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Municipal Wildfire Management in California: A Local Response to Global Climate Change

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COMMENT

Municipal Wildfire Management in California: a Local Response to Global Climate Change

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I. INTRODUCTION

More than nine million acres scorched, over one billion dollars in economic losses, 2125 homes destroyed, and thirteen deaths.[1] The numbers from the 2012 wildfire season are staggering, but these numbers may seem meager in just a few decades.[2] Over the last forty years, several trends have been working together to produce a wildfire-friendly environment in the United States, especially in western states with warmer climates.[3] The average number of wildfires larger than 1000

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1. Doyle Rice, *U.S. Endures Near-record Wildfire Season*, USA TODAY (Nov. 12, 2012, 3:08 PM), http://www.usatoday.com/story/weather/2012/11/11/wildfire-season-destruction/1695465/.

2. *See infra* Part II.B.

3. *Infographic: Western Wildfires and Climate Change*, UNION OF CONCERNED SCIENTISTS (last modified July 23, 2013), http://www.ucsusa.org/global_warming/science_and_impacts/impacts/infographic-wildfires-climate-change.html#science. This infographic provides a concise yet poignant summary of climate change and its effects on wildfire frequency. The climate change-induced trends contributing to increased wildfires include the following:

> (1) Average annual temperatures in the United States have increased 1.9°F since 1970 and this increase is occurring at a rate much faster than other areas of the planet.

acres is up to 250 per year —a huge jump from the yearly average of 160 during the 1990s.[4] Fighting these fires has become a much more difficult task as recent wildfires have been burning up land at a much faster pace.[5] Even after some of the larger wildfires are suppressed, there are substantial post-fire environmental impacts including smoke, flooding, erosion, insurance claims, rebuilding, and restoration.[6] Though the actual destruction caused by a particular wildfire will depend on a number of site-specific factors,[7] there is one common factor resulting in the increasingly hospitable conditions for wildfires: climate change.[8] Current trends regarding climate change have continued unabated for some time now,[9] giving wildfire activity the opportunity to run rampant as certain areas like the western

(2) The onset of spring snowmelt is occurring 1-4 weeks earlier today than it did in the late 1940s.

(3) Forests are drier for longer stretches of the year, creating the perfect fuel for wildfires to ignite and spread.

(4) The average length of wildfire season in the western U.S. is now 7 months, up from just 5 months in the early 1970s. *Id.*

4. *Id.*

5. Suzanne Goldberg, *Climate Change Causing US Wildfire Season to Last Longer, Congress Told*, THE GUARDIAN (June 4, 2013, 4:12 PM), http://www.theguardian.com/world/2013/jun/04/climate-change-america-wildfire-season?CMP=twt_gu ("Thomas Tidwell, the chief of the United States Forest Service, told the Senate committee on energy and natural resources" that "'[t]en years ago in New Mexico outside Los Alamos we had a fire get started. Over seven days, it burned 40,000 acres. In 2011, we had another fire. Las Conchas. It also burned 40,000 acres. It did it in 12 hours.'").

6. Adam Markham, *Bigger, Hotter, and Longer Wildfires are the New Normal as the Climate Changes in the West*, THE EQUATION (July 19, 2013), http://blog.ucsusa.org/bigger-hotter-and-longer-wildfires-are-the-new-normal-as-the-climate-changes-in-the-west-183 (The Waldo Canyon fire in 2012 and Black Forest Fire in 2013 (both in Colorado) accounted for more than $650 million in insurance claims.).

7. *See generally* Allen Best, *In the Path of the Inferno*, PLAN., July 2013, at 13, *available at* http://magazine.planning.org/publication/?i=164628&p=3. Some communities in Colorado and Montana have had the added problem of bark beetle infestation. These insects are capable of wiping out hundreds of thousands of brush, leaving behind the perfect fuel for wildfires. *See infra* Part II.B.ii.

8. *See infra* Part II.B.

9. *Global Greenhouse Gas Emissions Data,* EPA (last updated Sept. 11, 2014), http://www.epa.gov/climatechange/ghgemissions/global.html#three.

United States become more fire prone.[10] So the question becomes: what actions can be taken to mitigate the exceptional wildfire consequences of climate change if international conditions causing this problem are not mitigated?

As a warmer climate state in the western United States, California is an especially intriguing case in the study of wildfires.[11] Not only does it have a warmer and drier climate on average, but California also is subject to other notable conditions such as powerful winds and intensified drought that make it a literal hotbed for wildfires.[12] For instance, many California fires are exacerbated by the Santa Ana winds that blow into the southwestern region of the state.[13] These sometimes hot and dusty winds blow westward through the nearby canyons, where they pick up tremendous speed and then make their way into the coastal areas.[14] Just this past year from January to May, California recorded its driest conditions to date,[15] and Santa Ana winds were predicted to reach speeds of around seventy miles per hour.[16] As a state exhibiting such wildfire risk factors, California is ripe for analysis. Given the size and population of California,

10. Kate Galbraith, *Wildfires and Climate Change*, N.Y. TIMES, Sept. 4, 2013, http://www.nytimes.com/2013/09/05/business/energy-environment/wildfires-and-climate-change.html.

11. Federico Cheever, *The Phantom Menace and the Real Cause: Lessons from Colorado's Hayman Fire 2002*, 18 PENN ST. ENVTL. L. REV. 185, 202 (2010) ("More than half of the most damaging fires in the U.S. over the past 170 years have occurred in California, and the state leads the nation in wildfire-related economic losses.").

12. Joseph Serna & Robert E. Lopez, *Santa Ana Winds: Red Flag Warnings Issued Across Southland*, L.A. TIMES, Oct. 3, 2013, http://www.latimes.com/local/lanow/la-me-ln-red-flags-socal-20131003,0,5078511.story#axzz2jjFqVqr1; Christina Villacorte, *Wildfires: An Ever-Present Danger in Southern California*, LOS ANGELES DAILY NEWS, Oct. 25, 2013, http://www.dailynews.com/general-news/20131025/wildfires-an-ever-present-danger-in-southern-california.

13. *Santa Ana*, CALIFORNIA CLIMATE CHANGE CENTER, http://meteora.ucsd.edu/cap/santa_ana.html (last updated Aug. 1, 2014).

14. *Id.*

15. Daniel Yawitz, *Western Drought Intensifies, Leads to Deadly Wildfires*, CLIMATE CENTRAL (June 14, 2013), http://www.climatecentral.org/news/western-drought-intensifies-leads-to-deadly-wildfires-16120 (Though some Midwest states had some of their wettest years to date, the National Climatic Data Center found that California (from the months of January to May) had its driest year ever.).

16. *See* Serna & Lopez, *supra* note 12 (explaining dry vegetation and strong Santa Ana winds create a "perfect recipe" for wildfires).

the increased frequency of wildfires threatens the lives of millions of people, and also creates adverse environmental impacts such as increases in runoff and soil erosion and immense amounts of smoke left in the wildfire's wake.[17]

This Note will examine the wildfire issue in California within the context of municipal government. Part II-A will present a concise look at the current state of affairs regarding climate change, which demonstrates that because little has changed on the international level regarding emissions reductions, the responsibility of protecting people from the catastrophes associated with climate change will fall to lower levels of government. Part II-B will then discuss how wildfire activity is affected by climate change, with specific attention to how the western U.S. has been affected. Part III of this Note focuses on actions of several different municipalities in California, and examines how those communities are positioned to deal with the substantial number of wildfires they can expect to see in the coming years. This part of the Note will take a comprehensive look at municipal regulation as it relates to mitigation of wildfire risk. Finally, Part IV will conduct a legal analysis of the municipal actions discussed with specific attention placed on how the statutory framework of municipal actions can provide a response to increased wildfire activity.

17. Ginger Paige & Jennifer Zygmunt, *The Science Behind Wildfire Effects on Water Quality, Erosion, in* LIVING WITH WILDFIRE IN WYOMING 31, 31 (Univ. of Wyo. Extension et al. eds., 2013), *available at* http://www.uwyo.edu/barnbackyard/_files/documents/resources/wildfire2013/waterqualityerosion2013wywildfire.pdf; *see also* Press Release, Natural Res. Def. Council, New Report Shows Wildfire Smoke Poses Health Risk to Millions of Americans Many Miles from the Blazes (Oct. 24, 2013), *available at* http://www.nrdc.org/media/2013/131024.asp (Smoke from a wildfire can affect an area 50 times larger than the actual burn area from the wildfire.).

II. CLIMATE CHANGE AND WILDFIRE ACTIVITY

A. The Current Climate of Climate Change

Global temperatures are warmer now than any time in at least the last 4000 years.[18] Specifically in the United States, 2012 was the hottest year ever by a full degree Fahrenheit with average temperature clocking in at 55.3 degrees.[19] While many factors contribute to these heat extremes, climate change from human release of greenhouse gas ("GHG") emissions is the primary culprit for the staggering figures of 2012.[20] To make matters worse, the projections for future temperatures are such that even if the planet comes out on the low end of the estimates and the rate of change in the chemical composition of the atmosphere slows, the climate will probably become warmer than it has ever been during the modern geological era.[21] It is safe to say that these projections are well founded, as human activity has resulted in a marked increase in GHG emissions across the planet for over a hundred years now.[22]

While some may hold out hope for meaningful international change to slow the intensity of climate change, the evidence suggests that current trends are likely to continue for the foreseeable future. Indeed, even if atmospheric GHG concentrations stabilize—which would require a dramatic reduction in current GHG emissions—surface air temperatures

18. Justin Gillis, *Global Temperatures Highest in 4,000 Years*, N.Y. TIMES, Mar. 7, 2013, http://www.nytimes.com/2013/03/08/science/earth/global-temperatures-highest-in-4000-years-study-says.html?ref=temperaturerising.

19. Justin Gillis, *Not Even Close: 2012 Was Hottest Ever in U.S.*, N.Y. TIMES, Jan. 8, 2013, http://www.nytimes.com/2013/01/09/science/earth/2012-was-hottest-year-ever-in-us.html?ref=temperaturerising.

20. *See id.* "Scientists said that natural variability almost certainly played a role in last year's extreme heat and drought. But many of them expressed doubt that such a striking new record would have been set without the backdrop of global warming caused by the human release of greenhouse gases. And they warned that 2012 was probably a foretaste of things to come, as continuing warming makes heat extremes more likely." *See id.*

21. Gillis, *supra* note 18 ("[T]he modern geological era, known as the Holocene . . . began about 12,000 years ago after changes in incoming sunshine caused vast ice sheets to melt across the Northern Hemisphere.").

22. *Global Greenhouse Gas Emissions Data*, *supra* note 9.

would continue to rise.[23] The increasingly industrialized planet is destined for even more warming, and it is possible that the 55.3° Fahrenheit average that the United States experienced in 2012 will someday look like a desirable figure. With these considerations in mind, it is now appropriate to turn the discussion towards the more precise focus of this Note.

B. The Effects of Climate Change on Wildfire Activity

Two conditions that arise as a byproduct of climate change are hotter and drier conditions. Intuitively, these two factors suggest an uptick in wildfire activity, but it is still important to delve into how exactly those conditions work together.

i. Snowpack

In the Northern Hemisphere, the amount of snowpack in forested areas has significantly diminished as a result of a hotter climate.[24] Models project that the snow season will continue to shorten, as snow accumulation will begin later, and snow melting will begin earlier.[25] Even assuming that there is a significant reduction in GHG emissions worldwide, California stands to lose about 30-60% of Sierra snowpack.[26] This trend, beginning in the

23. *Future Climate Change,* EPA (last updated March 4, 2014), http://www.epa.gov/climatechange/science/future.html (The EPA explains that the reason climate would continue to warm even if dramatic GHG reductions took place is "because the oceans, which store heat, take many decades to fully respond to higher greenhouse gas concentrations. The ocean's response to higher greenhouse gas concentrations and higher temperatures will continue to impact climate over the next several decades to hundreds of years.").

24. *See generally id*; *see also Climate Change Indicators in the United States*, EPA (last updated May 2014), http://www.epa.gov/climatechange/science/indicators/snow-ice/snowpack.html.

25. *See generally Future Climate Change, supra* note 23 ("Northern Hemisphere snow cover is expected to decrease by approximately 15% by 2100.").

26. *What Will Climate Change do to California*, 21 NO. 13/14 CAL. ENVTL. INSIDER 2, Dec. 19, 2007. If there is a worldwide 80% reduction in emissions below 2000 levels (representing a 3.5-5 degrees Fahrenheit increase in temperature by 2099), Sierra snowpack will decrease by 30-60%. *Id.* A more likely scenario is a moderate reduction in emissions, which the note said would result in a 70-80% decrease in snowpack. If no reductions take place, Sierra snowpack will fall by 90%. *Id.*

early 1980s, is more significant and severe than other trends of snowpack level decline in the past 1000 years. [27] This hints at a fundamental change in seasons; simply put, the winters we experience now may be the shortest ones we see through our lifetimes. Meanwhile, we will see longer wildfire seasons between these shorter winters.[28] While the average wildfire season used to be moderately short, it now can last up to seven months.[29] With less vegetation covered in snow, forests are drier and primed as wildfire fuel for longer stretches of the year.[30]

ii. Drier Forests

While dry forests present an obvious opportunity for wildfires to run rampant, it is important to look at forest composition in the wake of modern wildfires. A recent study from Oregon State University's College of Forestry found that climate change poses a serious threat to forest regeneration after a wildfire.[31] The study examined a portion of the Metolius River watershed in Oregon, which was populated with ponderosa pine, Douglas fir, and other tree species before a 2002 fire.[32] The researchers found that although some higher elevation sites with more moisture saw some regeneration, the lower, dry-elevation sites have seen no regeneration in over a decade.[33] They also posited that similar situations may be found across the western United States, and

27. *See* Laura Petersen, *1,000-year Record Shows Unusual Snowpack Declines*, N.Y. TIMES, June 9, 2011, http://www.nytimes.com/gwire/2011/06/09/09greenwire-1000-year-record-shows-unusual-snowpack-declin-60239.html (the USGS looked at tree rings to determine snowpack levels: "Tree rings indicate snowpack levels in two ways: Lower-elevation trees like Douglas fir and ponderosa pine produce thicker growth rings during large snowpack years because more water is available. Higher-elevation trees like hemlock and subalpine larch show the opposite -- heavier snowfall that takes longer to melt means the growing season is shorter, so the growth rings are thinner.").

28. *See* UNION OF CONCERNED SCIENTISTS, *supra* note 3.

29. *See id.* (In the early 1970s, the average wildfire season was only about five months.)

30. *See id.*

31. *Climate Change Threatens Survival on Drier, Low-Elevation Sites*, OREGON STATE UNIV. COLL. OF FORESTRY (June 27, 2013), http://oregonstate.edu/ua/ncs/archives/2013/jun/climate-change-threatens-forest-survival-drier-low-elevation-sites.

32. *Id.*

33. *Id.*

some forests destroyed by wildfire may never regenerate.[34] Unfortunately, these conditions create a vicious cycle – as more trees fail to regenerate and ecosystem carbon storage is reduced, the greenhouse effect is amplified.[35]

There is another villain facing the western United States in the context of drier forests, and it is one that has recently garnered more national attention: the bark beetle infestation.[36] The insect, whose Latin name means tree killer, has decimated significant forest area from New Mexico all the way to British Columbia.[37] Some 41 million acres of lodgepole pine have been wiped out in the western United States in recent years,[38] and it is estimated that all of Colorado's lodgepole pine greater than five inches in diameter will be gone in three to five years.[39] The result: millions of acres of wildfire fuel.[40] After the trees die and fall to the ground, the threat of catastrophic fire is severe and some communities are so at risk that they have already clear-cut "defensible space, so firefighters have a place to fight fires."[41] It has been suggested that the trees cut down by these bark beetles are more combustible than their non-infested counterparts.[42]

34. *Id.*

35. *See* OREGON STATE UNIV. COLL. OF FORESTRY, *supra* note 31. Since trees store carbon, when there are fewer trees, more carbon released into the atmosphere, which subsequently traps heat in the earth's atmosphere. This greenhouse effect in turn contributes to more climate change and warming.

36. *See* Jim Robbins, *Bark Beetles Kill Millions of Acres of Trees in West*, N.Y. TIMES, Nov. 17, 2008, http://www.nytimes.com/2008/11/18/science/18trees.html?pagewanted=all.

37. *Id.* (The bark beetle "drills through the pine bark and digs a gallery in the wood where it lays its eggs. When the larvae hatch under the bark, they eat the sweet, rich cambium layer that provides nutrients to the tree. They also inject a fungus to stop the tree from moving sap, which could drown the larvae." Though the trees emit a white resin that can kill the beetle, the beetle responds by releasing a "pheromone-based call for reinforcements" and more beetles show up to swarm the tree.).

38. Best, *supra* note 7, at 16.

39. Robbins, *supra* note 36 (this amounts to about five million acres of forest.).

40. *See* Best, *supra* note 7, at 17 (Picture: Acres of trees killed by the mountain pine beetle offered the perfect fuel for a July 2011 wildfire in Montana).

41. *See* Robbins, *supra* note 36.

42. James West, *Yosemite is Burning...Here's How Climate Change Makes Wildfires Worse*, MOTHER JONES (Jun. 13, 2013, 6:40 AM),

The beetle infestations across the western parts of North America may seem to be just a random and unfortunate phenomenon, but climate change is having both direct and indirect effects on the beetles' survival.[43] While some beetle populations have built-in mechanisms that help them cope with colder conditions, rising temperatures will go a long way towards their survival year-round.[44] As winters have been becoming warmer, the beetle population has not seen the type of population drop-offs that the previously colder winters would have induced. This gives the beetles the opportunity to continue their decimation of large tracts of forest and also the chance to reproduce.[45] Because the wildfire season is now getting longer, the beetles pose an even greater threat to forest by wiping out large amounts of living trees and leaving wildfire fuel in their wake. One still might argue that the initial infestation of these insects is a random event, wholly outside the realm of climate change, but there is one more important effect of climate change on wildfire activity that runs counter to any such argument: extreme weather.[46] The beetles like to feed on trees that are the most stressed in a forest because those are the ones with the least potent defenses.[47] During times of extreme drought, the amount of stressed trees increases significantly and the beetles have more room to infest.[48] In addition, winds of unprecedented strength

http://www.motherjones.com/environment/2013/06/climate-change-making-wildfires-worse.

43. *See generally* Barbara J. Bentz et al., *Climate Change and Bark Beetles of the Western United States and Canada: Direct and Indirect Effects*, 60 BIOSCIENCE 8 (2010). (hereinafter "Bark Beetle Study").

44. *Id.* at 604-605 ("Spruce and mountain pine beetles accumulate cryoprotectant compounds . . . as temperatures decline during autumn" so that their cold tolerance is at its greatest during the winter months.).

45. *See generally id.*

46. *See* Robbins, *supra* note 36; *see also* Michael D. Lemonick, *Why Bark Beetles are Chewing Through U.S. Forests*, CLIMATE CENTRAL (Jan. 7, 2013), http://www.climatecentral.org/news/why-bark-beetles-are-chewing-their-way-through-americas-forests-15429.

47. Lemonick, *supra* note 46 ("[T]rees have evolved defenses . . . in the form of natural chemicals that repel or even kill [the beetles].").

48. *Id.* (A study published in Proceedings of the National Academy of Sciences (PNAS) "reveals that [climate change] lets beetles move to higher elevations, where they're encountering trees that are unusually susceptible to infestations.").

were the driving force behind the beetles' infestation of Alberta, Canada; it is not inconceivable to think the Santa Ana winds of California could play a similar role in the future.[49]

iii. Extreme Weather

In 2011, the U.S. saw a record-breaking year marked by 14 weather disasters, each costing over $1 billion.[50] Like previous topics discussed in this note, this is just a taste of things to come. A report prepared by the U.N. International Panel on Climate Change concludes that the next century will bring increased frequency and intensity of heat waves, hurricanes, and droughts, due to increased greenhouse gas emissions.[51] Unfortunately, in recent years, the U.S. has already seen what this kind of extreme weather activity looks like: Hurricane Sandy; the 2013-14 worst drought on record in California; heat waves in Texas; and intense flooding of the Mississippi and Missouri Rivers. It is apparent that this extreme weather activity has already begun.

As for wildfires, several different extreme weather events can play a catalyzing role. First and foremost, droughts can be incredibly debilitating.[52] Extreme droughts will weaken trees, making them more combustible and also more susceptible to beetle infestation.[53] During these droughts, there is an added risk from the extreme heat waves caused by climate change. Recently in Australia, residents in the country's most populous state, New South Wales, were evacuated from their homes in anticipation of what was dubbed the "worst fire-danger day this

49. Robbins, *supra* note 36 (the infestation was swept into Alberta, Canada in 2006 thanks to what was described in the New York Times as a "freak wind."). While this does not explain the particular infestation in just the western US, it is apparent that extreme weather events, made more likely by climate change, are at play here.

50. Coral Davenport, *U.N. Panel: Climate Change Will Bring More Extreme Weather*, THE NATIONAL JOURNAL, Nov. 18, 2011, http://www.nationaljournal.com/u-n-panel-climate-change-will-bring-more-extreme-weather-20111118.

51. *Id.* (stating that there will be increases in heavy precipitation, rising sea levels and floods).

52. *See Increased Risk of Catastrophic Wildfires: Global Warming's Wake-Up Call for the Western United States,* NAT'L WILDLIFE FED'N (2008), *available at* http://www.nwf.org/pdf/Global-Warming/NWF_WildFiresFinal.pdf.

53. Robbins, *supra* note 36*; see also* Lemonick, *supra* note 46.

state has ever faced."[54] Colorado saw its earliest 100-degree day in 2013 on June 12th while it was in the midst of drought conditions, helping to fuel wildfires across the western US.[55]

The extreme storms and heavy precipitation also pose a serious threat in terms of wildfires. As the average storm becomes stronger, the winds that come with it will be more forceful, resulting in more tree branches fallen on the ground.[56] This creates both slash fuel—the fallen branches themselves—and ladder fuel—the understory of vegetation able to grow as a result of fewer tree branches.[57] This combination creates a pathway for fires to sweep up into the canopy and gain momentum.[58] Again, this feeds into a vicious cycle of climate change: with fewer trees and less vegetation around, there is less carbon dioxide being absorbed; therefore, the greenhouse effect is amplified and climate change intensifies, leading to more wildfires.[59] Even the heavy precipitation that can come from climate change and extreme weather is not all good news. As certain regions oscillate from periods of extreme wetness to extreme dryness, fires can feast on the added forest once conditions snap back to dry and hot extremes.[60]

54. Enda Curran, *Record Heat Wave Fuels Wildfires Across Australia*, THE WALL STREET JOURNAL , Jan. 7, 2013, http://online.wsj.com/news/articles/SB10001424127887323482504578226332528280970.

55. Daniel Yawitz, *Western Drought Intensifies, Leads to Deadly Wildfires*, CLIMATE CENTRAL, June 14, 2013, http://www.climatecentral.org/news/western-drought-intensifies-leads-to-deadly-wildfires-16120.

56. West, *supra* note 42.

57. *Id.*

58. *Id.*

59. *See* OREGON STATE UNIV. COLL. OF FORESTRY, *supra* note 31.

60. *Id.* Lee Frelich, director of the University of Minnesota Center for Forest Ecology, stated that fires will perversely enjoy the alternating periods of dryness and wetness. *Id.* When conditions are at wetter extremes, we can expect to see less wildfires, but once these conditions swing back the other way, there is plenty of forest and no moisture to stop a fire from running wild.

III. MUNICIPAL ACTION ON WILDFIRES IN CALIFORNIA

The threat of wildfire has always been a serious issue for those living in the western United States.[61] The harsh reality for most of these people is that climate change is intensifying the risk of wildfires and, in turn, their safety on a day-to-day basis. Drier and hotter conditions, extreme droughts, intense heat waves, and even insect infestations are coming together as a result of climate change and ramping up wildfire activity.[62]

Having documented the effects of climate change on wildfires and the frustrations of global change on the subject, this Note will now narrow its focus.[63] The forthcoming analysis will concentrate on how municipal regulation in California has been addressing wildfire risk throughout local communities.

A. Local Adoption of Fire Code

In order to understand a particular municipality's fire code and how it was constructed, it is important to look at the implementation process for fire codes in California, which takes place on a triennial basis.[64] First, the International Code Council (ICC)[65] releases a fire code, and the state of California uses that as a model.[66] After this model code has been released, various state agencies confer and submit proposals for code amendments,

61. *See generally*, Villacorte, *supra* note 12 (California citizens and fire officials voice their fear and anticipation of more extreme wildfire events).

62. *See* NAT'L WILDLIFE FED'N, *supra* note 50.

63. There are many points that can be made with respect to federal legislation and statewide initiatives addressing the matter, but those issues will mostly remain outside the focus of this Note.

64. CAL. BLDG. STANDARDS COMM'N, http://www.bsc.ca.gov/ (last visited Sep. 10, 2014).

65. *About ICC,* INT'L CODE COUNCIL (last visited Sep. 10, 2014), http://www.iccsafe.org/AboutICC/Pages/default.aspx. The International Code Council develops codes and standards "used in the design, build and compliance process to construct safe, sustainable, affordable and resilient structures." Most U.S. communities and many global markets incorporate the International Codes into their respective code. *Id.*

66. *Id.*; *see also 2013 Intervening Code Cycle,* CAL. BLDG. STANDARDS COMM'N, http://www.bsc.ca.gov/Rulemaking/adoptcycle/2013CodeCycle.aspx (last visited Sept. 3, 2014).

followed by a regulatory notice and public comment period, administered by the state, on those amendments and the code in general.[67] Once this period has concluded, the California Building Standards Commission ("CSBC") adopts the amended code and makes a final publication of it.[68] As soon as all parts of the state code are published, the clock starts ticking for municipalities: they then have 180 days during which they can enact local amendments to the code.[69] At the end of the 180-day period, the state fire code and local amendments become effective on respective municipalities.[70] This implementation process naturally produces similarities amongst different municipal codes in California.[71] Instead of focusing on those municipalities who have adopted the state code without making any real changes to it, this Note will now examine municipalities that have created exceptional provisions to prevent wildfires.

B. Chino

A community located just thirty miles outside of Los Angeles, the City of Chino is part of Southern California, an area that is particularly susceptible to wildfires.[72] This past April, Chino adopted several new provisions into its fire code to hedge against fire hazard in its community.[73]Chino officials recognized many of the patterns in wildfire activity previously discussed and laid out

67. *2013 Intervening Code Cycle,* CAL. BLDG. STANDARDS COMM'N, http://www.bsc.ca.gov/Rulemaking/adoptcycle/2013CodeCycle.aspx (last visited Sept. 3, 2014).

68. *Id.*

69. *Id.*

70. *Id.*

71. Throughout the course of research for this Note, many municipal codes were reviewed, and many were essentially the same as the state code. Conducting any sort of analysis on those municipalities would equate to an analysis of a statewide wildfire initiative, which lies outside the scope of this Note.

72. *See generally City of Chino*, CITY OF CHINO http://www.cityofchino.org (last visited Sept. 3, 2014); *see also* Villacorte, *supra* note 12 (describing that the drought in Southern California now is deeper than it has been in recent decades, vegetation is drier, and there are more people living in fire-prone areas).

73. CHINO, CAL., MUN. CODE § 15.32.010 (2013), *available at* http://library.municode.com/HTML/16002/level2/TIT15BUCO_CH15.32FICO.html#TIT15BUCO_CH15.32FICO_15.32.010AD#TOPTITLE.

several justifications and findings for the new fire code provisions:

> 1. The climate weather patterns within [Chino] include frequent periods of drought and low humidity adding to the fire danger. Fire season can be year-round in this region.
> 2. During the summer months the dry winds and existing vegetation mix to create a hazardous fuel condition which has resulted in large loss vegetation and structure fires. Summer temperatures exceeding one hundred degrees (100°), and severe "Santa Ana" winds frequently occur and can move a fire quickly throughout areas of the District. Multiple shifting wind patterns throughout the canyon areas add to the difficulty in suppressing fires.
> 5. The topography is also very steep in large areas of [Chino] affecting the rate of fire spread and response times.
> 7. [Chino] has within its boundaries active seismic hazards. Seismic activity within the District occurs yearlyand a fire potential exists with these active faults. Existing structures and planned new development are at serious risk from an earthquake. This risk includes fire, collapse and the disruption of water supply for firefighting purposes. Areas can also become isolated as a result of bridge, overpass and road damage and debris.
> 8. Structures in close proximity to each other pose an exposure problem which may cause a fire to spread from one structure to another as well as to the wildland area.
> 9. For practical and cost reasons, many new structures are built of wood construction. Many existing structures also have wood shake roofs. The potential for a conflagration exists due to the design and density of current structures.[74]

Based on these findings, the city of Chino added considerable portions to its fire code to protect public health and safety, and its most notable amendments were to its Chapter 3 General Precautions Against Fire.[75] Those amendments address

74. *Id.*

75. *Id.* at § 15.32.010 (amendments included requirements to clear brush and vegetative growth, stricter regulations controlling electrical transmission or distribution line owners, required use and installation of spark arrestors, etc.).

important contributing factors to wildfires such as waste accumulation, vegetation management, and defensible space.[76]

C. Morgan Hill

Morgan Hill also recently amended its fire code, reflecting a concern for increased fire hazards.[77] Many other cities in California have passed amendments similar to Morgan Hill, giving particular attention to areas identified as being within the wildland-urban interface ("WUI"). [78] Areas designated as within the WUI have been defined by the state of California as having a high risk of wildfire due to various factors related to flammability and combustibility.[79] Morgan Hill now requires, at the discretion of the code official, a fire protection plan for development in the WUI, and the statutory language regarding those plans is as follows:

> 4908.1 General. When required by the code official, a fire protection plan shall be prepared.
> 4908.2 Content. The plan shall be based upon a site-specific wildfire risk assessment that includes considerations of location, topography, aspect, flammable vegetation, climatic conditions and fire history. The plan shall address water supply, access, fire ignition and fire-resistance factors, fire protection systems and equipment, defensible space and vegetation management.

76. *Id.*

77. *See* MORGAN HILL, CAL., MUN. CODE, *Supplement History Table*, *available at* https://library.municode.com/index.aspx?clientId=16502.

78. *Id.*

79. CAL. CODE REGS. tit. 17, §§ 80101(pp)-(rr) (2013). The state specifically defines wildland as "area where development is generally limited to roads, railroads, power lines, and widely scattered structures. Such land is not cultivated (i.e., the soil is disturbed less frequently than once in 10 years), is not fallow, and is not in the United States Department of Agriculture ("USDA") Conservation Reserve Program. The land may be neglected altogether or managed for such purposes as wood or forage production, wildlife, recreation, wetlands, or protective plant cover." The wildland-urban interface is where structures or other human development meet or interact with the wildland areas. *Id.*

> 4908.3 Cost. The cost of fire protection plan preparation and review shall be the responsibility of the applicant.[80]

Morgan Hill has also identified vegetation within the WUI as a matter of concern. Vegetation is important both in terms of overall combustibility but also within the context of defensible space, which Morgan Hill addressed with the following language:

> 4907.1 General**.** Persons owning, leasing, controlling, operating or maintaining Buildings or structures in, upon or adjoining the Very High Fire Hazard Severity Zone and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:
> 1. Maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet of structures.
> 2. Maintain additional effective defensible space by removing brush, flammable vegetation and combustible growth located 30 feet to 100 feet from such buildings or structures, when required by the Fire Code Official due to steepness of terrain or other conditions that would cause a defensible space of only 30 feet to be insufficient.
> 3. Remove portions of trees which extend within 10 feet of the outlet of a chimney.
> 4. Maintain trees, adjacent to or overhanging a structure, free of deadwood; and
> 5. Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.[81]

Finally, the Morgan Hill fire code establishes a form of redress and penalty against those property owners who fail to comply.[82]

80. MORGAN HILL, CAL., MUN. CODE § 15.44.190(D), *available at* https://library.municode.com/index.aspx?clientId=16502.

81. *Id.* § 15.44.190(B). It is important to note that "Very High Fire Hazard Severity" is the same thing as an area designated within the WUI. "Very High Fire Hazard Severity" is simply an iteration of land within the WUI. *See id.* Also, both provisions 1 and 2 create exceptions for certain types of vegetation that would not be credible fodder for a wildfire. *See id.*

82. *Id*. § 15.44.190(C) ("The executive body is authorized to instruct the Fire Code Official to give notice to the owner of the property upon which conditions regulated by Section 4707.1 exist to correct such conditions. If the owner fails to correct such conditions, the executive body is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such condition exists.").

Similar to the fire code of Chino, Morgan Hill places a lien upon the property that has failed to abate its hazardous conditions.

D. Richmond

Located just outside the Oakland-San Francisco area, the City of Richmond recently adopted an extensive fire code replete with clear definitions of terms, justifications for their municipal actions, and broad grants of authority to the city's Fire Chief.[83] In its fire code, the city provides an exhaustive list of findings to discuss climatic concerns such as precipitation and relative humidity, rising temperatures, and strong winds.[84] The code even provides a synopsis of its findings that reads:

> (D) Impact. The above-referenced local climatic conditions affect the acceleration, intensity, and size of fire in the community. Times of little or no rainfall, of low humidity, and high temperatures create extremely hazardous conditions, particularly as they relate to wood shake and single-roof fires and conflagrations. The winds experienced in this area can have a tremendous impact upon structure fires of buildings in close proximity to one another commonly found in the City of Richmond. During wood-shake and shingle-roof fires, or exposure fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. Hot, dry winds that can be experienced any time of the year can force a fire to move in any direction in heavily vegetated interface areas. In building fires, winds can literally force fires back into the building and can create a blow torch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts. Winds, high temperatures, and low humidity expose the entire community to the threat of conflagration.[85]

The city does not stop there. It also accounts for site-specific topography in the city that could put its inhabitants at even more risk.[86] It makes several topographic findings about the city from

83. *See* RICHMOND, CAL., MUN. CODE § 8.16 (2013), *available at* http://library.municode.com/HTML/16579/level2/ARTVIIIFI_CH8.16FIPRCO.html#TOPTITLE.

84. *Id.* § 8.16.035.

85. *Id.* § 8.16.035(b)(1)(d).

86. *Id.* § 8.16.035(b)(3).

soils and vegetation to electrical transmission equipment and surface features.[87] Likewise to its discussion of climatic concerns, it adds a synopsis of its findings at the end:

> (F) Impact. The above listed local topographical conditions increase the magnitude, exposure, and accessibility problems associated with the fire hazards which arise within the City. Should a significant emergency event occur, such as an areawide conflagration, public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwelling or structure fires.[88]

Based on these findings, the city of Richmond expanded its fire code in a number of ways. One of the more notable changes it made was requiring all developers of new projects—not just land development in the WUI—to submit building plans and specifications to the Richmond Fire Department, so that they can make sure the development complies with all relevant fire code provisions.[89] Another notable expansion was the large grants of authority it gave to Fire Prevention Personnel to proactively address fire hazards:

> Section 103.5 Fire Prevention Personnel as Peace Officers. The Fire Chief and said Chief's designees shall have the powers of peace officers while engaging in the performance of their duties with respect to the prevention, investigation and suppression of fires and the protection and prevention of life and property against the hazards of fire and conflagration.[90]

The authority granted to fire personnel is further expanded in the Code's definition of the role of the Fire Chief:

> Section 104.12 Fire Chief Fire Prevention Scope. The Fire Chief may order, in writing, the correction, elimination or abatement of

87. *Id.*

88. *Id.* § 8.16.035(b)(3)(F).

89. *Id.* § 8.16.040(A)(4) ("Whenever any land is to be developed or a building is to be constructed, before undertaking any construction or development, Applicants shall submit building plans and specifications to the Richmond Fire Department for said Department's retention and review for compliance with this ordinance and other applicable regulations.").

90. *Id.* § 8.16.040(A)(3).

> any fire or life hazard or any violation of this Ordinance including the code and standards incorporated by reference herein when the correction, elimination or abatement is *necessary for the prevention or suppression of fires* or conflagrations or for the protection or preservation of life or property against the hazards of fire or conflagration.[91]

This language of "necessary for the *prevention or suppression* of fires" affords the Fire Chief substantial authority.[92] If the chief determines that a measure is necessary to prevent a fire from happening, he or she has the statutory authority to require such a measure.

Furthermore, within the city's Very High Fire Hazard Severity Zones ("VHFHSZ") there are specific building regulations, which afford the Fire Chief broad authority to institute fire hazard mitigation measures:

> (3) Regulations. Within the very high fire hazard severity zones established by this section, all new roads, new buildings, other new structural improvements and existing structures shall be subject to the following regulations:
>
> > (A) All buildings shall be designed and sited so that the roof and other areas may be kept free of leaves, needles and other dead vegetative growth;
> > (C) Wood shingles or wood shakes shall not be used for exterior wall covering;
> > (D) All buildings shall have the underside of balconies, unenclosed roofs and floors, and other similar horizontal surfaces protected by at least one-hour fire-resistive construction as required by the Fire Chief. Combustible eaves shall be protected as approved by the Fire Chief;
> > (H) When difficulty of access or topography occurs, or structures do not meet fire flow requirements, or the fire department response time is six minutes or more, the Fire Chief may require other fire mitigation measures as for all occupancies.[93]

91. *Id.* § 8.16.040(A)(6) (emphasis added).
92. *Id.*
93. *Id.* § 8.16.080(a)(3).

Much like Chino and Morgan Hill, Richmond has established penalties in the form of liens upon the property to urge compliance from property owners.[94] However, if particular provisions are violated, the penalties are slightly more compelling.[95] For instance, in the VHFHSZ, three violations of the applicable fire code provisions constitute a misdemeanor and fine of at least $500.[96]

E. Brisbane

The City of Brisbane's fire code has several precautionary measures that affect existing property owners and future development, including the notice to remove waste materials and other combustible vegetation:

> (a) *Notice to Remove*. The Bureau of Fire Prevention is authorized to notify the owner of any roof, court, yard, vacant lot or open space within the City of Brisbane or its jurisdiction, or the agent of such owner to properly dispose of such *wastepaper, hay, grass, straw, weeds, litter, combustible or flammable waste, waste petroleum products, vines and other growth or rubbish of any kind located on such owner's property which is dangerous to public safety, health or welfare or is deemed a fire hazard by the Department*. Such notice shall inform the owner or his agent that should the [materials] not be removed as required, then it will be removed by the City and the cost of said removal shall in accordance with this chapter be assessed as a lien on the property to be collected with the next regular tax bill.[97]

This provision of the fire code includes numerous combustible materials and gives broad latitude to the Fire Department to

94. *Id.* § 8.16.060(b)(6).

95. *Cf.* CHINO, CAL., MUN. CODE § 4906.3.1 (2013) (see amendment to section entitled "4906.3.1 Correction of conditions."); *cf.* MORGAN HILL, CAL., MUN. CODE § 4907.2 (2013).

96. RICHMOND, CAL., MUN. CODE § 8.16.080(c) (2013). The first violation results in a $250 fine and the second results in a $500 fine. The only difference between a second and third violation then is the charge of a misdemeanor. RICHMOND, CAL., MUN. CODE § 2.62.040 (2008).

97. BRISBANE, CAL., MUN. CODE § 15.44.120 (2013), *available at* http://library.municode.com/HTML/16223/level2/TIT15BUCO_CH15.44FIPRCO.html#TIT15BUCO_CH15.44FIPRCO_15.44.120SE304.1.4ADEMWAMACOVE (emphasis added).

order abatement of anything that they deem to be a fire hazard on the property. Brisbane also added important language regarding fire breaks[98] around at-risk buildings:

> (d) Acreage Maintained. Any person who owns, leases, controls, operates or maintains any building or structure in, upon, or adjoining any mountainous area or forest-covered lands, brush-covered lands or grass covered lands or any land or acreage covered with flammable material shall maintain around and adjacent to such building or structure a fire break for a distance of not less than thirty (30) feet or to the property line, whichever shall be less. Any person who owns open acreage shall maintain a thirty (30) foot fire break around the perimeter of his acreage as may be directed by the Fire Marshall.[99]

Not only does such language create defensible space for firefighters, but it also decreases the likelihood that any building will be caught up in a wildfire. By maintaining a sufficient amount of firebreak space, Brisbane can provide an effective fire shield around its buildings.

Yet another fire prevention mechanism that Brisbane has added to its fire code is its regulation of roof coverings:

> 706 Roof coverings. Roof coverings on all buildings shall be fire retardant non-wood materials and shall comply with the standards of the California Building Code, Class A or B, prepared or built-up roofing. Re-roofing of existing buildings which occurs within any twelve (12) month period shall comply with the foregoing requirement if the re-roofing involves fifty percent or more of the roof area in the case of a non-wood roof or ten percent or more of the roof area in the case of a wood roof.[100]

Essentially, section 706 mandates that no new roofing in Brisbane can be built using wood. Instead, builders must use fire retardant, non-wood materials.[101] Section 706 also works in a

98. A fire break is "a natural or constructed barrier used to stop or check fires that may occur, or to provide a control line from which to work." *Fire Terminology,* U.S. FOREST SERV. (last visited, Oct. 10, 2014), http://www.fs.fed.us/nwacfire/home/terminology.html#F.

99. BRISBANE, CAL., MUN. CODE § 15.44.120 (2013).

100. *Id.* § 15.44.130.

101. *Id.* § 15.44.130.

quasi-retroactive fashion by extending the requirements to re-roofing projects that meet certain criteria.

F. Arroyo Grande

In conjunction with harsher penalties and fines for violating the fire code, Arroyo Grande has added compelling language that comes into play during emergency situations (like wildfires):

> Where an emergency situation is caused or exacerbated by a willful act, a negligent act, or a violation of the fire code, building code, or any other applicable law, ordinance or regulation, the cost of emergency service to mitigate and secure any emergency that is within the responsibility of the fire chief is a charge against the person who caused the emergency or who caused the circumstances leading to the creation of the emergency, and such person shall be liable for the costs of such services. Damages and expenses incurred by any public agency providing emergency services or mutual aid shall constitute a debt of such person and shall be collectible by the fire chief for proper distribution in the same manner as in the case of an obligation under contract expressed or implied. Costs and expenses as stated above shall include, but not be limited to, equipment and personnel committed and any payments required by the public agency to outside business firms requested by the public agency to mitigate or secure the emergency, monitor remediation, and clean up.[102]

Penalty regimes like this are especially forceful because of their broad scope. A person is liable for damages if he or she is found to cause or exacerbate a wildfire, and the collection of that debt has the force of a contract. The person is not only liable for the costs associated with mitigating and securing the emergency but also any costs to monitor remediation and clean up.[103]

G. Daly City

Some municipalities in California have addressed heightened risks in their community by creating different fire hazard

102. ARROYO GRANDE, CAL., MUN. CODE § 8.04.040 (2013), *available at* http://library.municode.com/HTML/16194/level2/TIT8HESA_CH8.04ADCAFICO.html#TIT8HESA_CH8.04ADCAFICO_8.04.040CORE.

103. *Id.*

zones.[104] Daly City has done so by enacting a separate regulatory scheme for vegetation management in the Southern Hills area of the city. Located on the edge of San Bruno Mountain State Park,[105] Southern Hills has its own vegetation management program enacted by the city to "reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property."[106] The vegetation management program for Southern Hills has its own set of procedures for charging, enforcing, and appealing violations.[107] The specific regulations on vegetation in the area are as follows:

> i. All properties shall be entirely cleared of all flammable vegetation including but not limited to gorse, grass, weeds and brush. This subdivision does not apply to single specimens of trees, ornamental shrubbery, or similar plants that are used as groundcover, if they do not form a means of rapidly transmitting fire from native growth to any dwelling or structure; grass and other vegetation less than twelve inches in height above the ground may be maintained to stabilize the soil and prevent erosion;
> ii. Remove that portion of any trees that extend within ten feet of the outlet of any chimney or stovepipe;
> iii. Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that bums any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size;
> iv. Maintain any tree adjacent to or overhanging any building free of dead or dying wood; and
> v. Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.[108]

This extensive list of specific regulations seems to suggest that Southern Hills is a high-risk area for wildfires. Though these

104. *See supra* Parts III-C, III-D.

105. Location of Southern Hills, Daly City, CA, GOOGLE MAPS, http://goo.gl/VMyxHF.

106. DALY CITY, CAL., MUN. CODE § 15.32.210(A) (2014), *available at* http://library.municode.com/HTML/16311/level2/TIT15BUCO_CH15.32FICO.html#TIT15BUCO_CH15.32FICO_15.32.210VEMAPRSOHIAR.

107. *See id.* at Part II.

108. *Id.* §§ 15.32.210(D)(a)(i)-(v).

regulations appear to be onerous, they are necessary to mitigate the potential damage from wildfires to resources, property and life.

H. Cathedral City

Cathedral City has added significant language to its fire code regarding emergency preparedness. For instance, Cathedral City added its own definition of "mid-rise buildings" to include buildings that are fifty-five feet to seventy-five feet above the lowest floor level of fire department vehicular access[109] and created the following regulations for such buildings:

> [Mid-rise buildings] shall be enhanced with high-rise provisions as set forth in section 509.1 of the California Fire Code. The Fire Command Center located inside of enhanced buildings shall contain the following features:
> 1. An emergency voice/alarm communication system unit.
> 2. Fire-detection and alarm annunciator system.
> 3. Status indicators and controls for air-handling systems.
> 4. The firefighter's control panel required by section 909.16 herein for smoke control systems installed in the building.
> 5. Controls for unlocking stairwell doors simultaneously.
> 6. Sprinkler valve and water-flow detector display panels.
> 7. Emergency and standby power status indicators.
> 8. Fire pump status indicators.
> 9. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, firefighting equipment and fire department access.[110]

Cathedral City has also established its own Public Safety Radio System because the handheld devices used by police and fire personnel often do not have enough signal strength to be useful during an emergency situation.[111] All new buildings four stories or higher must satisfy the city's "Public Safety Radio System Coverage requirements as determined by the Fire

109. CATHEDRAL CITY, CAL., MUN. CODE § 8.12.020 (2014), *available at* http://qcode.us/codes/cathedralcity/view.php?topic=8-8_12&showAll=1&frames=on.

110. *Id.*

111. *Id.* § 8.12.020.510.

Chief."[112] Additionally, Cathedral City has added the following language to nudge existing buildings into conformance with the new fire standards:

> Existing non-conforming buildings shall comply with all the fire safety requirements for a newly constructed building or structure under the following circumstances:
> 1. When the floor area in an existing non-conforming building is increased.
> 2. When a change in occupancy occurs in an existing non-conforming building which, in the opinion of the Fire Chief or Chief Building Official, significantly changes the use of the building.
> 3. When structural repairs and/or alterations are made to an existing non-conforming building which exceeds [thirty-five] percent aggregate of the fair market value of the building or exceeds [thirty-five] percent replacement of the total square footage of the original building.[113]

Not only does Cathedral City establish substantial fire safety systems for new buildings, but they have also tried to bring existing buildings into conformance. Should a wildfire emergency situation arise, Cathedral City has adopted useful statutory provisions so that it will be ready and able to fight and prevent a potential disaster.

I. Rancho Santa Margarita

Rancho Santa Margarita has taken exceptional steps to recognize and publicize that it is in a high-risk area for wildfires based on local climatic, topographical, and geological conditions. Not only has it recognized threats such as the Santa Ana winds but it has also incorporated water demands into the findings it made in adopting fire code amendments:

> Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by

112. *Id.* § 8.12.020.511.1.
113. *Id.* § 8.12.020.901.4.

> nearly ten million over the next quarter of a century with 50 percent of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.[114]

Rancho Santa Margarita has noted the progress of nearby development and factored that into the emergency response capacity of its fire department:

> Placement of multiple occupancy buildings, location of arterial roads, and fire department staffing constraints due to recent revenue-limiting state legislation have made it difficult for the fire department to locate additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires in high density apartment or condominium buildings. Fire Department equipment does not allow easy access to areas of buildings greater than 55 feet above the level of Fire Department vehicle access. These conditions create the need for built-in on-site fire protection systems to protect occupants and property until fire fighting apparatus and personnel arrive on the scene.[115]

Finally, there are geological findings that tie everything together and explain the need for new regulations and amendments to the fire code:

> The City of Rancho Santa Margarita is located in an area subject to a climatic condition of high winds and low humidity. This combination of events creates an environment, which is conducive to rapidly spreading fires. Control of such fires requires rapid response. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the

114. RANCHO SANTA MARGARITA, CAL., MUN. CODE § 10.01.010(c)(1)(c) (2013), *available at* http://library.municode.com/HTML/13912/level3/COOR_TIT10BUCO_CH10.01AUPUFI.html#COOR_TIT10BUCO_CH10.01AUPUFI_S10.01.010AUPUFI.

115. *Id.* § 10.01.010(c)(2)(c).

> requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene.[116]

Municipal action and coordination to this extent will surely position Rancho Santa Margarita to develop accurate and effective responses to the increased amount of wildfires it—like every other municipality in California—can expect to see in the coming years.

IV. ANALYSIS OF MUNICIPAL ACTIONS

Analysis of the foregoing discussion of municipal fire codes will start with a discussion of municipal authority, giving special attention to those municipalities that included lists of findings and impacts on their community in their fire code. It will examine those actions within the context of California's expansive view of the police power and argue that including those findings is indispensable to any legislation addressing wildfire. Next, the analysis will present an argument for broader and unequivocal statutory language in relation to the general prevention and suppression of wildfires. Specifically, that argument will focus on the types of authorizations a City fire code should confer on its fire code officials. Finally, the analysis will narrow its focus and briefly discuss the necessity of restrictive building standards and their relation to municipal authority in the state of California, which also relates to some aspects of municipal authority discussed in Part IV-A.

A. Municipal Authority

The authority of local government to enact legislation under its police power[117] has received strong judicial support since the mid-1920s.[118] As in many other states, California has upheld the police power of local government as "an indispensable prerogative

116. *Id.* § 10.01.010(c)(3)(c).

117. U.S. CONST. art. 1, § 8 (power to protect the public health, safety, and general welfare).

118. *See* Euclid v. Ambler Realty Co., 272 U.S. 365 (1926) (upheld a local zoning ordinance as a proper exercise of the local government's police power).

of sovereignty and one that is not to be lightly limited."[119] California has even recognized that the concept of police power is elastic and adaptable to the changing demands of civilization.[120] Still, there are many people that will look at local legislation that is designed to benefit public welfare and say that it has gone too far. Those that oppose the local legislation and attempt to label it as *ultra vires*[121] may be able to undermine the validity of the legislation if they convince a court that the municipality did not have the proper authority to enact the legislation in question. In this legal context, it is crucial that a municipality be able to establish a connection between the legislation enacted and its police power to protect and enhance the public health, safety, and welfare.

By including findings related to local topographical concerns, global climatic trends, and regional weather patterns, municipalities such as Chino, Richmond, and Rancho Santa Margarita have constructed a solid legal bridge between their regulations and their police power authority.[122] Any legal challenge to the municipality's authority to require a fire protection plan, vegetation management scheme, or restrictive building standards will have little success when a municipality has recognized a comprehensive identification of wildfire risk in its fire code.[123] In addition, those municipalities that have identified exceptional factors creating greater wildfire risk can confidently promulgate even more restrictive provisions, due in large part to California's elastic view of the police power.[124] This

119. Miller v. Board of Pub. Works, 234 P. 381, 383 (Cal. 1925).

120. *Id.* ("In short, the police power, as such, is not confined within the narrow circumscription of precedents, resting upon past conditions which do not cover and control present day conditions obviously calling for revised regulations to promote the health, safety, morals, or general welfare of the public; that is to say, as a commonwealth develops politically, economically, and socially, the police power likewise develops, within reason, to meet the changed and changing conditions. What was at one time regarded as an improper exercise of the police power may now, because of changed living conditions, be recognized as a legitimate exercise of that power.").

121. *See ultra vires,* BLACK'S LAW DICTIONARY 785 (9th ed. 2009) ("Unauthorized; beyond the scope of power allowed or granted by a corporate charter or by law . . .").

122. *See supra* Parts III.B, III.D, and III.I.

123. *See infra* Part IV.C.

124. *Miller*, 234 P. at 383.

can be seen in Daly City's code provisions related to its Southern Hills region,[125] and in Rancho Santa Margarita in its findings related to water demand, recent local development, and population projections.[126] These kinds of legislative findings are the legal linchpin for meaningful municipal action and their importance cannot be understated as the risk of wildfires continues to grow.

B. Breadth of Statutory Language

While there are many measures that can ensure an effective response to wildfires within a community, a broad grant of authority to the fire chief and fire code officials is imperative. For instance, the City of Richmond has made a special designation that the fire chief and the chief's designees have "powers of peace officers while engaging in the performance of their duties with respect to the prevention, investigation and suppression of fires and the protection and prevention of life and property against the hazards of fire and conflagration."[127] Placing this designation on the fire chief and designees is especially important given California precedent on the matter.

Though there seems to be a designation of peace officer status on fire code officials in the California Penal Code, California courts have issued a strict interpretation of the Penal Code's language.[128] In *Service Employees International Union Local 715 v. City of Redwood City,* the California Court of Appeals stated that, "legislative intent of the statutory language is to have peace officer status available only to those fire department

125. *See supra* Part III.G.

126. *See supra* Part III.I.

127. RICHMOND, CAL., MUN. CODE § 8.16.040(A)(3) (2013); *see also* CAL. PENAL CODE §§ 830-832.9 (West 2014) (peace officers have many of the same powers as police officers).

128. PENAL § 830.37(b) (confers peace officer status on "[m]embers other than members of an arson-investigating unit, regularly paid and employed in that capacity, of a fire department or fire protection agency of a county, city, city and county, district, or the state, if the primary duty of these peace officers, when acting in that capacity, is the enforcement of laws relating to fire prevention or fire suppression.").

members who act in the capacity of peace officers."[129] The Court essentially made a distinction between firefighters, whose primary duty is not enforcement, and fire code officials, whose primary duty is enforcement.[130] This distinction was subsequently upheld in other cases decided by the California Court of Appeals.[131] The legal effect of those decisions is that a fire code official is not a peace officer under the California Penal Code, but can still receive peace officer status if it is expressly designated in the City code.[132] Thus, municipalities must make clear authorizations of power to their fire code officials. These authorizations should also be quite broad when they pertain to specific actions. For instance, the Brisbane City code states that their fire prevention officers can require property owners to remove anything on their property that they deem to be a fire hazard.[133] Similarly, the City of Richmond's fire chief can require property owners to remove anything that they deem to be a fire or life hazard.[134] However, these authorizations are especially significant if the code officer, who is ordering compliance, has peace officer status. Under California state law, a person acting under the designation of peace officer has the power to make arrests for public offenses, as long as there is probable cause.[135] Simply having that kind of authority provides some added teeth to the fire code to encourage comprehensive compliance. Widespread adoption of these kinds of authorizations can only help fire code officials in California as they try to protect their constituents from wildfires.

129. Serv. Emps. Int'l. Union v. City of Redwood City, 38 Cal. Rptr. 2d 86, 92 (Cal. Ct. App. 1995).

130. *See id.*

131. Gauthier v. City of Red Bluff, 41 Cal. Rptr. 2d 35, 38 (Cal. Ct. App. 1995) (finding the fire chief could not be considered a police officer because such a designation was not in Red Bluff's city code); *but see* People v. Miller, 78 Cal. Rptr. 3d 918, 927 (Cal. Ct. App. 2008) (peace officer status hinged on whether or not the person's "primary duty" was one of law enforcement).

132. *See Gauthier,* 41 Cal. Rptr. 2d 35.

133. *See supra* Part III.E; *see also* BRISBANE, CAL., MUN. CODE § 15.44.120 (2013).

134. *See supra* Part III.D; *see also* RICHMOND, CAL., MUN. CODE § 8.16.040(A)(3), (6) (2013).

135. PENAL § 836(a)(1) (Anyone acting under the designation of peace officer may make arrests if they have "probable cause to believe that the person to be arrested has committed a public offense in the officer's presence.").

C. Building Standards

Including an exhaustive list of legislative findings at the outset of a fire code simply cannot be gainsaid in the context of building standards.[136] While the state of California promulgates its own building code, municipalities are authorized to enact more restrictive building standards so long as they can establish that "modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions."[137] Once these legislative findings have been made public,[138] any attempts to undermine the validity of legislation because it is *ultra vires* will be especially difficult.[139]

Due to California's elastic view of the municipal authority under the police power,[140] municipalities must enact stricter building standards in the name of addressing wildfire risk throughout their community, in addition state-enacted standards.[141] Cathedral City has done so by requiring all mid-rise buildings to have Fire Command Centers.[142] It has also enacted regulations that attempt to bring existing buildings and structures into conformance with its new, more restrictive fire

136. Section 17958 of the California Health and Safety Code permits local authorities to modify any provisions adopted pursuant to section 17922 and published in the State Building Standards Code, not just those adopted by the Department of Housing. CAL. HEALTH & SAFETY CODE §§ 17922, 17958 (West 2014)*; see also Bldg. Indus. Ass'n v. City of Livermore*, 52 Cal. Rptr. 2d 902, 910 (Cal. Ct. App. 1996).

137. HEALTH & SAFETY CODE § 17958.7; *see also* Briseno v. City of Santa Ana, 8 Cal. Rptr. 2d 486, 489 (Cal. Ct. App. 1992).

138. Publishing the legislative findings in the fire code would satisfy this requirement. *See 2013 Intervening Code Cycle, supra* note 63.

139. *See supra* Part IV.A.

140. *Supra* Part IV.A. As discussed earlier, California's elastic view of the police power takes into account changing living conditions so that municipal authority may address new issues like climate change as they arise.

141. California Department of Forestry and Fire endorses a two-pronged approach for protecting buildings from wildfire in the Wildland-Urban Interface: "(1) remove flammable materials from around the building and (2) construct the building of fire resistant material." *California's Wildland-Urban Interface Code Information*, CAL. DEP'T OF FORESTRY AND FIRE PROT., http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php (last visited Oct. 13, 2014). It also recognizes the risk of conflagration from "flying embers which can travel as much as a mile away from the wildfire." *Id.*

142. *See supra* Part III.H; CATHEDRAL CITY, CAL., MUN. CODE § 8.12.020 (2014).

safety standards.[143] The City of Brisbane requires that all roof coverings be made of fire retardant, non-wood materials.[144] Other municipalities in the State have enacted stricter building standards, but only in their high-risk areas.[145] The harsh reality for municipalities is that the risks and consequences of wildfires are not simply limited to certain areas anymore.[146] Even though a particular area might be naturally susceptible to wildfire, climatic conditions are making the risk of wildfire ubiquitous.[147]

One might argue that building restrictions throughout an entire community is bad policy because it discourages development. Unfortunately, only the most prepared and secure development is acceptable in the face of current conditions. Just as California courts will indulge changing living conditions to interpret the scope of the police power, municipalities must indulge those same conditions to provide a building code that discourages hazardous development. Therefore, enacting stricter building standards in the fire code is yet another legal tool that California municipalities must exercise as the threat of wildfire rises.

V. CONCLUSION

As the big emitting nations of the world fail to react to the global transformations resulting from climate change, lower levels of government will be forced to batten down the hatches to prepare for the impacts. The legal tools employed by a few municipalities in California demonstrate an understanding of this reality. However, as climate change continues, there will be a need for even stronger responses, even those that previously would have seemed unimaginable. While the risk of wildfires continues to grow in places like California, extreme measures must be taken to ensure that a community is as insulated as possible from a potential disaster. Harsh as it may seem, the

143. *See supra* Part III.H.

144. *See supra* Part III.E.

145. *See supra* Part III.C; *see, e.g.*, MORGAN HILL, CAL., MUN. CODE tit. 15.44.190, § 4908 (Morgan Hill code official is only authorized to request a fire protection plan for development in the wildland-urban interface).

146. *See supra* Part II.B.

147. *See supra* Part II.B.

penalty regime in Arroyo Grande's fire code could be a sign of the kinds of measures that will become necessary. There may come a day when stricter building standards and notices to remove vegetation amount to empty gestures with no real value in actually preventing wildfires unless coupled with strict codified enforcement measures. As places like California approach that reality, it is vital that even the lowest levels of government are legally positioned and poised to protect their constituency from disaster.