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An Introduction to Joint Powers Authorities, Their Funding Mechanisms, and Why California Should Utilize One in Order to Create an Effective Forest Management System to Prevent Wildfires

*Anna Bernstein**

I. INTRODUCTION

In the wake of ever-increasing incidences of wildfires across California,¹ cost-effective, practical, and functional forest management has become a priority in order to keep California's land and residents safe. From 2018 to 2020, six out of ten of California's worst fires, coined "megafires" by the United States Forest Service ("USFS"), have rampaged through the state.² These megafires often behave in unstoppable ways. Most recently, in 2018, they killed more than a hundred people and destroyed seventeen thousand homes, all while burning hundreds of thousands of acres across California.³ Although the end of the recent drought has brought some relief, record-breaking rains have created an expected, yet dangerous, growth of brush and grass that just adds fuel to the fire.⁴

Though specific tools and techniques for wildfire forest management remain relatively elusive, especially given a general inability to predict brush fires, let alone megafires, certain forest management methods could at least curtail the catastrophic outcomes of such megafires.⁵ Prescribed burns and mechanical thinning, for example, remain achievable options.⁶ Prescribed burning refers to a technique in which fire experts use planned fire to restore

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1. Nicole Twilley, *A Trailblazing Plan to Fight California Wildfires*, NEW YORKER (Aug. 26, 2019), <https://www.newyorker.com/magazine/2019/08/26/a-trailblazing-plan-to-fight-california-wild-fires>.

2. *Id.*

3. *Id.*

4. *Id.*

5. *Id.*

6. Larissa L. Yocom, *Fuel Treatment Longevity 2* (Ecological Restoration Institute, Working Paper No. 27, 2013).

the health of the ecosystem.⁷ Mechanical thinning is a separate technique, often used in conjunction with prescribed burning, in which extremely flammable or excess vegetation is removed from an ecosystem to lower the risk of wildfire.⁸ However, forest management methodology is not the biggest impediment to wildfire prevention. Realistically, there will never be an end-all-be-all solution because of the nature of wildfires. Instead, by focusing on what *is* possible, the biggest dilemma at present is the complicated nexus concerning the best possible methodology in the context of the vast amount of forested acreage with limited resources. A widespread and vital management system must rely on a multitude and combination of funding from various sources in order to work effectively.

Most notable of which are the use of Memorandum of Understandings (“MOUs”)⁹ and Joint Powers Authorities (otherwise known as Joint Powers Agencies and Joint Powers Agreements (all termed “JPAs”)) across the affected counties. MOUs, a helpful template for future contractual obligations, may not provide a substantial enforcement action even if enforcement mechanisms are included in the memorandum due to its non-binding characteristics.¹⁰ JPAs, on the other hand, allow broad and efficient power without voter approval.¹¹ JPAs create a theoretical “blended family” of government functions, whereby multiple agencies and entities with varying interests, motivations, and cultures, create a new entity with a specific goal.¹² In the present context, JPAs appear to provide the most efficient mechanisms for forestry management in the specific participating counties.

Many California counties would greatly benefit from the formation of a JPA that implements forest management and wildfire prevention. Specifically, counties with expansive forest and federal land would benefit greatly from JPA formation. Placer, Amador, Tuolumne, El Dorado,

7. *Prescribed Fire*, U.S. FOREST SERV., <https://www.fs.usda.gov/managing-land/fire/prescribed-fire>, (last visited Mar 4, 2020).

8. *Mechanical Treatment*, U.S. FOREST SERV., <https://www.fs.usda.gov/managing-land/fire/mechanical-treatment>, (last visited Mar 4, 2020).

9. An MOU is typically a non-binding signed agreement between parties that outlines the expectations and relationship of those involved. MOUs are not considered binding because of the level of specificity involved; the writing is usually a barebones contract that leaves a lot of information out at the discretion of the signing parties and would therefore leave any arising issues without a remedy or course of action. *See generally* Rita Leader, *Contract or Memorandum of Understanding – The Differences and Uses You Should Know*, Score: Houston (Mar. 7, 2017), <https://houston.score.org/blog/contract-or-memorandum-understanding—differences-and-uses-you-should-know>.

10. *Id.*

11. TRISH CYPHER & COLIN GRINNELL, S. LOCAL GOV'T COMMITTEE, GOVERNMENTS WORKING TOGETHER: A CITIZEN'S GUIDE TO JOINT POWERS AGREEMENTS, S. 2007-2008, Sess., at 13 (Ca. 2007).

12. JOAN CASSMAN & JEAN SAVAREE, LEAGUE OF CALIFORNIA CITIES, JOINT POWERS AUTHORITIES: OPPORTUNITIES AND CHALLENGES I (2002).

Yosemite, and Mono counties, located in the Lower Sierra area of the United States, are potential contracting entities to the JPA given their location.¹³ Other counties that have already been directly affected by large fires, such as Yolo, Yuba, Lake, Napa, and Mendocino counties would also likely benefit from an improvement in forest and land management.¹⁴ Together, these counties and other relevant environmental agencies binding together through a JPA would create a useful entity that aims to make land safer in the event of future wildfires.

The main disadvantage of JPAs, however, is the difficulty in funding appropriately. Generally, JPAs are funded either by issuing bonds or other internal sources of revenue.¹⁵

II. BACKGROUND AND HISTORY

The last seven years have been especially rough on California. A succession of warm, dry winters caused California to experience the most severe draught in its recorded history.¹⁶ This has caused a massive increase in the incidence of wildfires in addition to general economic and environmental stress on the farming industry.¹⁷ As it pertains to wildfires, climate change affects local climates by raising temperatures and creating much drier conditions.¹⁸ The science is simple—the hotter the temperature, the faster the land dries out, and the easier the vegetation is to ignite during wildfire season. In addition, climate change also affects the water cycles. For example, El Nino events that would normally play at least somewhat of a helpful role in decreasing already dangerous drought conditions are happening less often.¹⁹ Comparatively, wetter regions of forests are far less vulnerable because fires have a much harder time spreading quickly.²⁰ Even without other contributory variables coming into play, rising temperatures

13. Telephone Interview with Christiana Darlington, General Counsel, Mendocino Air Quality Management District (Sept. 11, 2019).

14. 2017 California Wildfires, U.S. CENSUS BUREAU (Dec. 2017), <https://www.census.gov/topics/preparedness/events/wildfires/2017-ca-wildfires.html>.

15. TRISH CYPHER & COLIN GRINNELL, *supra* note 11, at 19.

16. Richard Seagar et al., *Causes of the 2011-2014 California Drought*, 28 J. OF CLIMATE 6997, 6997 (2015); Jin-Ho Yoon et al., *Increasing Water Cycle Extremes in California and in Relation to ENSO Cycle Under Global Warming*, 6 NATURE COMM'NS 1, 1-2 (Oct. 21, 2015).

17. Yoon, *supra* note 16.

18. *Id.* at 2.

19. Thomas Kitzberger et al., *Contingent Pacific-Atlantic Ocean Influence on Multicentury Wildfire Synchrony Over Western North America*, 102 PROCEEDINGS OF THE NAT'L ACAD. OF SCI. OF THE U.S. 543, 543-47 (2007).

20. Elizabeth Hall, *The Science of Wildland Fire*, COMMUNICATOR'S GUIDE (last visited Feb. 22, 2020), available at https://web.archive.org/web/20081105175208/http://www.nifc.gov/preved/commguide/wildfire/fire_4.html.

and drier conditions via changing water cycles alone are ultimate players in the increase of megafires throughout California.

Generally, weather, climate, fuel pattern, and topography are the most important factors driving fire activity.²¹ Weather and climate are particularly significant, which helps to explain why California has been so susceptible to wildfires.²² Like much of the western United States, California gets most of its moisture during the fall and winter seasons.²³ The vegetation then dries out during the spring and the summer seasons.²⁴ This is precisely why warmer and drier winters directly correlate to devastating wildfires.²⁵

Though the most influential of the factors are weather and climate, forest management is incredibly important in decreasing the likelihood of catastrophic effects resulting from wildfires. Yet, despite the multitudes of forest management methods (i.e. mechanical thinning, prescribed fires, etc.), California has yet to establish an effective widespread system for general wildfire and megafire prevention. It is therefore sensible to look to other jurisdictions, agencies, and localities to determine methods that California may find beneficial, such as the “best practices” method.²⁶ Other jurisdictions may have developed useful, cost-effective systems to deal with the policy problem at hand.²⁷

Though this Note will not determine which forest management is in fact the “best practice,” if California does decide to form a JPA for this purpose, it should look to other counties, states, and countries for innovations that may in fact work well in a JPA setup. This becomes complicated, however, due to the natural complexity of forest management that is attributable to the diverse use of land.²⁸ For example, on one end of the spectrum, the forested area may be federal land without any private property or recreational opportunities nearby. On the other hand, forested land without absolute defined property rights, or with an abundance of private property and recreational activities, creates hazards and forest management issues that must be taken into account prior to determining the best fire management method.

21. Mario G. Pereira et al., *Effects of Regional Climate Change on Rural Fires in Portugal*, 57 CLIMATE RES. 187, 187–200 (2013).

22. *Id.*

23. Kendra Pierre-Louis, *California Emerged From Drought and Is Still Catching Fire*, N.Y. TIMES (Oct. 25, 2019), <https://www.nytimes.com/2019/10/25/climate/california-fires-climate-change.html>.

24. *Id.*

25. Seagar, *supra* note 16.

26. EUGENE BARDACH & ERIC PATASHNIK, A PRACTICAL GUIDE FOR POLICY ANALYSIS: THE EIGHTFOLD PATH TO MORE EFFECTIVE PROBLEM SOLVING 125 (2016).

27. *Id.* at 125–126.

28. Forest Service, Final Programmatic Environmental Impact Statement, National Forest System Land Management Planning (U.S.D.A. 2012).

Types of farming and forest systems are categorized differently depending on what is growing, and, further, the fire regimes (which describes the nature of fires occurring over an extended period of time in a particular area) are greatly dependent on the vegetation in the surrounding area.²⁹ For example, in an Ethiopian forest-livestock system where coffee, banana, and other perennial crops are grown, there is a cultivation shift every seven to eight years, which in turn threatens proper forest conservation.³⁰ In those same Ethiopian forests, having external information regarding technological advancements in livestock and crop production creates variation in forest health and restoration, which, of course, can affect the fire regime.³¹ Alternatively, in Idaho and Montana, where the vast forests tend to be Ponderosa pine and Douglas fir with many shade-tolerant trees, the USFS tends to favor an almost complete absence of human interference based on the ecological role of fire in nature.³² In the areas surrounding Lake Tahoe in California and Nevada, where human development and recreational activities are constant year-round, a more hands-on approach is necessary to ensure the safety of the people in the area.³³ Specifically, it is no longer appropriate to simply put fires out when they start.³⁴ Instead, USFS recognizes that in the Lake Tahoe area, preventative measures such as prescribed burning and detailed fuel management (taking into account the fuel necessary for prescribed fires as it affects the surrounding population) is necessary to protect the surrounding population from deviations in healthy water and air quality.³⁵

Given the nature of the wide variety of forest land and property that forest management JPAs would encompass, it is vital to note that there are potential “best practices”³⁶ that would benefit different areas within the JPA. Some counties may be prone to fire given their vegetation types, while other counties have less fire-prone vegetation but have more human development requiring different forest management practices to protect the county’s citizens properly.

29. Nicolas Barbier, *The Controversial Management of Fire in the National Forests of Idaho and Western Montana*, 304 J. OF ALPINE RESEARCH, Apr. 2015.

30. Wondimagegnehu Girma & Fekadu Beyene, *Institutional Challenges in Sustainable Forest Management: Evidence from the Gambella Regional State of Western Ethiopia*, 34 J. OF SUSTAINABLE FORESTRY 233, 233–58 (2015).

31. *Id.*

32. Barbier, *supra* note 29, at 4.

33. *Lake Tahoe Land Management Plan: Environmental Impact Statement*, UNITED STATES DEPT. OF AGRIC. FOREST SERV. 105 (1981).

34. *Id.*

35. *Id.*

36. BARDACH & PATASHNIK, *supra* note 26, at 125.

III. JOINT POWERS AUTHORITIES

Joint Powers Authorities, or JPAs, are exercised when officials from various public agencies, such as state departments, counties, cities, and school districts, create a legal entity designed to focus on a specific project or common problem. The language in the state law authorizing the formation of JPAs explicitly allow the participating public agencies to “jointly exercise any power common to the contracting parties,” which includes, but is not limited to, “levy[ing] a fee, assessment or tax.”³⁷

JPAs come in all shapes, sizes, and forms, as provided by the broad authorizing language in the California Joint Exercise of Powers Act.³⁸ Although common functions of JPAs include developing projects regarding groundwater management, sports stadium construction, and regional transportation projects, the language itself authorizes JPA formation to make any public capital improvement.³⁹ In fact, section 6502 of the California Government Code explicitly gives the Resource Conservation Energy JPA authority to produce biogas and electricity from animal and agricultural waste.⁴⁰ The Resource Conservation Energy JPA shows how expansive a JPA power can be: it is allowed to undertake projects both in its own jurisdictions and outside of its jurisdiction in multiple other counties.⁴¹ This is precisely one of the functions that a forest management JPA should use its power to emulate. Creating “feedstock” contracts, where the accumulation of agricultural waste is converted into biofuels, bioproducts, and biopower and then sold, would be a practical use of the agriculture waste from the forested land.⁴²

In California, the public agencies entering into the entity do not need to be based in California (or the respective state that governs).⁴³ Specifically, a group of California public agencies can form a JPA in conjunction with a federal public agency based in an entirely different state. A JPA formed on the California border in conjunction with public agencies in Nevada may be beneficial because it will allow for greater flexibility, expansive power, and generally more applicable knowledge in the execution of specific forest management projects. For example, a theoretical public agency in Nevada might have more knowledge and understanding of how an agriculture entity

37. CAL. GOV'T. CODE § 6502 (Deering 2019).

38. CAL. GOV'T. CODE § 6500 (Deering 2019).

39. CAL. GOV'T. CODE § 6588 (Deering 2019).

40. CAL. GOV'T. CODE § 6502.5 (Deering 2019).

41. CAL. GOV'T. CODE § 6500 (Deering 2019).

42. *Biomass Feedstocks*, OFF. OF ENERGY EFFICIENCY & RENEWABLE ENERGY, <https://www.energy.gov/eere/bioenergy/biomass-feedstocks>, (last visited Feb. 22, 2020).

43. CAL. GOV'T. CODE § 6500 (Deering 2019).

in California could operate more smoothly.

There are a multitude of procedural requirements needed to complete the JPA formation. These include, but are not limited to, filing the notice of agreement, filing a copy, and filing the correct amount in fees.⁴⁴ Though these can be complicated due to the level of detail and attention required, as long as the procedural barriers are overcome, the JPA is a useful tool because of its broad power.

The statutory language, though broad in the sense that it allows for large variation in JPA actions and membership, could be considered narrow in terms of its power. Specifically, the language maintains that the JPA must operate by way of the pre-existing power common to the contracting parties.⁴⁵ This means that the agencies participating in the JPA must have a common interest, or a service, that is common to all. For example, in *Burbank-Glendale-Pasadena Airport Authority v. Hensler*, a JPA was formed between Burbank, Pasadena, and Glendale, California, in order to operate Burbank airport.⁴⁶ The JPA, in an effort to construct a taxiway extension and service road, used eminent domain powers to acquire the property needed.⁴⁷ The property owner contested this by arguing that the JPA did not encompass this type of authority.⁴⁸ The California Courts of Appeal, however, confirmed that each individual city had the power to use eminent domain to seize property and thus had the power to confer this common ability unto the JPA authority.⁴⁹ In *San Francisco v. Boyle*, a JPA project that aimed to treat inmates with tuberculosis more effectively was upheld because both agencies that had entered into the agreement, San Francisco and Alameda County, were given legislative authority to legislate over the given subjects.⁵⁰ Specifically, since both agencies had the authority to purchase land for a new hospital, build a hospital, and acquire the proper equipment to run the hospital, there was no issue in relation to whether the JPA could do these exact duties.⁵¹ In other words, the charter of a JPA does not grant new powers to the legal entity; instead, the charter provides a new method of exercising previously established authority.⁵²

Although the common power prerequisite does set restrictive limits on creating JPAs with public agencies that are entirely unrelated in scope, the

44. CAL. GOV'T. CODE § 6503.8 (Deering 2019).

45. CAL. GOV'T. CODE § 6502 (Deering 2019).

46. *Burbank-Glendale-Pasadena Airport Authority v. Hensler*, 83 Cal. App. 4th 556, 558 (Cal. Ct. App. 2000).

47. *Id.* at 558–59.

48. *Id.* at 561.

49. *Id.* at 562.

50. *San Francisco v. Boyle*, 191 Cal. 172, 174 (Cal. 1923).

51. *Id.* at 184.

52. *Oakland v. Williams*, 15 Cal. 2d 542, 549 (Cal. 1940) [hereinafter *Williams*].

prerequisite is actually a helpful tool to effectuate effectiveness and efficiency. Public agencies that have little in common would likely accomplish their goals less effectively than agencies that are already aligned in terms of their purpose.

This concept is emulated in a journal article that draws insights and aims to develop specific guidelines for the most effective local groundwater governance in California.⁵³ Since groundwater is poorly understood, with many intricacies and nuanced strategies for upkeep and implementation, the authors suggest that any local governance without sound knowledge would be a disservice to actual progress.⁵⁴ The article concedes that in order for groundwater governance to be effective, there must be actual knowledge of the groundwater system.⁵⁵ Therefore, these limits allow for agencies with actual knowledge to work with other knowledgeable groups, imparting project knowledge off of the other groups and consequentially coming up with better ideas, faster.

The same standard of governance should apply to a JPA that aims to formulate effective forest management mechanisms. Although financially it may be beneficial to employ a large number of lucrative public agencies that can easily provide funding, the end product would take much more time and effort to organize their goals and intentions in a practical way than a JPA chartered with purpose-oriented public agencies.

That said, the flexibility and expansive power given to the administration of JPAs explains why it would work well with the complex and difficult project at hand. The common service requirement will additionally be satisfied here given the nature of this particular project and its proposed agency and county involvement.

Other public, goal-oriented agencies chartered for a specific responsibility could garner a symbiotic relationship from the collaboration. Any environmental management, land management, or even more specifically, a wildfire management agency, is likely to benefit from the combined personnel of a group so dedicated to a specific initiative (in terms of ideas, collaborative plans, and even a physical work force). For example, the National Park Service joining a JPA could be helpful by providing information on its specific national park management, upkeep mechanisms, and benefit from partnering with counties to enable efficiency and speed in completion of the said management and upkeep techniques. Further, the common power requirement will easily be satisfied because of the general

53. See generally Michael Kiparsky et al., *The Importance of Institutional Design for Distributed Local-Level Governance of Groundwater: The Case of California's Sustainable Groundwater Management Act*, 9 WATER RES. (2017).

54. *Williams*, 15.Cal.2d 542 at 755.

55. Kiparsky, *supra* note 53.

broad power given to California counties in regard to keeping their citizens safe in conjunction with the power of public forestry agencies in creating proper safety mechanisms.

The amalgamation of forces would clearly benefit the greater purpose behind creating an effective forest management and wildfire prevention system. The issue remains, however, as to how exactly the project will fund itself. Without a proper funding plan, it is possible that agencies that would otherwise join the JPA will decide against it because of the unknown economic risks associated with involvement. Therefore, a well-planned and organized funding arrangement is necessary to encourage contracting agencies to participate in the JPA.

A. JPA FUNDING

JPAs are typically funded through either issuing revenue bonds or an internal revenue stream.⁵⁶ The authority for JPAs to float bonds is supported by both legislation and case law. In *Rider v. City of San Diego*, a local taxpayer challenged the validity of a financing plan created in a JPA between the San Diego Unified Port District (“Port District”) and the city of San Diego.⁵⁷ Together, the two entities formed a JPA with the intention of funding a convention center.⁵⁸ Their financial agreement was complex, but, in essence, they arranged for the city of San Diego to pay the lease revenue bonds to the JPA through rental payments for the convention center.⁵⁹ The local taxpayer argued that the JPA was just a “shell” of a government that exists only on paper: Both San Diego’s mayor and manager sit on the JPA governing board and help in the planning and construction of the convention center and thus, the JPA was just an extension of the city.⁶⁰ Because of this, the city was financing a debt (the rental payments) that two thirds of San Diego voters did not agree to pursuant to the requirements of the city’s charter and the Constitution.⁶¹ The court, in its opinion approving the JPA’s bond issuance, stated that a JPA is not included in the California Constitution as a public entity that requires a two-third vote to incur any indebtedness, despite the inclusion of “city” on the list.⁶²

Rider, therefore, emphasizes that a city’s own need to gain approval from their voters to incur any indebtedness does not apply to a JPA that forms

56. CYPHER & GRINNELL, *supra* note 11.

57. *Rider v. City of San Diego*, 18 Cal. 4th 1035, 1039 (Cal. 1998) [hereinafter *Rider*].

58. *Id.*

59. *Id.*

60. *Id.* at 1042.

61. *Id.*

62. *Id.* at 1043.

out of that same city. In sum, a JPA does not need to follow its contracting party's obligations in regard to issuing revenue bonds to finance a project.

The legislation is just as clear. California Government Code section 6546 explicitly provides that a JPA "may issue revenue bonds" in order to "pay the cost and expenses of acquiring or constructing a project or conducting a program."⁶³ The statute goes on to list a number of projects and programs that are often financed through issuing revenue bonds. The list includes, but is not in any way limited to, the financing of parks, local streets, mass transit facilities, low-income housing facilities, and, most relevantly for the purposes of a forestry management JPA, "public improvements."⁶⁴ Section 6547, however, makes clear that the power to issue these bonds does not derive from the independent contracting parties themselves.⁶⁵ The law states that "the issuance of bonds, financing, or refinancing . . . need not comply with the requirements of any other state laws applicable to the issuance of bonds."⁶⁶ Instead, the authority to issue bonds, among other financing methods, is derived from governing state law that authorizes the agency or authority to do so.⁶⁷ In other words, when exercising its power to float bonds, the JPA itself has the individual right, not the parties that entered into the JPA.

In 1985, an amendment to the Joint Exercise of Powers Act broadened the statutory language even further.⁶⁸ Specifically, the authority to issue bonds was expanded to "pay the cost of any public capital improvement,"⁶⁹ which includes major public expenditures ranging from the purchase of equipment for a public park to the acquisition and use of land for a public purpose.⁷⁰ The amendment further removed obstacles that prevented bond "pooling," thus allowing JPAs and other governmental entities to significantly reduce capital costs through consolidation of individual bond issues.⁷¹ The legislature, therefore, could not have made the authority to issue revenue bonds on behalf of the JPA clearer.⁷²

63. CAL. GOV'T. CODE § 6546 (Deering 2019).

64. *Id.*

65. CAL. GOV'T. CODE § 6547 (Deering 2019).

66. CAL. GOV'T. CODE § 6547 (Deering 2019).

67. Rider, 18 Cal.4th at 1039.

68. *Id.* at 1053.

69. *Id.* at 1051.

70. *Planning Implementation Tools: Capital Improvement Plan*, CENTER FOR LAND USE EDUCATION, https://www.uwsp.edu/cnr-ap/clue/Documents/PlanImplementation/Capital_Improvement_Plan.pdf, (last visited Mar. 9, 2020).

71. *Id.*

72. *Id.* at 1052.

B. ISSUING REVENUE BONDS ON BEHALF OF JPAs

Because upfront costs are usually high for the implementation of the new programs, issuing revenue bonds is quite helpful due to the immediacy of the funding. In fact, multiple cities across California have realized the benefits of JPAs because of their ability to overcome the large hurdle of initial investments for a project.⁷³ Lancaster, California, created a JPA solely for its financing abilities. Because of the high upfront costs of solar energy projects, Lancaster and San Jacinto utilized the financing nature of a JPA to equip 100% of the schools and ninety-seven percent of the municipal buildings with solar power.⁷⁴ Likewise, Las Virgenes knew that a solar power system would save them two million dollars over the next twenty years, but understood how high the upfront costs would be. Therefore, it formed the Las Virgenes-Triunfo JPA in order to front the costs and was ultimately able to dramatically lower utility bills quickly, which allowed them to generate actual savings on energy costs.⁷⁵ This bond issuing authority, however, has not been without controversy.

Many complaints have been filed against JPAs in regard to issuing revenue bonds—most commonly when a plaintiff believes that one or more of the contracting parties (often cities, counties, and towns) must follow their own governing legislative and jurisdictional requirements before the JPAs authority is triggered. However, there is substantive case law showing that this is not the case.

The authority to issue revenue bonds for “any public capital improvement” is an established, broad power.⁷⁶

Any contentions that arise concerning the issuance of revenue bonds should follow the broadly recognized case law and legislation. Policy-wise, the *Rider* court recognized that due to the antiquated requirements regarding voter approval for indebtedness, courts should continue to broadly construe this language in order to encourage economic development and avoid rigid requirements that hinder modern urbanization.⁷⁷ Any public agency that decides to contract into the JPA for a particular forest management project must still individually hew to its own legal limitations. However, based on the above analysis and policy implications of having broad authority, the proposed JPA should have no issue floating revenue bonds to fund the project. Any contentions that do arise will likely stem from the expansive

73. *Cost Savings Through JPA-Financed Retrofits*, INDEP. CITIES FINANCE AUTHORITY, <https://www.icfauthority.org/cost-savings-through-jpa-financed-retrofits/> (last visited Dec. 1, 2019).

74. *Rider*, 18 Cal. 4th at 1039–40.

75. *Id.*

76. CAL. GOV'T. CODE § 6588 (Deering 2019).

77. *Rider*, 18 Cal. 4th at 1046.

geographic nature of the joint authorities. Given this expansive geographic nature, all contracting parties may disagree on the specific usage of the funding because each area may need something very different (e.g. one county may want more funding to go towards feedstock contracts, while other counties may need physical personnel to maintain forestland). However, these logistical components can be determined at a later point in the process based on expert calculations of the specific needs of each county.

Though it is still unclear exactly which counties in California will, or should, be participating, such an expansive project could inevitably spark frustration by taxpayers and residents of these counties who are paying for other counties' forest management. Especially given the nature of wildfires—unpredictable in both timing and devastation—one county's taxpayers could pay for the forest management and emergency fire procedures of another county halfway across the state. Of course, plenty of taxpayers already feel strongly about the amount they are paying in taxes, and any money that is not going back into their pockets, or at the very least not contributing directly to their domicile of choice, can potentially cause a stir. This is quite potentially at the core of why other potential plaintiffs, like that in *Rider*, want to file suit: they feel strongly about their taxes going somewhere tangible.

Cities, counties, towns, and school districts (the list goes on) have the legislative authority to issue revenue bonds for this reason. Though it is true that an entity's taxes may be going to another distant county's forest management and their ensuing safety, the greater goal of public funding for important projects should take priority over individual interests. For instance, JPAs are often created for proper disposal of hazardous waste. Zero Waste Marin, a JPA formed north of San Francisco in Marin County, aims to design and manage products that eliminate the volume of toxic waste and materials in the area.⁷⁸ Though Petaluma, on the upper edge of the North Bay in Sonoma County, is about 5 miles north of the Marin County line, Petaluma residents' tax dollars go towards the hazardous waste removal in Marin. The end result, though potentially bothersome for Petaluma residents, allows for safer waste removal and consequentially a safer system overall. Based on the above analysis, it becomes clear why issuing revenue bonds is a popular way to finance an expensive JPA project.

78. *What is Zero Waste?*, ZERO WASTE MARIN, <https://zerowastemarin.org/who-we-are/what-is-zero-waste/> (last visited Feb. 22, 2020).

1. Issuing Revenue Bonds Specific to this Project

For the JPA proposed, one way that revenue bonds could be incorporated into the financing structure would be to organize Good Neighbor Agreements (“GNAs”) with the United States Forest Service (“USFS”) in order to create feedstock contracts.

GNAs are legally binding agreements that are negotiated by an industry (such as the forestry industry) and additional stakeholders in order to reduce or eliminate environmental risks to a community or population.⁷⁹ GNAs gained popularity after the realization that private remedies, such as nuisance, trespass, and negligence law, were ill-suited to deal with environmental problems.⁸⁰ Further, common law was unable to alleviate the burden of monitoring and policing externalities on individual and community action claims.⁸¹ Therefore, GNAs are nowadays generally viewed as helpful, faster, and more effective than litigation which does not allow the same flexibility to negotiate terms of an agreement.⁸² Luckily, based on the Joint Exercise of Powers Act, a JPA is allowed to enter into agreements with other public agencies in order to furnish other services, provide materials, or perform work.⁸³ California Government Code section 6503.1 even explicitly allows for tax revenues of a county to be allocated for the purpose of fire protection, as long as the funds are appropriated for those “fire protection purposes.”⁸⁴ This would work perfectly here because the bond funds would go directly back to the feedstock contract formation and execution.

Though prescribed burns are a helpful tool in wildfire prevention and management, some land makes it difficult to safely make use of the prescribed burning method.⁸⁵ In these cases, the USFS makes use of mechanical treatment: reducing the dangerous levels of vegetation that have built up in the fires either by thinning, pruning, or piling of brush and deadwood in order to make the area better able to withstand fire.⁸⁶ This process, though, can be extremely time consuming and require a lot of personnel given the sheer amount of acreage covered for this particular

79. Thalia Gonzalez & Giovanni Saarman, *Regulating Pollutants, Negative Externalities, and Good Neighbor Agreements: Who Bears the Burden of Protecting Communities*, 41 *ECOLOGY L. Q.* 37, 40 (2015).

80. *Id.* at 51.

81. *Id.*

82. *Id.*

83. CAL. GOV'T. CODE § 6514.5 (Deering 2019).

84. CAL. GOV'T. CODE § 6503.1 (Deering 2019).

85. *Mechanical Treatment*, U.S. FOREST SERV., <https://www.fs.usda.gov/managing-land/fire/mechanical-treatment>, (last visited Feb. 22, 2020).

86. *Id.*

project. Additionally, though some of the tools used for this maintenance are simply rakes and chainsaws, some of the harder work requires heavy machinery such as bulldozers and woodchippers which require trained workers.⁸⁷ Plainly, a project of this magnitude would need to have many highly trained individuals working to accomplish the forest management objectives. The USFS, generally, has their own methodology and workforce to accomplish their own goal of fire safety.⁸⁸

For the purposes of this JPA, the very materials that pose a fire risk can be transformed into a revenue stream to finance fire prevention efforts through the use of feedstock contracts. A potential partner in this would be the USFS, which has its own mission to ensure the safety of the public. “Feedstock” contracts with the USFS are therefore a feasible revenue source. Feedstocks are an accumulation of biomass, plants, and plant-based materials that are not used for food, but instead are converted into biofuels, bioproducts, and biopower.⁸⁹ Feedstocks are beneficial because of their renewable and environmentally friendly nature: The biofuel, bioproducts, and biopower are transformed entirely from renewably carbon sources expand biomass resource potential.⁹⁰

In order to create revenue, and under the terms of a GNA, the USFS would have to receive funding from the JPA (from the revenue bonds) to collect the biomass across all of the national parks and forests in California (or any that were particularly decided upon in the language of the JPA). That way, no extra training for use of machinery would be necessary, and meticulous, seasoned professionals would do the necessary work, ultimately eliminating extra costs in hiring and training additional staff for more expansive work. The immediately available funding from the JPAs (from the issued revenue bonds) would assure that the trained workers are paid in accordance with their employment contracts and would continue to complete the work in a timely manner. In contrast, emergency work pay can result in late payments to workers and can discourage field workers from agreeing to extra time and shifts, thus resulting in the need to hire and train additional staff.⁹¹

87. *Id.*

88. Improving forest conditions remains an important goal of the USFS. Specifically, restoring and maintaining land at risk of fire and effectuating safe and risk-based wildfire response is vital to the organization; see generally *Fire Management Today: September 2019, Vol. 77, No. 3*, U.S. DEPT. OF AGRIC., https://www.fs.usda.gov/sites/default/files/fire-management-today/Fire_Mngt_v77_3%20508.pdf, (last visited Mar. 10, 2020).

89. *Biomass Feedstocks*, OFF. OF ENERGY EFFICIENCY & RENEWABLE ENERGY, <https://www.energy.gov/eere/bioenergy/biomass-feedstocks>, (last visited Feb. 22, 2020).

90. *Id.*

91. *Improving Performance: A Review of Pay-For-Performance Systems in the Federal Government: Hearing Before the Oversight of Government Management, the Federal Workforce, and the*

Because several national forests and federal lands spread across the counties that are at risk of deadly wildfires and megafires, creating a GNA between the USFS and the JPA would assure that forests are receiving necessary mechanical treatments and generating necessary revenue for the JPA entity.⁹²

Similar to the above-mentioned issue with common law remedies to environmental concerns, private actions to remove the deadwood and brush would not be effective. A nuisance claim, for example, would be hard to establish because most of the land at issue is already on federal land, leaving the deadwood and brush removal task at the same familiar standstill because there is no legal remedy to get it removed. But the dead biomass still needs to be collected to prevent wildfires, even if it is not being sold for the adherence to feedstock contracts. Here, a GNA would be beneficial for all parties involved. The prevention of environmental risks, a main objective behind GNAs, would be enhanced by eliminating the environmental risks of allowing deadwood and dangerous brush to pile up during fire seasons.

Thereafter, the USFS could sell the feedstocks to companies and agencies that could then convert them into the bioenergy, thus creating tangible revenue. Not only are feedstock contracts useful to the environment more generally due to their utilization and creation of renewable resources to power heavy machinery, but also because this process will simultaneously contribute to the clearing of the forest and consequent wildfire prevention. Both of these incentives working in conjunction will ideally generate a stronger forest management system that helps to sustain forests.

Creating feedstock contracts with land management agencies may be beneficial for creating revenue streams from the acquired revenue bonds. However, this method is not the only potential revenue-inducing idea. One example comes in the wake of the 2017 California fire season. Researchers in Santa Cruz began to recognize that the USFS has an affinity for the large trees in the forest.⁹³ Instead, centralizing the industry around smaller, more dispensable trees could be a new method in using renewable resources to generate revenue.⁹⁴ In Europe, smaller trees and their lumber are often used to engineer a product called “cross-laminated lumber,” which can be used in the construction of multistory buildings.⁹⁵ Alternatively, much more

District of Columbia Subcommittee of the Committee on Homeland Security and Governmental Affairs, 110th Cong. (2008) (statement of John Gage, President, American Federation of Government Employees).

92. *Interactive Visitor Map*, U.S. FOREST SERV., <https://www.fs.fed.us/ivm/>, (last visited Feb. 22, 2020).

93. Twilley, *supra* note 1.

94. *Id.*

95. *Id.*

specific, smaller-scale projects could also be a part of the JPA financing plan. For example, one idea is to burn waste wood and brush in order to heat greenhouse-aquaculture operations to fund his fertilizer business.⁹⁶

Again, the mentioned mechanisms for creating a revenue stream are nonexhaustive. There are a number of ideas that would be beneficial to explore further in this context. The JPA could explore a variety of ecofriendly and innovative ideas that aim to rid land of fire fuel in exchange for revenue. In fact, because the JPA can enter into agreements with public agencies as it sees fit,⁹⁷ it could enter into multiple agreements at once. For example, one focus area could be the clearance of deadwood on private property that does not fall under the federal land umbrella but nevertheless may need help with clearing. Feedstock contracts with the USFS, meanwhile, could simultaneously continue to focus on expansive federal forest land.

There is no state or JPA regulatory legislation that keeps JPAs from having a variety of funding from the issuance of bonds and other internal revenue streams. Therefore, this JPA should make use of the revenue bonds to fund not only feedstock contracts with the USFS, but other agreements and systems that promote forest safety and generate revenue simultaneously.

C. TAX-INCREMENT FINANCING

Tax increment financing (“TIF”), or a tax that emulates this system, would be a helpful financing tool used within the proposed JPA system in order to finance the entire project. TIF is a taxing system aimed at promoting economic development in certain areas.⁹⁸ More specifically, TIF provides tax-base neutral funding for blighted or potentially blighted areas within a given municipal area.⁹⁹ TIF has been a helpful tool to raise property values, revitalize economic activity, and even promote the aesthetic appeal of communities. The imperfection in its application, however, is important to recognize if implemented here.¹⁰⁰

1. History and Background of Tax-Increment Financing

TIF gained widespread popularity in the early 1970s, though it was used as early as the 1950s when the federal government was an active player in

96. *Id.*

97. CAL. GOV'T. CODE § 6502 (Deering 2019).

98. Richard Wagner, *Tax Increment Financing: History, Basics, Issues, and Evolution*, 20 J. OF APPLIED BUS. & ECON. 95, 95 (2018).

99. *Id.*

100. *Id.*

urban communities.¹⁰¹ Indeed, the Great Depression contributed to the beginning of TIF in practice.¹⁰²

As the inadequacy and unaffordability of housing continued to be problematic in the 1920s, the government sought to facilitate economic activity following the market crash in 1929, which had only made the housing conditions worse.¹⁰³ For example, government agencies, such as the Public Works Administration (“PWA”), which goals included hunkering down on substandard housing standards and creating housing projects, were created with the intention to facilitate said economic activity.¹⁰⁴ The PWA was authorized to perform certain activities, such as engaging in construction and rehabilitation of low-rent housing.¹⁰⁵ This government agency was paramount to the development of the TIF system, as this was the first time the federal government used private housing investments to serve a greater public purpose (though no actual bonds were issued at the time, this is where the idea sprung).¹⁰⁶ As the depression era ended, the intentions of the government authorities began to shift as a reflection on the changing political climate.¹⁰⁷ Instead of continuing to focus on urban poverty and slums, amendments were made in the TIF to include more generic economic issues, hence where TIF started to flourish in other areas and industries.¹⁰⁸

Redevelopment agencies (“RDAs”) authorized by the Community Redevelopment Act of 1945, had initially used federal funding to finance their urban redevelopment programs.¹⁰⁹ Seven years later, Proposition 18¹¹⁰ authorized the RDAs to utilize TIF.¹¹¹ After authorization, the sponsoring agency selected an area where TIF would occur, assessed the value of the property within that general area, and then those values froze until the specific project was completed.¹¹² During the frozen period, the government collected and distributed the property taxes from those properties, just as they would without a defined area of the project.¹¹³ The tax revenues from the

101. *Id.* at 96–97.

102. *Id.* at 96.

103. *Id.* at 97.

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. Casey Blount et al., *Redevelopment Agencies in California: History, Benefits, Excesses, and Closures* (U.S. Dep’t of Hous. and Urban Dev., Working Paper No. EMAD-2014-01, 2014).

110. Proposition 18 was a 1952 initiative that ultimately established TIF and created flexibility for RDAs. *Id.* at 1.

111. *Id.*

112. Wagner, *supra* note 98, at 96.

113. *Id.*

assessed values were then used to service the TIF bonds.¹¹⁴ Although TIF increased the flexibility of agencies' redevelopment plans, it diverted property tax revenue from cities and counties.¹¹⁵ For example, there may have been significant revenue as a result of a specific redevelopment agency utilizing TIF, but because the money was funneled into a specific channel, a school district, for instance, it reduced the amount of funding derived from taxes for other agencies.¹¹⁶ Therefore, when some agencies thrived because of TIF, it was at the expense of other agencies that did not establish TIF districts in a specific vicinity.¹¹⁷ Because of the inequity, California tried, on multiple occasions, to regulate TIFs in terms of tax percentage limits and shifting excess funding.¹¹⁸ In fact, In 2011, Governor Brown called for the dissolution of redevelopment agencies and a redistribution of property tax revenues through Proposition 22.¹¹⁹ Though contended by RDAs statewide, the Supreme Court of California eventually upheld the portion of the proposition that authorized dissolution of redevelopment agencies.¹²⁰

The destruction of redevelopment agencies slowed the progression and popularity of TIFs in California. JPAs were still authorized to use financing mechanisms that were within their prescribed legislative and judicial authority, however.¹²¹ This forest management JPA should thus consider the use of TIF and other similar financing methods, discussed below, to supplement the issuance of any revenue bonds.

California Proposition 218 also significantly changed local government finance, which indirectly put limits on TIF systems.¹²² Specifically, Proposition 218 placed limits on fee-based structured financing.¹²³ The proposition restricted property-related fees, i.e. any fee imposed as an "incident of property ownership."¹²⁴ This Proposition became contentious because sometimes fees that were indeed incident to property ownership were still service based, such as fee metered water usage, whereas the intention of the fee limitation was to disallow other common fees such as a flat fee on water delivery.¹²⁵ Further, the proposition placed voter limits and

114. *Id.*

115. Blount et al., *supra* note 109, at 1.

116. *Id.*

117. *Id.*

118. *Id.*

119. George Lefcoe, *Redevelopment in California: Its Abrupt Termination and a Texas-Inspired Proposal for a Fresh Start*, 44 THE URBAN LAW. 767, 767–810 (2012).

120. *Id.*

121. CAL. GOV'T. CODE § 6502 (Deering 2019).

122. *Understanding Proposition 218*, LEGISLATIVE ANALYST'S OFF. (Dec. 1996), https://lao.ca.gov/1996/120196_prop_218/understanding_prop218_1296.html.

123. *Id.*

124. *Id.*

125. *Id.*; John S. Throckmorton, *What is a Property-Related Fee – An interpretation of California's*

other general requirements on fees and assessments.¹²⁶ Unlike the redistributive effect of general taxes, the fee-based structure only allowed for the fee to exist if it is at least roughly proportional to the services returned.¹²⁷ As emphasized previously, floating bonds are within the legal capacity of JPAs, some of the other methods, such as the use of TIF, will need to be monitored closely in order to properly comply with state financing laws.

2. Tax Increment Financing Applied to the JPA

Though redevelopment agencies and their use of TIF is outlawed in California, there are other legal mechanisms to make use of TIF in beneficial, effective, and constitutional ways. Since TIF makes use of distinct districts to create revenue in those areas, this proposed JPA would immediately benefit if it selected a few economically tarnished areas to focus on. This has been done in the past. Contra Costa County, for example, created a JPA and utilized TIFs to construct one portion of a development at the Pleasant Hill portion of Bay Area Rapid Transit (“BART”).¹²⁸ The TIFs were used to pay for various public infrastructure improvements, such as a patron parking garages and the physical backbone infrastructure of the BART tracks.¹²⁹

Similarly, a forestry management JPA could utilize TIFs in multiple cities and towns encompassed by the JPA, even if each area had a different local forest management motivation to do so, i.e. one county may need more personnel for clean-up, while another may need to focus on fire prevention methods. Given the expansive geographic scope of a forestry management JPA, it would be helpful to retain an expert in infrastructure and redevelopment to determine which areas would most lucratively benefit from a redevelopment project.¹³⁰ Experts are often necessary to develop regional strategies, if not more specific regional financing strategies to effectuate successful financial practices within the JPA.¹³¹

For example, Paradise, California is a town that could potentially benefit from a redevelopment project. Paradise was completely devastated from a wildfire, the ‘Camp Fire,’ in 2018.¹³² Prior to the fire, Paradise was home to around 26,000 people; now, just around 2,000 are left due to the

Proposition 218, 48 HASTINGS L. J. 851, 1068 (1997).

126. *See id.* at 1067.

127. LEGISLATIVE ANALYST’S OFF., *supra* note 122.

128. SHISHIR MATHUR, INNOVATION IN PUBLIC TRANSPORT FINANCE: PROPERTY VALUE CAPTURE (2014).

129. *Id.*

130. CYPHER & GRINNELL, *supra* note 11.

131. *Id.*

132. Colleen Hagerty, *The Survivors*, VOX (Oct. 23, 2019), <https://www.vox.com/the-highlight/2019/10/16/20908291/camp-fire-wildfire-california-paradise-survivors>.

destruction of thousands of homes and fear of future fires.¹³³ Paradise would likely benefit if there was an established TIF district because the property tax revenues from this area could spark economic redevelopment. Building new profitable infrastructure through economic development is necessary for Paradise to overcome its own economic devastation. The creation of a TIF district will subsequently bring residents who left back into the Paradise area and a new revenue stream will be produced that contributes to the JPAs forest management objective. This could protect Paradise from additional catastrophic wildfire damage and destruction.

Other states have TIF-based redevelopment statutes that could serve as a template for financing this JPA (in addition to a template for TIF legislation in general). In Texas, any town, city, or county, can establish a redevelopment project area called a Tax Increment Reinvestment Zones (“TIRZ”).¹³⁴ TIRZ funding comes from property tax increments, sales tax increments, or both.¹³⁵ The “blight” requirement that TIF specifically incorporates, however, is relaxed, and is instead replaced with the requirement that the area’s present condition impairs the city’s growth or constitutes an economic or social liability to public health, safety, morals or welfare.¹³⁶ The city, county, or private owners who start a TIRZ have their own board of directors, which decentralizes redevelopment and avoids issues that redevelopment agencies and TIFs have previously faced.¹³⁷

The JPA could also make use of Enhanced Infrastructure Financing Districts (“EIFDs”).¹³⁸ EIFDs spawned from redevelopment agencies but have become more popular due to their termination of voter approval requirements and potential for project expansion.¹³⁹ EIFDs finance construction, acquisition costs, rehabilitation costs, and planning and design expenses.¹⁴⁰ However, EIFDs do not pay for maintenance or routine operations.¹⁴¹ A vital component of the formation of EIFDs is the infrastructure financing plan, where tax increment specifications and projection for tax revenues from such increments must be laid out.¹⁴² EIFDs are given a statutory framework in California Government Code section

133. *Id.*

134. Lefcoe, *supra* note 119, at 788–89.

135. *Id.*

136. *Id.* at 28.

137. *Id.* at 27.

138. See generally *Primer on California’s New Tax Increment Financing Tools*, CAL. ASS’N FOR LOCAL ECON. DEV., 7, (2017), <https://www.cacities.org/Resources-Documents/Policy-Advocacy-Secti on/Hot-Issues/New-Tax-Increment-Tools/CALED-TIF-Primer-3-17-FINAL.aspx>.

139. *Id.* at 8.

140. *Id.*

141. *Id.*

142. *Id.* at 10.

53398.50.¹⁴³ A forestry management JPA should look to this Code, in addition to other best practices from other states, in order to determine the best TIF method incorporating the present issues.

Some believe that the overall process involved in a TIF is a flexible funding source that avoids the bureaucratic red-tape and extreme delays associated with grant programs.¹⁴⁴ Therefore, utilizing something similar to a TIF system, in conjunction with a multitude of grants, could alleviate the pressures of finding one main source of funding for the JPA.

D. INDEPENDENT REVENUE STREAMS

Independent revenue streams are an additional way that JPAs can receive funding.¹⁴⁵ Though independent revenue streams are vital for some other JPAs with simple, single project-specific goals, this particular forest management JPA will likely need a steady stream of income throughout its formation and execution because of its continuous work on forested land. This JPA should therefore utilize multiple independent revenue streams for the upfront costs of the JPA creation. Specifically, the board should apply for Federal Emergency Management Agency (“FEMA”) grants, Brownfield grants, and other similar grants that are awarded to applicants who meet certain criteria. FEMA provides grant funding for non-disaster preparedness in order to insure protection against and mitigate high-consequence emergencies.¹⁴⁶ FEMA also grants Staffing for Adequate Fire & Emergency Response funding (“SAFER”) to effectively fund fire departments and volunteer firefighter organizations, both which are vital to forest fires and management.¹⁴⁷ Also, Brownfield grants grant funding to property that might be compromised due to the presence of or potential hazardous substances or materials.¹⁴⁸ In this case, remnants and contaminants directly from previous wildfires. Grants such as these would be efficacious and relevant to the proposed JPA given the nature of the ultimate intended actions: disaster preparedness, economic development in blighted areas (due to fire), and emergency relief, all which would benefit from grants as an independent revenue stream to upkeep the efficacy of the programs.

143. *Id.* at 8.

144. Wagner, *supra* note 98.

145. CYPHER & GRINNELL, *supra* note 11, at 19.

146. Grants, FED. EMERGENCY MGMT. AGENCY, <https://www.fema.gov/grants> (last modified Feb. 18, 2020).

147. Staffing for Adequate Fire & Emergency Response Grants, FED. EMERGENCY MGMT. AGENCY, <https://www.fema.gov/staffing-adequate-fire-emergency-response-grants> (last modified Dec. 18, 2019).

148. Overview of EPA’s Brownfields Program, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/brownfields/overview-epas-brownfields-program>.

Private donations are also helpful in funding JPAs, though they are much harder to aggregate in an effective way unless there are a multitude of large donors.¹⁴⁹ Regardless, there are hundreds of local, state, and government grant programs and donation prospects that would greatly benefit the JPA formation, and should be utilized to the fullest extent.

IV. PROPOSAL

Many California counties susceptible to devastating wildfires would benefit from the formation of a JPA to implement forest management strategies and wildfire prevention methods quickly and effectively. Specifically, counties with expansive forest and federal land (Placer, Amador, Tuolumne, etc.) would benefit greatly from JPA formation.

Issuing revenue bonds to upfront cost and creating feedstock contracts with land management agencies is a feasible stream of revenue. This would fund the JPA wildfire prevention strategy and prevention at the onset. Using these sources of revenue, the JPA would be able to fund a variety of wildfire prevention and land management initiatives in different counties depending on their specific characteristics and needs, ultimately creating a far-reaching, need-specific, and helpful forest and land management JPA.

Issuing revenue bonds will ideally create revenue through the feedstock contracts, but it is likely that this revenue will only be attainable in national forests and on federal land because of the GNAs breadth. Because of this, any TIF initiative should take place after any revenue bonds are issued. This includes any alternate form of TIF that the JPA intends to replicate, such as EIFDs or TIRZ. That way, there will be available funding for any expert personnel needed to establish precisely where a TIF district (or the equivalent) should be established.

By first establishing revenue through revenue bonds and subsequently through feedstock contracts from federal lands and forests and *then* developing TIF districts in areas that display a need for economic revitalization, this system will allow for the build-up of accessible funds for land that is *not* federal land, but instead private property that would not be subject to GNAs. In other words, planning to first issue revenue bonds for feedstock contracts will allow revenue to pile up. Then, the revenue can be put towards figuring out a more substantial plan for other private, non-federal land to implement other fire safety mechanisms. This is important because the vast amount of land covered by this JPA is not necessarily federal land yet needs to be protected from wildfire just as thoroughly.

Any revenue received through bonds should also be supplemented

149. Cf. CYPHER & GRINNELL, *supra* note 11, at 17.

through grants and private donations. Grants and private donations can constitute a substantial amount of funding but require more upfront work at the expense of the JPA board and any experts retained. As soon as a JPA secures funding from a grant, the money is immediately available and can be put to use quickly. Together, issued bonds and other independent revenue streams will allow for the successful formation of a California JPA intended to protect California from the catastrophic effects of wildfires.

V. CONCLUSION

There is still much to determine when it comes to the details and formation of a forestry management JPA. Regardless, a JPA would be highly beneficial in the execution of effective wildfire prevention. The nature of wildfires will always be unpredictable to a certain extent, but creating a JPA with numerous counties, local, and governmental agencies will, at the very least, alleviate the financial and practical concerns (i.e. widespread support and physical personnel) regarding forest management. The vast amount of land that will be encompassed in the JPA that is proposed in this Note will create innumerable options for how and when to generate revenue. Feedstock contracts, notably, will be a great option for environmentally friendly revenue. Therefore, once the procedural requirements such as notices of agreement and fee agreements are settled and upfront costs are secured, a forestry management JPA can begin to make California's forests, and all of its inhabitants, safer from future catastrophic wildfires and megafires.