹⁷ See "U.S. Survey of State and Local Finances, 2021 Tables." U.S. Census Bureau. <https://www.census.gov/programs-surveys/gov-finances.html>.

¹⁸ This estimate is based on the assumption that 9 percent of total transportation capital outlay spending is spent on aggregates (mid-point of the 2007 Department of Transportation estimate of 8 percent to 10 percent) and that about 1 percent of construction spending on other construction projects is spent on aggregates. The latter estimate is based on our review of interindustry spending patterns in the U.S. economy.

government and the other half would impact local governments in the region. Absent higher taxes or a redirection of spending from other government programs, the higher costs will translate into fewer road and highway projects, which will have negative impacts on traffic congestion, employment, wages, and business income in the region.

Conclusion

SB 122 will raise costs to mining operations located in WJT territories. The exact magnitude will depend on how the key provisions of SB 122 are implemented by the Department of Fish and Wildlife, but even under conservative assumptions, the costs will be substantial. Some of these costs will fall on existing operations, imposing new requirements, raising costs, and reducing incomes for existing projects that have already gone through an extensive (and expensive) regulatory and permitting process. Other costs will fall on future projects on permitted lands. In the latter case, mining operators will face potentially major declines in projected investment returns which can only be recouped through higher prices to consumers. To the extent local mining operators are able to pass forward cost increases, end users will experience immediate price increases; if local mining operators are not able to pass forward price increases, the result will be less profits, investment, and production in the Southern California region - an area already facing long-term shortages in permitted production. The loss of production will in turn drive up aggregate prices in the future. All end users will face higher costs, but the impacts will fall particularly heavily on state and local governments, which are major purchasers of aggregates used in construction and improvements to roads and highways. To the extent that lost local production results in more imports from other regions, there will also be significant increased environmental and societal impacts from increased fuel consumption, CO₂ emissions, air pollution, traffic congestion, and road maintenance.

PRESERVATION RANCH, LLC

473 E. Carnegie Drive, Suite 200, San Bernardino, California, 92408

March 31, 2025

[Submitted online to WJT@wildlife.ca.gov]

Subject: Comments on the Draft Western Joshua Tree Conservation Plan

Dear California Department of Fish and Wildlife,

Preservation Ranch appreciates the California Department of Fish and Wildlife's (CDFW) efforts in developing the Draft Western Joshua Tree Conservation Plan. The plan provides a framework for managing and mitigating impacts to the species while identifying conservation priorities to support long-term population resilience. We recognize securing funding for land acquisition, restoration, and management actions is necessary to maintain habitat connectivity and address threats such as climate change, wildfire, and development pressures. However, we have questions regarding certain elements of the plan and believe they require additional clarification.

Defining and Prioritizing Climate Refugia

The draft conservation plan acknowledges the importance of climate refugia for the long-term survival of the western Joshua tree, but it does not clearly define the criteria used to identify these areas or how they will be prioritized for conservation actions. The plan should provide a detailed methodology explaining how climate refugia were modeled and how they will be incorporated into long-term conservation strategies. Clearly outlining these criteria will help ensure that conservation efforts are directed toward the most ecologically significant areas and allow for adaptive management over time as new information becomes available.

Inclusion of Maps and Figures Identifying Predicted Climate Refugia

The draft plan references predicted climate refugia but lacks sufficient visual representation, making it difficult to understand where these critical areas are located within the species' range. Table 4-9, *Percent of Western Joshua Tree Range in California within Conservation Value Categories by Management Unit*, which presents the percentage of the current western Joshua tree range within various conservation value categories by management unit, includes data on predicted climate refugia, buffered climate refugia, and unoccupied future suitable habitat. However, without corresponding maps and figures, it is difficult to assess the spatial distribution of these areas. Providing a map illustrating a clear visual representation of these areas should be provided to enhance clarity and accessibility of the data for stakeholders and decision-makers.

Clarification on the Connection Between Climate Refugia and Conservation Value Categories

The plan should clarify the connection between climate refugia and conservation value categories. Understanding how these classifications overlap or influence one another is crucial for prioritizing conservation actions. Additionally, details on how the described conservation actions will be targeted within these categories must be provided to strengthen the effectiveness of the plan.

Greater Emphasis on Coordination with Federal Agencies

Since the majority of the western Joshua Tree's range falls on federally managed lands, the conservation strategy should prioritize collaboration with federal agencies. According to Table 2-

1, *Land Ownership in Western Joshua Tree Range in California*, 63% of the species' range is under federal jurisdiction, with 28% managed by the Bureau of Land Management (BLM). To ensure effective conservation, the strategy must establish a clear path for commitment between state and federal agencies, facilitating coordinated management and targeted investment of mitigation funds on federal lands. This effort should focus on improving and streamlining the implementation of existing agreements, such as the Durability Agreement, to enhance their effectiveness. Developing a more efficient framework for collaboration—beyond general recommendations—is essential to support long-term conservation across the species' range.

Determining Federal Land's Contribution to Climate Refugia

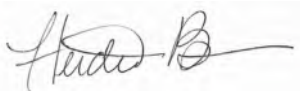
The draft plan states that 63% of the Western Joshua Tree's range is federally owned, but it does not specify what percentage of these lands are predicted to serve as climate refugia. This information is essential for evaluating the effectiveness of the conservation strategy. The plan should include an analysis of how much of the predicted climate refugia falls within federally managed areas to better inform conservation priorities and partnerships.

Transparency in the Conservation Fund's Management and Allocation

The draft plan establishes a Conservation Fund to support mitigation, acquisition, and habitat management, but it does not provide sufficient detail on how funds will be managed or allocated. Greater transparency is needed to ensure that financial resources are directed effectively toward meaningful conservation outcomes. The plan should clarify the criteria used to prioritize land acquisitions and restoration efforts, as well as the percentage of funds that will be allocated to different conservation actions. Additionally, the plan should describe how other conservation funding sources will be leveraged to maximize the program's effectiveness. Coordinating with federal and local funding programs can enhance conservation efforts and ensure efficient use of resources. Furthermore, the fund should ensure that conservation investments are directed strategically, particularly in areas with high conservation value regardless of land ownership. Prioritizing these areas will help maximize the ecological benefits of conservation efforts and support the long-term viability of western Joshua tree populations.

We appreciate the opportunity to provide input on this conservation effort and encourage CDFW to refine the plan by addressing these key areas.

Sincerely,



Heidi Brannon
Preservation Ranch, LLC
heidi@preservationranch.us



VIA E-MAIL: fgc@fgc.ca.gov

April 3, 2025

California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-209

Re: Large-scale Solar Association's Comments on April 16 Meeting Agenda – Western Joshua Tree Conservation Plan (Agenda Item 14)

Dear President, Vice President, and Members of the Commission:

On behalf of the Large-scale Solar Association (LSA), we submit these comments on the draft Western Joshua Tree Conservation Plan (Plan) and the recent virtual public Western Joshua Tree Workshop meetings (Workshops) hosted by the California Department of Fish and Wildlife (Department) on March 10, 2025.

LSA is a non-partisan association of solar and battery storage developers that advocates appropriate policies to enable market penetration of utility-scale solar technologies in California and the Western United States. LSA's members are leaders in the utility-scale solar industry with extensive technical experience in all disciplines necessary to site, develop, engineer, construct, finance, and operate utility-scale solar and battery storage systems. LSA's member companies are principally responsible for developing much of the operational and planned large-scale solar and storage capacity in California today. Our member companies have experienced environmental and permitting practitioners on staff and as part of project teams who provide natural resources knowledge that is used in support of creative conservation solutions at their project sites.

LSA appreciates the Department's responsiveness to comments made during the February 12th California Fish and Game Commission (Commission) meeting regarding the need for more public engagement on the draft Western Joshua Tree Conservation Plan. The Workshops, however, highlighted the shortcomings of the draft Plan and emphasized the need for a more deliberate and collaborative process in developing the Plan.

These comments outline the following concerns and recommendations regarding the draft Western Joshua Tree Conservation Plan:

- **Technical Concerns:** Relocation and seed collection protocols in the draft Plan are currently infeasible for solar development. In addition to the specific comments in this letter, we have attached our previous letters to the Commission detailing our technical concerns on the draft Plan. These can serve as a reference for distinct recommendations LSA made previously on the draft Plan that we hope the Department will incorporate into amendments in the upcoming version.
- **Process Deficiencies:** Concerns with the process by which the Plan has been developed are outlined below relative to public engagement and timing.
- **Recommendations:** The comments provide recommendations about how the Department can pivot to create a Plan that reflects the true intent and vision of the Western Joshua Tree Conservation Act.

Technical Concerns: Relocation and Seed Collection Requirements

LSA participated in both Workshops on March 10, 2025. Consistent with our prior comments, relocation and seed collection protocols in the draft Plan are currently infeasible for solar development.

Relocation

To be clear, the Act does not require permittees to relocate trees but rather gives the Department the discretion to determine whether permittees should do so, and it provides criteria for relocation should it be required. In this, we urge the Department to exercise restraint considering realities on the ground and the overall goal of the Act.

Much needs to be understood before strict protocols are adopted and universally applied by the Department. The science of the tree and our understanding about relocated tree viability and impact on its surrounding habitat are nascent. Questions that merit our shared attention include the following: Is it best to relocate trees in close proximity to development sites, or is it better to move them to refugia sites? If trees are relocated to where native trees already exist, how close to existing trees should relocated trees be planted? Getting answers to these and other questions validates the need for a ‘go-slow- and-learn’ approach, rather than a cudgel of premature requirements that may yield questionable results or even result in converse effects.

At the very least, if the Department does require relocation, it should implement a phased approach where the percentage of relocated trees starts small and increases over time in response to the effectiveness of the Act, the measures implemented, and ultimately the reported results of relocation methodologies. Initially, there should be no fixed relocation requirement, but rather smaller relocation efforts that are tailored to advance our scientific

understanding of how to best relocate trees to create specific mitigation outcomes. We should also recognize that different project types (solar, housing, large infrastructure, warehousing) have specific constraints and opportunities when it comes to feasibly relocating trees. Because tree migration in a changing climate will be central to the success of the Plan, LSA recommends that as we and the Department learn about relocation implementation and the Department concurrently work to identify conservation lands that can serve as a stepping-stone and long-term habitat for the species in what will be a warming world. This should be the cornerstone of the Plan.

Along those lines, the Plan should reflect language of the Act in noting that permittees are not required to acquire and conserve mitigation lands for WJT (1927.3(f)). Since neither the Department nor the parties have sufficient understanding of the species and of relocation and other elements to merit rigorous early relocation requirements, it would be more effective for the Department to work with permittees to ensure resources are directed to where they will have the greatest, and most successful, conservation impact.

Seed Collection

The Plan needs to recognize that project development timelines may not allow for lawful seed collection to occur in every instance. Minimization and avoidance measures, such as seed collection, require permittees to have a WJTCA Incidental Take Permit (ITP), and the issuance of the ITP requires the department to make certain findings under the California Environmental Quality Act (CEQA). Typically, development projects obtain CEQA coverage as one of the last steps in their permitting process, leaving 3-6 months between the completion of CEQA and the issuance of final discretionary permits (building permits, grading permits, ITPs, Lake and Streambed Alteration Agreements, etc.). This narrow permitting window, when coupled with the fact that WJT do not produce seeds every year, could make it difficult, if not impossible, for permittees to lawfully collect seeds in advance of construction. Utility-scale solar projects have strict financial penalties for delaying the date that energy is available to the grid, further constraining a project's ability to collect seeds.

Step-wise Solution: Pilot Projects

LSA recommends the draft Plan initially create pilot projects for WJT conservation efforts before drafting strict regulations that may not work during implementation. Such pilot projects can be real-world testing grounds to understand the species' resiliency in a changing environment during project development and through new mitigation measures. The WJT must – and will – migrate with climate change, and pilot projects will improve our understanding of the benefits (and challenges) of expanding existing and creating new

contiguous habitat for WJT conservation efforts. Such efforts would vet the best regulations to set the WJT up for success under a changing climate.

Plan Development Process Deficiencies

Workshop and Public Engagement

First, we understand the Department is managing a significant workload and that the development of the WJT Plan fell to staff with already-full portfolios. However, it is the responsibility of the Department to ensure that development of this unprecedented Plan is done transparently and with more than cursory public engagement. California has never before developed a comprehensive, species-oriented conservation plan designed specifically to support the presence of that species into the future with the goal of avoiding a listing. Because the WJT is abundant across its range, this Plan touches all forms of development and residential homeowners – posing complex implementation challenges that merit thorough discussion with the parties to identify the proper pathways forward. Unfortunately, rather than providing for this, in the workshop settings the Department has typically referred parties back to the Act itself, rather than engaging in the kind of give-and-take dialogue that leads to shared understanding and problem solving. This approach was repeated in every workshop in which LSA participated, and it served to frustrate – rather than foster – sincere engagement.

LSA understands from the Department that there will be no amendments to the Plan shared in advance of the April meeting, and thus, no meaningful review or comment opportunity will be available at that time, limiting the kind of iterative feedback that leads to an effective and attainable outcome. Further, the Department has stated it will not provide a complete updated draft until the final Plan is up for vote in June. This approach provides not even the pretense of a stakeholder process. To provide a transparent and functional public process, LSA urges the Department to release the final Plan to the public with adequate time for both stakeholder review and comment, as well as time for the Department to amend the Plan as appropriate prior to the June Commission meeting.

LSA acknowledges that the June deadline is legislated in the Act. However, as Commissioner Anderson noted in the February Commission meeting, the Act does not call for enforcement of the deadline; and in this case, haste truly makes waste. Parties and the Department need time to learn how to successfully relocate trees, to identify and purchase the best relocation sites, and to land on shared desired mitigation outcome(s) before committing to strict relocation thresholds. The same diligence and consideration should be applied to seed collection, buffer zones, and other elements LSA has outlined in its previous comments. By taking more time for methodical stakeholder engagement,

science-based analysis, and the crafting of a stepwise program approach, the Department can craft a truly sound Plan that protects both the trees and the solar development that will ultimately mitigate the climate threat.

Conclusion: Implications of the Current Plan

Implementation of the Act is both complex and precedent setting. The Plan, as currently written, fails to recognize gaps in the science of relocating trees and the scarceness of appropriate mitigation sites, thereby unintentionally creating more barriers to building clean energy projects that would help the State meet its climate targets. Rather than integrating environmental and clean energy goals, the avoidance and minimization guidelines in the draft Plan, specifically on buffer zones, relocation requirements, and seed collection, present substantial, and perhaps insuperable, impediments to the development of utility-scale solar projects. As stated in previous comments, those aspects of the draft Plan will so impede solar development as to undermine the conservation purposes of the Act by hamstringing mitigation of the primary threat to the WJT – climate change.

LSA appreciates both your attention in this matter and the work of the Department thus far, and we respectfully urge the Department to amend its course in the development of the Plan. We look forward to deeper collaboration on these issues going forward.

Sincerely,

/s/Shannon Eddy/s/

Shannon Eddy
Executive Director
Large-scale Solar Association

Appendices

- LSA letter to CDFW Re: Draft Western Joshua Tree Conservation Plan (6/14/24)
- LSA letter to CFGC Re: Comments on February 12 Meeting Agenda –Western Joshua Tree Conservation Plan (Agenda Item 15) (1/30/25)



6/14/2024

Chuck Bonham, Director
California Department of Fish and Wildlife
715 P Street, Sacramento, CA 95814

Re: Draft Western Joshua Tree Conservation Plan

Director Bonham:

On behalf of the Large-scale Solar Association (LSA) member companies - who represent a significant amount of California's current solar energy generation capacity and are committed to increasing that capacity to support California's transition to a decarbonized power portfolio – we write to offer our comments on the draft Western Joshua Tree Conservation Plan (the Plan), a requirement under the Western Joshua Tree Conservation Act (the Act). The Act provides a roadmap for protecting the culturally and ecologically important western Joshua tree from the impacts of climate change while allowing for the continued development of utility-scale solar energy projects that will reduce emissions and, thereby, help reduce the impacts of climate change on California's plants and wildlife.

The Act requires the California Department of Fish and Wildlife (the Department) to produce the draft Plan for review by the California Fish and Game Commission no later than December 31, 2024 (Act 1927.6(a)). Following passage of the Act, the Department began soliciting input on the Plan. As part of this process, LSA members attended two formal outreach sessions hosted by the Department. Based on the information provided during the sessions, we offer the following comments:

- **Scope and reach of the Plan.** By our reading, the Plan is intended to standardize avoidance and minimization measures that may be included as part of the Department's Take Authorization under the Act (Act 1927.3). The scope of the Plan is therefore limited to activities for which the Department has permitting and enforcement authority under the Act and CESA and would not properly extend beyond that existing legal authority. As the Department has previously stated, western Joshua trees (WJT) are "widespread and abundant" so failure to limit the scope of the plan could result in a de facto land use management plan for 2.5 to 3.4 million acres (Status Review at 18). This was not contemplated in the Act.

The Department should participate in existing regulatory processes that govern land use decisions within the range of the WJT under its existing regulatory authority.

- **Scale of Avoidance and Minimization Measures.** The Act allows the Department to authorize take of WJT subject to several key provisions (1927.3).



Among those provisions are the requirements for the permittee to submit a WJT census, pay the required funds, and avoid and minimize the take of WJT to the maximum extent practicable. The Plan should acknowledge that practical avoidance and minimization of WJT take for large-scale solar projects is different than for projects that operate at smaller scales. For instance, it may be practicable for a homeowner to collect seeds from every WJT in their census or avoid a certain percentage of WJT present within their property, while these same standards would be infeasible for utility-scale solar projects. The Plan should recognize that utility-scale solar projects must be located in close proximity to existing transmission infrastructure. So too, solar projects cannot reduce impacts by building vertically or increasing height as can other types of projects. These factors limit a project's ability to avoid and minimize impacts.

Additionally, the solar industry's contribution to addressing the primary threat to WJT – climate change – should be acknowledged when applying avoidance and minimization standards.

- **Relocation and Compensatory Habitat Mitigation Land.** The Act (1927.3(a)(4)(A) gives the Department the discretion to require the permittee to relocate one or more WJT. However, the permittee cannot be required to relocate WJT off the project development site, i.e., a permittee cannot be required to acquire and conserve habitat mitigation lands for WJT. If a permittee elects to relocate WJT off-site, the permit authorizes such relocation. The Plan should be clear that permittees are not *required* to acquire and conserve mitigation lands for WJT (1927.3(f)).

The state's cross-sectoral decarbonization strategy and vision rely significantly on large-scale solar power. A Plan with the appropriate scope, that acknowledges the scale of renewable energy projects, and avoids duplicative mitigation will ensure that our companies are able to meet the need for more solar development in California's desert region in support of California's battle against climate change.

LSA appreciates the opportunity to submit these Comments on the draft Plan and looks forward to further engagement on these matters.

Sincerely,



Shannon Eddy, Executive Director
Large-scale Solar Association



VIA E-MAIL: fgc@fgc.ca.gov

January 30, 2025

California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090

Re: Large-scale Solar Association's Comments on February 12 Meeting Agenda – Western Joshua Tree Conservation Plan (Agenda Item 15)

Dear President, Vice President, and Members of the Commission:

On behalf of the Large-scale Solar Association (LSA), we submit these comments on the draft Western Joshua Tree Conservation Plan (WJTCP). While we recognize the importance of conserving the Western Joshua Tree, we urge the Commission to ensure the Plan strikes an appropriate balance between protecting the species and advancing California's critical clean energy goals. Utility-scale solar projects are essential to the state's efforts to mitigate climate change, which is the greatest long-term threat to the Western Joshua Tree and its desert ecosystem.

LSA is a non-partisan association of solar and battery storage developers that advocates appropriate policies to enable market penetration of utility-scale solar technologies in California and the Western United States. LSA's members are leaders in the utility-scale solar industry with extensive technical experience in all disciplines necessary to site, develop, engineer, construct, finance, and operate utility-scale solar and battery storage systems. LSA's member companies are principally responsible for developing much of the operational and planned large-scale solar and storage capacity in California today. Our member companies have experienced environmental and permitting practitioners on staff and as part of project teams who provide natural resources knowledge that is used in support of creative conservation solutions at their project sites.

Utility-scale solar projects play a key role in reducing greenhouse gas emissions, stabilizing ecosystems, and protecting species like the Western Joshua Tree from the devastating impacts of climate change. With between 3.1 to 4.9 million Western Joshua Trees across a 2.5- to 3.4-million-acre range,¹ the species is not threatened or endangered, and conservation strategies should reflect this context. Conservation actions should focus on practical and scientifically supported measures while avoiding unnecessary burdens on solar development that could slow California's transition to clean energy.

¹ California Department of Fish and Wildlife (2022) *Report to the Fish and Game Commission – Status Review of Western Joshua Tree (Yucca brevifolia)*.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=201995&inline>.

To that end, these comments outline the following concerns and recommendations regarding the draft WJTCP:

- **Buffer Zones:** The proposed buffer zones for Western Joshua Trees are overly rigid and fail to account for site-specific conditions. Flexible, site-specific guidelines will achieve a better balance between habitat protection and clean energy development.
- **Relocation Requirements:** Relocation protocols are currently infeasible. Requiring projects to purchase additional lands to relocate trees to (in addition to other mitigation requirements) is a high cost with a questionable success rate. The Department should consider the practicality and success rate of implementing such requirements to ensure resources are directed to where they will have the greatest impact. Additionally, the Department should align relocation requirements with fee zones.
- **Seed Collection:** Because WJT do not produce seeds every year, it may not be possible to collect and harvest seeds (if available) in the narrow permit window between project approval and construction start. Additionally, the draft Plan offers no directive on seed storage. Seed collection requirements merit more consideration and discussion with affected stakeholders.

As the Commission is aware, the Western Joshua Tree Conservation Act (WJTCA or Act) exempts the Department of Fish and Wildlife (CDFW or Department) from the rulemaking requirements of the Administrative Procedure Act (APA) for adopting (1) relocation guidelines and protocols and (2) standardized survey and assessment methods for the annual reports provided by local governments. Fish and Game Code § 1927.3(a)(4)(C) [relocation]; §§ 1927.3(c)(6)(B) and 1927.4(c)(2) [annual assessment]. The Act contains no other exemptions from APA rulemaking requirements, for either CDFW or the Commission.

At the same time, the Act directs the Department to “develop and implement a Western Joshua Tree Conservation Plan” that includes, inter alia, “guidance for the avoidance and minimization of impacts to” Western Joshua Trees and “protocols for the successful relocation of” Western Joshua Trees. Fish and Game Code § 1927.6(a). The Act requires the Department to submit a draft Conservation Plan to the Commission for its “review and approval” and specifies that the Commission must “take final action on” the Conservation Plan by June 30, 2025. Fish and Game Code section § 1927.6(a).

It must be stated that both the avoidance and minimization guidelines and the relocation guidelines and protocols developed by the Department and included in the draft Conservation Plan present substantial, and perhaps insuperable, impediments to the development of utility-scale solar projects. The Department can be expected to impose the “guideline” avoidance and minimization measures and relocation requirements in incidental take permits (ITPs) issued pursuant to the Act. Therefore, if left unchanged,

those aspects of the draft Conservation Plan will so impede solar development as to undermine the conservation purposes of the Act by hamstringing mitigation of the primary threat to the Joshua tree – climate change. Thus, we respectfully request the Commission, in the course of its review of the draft Conservation Plan, to refuse to give its approval unless and until the draft is revised appropriately, as explained below, to account for the size and complexity of utility-scale solar projects. It is important that the Commission not rubber stamp the draft Conservation Plan.²

Concerns with Avoidance, Relocation, and Restoration Requirements

The proposed avoidance, relocation, and restoration elements in the draft Plan present significant challenges for utility-scale solar projects. The proposed buffer zones for Western Joshua Trees are overly rigid and fail to account for site-specific conditions. There is insufficient evidence to suggest that ground disturbing activities within close proximity of a WJT will adversely affect that individual. While protecting root zones and seedbanks is important, overly large and inflexible buffers unnecessarily constrain solar project siting, and WJT relocation, without providing proportional conservation benefits. In many instances, these buffers require solar companies to mitigate for trees on adjacent properties based on the unsubstantiated belief that these neighboring trees may be impacted. LSA believes additional science is needed before ridged buffers are established. Flexible, site-specific guidelines will achieve a better balance between habitat protection and clean energy development.

Relocation requirements should use zones that match the Act's fee structure. That is to say, the Department should have lower relocation and seed collection requirements in the lower fee zone. The establishment of the two zones is an intentional and critical component of the Act that allows for WJT conservation to occur without impeding critical development projects that are vital to the state's economy, including but not limited to utility-scale solar.

Relocation protocols, as outlined in the draft Plan, are currently infeasible. The requirement to relocate mature Joshua Trees over 10 feet in height or with several branches has demonstrated very low survival rates. Also, to relocate trees, there must be land to which to relocate them. The vast majority of the land within the range of the WJT is under federal control (BLM, DoD, USFS, etc.) and is unavailable for WJT relocation. The remaining land is difficult to acquire, as evidenced by the Department's inability to purchase similar

² While the Department appears to be of the view that the Relocation Guidelines and Protocols it has developed and included as Appendix E of the draft Conservation Plan have regulatory effect (i.e., have the force of law) because it was not required to conduct APA rulemaking before adopting them, it is not clear that is the case because the Conservation Plan, in which they are to be incorporated, must be reviewed and approved by the Commission. Moreover, it is not clear that even the Commission approval would give Conservation Plan and its contents regulatory effect unless approved pursuant to APA rulemaking. The same holds for the Conservation Plan's avoidance and minimization measures (section 5.2.1), which the Act did not exempt from APA rulemaking for adoption by the Department.

conservation land with the WJT Conservation Fund. The draft Plan neither acknowledges nor addresses this fundamental flaw.

Requiring projects to purchase additional lands to receive trees (in addition to other mitigation requirements) is a cost that will ultimately be borne by ratepayers already struggling with rising electricity bills. A more practical approach would be to prioritize relocating younger trees to bolster populations, or to establish new populations within the range of the tree. Before suggesting arbitrary percentages of trees to be relocated, the Department should demonstrate that such lands can be acquired (perhaps through use of the WJT Conservation Fund) and make these lands available for WJT relocation. Otherwise, the practicality and success rate of implementing such requirements is questionable, at best. LSA requests that this be remedied in the Plan prior to being finalized.

Relocation efforts should not only focus on conserved or “wild” areas. Relocated Joshua trees could also be used as landscaping for public places and to enhance their visibility to the public. Indeed, one of the goals of the Plan is to allow people to interact with WJT. To accomplish this at least some of the trees should be relocated to urban areas where they can meet people where they are.

Seed collection and propagation are important components of habitat restoration and genetic diversity preservation. However, the Plan must recognize that WJT do not produce seeds every year. Utility-scale solar projects, like other development projects, require discretionary permits, leaving less than one year between permit issuance and start of construction. This timing may not allow for seeds to be collected and harvested (if available) in the narrow window between project approval and construction start. It is, of course, imprudent for project developers to collect seeds for a project that may not be approved.

In addition, the Plan has no directive for storing seeds, nor does it appear the Department is proposing to create a seed vault to protect or propagate the seeds at a later time. This gap in planning is antithetical to the purpose of collecting the seeds, and it undermines the purpose of seed collection. While we appreciate that this draft Plan was developed on a short timeline, it is clear that seed collection merits more consideration and discussion with affected stakeholders prior to being finalized.

As with relocation, seed collection has very little benefit to WJT if there is no plan to plant the seeds. Developers are well-positioned to contribute funding and logistical support for these programs, but the burden of seed collection should not disproportionately fall on solar projects, especially given the industry’s significant contributions to conservation funding overall. With most of the range of the WJT overlapping with federal lands, it’s hard to imagine close cooperation on this front under the current political environment. For these reasons, seed collection should be encouraged, but not required, under the WJTCP.

The Critical Role of Utility-Scale Solar in Climate Solutions

As the fifth largest economy in the world, California's plan to achieve a net-zero carbon economy by 2045 remains a north star in the nation's effort to meet the climate imperative. To achieve this goal, California is expected to add more than 165,000 Megawatts (MW) of new utility-scale clean energy to the grid, including approximately 70,000 MW of utility-scale solar.³ Siting these solar projects will require an estimated 600,000 to 700,000 acres of land in a state facing multiple land-use pressures, visionary conservation targets, and unprecedented climate impacts. This nexus between clean energy goals and land availability demands strategic planning and creativity. With solar as the backbone of California's climate strategies, minimizing and mitigating species impacts while accelerating the siting and operation of these projects is key to ensuring California meets its clean energy goals sustainably.

Solar developers are also likely to serve as the largest source of funding for Western Joshua Tree conservation under the draft Plan. Mitigation fees and other contributions from the industry will enable critical actions such as habitat restoration and long-term monitoring. However, these funds must be used efficiently to prioritize impactful measures that address real threats to the species, rather than imposing excessive requirements that hinder clean energy progress.

As California strives to meet its goals, especially at a time of unprecedented federal action against climate change, LSA supports implementing conservation and mitigation efforts for the Western Joshua Tree that allow for and even encourage the efficient deployment of clean energy technologies. The draft Plan should pursue the benefits of expanding existing and creating new contiguous habitat for WJT conservation efforts. The Commission should specify coordinated use of WJT Conservation Fund resources to aid in the establishment of relocation areas, seed collection, and propagation programs, and it should advance the science on how WJT may be impacted by adjacent disturbance.

The Role of Solar Industry in WJT CP Development

Utility-scale solar developers are key stakeholders in this process and should be actively involved in shaping the Conservation Plan. The industry's direct experience with avoidance, relocation, and restoration measures can provide valuable insights to ensure policies are practical, effective, and aligned with California's clean energy and conservation objectives.

Conclusion

We urge the Commission to adopt a balanced and pragmatic approach that supports both the conservation of the Western Joshua Tree and the rapid growth of California's renewable energy infrastructure. By focusing on practical, science-based strategies and avoiding

³ California Independent System Operator (2024) *2024 20-Year Transmission Outlook*. <https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/20-Year-transmission-outlook-2023-2024>.

overly burdensome requirements, the Conservation Plan can achieve its dual objectives of protecting the tree while ensuring clean energy development continues apace.

Thank you for considering our comments. We look forward to continued collaboration with the California Fish and Game Commission to advance these shared goals.

Sincerely,

/s/Shannon Eddy

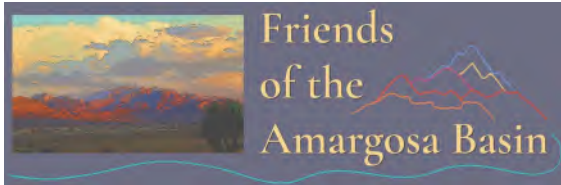
Shannon Eddy
Executive Director
Large-scale Solar Association



CALIFORNIA
NATIVE PLANT SOCIETY



**WESTERN
WATERSHEDS
PROJECT**



CALIFORNIANS
FOR
WESTERN
WILDERNESS



Basin and Range Watch



Audubon

CALIFORNIA



April 3, 2025

California Department of Fish and Wildlife
Habitat Conservation Planning Branch
Attn: Drew Kaiser
P.O. Box 944209
Sacramento, CA 94344-2090

*Submitted via email to: WJT@wildlife.ca.gov, Andrew.Kaiser@wildlife.ca.gov,
HCPB@wildlife.ca.gov*

Re: Environmental Organization Comments - Western Joshua Tree Conservation Plan

Dear Mr. Kaiser:

Thank you for the opportunity to comment on the Western Joshua Tree Conservation Plan (WJTCP). The following comments are submitted on behalf of the California Native Plant Society (CNPS), Western Watersheds Project, Friends of the Amargosa Basin, Californians for Western Wilderness, Basin and Range Watch, Audubon California, Friends of the Inyo, and Defenders of Wildlife.

CNPS is a non-profit environmental organization with over 13,000 members in 36 Chapters across California and Baja California, Mexico. CNPS's mission is to protect California's native plants and their natural habitats, today and into the future, through science, education, stewardship, gardening, and advocacy. We work closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices.

The mission of Western Watersheds Project (WWP) is to protect and restore western watersheds and wildlife through education, public policy initiatives, and legal advocacy.

The mission of Friends of the Amargosa Basin is to: "Support the diversity of life in the Amargosa Basin by protecting its land, water, and beauty."

Californians for Western Wilderness advocates for and educates about the importance of protecting public lands across the West. Native plants and animals are critically important components of any landscape, needing protection in their own right.

Basin and Range Watch works to conserve the deserts of Nevada, Arizona and California and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert.

Audubon's mission is to restore and conserve natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity.

Friends of the Inyo protects and cares for the lands of California's Eastern Sierra.

Defenders of Wildlife is a national non-profit organization founded in 1947 and is dedicated to the protection of all native animals and plants in their natural communities.

We appreciate the time and effort that the Department has made in the preparation of the Conservation Plan, including the comprehensive review of the biology, life history, reproduction, and population trends of the western Joshua tree (WJT). An extensive

amount of scientific information was used to develop this plan, and science is the foundation of the actions it prescribes.

While there is much more research to be done, we must rely on the best currently available science. The plan will be updated as new information becomes available, and many of the recommendations of the plan, from the census of trees to the careful tracking of transplanted individuals, will provide the information needed to ensure that the plan is effective for the conservation of WJT while not being overly restrictive. For example, if the current transplantation protocols are shown to be more effective than has been predicted, the number of trees that would need to be relocated to meet conservation goals could be reduced. This will not be known unless the department implements the plan and begins to track its effectiveness.

Comment letters that claim that there is not sufficient evidence to show that the recommended buffer zones for individual trees are needed are not backed up by sufficient evidence to recommend that these buffers are not needed. However, there may be a need for separate guidance for developed and undeveloped areas. We feel that allowing for exceptions on residential properties or where existing development or disturbance is within the buffer zones may be necessary to ensure that buffers do not pose an undue burden to maintaining existing facilities or for homeowners maintaining their properties. Exceptions for certain situations where impacts have already occurred within buffers or where there is insufficient space on a residential property to apply a buffer while implementing necessary infrastructure improvements or other actions unlikely to negatively impact WJT should be taken into consideration.

While we are in support of the development of renewable energy sources these projects should not come at the expense of intact WJT habitat. We advocate for the siting of renewable energy, housing, and industrial/warehouse developments in low conflict areas, such as urban infill, degraded ag-land, and rooftop solar while avoiding the development of intact habitats across California.

Removing or weakening any requirements of the conservation plan prior to additional information gathering would be counterintuitive given the scientific justification for the current management recommendations. We agree with the determinations of the CDFW scientists tasked with the evaluation of the WJT. With the management actions proposed in the Draft Conservation Plan and future updates informed by data collected, we are confident that there will be a balance between the conservation needs of the western Joshua tree and other land uses. Thank you for the opportunity to comment on the development of the conservation plan and please contact us if you have any questions.

Sincerely,

Brendan Wilce
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California Native Plant Society
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From: Krystian Lahage [REDACTED]

Sent: Thursday, April 3, 2025 2:50 PM

To: FGC <FGC@fgc.ca.gov>

Subject: Comment for April 16th Meeting Item on Western Joshua Tree

Good afternoon commissioners,

Today I am speaking in support of the draft Western Joshua Tree Conservation plan on behalf of the Mojave Desert Land Trust (MDLT), a nonprofit organization based in Joshua Tree, CA. MDLT works on landscape acquisition, restoration, and conveyance, seed banking, education, and wildlife conservation in the California portion of the Mojave and Colorado deserts. I write to share our support for the draft conservation plan for the species.

Climate change, increasingly frequent wildfires, and human development all pose existential threats to the western Joshua tree that require collaboration and unified management to counter. Several peer-reviewed studies show that much of the Joshua tree's habitat may be climatically unsuitable at the end of the century under shifting temperature and precipitation patterns projected by certain climate scenarios. Besides its status as one of our state's most iconic fauna, Joshua trees play an integral part in our functioning desert ecosystems necessary for carbon sequestration and climate regulation and are a significant economic driver for tourism to the area. MDLT has been actively engaged in the species' conservation through land conservation, seed collecting, research, and coalition-building.

With funding from California's wildlife Conservation Board (WCB), MDLT initiated the Joshua Tree Conservation Coalition (JTCC) comprised of experts and land managers from agencies and organizations including the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, Native American Land Conservancy, U.S. Geological Survey, California Department of Fish and Wildlife, and the Mojave Desert Land Trust. This coalition will address the need for swift action and strong partnerships in combating these threats. Ultimately, it will compliment and align the state's conservation plan by providing the science-based structure and information necessary to effectively monitor and conserve the Joshua tree.

This draft conservation plan is a crucial base for the state's role in the species' conservation. To date, the Western Joshua Tree Conservation Act has led to minimal acquisitions of Joshua tree habitat. By establishing protocols for annual monitoring and reporting, the state's plan will provide more actionable information to agencies about viable Joshua tree habitat for acquisitions. The plan also uses the latest science to look forward into what lands may be suitable climate refugia should current climate trends continue.

Management actions implemented by the plan are not new statutory or regulatory mandates, but instead guidelines to be voluntarily adopted by industries, land managers, and others who seek to conserve the species. Reflecting the collaborative approach needed for such a task, the plan enables implementable management actions for the public, researchers, local governments, and project developers. These voluntary management actions including impact avoidance, land conservation, tribal co-management, research, and education provide means to protect the species without incurring additional regulations.

With Joshua tree habitats existing on a complex tapestry of private, state and federal lands, this plan will prove foundational for the multi-pronged conservation approach needed to not only protect the Joshua tree but protect the desert ecosystem our communities rely on. We need to take innovative, coordinated, and bold action if we want to ensure the future of one of North America's emblematic species – implementation of this plan is the essential first step towards that goal. Thank you for your leadership and for the opportunity to be involved in this important mission.

Thank you,

Krystian Lahage



Krystian Lahage (*he/him*)

Public Policy Officer

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From: Wildlife Western Joshua Tree <wjt@wildlife.ca.gov>
Sent: Thursday, April 3, 2025 2:47 PM
To: FGC <FGC@fgc.ca.gov>
Subject: FW: WJT Process Improvement Suggestions for Discussion on Friday

Not sure if Ms. Gilbert sent you this separately, but if not, I think she wants it in the record even though it pertains mostly permitting.



[Sign up to receive WJT updates from CDFW](#)

From: Ellsworth, Alisa@Wildlife [REDACTED]
Sent: Friday, March 14, 2025 4:11 PM
To: Wildlife Western Joshua Tree <wjt@wildlife.ca.gov>
Cc: Wood, Brandy@Wildlife [REDACTED]
Subject: FW: WJT Process Improvement Suggestions for Discussion on Friday

Hi Drew,

Julie Gilbert asked Brandy and I to forward the attached narrative to you as public comment for the WJTCA workshop this last Monday. We did meet with her and talked through some of her concerns and then said we would share this document with you.

Thank you,

*Alisa Ellsworth, Environmental Program Manager
California Department of Fish and Wildlife
Inland Deserts Region, North
787 North Main Street Suite 220
Bishop, Ca 93514
(760) 937-2519
Alisa.Ellsworth@wildlife.ca.gov*

From: Julie Gilbert [REDACTED]
Sent: Tuesday, March 11, 2025 10:28 AM
To: Wood, Brandy@Wildlife [REDACTED]

Cc: Ellsworth, Alisa@Wildlife [REDACTED]

Subject: WJT Process Improvement Suggestions for Discussion on Friday

Hello Brandy and Alisa – I tried to put together something for discussion on Friday. I would hope that this will get to your management for consideration. I am doing this on my own time, not paid by anyone, have very little free time, so it is still rough, but hoping we can have real discussion about this.

Thank you again for meeting with me.

Julie Gilbert

President

Compass Consulting Enterprises, Inc.

PO Box 2627, Avalon, CA 90704

Phone: (909) 496-5960

Agenda for Friday 3/14/25 Meeting with Brandy Wood

Thank you for agreeing to meet with me on Friday. Again, my goal is to really help work through this for a solution that is workable for everyone. Right now, I think the CDFW staff is implementing this as a cheap CESA and not the streamlined process focused on conservation as the Act intended. However, by being strategic with the Plan definitions and processes, you CAN offer relief across the board. I would really hope that your management can review this and attend.

This document contains suggested process improvement to identify middle ground in accordance with the Act.

The Plan is the implementing tool of the Act – just like a General Plan has Implementing Policies. You ABSOLUTELY DO have a lot of latitude to make this work. The Act does not restrict you to the permitting requirements of the Plan. It is strictly CDFW management's interpretation of how to implement the Act that is restricting and burdening this entire process. You have no way to exempt SFRs, utilities and infill per the Act unless you let up on some of the Plan permit requirements.

Honestly, I think the crux of the issue is the following that needs to be improved upon:

- Take – this means to kill the tree, or any part thereof, ie, a root. CDFW is assuming take for every project, including project types where there would be no take of trees or roots.
- CEQA – need to allow CEQA exemptions
- Census – the Act specifically restricts the census to the Project Site. It is the Plan that is requiring the census in the buffer which can explode a project into thousands of trees. The justification for the off-site buffer assumes “perceived” impacts to root systems, when in fact, there may not be any impacts to trees or roots in some projects.
- Mitigation Option **OR** Fees – the Act says permittees must mitigate “roughly proportional to the take” OR pay the fees. CDFW is charging fees on perceived take and not providing guidance on what would be suitable mitigation that is “roughly proportional to the take.” Hi Desert Water District, for example, would have to pay \$17 million in fees even though they are not “killing” or “taking” one tree. So how is that fee “roughly proportional” when there is no take, and when there is no mitigation offer. Mitigation should be “roughly proportional.”

Honestly if the species were super imperiled, I could see being so strict with the “implementing policies,” but it is not imperiled. Even the Plan admits the Act was a backdoor way to keep it protected because the Commission could not decide. So I think you are left with just being more strategic to reflect what you are really trying to accomplish while managing the burden that the implementation policies in their current form are placing on everyone.

Also, when you encourage people to meet about their specific project directly with staff, that is great. BUT, the outcome has to be equally applied to similar projects. Meeting behind closed doors is not very transparent.

We are in this for 10 years with honestly no way out because this is a climate-change-issued listing that should have never happened. There is no end to climate change. But 10 years of these draconian measures to these communities is HUGE and will decimate these communities.

For discussion on Friday:

1. **CEQA:** Please check with your legal counsel. So far, the only document that CDFW has said would be acceptable is nothing less than an Initial Study. That even goes for single family homes, which would normally be ministerial – an Initial Study for a SFR is overkill, and requires a full Planning Application, etc. I am of the opinion that the way the Act is written, someone can get a “permit” and pay a fee that substitutes for/satisfies mitigation. Therefore, this could be seen as nothing more than a standard permit like one would get for streambed alteration, construction from the water board (NOI, SWPPP, WQMP). Compliance with laws and obtaining permits is not mitigation. Thoughts?

Suggestion: Return the power of CEQA determination to the Lead Agency – if that is a CEQA Exemption, so be it. It might be a CEQA Exemption filed with SCH as ministerial for SFR and the more in depth CEQA Justification for a CEQA Exemption for In-Fill, Existing Facilities, etc. For SFRs, the jurisdictions could have their planning department file a Notice of Exemption showing the ministerial exemption statute, grading permit issued once proof of permit is provided, and it’s done. Accepting the Lead Agency’s CEQA determination would be way helpful and reduce A LOT of time and cost.

2. **Define and Differentiate “Root Encroachment” for purposes of avoidance and minimization and “take” which has to be mitigated OR pay fees.** It seems that the issue with the buffer is to protect the roots. Roots are below the ground, correct? Typically about a foot or two, correct? So how would there be “root encroachment” if you are not digging, but just doing surface work, such as road surfacing, pouring a driveway, installing a fence (post not included) or SCE staging on the road to do overhead line work, etc. ie. no digging. How does this qualify as “root encroachment”?

Suggestion: Provide a definition in the Plan of “root encroachment” to mean “work that is performed underground where roots are present, or work that impacts a visible root.” There also has to be a differentiation between “root encroachment” and “root take” which would technically mean to “kill a root.” Technically, under 1927.3 (2) you can authorize a permit if someone “avoids and minimizes impacts to... the maximum extent practicable.” So how is doing surface work not “avoidance?” Please also define “root take” because in theory, “take” is all that you are authorized to mitigate via fees under the Act. The only way to kill a root would be to sever it from the tree in a manner that would impact the tree, or cause the root to die or be “killed,” correct? And, as I recall, not ALL roots are key to the tree’s survival. So in theory, a root could be cut, and the tree still survives. Also, in relocation, you are severing the entire rootball, and the tree survives. The Act was clear that there are methods to avoid and minimize root encroachment – your permit under the Act for mitigation is actual TAKE.

A permit matrix is provided at the end of this document. I can see there being some construction best management practices for surface work (no digging) like placing an orange fence at the dripline of the tree in accordance with arborists standards, and biological monitoring. This goes back to what the Caltrans biologist stated today, and for all the other linear projects that only do surface work. As stated, “root

encroachment” should only be defined as truly digging where a visible root system is present.

3. **Stick to the Census Being Provided on the Project Site Per the Act vs Including Off Project Site.** Again, this addresses the buffers, which is solely for “root encroachment” and the absolutely craziness of doing the census and mitigation for trees in the buffer off the project site. Section 1927.3(a)(1) states the census of “all western Joshua trees on the project site...” To require the census to go off-site, especially with binoculars or whatever that you can’t get any good data, how is this helpful? This is a tree, not a bird, and not all projects require digging that would kill the root zone. Recommend you stick to “the project site” per the Act. The only way to include trees off the “project site” would be if the work would include digging or grading in the potential root systems, defined as root ball, of the off-site tree. Since you do not have balanced “best scientific data” that includes how projects have been constructed in the urban areas over the past decades, you cannot make the kind of conclusions you are making.

Suggestion: For projects that would be digging, instead of making them do a census now and pay the fee based on some “perceived root encroachment zone” have them monitor the work in the “Project Site” and if a biologist notices that the trench has a Joshua tree root, then he can trace it to that tree, and that tree documented and paid for. Instead of paying the fee up front, then perhaps require them to provide a final report that identifies all of the trees where roots were severed, not perceived “root encroachment.” There are a ton of underground projects that can work around the roots, not sever them, and they are fine, with a biologist’s blessing. Therefore, remove the “perceived” root zone and only hold them accountable for the “actual root encroachment/sever/kill.” Under Section 1927.5 (c), you can charge a flat fee for more of a “notification” type permit with a followup requirement. See the matrix for suggestion.

4. **No Mitigating for Off-Site Trees.** Again, check with your legal counsel because I believe this to be illegal. At least, this is extremely problematic to require to pay the fee for a tree that is 50 feet away from the “project site,” on someone else’s property, just because they are within the buffer zone. Example: Mrs. Jones puts in the sewer line on her property near her driveway. Her sewer line is within 50 feet of Mrs. Brown’s Joshua trees, also where a sewer line would be located. Mrs. Jones then pays for her Joshua Trees AND Mrs. Brown’s Joshua Trees. So how is Mrs. Brown’s trees handled? Does Mrs. Brown get to take her trees for free because Mrs. Jones paid for them? Or is Mrs. Brown also expected to pay for her trees that Mrs. Jones paid for, thereby causing double mitigation for the same trees? Additionally, public agencies, such as Caltrans, Mojave Water Agency, Hi Desert Water District, cannot provide funding for trees on private property that ultimately benefit the private property owner – that is a gift of public funds. Therefore, again, stick to the ACT – “PROJECT SITE.” The Project Site is defined as the actual area of work – that’s it. The actual work for a pipeline might be – within a 24-foot-wide road, develop an 3-foot-wide by 6 foot deep trench, place the pipe. Cover. Staging and storage areas could be within the lots, adjacent to a WJT, with an orange fence installed around it in accordance with arborists standards – something that represents the drip line of the tree based on its size. Done. You have eliminated a lot of issues. Biologists monitor, if they discover a root, they go under the root, no lethal harm to

the tree, but they GPS the tree, it is recorded, and THEN WHAT? Generally, that other tree is on a different property. THIS HAS TO BE ADDRESSED.

5. **Root Impact Studies in Urban Zones.** Per many commentors, there is no evidence at all that root encroachment has harmed trees. All of the jurisdictions over the years have issued construction permits where they come right up next to the tree, and it's fine. You REALLY need to include this in your studies in order to provide a balanced approach. Until you have the "best scientific data" that is balanced, there is no basis to "assume" take in some perceived buffer. There are multiple reports from desert plant biologists for all these projects that have been constructed over decades, and no harm has come to the trees. You could ask the cities and counties to provide copies of the reports for previous projects and send someone out to inspect the tree.

Suggestion: suspend for one year the whole "root buffer" and spend some time and really study the real-world impacts of construction projects that have already occurred. For the notification projects, you can also follow up. Replace it with a clear definition of "root encroachment" per the Act to mean actual "root kill" where the root has been severed from the tree (which kills the root which is part of the tree).

6. **Expand Relocation Availability.** You are going to need to find where these trees can be relocated. Can some of the land you purchased be used to relocate these? Seriously, no one wants them. I used to work for San Bernardino County Public Works (before you came on board) and I remember getting calls from new homeowners all the time asking if we were going to be removing any and could they have them in their yard. I would call tree relocation companies and they said they too got calls all the time from homeowners who wanted to accept relocated trees for their yard, and a few even had a waiting list. But not now.

Since relocation is optional, then I recommend that if you or the applicant do not have a spot for them, then do not make it mandatory in any permit. And if they are on private property, how is this going to be handled? Maybe the homeowner decides a few years later they want to put a fence within 50 feet of the relocated tree... can they do that? Will they need a permit? YES – which is why no one wants them.

Suggestion: allow them to be relocated on the same property in SFR and in landscaping for in fill developments. This maintains the same location as the tree originally was for genetics and facilitates the development. This should actually be encouraged. While the Act does not specifically identify the fee for relocation, you could encourage this by charging the reduced fee. Allow for relocation on tribal and CDFW mitigation lands.

7. **Add Relocation Spacing in Guidance.** How far apart can these be relocated? Thinking of homeowners that may want to relocate on other areas of their lot.
8. **Mitigation for Dead Trees.** Why are we paying mitigation for dead trees? Are they not a fire hazard? Nowhere in the act does it say you HAVE to charge a fee for a dead tree – this is staff discretion. *Suggestion:* remove the requirement to pay mitigation fees for the dead trees.

9. **Conservation Measure Accountability.** You mentioned in the workshop you would work on that. That is good to hear. There is absolutely no way to track progress on a species listed due to climate change, in my opinion, so good luck with that.
10. **Permit Issuance Timeline.** The 12 to 18 months has got to improve, and I know you all are working hard. Again, this species is not imperiled – the Act was a backdoor move because the Commission could not make a decision. And we are in this for 10 years! So, with better definitions, and a more clear fee structure, should help streamline this. The Act was supposed to be more streamlined, not a cheaper CESA permit that has to be agonized over. I don't think that is the intent.

Suggestion: why not do something like your streambed permit where 30 days for completeness, and 60 to issue the permit. See the matrix

11. **Define what is meant by “measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking..”** What is “roughly proportional?” Do you know? Can you provide an example? So in the Hi Desert Water District's sewer project, for example, they will move the pipe to go under the roots system – They have not removed the tree or killed the root. They have not taken or removed any tree. What is “roughly proportional” to not severing a root or removing a tree (or kill, which is the CDFW swim lane)? How is digging next to a tree, avoiding the roots, not severing the roots “roughly proportional” to having to pay for all trees within 50 feet of the tree? Please provide examples.

Suggestion: stay within the swim lane of the Act – you regulate actual take, not perceived or assumed take of the tree or any part thereof.

12. **Define “in lieu of completing the mitigation obligation on its own, permittee may elect to satisfy.. by paying fees.”** Please provide legal counsel opinion. What is the mitigation obligation under the permit that they have to satisfy in which they can elect to pay the fee instead? Please define. Please provide examples. I think 19727.3 is the most confusing and needs A LOT of explanation. What “mitigation obligation” is available where the permittee would NOT have to pay fees? Right now, the fees are just being charged on everything.

If you implemented the above, larger projects such as the Hi Desert Water District sewer project, Mojave Water Agency linear projects, and the Big Horn Water Agency water line projects (and I have a few others in the wings that are similar from other agencies and utilities) would be impacted this way (with further development in the attached matrix).

- Project Site is defined as the road or disturbed right-of-way where the “project site” occurs ONLY.
- The Project would need a permit to encroach on root systems that are yet undefined. Fees would be paid at the end of the project based on actual take, meaning only those trees that are removed or roots killed.
- Sewer lines are going under roots, not severing the roots, which qualifies as avoidance and minimization, not mitigation.
- Fee would be assessed for mitigation on the actual root “KILL” or TAKE, which is defined as a root that is severed, as observed in the field, certified by the biologist, to be collected on a

final report. Lets say they truly sever the roots of 20 trees mid-size trees. That is a lot better than the \$17 million in mitigation fees (which is more than half their grant) they would be responsible for, for all the trees in the “perceived” 50 foot buffer zone.

- Permit issued within 90 days which allows them to proceed.

If you implemented the above for SFRs and In-Fill projects:

- SFR or Infill processed as normal by CEQA Guidelines through Lead Agencies. Exemptions filed at the State Clearinghouse (required by State Clearinghouse anyway)
- Relocation to another portion of the lot represents “mitigation roughly proportional to the taking” that will facilitate development. They are also not responsible for paying any fees because their “mitigation is roughly proportional to the take.”
- Some removal of trees still required (fees required per the Act), for trees that cannot be relocated to accommodate the development. While I don’t anticipate this to be common, there will be trees that cannot be relocated. Relocate to your conservation land that you bought or tribal lands for gene diversity, and monitor for study.
- Permit issued within 90 days which allows them to be within range of their home or investor financing arrangements.

Alternatively:

1. Suspend the “buffer” for one year until you can study the impacts of “root encroachment” in urban areas and provide better guidance and a balanced scientific study because you truly do not know. You have heard from the community.
2. Define Root Encroachment to mean killing the root by digging the root in a manner that severs it from the tree only, and the fee paid only for the tree with the severed root.
3. Define a Joshua Tree woodland in terms of acres and density, in the “wild” or where there is no urban or rural urban interface, and then apply the buffers. Honestly, you are trying to prevent the removal of thousands of trees from these massive solar farms out in the middle of nowhere. Not on these small homeowner lots that have been there for decades that now are required to have a sewer connection. Or a water line that needs to be installed in a rural community along already dirt roads. Focus on what you are trying to accomplish.

Refer to the suggested matrix and see what we can come up with.

Again, despite what you tell people, CDFW STAFF DOES have the power to make this workable for everyone. It is not the Act’s fault. But the interpretation and the pain everyone is feeling, is something you CAN control.

Thank you, I look forward to working with you on Friday and I am very interested in working with the CDFW to develop this into a workable permit solution for the long-term.

Sincerely,

Julie Gilbert

Attachment: Suggested Permitting Matrix

Suggested Joshua Tree Permit Matrix

1927.2 (a) No person... “**take**”/kill a western Joshua **tree** or **any part or product of the tree** except as authorized by this chapter, or CESA, or NCCPA.

Will the project **remove** any Joshua trees? **Or** will the Project involve major grading or digging that could **remove/take** the root system (see Examples)

No

Yes

Provide Self-Certifying Project Notification
(*Sample to be developed*).
Flat fees assessed pursuant to 1927.5 (c):
\$500 for larger projects; \$250 for smaller

Did project require Biological
Report Verification to be
transmitted to CDFW within 60
days of Project completion

No

Yes

1927.3(a): Provide a permit application that contains the following:

1927.3(a): 1. submit census of PROJECT SITE

1927.3(a): 2. Identify avoidance and minimization measures

1927.3: Identify how the Project will mitigate for impacts that are roughly proportional to take impacts **OR** pay the fee.

1927.3 (e): Any person or public agency that meets the criteria of 1927.3 (a)(1) **may elect, in lieu of satisfying the mitigation obligation** in 1927.3, may pay fees. (*Define acceptable mitigation options*)

Notification
filed. No
further
action

CDFW reviews
report. Were any
Joshua Trees
removed, or were
any roots killed, or
were any incident
reports filed.

No

Yes

Notification
filed. No
further
action

Biologist report identifies each tree removed and each tree severed. Applicant either pays the fees for each per the Act or develops alternative mitigation strategy. CDFW issues take permit based on the actual work and actual impacts – which is compliant with the impacts that are roughly proportional to the take.

Examples of \$500 flat fee permit with self- certification With/Without Biological Report Verification*

- Linear Projects by public agencies and private utilities and public special districts where there is surface work only or grading/excavation up to 1 foot below ground surface such as:
 - Road maintenance
 - Road resurfacing including a disturbed shoulder
 - Overhead utility line maintenance and new installation where all staging and pull sites are within the road right-of-way or disturbed areas of the road shoulder
 - Sidewalk repair and new sidewalk installation
 - Park maintenance that does not involve mechanical or hand removal of stems or Joshua trees (except that are hazardous per the Act)
 - Existing water recharge basin maintenance using established haul routes to remove debris and where debris piles are not within the drip zone of a Joshua tree as marked with orange fencing.
 - Emergency existing underground pipeline or utility line repair
 - Existing underground pipeline or utility repair
 - New water production well drilling plus underground and above ground equipment.

**Note: Biological Report Verification is required to be submitted for linear projects that are 0.5 mile or greater in length, all emergency underground repair, existing underground pipeline/utility repair and water production well drilling.*

Examples of \$250 flat fee with self- certification With/Without Biological Report Verification*

- Home Maintenance and Repair such as:
 - Driveway installation/repair
 - Fence installation (see guidance *(to be developed)* for post holes)
 - Exterior home repairs (such as roofing, painting)
 - Pre-fab shed building with or without concrete foundation that does not extend 12 inches below grade and where the structure is placed outside of the drip line as identified in arborist industry standards
 - Accessory Dwelling Unit construction with or without concrete foundation that does not extend 12 inches below grade and where the structure is placed outside of the drip line as identified in arborist industry standards
 - Weed abatement with hand tools that does not remove stems of Joshua trees
 - Weed abatement with power tools that does not remove Joshua tree stems or trees
 - Placement of decorative rock or other decorative features
 - Minor site grading for drainage restoration that does not exceed 1 foot in depth or more than the cubic yards required by the jurisdiction to obtain a grading permit and where the grading occurs outside of the drip zone of the tree and is clearly marked.
 - Emergency existing underground plumbing repairs
 - Well drilling where the well is located beyond the drip line of the tree

**Note: Biological Report Verification is required to be submitted for emergency existing underground plumbing repairs and private well drilling. Homeowners may submit photo documentation.*

- Commercial Maintenance and Repair:
 - Existing parking lot resurfacing
 - Landscape maintenance and improvements, where a Joshua Tree is present
 - Establishment of new material and equipment storage areas on an existing lot provided that the new areas do not extend into the drip zone of a western Joshua Tree as clearly marked on the lot and the activity is permitted by the zoning and jurisdiction lead agency.
 - Minor grading that does not exceed 1 foot in depth or more than the cubic yards required by the jurisdiction to first obtain a grading permit

Examples of a Western Joshua Tree Permit where More Than Minor Grading (meaning needing a jurisdictional permit) or Trenching Occurs

- New Single Family Home or Commercial Construction where one or more Joshua Trees require removal or relocation
- Solar and Wind farms, including all off-site interconnection routes and facilities
- New underground utility construction (water, sewer, electrical) within public or private property
- New water recharge basins and associated piping

Required Permit Application Submittal:

- Project Site Defined with Map (do not go outside of the boundary of the Project Site per 1927.3(a))
- Census of trees in the Project Site per the existing census methods guidance.
- Biological Resources Report that describes the surrounding environment – are Joshua Trees present adjacent to the Project Site, and if so, what is the approximate size range and density. Provide a vegetation map
- Lead Agency CEQA Determination (may include Exemption if Lead Agency determines applicable)
- Identification of Avoidance and Minimization Measures. Acceptable avoidance and minimization measures would include but not be limited to:
 - Where significant underground work is planned, hand spade potholing along the Project Site/alignment to determine the potential for visible root systems and take corrective action or plan mitigation.
 - Biological monitoring during construction, with daily logs and photos. Monitoring can be spot monitoring, half day or full day, at the biologist discretion depending on sensitivity of work and location.
 - Utility lines that are placed under or adjacent to western Joshua Tree roots, and where the roots will be protected and not severed or not “killed.”
- Provide a strategy to mitigate for impacts **that are roughly proportional to take impacts.**

Examples of suitable mitigation strategies that are roughly proportionate to “take”/kill of individual trees and the “take”/kill of roots of other trees would include but are not limited to:

- Relocate the removed trees to elsewhere on the Project Site even if incorporated into the landscaping (*good for new SFRs and Commercial, encourages relocation in the same genetic area*). Property owner not responsible for success. *Since there is no fee structure in the Act specific to relocation, CDFW could assign the fee structure to be the reduced fee, which would promote relocation as a mitigation strategy.* Relocation may be 1:1 or as demonstrated as
- Relocate trees to tribal lands or CDFW mitigation lands pursuant to an agreement between the applicant and the tribe or CDFW.
- Pay the fee defined by the Act for the actual root impacts of other trees that would not be removed but where the roots are visible in the areas of the trees to be relocated and the relocation area.

OR

- Pay the fee for all trees to be removed and the perceived impact of tree roots in the 50 foot buffer.

Example: A SFR defines that 5 trees must be removed for the project, removal is take. As such, the mitigation strategy would be relocation to another portion of the lot. If during removal of the five trees, roots of other trees are visibly observed, and those roots would be “killed” (severed) in the process; therefore, the trees that those roots belong to would be added to the fee calculation only.

From: Nelson Day [REDACTED]
Sent: Friday, March 7, 2025 8:33 PM
To: FGC <FGC@fgc.ca.gov>
Cc: rural radd [REDACTED]
Subject: western joshua tree protection act violation near Joshua Tree National Park

I live in the town of Joshua Tree, less than 1 mile from the National Park boundary. There is a proposed development near my residence (also 1 mile from the National Park boundary) that encompasses 18 acres of undeveloped land. I have been reviewing their CEQA documents, and all they are currently required to do is pay roughly \$300-\$500 per Joshua Tree to just bulldoze the tree over. That is horrific. There are over 100 Joshua Trees on the development land (Currently Labeled Lovemore Ranch [San Bernardino County Planning Report](#)). The land owner has budgeted \$20,000 to bulldoze 100 Joshua Trees. How is this minimal fee environmentally protecting anything? The project proposes 64 dwelling units on 18 acres of land. This type of land abuse and overdevelopment in our town of Joshua Tree so close to Joshua Tree National Park must be stopped. The San Bernardino county planning commission has approved the project. I don't understand how they could have approved the take of this many Joshua Trees for a residential housing project.

Please help us protect these trees!

--

Nelson Day, P.E.

[REDACTED]

[REDACTED]

From: Valeree Woodard [REDACTED]
Sent: Sunday, March 9, 2025 6:10 PM
To: Wildlife Western Joshua Tree <wjt@wildlife.ca.gov>
Subject: Western Joshua Tree

To all concerned

I am in favor of protecting the Western Joshua Tree for future generations to come.

We cannot allow the trees to be bulldozed for housing etc.. because mass grading is cheaper and faster. It can not be only about money!

If you do not act now, then when? It will set a horrible greed driven precedent.

The Joshua tree bloom, is rare and essential for quite a few insect populations. I included a video I took today that shows the variety of insects it attracts. I have lived on my property for just about 20 years and this is the first time this tree has bloomed, and is the only one on my 2.5 acres that has a bloom right now.

I will not be able to attend Mondays meeting, but would appreciate you sharing this pertinent information with attendees.

Thank you, Valeree Woodard
[REDACTED]

From: [REDACTED]

Sent: Thursday, April 3, 2025 4:35 PM

To: FGC <FGC@fgc.ca.gov>

Subject: Long Term Species Conservation Plan

I encourage you to fully adopt the draft Western Joshua Tree Conservation Plan and uphold the Western Joshua Tree Conservation Act. It includes science-based management actions, like avoiding and minimizing harm to the species and its habitat, creating avoidance buffer zones, supporting public education programs, and developing meaningful co-management alongside local Tribes. Finally, it's what we need!

Suvan Geer, Santa Ana Ca

From: Joan Taylor [REDACTED]
Sent: Wednesday, March 12, 2025 1:16 PM
To: Kaiser, Andrew (Drew)@Wildlife [REDACTED]
Subject: Western Joshua Tree Conservation Plan

Attached you'll find Sierra Club comments on the draft Western Joshua Tree Conservation Plan. Please make this part of the record on the matter. Thanks very much for your assistance.



Andrew Kaiser,
Senior Environmental Scientist
Calif Dept of Fish & Wildlife
3602 Inland Empire Blvd #200
Ontario CA 91764

By email to: [REDACTED]

Re: Supporting all guidance measures in the draft [Western Joshua Tree Conservation Plan](#)

Dear Mr. Kaiser:

I write on behalf of the California/Nevada Desert Committee of Sierra Club to urge the Department to retain the protections embodied in the current draft Western Joshua Tree Conservation Plan. The draft's measures are not onerous, and in fact are all needed to achieve the intent of the Western Joshua Tree Conservation Act which would logically require gathering baseline and experiential data which will be needed going forward.

Thank you for the opportunity to comment on this important Conservation Plan.

Very truly yours,

[REDACTED]

Joan Taylor, Chair
California/Nevada Desert Committee
Sierra Club

From: Margaret Strachan [REDACTED]
Sent: Sunday, March 9, 2025 09:11 PM
To: FGC <FGC@fgc.ca.gov>
Subject: Comments re Draft Western Joshua Tree Conservation Plan

3/9/2025

Please consider our comments noted below:

Re 5.2.1 Impact avoidance and mitigation

Action A and M 1.2: Implement avoidance buffers concerns us. With regard to residential property, the recommended buffer distances are unrealistic, and if implemented, would greatly diminish a property owner's ability to maintain their property to say nothing about developing a raw property. Action A and M 1.2 would preclude routine septic maintenance and repairs or improvements requiring trenching could take months for permitting and inspections, potentially displacing residents for lengthy periods of time.

We don't see how High Desert Water District (HDWD) will be able to implement phase 2 of the sewer project in town of Yucca Valley as streets will need to be trenched for piping and many Western Joshua Trees are located in yards and on roadsides within the recommended buffer zones. Our home in town of Yucca Valley sits several hundred feet off the street with a forest of Western Joshua Trees and other native plants in the front yard. There is no way for our home to be connected to HDWD's sewer project and maintain the suggested buffer zones.

Mitigation fees can bankrupt residents who need to update or repair their home. Most residents of the high desert communities do not have tens of thousands of dollars for mitigation fees and that includes us. We suggest a fee waiver for existing residential properties particularly within incorporated town or city boundaries.

Another concern is liability for mitigation. SCE and their contractors or lessees have repeatedly trespassed on our property to access poles as front of property is unfenced and neighbors have fenced the actual utility easement. Last year we had to stop town of Yucca Valley staff from using heavy equipment on our property—they were pushing dirt onto young Western Joshua Trees growing in a wash. We are concerned about outside parties commencing ground disturbing work or even damaging or destroying Western Joshua Trees without consent or permits and the liability that ensues.

We do support Action A and M 2.2: Minimize impacts on occupied Western Joshua Tree habitat. We want to preserve the Western Joshua Tree, but we also want to reside in our home and coexist peacefully in our established community.

We appreciate the opportunity to comment.

Thank you,

Margaret Strachan

Barry Sheinbaum

[REDACTED]

[REDACTED]

[REDACTED]

Sent from my iPad

From: Affinity Flooring [REDACTED]
Sent: Wednesday, March 26, 2025 02:51 PM
To: FGC <FGC@fgc.ca.gov>
Subject: Fwd: Western Joshua Tree

Dear Ericka Zavaleta,

I hope this letter finds you well. I am writing to express my concerns regarding the current consideration to list Joshua trees as an endangered species in California. While I understand the need to protect endangered flora and fauna, I believe that the classification of Joshua trees under such protection is misguided and has significant negative consequences for landowners like myself.

One of the main issues stems from the strict regulations surrounding land development when Joshua trees are present on the property. Specifically, the requirement that no ground disturbance occurs within 50 feet of a Joshua tree is impractical and places unreasonable burdens on homeowners. This limitation severely restricts the use of land that would otherwise be viable for construction, gardening, and other personal property use.

For many residents, including myself, these regulations make it difficult, if not impossible, to develop or modify their homes as they see fit. Whether trying to build a new home, install a fence, or simply maintain their property, the stringent rules around Joshua tree protection impede progress and often lead to increased costs, delays, and frustration. The reality is that many homeowners find themselves caught in a difficult position, where their rights to manage and develop their land are unfairly compromised.

While I acknowledge the importance of conserving our natural environment, I urge you to reconsider the impact these regulations have on those of us who live and work on the land. A more balanced approach, one that accounts for both environmental conservation and property rights, would be far more reasonable. Perhaps a more flexible buffer zone around Joshua trees or a system that allows for specific exemptions when landowners are not harming the trees themselves would be a step in the right direction.

I respectfully ask that you take these concerns into account as you consider this important issue. Thank you for your time and attention to this matter, and I look forward to hearing from you.

Sincerely,

Denise Ledcke

From: Kerrie Aley [REDACTED]

Sent: Wednesday, March 26, 2025 04:19 PM

To: FGC <FGC@fgc.ca.gov>

Subject: Fwd: Substantive- Public Comment WJT Conservation Act, Policies and Permitting

Attn: Commission President Erika Zavaleta

March 12 2025

To-

San Bernardino County **Supervisor Dawn Rowe**

San Bernardino County Land Use **Director Mark Wardlaw**

Yucca Valley **Mayor Jeff Drozd**

California Department Fish and Wildlife **Drew Kaiser, CDFW Native Plant Program**

Please find attached substantive comments pertaining to the WJT Conservation Act, Policies and Permitting, specifically the required Survey Census and Report requirements.

In addition-

I object to the CA Fish and Wildlife joining the WJT "coalition" while excluding people who own land and government agencies such as Yucca Valley and San Bernardino County. Are these the same people that help draft the WJT Conservation Act and the policies?

While I think its great CA is attempting to work with indigios communities, excluding the Morongo Basin community from this steering committee is just another layer of increasing miscommunication and denial of the real impacts of the Western Joshua Tree Act on our local economy. Clueless.

<https://www.mdlt.org/press-releases/new-coalition-of-experts-to-tackle-conservation-of-imperiled-joshua-trees>

I object to the fact that due to the Mitigation Fee Structure in the WJT Conservation Act the Morongo Basin must pay 225% to 250% higher take fees than the reduced fee areas like Palmdale, Landcaster, Apple Avelly and Kern County. **WHY?** This legislation must be changed so it considers existing permitted homes and structures and that their is equity and some sort of financial relief for repairs. How about require planting a few Joshua Tree seedlings or small trees instead? Seems to me the MDLT can at least offer this service to homeowners. Or is this just a another ploy to drain the high desert of money while relocating the Western Joshua Tree hundreds of miles away to refugios.

I'd like to know how many hundreds of millions of dollars in "take fee" does the state plan on spending? What's the budget and where is the accountability for this space race to save this imperiled succulent.

Our properties are over 50 years old and the income level in this area is low. My fire insurance is now 5 times what it was seven years ago. My retired neighbor cannot afford insurance any more. If his 30 year old septic system goes out where is the money going to come from to pay the "Take Fee" if his septic field fails? He has been taking care of these WJT for 40 years and this is how CA treats him like some sort of tree killer??? There is no consideration of residents.

Sorry for the drama....Please do something sane for a change.

Regards,

Kerrie Aley

Pipes Canyon / Ploneertown