



January 27, 2025

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

via email: fgc@fgc.ca.gov

RE: Written Comments to Western Joshua Tree Conservation Plan

Dear Commissioners:

Tejon Ranch Co. on behalf of itself and its subsidiary/affiliated entities, Tejon Ranchcorp and Centennial Founders, LLC (collectively, the “Tejon Ranch”), offers this letter to provide written comments for the draft Western Joshua Tree Conservation Plan (the “Plan”). Tejon Ranch has reviewed the California Department of Fish and Wildlife’s (“CDFW” or the “Department”) draft Plan prepared for the Fish and Game Commission (“Commission”) as required by the Western Joshua Tree Conservation Act (the “Act”). The Department’s Plan places some of Tejon Ranch’s lands within the “Geographic Focus Area” for conservation activities. Additionally, the Plan indicates that all of Tejon Ranch falls within the Act’s boundary area for mitigation for take of western Joshua tree. We appreciate that the Commission is now seeking public comment before finishing the Department’s Plan.

Introduction

At 270,000 acres, Tejon Ranch is the owner of the largest single expanse of private property in California and has a 180-year legacy of natural resource stewardship within Kern and Los Angeles counties. Located along Interstate 5 and State Route 138, Tejon Ranch’s southern boundary is in the Antelope Valley, within the Plan’s focus area. At approximately 420 square miles and extending between the southern regions of the Sierra Nevada Mountains and the Tehachapi Mountains, Tejon Ranch itself is almost as large in size as the City of Los Angeles.

Historic Ranchwide Agreement

Tejon Ranch has demonstrated an unprecedented commitment to species conservation. This fact is proven by our nearly two centuries of land stewardship, and more recently showcased by the 2008 historic Tejon Ranch Conservation and Land Use Agreement (the “Ranchwide Agreement”), which is still the largest private conservation transaction in California history. At 240,000 acres, the open space preservation at Tejon Ranch exceeds that of any other private conservation commitment in California, like those made at Hearst Ranch (82,000 acres) and the Irvine Ranch Land Reserve (50,000 acres).

As CDFW is aware, the Ranchwide Agreement preserves 240,000 acres (90 percent) of Tejon Ranch as open space and served as the impetus for the state of California to fund the purchase of

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five conservation easements held by the Tejon Ranch Conservancy (the “Conservancy”) in 2010. Today, over 110,000 acres of Tejon Ranch are protected by permanent conservation easements, including 62,000 acres bought using Wildlife Conservation Board (“WCB”) funds, which is where the northernmost population of western Joshua trees is found in a permanently protected area of Tejon Ranch.

The Ranchwide Agreement was also entered into as part of a framework for Tejon Ranch to sustainably develop the remaining 30,000 acres (10 percent) of Tejon Ranch in four mixed use master-planned communities on land that the parties to the Ranchwide Agreement determined was most suitable for development. In these designated areas approved to be developed on Tejon Ranch, there are no western Joshua trees present.

Tejon Ranch’s Legacy of Stewardship

Founded from four 1843 Mexican land grants, much of what is experienced today on Tejon Ranch is what would have been experienced hundreds of years ago. This is due to the fact that Tejon Ranch has been engaged in a level of stewardship that has carefully managed and protected its resources. Our agricultural and ranching activities use the best management practices available. Our real estate development activity is using the most suitable land to meet the housing, employment, open space, and lifestyle needs of current and future generations of Californians. Conservation and good stewardship tenets are woven across Tejon Ranch and are an integral part of our business.

Over the last three decades, Tejon Ranch has invested hundreds of millions of dollars in the planning, entitlement, and permitting of four master-planned communities – Tejon Ranch Commerce Center, Grapevine, and Mountain Village found in Kern County and Centennial found in Los Angeles County. Tejon Ranch’s commercial development and residential housing projects are long-considered sustainable communities. Tejon Ranch’s master planned developments will contribute to resolving California’s severe housing crisis by building more than 35,000 homes, including affordable housing units that help achieve Governor Newsom’s vision of a *California for All*.

Even before the recent wildfires that destroyed tens of thousands of homes in Southern California, Governor Newsom stressed that California needs 2.5 million homes by 2030 and officials at the California Department of Housing and Community Development are implementing state law to achieve this mandate. To meet the demand of this housing crisis – including achieving the goal of one million units of affordable housing, California must accelerate housing construction in *every region* of the state, including areas within the Plan’s Geographic Focus Area.

Tejon Ranch is an iconic California property in remarkable condition, but not from being untouched. It is a working ranch that is cared for with intention and principles of good stewardship that inspired the creation of huge areas for plant and animal species conservation. Since 1843 – before California Statehood – Tejon Ranch has been actively managed. Depending upon annual vegetation, up to 14,500 head of cattle graze approximately 250,000 acres of the Ranch and feed year-round as part of a permanent, fenced grazing program involving two long-standing livestock leases. Continuous grazing of Tejon Ranch is a practice that continues a way of life dating back to

vaqueros on the property prior to statehood. Other farming activities included almost 6,000 acres of pistachio, almond, wine grape and alfalfa production. Still, other parts of the Ranch operate a multitude of diverse commercial business activities.

Responsible Development at Tejon Ranch

Tejon Ranch's four mixed use master-planned communities have all received local approval and are entitled for development. Each of the four development projects have been subject to and completed rigorous environmental review, culminating in the certification of an environmental impact report ("EIR") for each project. Tejon Ranch Commerce Center, Grapevine, and Mountain Village have been successfully litigated following extensive public input and review under the California Environmental Quality Act ("CEQA") process, in which process the Department took part.

In each Tejon Ranch EIR, western Joshua trees were not found to be present within the Ranch's designated development areas. The identified absence of Joshua trees within development areas includes Centennial, where a community of 19,333 homes is to be situated despite being drawn into the Department's created Geographic Focus Area. Tejon Ranch's site specific EIRs, and specifically the findings that western Joshua Tree are not found in the development areas, constitute substantial evidence that additional regulatory hurdles on these developments should not be imposed, notwithstanding the Geographic Focus Area. Tejon Ranch believes the Department should recognize the primacy of site specific and fully completed EIRs when considering the Plan and its implementation.

Comments Concerning the Draft Conservation Plan

Since the Act's 2023 enactment, Tejon Ranch has closely followed the development of the Department's draft Plan and took part in the stakeholder process. We provide the following comments for consideration in the final version of the Plan.

A. The Mitigation Boundary is Arbitrary.

The Western Joshua Tree Conservation Act (SB 122) oddly put in place a western Joshua tree mitigation boundary that significantly extends beyond the Mojave Desert bioregion by stretching deeply into Kern County, which encompasses the entire 270,000 acres of Tejon Ranch. This boundary for mitigation of take of western Joshua tree includes vast places where no western Joshua trees exist.

The arbitrarily designated boundary was only revealed late in the legislative process. Tejon Ranch and other stakeholders were not included in the closed-door negotiations that created the boundary. In fact, the Kern County Board of Supervisors described the boundary as "erroneous and inappropriate" (*see* attachment dated June 23, 2023). We are still opposed to Tejon Ranch lands being indiscriminately drawn into the mitigation boundary because secondary conservation overlays created like these confuse the public and inspire serial opponents of needed housing to pursue spurious CEQA challenges of approved projects in the courts. The Plan should recognize that the Act created an arbitrary boundary for mitigation.

B. The Buffer for the Geographic Focus Area is Needlessly Expansive.

Tejon Ranch has reviewed the Plan's goals and objectives. The Plan appropriately prioritizes the identification of lands with high western Joshua tree density that are ecologically intact and have compatible surrounding uses. However, the Department's focus area inexplicably includes an expansive 5-mile buffer from known Joshua tree stands "that could be suitable for implementation of conservation management actions." Further, the Plan does not cite scientific justification for such a buffer. Description of a buffer that lacks scientific justification is the very definition of "arbitrary," and confounds logic as there is not reasonable articulation of the basis for this boundary.

This choice results in significant private lands where no western Joshua trees are recorded then being inaccurately mapped within the enlarged focus area. CDFW's approach is too broad and onerous, especially considering that CDFW has also said that "avoidance and minimization of impacts" should be an aim for private landowners, utilities, and businesses in the protection of the species.

Tejon Ranch practiced avoidance of western Joshua tree and other species when siting our master planned community, Centennial. The real-world implications of the Plan's enlarged Geographic Focus Area, especially without any scientific justification, means that approved development areas like Centennial could be targeted for more CEQA lawsuits by serial litigators like the Center for Biological Diversity ("CBD"), only because these areas have been drawn into the Plan's Geographic Focus Area. CBD is the same entity that petitioned the Commission in 2019 for the western Joshua tree listing.

C. The AVRCIS is Irrelevant.

Tejon Ranch has taken note of the Plan's references to the controversial Antelope Valley Regional Conservation Investment Strategy ("AVRCIS"), a voluntary, and *non-regulatory* process that has been used by third parties against development, including by CBD in its litigation against the Centennial project. However, the AVRCIS does not include Tejon Ranch lands within the AVRCIS's boundary. Fortunately, Tejon Ranch received a letter from the Director of the Department that clarified CDFW's view of the limited role of these conservation strategies and how they have been abused in CEQA lawsuits (*see* attachment dated May 3, 2022). In Tejon Ranch's case, and as referenced above, a preliminary version of the Department's AVRCIS was used by CBD as an exhibit in its litigation against the Centennial Specific Plan.

In CDFW's Plan, the Department accurately depicts the boundary of the AVRCIS (Figure 2-3) in relation to the Plan's Geographic Focus Area, but doing so needlessly imparts weight of the importance of the voluntary, non-regulatory AVRCIS to this specific conservation plan.

D. The Plan's Maps Contain Inaccuracies from Recent Federal Action.

The Plan's maps depicting federal ownership and populations of western Joshua tree require an update to accurately reflect action taken under the Antiquities Act of 1906 by President Joe Biden. The January 14, 2025 action by President Biden expands the boundary of Joshua Tree National Park and designates Chuckwalla National Monument, where additional western Joshua tree habitat might exist, for federal protection.

Tejon Ranch thanks the Commission for the opportunity to comment on the Department's Plan for western Joshua tree conservation. We look forward to these comments being considered prior to the Plan's completion. If there are other questions, please contact Todd Ferrara, Vice President of Government Affairs, at 916-767-3618 or tferrara@tejonranch.com.

Sincerely,



Michael R.W. Houston
Senior Vice President and General Counsel
Tejon Ranch Company

Attachments

- Kern County Board of Supervisors letter to Governor Newsom, June 23, 2023
- CDFW letter to Tejon Ranch, May 3, 2022

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June 23, 2023

The Honorable Gavin Newsom
Governor, State of California
1021 O Street, Suite 9000
Sacramento, CA 95814

RE: Western Joshua Tree Conservation Act, Trailer Bill Language – OPPOSE UNLESS AMENDED

Dear Governor Newsom,

I am writing on behalf of the Kern County Board of Supervisors to express our serious concerns with amendments to recent trailer bill language regarding the Western Joshua Tree Conservation Act. The bill language significantly expands the territorial boundary that would require specific mitigation to address impacts to Joshua Trees.

The revised boundary area, which was changed last week with no discussion or input from stakeholders, erroneously expands the protected territory to include parts of the Central Valley including downtown urban areas outside the desert where Joshua Trees actually grow. Similarly, certain regions of the newly amended boundaries encompass areas with one or two scattered trees but that already have projects permitted, including the Tejon Ranch area. Proponents who might argue that including areas in the boundary where Joshua Trees do not exist makes no difference, promulgates thoughtless government overreach and will simply include areas that have no relationship to the species being protected. Furthermore, the expanded boundaries will likely open the door for litigation and other actions from outside interests that stymie the construction of needed projects and infrastructure. We object to these arbitrary boundary changes as they have no relationship to the location and protection of the Western Joshua Tree and they ignore the principles of regional conservation.

As an alternative, the County of Kern is requesting that the boundary description in the bill should be revised, as reflected in the redline changes below, to more accurately depict the species' actual habitat:

1) (A) ~~Any project in the area bounded by the intersection of Highway 58 and Interstate 5, then Beginning at the junction of Highway 58, Cameron Road exit 159 (mile post R 101.56), east along Highway 58 to the intersection of Interstate 15, then north along Interstate 15 to the intersection of Highway 247, then south along Highway 247 to the intersection of Highway 18, then west along Highway 18 to the intersection of Highway 138, then west and north along~~

Highway 138 from Highway 14 to 210th street West ~~the intersection of Interstate 5, then north along Interstate 5 to Highway 58.~~

Kern County has provided over 60% of the wind and solar energy for the State of California and is currently processing over 3,000 MW of construction for solar and 3,500 MW of combined solar and battery storage. We certainly support thoughtful mitigation of impacts to the Western Joshua Tree; however, the recent amendments to the boundary description include areas that will have no impact on protecting Joshua Trees and could mire projects in unnecessary and costly litigation. The boundary description must be corrected before further action is taken on the trailer bill.

For these reasons, the Kern County Board of Supervisors respectfully opposes the Western Joshua Tree Conservation Act unless it is amended to address the erroneous and inappropriate inclusion of territory within the mitigation boundaries.

Sincerely,



Jeff Flores, Chairman
Kern County Board of Supervisors

cc: Honorable Members, Kern County Legislative Delegation
Lorelei Oviatt, Director, Kern County Planning and Natural Resources Department
Greg Bielle, President and CEO, Tejon Ranch
Shaw Yoder Antwih Schmelzer & Lange



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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



May 3, 2022

Gregory S. Bielli
President & Chief Executive Officer
Tejon Ranch
4436 Lebec Road
Tejon Ranch, CA 93243

Dear Mr. Bielli:

The California Department of Fish and Wildlife (Department) and Tejon Ranch (Ranch) have a long history of working together. The list of issues between the Department and Ranch covers topics from landscape scale conservation to wildlife connectivity, from permitting responsible development and housing to stewardship of one of the state's largest conservation agreements. Another issue of interest to both of us is the appropriate implementation of a relatively new program at the Department that allows for the creation of Regional Conservation Investment Strategies (RCISs).

This new law and program encourage a voluntary, non-regulatory process intended to result in higher-quality conservation outcomes and includes an advance mitigation tool. This program uses a science-based approach to identify conservation opportunities and consists of three components: regional conservation assessments (RCAs), regional conservation investment strategies (RCISs), and mitigation credit agreements (MCAs.). These tools are broadly supported across the state, and while we are in the beginning phases of implementing the program, transportation, infrastructure, and local government leaders around the state are embracing this program to both conserve natural resources and create regulatory certainty for industries.

I thank you for your appreciation of the value of RCISs when used consistent with Fish and Game Code sections 1850-1861 and the RCIS Guidelines the Department published in 2017 and amended in September 2018.

The Department acknowledges that one RCIS effort has generated significant negative feedback from the Ranch. This one example is the Antelope Valley RCIS. The purpose of my letter to you is to clarify the Department's view on RCIS.

Conserving California's Wildlife Since 1870

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First, the development of an RCIS is purely voluntary. The Department cannot compel any public entity to pursue an RCIS, nor can it prevent any public agency, or other individuals or entities working with a public agency, from pursuing and proposing an RCIS.

Second, RCIS is a non-regulatory and non-binding conservation assessment. Nothing in law allows the Department or any other state or local agency to use an RCIS as a regulatory requirement against an entity like the Ranch. Indeed, the statute expressly states that an RCIS "shall not affect the authority or discretion of any public agency and shall not be binding upon public agencies other than parties to a mitigation credit agreement." (Fish & G. Code, § 1855, subd. (a).) The statute goes on to clarify that an RCIS does not alter existing land use authority, standards for issuance of permits and approvals, standards under the California Environmental Quality Act, or whether a project or project impacts are authorized or prohibited. (Fish & G. Code, § 1855, subd. (a)-(b).)

The Department is aware that various parties in litigation concerning Los Angeles County's approval of its Antelope Valley Area Plan, Los Angeles County's approval of the Centennial Specific Plan, and transportation projects have sought to introduce the Antelope Valley RCIS as evidence to support their challenges to local agency actions. To the best of our knowledge, in each of these cases the court has appropriately determined that the Antelope Valley RCIS is not an obstacle to discretionary land use decisions by local agencies.

To be very clear, the Department does not support any RCIS being used in this manner. As noted above, the development of RCISs does not create, modify, or impose regulatory requirements or standards, regulate land use, establish land use designations, or affect the land use authority of a public agency. We are concerned that transporting a voluntary, incentive-based program as evidence into a judicial proceeding will have the consequence of chilling future interest in the very tool the Department seeks to make available around the state to increase conservation outcomes.

At the request of the Ranch, the Department helped ensure that the public agency proposing the Antelope Valley RCIS did not include any Ranch lands within the RCIS boundaries. The Department further acknowledges that there can be differences of opinions about what constitutes "best available science" in natural resources management and planning, and that this question has arisen in the context of the Antelope Valley RCIS. Looking ahead, the Department does not support good faith, collaborative efforts in a voluntary

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venue like RCIS being raised by others in a confrontational venue like California Environmental Quality Act litigation to advocate what is or is not "best available science." An RCIS should not be weaponized for litigation. These were not the goals of Assembly Bill 2087 and Senate Bill 103 in creating the program.

I thank you for raising your concerns directly with me regarding the Antelope Valley RCIS. Notwithstanding those concerns, I trust you can appreciate the broader success and support across the state for new voluntary based efforts to create regulatory certainty and conserve our great natural resources in California. Please stay in touch so that we can continue the collaboration between Tejon Ranch and the California Department of Fish and Wildlife.

Sincerely,

A handwritten signature in black ink, appearing to read "CH Bonham", with a long horizontal flourish extending to the right.

Charlton H. Bonham
Director



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,

A handwritten signature in blue ink, appearing to read 'Adam Harper', is written over the typed name and title.

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)	151.60	323.41	732.73	459.85	131.39	1793.92	640	97,023.36	206,983.17	468,946.24	294,304.19	84,086.91	1,148,109.76	
Mixed Use (Federal)	222.35	510.38	96.01	5.05	389.10	1217.85	640	142,300.93	326,645.31	61,448.13	3,234.11	249,026.62	779,420.99	
Defense	525.54	282.98	65.69	15.16	0.00	894.43	640	336,347.65	181,110.27	42,043.46	9,702.34	-	572,437.82	
Wilderness	186.97	318.36	5.05	0.00	212.24	717.57	640	119,662.14	203,749.06	3,234.11	-	135,832.70	459,243.90	
Preservation with Light Recreation/Other Use	171.81	151.60	35.37	5.05	60.64	424.48	640	109,959.81	97,023.36	22,638.78	3,234.11	38,809.34	271,665.41	
Tribal Land	0.00	5.05	0.00	0.00	5.05	5.05	640	-	3,234.11	-	-	3,234.11	3,234.11	
Total	1258.27	1591.79	929.81	485.12	788.31	5052.85	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

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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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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.



InlandAction

January 30, 2025

DELIVERED VIA EMAIL: fgc@fgc.ca.gov

California Fish and Game Commission and
Charlton Bonham, Director
Department. of Fish and Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090

Subject: Western Joshua Tree Conservation Plan (Plan) Comments

Honorable Commissioners and Director Bonham:

We respectfully submit the following comments for consideration on the Western Joshua Tree Conservation Plan draft^{1,2} (the “Plan”).

First, we acknowledge the need to protect the western Joshua tree (WJT) species and want to give credit to the Town of Yucca Valley and the County of San Bernardino for their Native Plant Ordinances that had placed protections on the WJT since the early 1990s. Statewide protection is welcome and must balance the species' long-term survival while supporting community infrastructure, public safety, and housing needs for the disadvantaged (and severely disadvantaged) communities that live in harmony with the trees. As documented in the CA Department of Fish and Wildlife’s March 2022 WJT Status Report³, the western Joshua tree exists today in large quantities. It occupies a large area of the desert foothills of San Bernardino, Los Angeles County, and Kern Counties in the Mojave Desert, beginning in the north in the Owen’s Valley, throughout the Tehachapi’s, through Palmdale, Lancaster, Victor Valley, Yucca Valley, Joshua Tree and into the Joshua Tree National Park, its namesake.

¹ [WJTCP_Vol 1_compressed \(1\).pdf](#)

² [WJTCP_Vol 2_compressed.pdf](#)

³ [19.2_Status_Review_WJT_041222_acsbl.pdf](#)

Before the Commission acts to finalize this regulation, we invite the Commissioners to visit our communities where the western Joshua tree has been protected and is prolific in the built environment (such areas include Yucca Valley, San Bernardino County, Hesperia, and Apple Valley, etc.).

The following is taken directly from the **Western Joshua Tree Conservation Act (Act)**, with emphasis added.

(Chapter 11.5 (commencing with Section 1927) as added to Division 2 of the Fish and Game Code:

Section 1927.3 (a) The WJTCA allows by permit the taking of a western Joshua tree if all of the following conditions are met:

- i. The permittee submits to the department for its approval a **census of all western Joshua trees on the project site** including size information and photographs, that categorize the western Joshua trees according to the following size classes:*
 - 1. Less than one meter in height.*
 - 2. One meter or greater but less than five meters in height.*
 - 3. Five meters or greater in height.*
- ii. The permittee **avoids and minimizes** impacts to, and the taking of, the western Joshua tree to the maximum extent practicable. Minimization may include trimming, encroachment on root systems, relocation, or other actions that result in detrimental but nonlethal impacts to a western Joshua tree.*
- iii. The permittee **mitigates all impacts** to and taking of, the western Joshua tree. The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking of the species. When various measures are available to meet this obligation, the measures required shall maintain the permittee's objectives to the greatest extent possible. All required measures shall be capable of successful implementation. The permittee shall ensure adequate funding to implement the mitigation measures. **In lieu of completing the mitigation obligation on its own, the permittee may elect to satisfy this mitigation obligation by paying fees, pursuant to the fee schedule in subdivision (d) or (e), for deposit into the fund.***

The Plan includes onerous provisions that, among other things, have the potential to endanger public safety and inhibit necessary infrastructure projects. The following is a summary of improvements to the Plan that should be made, followed by further explanation:

- 1. LIMIT THE DEFINITION OF "TAKE" TO ACTUAL LETHAL IMPACT TO THE WESTERN JOSHUA TREE AS SUPPORTED BY STATUTE**
- 2. CENSUS SHOULD BE LIMITED TO PROJECT SITE AS STATED IN THE ACT, AND THE "AVOIDANCE BUFFER" SHOULD BE ELIMINATED**
- 3. SIMPLIFY AND EXEMPT CENSUS REQUIREMENTS FOR SPECIAL CIRCUMSTANCES**
- 4. CHARGE FEES ONLY IN-LIEU OF, NOT IN ADDITION TO, MITIGATION AS THE ACT INTENDED**

5. **PROVIDE EXEMPTIONS AND EXPEDITED PERMITS FOR PUBLIC WORKS PROJECTS IN STREETS AND PUBLIC RIGHTS OF WAY, WHICH ARE ALREADY DISTURBED**
6. **PROVIDE EXEMPTIONS FOR WILDFIRE MITIGATION PROJECTS**
7. **PROVIDE AUTHORITY AND PRIORITY TO LOCAL AGENCIES FOR LAND USE DECISIONS AND LIMITED PERMITTING**
8. **SET CLEAR GOALS ON WHAT SUCCESSFUL CONSERVATION OF THE WJT LOOKS LIKE**
9. **ALLOW LOCAL SEEDING HARVESTING, SEED BANKS, AND ASSISTED MIGRATION OF WJT**
10. **STUDY AND DOCUMENT THE SOCIO-ECONOMIC IMPACTS AND ENVIRONMENTAL JUSTICE IMPACTS OF THE PLAN**
11. **INCREASE PUBLIC ACCESS AND TRANSPARENCY OF DATA**
12. **EXTEND TIME FOR PUBLIC COMMENTS TO AT LEAST FEBRUARY 28**

Detailed comments and concerns:

1. LIMIT THE DEFINITION OF “TAKE” TO ACTUAL LETHAL IMPACT TO THE WESTERN JOSHUA TREE AS SUPPORTED BY STATUTE

- a. In the Plan (page 1-5) it defines “take” by citing Fish and Game Code Section 86 to mean “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” This dates back to 1957 when the purpose of the California Fish and Game Commission (Commission) was limited to animals or fish. This definition seems to apply to a person with a gun or fishing pole trying to hunt or catch an animal or fish. The application of this definition to plants can be misinterpreted. Plants are very different than animals and have different life cycles and should be treated differently.
- b. The “take” of a tree or plant should be limited to the actual lethal result of the action. Relocation or avoidance of a plant should be treated as mitigation, not a “take”.
- c. The Act (Section 1927.3(a)ii clearly identifies avoidance to the maximum extent “practicable”, as *trimming, encroaching on roots, relocation, and other actions that result in detrimental but nonlethal impacts of the WJT are practicable* examples. The Plan contradicts this with the treatment of avoidance as a “take” and then expands the potential avoidance area to the larger buffer area beyond the project site.

2. CENSUS SHOULD BE LIMITED TO PROJECT SITE AS STATED IN THE ACT, AND THE “AVOIDANCE BUFFER” SHOULD BE ELIMINATED

- a. The Act requires a census of the WJT on the “Project Site”, but the Plan calls for a census of a larger “Avoidance Buffer” of 25-186 feet from the project. This expansion, beyond the statutory requirement, is not supported by scientific evidence that the larger area adds any further protection to the WJT.
- b. The WJT survival and status in the built environment is evidence it does not require Avoidance Buffers to survive. They can survive in curbside planters surrounded by asphalt and concrete.
- c. The Avoidance Buffer requires census on private property and potential public lands off Project Sites where the census-taker has no jurisdiction, easement, or property rights.
- d. The Plan defines the “Avoidance Buffer” as up to 186 feet from a tall tree. This would essentially make all ground-disturbing activities anywhere in bubbled areas identified on the maps, subject to a census and can be interpreted as a “take” even if there are no

trees on the Project Site. The census of this additional area is costly and time-consuming, will cause delays, make some projects not viable, and will not have any measurable benefit to the protection of the species.

- e. The Commission should reject the use of the seed distribution zone as the “Avoidance Buffer” as this is not a “take” or lethal impact to the WJT.
- f. This “Avoidance Buffer” could jeopardize the viability of wildfire mitigation, and critical housing and infrastructure projects.
- g. The proposed “Avoidance Buffer” should be rejected by the Commission as it is well outside the root zone.
 - i. The workshops⁴ held by the Dept of Fish and Wildlife describe the root zone as the smaller ring 5 feet or less, and they also state the roots will regrow and can be severed without harming the tree. Even the current use of 25-50 feet beyond the “Project Site” is not warranted and beyond what is practicable.
 - ii. There are hundreds if not thousands of documented successful transplants using a tree spade with a radius of 5ft or less, where roots recover.
 - iii. Native plant experts, botanists, and arborists have documented that a western Joshua tree can survive even if roots are severed.
 - iv. Transplanting guidance in the appendix of the Plan calls for severing roots and bare-root transplanting. There is evidence of this throughout the built environment of the hardy nature of the WJT and its survival with ground disturbance next to and around it. The WJT is thriving in the built environment and one yard can have dozens of trees.
 - v. Native Americans harvest roots of the WJT for rope and basket weaving without harming the tree. The roots recover as is stated in the Plan.

3. SIMPLIFY AND EXEMPT CENSUS REQUIREMENTS FOR SPECIAL CIRCUMSTANCES

- a. The need for a census to count and classify the WJT is understandable for a take permit, but it is important to simplify the methods allowed and list when a full census is not required (i.e. no trees on the property, wildfire mitigation, sewer connection, projects in streets, etc.).
- b. Census requirements should be flexible, while effective. Reporting and compliance should be simple to avoid unnecessary costs and delays to projects.
- c. For larger projects allow video and artificial intelligence (AI) and advanced survey options to document, classify, and survey trees on the project site. Allow lidar surveys, aerial photography, and the use of Google mapping and images for documentation.
- d. For existing homes and businesses, the Commission should allow for the use of Google Maps Street View images for documentation to show no take is anticipated by work in the front yards of homes and businesses visible from the street. (i.e. sewer connections, water line replacements, and other in-fill ground disturbing permits)
- e. The Commission should also allow the use of dated photographs to show before and after WJTs on a Project site to avoid unnecessary costs of a full census.
- f. Exempt critical water and fire mitigation projects.
- g. Exempt private property sewer connections, which provide environmental and public health benefits, from fees and census.

⁴ [Western Joshua Tree Conservation Plan](#)

4. CHARGE FEES IN-LIEU OF, NOT IN ADDITION TO, MITIGATION AS THE ACT INTENDED

- a. The Act calls for optional “fees” for projects to pay instead of mitigation. In lieu of completing the mitigation obligation on its own, the permittee may elect to satisfy this mitigation obligation by paying fees, pursuant to the fee schedule in subdivision (d) or (e), for deposit into the fund.
- b. The fee(s) should not be charged by the Department unless there is an actual lethal “take” of a tree and the project proponent elects to not implement other mitigation efforts. It is clear in the Act that a fee should not be charged on top of mitigation efforts and allowable avoidance.
- c. If a “take” in-lieu fee is paid on a tree that still lives, the fee should not be charged twice for the same trees later, resulting in the double or triple collection of fees for the same tree. To avoid this, fees should not be collected on trees that are still living.

5. PROVIDE EXEMPTIONS AND EXPEDITED PERMITS FOR PUBLIC WORKS PROJECTS IN STREETS AND PUBLIC RIGHTS OF WAY, WHICH ARE ALREADY DISTURBED

- a. Cities and counties have the authority to issue encroachment permits in connection with a utility’s activities in public rights-of-way. The Commission should grant authority to such counties and local municipalities to include in such encroachment permits an incidental take for public works projects in existing streets. If a take is anticipated, the local jurisdiction could oversee the mitigation and not require the in-lieu fee unless the utility proponent elects to pay the fee-in-lieu of mitigation, as provided for in the Act.
- b. Although not specified in the Act, the CDFW is requiring public works projects in streets to survey 50+ feet from the street even when no impact or take is anticipated. The Plan would expand this survey to 186 feet. This is unreasonable and could halt or make many public works projects, including street and utility maintenance, infeasible due to added costs and time delays.
- c. The FACT SHEET developed and published by The Center for Biological Diversity’s Proposed Trailer Bill Legislation for the Western Joshua Tree Conservation Act cites the benefit of the Act to include striking a balance between housing needs, public works projects, and climate change (i.e. wildfire, climate adaptation). Improvements to the Plan are needed to ensure that balance is, in fact, struck. Western-Joshua-Tree-Conservation-Act_Fact-Sheet.pdf⁵
- d. Public agencies and utilities are vested in communities long-term, unlike private developers that the Act was largely directed towards. Public agencies and utilities work on an ongoing basis in the communities. Therefore, allowances for longer-term self-mitigation and monitoring of the environment should be granted without undue burden. Public employees and utility workers are often also the local experts and partners needed to help protect the WJT.

⁵ https://www.biologicaldiversity.org/species/plants/Joshua-tree/pdfs/Western-Joshua-Tree-Conservation-Act_Fact-Sheet.pdf

6. PROVIDE EXEMPTIONS FOR WILDFIRE MITIGATION PROJECTS

- a. Since wildfire is listed as a threat to the WJT the Commission prioritized exemptions to protect the public and the adjacent wilderness areas as is necessary for Public Safety and the long-term protection of the WJT.
- b. Local land use agencies, counties, and fire protection districts should be given authority to issue permits and exempt fees, without liability for wildfire mitigation projects and vegetation management.
- c. The Commission should provide permit and fee exemptions for fire breaks, defensible space, water systems, fire hydrant maintenance, etc.
- d. The Commission should grant permit and fee exemptions for private property work to provide defensible space to clear around homes and buildings to protect the public.

7. PROVIDE AUTHORITY AND PRIORITY TO LOCAL AGENCIES FOR LAND USE DECISIONS AND LIMITED PERMITTING

- a. The Commission should grant counties and local agencies authority to issue ground disturbing permits for existing homes and businesses to install sewer connections, water line replacements, underground utility work, accessory dwelling units, etc.
- b. Local land use authorities should be given authority to manage the permitting and development within their jurisdictions to determine what areas are best suited for development and conservation based on their General Plans.
- c. Local land use authorities should be protected from liability when they follow their General Plan, implement WJT mitigation, and issue permits for development in areas prioritized for housing, infrastructure, and other development.
- d. Local land use authorities should retain their position as the lead agency for the California Environmental Quality Act (CEQA) compliance for development projects in their jurisdictions as identified in their General Plans. Local and regional land use authorities are best suited to act as the lead agency and offer a local open and public participation option. They are best positioned to manage local land use decisions within their jurisdiction while serving as boots-on-the-ground protections for the WJT.
- e. Local agencies are the best partners for the WJT protection and implementation of conservation measures.
- f. While Statewide conservation efforts can help, local WJT conservation efforts have been successful and should be encouraged, without the fear of liability. Local WJT conservation efforts can include the following:
 - i. WJT availability as a landscaping plant
 - ii. Local adoption programs
 - iii. Local seed availability is critical to the success and reproduction of the WJT species. Limiting seed distribution will harm the reproduction of the species.
 - iv. Public education about native plant landscaping and water conservation.
 - v. Continued investment in purchasing land for conservation and mitigation lands as identified and managed locally.
 - vi. Funds should be provided to local cities and counties to help protect the WJT.

8. SET CLEAR GOALS ON WHAT SUCCESSFUL CONSERVATION OF THE WJT LOOKS LIKE

- a. The Plan should clearly state the estimated number of WJTs in existence today to establish a baseline for measurement of the Plan's outcome. This can be done with advanced survey technology and artificial intelligence.
- b. The Commission should preserve and build on past efforts to conserve the desert ecosystems as developed in the Desert Conservation Act, National Park designations, Desert Renewable Energy Conservation Plan (DRECP), Desert Native Plant Act and the vast open spaces and intact ecosystems.
- c. The Plan should set quantifiable goals on what successful conservation of the WJT looks like and define what quantity and distribution of trees is necessary to preserve the species.
 - i. Establish what is acceptable habitat loss.
 - ii. Establish priority conservation lands.
 - iii. Establish what private land is meant for development.
 - iv. Identify and honor the local land use priorities of existing General Plans and zoning designations.

9. ALLOW LOCAL SEEDING, HARVESTING, SEED BANKS, AND ASSISTED MIGRATION OF WJT

- a. Allow for the use of the WJT in local landscaping without long-term liability to the property owners. Provide private property owner protection for maintaining yards and landscaping that is fire-safe and water-wise.
- b. Allow homeowners to collect seeds and participate in local seed banking programs led by approved community-based organizations, local land use agencies, and special districts.
- c. Promote the WJT in urban landscaping along with other native plant gardens.
- d. Avoid penalizing existing property owners who have long protected the trees on their properties and in many cases transplanted and grew WJT as part of their landscape.
- e. In addition to State efforts, the Commission should invest in local seed harvesting partnerships with local nurseries, local governments, special districts, and community-based organizations.
- f. Further studies are needed. The Plan should call for a study of the seed distribution patterns and how they are different in each area of the habitat in which the seed is distributed by the species in the food chain, including human distribution, which has existed for thousands of years.
 - i. A flowering WJT produces thousands of seeds every year. They are widely distributed through the food chain by not just ground squirrels, but rabbits, birds, and deer, then coyotes, mountain lions, bobcats, bears, etc. The range of seed distribution is largely understated in the Plan and not well documented, as it only references the ground squirrel as distributing the seed, not the other animals in the habitat. It is recommended that this be independently studied and properly documented with trackers and videos. Coyote scat can often be found with WJT seed inside. Limited observations and publications have not provided adequate supporting evidence for their limited theories related to seed distribution factors. As with all science, these statements need to be challenged and tested. Additionally, the seeds can be collected and spread manually as a mitigation factor.

10. STUDY AND DOCUMENT THE SOCIO-ECONOMIC IMPACTS AND ENVIRONMENTAL JUSTICE IMPACTS OF THE PLAN

- a. The implementation of the Plan and resulting regulations may push lower-income individuals out of the WJT habitat area, creating an Environmental Justice issue.
- b. The Plan should speak to the community development and housing needs of the disadvantaged (and severely disadvantaged) largely underserved communities.
- c. The Plan should prioritize cost impacts, as the desert has long offered a lower cost of living and provides housing for people who cannot afford to live in the coastal areas.
- d. The Plan should study the impact and potential rise in homelessness if costs are not mitigated.
- e. The Commission should conduct an independent impact report to document the impacts of proposed regulations on the cost of public works projects, low to moderate-income housing (existing and future), wildfire mitigation, and other projects related to community needs including schools, parks, health care facilities, etc.

11. INCREASE PUBLIC ACCESS AND TRANSPARENCY OF DATA

- a. CDFW should maintain a website to increase the transparency of this effort with accurate GIS mapping of habitat areas with photos and information for use by local agencies and private landowners or developers.
- b. The Plan maps should be made available in GIS as an interactive format with layers to allow for visibility of data during land use planning efforts. This can help identify habitat areas for conservation priorities within their communities. This is especially critical for urban areas in the WJT habitat.
- c. There should be a full and transparent process for identifying WJT Conservation Priorities in conjunction with current zoning and land use decisions. The decisions need to be conducted locally in Public Hearings in compliance with the Brown Act and other applicable statutes at open and public meetings to ensure an inclusive process for public participation. Local land use agencies should be given the ultimate authority to make decisions on housing, development, investments, and conservation.

12. EXTEND THE TIME FOR PUBLIC COMMENTS TO AT LEAST FEBRUARY 28

- a. The Plan is a monumental document with very significant ramifications for community infrastructure, safety, economies, and livelihoods, in addition to the goal to preserve an iconic species. The importance of the Commission's actions on the Plan cannot be overstated. We strongly urge the Commission to extend the period for public comments for 30 additional days beyond the public hearing, to allow all interested parties to understand and weigh the consequences of this proposed action.
- b. The Plan is 294 pages, and the appendices are an additional 82 pages. This is a lot of information to review and comment on before February 12th.
- c. It is imperative the public and agencies affected by the Plan have an opportunity to comment during future meetings as well.
- d. There has not been broad public awareness of this draft, and many agencies and individuals are not aware of the timeline and opportunity to comment.
- e. The documents are not easily accessible on the site, and one must click multiple times to find the documents.

It is important to preserve the WJT without causing an unnecessary burden on critical infrastructure and the disadvantaged and severely disadvantaged communities that live in the WJT habitat area.

We appreciate your consideration of our comments. We believe there is a balance we can find to make sure the species has the best chance of surviving over the next Century and beyond while allowing our agencies to continue to provide the critical services our communities require.

Respectfully,

Mojave Water Agency
Adnan Anabtawi, General Manager

Bighorn-Desert View Water Agency
Marina West, General Manager

Community Water Systems Alliance
Timothy Worley, PhD, Managing Director

Hi-Desert Water District
Tony Culver, General Manager

Joshua Basin Water District
Sarah Johnson, General Manager

Twentynine Palms Water District
Matt Shragge, General Manager

Phelan-Piñon Hills Community Services District
Don Bartz, General Manager

Mission Springs Water District
Marion Champion, Asst. General Manager

San Geronio Pass Water Agency
Lance Eckhart, General Manager/Chief Hydrogeologist

Inland Action
Julie Michaels, Executive Director

Cc: Wade Crowfoot, Secretary for Natural Resources
Governor Gavin Newsom
CA State Senator Rosilicie Ochoa Bogh
CA State Assemblymember Greg Wallis
CA State Assemblymember Tom Lackey
US Congressman Jay Obernolte
US Senator Alex Padilla
US Senator Adam B. Schiff
San Bernardino County, District 1 Supervisor Paul Cook
San Bernardino County, District 3 Supervisor/Board Chair Dawn Rowe



January 30, 2025

VIA ELECTRONIC MAIL

Samantha Miller, President
California Fish and Game Commission
715 P St, 16th Floor
Sacramento, CA 95814
fgc@fgc.ca.gov

Re: Comments on the Draft Western Joshua Tree Conservation Plan

Dear President Miller,

CalPortland Company appreciates the opportunity to comment on the Draft Western Joshua Tree Conservation Plan (“Draft Plan”). We have carefully reviewed the Draft Plan in light of the Western Joshua Tree Conservation Act (Fish and G. Code, § 1927 *et seq.* [“Act”]). Significant revisions are needed to bring the Draft Plan in line with the background and intent of the Act and otherwise applicable law. The following letter provides a brief history and summary of the Act before providing our comments on the Draft Plan.

Western Joshua Tree Conservation Act

On September 22, 2020, the California Fish and Game Commission (“Commission”) accepted for consideration a petition to list the western Joshua tree (“WJT”) as “threatened” under the California Endangered Species Act (“CESA”). With this determination, the WJT was given full and immediate protection under CESA as a candidate species for listing.

Following the Commission’s acceptance of the petition for consideration, the Department of Fish and Wildlife (“Department”) prepared a written status review based on the “best scientific information available” as required under CESA. Under this detailed analysis, the Department investigated whether formal listing was warranted based upon the science concerning abundance, threats, and other relevant CESA considerations. Based on this thorough scientific analysis, the Department determined that listing WJT as threatened was not warranted. More precisely, the Department concluded that WJT is abundant within its range and is not likely to be in serious danger of becoming extinct throughout all or a significant portion of its range in the foreseeable future.

Upon receipt of the Department’s status review, the Commission met on June 16, 2022, to consider and vote on whether to list WJT as threatened. The Commission deadlocked, 2-2, on whether listing was warranted. In October 2022 and February 2023, the Commission, now with

a full complement of Commissioners, voted to postpone a future decision on listing while waiting to determine whether a bill proposed by Governor Newsom to permanently protect WJT would become law.

On July 10, 2023, the California Legislature passed the Act as a trailer bill to the budget. As a trailer bill, the Act did not receive the normal committee hearing or review process. In short, the Act gave the WJT take protection as if it were listed under CESA, and created other standards and requirements for anyone seeking to “take” a WJT. The Act also bypassed the CESA process, which requires scientific data to support listing—scientific data that the Department concluded did not warrant listing.

Perhaps as a result of the Department’s recommendation against listing, the Act made some attempt to “streamline” the new take authorization process. The Act specified that a simple, pay-as-you-go process would be implemented on a per-tree basis, in lieu of traditional mitigation requirements. The idea behind the in lieu fee was that the monies received would supply a statewide fund. This fund would be used “solely for the purposes of acquiring, conserving, and managing western Joshua tree conservation lands and completing other activities to conserve the western Joshua tree.” (Fish and G. Code, § 1927.5(a).) The Act also specified that the Department could prepare guidelines for the relocation of WJT to minimize impacts.

The Act contains some important guardrails.

First, the Act clearly specifies that an applicant may pay the in lieu fee to obtain a WJT take permit: “[A]ny person...may obtain a take authorization ... by electing to pay the fees set forth in the [Act].” (Fish and G. Code, § 1927.3(b).)

Second, the Act requires the avoidance and minimization of impact to the “maximum extent practicable.” Minimization of impacts “may” include relocation of trees. (Fish and G. Code, § 1927.3(a)(2).)

Third, after minimization, the Act requires mitigation of impacts. One option mentioned above, is the payment of per-tree in lieu fees. Other “measures required to meet the [mitigation] obligation shall be roughly proportional in extent to the impact of the authorized taking of the species.” (Fish and G. Code, § 1927.3(a)(3). The Act goes on: “When various measures are available to meet this obligation, the measures required shall maintain permittee’s objectives to the greatest extent possible.” (*Ibid.*) The relevant section of the Act concludes: “In lieu of completing the mitigation obligation on its own, the permittee may elect to satisfy this mitigation obligation by paying [in lieu] fees ... for deposit into the fund.” (*Ibid.*)

Against this background we offer the following comments on the Draft Plan.

Suggestions for Consideration and Revision

1. The Draft Plan fails to acknowledge, in any detailed manner, that the best scientific information available does not warrant heightened protection for the WJT, as reported in the Department’s recent peer-reviewed status review, which concluded that:

[W]estern Joshua tree is not in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease, and is not likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts required by CESA.

(Department Status Review [March 2022], p. 120.)

This omission is significant because the Draft Plan's recommendations for "conservation" measures will guide the way the Department approaches permitting take authorization under the Act. Given that the Act is vague on many details of the permitting process (with the exception of the clear in lieu payment mitigation option), the Draft Plan will serve as important guidance to Department staff on questions of impact minimization and mitigation when the in lieu payment option is not used.

We recommend that the final plan include a complete analysis of the Department's recent status review and findings. We also recommend that the Department use this information in the final plan to provide clear guidance on minimization and mitigation requirements. The Draft Plan currently provides no guidance, whatsoever, on the key question of what mitigation might be "roughly proportional to the impact" of the take of WJT in different specific settings.

2. The scale of the maps included in the Draft Plan are such that it is nearly impossible, on a parcel-by-parcel basis, to determine a property's proposed conservation status. The Draft Plan's designation of a property as, for example, "ecologically core" or "ecologically intact", will impact the conservation goals.

We recommend that the final plan include better maps, coupled with an online GIS component that allows landowners to quickly and accurately determine the conservation status of their property.

3. Rather than rely on the Department's recent findings and recommendations against listing, the Department instead relies on "provisional data" for most of the ideas in the Draft Plan. It is improper for the Draft Plan to place property in a heightened conservation category based on "provisional data" that itself ignores the Department's status review based on the best available science. The Draft Plan acknowledges this gap: "[T]hese data are preliminary or provisional and are subject to revision. They were provided ...to meets the need for timely science." (Draft Plan, pp. 4-57 – 4-58.)

We recommend that the Department reconsider conservation findings and recommendations in light of the best available science.

4. Concerning avoidance and minimization, the Draft Plan states that avoidance and minimization "shall" include protocols for relocation of WJT. (Draft Plan, p. 5-9.) This is incorrect. The Act states that minimization "may" include relocation. (Fish and G. Code, § 1927.3(a)(2).) The Act also specifies that such minimization actions are only applicable "to the maximum extent practicable." (*Ibid.*) The Draft Plan contains no analysis or guidance for whether relocation of WJT in different settings is "practicable." Minimization and mitigation

obviously depend on a site specific analysis to ensure that the mitigation is “roughly proportional” to the actual impact. The Draft Plan provides no guidance on how to conduct this analysis, leaving it completely open to discretion of Department staff (with the exception of the in lieu fee, discussed below).

We recommend that the Department revise the Draft Plan for consistency with the Act’s requirements and provide actual guidance for implementing minimization and mitigation that is roughly proportional to the impact of take—especially in light of the scientific fact that WJT are abundant and not at risk of becoming extinct in the foreseeable future.

5. The Act states that relocation “may” be required as a permit term. The Western Joshua Tree Relocation Guidelines and Protocols (“Relocation Protocols”), which are appended to the Draft Plan, state: “[D]epartment staff will determine whether relocation will be required under the Act during the permit review process.” (Relocation Protocols, p. 6.) The Relocation Protocols go on to specify factors to determine if relocation is warranted. (See Relocation Protocols, pp. 6-7.) None of these listed factors appear in the Act. Many are obviously counterintuitive. For example, the Relocation Protocols assume that relocation will be required if the take is greater than 20 trees or greater than 20 acres. As the number of trees or affected property increase, relocation obviously becomes less feasible and less practicable—not more so. We also note that the Relocation Protocols contain no information on the cost of proposed relocation activities, which are a critical component of feasibility and practicability.

We recommend that the Department reconsider its relocation factors in light of the Act’s requirements, the Department’s status report based on the best available science, and consider the cost of relocation as it relates to relocation feasibility and practicability.

6. We understand that the Department, in practice, takes the position that when issuing take authorization by payment of the in lieu fee, the Department can also require relocation for the same tree. This is surely double mitigating impacts and is, therefore, obviously not proportional to the impact or consistent with the Act.

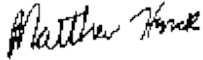
We recommend that the final plan clarify that payment of the in lieu fee will negate any other WJT minimization or mitigation requirement.

7. Lastly, the Draft Plan does not account for the protections afforded in the Act to ensure that property owners’ goals will be met to the “maximum extent practical” or that mitigation will be “roughly proportional” to the specifics of the trees taken. Certain land uses may use the surface of the land temporarily before restoring or reclaiming it. Indeed, the Draft Plan identifies habitat restoration and enhancement as management actions that can help achieve the goals of the plan.

We recommend that the Department analyze whether revegetation with appropriate bonding requirements can be selected as an allowed mitigation technique under the final plan. This is particularly true given the unknowns relating to relocation and the fact the plan already identifies restoration as a management action.

We understand the difficulty faced by the Department when tasked to develop a conservation plan for a species that the best scientific information available says needs no conservation. It is a difficult task, and we appreciate the opportunity to provide our comments on this Draft Plan under these unique circumstances. Thank you in advance for your consideration of these comments. We look forward to working with the Department throughout this process.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew Hinck".

Matthew Hinck
Vice President State Government Affairs
CalPortland Company



January 29, 2025

via email: fcg@fcg.ca.gov

California Fish and Game Commission
And
Charlton Bonham, Director
California Department of Fish and Wildlife
P. O. Box 944209
Sacramento, CA 94244-2090

RE: Comments on the Western Joshua Tree Conservation Plan

Dear Honorable Commissioners and Director Bonham:

The Mojave Water Agency (MWA) appreciates the opportunity to offer comments and suggested revisions to the Western Joshua Tree Conservation Plan (Plan).

Overall, MWA supports the conservation of the Western Joshua Tree (WJT). However, in review of the Plan, MWA wishes to bring to your attention some of the unintended consequences of implementing several concepts in the Plan. In summary, our comments address the following main topics:

- 1. Exemption needed for utilities and special districts due to the Plan's significant impacts on public safety and key infrastructure.** CDFW public outreach did not include public and private utility providers or special districts, such as MWA, that build and maintain critical infrastructure for water, sewer, electric and gas. MWA requests an immediate meeting with CDFW to discuss the significant barriers that the Plan represents in the funding, planning, construction and maintenance of these critical facilities, including the MWA projects, which is the focus of this letter. MWA stands ready to assist CDFW with organizing this critical public outreach. We strongly urge that the Commission direct CDFW staff to develop a solution where utilities and special districts are exempt from the permitting component of this Plan, much like they were under the California Native Plants Act.
- 2. Buffer zones under Action A&M 1.2 *Implement Avoidance Buffers* should be removed from the Plan or revised because no supporting or scientific evidence was provided in the Plan for their use, they are currently being misapplied during permitting, and they are causing significant direct impacts to the ability to fund and execute critical infrastructure projects.** The Plan identifies "avoidance buffers" of 186 feet, 50 feet and 2 feet "to avoid direct impacts" – which CDFW staff is essentially using as the "take" area. First, the Plan contains no discussion or justification or scientific evidence that these buffers actually determine "take" as healthy WJT persist in great numbers immediately adjacent to urban infrastructure such as homes, roads, sidewalks, and immediately adjacent to MWA infrastructure.

Secondly, staff is misapplying these during permitting. For MWA projects, CDFW staff appears to be requiring MWA to mitigate for trees that exist off of the MWA-owned project site, on private property, but that are adjacent to the MWA project solely because they are within one of the buffer zones. We would request clarification in the Plan on this aspect as this is presenting several legal issues. Additionally, given that some of our projects may be miles long, do not remove any trees, mitigating for trees just because they are in a CDFW-designated buffer zone is a financial and long-range planning hardship, if not impossible. Given the significant impacts the Plan's permitting has on critical infrastructure, MWA suggests that the CDFW prepare Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) where CDFW could more fully evaluate the impacts, the need for stringent permitting and conservation, and how the stringent permitting overrides the impacts to deliver critical infrastructure.

ABOUT THE MWA

The MWA was founded in 1960 to manage the Mojave area water supply due to concerns over declining groundwater levels. Governed by an elected Board of Directors, the MWA was created for the explicit purpose of doing "any and every act necessary, so that sufficient water may be available for any present or future beneficial use of the lands and inhabitants within the Agency's jurisdiction" as stated in the California Water Code Appendix Section 97-1.5.

The MWA is also one of 29 State Water Project (SWP) contractors, serving supplemental water to approximately 5,000 square miles of the Mojave Desert in San Bernardino County, including the communities of: Adelanto, Apple Valley, Baldy Mesa, Barstow, Daggett, El Mirage, Flamingo Heights, Grandview, Helendale, Hesperia, Hinkley, Johnson Valley, Joshua Tree, Landers, Lenwood, Lucerne Valley, Newberry Springs, Oak Hills, Oro Grande, Phelan, Pinon Hills, Pioneertown, Silver Lakes, Spring Valley Lake, Summit Valley, Victorville, Yermo, and Yucca Valley. (refer to **Figure 1: Mojave Water Agency Jurisdiction**, attached to this letter). According to state law, the MWA is charged with the responsibility to "do any and every act necessary to be done so that sufficient water may be available for any present or future beneficial use of the lands and inhabitants" within its jurisdiction. As such, MWA plans for, constructs and operates and maintains multiple pipelines, recharge basins and turnouts to deliver SWP water to the groundwater basin. Additionally, MWA was appointed in 1996 by court order as the Watermaster for the Mojave Basin Adjudication to ensure groundwater supply for the region.

Water Providers in Our Service Territory

MWA coordinates with all water purveyors in the 5,000 square mile service area, including 42 under the Integrated Regional Water Management Plan (IRWMP) that are classified as Small Water Systems. These small systems are located in Disadvantaged Communities or Severely Disadvantaged Communities. **Refer to Figure 2 - Small Water Systems and Disadvantaged Communities** attached to this letter

MWA COMMENTS ON THE PLAN

- 1. Exemption needed for utilities and special districts due to the Plan's significant impacts on public safety and critical infrastructure projects.**

MWA reviewed the public outreach summaries contained in the Plan. Please be advised that MWA was not invited or made aware of, nor were any of the water purveyors in our service area invited or made aware of, any CDFW outreach that was specific to utility providers and special districts such as MWA, which have very different concerns than land managers and cities and counties that approve development projects. MWA is designated as a special district to ensure the groundwater supplies are sufficient for service to water service customers, even though we do not directly deliver to individual homes and businesses.

Public and private investor-owned utilities and special districts were previously exempt from obtaining permits under the California Desert Native Plants Act (CDNPA) for removal of western Joshua tree when acting in obligation to provide public service (Cal. Food & Agri. Code, Section 80117, refer to Plan Section 2.5.2).

MWA would appreciate the Commission's and CDFW's review and clarification concerning the language of the Western Joshua Tree Conservation Act (WJTCA) Section 1927.2 (a) and the California Endangered Species Act, California Code Section 2080. It seems that compliance with the WJTCA can be achieved through CESA (Section 2080) which has historically exempted utilities under CDNPA, but we are unclear how there is no such exemption in the WJTCA or the Plan. Excerpts of both are provided for reference.

WJTCA Section 1927.2(a): *No person or public agency shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, a Western Joshua tree or any part or product of the tree, as authorized pursuant to any of the following as applicable:*

- (1) *This Chapter.*
- (2) *The California Endangered Species Act.*
- (3) *The Natural Community Conservation Act (Chapter 10 (commencing with Section 2800) of Division 3).*

California Code Section 2080: *"No person or public agency shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, **except** as otherwise provided in this chapter, the Native Plant Protection Act (Chapter 10 (commencing with Section 1900) of this code), **or** the California Desert Native Plants Act (Division 23 (commencing with Section 80001) of the Food and Agricultural Code)" (emphasis added).*

As such, the MWA and its water purveyors, as well as other utilities, are now required to seek take authorization under WJTCA to work within a buffer zone or remove a WJT to install critical infrastructure, while the WJT is still a candidate species under CESA.

Given that the MWA service area covers approximately 5,000 square miles with a high WJT population, and given that our mission is critical, and we have many projects within our service area, the Plan reporting and permitting requirements make it impossible to plan for and implement the MWA mission to ensure groundwater supplies are available in the region.

Therefore, MWA strongly recommends that CDFW staff immediately engage the utility and special district sector to discuss the specific and unique circumstances of this key sector, which provide critical infrastructure.

MWA would be willing to assist CDFW in any way to sponsor such a meeting and develop a solution how we can provide compliance with the Plan yet achieve the exemption once afforded to us under the CDNPA and allowed under California Code Section 2080.

2. Buffer zones under Action A&M 1.2 *Implement Avoidance Buffers* should be revised or removed from the Plan

Section 1.2.1 of the Plan identifies the Plan's vision statement as: *prevent the extinction of western Joshua tree in the wild, preserve functioning ecosystems that support western Joshua tree, and maintain sustainable populations of western Joshua tree in California over the long term, such that listing the species under CESA will not be warranted* (emphasis added).

The Plan title is the "Western Joshua Tree Conservation Plan." However, the Western Joshua Tree Conservation Act (WJTCA) treats the WJT as CESA-candidate listed species because the WJTCA is the result of the Commission being unable to come to a consensus to list the species but wanted to conserve the species and create a path forward for development (the Plan, Section 1.1.2). Therefore, while the Plan contains elements where the primary goal is "conservation," it identifies a hard line CESA-take protocol that CDFW staff utilizes for permitting.

Plan Section 5.2.1, Action A&M 1.2 identifies "avoidance buffers" of 186 feet (seed dispersal) 50 feet and 2 feet for the root zone "to avoid direct impacts" – which CDFW staff is essentially using as the "take" area for permitting.

Another complicating factor is the "clones count as a tree" for mitigation purposes, which we understand is part of the WJTCA. Therefore, if there is a main tree that is 1 to 5 meters, and there are eight clones around the base of the tree which are less than 1 meter (3 feet tall), the mitigation fee is charged for eight trees below 1 meter and one tree between 1 to 5 meters.

MWA would like to bring to the Commission's attention the significant impacts these buffers have on MWA projects, and the projects of our water purveyors.

- *The Plan should include a scientific evaluation of the buffers and justification for their unilateral use*

Given that the buffers play a key role in permitting, the Plan does not provide any narrative or scientific data with respect to how the CDFW developed the 186-foot seed dispersal buffer or the 50-foot and 2-foot root system buffer or any justification as to their utilization for the take permit.

The Plan should provide a detailed section that clearly identifies all studies on the WJT root system and seed dispersal to justify the avoidance buffers – even if studies conflict with one another.

With respect to the root system buffer, the Plan does not identify the role the root system plays in "taking" or "killing" the tree, except to state that the roots can be cut during transplanting, and the tree will still survive. Therefore, if under a transplant situation the tree will survive, please clarify and/or provide a justification as to why a tree would be "killed" by development within the buffers if the tree itself is not removed.

The current buffers also do not align with the MWA's decades of experience in installing infrastructure near the WJT in both remote areas and the urban environment - and yet the WJT persist. In our experience, roots typically extend only a few feet but can extend as far as 30 feet for some trees depending on water availability.

Typically, an MWA pipeline project would extend for miles, and be installed in the road right-of-way, not removing one single tree. However, the road widths are typically 24 feet and WJTs typically exist in high numbers within 50 feet of the pipeline, typically on private property adjacent to the road – on both sides of the road, for miles. Based on the application of the 50-foot buffers, the Plan would require MWA to pay the mitigation fee for each and every tree (and clones under 3 feet tall) on private property within 50 feet of the center of road right-of-way – both sides, for miles – even though the pipeline project would not remove one tree. Under the WJTCA, a permit must include a census of every tree (even those under 3 feet tall) with payment of mitigation fees, just because they are within the 50 foot buffer. This would represent hundreds if not thousands of trees, yet not one tree would be removed by the project

For a recent basin project, refer to **Figure 3 – Ames Recharge Basin and WJT** which clearly shows that WJTs are persisting immediately adjacent to facilities constructed in 2014, as well as a pipeline that was installed in 1999. For the original pipeline, and the basin and pipeline diversion, some WJTs were removed to facilitate the basin; construction equipment worked directly and carefully adjacent to the trees to not harm them; and 10 years later, the WJTs still persist and are healthy.

Historically, MWA and its water providers and other utilities have placed pipelines in road rights of way and not had to remove WJTs in the process. And according to the March 2022 CDFW WJT Status report, the WJT persists and should not be listed. If utility projects that have been historically placed in road rights of way or within 50 feet of a WJT were to have posed a significant impact, significant die off along roadways and adjacent to our recharge basins would be evident. This is not the case. WJTs have persisted, and thrived, for decades along the same roadways where pipelines have been installed, and adjacent to our basins where grading has occurred closer than 50 feet to a WJT. Therefore, there appears to be no historical impact to WJT from our pipeline and basin projects. As such, MWA would like to recommend that as part of the “credible science” considered, the CDFW also review real examples of where existing infrastructure has been installed and maintained for decades and have had no impact on the WJT. Further please provide more definition on how the buffers represent the intent of Fish and Game Code Section 33: “Credible science” which is defined as: “the best available scientific information that is not **overly prescriptive** due to the dynamic nature of science” (emphasis added).

Therefore, we request clarification as to why a take permit is required for a pipeline project, for example, that would occur in the public road right-of-way (project site), but within the 50-foot buffer of a WJT that is located outside of the public right-of-way, on private property, and where no WJTs would be removed in the right-of-way, which is the “project site” (WJTCA 1927.3(a)) This clarification is requested to be included in the Plan to ensure consistency in permitting and MWA planning. Given these complications, this represents another justification for a utility and special district exemption.

Additionally, these buffers do not align with literature from the studies conducted by the US Fish and Wildlife Service, which twice refused to list the WJT after extensive evaluation.

Regarding the 186-foot buffer, again, the Plan does not identify any scientific evidence for its use, except for a reference to one paper that identifies that a rodent can carry a seed that far. The 186-foot buffer may apply in the wild, but it should not apply in an urban environment for obvious reasons. The Plan needs to evaluate how the WJT reproduces in an urban environment absent rodents carrying the seed 186 feet, as it may occur in the wild. We recommend that the Plan provide multiple studies, not just one, to justify the 186-foot seed radius.

Further, because some of our recharge basins are “in the wild,” we would offer that there are significant benefits of our recharge basins that far outweigh a hardline imposition of the 50-foot and 186-foot buffer. MWA would welcome providing information to CDFW to include how our recharge basins offer value “in the wild” but the basin may need to remove WJTs in the process. Therefore, MWA suggests that during permitting, the project’s benefits to be species should be credited toward the impacts to the tree(s).

- *The Plan does not address the WJT compatibility and survivability with the urban environment*

It should be noted that the photos in the Plan only show the WJT in the wild and do not show how WJT persist in the urban areas immediately adjacent to urban infrastructure. **Figure 4 – Samples of WJT in Urban Environment** shows how WJTs exist adjacent to roads and utility infrastructure in an urban and rural-urban environment where utilities are intermixed with the WJT. MWA would suggest that the CDFW provide a section in the Plan to address the WJT and urban infrastructure to gain a better understanding of the hardiness of the species and allow for more appropriate conservation and permitting measures.

Therefore, MWA respectfully requests that the Plan study how the existing WJTs in the urban environment persist, still manage to reproduce, and therefore, how the urban environment could constitute a “functioning ecosystem that support” WJT. The urban environment would include roads, utilities, homes where WJTs are incorporated into landscaping, the MWA basins, etc.

Only after a full evaluation of their sensitivity to urban interference should buffers be developed for permitting.

- *Mitigation for trees within the buffer but off the project site - poses legal implications for MWA*

CDFW staff is applying these buffers to include mitigation for trees that occur off the project site, but within the buffer area.

MWA has already received this comment on our Oeste Basin WJT Incidental Take Permit. Refer to **Attachment 1 - CDFW Correspondence Regarding Oeste Basin**.

The Oeste groundwater recharge basin project is planned for a 10-acre site that is densely populated with WJT and adjacent to the State Water Project canal. The Project Site has a total of 173 trees within the site boundary and 36 outside the Project site boundary. Within the Project boundary, approximately 48 percent are less than 3 feet high, 42 percent are between 3 feet and 16 feet high, and 0.02 percent are above 16 feet high. Based on MWA’s standard practice to conserve as many trees as possible during design, some trees could be preserved along the planned access roads, which would have been MWA’s standard practice. However, because many would be within 50 feet of the proposed improvements, and mitigation fees are required despite MWA’s excellent track record of being able to develop around the tree.

MWA would like to call to the Commission’s attention the potential legal issue with the practice of a public agency mitigating for trees on property it does not own. First, this entire area has a dense population of WJTs. MWA does not own the adjacent properties. If the private property owner were to later want to remove those same trees that MWA mitigated for, that property owner would also be required to obtain a take permit. If CDFW determines that the MWA mitigation on private property has been satisfied, then MWA’s mitigation fee constitutes a “gift of

public funds” to benefit a private owner’s ability to remove a WJT. As a public agency, MWA is prohibited from giving gifts of public funds. If CDFW requires a take permit for the same tree, that is double counting mitigation and has never been an accepted practice in CESA permitting. As stated above, MWA has a decades long track record with construction around WJTs and have found no evidence to support that any tree within 50 feet of project improvements would be killed, which constitutes a take and take permit.

Therefore, we recommend that the application of the buffers during permitting be scaled back to only include the project site, and only the actual tree to be removed.

- *The Buffers, tree and clone census, as required, make long-term planning impossible and are jeopardizing current grant-funded critical infrastructure projects*

MWA is a steward of the local environment and sees the WJT as a landmark species in the region and our landscape. With all our projects, we do our best to ensure WJT are planned around and conserved. However, and unfortunately, we recognize that there are some projects that require WJT removal as it interferes with critical infrastructure that impacts the mission of the MWA to serve water to communities facing the impacts of severe drought.

Our projects are typically identified in response to long-term planning trends and are identified in the Integrated Regional Water Management Plan, the MWA Master Plan, the Urban Water Management Plan, and the Regional Recharge and Recovery Project (R3). The planning for these living documents began nearly 10 years ago and are continually updated to address changes in population and planning trends.

The MWA projects typically take approximately three to five years to plan and set aside funding for, or seek grant funding for, and another two to three years to design and implement. Some of our long-range projects can take 10 to 15 years before we begin construction planning.

One of the first activities is project cost estimating including mitigation fees. Per the Plan, to plan for mitigation fees, MWA would have to conduct a baseline tree census to account for every tree and clone within 50 feet of a pipeline project, for example – for miles, both sides. It is MWA’s experience that WJT clones can occur at any point in time. Given a typical 10-year timeframe, the baseline census which drives the initial mitigation fee cost estimate for funding, could no longer be accurate at project execution. Therefore, the condition that was once determined adequate for funding originally, would not be the case when the project might be executed. Therefore, the permitting component of the Plan, as applied to a special district and utility, significantly impacts the ability to fund, plan and construct critical infrastructure. As such, critical infrastructure utility projects either need to be exempt from permitting or the buffers only applied where there is actual WJT removal required on the project site.

- Please clarify the “in lieu” fee identified in the WJTCA as it relates to the mitigation fees

The WJTCA Section 1927.3(a)(3) states:

The permittee mitigates all impacts to, and taking of, the western Joshua tree. The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking of the species. When various measures are available to meet this obligation, the measures required shall maintain the permittee’s objectives to greatest extent possible. In lieu of completing the mitigation obligation on its own, the permittee may elect to satisfy this mitigation obligation by paying fees, pursuant to the fee schedule in....”

We are unclear how we can demonstrate both that we can minimize all impacts, which based on MWA’s decades of experience are roughly proportional in extent to the impact, but MWA is still required to pay the full mitigation fee – the WJTCA appears to state that “in lieu of the mitigation obligation” the permittee may elect to pay a fee. Therefore, please provide a detailed clarification of when fees are required and why they are required in the Plan. As discussed, mitigating for trees that are not being removed, especially on neighboring properties that MWA does not own nor are part of the Project site, is financially infeasible and detrimental to our mission to ensure water is available for the residents of the basin.

- Significant impact on critical utility infrastructure to disadvantaged communities

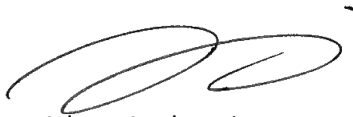
It has come to our attention that a number of the Small Water Agencies we work with under our Integrated Water Management Plan have already received grant funding for upgrades of their critical water delivery systems – where the miles of pipeline alignment would occur within road rights-of-way. These grant applications were submitted well before the candidacy filing for the WJT. As with typical of the area, there are no WJTs present in the right of way or on sites planned for the support infrastructure, but there are numerous WJTs that exist within 50 feet of the planned alignments, both sides of the road, for miles – representing hundreds of trees and clones. Each of these small water agencies would be required to obtain a take permit and pay the mitigation fees even though they would not be removing any individual tree. Many of these Small Water Agencies serve disadvantaged or severely disadvantaged communities. The mitigation fees had not been placed in the grants, and these agencies have no funding to pay them, now making their projects infeasible. With the Plan and take permit standards as they are identified in the Plan, many of these small water agencies are now facing the choice of returning the grant money to the State and abandoning their projects. This means that disadvantaged communities will go without critical infrastructure upgrades and new infrastructure that are so badly needed in these areas.

MWA recommends that the CDFW evaluate the permitting requirements and the buffer areas under an EIR in accordance with the California Environmental Quality Act (CEQA). The EIR would assess all the empirical evidence that the WJT is on the brink of extinction and must be preserved to the extent in the Plan, including the permitting. The EIR would also address the take buffers impacts to a public agency or private utility being unable to provide critical infrastructure to the affected communities, especially the disadvantaged communities, as a direct result of not being able to financially mitigate for all trees within the Plan buffers. These impacts not only include the inability to provide a reliable water supply but the inability to provide water for fire suppression. An EIR format would allow the CDFW to adopt a Statement of Overriding Considerations that the status of the WJT overrides the impacts of the inability of various agencies and entities to provide critical infrastructure.

CLOSING

Overall, MWA supports conservation of the WJT as outlined in the Plan. We stand willing to work with the CDFW to allow staff to gain an understanding of the unique situations of utilities and special districts and to: develop a special district/utility exemption; remove/revise the take buffers for take permitting; evaluate the potential project benefits as credits to impacts; and a study of the WJT in the urban environment. Thank you for the opportunity to comment. Please feel free to contact me at 760-946-7059 or aanabtawi@mojavewater.org.

Sincerely,

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, identifying the signatory as Adnan Anabtawi.

Adnan Anabtawi
General Manager

Attachments:

- Figure 1: Mojave Water Agency Jurisdiction
- Figure 2 - Small Water Systems and Disadvantaged Communities
- Figure 3 – Ames Recharge Basin and WJT
- Figure 4 – Samples of WJT in Urban Environment
- Attachment 1 - CDFW Correspondence Regarding Oeste Basin

Mojave Basin Area Adjudicated Subareas

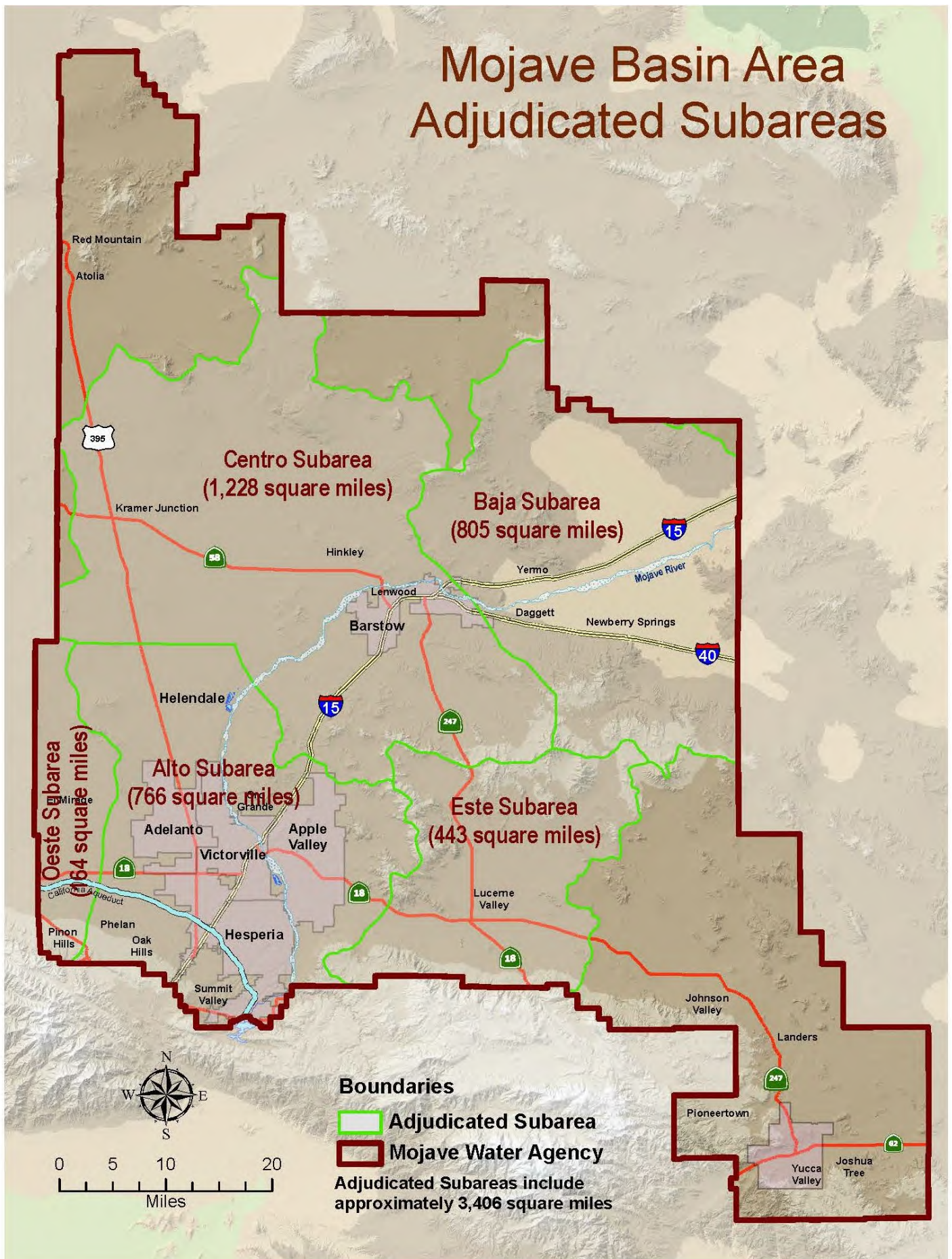


Figure 1: Mojave Water Agency Jurisdiction

Mojave IRWMP Small Water Systems

Disadvantaged and Severely Disadvantaged Communities (2014-18 ACS)

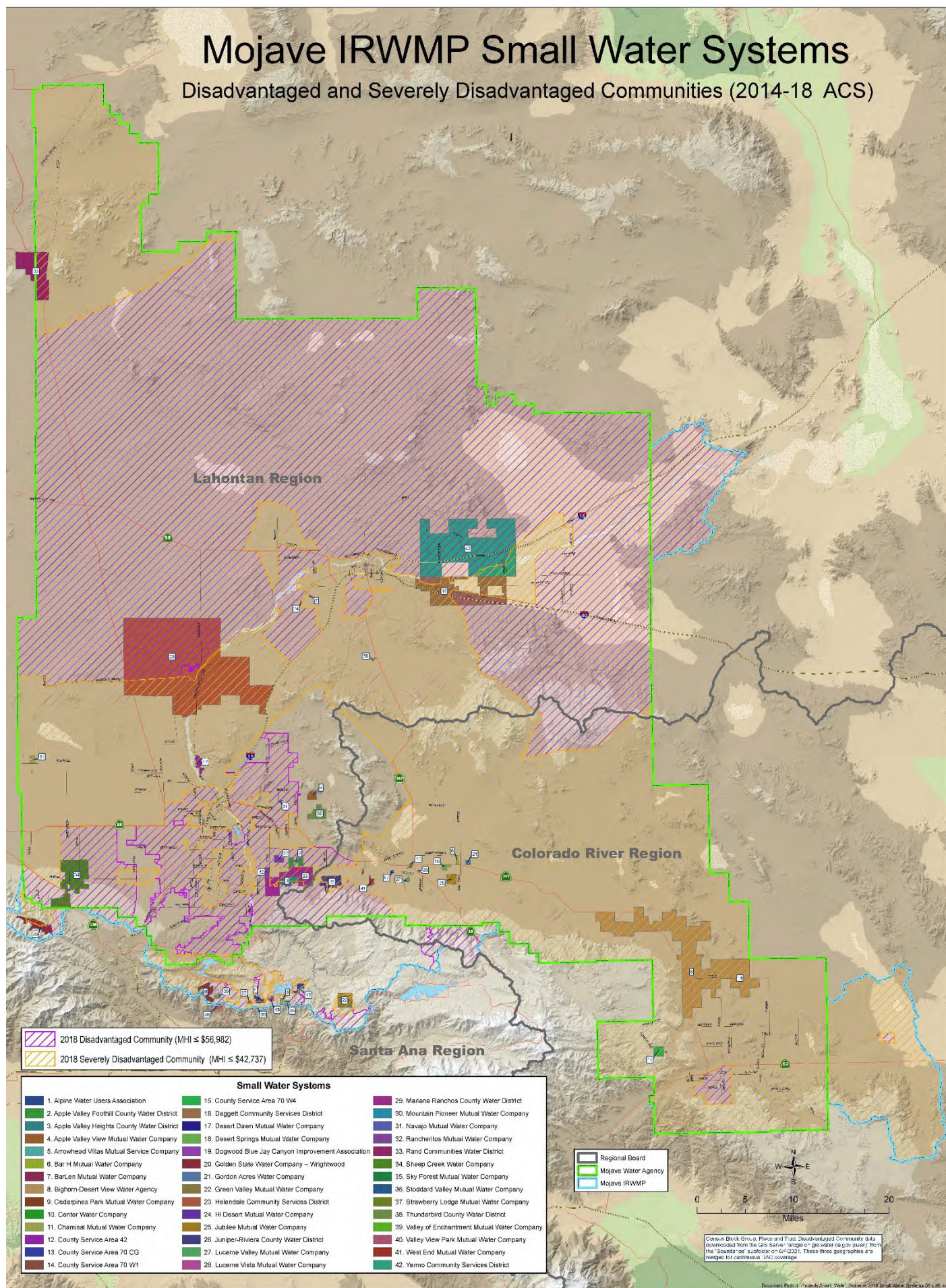


Figure 2: Small Water Systems and Disadvantaged Communities



An underground pipeline, installed in 1999, exists along the dirt road and turns out to the Ames recharge basin, constructed in 2014. WJTs exist much closer than 50 feet, and construction equipment worked around and adjacent to the WJTs. Some WJTs were required to be removed in the basin area. As of 2025, some 10 years later, these trees are still healthy. Multiple WJTs also exist along the dirt road where the pipeline was installed.



Figure 3: Ames Recharge Basin and WJT Location



Typical examples of WJTs co-existing in various conditions in dense urbanized areas and smaller more rural communities to demonstrate that the “take” buffers may need to be reconsidered for these types of areas.



Figure 4: Samples of WJT in Urban Environment

Attachment 1 - CDFW Correspondence Regarding Oeste Basin

From: Kaur, Ravleen@Wildlife <Ravleen.Kaur@Wildlife.ca.gov>
Sent: Friday, December 13, 2024 4:08 PM
To: Megan Peukert <megan.peukert@elmtconsulting.com>; Travis McGill <travismcgill@elmtconsulting.com>
Cc: MBailey@MojaveWater.org; mjohnson@mojavewater.org
Subject: RE: Oeste Basin WJTCA ITP Application: Request for Information

Hi Megan,

I am sharing some information on two important points to be noted for the purposes of mitigation:

- 1. Buffer trees to be included as a take for the mitigation fees:** The application guidance states that the project site should include an additional 15-meter (~50 ft) census buffer around the project site. CDFW evaluates the projects on a case-by-case basis based on the best available science indicating that their extensive root system (wide-spreading or deeper) might be impacted during or after the project construction. Here's the link for more information: [https://www.fs.usda.gov/database/feis/plants/tree/yucbre/all.html#:~:text=Belowground%20description%3A%20The%20Joshua%20tree.roots%20and%20rhizomes%20%5B92%5D,California Code, FGC 1927.3 and Census Instructions](https://www.fs.usda.gov/database/feis/plants/tree/yucbre/all.html#:~:text=Belowground%20description%3A%20The%20Joshua%20tree.roots%20and%20rhizomes%20%5B92%5D,California%20Code.FGC.1927.3%20and%20Census%20Instructions)
- 2. Request for Relocation:** CDFW will send a relocation request after we receive the updated application and census. I am attaching the Guidelines about relocation. Guidelines lay out information needed within the Relocation Plan and other specifics. More information is available publicly on our website. A Relocation Plan submitted by the applicant needs to be approved by CDFW prior to the issuance of an Invoice.

Reminder: Fish and Game Code 1927.8(b) mandates that the department shall annually adjust the fees provided for in Section 1927.3 pursuant to Section 713. Section 713 describes annual adjustments based on the implicit price deflator and is applied annually to fees for permits issued by CDFW. The 2025 WJTCA ITP annual mitigation fee adjustment will go into effect on January 1, 2025. All required fees that have not been invoiced and paid by December 15, 2024, will be subject to the 2025 fee increase.

Let me know if you have any questions.

Sincerely,

Ravleen Kaur, PhD (*she/her*)
LT Senior Environmental Scientist (Specialist)
California Department of Fish and Wildlife
Inland Deserts Region | Habitat Conservation
3602 Inland Empire Blvd, Suite C-220, Ontario, CA 91764
Work Phone: (760) 644-5985

From: Marina West <mwest@bdvwa.org>
Sent: Thursday, January 30, 2025 09:45 AM
To: FGC <FGC@fgc.ca.gov>
Subject: Fw: Comment Letter RE: Western Joshua Tree Conservation Plan

WARNING: This message is from an external source. Verify the sender and exercise caution when clicking links or opening attachments.

From: Marina West <mwest@bdvwa.org>
Sent: Wednesday, January 29, 2025 8:44:33 AM
To: fcg@fcg.ca.gov <fcg@fcg.ca.gov>
Cc: Marina West <mwest@bdvwa.org>; assemblymember.lackey@assembly.ca.gov <Assemblymember.Lackey@assembly.ca.gov>; senator.ochoabogh@senate.ca.gov <senator.ochoabogh@senate.ca.gov>; Adnan Anabtawi <AAnabtawi@MojaveWater.org>
Subject: Comment Letter RE: Western Joshua Tree Conservation Plan

To Whom It May Concern –

Attached please find the Bighorn-Desert View Water Agency's "comment letter" associated with the opening of the Public Comment Period/Public Hearing Processes related to the Western Joshua Tree Conservation Act:

The California Department of Fish and Wildlife (CDFW) has submitted the draft Western Joshua Tree Conservation Plan (Conservation Plan) to the Fish and Game Commission (Commission) as required by the Western Joshua Tree Conservation Act. The draft Conservation Plan provides a comprehensive set of management actions necessary to conserve the species in California. The management actions include guidance to avoid and minimize direct and indirect impacts to western Joshua trees, land conservation and management strategies, tribal co-management objectives, research and information gathering that will help inform future conservation, and an approach to provide public education and awareness on western Joshua tree conservation issues. **The draft Conservation Plan is publicly available on the Commission's website at the following link: [Petition to List Species Under the California Endangered Species Act - Western Joshua Tree\(opens in new tab\)](#).** The Commission will hear public comment on this item at their meeting in February 2025.

Bighorn-Desert View Water Agency

Board of Directors

JoMarie McKenzie, President
Megan Close-Dees, Vice President
David Chapman, Secretary
John Burkhart, Director
William Aldridge, Director



Agency Office

622 S. Jemez Trail
Yucca Valley, CA 92284-1440

760/364-2315 Phone
760/364-3412 Fax

Marina D West, P.G., General Manager
Daniel T. Best, Assistant General Manager

www.bdvwa.org

A Public Agency

January 29, 2025

DELIVERED VIA EMAIL: fcg@fcg.ca.gov

California Fish and Game Commission and
Charlton Bonham, Director
Department. of Fish and Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090

Subject: Western Joshua Tree Conservation Plan (Plan) Comments

Honorable Commissioners and Director Bonham:

Bighorn-Desert View Water Agency (Agency) is a Small Water System serving (est. population 4,800) the unincorporated communities of San Bernardino County known as Landers, Flamingo Heights and Johnson Valley. The western Joshua tree (WJT) thrives today throughout our 52 square-mile-boundary (photos are included for reference). The communities we serve are considered severely disadvantaged and we have been fortunate to have secured state grant funds to assist with necessary infrastructure upgrades. This has been over a decade long planning process to achieve a successful funding agreement.

The Agency acknowledges the need to protect the WJT species, and our Agency has done so throughout its 55+ years in service to our community. It is our understanding that there are local County Ordinances which have protected the WJT to date.

We wish to make the Commission and the Director aware that Plan implementation jeopardizes an \$11 million grant executed by the State Water Resources Control Board in early 2023 in part to consolidate with an adjacent water system and install nearly 6 miles of water line and two pump stations. Most of the infrastructure is planned along small dirt roads where the WJT exists on both sides.

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As part of its planning process for the grant, the Agency complied with the CA Environmental Quality Act (CEQA) and certified a Mitigated Negative Declaration in May 2021 before the passage of the Western Joshua Tree Conservation Act (WJTCA) in July 2023. The Department of Fish and Wildlife did not comment on the need to conserve the WJT during the CEQA process.

Therefore, no funding was envisioned nor was it requested as part of the grant application submitted in late 2021. Funding does not include the cost for the extensive census required for 6 miles of line or the mitigation fees for thousands of trees that we are not going to remove but will be working within the 50-foot or 186-foot buffer zone that the Plan requires for mitigation.

We understand that the Agency should mitigate an actual physical take where we would remove and not relocate a tree, but the concept of any tree within an “avoidance buffer” being defined as a “take” appears to be unfounded and not based in what we have experienced for more than 55 years directly in our community.

Based on known information in the proposed Plan and the current fee schedule, we suspect that the fees for the pipeline and pump station portion of our project could exceed \$3M. The current estimate for this portion of the \$11M grant is \$6.5M. Was this the expected outcome - to make mitigation so expensive that public health would be jeopardized? That humans have no right to affordable and accessible potable water? Was there a cost/benefit analysis performed to address the balance between public health and conservation goals outlined in the Plan?

The Agency respectfully requests consideration of the following in order to assist the Agency in balancing both the conservation goals for the WJT and the states declaration of a Human Right to Water (potable and affordable).

- Provide funding to disadvantaged communities and severely disadvantaged communities to pay for the studies/census, permit processing and any/all fees associated with the WJTCP; and/or
- Provide fee exemption for public works projects such as water and wastewater infrastructure; and/or
- Provide alternative pathway of adaptive management of the WJT in lieu of fees and the extensive “avoidance buffer” being deemed an actual “take”; and/or
- CDFW obtain funding and acquire conservation lands to be set aside for mitigation of water and wastewater projects funded by grants from either state or federal sources to satisfy “take” on public works projects; and/or
- For state critical infrastructure grants that were issued to disadvantaged community water systems well before the WJTCA onerous and costly permitting requirements, we recommend that CDFW staff, as the State agency enforcing this, conduct the census, waive the mitigation fee, or use WJTCA funds to pay the fee and issue the permit. These projects must proceed one way or another.

In addition to this specific comment letter, the Agency depends on larger entities such as the Mojave Water Agency for groundwater basin monitoring, management of our groundwater banking facility, and funding and oversight to their Small Water Systems program. The Agency

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has reviewed and concurs with the entirety of the MWA's comment letter on the Plan as well as any other letter submitted that focuses on a more reasonable, responsible and financially realistic Plan to achieve the stated goal of "conservation" of the WJT.

Thank you for the opportunity to comment. Please feel free to contact me at 760-364-2315 or at mwest@bdvwa.org if you require any additional information.

Sincerely,



Marina D. West, PG
General Manager

CC:

Wade Crowfoot, Secretary for Natural Resources via fax
Gov. Gavin Newsom via web contact form and US Mail
CA State Assy. Honorable Tom Lackey via email assemblymember.lackey@assembly.ca.gov
CA State Senator Honorable Rosilicie Ochoa Bogh via email senator.ochoabogh@senate.ca.gov
US Congressman Honorable Jay Obernolte via US Mail
US Senator Honorable Alex Padilla via US Mail
President Donald John Trump via US Mail
Adnan Anabtawi, Mojave Water Agency via email AAnabtawi@MojaveWater.org

**Recipient of the 2015 Association of California Water Agencies
Clair A. Hill Agency Award for Excellence**

Photo 1 of 2: Warren Vista Avenue and Winters Road - Here a mature WJT appears to have sprouted following installation of a pipeline in 1990. Note that underground service alert markings for the "blue" water line are mapped directly under the WJT and continue eastward.



**Recipient of the 2015 Association of California Water Agencies
Clair A. Hill Agency Award for Excellence**

Photo 2 of 2: Off Highway 247(Old Woman Springs Road) –WJTs that have thrived while the abandoned home has become dilapidated over time.



**Recipient of the 2015 Association of California Water Agencies
Clair A. Hill Agency Award for Excellence**



January 29, 2025

DELIVERED VIA EMAIL: fgc@fgc.ca.gov

California Fish and Game Commission and
Charlton Bonham, Director
Department of Fish and Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090

Subject: Western Joshua Tree Conservation Plan (Plan) Comments

We respectfully submit the following comments for consideration on the Western Joshua Tree Conservation Plan (Plan) draft.

Hi-Desert Water District serves just over 11,000 customer accounts, representing a population of about 25,000 people in the Town of Yucca Valley and surrounding unincorporated San Bernardino in the Yucca Mesa communities. Our community is disadvantaged and underserved.

First, the western Joshua tree exists in large quantities in our service area and has long been protected by the Town of Yucca Valley and County of San Bernardino ordinances. We have worked around the trees, planted, and transplanted western Joshua trees. As part of our water conservation education, we have promoted the inclusion of the western Joshua tree in residential and commercial landscaping as a water-wise native plant. We can demonstrate our success protecting the trees, and we invite the Commission to visit our community to better understand the tree and the community that has long lived in harmony with it.

Our service territory is comprised of very high, high, and moderate fire risk areas, as designated by CalFire and the Public Utilities Commission. A portion of our service area serving the Town of Yucca Valley is also under a State Water Board septic prohibition. Our community has had to invest over \$56 million to fund the Morongo Basin Pipeline to deliver State Water Project water to recharge our groundwater basins, as well as pay over \$140 million to build a wastewater treatment plant and collection system. The collection system does not serve all areas subject to the septic discharge prohibition, so we have received a grant of \$103 million to expand the sewer collection system into parts of phase 2. The Western Joshua Tree Protection Act was supposed to make it easier for projects like ours to get permits while protecting the western Joshua tree.

Upon review of the Western Joshua Tree Conservation Plan, we are troubled to discover provisions such as larger Avoidance Buffers and other administrative requirements that go further than the Western Joshua Tree Conservation Act (Act) specifies, which could significantly impact not just this project, but almost all activity necessary to maintain the water system, including fire hydrants, wells, pumps, water storage tanks, recharge facilities, and more.

In addition to these broader concerns, the current permitting requirements will cost our community thousands and potentially millions of dollars and could jeopardize future water and sewer projects. Individual property owners will face substantial additional costs to connect to the sewer system, including the cost of obtaining permits for western Joshua trees. We do not anticipate any “take” of the western Joshua tree and are committed to minimizing any impact. Our project has already undergone a full environmental review and has mitigation measures in place to protect the environment, including the western Joshua tree and other species. We plan to have a biologist on-site during construction, which further ensures that impacts will be minimized.

We believe our project should be exempt from the permit requirements because construction is taking place in the street, where there is limited potential for impacts to the western Joshua tree. Additionally, we believe that property owners should be exempt from the fees and additional costs associated with the permitting process if they can complete their work without taking or damaging any western Joshua trees.

Looking beyond the immediate impacts, we are also concerned about the long-term consequences of this plan. The broader permitting and mitigation requirements could significantly impact our ability to carry out routine maintenance and construction efforts on a daily basis. These essential tasks, such as repairing water lines, maintaining fire hydrants, water storage tanks, well systems, booster pumps, and recharge facilities, could be delayed or made more costly, affecting our ability to provide affordable water and uninterrupted service to our community. Every day, we work to ensure that the water system remains operational and efficient for the people who rely on it. The added burden of extensive permit requirements make these efforts more complex and costly, potentially disrupting basic services and future infrastructure projects.

Given these concerns, we respectfully request the Commission consider the following:

1. **Limit the definition of “take” to actual lethal impact as supported by statute.**
2. **Census should be limited to the project site as stated in the Act, and the “Avoidance Buffer” should be eliminated.**
3. **Simplify and exempt census requirements for special circumstances,** ensuring that minor and temporary disturbances do not trigger extensive, unnecessary mitigation measures.
4. **Charge fees only for optional in-lieu mitigation for take(s) as the Act intended,** rather than for unnecessary additional mitigation requirements when the trees still survive.
5. **Waive fees for water projects,** as water is already a higher cost in the desert.
6. **Provide exemptions and expedited permits for public works projects in streets and public rights of way,** where such projects do not affect the Western Joshua Trees.
7. **Provide exemptions for wildfire mitigation projects** to ensure that critical fire prevention efforts are not delayed by excessive regulatory requirements.
8. **Provide authority and priority to local agencies for land use decisions and limited permitting,** enabling more efficient, localized decision-making that considers both conservation and community needs.
9. **Promote the western Joshua tree in local landscaping, allow local seeding, harvesting, seed banks, and assisted migration of western Joshua trees** to encourage water wise landscaping and water conservation.

10. **Study and document the socio-economic and environmental justice impacts of the plan**, particularly on disadvantaged communities like ours, to ensure that the plan does not exacerbate inequalities.
11. **Increase public access and transparency of data**, ensuring that the public and stakeholders have access to timely and relevant information regarding the Plan's implementation and outcomes.
12. **Extend the time for public comments to at least February 28**, to provide adequate opportunity for all stakeholders to review and respond to the draft Plan.

We believe that these recommendations would support both effective conservation of the western Joshua tree and the successful implementation of critical infrastructure projects that serve our community.

We would be happy to meet with the Commission to provide more detailed information about the specific impacts of these provisions on our operations and community. We invite you to visit our service area to see firsthand how we have successfully managed our water system alongside the Western Joshua Tree, and how we can continue to do so with a more balanced approach to conservation.

Thank you for your attention to these concerns. We look forward to working together to find a solution that supports both environmental conservation and the needs of our community.

Sincerely,



Tony Culver
General Manager
Hi-Desert Water District

Attachments: Photos of western Joshua trees in Yucca Valley

Cc: Wade Crowfoot, Secretary for Natural Resources
CA Governor Gavin Newsom
CA State Senator Rosilicie Ochoa Bogh
CA State Assemblymember Greg Wallis
US Congressman Jay Obernolte
US Senator Alex Padilla
US Senator Adam B. Schiff
San Bernardino County, District 3 Supervisor/Board Chair Dawn Rowe



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