

# Climate Change and Real Estate in California: Can Climate-Related Risk be a Required Disclosure for Residential Real Estate?

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## I. INTRODUCTION

It is widely known that climate change is real, unequivocal, and leads to increases in extreme weather events and natural disasters, but the link between climate change and real estate is increasingly relevant and seldom discussed.<sup>1</sup> California is certainly at risk for extreme climate events, and the state receives a large amount of media coverage regarding that risk (primarily from the detrimental wildfires that sweep across the state).<sup>2</sup> The high probability of climate change related disaster poses serious problems for Californian homeowners.

Researchers have found that over 100 thousand Californians are at risk of coastal flooding<sup>3</sup> and the state is at increasing risk of a megaflood because of climate change.<sup>4</sup> Tens of thousands of homes in California are at risk of being effected by sea level rise,<sup>5</sup> and wildfires are already threatening tens of thousands of houses in the state every year,<sup>6</sup> with the number and severity of these wildfires only increasing.<sup>7</sup> Research shows that homebuyers in California are not factoring sea level rise into house purchasing decisions,<sup>8</sup> and two trillion dollars of real estate is at risk of wildfire impact in California, but research on whether wildfire risk impacts home prices is

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1. Richard P. Allan et al., *IPCC, 2021: Summary for Policymakers*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (2021) [hereinafter IPCC Report], [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf) [<https://perma.cc/DK9D-8K8U>] (summarizing CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS, Intergovernmental Panel on Climate Change (2021)).

2. U. S. ENV'T PROT. AGENCY, WHAT CLIMATE CHANGE MEANS FOR CALIFORNIA, EPA 430-F-16-007 (Aug. 2016), <https://www.epa.gov/sites/default/files/2016-09/documents/climate-change-ca.pdf> [<https://perma.cc/NM9Y-6MS3>].

3. MATTHEW HEBERGER et. al., THE IMPACTS OF SEA-LEVEL RISE ON THE CALIFORNIA COAST, CALIFORNIA CLIMATE CHANGE CENTER, CEC-500-2009-024-F, 21 (May 2009), <https://pacinst.org/wp-content/uploads/2014/04/sea-level-rise.pdf> [<https://perma.cc/C6NK-9Q3J>].

4. Xingying Huang & Daniel Swain, *Climate Change is Increasing the Risk of a California Megaflood*, 8 Sci. Advances (Aug. 12, 2022), <https://www.science.org/doi/pdf/10.1126/sciadv.abq0995> [<https://perma.cc/J3VR-79U2>].

5. William Yu, *Sea Level Rise and Its Impact on California Housing Markets*, UCLA ANDERSON FORECAST, 73 (Dec. 2020), [https://anderson-review.ucla.edu/wp-content/uploads/2021/03/uclaforecast\\_Dec2020\\_Yu.pdf](https://anderson-review.ucla.edu/wp-content/uploads/2021/03/uclaforecast_Dec2020_Yu.pdf) [<https://perma.cc/EM7G-DKQE>].

6. Rosmery Izaguirre, *Worst Fires in California History: Dixie, Camp and More*, LA TIMES (Aug. 24, 2021, 10:55 PM), <https://www.latimes.com/california/story/2021-08-24/worst-fires-in-california-history-dixie-camp-and-more> [<https://perma.cc/QL75-F946>].

7. Adam Voiland, *What's Behind California's Surge of Large Fires?*, NASA: EARTH OBSERVATORY, <https://earthobservatory.nasa.gov/images/148908/whats-behind-californias-surge-of-large-fires> [<https://perma.cc/63H8-PTXY>].

8. Yu, *supra* note 5.

still unclear.<sup>9</sup> Broad U.S. studies show that homes in flood zones are overpriced by \$43.8 billion.<sup>10</sup> While scientists know of and have studied the climate change related risks to housing,<sup>11</sup> prospective home buyers may not know of such risks. Despite this, California does not require disclosures of scientifically predicted climate change related risks including increases in wildfire risk, sea level rise risk, or increased flood risk.<sup>12</sup> As a result, prospective home buyers are on their own to determine their safety, home value, and the security of their investment, especially over the long term.

Current flood disclosure requirements in California require disclosures of actual knowledge if the home is in a flood hazard area,<sup>13</sup> but even the current director of Federal Emergency Management Agency (FEMA) (which provides flood zone maps that impact California hazard assessments)<sup>14</sup> has publicly admitted their maps are not adequately representative of flooding caused by climate caused extreme weather events.<sup>15</sup> It is particularly hard to integrate climate risk into flood maps because this requires thorough analysis of local infrastructure to determine flood risk, but FEMA's director stated the importance of assessing future threats from climate change.<sup>16</sup> Similarly, current fire risk disclosure requirements, which require disclosure if a property is in a "high" to "very high" fire hazard severity zone,<sup>17</sup> current

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9. BER Staff, *California Wildfires' Effect on Berkeley Home Prices*, BERKELEY ECON. REV., Feb. 10, 2020, <https://econreview.berkeley.edu/california-wildfires-effect-on-berkeley-home-prices/> [<https://perma.cc/DQ8V-TQDY>].

10. Miyuki Hino & Marshall Burke, *The Effect of Information About Climate Risk on Property Values*, 118 PNAS 1 (2021), <https://www.pnas.org/doi/pdf/10.1073/pnas.2003374118> [<https://perma.cc/9B56-E4KH>].

11. Yu, *supra* note 5; *id.*

12. *See infra* Section II.

13. CAL. GOV'T CODE § 8589.45 (West 2018).

14. *MyHazards*, CAL OES, <https://myhazards.caloes.ca.gov/> [<https://perma.cc/2WKW-BSGW>] (last accessed Oct. 20, 2022).

15. *State of the Union: Interview With FEMA Administrator Deanne Criswell* (CNN television broadcast Sept. 4, 2022, 9:00 AM ET), <https://transcripts.cnn.com/show/sotu/date/2022-09-04/segment/01> [<https://perma.cc/RNZ3-NTPG>]; Sarah Kuta, *Federal Flood Maps are Outdated Because of Climate Change, FEMA Director Says*, SMITHSONIAN MAG. (Sept. 9, 2022), <https://www.smithsonianmag.com/smart-news/federal-flood-maps-are-outdated-because-of-climate-change-fema-director-says-180980725/> [<https://perma.cc/65HJ-JM9S>].

16. *State of the Union: Interview With FEMA Administrator Deanne Criswell* (CNN television broadcast, Sept. 4, 2022, 9:00 AM ET), <https://transcripts.cnn.com/show/sotu/date/2022-09-04/segment/01> [<https://perma.cc/RNZ3-NTPG>]; Kuta, *supra* note 15.

17. Adam Voiland, *What's Behind California's Surge of Large Fires?*, NASA: Earth Observatory, <https://earthobservatory.nasa.gov/images/148908/whats-behind-californias-surge-of-large-fires> [<https://perma.cc/63H8-PTXY>].

fire hazard severity zones haven't been updated since 2008-2011<sup>18</sup> thus not based on the most recent climate science showing stark increases in wildfire risks.<sup>19</sup>

Disclosure of climate-related risks to prospective homeowners is imperative to ensure: (1) land investments continue with reliable and accurate security, (2) accurate pricing reflecting future risk, and (3) homeowners are adequately insured. As climate change worsens, dangerous weather events are becoming more frequent and severe.<sup>20</sup> With no statutory disclosure requirements of *future* climate related risk, it is yet to be determined whether the common law allows for liability for failure to disclose these future risks to be attached to sellers, brokers, or developers for damage caused by undisclosed climate change related risk. In analyzing the common law, this hinges on whether climate risk is material, what level of knowledge is required, and the standard. This Article explores the potential for liability related to climate risk disclosure.

Key to understanding whether liability can stretch to cover undisclosed climate-related risk is the certainty of a specific climate change related event. A valuable tool in discussing foreseeability is the varying levels of confidence and likelihood for different climate change risks developed by the Intergovernmental Panel on Climate Change (IPCC).<sup>21</sup> In this Article, the levels of certainty discussed includes both the IPCC's levels of confidence and likelihood.<sup>22</sup> “[L]evel of confidence is expressed using five qualifiers: very low, low, medium, high and very high.”<sup>23</sup> The *likelihood of an outcome or a result* is noted with the following verbiage: “virtually certain 99–100% probability, very likely 90–100%, likely 66–100%, about as likely as not 33–66%, unlikely 0–33%, very unlikely 0–10%, exceptionally unlikely 0–1%. Additional terms (extremely likely 95–100%, more likely than not >50–100%, and extremely unlikely 0–5%) may also be used when

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18. *Fire Hazard Severity Zones*, OFF. OF THE STATE FIRE MARSHAL, <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildfire-preparedness/fire-hazard-severity-zones/#:~:text=Fire%20Hazard%20Severity%20Zones%20are,in%20local%20jurisdictions%20as%20well> [https://perma.cc/5DKY-882M] (last visited Oct. 19, 2022).

19. Voiland, *supra* note 17.

20. *Id.*

21. IPCC Report, *supra* note 1, at 4.

22. The certainty evaluation described is used in the IPCC Summary for Actuaries and Policy Makers. International Actuarial Association, *Climate Science: A Summary for Actuaries* (Mar. 2022), [https://www.actuaries.org/IAA/Documents/Publications/Papers/Climate\\_Science\\_Summary\\_Actuaries.pdf](https://www.actuaries.org/IAA/Documents/Publications/Papers/Climate_Science_Summary_Actuaries.pdf) [https://perma.cc/8ZK3-NELG]; Lisa V. Alexander et al., *IPCC, 2013: Summary for Policymakers In: Climate Change 2013: The Physical Science Basis*, Intergovernmental Panel on Climate Change (2013), [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_SPM\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf) [https://perma.cc/437W-WA3X].

23. IPCC Report, *supra* note 1, at 4 n.4 (emphasis added).

appropriate.”<sup>24</sup> To extend liability to sellers or their agents, the court will have to adopt a level of certainty required for liability to adhere. The level of certainty required by the court may depend on the specific type of climate change related risk in question.

This Article will examine whether liability can extend to residential real estate sellers for non-disclosure of climate change related risk. First, this Article will outline current California statutes and common law regarding disclosures of climate change risk to prospective buyers of real estate. Next, this Article will explore potential routes for expanding liability, then will follow with hypotheticals for specific types of climate-related risk. This Article concludes by considering likely outcomes and routes for sellers and their agents to evade such liability should an expansion of liability prove legitimate.

## II. CURRENT DISCLOSURE REQUIREMENTS FOR CLIMATE CHANGE RELATED RISK

While statutory disclosure requirements do exist for current climate related risks, they fail to encompass future and increases in risk created by climate change both in statutory language and through current mapping-based disclosures. Without statutory requirements for disclosure, common law is the only means by which liability could be created for failure to disclose these risks. This section lays out California’s statutory framework regarding seller side disclosure requirements for climate change related risks. This section proceeds to walk through the relevant common law framework to provide context as to how this area of law could be expanded to include liability for non-disclosure of climate related risks.

### *A. California Statutory Law*

California’s statutory framework regarding disclosure is limited, but there are some required disclosures for climate-related risks. In 1985, California enacted the first statute on seller and broker disclosures, requiring disclosures for a property’s condition, value, and desirability.<sup>25</sup> Codification of the state’s common law framework, established in *Lingsch v. Savage* and *Easton v. Strassburger*, helped to form California’s statutory framework

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24. *Id.* (emphasis added).

25. S.B. 453, ch. 223, § 4 (Cal. 1985).

for real estate disclosures.<sup>26</sup> These cases, codified in California statutory law, require both sellers and brokers to engage in discovery and disclose all material information related to the value and desirability of the property.<sup>27</sup>

California Civil Code Section 2079 states that:

[i]t is the duty of a real estate broker or salesperson . . . to a prospective buyer of residential real property . . . to disclose to that prospective buyer all facts materially affecting the value or desirability of the property that an investigation would reveal, if that broker has a written contract with the seller to find or obtain a buyer or is a broker who acts in cooperation with that broker to find and obtain a buyer.<sup>28</sup>

While this law requires disclosure of material facts, it does not specify: (1) what a material fact is, (2) the reasonability standard (subjective versus objective standard) for determining value and desirability, or (3) the standard of the investigation.

New additions to the statutory disclosure requirements have come into law since the codification of the common law requirements. The duties of disclosure require the disclosure of major fire or flood damage and visual inspections, but this general duty does not cover whether there is a requirement to disclose future increased risk of disaster from climate change.<sup>29</sup> Under California law, a seller (or seller's agent) must disclose to prospective buyers when the property is in one of the following hazardous areas or situations:

1. special flood hazard area as designated by FEMA where the seller or her agent has actual knowledge or the local jurisdiction has specified that the parcel is within a special flood hazard area;<sup>30</sup>
2. a high or very high fire hazard severity zone as determined by the Director of Forestry and Fire Protection (CAL FIRE)<sup>31</sup> based on consistent statewide criteria and based on the severity of fire hazard that is expected to prevail in those areas<sup>32</sup>; and
3. specified features that may make the home vulnerable to wildfire and flying embers and disclose which of the listed features, if any, exist on the home of which the seller is aware.<sup>33</sup>

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26. Easton v. Strassburger, 152 Cal. App. 3d 90, 102 (1984).

27. S.B. 453, ch. 223, § 4 (Cal. 1985).

28. CAL. CIV. CODE § 2079 (Deering, LEXIS through 2022 Sess.) (emphasis added).

29. CAL. CIV. CODE § 1102.6 (Deering, LEXIS through 2022 Sess.).

30. CAL. GOV'T. CODE § 8589.3 (West 2000) (effective Jan. 1, 2000) (information of hazards can be obtained from the California Office of Emergency Services web site).

31. CAL. CIV. CODE § 1102.19 (West 2021) (effective July 1, 2021).

32. CAL. GOV'T. CODE § 51178 (West 2022).

33. CAL. CIV. CODE § 1102.6f(a)(3) (West 2021) (effective Jan. 1, 2021).

Many of these disclosure requirements are relatively recent, coming into law in the past few years.

The question remains as to whether there could be a duty to disclose other foreseeable climate change related risks, such as sea level rise, increase in wildfire risk, or other climate-related weather damage. The current climate risk disclosure framework is essentially caveat emptor: the buyer must beware when it comes to climate change risk impacting a residential property purchase.<sup>34</sup>

### *B. California Common Law*

California common law provides greater insight into the potential for disclosure liability expansion. However, the existing common law scheme does not directly address the issue this Article analyzes: climate change risk disclosure. Additionally, while California case law discusses present risk or fact, increases in risk and future risk are not mentioned. While historical case law has been codified, recent case law provides more context and clarity on how to push the bounds of the common law framework to include climate change risk as a required disclosure.

Important to the analysis of disclosure are whether facts are known or could be known, and whether they are material. Under common law, “where the seller knows of facts materially affecting the value or desirability of the property . . . and also knows that such facts are not known to, or within the reach of the diligent attention and observation of the buyer, the seller is under a duty to disclose them to the buyer.”<sup>35</sup> Furthermore, “[u]ndisclosed facts are material if they would have a significant and measurable effect on market value.”<sup>36</sup>

*Easton v. Strassburger*, the leading case in the applicable area of law, was codified under California legislation and imposed a duty for sellers and agents to discover material issues.<sup>37</sup> This case created a cause of action for negligent misrepresentation of issues that the seller or agent had a duty to investigate.<sup>38</sup> California’s 1985 disclosure law was a direct

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34. Denis Binder, *The Duty to Disclose Geologic Hazards in Real Estate Transactions*, 1 CHAP. L. REV. 13, 13 (1998).

35. Lingsch v. Savage, 213 Cal. App. 2d 729, 735 (1963).

36. Shapiro v. Sutherland, 64 Cal. App. 4th 1534, 1544 (1998).

37. Easton v. Strassburger, 152 Cal. App. 3d 90, 103 (1984).

38. Robert H. Cutting et al., “Location, Location, Location” Should be “Environment, Environment, Environment”: A Market-Based Tool to Simplify Environmental Considerations in Residential Real Estate, 6 GOLDEN GATE U. ENV’T L.J. 83, 102 (2012).

response to *Easton* and placed boundaries around the broader field of liability that *Easton* had introduced.<sup>39</sup> The California legislature emphasized that it intended for its statute to make the *Easton* disclosure requirements clear and easy to follow.<sup>40</sup>

The other principal case for disclosures is *Lingsch v. Savage*, which expanded the scope of the seller's duty to disclose material facts to a prospective buyer.<sup>41</sup> The court states:

where the seller knows of facts materially affecting the value or desirability of the property *which are known or accessible only to him and also knows that such facts are not known to, or within the reach of the diligent attention and observation of the buyer*, the seller is under a duty to disclose them to the buyer.<sup>42</sup>

Failure to disclose constitutes actual fraud.<sup>43</sup> This case creates some nuance, however, as it specifies that disclosure is only required when the material facts are only known and accessible to the seller, where the seller knows the buyer does not know of the facts, and the buyer likely would not be able to learn the facts.

*Reed v. King* further discusses materiality, stating that “[t]hree considerations bear on this legal conclusion [of what is material]: the gravity of the harm inflicted by nondisclosure; the fairness of imposing a duty of discovery on the buyer as an alternative to compelling disclosure, and the impact on the stability of contracts if rescission is permitted.”<sup>44</sup> In this case, the court permitted the history of murder on a property as material information impacting the value and desirability of the property.<sup>45</sup> The court noted, however, that “[a] more troublesome question would arise if a buyer in similar circumstances were unable to plead or establish a significant and *quantifiable* effect on market value.”<sup>46</sup>

The duty to disclose reasonably obtainable material information is further discussed in *Assilzadeh v. California Federal Bank*.<sup>47</sup> The court stated that an “agent’s duty to disclose material information to the principal includes the duty to disclose *reasonably obtainable material information*.”<sup>48</sup> This obligation “requires investigation of facts not known to the agent and

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39. *E.g., id.* at 107.

40. CAL. CIV. CODE § 2079.12 (Deering, LEXIS through 2022 Sess.).

41. *Lingsch v. Savage*, 213 Cal. App. 2d 729, 738 (1963).

42. *Id.* at 735 (emphasis added).

43. *Id.* at 736.

44. *Reed v. King*, 145 Cal. App. 3d 261, 266 (1983).

45. *Id.* at 268.

46. *Id.* (emphasis added).

47. *Assilzadeh v. Cal. Fed. Bank*, 82 Cal. App. 4th 399, 415 (2000).

48. *Id.* (emphasis added) (quoting *Field v. Century 21 Klowden-Forness Realty*, 63 Cal. App. 4th 18, 25 (1998)).



*disclosure of all material facts that might reasonably be discovered.*<sup>49</sup> As a result, this case establishes a reasonable person type standard. Furthermore, *Assilzadeh* clarifies which undisclosed facts are considered material: “[u]ndisclosed facts are material if they would have a significant and measurable effect on market value.”<sup>50</sup> This materiality depends on the facts of the particular case.<sup>51</sup> The court also states “[t]he seller or his or her agent must have *actual knowledge* in order to be liable for failing to disclose a material fact.”<sup>52</sup> *Assilzadeh* establishes that when sellers have actual knowledge of facts with a significant and measurable effect on the market value of a property, and these facts are not known to or are not within the diligent attention and observation of the buyer, there is a duty to disclose.

### III. EXPANDING THE LAW TO REQUIRE A DUTY TO DISCLOSE THE CLIMATE SCIENCE

To extend liability for failure to disclose climate change risks, there are two primary routes: (1) enacting legislation, or (2) expanding the common law. This section will begin by discussing the use of legislation to expand liability for disclosure of climate related risks, specifically discussing the example of Hawaii’s new legislation. This section will proceed by explaining how common law could potentially be expanded to include risk of climate related risks as a material fact requiring disclosure. This section will end with an analysis of new SEC climate disclosure requirements, and how this new law may be relevant to real estate disclosures.

#### *A. Using Legislation to Expand Liability*

The simplest way to attach liability for non-disclosure is to pass legislation mandating disclosure requirements. Under this route of extending liability, disclosure would be statutorily required, so a failure to disclose would create clear liability. There would be no need to stretch the common law or to create attenuated legal connections to attach liability if a state adopts legislation requiring disclosure. However, the key to success under this

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49. *Id.* (emphasis added) (quoting *Field v. Century 21 Klowden-Forness Realty*, 63 Cal. App. 4th 18, 25–26 (1998)).

50. *Id.* at 410 (emphasis added).

51. *See id.* at 416.

52. *Id.* at 410 (emphasis added).

path of regulating liability is to ensure several climate change risks are covered by the legislation, not just a single climate-related issue. If this sort of legislation were enacted, it would also be important to include past, present, and future climate change-related risk. An all-encompassing timeline would provide the buyer with the most knowledge, allowing for the most informed buying decision possible.

An example of legislatively required disclosures is seen with Hawaii's recent codification of sea level rise disclosures relating to real property transactions.<sup>53</sup> On July 6, 2021, the state passed Hawaii Act 179 (Senate Bill 474) to require "mandatory seller disclosures in real property transactions [to] include indication that a residential real property lies within the sea level rise exposure area."<sup>54</sup> The legislation goes on to define material fact as, "any fact, defect, or condition, *past or present*, that would be expected to measurably affect the value to a reasonable person of the residential real property being offered for sale."<sup>55</sup> The legislation states that "[t]he value of property lying within the boundaries of a sea level rise exposure area will likely be affected over time, which the legislature determines to be a *material fact* that should be disclosed by the seller in a real property transaction."<sup>56</sup>

This legislation, codified in Hawaii Statute 508D-15, requires sellers to disclose the climate change risk of sea level rise to home buyers via enactment of statutory law—thus, evading the need to extend common law to attach liability for non-disclosure.<sup>57</sup> While this statute fails to overtly include "future" in the definition of material defect, the law explicitly states that sea level is a present condition that will affect property value over time, which is sufficient in creating liability.<sup>58</sup> For states enacting legislation in the future, addressing climate change either as a present or future risk is likely sufficient so long as it is adequately specified as such under the definition of "material fact."

Hawaii specifically drafted its legislation to address disclosure of sea level rise to prospective homebuyers;<sup>59</sup> however, if the Hawaiian legislature had simply stated "material fact" without specifically stating that sea level rise fits within the definition, it would be uncertain whether sea level rise would fit within the definition of "material fact." While sea level rise very likely rises to the level of being a "fact," whether sea level rise could be

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53. S.B. 474, 31st Leg., Reg. Sess. (Haw. 2021).

54. *Id.*

55. *Id.* (emphasis added).

56. *Id.* (emphasis added).

57. HAW. REV. STAT. § 508D-15 (2014).

58. *Id.*

59. *Id.*

included within the definition of “material fact” would hinge on whether sea level rise could be classified as a “present” condition or fact. An argument to include sea level rise risk in the definition of material fact would argue that while it may be a future condition or risk, sea level rise is certainly a “present” fact that will measurably affect the value of the property. They would argue that even the “present” knowledge of the future condition or future risk of sea level rise has a long-term impact on property value and that a reasonable person would know this, regardless of whether home values are actually decreasing. Alternatively, an argument against including sea level rise in the definition of “material fact” is that sea level rise is not a “present” condition, but rather a future condition not presently affecting property value. While the future sea level rise risk may constitute a “present” fact, the actual water encroachment on property is not yet a “material fact,” defect, or condition. This thought experiment highlights the importance of including the specific climate change risk and specific language regarding the timing of the risk in the legislation or definition of “material fact” to ensure legislative and legal clarity.

### *B. Expanding Common Law*

If there is no legislation mandating climate change related disclosures, liability can only attach by expanding common law to include a required disclosure of future or foreseeable scientifically predicted risk. In expanding the common law, there are three key questions:

1. Can climate change risk be considered a material fact?
2. What level of knowledge is necessary?
3. Is it reasonable that sellers or their agents have knowledge of the climate change risk to residential property?

In considering these questions, it is essential to revisit the IPCC report.<sup>60</sup> The IPCC levels of certainty of climate risk ranks and defines the likelihood of climate change related events.<sup>61</sup>

#### *1. Climate Change Science as a Material Fact*

“Material facts” are facts that relate to the cause of action, claim for damages, issue of duty, or affirmative defense that is the subject of the

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60. IPCC Report, *supra* note 1.

61. *Id.* at 4 n.4.

motion and that could make a difference in the disposition of the motion.<sup>62</sup> Current case law does not treat climate science as a material fact, but that does not mean “material facts” cannot expand case law to include climate science.

Determining whether scientific research and analysis regarding climate change can be a “material fact” is crucial in the assessment of liability expansion under California common law. As established in *Reed* and *Lingsch*, “whether information ‘is of sufficient materiality to affect the value or desirability of the property . . . depends on the facts of the particular case.’”<sup>63</sup> There is a duty only to disclose factual matters that bear upon the quality of the property that might be detrimental to the value of the property.<sup>64</sup> In California, examples of this include a property that is on filled land, a structure violating building or zoning codes, a condemned building, or a termite-ridden structure.<sup>65</sup> This duty to disclose only addresses present risk, not the present or current threat of increased risk or future risk.

Under *Assilzadeh*, a fact is material if it has a significant and measurable effect on market value.<sup>66</sup> Climate change risks—such as sea level rise, increased flood risk, and increased wildfire risk—create a large effect on market value and desirability of certain property.<sup>67</sup> For example, the likelihood of significant sea level rise in the coming decades will very likely impact the market value and desirability of a house located next to the ocean. This is precisely the issue the Hawaiian statute aims to address.<sup>68</sup> However, fulfilling the requirement of “*measurable* effect” is more challenging for other climate risks. As stated in *Reed*, the liability question becomes more troublesome when the effect on market value is not quantifiable.<sup>69</sup> This measurability issue could be improved by integrating the IPCC’s certainty standards into law, thus giving courts clearer guidelines and analysis of climate change related risk.

In sum, to determine that a climate change risk is a “material fact,” the climate change related risk must: (1) be a factual matter, (2) impact quality

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62. CAL. R. CT. 3.1350(a)(2).

63. STANTON T. MATHEWS & ANOUSH LANCASTER, CALIFORNIA CAUSES OF ACTION § 1:34c (James Publishing 2018).

64. *Id.*

65. *Id.*

66. *Assilzadeh v. Cal. Fed. Bank*, 82 Cal. App. 4th 399, 415 (2000).

67. Simon Moore, *Is Your Home Value at Risk from Climate Change? Recent Research Finds a Link*, FORBES (Aug. 30, 2021, 5:57 PM), <https://www.forbes.com/sites/simonmoore/2021/08/30/is-your-home-value-at-risk-from-climate-change-recent-research-finds-a-link/?sh=398a9282e220> [https://perma.cc/UZW8-WWSA].

68. S.B. 474, 31st Leg., Reg. Sess. (Haw. 2021).

69. *Reed v. King*, 145 Cal. App. 3d 261, 268 (1983).

of the property, (3) create a significant effect on the property's market value, and (4) create a measurable effect on the property's market value. Applying the IPCC levels of confidence, the likelihood of climate events, and the credibility of the IPCC, a strong argument is made for classifying climate science as a "factual matter."<sup>70</sup> The impact on quality and significant and measurable effect on market value may be more difficult to show, but studies show that there is a significant and measurable impact on what the value *should be*, even if actual monetary value doesn't reflect this.<sup>71</sup> Therefore, climate change science could potentially extend liability for climate-related risk by satisfying as a "material fact."

## 2. Level of Knowledge

Another question concerning common law expansion is what level of knowledge of a climate change risk is required for liability to attach. The Supreme Court defines "actual knowledge" to mean ". . . when a plaintiff actually is aware of the relevant facts, not when he should be."<sup>72</sup> Alternatively, negligence cases attach a reasonableness standard, which requires reasonable diligence to learn material facts that should be known.<sup>73</sup>

California case law is very clear on particular matters concerning actual knowledge. For example, liability for fraudulent concealment requires actual knowledge. Constructive knowledge is insufficient. *Assilzadeh* established a requirement of actual knowledge of the material fact for liability to attach to non-disclosure.<sup>74</sup> Similarly, *San Diego Hospice v. County of San Diego* held that actual knowledge of facts materially affecting the value of the property was required for liability to attach for non-disclosure.<sup>75</sup> This requirement was again affirmed and constructive knowledge was deemed insufficient in *Waters v. Professional Community*

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70. See MATHEWS & LANCASTER, *supra* note 63 (explaining there is only a duty to disclose *factual matters* that bear upon the quality of the property that might be detrimental to the value of the property).

71. Yu, *supra* note 5; Hino & Burke, *supra* note 10.

72. Intel Corp. Inv. Pol'y Comm. v. Sulyma, 140 S. Ct. 768, 778 (2020); see also *The Supreme Court Defines Actual Knowledge*, NAT'L L. REV. (Feb. 26, 2020), <https://www.natlawreview.com/article/supreme-court-defines-actual-knowledge> [<https://perma.cc/GV8S-JWSR>].

73. Easton v. Strassburger, 152 Cal. App. 3d 90, 102 (1984).

74. *Assilzadeh*, 82 Cal. App. 4th at 410.

75. *San Diego Hospice v. County of San Diego*, 31 Cal. App. 4th 1048, 1055–57 (1995).

*Management of California, Inc.*<sup>76</sup> However, under a negligence theory, the reasonable care standard is used.<sup>77</sup>

The Securities Exchange Commission (SEC) is another area of law that vaguely defines climate related disclosures. For example, the SEC fails to specify the level of knowledge required from disclosures related to climate change science and fact. As climate science becomes more certain and further integrated into the law (such as through SEC regulations requiring disclosures) it may be argued that levels of knowledge below “actual knowledge” are sufficient to attach liability in this area.

To begin the analysis of whether climate change research and science provides the adequate level of knowledge, it must be determined whether the climate science regarding a certain risk is strong enough to provide the seller with *actual knowledge* of the risk. This will largely depend on the level of certainty, or confidence and likelihood of the event, as determined by IPCC standards or as determined by the California legislature or courts. When certainty of an event is particularly high, the court would be more likely to consider climate change risk sufficient to provide actual knowledge that then must be disclosed. However, if the certainty of a risk is particularly low, the climate science is likely not sufficient to provide a seller or her agent with actual knowledge of the climate risk.

### 3. Reasonability Standard

The final issue to analyze is the standard of reasonability. Section 2079<sup>78</sup> and *Assilzadeh*<sup>79</sup> establish a sort of *reasonable care* standard. This is an objective standard that considers whether someone acted with the care that an average person would have taken in similar circumstances.<sup>80</sup> In the context of climate change risk disclosure, to create or avoid liability, it will have to be argued that, with regard to IPCC levels of certainty, it was or was not reasonable for the seller to have had knowledge of the climate change risk to the residential property in question.

In determining whether a reasonable person would have taken care to learn of the climate risks, certainty should be examined under the IPCC. While subjective reasonability may hinge on political stance and ideological viewpoints regarding the environment, reasonability is better assessed through the lens of scientific certainty. The more certain a risk is, the more

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76. *Waters v. Prof'l Cmty. Mgmt. of Cal.*, 2020 Cal. Super. 6576 (2020).

77. *See Easton*, 152 Cal. App. 3d at 102.

78. CAL. CIV. CODE § 2079 (Deering, LEXIS through 2022 Sess.).

79. *Assilzadeh*, 82 Cal. App. 4th at 413.

80. *Standard of Care*, LEGAL INFORMATION INSTITUTE, CORNELL LAW SCHOOL, [https://www.law.cornell.edu/wex/standard\\_of\\_care](https://www.law.cornell.edu/wex/standard_of_care) [<https://perma.cc/4E5Y-HLNX>] (database updated Sept. 2021).

likely there is to be sufficient research and information for the seller to learn of the risk upon reasonable diligence. When the climate change risk is, for example, “virtually certain” to impact the region and thus impact the residential property, it may be reasonable that the seller was able to and should have learned of these risks. This certainty backed in science ensures that a reasonable person (here, the reasonable seller) would *know* or *should know* that climate change would affect the property regardless of whether they subjectively *believe* or support the climate science from a political or social perspective.

*C. Comparing Residential Property Climate Disclosure Liability to SEC Climate Disclosure Requirements*

As climate change knowledge and research is becoming more widespread, the integration of climate change into the law is spreading, thus potentially opening new doors of legal comparison. One major example of climate integration into the law is the Securities Exchange Commission’s (SEC) recent series of climate change-related disclosure requirements. In 2010, the SEC published interpretive guidance for public companies, detailing how existing SEC disclosure requirements applied to matters of climate change.<sup>81</sup> This guidance came after the SEC experienced mounting pressure from state attorneys general, investors, environmentalists, and others seeking clarification on disclosure recommendations regarding climate change.<sup>82</sup>

The guidance stated that both direct and indirect consequences<sup>83</sup> of regulation and legislation related to climate, business trends, and physical effects of climate change could all have a material effect on business operations.<sup>84</sup> The SEC stated that when the threshold of materiality is met,

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81. Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 33–9106, Exchange Act Release No. 34–61469, Release No. FR-82, 75 Fed. Reg. 25, 6290 (Feb. 8, 2010); Jennie Morawetz et al., *The SEC’s Recent and Planned Activity on Climate Change Disclosures: What Companies Can Do To Prepare*, KIRKLAND & ELLIS (Oct. 1, 2021), <https://www.kirkland.com/publications/kirkland-alert/2021/09/sec-climate-change-disclosures> [<https://perma.cc/Z8EX-7KQS>].

82. Morawetz et al., *supra* note 81.

83. Indirect consequences are changes in legal, technological, political and scientific changes that create new opportunities, risks, and demands which changes the climate impact of a registrant. Direct consequences include climate impacts from the direct action that a registrant is taking that creates climate degradation. Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 33–9106, Exchange Act Release No. 34–61469, Release No. FR-82, 75 Fed. Reg. 25, 6290 (Feb. 8, 2010).

84. *Id.*

companies are required to make disclosures under Regulations S-K and S-X.<sup>85</sup> Regulation S-K requires various material disclosures and lays out reporting requirements for public companies completing SEC filings.<sup>86</sup> Regulation S-X outlines how companies should disclose financial statements on registration statements, annual reports, and other filings.<sup>87</sup> If the SEC were to impose affirmative new rules mandating disclosures, authority would be granted under Sections 7, 10, and 13 of the Securities Exchange Act.<sup>88</sup>

While this guidance had a limited effect on climate-related disclosures shortly after its issuance, dozens of comment letters, which are sent out by the SEC for comment on a specific rule proposal or concept and then filled out and submitted back to the SEC by companies, relating to their climate disclosures have been sent during the Biden administration.<sup>89</sup> The SEC posted a similar sample letter on its website in September of 2021, which requested information on material climate change transition risks, litigation risks, and physical risks with respect to the individual business.<sup>90</sup>

While not specifically stated, the SEC's guidance briefly discussed the time frame of the climate event and its relevancy.<sup>91</sup> These disclosure guidelines did not include a "specific future time period that must be considered in assessing the impact of a known trend, event or uncertainty that is reasonably likely to occur."<sup>92</sup> However, the SEC goes on to say, "[t]he time horizon of a known trend, event or uncertainty may be relevant to a registrant's assessment of the materiality of the matter and whether or not the impact is reasonably likely."<sup>93</sup> It should be noted that time horizons are included in the assessment of materiality because of the levels of certainty in foreseeability of imminence and the potentially long time horizons for climate risks and weather events. Under this statement by the SEC, it appears that the predicted speed at which sea level will rise as well as how

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85. *Id.*

86. 17 C.F.R. § 229 (2021).

87. 17 C.F.R. § 210 (2021).

88. Securities Exchange Act of 1934 § 7, 15 U.S.C. § 78g; Securities Exchange Act of 1934 § 10A, 15 U.S.C. § 78j-1; Securities Exchange Act of 1934 § 13, 15 U.S.C. 78m.

89. Morawetz et al., *supra* note 81.

90. *Id.*; see *Sample Letter to Companies Regarding Climate Change Disclosures*, U.S. SEC. & EXCH. COMM'N (Sept. 22, 2021), <https://www.sec.gov/corpfin/sample-letter-climate-change-disclosures> [<https://perma.cc/78TP-JM4Z>].

91. Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 33-9106, Exchange Act Release No. 34-61469, Release No. FR-82, 75 Fed. Reg. 25, 6290 (Feb. 8, 2010).

92. Robert C. Kirsch, *THE IMPACT OF ENVIRONMENTAL LAW ON REAL ESTATE TRANSACTIONS: BROWNFIELDS AND BEYOND*, VOLUME 2 (SS003 ALI-ABA 1789) (2010), Lexis.

93. *Id.*



quickly the risk of fire or flood will increase will play a part in determining the materiality of these events. Furthermore, the SEC stated: “materiality ‘with respect to contingent or speculative information or events . . . “will depend at any given time upon a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity.””<sup>94</sup> This highlights the importance of scientific confidence and likelihood of the climate-related risk.

The standard required for disclosure is that a known trend or uncertainty is *reasonably likely* to have a material effect on financial condition or operating performance.<sup>95</sup> Applying the IPCC likelihood levels of climate risk to the SEC standard of *reasonably likely*, it is reasonable to assume the equivalent IPCC level of certainty is “likely” (66-100%), because *reasonably likely* is a lower threshold to meet<sup>96</sup> Under the IPCC “likely” standard, sea level rise and increased flood risk would almost certainly require disclosure by a company. However, with the lack of certainty from the IPCC regarding likelihood of increased fire risk, the SEC disclosure burden may not be met. Accordingly, a company may not be required to disclose increased fire risk under SEC disclosure standards unless other accepted sources, such as CAL FIRE, show California-specific fire risks that are equal to or greater than “likely.”

The question of increased climate change related disclosures appears to be at the forefront of the SEC. In May 2020, the SEC Investor Advisory Committee approved recommendations that urged the Commission to begin updating reporting requirements for issuers to include “material, decision-useful, or ESG [environmental, social, and governance] factors.”<sup>97</sup> Then, in December of 2020, “the ESG Subcommittee of the SEC Asset Management Advisory Committee issued a preliminary recommendation that the Commission require the adoption of standards by which corporate issuers

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94. Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 33-9106, Exchange Act Release No. 34-61469, Release No. FR-82, 75 Fed. Reg. 25, 6290 (Feb. 8, 2010) (quoting *Basic Inc. v. Levinson*, 485 U.S. 224, 238 (1988)).

95. Commission Statement About Management’s Discussion and Analysis, Release No. 33-8056, 67 Fed. Reg. 3746 (Jan. 22, 2002).

96. IPCC Report, *supra* note 1, at 4.

97. Recommendation from the Investor-as-Owner Subcommittee of the SEC Investor Advisory Committee Relating to ESG Disclosure 7 (May 14, 2020), <https://www.sec.gov/spotlight/investor-advisory-committee-2012/recommendation-of-the-investor-as-owner-subcommittee-on-esg-disclosure.pdf> [<https://perma.cc/463A-QX5C>].

disclose material ESG risks.”<sup>98</sup> In March of 2021, Acting Chair of the SEC, Allison Herren Lee, called for an evaluation of SEC disclosure rules with an “eye towards facilitating the disclosure of consistent, comparable, and reliable information on climate change.”<sup>99</sup> On September 14, 2021, SEC Chair Gary Gensler stated in testimony before a Senate Committee that SEC staff are preparing a climate change disclosure rule proposal likely to be finalized in 2022.<sup>100</sup>

On March 21, 2022, the SEC released a long-anticipated proposed rule for climate change disclosures.<sup>101</sup> The proposed rule would require “a registrant to disclose certain climate-related information, including information about its climate-related risks that are reasonably likely to have material impacts on its business.”<sup>102</sup> Touching on materiality, the proposed rule states, “the materiality determination is largely fact specific and one that requires both quantitative and qualitative considerations . . . . [W]hen assessing the materiality of a particular risk, management should consider its magnitude and probability over the short, medium, and long term.”<sup>103</sup> The proposed rule purposely does not define “short,” “medium,” and “long” to provide more flexibility to businesses.<sup>104</sup> The proposed rule clarifies which climate risks are included, and distinguishes between acute risks, such as floods, and chronic risks, such as sea level rise and increased wildfires.<sup>105</sup> While the proposed rule fails to define “reasonably likely,” the SEC specifically stated that companies could rely on scientifically-based, widely accepted, and publicly available climate-related scenarios, such as those from the IPCC.<sup>106</sup>

The SEC’s proposed rule and recent action demonstrate the trend towards climate change risk information becoming common knowledge under the law, as well as the importance of reliance on scientific climate data (such as that from the IPCC) to establish certainty.<sup>107</sup> The disclosure requirements

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98. Public Statement, Allison Herron Lee, Commissioner, Sec. & Exch. Comm’n, Public Input Welcomed on Climate Change Disclosures (Mar. 15, 2022), [https://www.sec.gov/news/public-statement/lee-climate-change-disclosures#\\_ftn4](https://www.sec.gov/news/public-statement/lee-climate-change-disclosures#_ftn4) [<https://perma.cc/Q5MW-LT5L>].

99. *Id.*

100. Morawetz et al., *supra* note 81.

101. The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21134 (proposed Mar. 21, 2022) (to be codified at 17 C.F.R. pts. 210, 229, 239, 249), <https://www.sec.gov/rules/proposed/2022/33-11042.pdf> [<https://perma.cc/58AL-UC9F>].

102. *Id.*

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

107. *See id.*

and assessment of materiality by the SEC can be used as a model for expanding the law, potentially in the area of real estate transaction disclosures.

#### IV. TESTING EXPANSION OF DISCLOSURE REQUIREMENTS WITH HYPOTHETICALS

The application of the expansion of common law can be better understood through hypothetical situations pertaining to specific climate change-related risks. The three risks discussed here include: (a) sea level rise, (b) increased flooding, and (c) increased fire risk.

The main climate change related risks concerning California discussed in this paper include sea level rise, increased flooding, and increased fire risk. Under the IPCC confidence levels, sea level rise and increased flooding are “high” confidence events, while increased fire risk is “medium” to “high” confidence.<sup>108</sup> The IPCC classifies sea level rise as “very likely” to “virtually certain,” and increased flooding as “very likely” to occur.<sup>109</sup> Certainty of increased fire risk is not discussed by the IPCC report.<sup>110</sup> The following sections will examine uncertainties in the law as it pertains to the three major climate change related risks discussed in this paper.

##### *A. Sea Level Rise*

The first hypothetical this Article will analyze involves sea level rise impacting a residential property for sale, such as a house located on the beach next to the Pacific Ocean. To determine liability for disclosure of the climate change risk, the level of certainty of risk must be assessed and then applied to the current legal framework. Under the IPCC model, sea level rise is “very likely” to “virtually certain” to occur, and its confidence level is “high.”<sup>111</sup>

In this hypothetical, the risk of sea level rise is a factual matter because the climate risk is “very likely” (90–100% probability) to “virtually certain” (99–100% probability) with a “high” confidence level.<sup>112</sup> Sea level rise impacts the physical property, the quality of the property, and market

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108. IPCC Report, *supra* note 1, at 5, 9, 19, 24–25.

109. *Id.* at 25.

110. *Id.*

111. IPCC Report, *supra* note 1, at 21.

112. *Id.*

value by potentially destroying the property or decreasing its size depending on how the raised water line is treated under state law.<sup>113</sup> Measuring the decrease in market value requires predicting how much land is calculated to be lost.<sup>114</sup> The time frame in which the property size will be decreased makes the question of measurability more difficult, as sea level rise can be gradual and/or sudden.<sup>115</sup> One attempting to create disclosure liability will argue for the use of quantitative science regarding sea level rise for that particular area. Alternatively, those trying to avoid liability will argue that the sudden versus prolonged potential timelines for sea level rise makes the risk too difficult to quantify.

The likelihood and confidence of sea level rise under the IPCC makes this climate event almost certainly factual knowledge that, when known, can constitute actual knowledge of the risk to the property. With this high certainty, taking reasonable care would likely reveal this climate risk. Additionally, under the SEC framework discussed above, sea level rise would very likely be a required disclosure.

Sea level rise presents the strongest case for extending liability because of the likelihood and confidence of its climate risk, along with its direct impact to residential property. If a seller or her agent were to fail to disclose the risk of sea level rise to a residential real estate buyer and damage occurs, there is a strong argument for liability for failure to disclose this climate risk. To prevent this liability, the seller, broker, or developer should inform the buyer of the potential risk of sea level rise.

### *B. Increased Flooding*

The second hypothetical evaluates the disclosure of increased flooding risk. For this hypothetical, there is a residential property being sold that is subject to increased flood risk. Similar to the previous section's hypothetical on sea level rise, analysis begins by looking to the confidence and likelihood of that risk under the IPCC's standards.<sup>116</sup> The likelihood of increased flooding is "very likely" (90–100% probability), and the confidence of this event is "high."<sup>117</sup>

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113. Tim Duane, *MCLE Self Study Article: Climate Disruption and Sea Level Rise: Legal Issues for Coastal Land Use in California*, 35 CAL. REAL PROP. J. & PUB. L.J. JOINT ISSUE 12, 15 (2018).

114. *See id.*

115. *Id.* at 14.

116. IPCC Report, *supra* note 1, at 4 n.4.

117. *Id.* at 19.

In assessing materiality, increased flood risk appears to impact what the market value of the property *should be*.<sup>118</sup> It seems the level of increase in flooding should be considered in conjunction with the overall rates of flooding to be expected. For example, if the existing or historic risk of flooding begins at a very low level, an increase in flooding may still be at a low enough level for it to not constitute a material difference to the value of the property. It appears that the exact increase in flooding, if quantifiable, would need to be substantial enough to objectively meet the required standard of certainty.

It seems the main issue in analyzing the liability of failure to disclose flood risk is measurability of the market impact. While increase in flood risk should be analyzed objectively, it also seems that how the surrounding infrastructure handles an increase in flooding and how the increased flooding impacts the property in question should be considered.<sup>119</sup> Increased risk of flooding is calculated by percent increase in risk, unlike sea level rise which is measured in the more quantifiable metric of inches.<sup>120</sup> This form of risk measurement will create a problem in determining liability for non-disclosure of increased flood risk.

It appears another concern for the quantifiability of increased flood risk is how to compare the levels of increase in flood risk in different areas. For example, areas that experience high flooding may only gain a small increase in flood level over time and still maintain a higher overall flood rate while having a small percent change in flood increase. In contrast, an area that typically experiences very little flood risk might gain a larger percent increase in flooding while still having an objectively lower level of flood risk. To combat this issue, the flood increase should be expressed as a percentage increase, rather than a measurement of increased inches of rain or a multiplying factor.

The likelihood and confidence of increased flood risk under the IPCC almost certainly makes this climate event knowledge that, when known, will constitute actual knowledge of the risk to the property. Due to the

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118. Tammy Leonard & Lei Zhang, *Flood Hazards Impact on Neighborhood House Prices*, J. REAL ESTATE FIN. ECON., Aug. 2018, [https://news.unt.edu/sites/default/files/082018\\_summaryleonard\\_floodhousingvalueimpact\\_leonard\\_mb\\_final.pdf](https://news.unt.edu/sites/default/files/082018_summaryleonard_floodhousingvalueimpact_leonard_mb_final.pdf) [<https://perma.cc/LFY3-MVMW>]; Hino & Burke, *supra* note 10.

119. See Kuta, *supra* note 15.

120. Melissa Denchak, *Flooding and Climate Change: Everything You Need to Know*, NRDC, Apr. 10, 2019, <https://www.nrdc.org/stories/flooding-and-climate-change-everything-you-need-know> [<https://perma.cc/VL8F-XPCV>].

certainty of an increase in flooding, reasonable care would very likely reveal this risk. Under the SEC framework, this would likely be a required disclosure.

While attaching liability in this hypothetical may be possible, including a quantifiable method of calculating the increased risk of damage from flooding would be required. If this were possible, creating liability is certainly attainable.

### C. Increased Fire Risk

The final hypothetical is an analysis of increased fire risk. In a situation where a residential property being sold is subject to increased fire risk, analysis begins by looking to the IPCC levels of confidence and likelihood. The confidence level of increased fire risk is “high” confidence, however, the IPCC does not provide a likelihood for this climate change risk.<sup>121</sup> This risk differs from the other climate risks discussed as the missing IPCC likelihood factor frustrates the materiality analysis, specifically the question of whether the risk is actual knowledge, as there is no longer a quantifiable and objective level of certainty of risk as determined by the IPCC. Also, like increased flood risk, the increased fire risk’s impact on market value will be difficult to measure and quantify as a calculable impact on market value, but similar studies suggest that fire risk can impact quality and market value of property,<sup>122</sup> unless Cal Fire hazard severity zones aid in this analysis. While research shows the quality and market value of the homes in increased risk areas *should* decrease, the dollar value does not always follow science due to extrinsic factors.<sup>123</sup> The level of increase in risk should be considered in conjunction with the overall level of risk.

With the lack of an IPCC likelihood level and a calculable market value impact, increased fire risk poses the weakest case for attaching liability. These drawbacks may, however, be compensated for by using the increased data on California wildfire intensity, which demonstrates that the top ten most intense fires in California history have all occurred in the past twenty years.<sup>124</sup> Data presents strong evidence of an increase in the number of

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121. *Id.* at 26.

122. See Julie Mueller et al., *Do Repeated Wildfires Change Homebuyers’ Demand for Homes in a High-Risk Area? A Hedonic Analysis of the Short and Long-Term Effects of Repeated Wildfires on House Prices in Southern California*, J. REAL ESTATE FINANCE ECON. 155–72 (Feb. 2009), <https://link.springer.com/content/pdf/10.1007/s11146-007-9083-1.pdf> [<https://perma.cc/8F6Q-9XZP>].

123. *Id.*

124. Rosmery Izaguirre, *Worst Fires in California History: Dixie, Camp and More*, LA TIMES (Aug. 24, 2021, 10:55 PM), <https://www.latimes.com/california/story/2021-08-24/worst-fires-in-california-history-dixie-camp-and-more> [<https://perma.cc/QL75-F946>].

extreme fire events per year,<sup>125</sup> which may not only overcome the lack of IPCC data, but could also provide quantifiable data of an increase in fire risk necessary to establish this risk as a material fact.

Additionally, California law requires disclosure of property located in a very high fire hazard severity zone. This can be differentiated from increased fire risk by the time frame of reference—present time for current disclosure requirements versus future fire risk as discussed in this hypothetical. In creating the fire hazard zone maps, Cal Fire considers many factors including: “fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area.”<sup>126</sup> While Cal Fire considers the “potential fuel” of an area in creating its maps, climate change risk is not stated as a consideration.<sup>127</sup> In addition, the “potential fuel” consideration is vague enough to make the entirety of the future fire risk consideration uncertain. Cal Fire uses strict in/out of fire risk boundaries for disclosure purposes,<sup>128</sup> but the integration of climate science could change these boundaries or make the in/out of fire risk distinction less clear cut.

#### *D. The Overarching Issues of Time and Knowledge of Buyer*

Two overarching issues exist within the analyses of the above climate issues and of climate change risk disclosure: (1) the timing of the risk and (2) whether the buyer has knowledge of the risk.

While the climate risk itself and the certainty of that risk are quantified by the IPCC, the IPCC does not provide a specific time frame for these events. Climate change risks, such as sea level rise, are at times long-term risks that do not immediately and severely impact most residential real estate.<sup>129</sup> The potentially long-term and uncertain time frame of climate

125. Raymond Zhong, *Climate Scientists Warn of a ‘Global Wildfire*, N.Y. TIMES (Feb. 23, 2022), <https://www.nytimes.com/2022/02/23/climate/climate-change-un-wildfire-report.html> [<https://perma.cc/84TJ-HM9B>]; see *Top 20 Largest California Fires*, CAL FIRE (Jan. 13, 2022), [https://www.fire.ca.gov/media/4jandlhh/top20\\_acres.pdf](https://www.fire.ca.gov/media/4jandlhh/top20_acres.pdf) [<https://perma.cc/9YYF-DJBL>].

126. *Fire Hazard Severity Zones*, CA.GOV, <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildfire-prevention-engineering/fire-hazard-severity-zones/> [<https://perma.cc/5QAN-S8AC>] (Sept. 21, 2022).

127. *See id.*

128. *Id.*

129. Tim Duane, *MCLE Self Study Article: Climate Disruption and Sea Level Rise: Legal Issues for Coastal Land Use in California*, 35 CAL. REAL PROP. J. & PUB. L.J. JOINT ISSUE 12 (2018).

risk makes it crucial for states creating residential real estate climate change risk disclosure legislation to include a deadline or statute of limitations for claiming nondisclosure of the risk. If no statute of limitations is established, every beachfront property owner will eventually have a claim against sellers and their agents because of the inevitability of climate change.

While the seller has a duty to disclose if they have actual knowledge, *Lingsch* specifies that this is required when there are facts materially affecting the value or desirability of the property “not known to, or within the reach of the diligent attention and observation of the buyer.”<sup>130</sup> While the IPCC certainty of climate change risk creates the ability to make climate change a material fact that can constitute actual knowledge, this certainty might contradict *Lingsch* if these scientific facts are readily “within the reach of the diligent attention and observation of the buyer.”<sup>131</sup> When the climate science behind a climate risk is 90-100% certain, for example, the buyer would likely know about this risk to their property and investment due to news coverage or local outreach. A key question remains as to how heavily the notion of *caveat emptor* weighs on climate change disclosure for buyers. Should the buyer be responsible for researching climate risk? Or should the seller be required to disclose known climate risks?

From an economic perspective, the seller and her agents are typically in a better position to gather market information than the buyer. In terms of economic efficiency, it makes sense to place the burden of information gathering on the seller and her agents, as the seller is the current owner and has a greater chance of being familiar with that specific land. Moreover, a person selling a home need only perform this research once, whereas placing this burden on the buyer would require them to perform this research on every potential home. An additional consideration in placing the information burden is the political consideration surrounding climate change. While scientific consensus is growing regarding the certainty of climate change and related risks, there remains disagreement about the validity of climate change science in the socio-political sphere.<sup>132</sup> Because climate change is heavily politicized—with some political groups refusing to recognize climate change entirely—there may be a lack of buyer research if the burden of information gathering is placed on the buyer. Individuals who do not believe in climate change, for whatever reason, may be less likely to research climate change impacts on their prospective purchase,

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130. *Lingsch v. Savage*, 213 Cal. App. 2d 729, 735.

131. *Id.*

132. Bo MacInnis & Jon A. Krosnick, *Climate Insights 2020: Surveying American Public Opinion on Climate Change and the Environment*, RES. FOR THE FUTURE (2020), [https://media.rff.org/documents/Climate\\_Insights\\_2020\\_Partisan\\_Divide.pdf](https://media.rff.org/documents/Climate_Insights_2020_Partisan_Divide.pdf) [https://perma.cc/W8FK-DC45].



regardless of the scientific certainty. For example, a 2022 study showed that houses exposed to sea level rise are increasingly Republican.<sup>133</sup> However, even buyers who are concerned about the threats of climate change may not consider how these risks threaten their new home purchase. Many of the climate threats that impact a home are not as apparent as, for example, sea level rise. As a result, purchasers of a new home may not prioritize research on less-observable risks, such as increased flood or fire risks.

## V. CONCLUSION

The potential for liability for non-disclosure of climate change-related risks exists in California. However, the likelihood of this claim prevailing depends on the ability to measure the decrease in market value that the risk creates, the confidence, and the likelihood of the risk. While these measurements may be possible for some climate change risks (i.e., sea level rise), it may not be possible for others (i.e., increased wildfire risk).<sup>134</sup> An IPCC-type framework for disclosure requirements would strengthen the current common law framework. However, with early codification of the California common law regime, expansion without legislation may prove difficult.

The easiest way to create liability for disclosing climate risks is to pass legislation that unambiguously defines “material fact” to include specific climate change risks as Hawaii has done.<sup>135</sup> The easiest way to avoid liability for lack of disclosure for sellers is to disclose these risks to buyers. With recent expansion of climate change disclosure in SEC regulations, it is advisable for sellers and their agents to treat climate science (such as the IPCC report)<sup>136</sup> as information that must be disclosed to buyers to avoid lawsuits.

Areas for future research and exploration include the applicability of this analysis to the buying and selling of commercial property. While the statutory framework for residential real estate is different for commercial real estate, the same analysis could apply. However, it should be studied further, as there are differences between residential and commercial property,

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133. Asaf Bernstein et al., *Partisan Residential Sorting on Climate Change Risk*, 146 J. OF FIN. ECON. 989–1015 (Apr. 2022), <https://doi.org/10.1016/j.jfineco.2022.03.004> [<https://perma.cc/J28R-PCS9>].

134. See IPCC Report, *supra* note 1.

135. S.B. 474, 31st Leg., Reg. Sess. (Haw. 2021).

136. IPCC Report, *supra* note 1.

such as leasing versus buying and the difference in risk to locations of residential versus more commercial areas.

To ensure clarity regarding the duty of disclosure as climate science becomes more certain and climate risks become more likely, it would be beneficial for states such as California to pass legislation like that of Hawaii,<sup>137</sup> while including further definitions of “material fact.” The more climate risk is defined as material or not in statutory law, the clearer the duty of disclosure will be for sellers and their agents. Without a clear definition of “material fact” and with the increase in certainty of climate science, whether climate risk requires disclosure is sure to create many legal and political problems as the amount of litigation in this realm rises like the sea level.

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137. S.B. 474, 31st Leg., Reg. Sess. (Haw. 2021).