

# SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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February 27, 2009

**TO:** Commissioners and Alternates  
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**SUBJECT:** **Using the Public Trust Doctrine to Adapt to Climate Change in San Francisco Bay**  
(For Commission consideration on March 5, 2009)

## Summary

BCDC's 2008 Strategic Plan calls for the preparation of a "legal analysis of property rights and 'takings' issues and the use of the public trust doctrine related to adaptive strategies" to deal with the impacts of climate change and sea level rise in San Francisco Bay. BCDC was created in 1965 to stop the rampant filling of San Francisco Bay; so its laws and policies were not designed to address today's major challenges from global climate change and rising sea levels. However, under the McAteer-Petris Act, the Commission's authority in the Bay is an exercise of the ancient public trust doctrine, which establishes a "public easement" over lands underlying navigable waters that can be used to support Commission efforts to meet its new challenges.

This report examines the relationship between the takings clause of the United States Constitution, which prohibits the taking of private property for public purposes without just compensation, and the public trust doctrine. The public trust doctrine does not provide the Commission independent regulatory authority; but it does provide support for measures that the Commission may adopt under its existing laws and policies to address climate change and sea level rise. Moreover, because private uses are subordinate to the public trust easement, the

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<sup>1</sup> The author is grateful for the assistance of Ellen Sampson; Steven McAdam; Jonathan Smith; the Center for State and Local Government Law at Hastings College of Law; Darcy Vaughn, Hastings College of Law (09); Nicolas Dreher, Vermont Law School (09); Pamela Epstein, Golden Gate University School of Law; and Jasmine Keough, University of San Francisco School of Law (10).



public trust doctrine affords the Commission additional protection from taking claims when regulating projects proposed on lands subject to the public trust. Consequently, this report examines the use of the public trust doctrine to:

- Protect public access, minimize environmental effects, and prevent impacts from floods and storms in the Commission’s bay and certain waterway jurisdiction;
- Protect public accessways from projected sea level rise in the Commission’s shoreline band jurisdictions;
- Require fees to mitigate the impacts of climate change where onsite mitigation is infeasible;
- Address the impacts of coastal armoring;
- Utilize rolling easements and other legal mechanisms to preserve public access;
- Protect wetlands, marshes and salt ponds;
- Discourage development in hazardous areas through the federal Coastal Barrier Resources System and market-based mechanisms;
- Implement the California Environmental Quality Act and federal Coastal Zone Management Act; and
- Pursue common law remedies such as dedication, custom, prescription and nuisance to preserve open space and public access.

## Staff Report

**Introduction.** To develop and implement a regional proactive strategy for dealing with global climate change and sea level rise in San Francisco Bay, the 2008 Strategic Plan for the San Francisco Bay Conservation and Development Commission (“BCDC” or “the Commission”) calls for the preparation of “a legal analysis of property rights and ‘takings’ issues and the use of the public trust doctrine related to adaptive strategies.”

The California Legislature created BCDC in 1965 to stop the rampant filling of San Francisco Bay, which had been reduced in size by more than 30 percent.<sup>2</sup> Today the Bay faces a vastly different challenge from the potentially disastrous effect of rising sea levels and climate change. However, BCDC’s laws and regulations still chiefly focus on the threats posed by a shrinking, not an expanding Bay. Therefore, either BCDC’s laws need to be strengthened, or

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<sup>2</sup> Between 1850 and 1960 an average of four square miles of the Bay were filled each year. *History of the San Francisco Bay Conservation and Development Commission*, available at <http://www.bcdc.ca.gov/history.shtml>.

the Commission will need to use its existing authorities more effectively to address the new and impending threats to the Bay.

The public trust doctrine dates back to Roman times and the Code of Justinian, and was imported to America from English common law. When each state joined the Union, it acquired ownership of the lands underlying navigable waters within its borders, including tidelands (lands lying between the mean high tide and low tide line) and submerged lands (lands lying between the mean low tide line and the three-mile limit). These lands are owned by the state in trust for the benefit of the public. Although states have conveyed away some of their tidelands and submerged lands, the public trust doctrine continues to protect these lands for public use and enjoyment. As the California Supreme Court noted in 1971, the public trust easement retained by the state over privately held tidelands and submerged lands, “is a matter of great public importance, particularly in view of population pressures, demands for recreational property, and the increasing development of seashore and waterfront property.”<sup>3</sup> Today, it is of even greater importance because of growing threats to the Bay from climate change and sea level rise.

Governmental regulation of private property is constrained by, among other things, the “takings clause.” The Fifth Amendment of the U.S. Constitution, and Article I, Section 19 of the California Constitution, require just compensation when private property is taken for public purposes. The U. S. Supreme Court has extended the takings clause to environmental and other government regulations that go “too far,” but has struggled to fashion a clear judicial test to determine when regulations constitute a taking. This judicial uncertainty can inhibit government regulations that provide public access, protect natural resources, and implement measures to address the impacts of climate change and sea level rise.

This report examines how exercising the public easement provided under the public trust doctrine can avoid a taking, and support adaptive strategies to protect public access and the resources of San Francisco Bay from the impacts of climate change and sea level rise.

**Climate Change in the Bay.**<sup>4</sup> The impacts of climate change on San Francisco Bay over the next 100 years will dramatically change the Bay’s uses, boundaries, ecosystem, and infrastructure. The California Climate Change Center projects that by 2100, average temperatures in California could rise between three and 10.5 degrees Fahrenheit,<sup>5</sup> raising water levels in the Bay from five inches to nearly three feet (or one meter), and drastically changing the Bay’s shoreline landscape.<sup>6</sup> BCDC has shown how a one-meter rise in the level of the Bay will inundate 200 square miles of low-lying shoreline areas, including some of the region’s most valuable infrastructure and economic centers such as San Francisco and Oakland International Airports, portions of Silicon Valley, and much of the area between Richmond and

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<sup>3</sup> *Marks v. Whitney*, 6 Cal. 3d 251, 257 (1971).

<sup>4</sup> This discussion is based upon a paper prepared for BCDC by Darcy Vaughn, *The Vaughn Plan: Preparing for and Adapting to Sea-Level Rise in the San Francisco Bay Area*, Hastings College of Law (2008).

<sup>5</sup> California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature* at 23 (2006).

<sup>6</sup> San Francisco Bay Conservation and Development Commission, *A Sea Level Strategy for the San Francisco Bay Region* (2008) available at [http://www.bcdc.ca.gov/planning/climate\\_change/SLR\\_strategy.pdf](http://www.bcdc.ca.gov/planning/climate_change/SLR_strategy.pdf). More recent analyses indicate that sea levels may rise even higher to 1.5 meters (about 55 inches) or higher over the next 100 years, depending on the rate that glaciers and ice sheets melt. *Id.* at 2.

San Pablo. The far north and south ends of the Bay, the South Bay, San Pablo Bay, and the area surrounding the mouth of the Petaluma River are particularly vulnerable to flooding.

The combination of higher baseline mean sea level, changes in river flows, and weather effects may increase the frequency and duration of high sea level extremes. Extreme sea levels and storm surge will threaten existing flood control structures and prompt some property owners to construct larger and more structurally-sound levees and sea walls. In the past, maintaining and expanding the existing system of flood control structures has come at the expense of the Bay's shoreline ecosystems. BCDC analysis shows that much existing public access to and along the shoreline is likely to flood by the year 2050. The construction of seawalls and other erosion control devices to protect existing development and low-lying areas may further exacerbate impacts on public access and unprotected areas of the Bay. These kinds of threats to the Bay prompted the Commission to call for this review of the adequacy of existing legal mechanisms to address these new challenges.

**The Public Trust Doctrine.** The public trust doctrine dates back to Roman times and the Code of Justinian, which proclaimed that “the shores are not understood to be property of any man.”<sup>7</sup> The doctrine was imported to the American colonies from England, where navigable waters and underlying tidelands and submerged lands were owned by the Crown, but remained subject to public rights to use such lands and waters for fishing, navigation and commerce.<sup>8</sup>

The doctrine remained imbedded in American common law when the colonies declared their independence. Each state acquired ownership of the lands underlying navigable waters, including the tidelands and submerged lands within its jurisdiction, when it joined the Union.<sup>9</sup> States own these lands in trust for the benefit of the public and have developed their own public trust doctrines and public trust uses.<sup>10</sup> Today the public trust doctrine creates a duty for states to protect the common heritage of their coastal lands and waters for preservation and public use.<sup>11</sup>

In addition to its ownership interest, the State of California also holds a “public easement” over tidelands and submerged lands that have been transferred to private ownership (except where the Legislature specifically has terminated the trust). Accordingly, even where it no longer owns tidelands and submerged lands, the state's retained public trust easement allows it to protect public trust uses.<sup>12</sup>

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<sup>7</sup> *Institutes of Justinian* 2.1.5 (AD 533), as translated in T. Sandars, *The Institutes of Justinian*, 4<sup>th</sup> Ed. 1867. Section 2.1.1 of the code also states that, “By the law of nature these things are common to all mankind – the air, running water, the sea and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects habitations, monuments and the buildings, which are not, like the sea, subject only to the law of nations.” *Institutes of Justinian* 2.1.1.

<sup>8</sup> In the U.S., the state holds title as trustee of the public trust in place of the Crown. *New York v. New York & Staten Island Ferry Co.*, 68 N.Y. 71 (1877) cited in Jack Archer, *The Interaction of the Public Trust and the “Takings” Doctrines: Protecting Wetlands and Critical Coastal Areas*, 20 Vt. L. Rev. 81, 83-84 (1995) (hereinafter “Archer”).

<sup>9</sup> *Borax, Ltd. v. Los Angeles*, 296 U.S. 10, 15-16 (1935).

<sup>10</sup> *Martin v. Waddell's Lessee*, 41 U.S. (3 How.) 212, 228-30 (1845) cited in Stephen E. Roady, *The Public Trust Doctrine*, at 41, *Ocean and Coastal Law*, Baur, Eichenberg and Sutton, eds, American Bar Association (2008).

<sup>11</sup> *National Audubon Society v. Superior Court of Alpine County*, 658 P.2d 709, 724 (Cal. 1983) (hereinafter *Mono Lake*), *Marks v. Whitney*, 6 Cal. 3d at 257, and *State of California v. Superior Ct. (Lyon)*, 29 Cal. 3d 210, 231 (1981).

<sup>12</sup> *San Francisco Bay Plan*, San Francisco Bay Conservation and Development Commission (2008) at 79 (hereinafter *Bay Plan*).

1. **Geographic Scope.** The geographic scope of the public trust doctrine traditionally extends to lands under “navigable waters,” including rivers, streams, and lakes, as well as submerged lands and tidelands.<sup>13</sup> Submerged lands include all navigable riverbeds and lakebeds up to the ordinary low water mark, and lands underlying state ocean and estuarine waters. Tidelands include all areas subject to tidal influence up to the ordinary high water mark, as measured by the mean high tide line.<sup>14</sup>
2. **Public Trust Uses.** The public trust doctrine protects fishing, navigation and commerce, as well as recreation, preservation of open space and protection of the environment.<sup>15</sup> California courts also have long recognized that trust uses on tidelands are sufficiently flexible to evolve over time based upon “changing public needs,” and that “in administering the trust the state is not burdened with an outmoded classification favoring one mode of utilization over another.”<sup>16</sup> Moreover, the courts have defined the public trust doctrine to include “the preservation of those lands *in their natural state*, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and *climate* of the area (emphasis added).”<sup>17</sup> Therefore, in California the public trust doctrine protects many of the same values promoted by the McAtter-Petris Act.
3. **Conveying Public Trust Lands.** The U.S. Supreme Court has long recognized that states own tidelands and submerged lands in trust for public benefit, and may convey portions of these lands for trust purposes such as improving waterways by constructing ports, docks and wharves.<sup>18</sup> However, the conveyance of public trust lands to public or

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<sup>13</sup> All tidelands subject to the ebb and flow of the tide are subject to the public trust doctrine regardless of whether the waters are navigable-in-fact. *Phillips Petroleum v. Mississippi*, 484 U.S. 469, 481 (1988)

<sup>14</sup> The mean high tide line is determined by averaging the height of the all high tides over an 18.6-year period reflecting the time it takes for the moon to complete a cycle during which its distance for the earth and sun varies. *Borax Consolidated, Ltd. v. City of Los Angeles*, 296 U.S. 10 (1935); *People v. William Kent Estate Co.*, 51 Cal. Rptr. 214 (Cal. App. 1906). Unlike California, five states allow private ownership to the mean low water mark: Maine, Massachusetts, Pennsylvania, Delaware and Virginia. *Putting the Public Trust to Work: The Application of the Public Trust Doctrine to the Management of Lands, Waters and Living Resources of the Coastal States*, David C. Slade et al. (1990) at 60.

<sup>15</sup> *Marks v. Whitney*, 6 Cal. 3d at 257. Some trust uses in the Bay are maritime-related such as marinas, and maritime industrial. The Commission has also included visitor-serving retail uses such as restaurants, but not residential and commercial office space uses unless incidental to trust purposes. Public trust values also have been incorporated into the California Constitution, Art. X, Sec. 4, which provides that, “No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision, so that access to the navigable waters of this State shall be always attainable for the people thereof.”

<sup>16</sup> *Marks v. Whitney*, 6 Cal. 3d at 259.

<sup>17</sup> *Id.* at 259-260.

<sup>18</sup> “The state holds title to soils under tidewater, by the common law ... and that title necessarily carries with it control over the waters above them whenever the lands are subjected to use....” *Illinois Central v. Illinois*, 146 U.S. 387, 452 (1892).

private entities may not substantially impair public trust rights and generally remain subject to a public trust easement.<sup>19</sup>

Conveyances that pass title to trust property do not extinguish trust rights or the public easement unless the trustee determines that the lands are no longer suitable for trust purposes. When private owners receive title to trust lands, they do so subject to the paramount power of the state to exercise the public trust.<sup>20</sup> Therefore, public trust rights persist on privately-owned trust lands, and may be asserted by the state or its delegated trustee.<sup>21</sup>

When California became a state in 1850, it assumed responsibility over nearly four million acres of public trust lands and waters, including San Francisco Bay.<sup>22</sup> Shortly after statehood, the California Legislature conveyed nearly half of the Bay and San Francisco waterfront to local governments and private parties.<sup>23</sup> Some of these submerged lands were filled and improved, such as the financial district of San Francisco, and have been declared free of the public trust.<sup>24</sup> However, virtually all

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<sup>19</sup> “The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them ... that it can abdicate its police powers.” *Id.* at 453-54.

<sup>20</sup> “The grantee of trust lands does not obtain absolute ownership but takes title to the soil...subject to the public right of navigation....” *California Fish*, 166 Cal. at 584.

<sup>21</sup> *City of Berkeley v. Superior Court*, 26 Cal. 3d 515, 521 (Cal. 1980).

<sup>22</sup> California assumed ownership of its tidelands and submerged lands on equal footing with other states. The Equal Footing Doctrine provides that that whenever a state enters the Union, “such state shall be admitted ... on an equal footing with the original states in all respects whatever.” *Pollard’s Lessee v. Hagan*, 44 U.S. 212, 230 (1845).

<sup>23</sup> “Not only has much of the Bay – perhaps as much as 22% -- been sold to private buyers, but the remainder of the Bay is also divided in ownership. The State in the past has granted about 23 % of the Bay to cities and counties, and now owns outright only about 50%. The remaining 5% is owned by the federal government.” San Francisco Bay Conservation and Development Comm., *San Francisco Bay Plan Supplement* 413-414 (January 1969). The McAteer-Petris Act amended the terms of all existing legislative trust grants that conveyed tidelands and submerged lands to the following local governments: Alameda, Albany, City and County of San Francisco, Benicia, Oakland, City of San Mateo, County of San Mateo, Vallejo, Richmond, South San Francisco, Berkeley, Burlingame, Emeryville, Pittsburg, Redwood City, Sausalito, Antioch, Mill Valley, County of Marin, County of Sonoma, San Leandro, Peralta Junior College District, San Rafael, San Francisco Port District and East Bay Regional Park District. *People ex rel. San Francisco Bay Conservation and Development Commission v. Town of Emeryville*, 69 Cal. 2d 533, 559 (1968) (hereinafter *BCDC v. Emeryville*). Many of these grants specifically enumerate the types of uses that may be made of the granted lands by the grantee, but all are also subject to BCDC jurisdiction under the McAteer-Petris Act.

<sup>24</sup> These areas generally are filled former tidelands that were declared to be no longer useful for trust purposes. However, the filling of trust lands in and of itself does not terminate the public trust. The Legislature must specifically terminate the trust. *City of Long Beach v. Mansell*, 3 Cal.3d at 479; *Marks v. Whitney*, 6 Cal.3d at 261, and *Atwood v. Hamond*, 4 Cal.2d at 40. To prevent abuses from the indiscriminate conveyance of tidelands shortly after statehood, Article XV, Section 3 (now Article X, Section 3) of the California Constitution prohibited the sale of all tidelands within two miles of any incorporated city or city and county. In 1909, the Legislature prohibited all tideland sales to private parties. Pub. Res. Code §7991.

unfilled tidelands and submerged lands, and even some filled tidelands, remain subject to the public trust.<sup>25</sup>

4. **Stewardship of the Public Trust.** The California State Lands Commission has been granted stewardship of California's public trust lands by the State Legislature.<sup>26</sup> In this role, the State Lands Commission may lease and convey trust lands, but only for trust purposes. Uses inconsistent with the public trust (i.e., non trust-related uses) are generally those that do not require waterfront locations like residential and non water-related commercial office uses.<sup>27</sup>

The State Lands Commission monitors the activities of grantees of tidelands and submerged lands to ensure compliance with the terms of the statutory grants under the public trust doctrine.<sup>28</sup> It also is authorized to acquire or condemn lands needed for access to navigable waters,<sup>29</sup> to exchange trust lands no longer useful for trust purposes,<sup>30</sup> and purchase lands usable for trust purposes.<sup>31</sup> The State Lands Commission may prevent activities on trust lands inconsistent with trust needs by suing for ejectment, trespass, and damages,<sup>32</sup> without compensating private property owners.<sup>33</sup>

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<sup>25</sup> *Bay Plan* at 79. The McAteer-Petris Act makes the legislative grants in the Bay subject to BCDC jurisdiction. *BCDC v. Emeryville*, 69 Cal.2d at 549. Courts have held that legislatively granted tidelands must be used for statewide public purposes. *Mallon v. City of Long Beach*, 44 Cal.2d 199, 211 (1955); *People v. City of Long Beach*, 51 Cal.2d at 878; *Haggerty v. City of Oakland*, 161 Cal App. 2d 407, 415 (1958).

<sup>26</sup> Pub. Res. Code §§6216 and 6301. The State Lands Commission is not the only state designated trustee agency. In addition to BCDC, the State Water Board has trustee authority over the state's fresh water resources under Water Code §1225, and the Department of Fish and Game has trustee authority over the State's fish and wildlife resources under Fish & Game Code §§711.7, 1801, 1802. Other state agencies, such as the California Coastal Commission, Department of Forestry and Regional Water Quality Control Boards, while not designated state trustee agencies, exercise legislative common law trust principles. More-over, all other state agencies have the duty to consider and protect public trust resources in the administration of their statutory mandate.

<sup>27</sup> State Lands Commission policy provides that: "Uses that are generally not permitted on public trust lands are those that are not trust use related, do not serve a public purpose, and can be located on non-waterfront property, such as residential and non-maritime related commercial and office uses. While trust lands cannot generally be alienated from public ownership, uses of trust lands can be carried out by public or private entities by lease from this Commission or a local agency grantee. In some cases, such as some industrial leases, the public may be excluded from public trust lands in order to accomplish a proper trust use." California State Lands Commission, *Public Trust policy for the California State Lands Commission*, at 2, cited in Jonathan Gurish, *Overview of California Ocean and Coastal laws with Reference to the Marine Environment*, Prepared for the California Ocean Protection Council (2008) at 23. [http://resources.ca.gov/copc/docs/Overview\\_Ocean\\_Coastal\\_Laws.pdf](http://resources.ca.gov/copc/docs/Overview_Ocean_Coastal_Laws.pdf).

<sup>28</sup> Pub. Res. Code at §6306.

<sup>29</sup> *Id.* at §6210.9.

<sup>30</sup> *Id.* at §6307.

<sup>31</sup> *Id.* at §§8610-8633.

<sup>32</sup> Pub. Res. Code §§6302, 6224.1, 6216.1.

<sup>33</sup> *California Fish*, 166 Cal. at 584; *Newcomb v. City of Newport Beach*, 7 Cal. 2d 393, 400-402 (1936). However, the state must pay for the use or removal of lawful improvements on trust lands made in good faith. *Oakland v. Oakland Water Front Co.*, 118 Cal. 160, 163 (1897); Pub. Res. Code § 6312.

5. **BCDC and the Public Trust.** While the State Lands Commission has the general authority to manage California’s tidal and submerged trust lands, the 1965 McAteer-Petris Act authorizes BCDC to coordinate and implement trust uses in the Bay “in the state’s capacity as trustee of the tidelands.”<sup>34</sup> The Act does not grant to BCDC the right to convey or lease trust lands; that authority remains with the State Lands Commission. But the Act authorizes BCDC to regulate public and private uses of trust lands in the Bay by requiring projects provide “maximum feasible public access,”<sup>35</sup> ensure that the public benefits of fill in the Bay clearly exceed public detriments,<sup>36</sup> and preserve water-oriented uses.<sup>37</sup> The Suisun Marsh Preservation Act provides similar trust authority to BCDC.<sup>38</sup> These laws are direct legislative expressions of the common law public trust doctrine, and BCDC exercises its trust responsibilities whenever it acts on a permit, adopts a Bay Plan or Marsh Plan amendment, adopts a Special Area Plan, or changes a regulation.<sup>39</sup>

BCDC has developed Bay Plan policies to implement its statutory authority under the McAteer-Petris Act, and may amend portions of the Bay Plan as conditions warrant so long as the changes are consistent with the Act.<sup>40</sup> In exercising its authority under the Act and the Bay Plan, courts have held that BCDC must err on the side of the public trust principles and ecological quality.<sup>41</sup>

BCDC exercises its public trust responsibilities through its statutory authority “to issue or deny permits for any proposed project that involves placing fill, extracting materials or making any substantial change in use of water, land or structure within the area of the commission’s jurisdiction.”<sup>42</sup> Although the McAteer-Petris Act does not specifically mention the public trust doctrine, the Commission’s duties under the doctrine are set forth in the findings and policies of the Bay Plan.

When regulating trust lands, the Bay Plan calls upon the Commission to ensure that Bay fill is consistent with public trust uses,<sup>43</sup> and that its actions are “consistent with the public trust needs for the area.”<sup>44</sup> Therefore, although the public trust doctrine does not provide independent regulatory authority, it guides and supports the implementation of the Commission’s existing (and future) laws and policies.

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<sup>34</sup> *City of Berkeley v. Superior Court*, 26 Cal. 3d at 531-532.

<sup>35</sup> Govt. Code §§ 66602, and 66632.4.

<sup>36</sup> *Id.* at § 66605(a).

<sup>37</sup> *Id.* at §§ 66602, 66605, 66611.

<sup>38</sup> Pub. Res. Code §29002 (Marsh preservation); §29009 (public use); §29011 (public access); §29113 and §29202 (Suisun Marsh Protection Plan); §29506 (permit authority).

<sup>39</sup> *Bay Plan* at 79.

<sup>40</sup> Gov’t Code §§ 66651 and 66652. BCDC also has developed policies in the Suisun Marsh Protection Plan to implement the Suisun Marsh Preservation Act. Pub. Res. Code §29008

<sup>41</sup> *See BCDC v. Emeryville*, 69 Cal. 2d at 533. *Candlestick Properties, Inc. v. San Francisco Bay Conservation and Development Com.*, 11 Cal App.3d 557 (1970) (hereinafter *Candlestick Properties*).

<sup>42</sup> Gov’t Code §66604.

<sup>43</sup> *Bay Plan* at 75.

<sup>44</sup> *Id.* at 79.

**The Fifth Amendment “Takings” Clause.** Government agencies like BCDC may confront constitutional limitations on the “taking” of private property when they regulate the use of private property to address the impacts of climate change and rising sea levels, restrict development in hazardous areas, or limit certain uses in and along the Bay. However, actions that regulate property subject to the public trust doctrine do not result in a taking because private property interests are subordinate to the public trust easement.

The Fifth Amendment “takings clause” provides that private property may not be taken for public use without just compensation.<sup>45</sup> The takings clause does not prohibit government from taking private property; it requires that property owners be compensated for the value of the property taken. According to the U. S. Supreme Court, the takings clause “was designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.”<sup>46</sup>

Government can take private property in a number of ways: by direct appropriation, by physical occupation or invasion, or by regulation. A taking by direct appropriation occurs when government condemns property by eminent domain for a highway, public works project, or other public purpose.<sup>47</sup> However, the Commission does not have condemnation authority and therefore is unlikely to directly appropriate private property.

Government may also require or authorize property to be physically occupied or invaded for a public purpose, such as causing property to be flooded or allowing the installation of cable TV equipment.<sup>48</sup> Taking property by permanent physical occupation or invasion is considered a *per se* or categorical taking,<sup>49</sup> regardless of the economic impact or the amount of property taken.<sup>50</sup>

1. **Regulatory Taking.** What is less clear, and more applicable to BCDC’s regulatory authority, is when a permit or regulation is challenged as a “regulatory taking” or “inverse condemnation” on the grounds that it reduces allowable uses, diminishes private property values, or requires the owner to provide a public benefit such as public access. Both the McAteer-Petris Act and the Suisun Marsh Preservation Act specifically state that the Commission is not authorized to issue or deny a permit in a manner that takes private property without the payment of just compensation,<sup>51</sup> and no Commission

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<sup>45</sup> The Fifth Amendment provides that “No person shall be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.” (emphasis added) U.S. Const. Amendment V. This provision is made applicable to the states through the Fourteenth Amendment. California has a similar provision in its State Constitution, Article I, §19.

<sup>46</sup> *Armstrong v. United States*, 364 U.S. 40, 49 (1960).

<sup>47</sup> In *Kelo v. New London Dev. Corp.*, the Supreme Court upheld the use of eminent domain to take private property for economic redevelopment. The Court held that “without exception, our cases have defined [public use] broadly, reflecting our longstanding policy of deference to legislative judgments in this field.” 125 S. Ct. 2655, 2663 (2005).

<sup>48</sup> *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U. S. 419, 426 (1982).

<sup>49</sup> A physical occupation is “a permanent and exclusive occupation by the government that destroys the owner’s right to possession, use and disposal of ... property.” *Boise Cascade Corp. v. U.S.*, 296 F. 3d 1339, 1353 (Fed. Cir. 2002), *cert. denied*, 538 U.S. 906 (2003).

<sup>50</sup> A permanent physical occupation occurs “when the government appropriates part of a rooftop in order to provide cable TV access for apartment tenants [and] it is required to pay for that share no matter how small.” *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 535 U.S. 302, 323 (2002).

<sup>51</sup> The McAteer-Petris Act states that, “The Legislature hereby finds and declares that his title is not intended, and shall not be construed, as authorizing the commission to exercise its power to grant or deny a permit in a

decision has ever been held to constitute a taking.<sup>52</sup> Nevertheless, takings issues may arise whenever BCDC denies a permit, imposes a permit condition, or otherwise restricts the use of private property.

Permits or regulations that merely diminish property values are a regulatory taking. The U.S. Supreme Court recognized early on that “government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law....”<sup>53</sup> Even government regulations that require the physical invasion or occupation of private property are not a taking where necessary to abate a threat to public health and safety, because no one “has a right to use property so as to create a nuisance or otherwise harm others.”<sup>54</sup> However, the Court has stated that “while property may be regulated to a certain extent, if regulation goes *too far* it will be recognized as a taking (emphasis added).”<sup>55</sup>

The Court has struggled to establish a bright-line to determine when a regulation goes too far, and has developed a variety of tests to determine when a regulatory taking occurs.<sup>56</sup> Much has been written on the efficacy of these tests, but for the purposes of this analysis it is sufficient to examine four: the “total loss of all beneficial use” test in the *Lucas* case; the three-factor test in the *Penn Central* case; the “essential nexus” test in the *Nollan* case; and the “rough proportionality” test in the *Dolan* case.

2. **Total Taking.** The Court has established a clear *per se* or categorical taking rule where government regulation renders property essentially valueless. In *Lucas v. South Carolina Coastal Council*,<sup>57</sup> South Carolina denied a permit to build a residence seaward of a setback line on an eroding beach. The Court found that an action that denied “all economically beneficial or productive use of the land” was a *per se* or categorical taking that requires compensation to the landowner, unless the restrictions “inhere in the title itself” and in background principles of property law and nuisance (this important

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manner which will take or damage private property for public use, without payment of just compensation.” Gov’t. Code §66606. A similar provision is contained in Suisun Marsh Preservation Act. Pub. Res. Code §29013.

<sup>52</sup> See *Candlestick Properties*, 11 Cal App.3d at 557, and *Navajo Terminals, Inc. v. San Francisco Bay Conservation and Development Com.*, 46 Cal. App.3d 1 (1975).

<sup>53</sup> *Pennsylvania Coal Co., v. Mahon*, 260 U.S. 393, 413 (1922).

<sup>54</sup> *Keystone Bituminous Coal Ass’n v. DeBenedictis*, 480 U.S. 470, 488 (1987).

<sup>55</sup> *Id.* at 415.

<sup>56</sup> The Court’s recent ruling in *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528 (2005) provides some much-needed clarity to takings jurisprudence. In finding that a Hawaii statute limiting the rent that oil companies charge dealers who lease company-owned service stations was not a taking, the Court noted that regulatory takings apply where government requires an owner to suffer a permanent physical invasion of property – however minor, and where regulations completely deprive an owner of all economically beneficial use. *Id.* at 538. It then clarifies that, “[o]utside these two relatively narrow categories (and the special context of land-use exactions discussed below [i.e. in *Nollan* and *Dolan*], regulatory takings challenges are governed by the standards set forth in *Penn Central* ... ‘the economic impact of the regulation ..., the extent to which the regulation has interfered with distinct investment-backed expectations...[and]...the character of the governmental action....’” *Id.* at 539.

<sup>57</sup> 505 U.S. 1003 (1992).

exception is discussed further below).<sup>58</sup> Subsequent Court decisions have clarified that the availability of other beneficial uses on the property, such as development on an upland portion of coastal wetlands, also would preclude a total taking.<sup>59</sup> Because regulatory decisions rarely leave property completely valueless, few regulatory decisions violate the *Lucas* takings test.<sup>60</sup>

3. ***Penn Central* Factors.** In *Penn Central Transportation Co. v. New York City*,<sup>61</sup> the Court established “the principal guidelines for resolving regulatory takings claims that do not fall within the physical takings or *Lucas* rules.”<sup>62</sup> Although it did not establish a “set formula” for evaluating takings claims,<sup>63</sup> the Court set forth three factors to determine whether a taking occurs: the economic impact of the regulation, the character of the government action, and the degree of interference with the owner’s “reasonable investment-backed expectations.”<sup>64</sup> The economic impact of the regulation generally relates to the *Lucas* ruling, and requires the regulation to have a severe economic impact to establish a takings claim.<sup>65</sup> The character of the government regulation generally relates to whether the regulation is more akin to a physical invasion or is a mere restriction on use.<sup>66</sup> Reasonable investment-backed expectations generally relates to whether an owner knew or should have known that laws or regulations would affect the property’s value when the owner acquired the property.<sup>67</sup> For example, an owner of tidelands would normally not have a reasonable investment-back expectation of filling such lands for non-trust residential or agricultural purposes under the public trust doctrine,<sup>68</sup> and therefore prohibiting those uses generally would not constitute a taking.<sup>69</sup>

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<sup>58</sup> The ruling is narrow and applies only “in the extraordinary circumstance when *no* productive or economically beneficial use of land is permitted” or the property is rendered “valueless.” *Id.* at 1016-1017 (emphasis added).

<sup>59</sup> *Palazzolo v. Rhode Island*, 533 U.S. 606 (2001).

<sup>60</sup> *Tahoe-Sierra Preservation Council v. Tahoe Regional Planning Agency*, 535 U.S. at 332.

<sup>61</sup> 438 U. S. 104 (1978).

<sup>62</sup> *Lingle*, 544 U.S. at 539.

<sup>63</sup> *Penn Central Transp. Co. v. New York City*, 438 U.S. 124 (1978).

<sup>64</sup> *Id.* at 124.

<sup>65</sup> The mere diminution in the value of property alone, or the denial of the highest and best use or most profitable use of property, does not constitute a taking. *See Concrete Pipe & Products, Inc. v. Construction Laborers Pension Trust*, 508 U.S. 602, 645 (1993); *Florida Rock Industries v. U.S.*, 791 F. 2d 893, 901 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1053 (1987); *Hadacheck v. Sebastian*, 239 U.S. 394, 405 (1915) (where a reduction in value from \$800,000 to \$60,000 was held not a taking).

<sup>66</sup> In *Lingle*, the Court concludes that the “character of the government regulation” factor in *Penn Central* examines whether a regulation “amounts to a physical invasion or instead merely affects property interests through some public program adjusting the benefits and burdens of economic life to promote the common good...” *Lingle*, 544 U.S. at 539. The Court in *Lingle* also eliminated consideration of whether a regulation “substantially advances a legitimate state interest” under the takings clause. It concluded that this test “prescribes an inquiry in the nature of a due process, not a takings test, and that it has no proper place in our takings jurisprudence.” *Id.* at 540.

<sup>67</sup> “One who buys with knowledge of a restraint assumes the risk of economic loss. In such a case, the owner presumably paid a discounted price for the property. Compensating him for a taking would confer a windfall.” *Creppel v. U.S.*, 41 F. 3d 627, 632 (Fed. Cir. 1994).

<sup>68</sup> *Orion Corp. v. Washington*, 747 P.2d 1062, 1083-1084 (Wash. 1987). Since tidelands are also subject to the public trust doctrine, the owner would also lack sufficient property interest to claim a taking.

The Court also fashioned two additional takings tests where development exactions or conditions require the dedication of land for public uses: the “essential nexus” test, and the “rough proportionality” test.

4. **Essential Nexus.** In *Nollan v. California Coastal Commission*,<sup>70</sup> the Court ruled that a taking occurred when the Coastal Commission required a property owner to dedicate a public access easement along a private portion of the beach behind his house as a permit condition for enlarging his home. Although providing and protecting public access was a legitimate state interest, the Court found that the exaction of a public access easement lacked an “essential nexus” to the project’s stated impacts – blocking ocean views.<sup>71</sup> Under *Nollan*, public access to or along the Bay may be required as a permit condition to develop private property so long as it addresses the adverse effects caused by the project on public access; but without a “nexus,” the exaction is a taking.
5. **Rough Proportionality.** In *Dolan v. City of Tigard*,<sup>72</sup> the Court added to the *Nollan* “essential nexus” test, the requirement that an exaction must also be “roughly proportional ... both in nature and extent to the impact of the proposed development.”<sup>73</sup> In *Dolan*, the Court struck down the dedication of a bike path as a permit condition to authorize the construction of a hardware store. The Court found that although there was a nexus between the increased traffic caused by the store and the requirement for a bike path, the City did not establish the extent to which the bike path would mitigate the increased traffic nor show “some sort of individualized determination” that it was roughly proportional to the traffic impacts.<sup>74</sup>

**“Takings” and the Public Trust Doctrine.** As explained above, the takings clause constrains the kind of permit actions and regulations that the Commission may undertake on private property. However, takings claims are difficult to establish, and no Commission decision has ever been held to constitute a taking.<sup>75</sup> Moreover, Commission actions involving public trust lands have additional protection from takings claims.

The state’s public trust interest is the dominant property interest whether the state owns tidelands and submerged lands in fee, or has conveyed those lands to private parties and retains a public trust easement.<sup>76</sup> The retained public trust easement protects government action from takings claims because the state owns an easement that establishes allowable uses on trust property and therefore cannot take something it already owns. For example, the State of Washington’s denial of a permit to build homes on platforms and pilings in tidal waters was

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<sup>69</sup> Archer, *supra* note 8 at 111.

<sup>70</sup> 483 U.S. 825 (1992).

<sup>71</sup> *Id.* at 837-839.

<sup>72</sup> 512 U. S. 374 (1994).

<sup>73</sup> *Id.* at 391.

<sup>74</sup> The Court held that “no precise mathematical calculation is required, but the city must make some effort to quantify its findings in support of the dedication for the pedestrian/ bicycle pathway beyond the conclusory statement that it could offset some of the traffic demand generated.” *Id.* at 396.

<sup>75</sup> See *Candlestick Properties*, 11 Cal App.3d at 557, and *Navajo Terminals, Inc. v. San Francisco Bay Conservation and Development Com.*, 46 Cal. App.3d 1 (1975).

<sup>76</sup> See *California Fish*, 166 Cal. at 593 and 596-599; *Oakland v. Oakland Water Front Co.*, 118 Cal. 160, 183 (1897); *Newcomb v. City of Newport Beach*, 7 Cal.2d at 393; *Western Oil & Gas Assn. v. State Lands Com.*, 105 Cal.App.3d 554, 566 (1980).

held not a taking because the public trust doctrine precluded shoreline residential development.<sup>77</sup> The denial of a fill permit was upheld in South Carolina because public trust tidelands “effected a restriction on [the owner’s] property rights inherent in the ownership of property bordering tidal waters...[and]...ownership rights do not include the right to backfill or place bulkheads on public trust land and the State need not compensate him for the denial of permits to do what he cannot otherwise do.”<sup>78</sup> In California, dredging privately-owned tidelands to improve navigation was not held a taking because the city, as the state’s trustee, retained a public trust easement over patented tidelands which enabled it “to make improvements and changes in the administration of this easement without the exercise of eminent domain.”<sup>79</sup>

Moreover, under the *Lucas* case, there is no taking where “background principles of nuisance and property law” – such as the public trust doctrine – prohibit the uses that the state regulates. In such cases, no taking occurs even if the regulation leaves a property with no value because the regulation or restriction “inheres in the title itself, [and] in the restrictions that background principles of the State’s law of property and nuisance already place upon land ownership.”<sup>80</sup>

These and other cases demonstrate that state ownership rights, the public trust doctrine and “background principles” of property law under *Lucas*, protect state regulations or permit actions on trust lands against a takings claim.<sup>81</sup>

**Commission Jurisdiction, Sea Level Rise, and the Public Trust Doctrine.** Sea level rise will increase state ownership rights to the new mean high tide line because state ownership rights are based upon the intersection of the shoreline and the mean high tide line.<sup>82</sup> Moreover, any changes in ownership rights caused by sea level rise does not alter the fact that under the McAteer-Petris Act, lands below mean high tide are subject to BCDC jurisdiction and the public trust doctrine.

The Commission’s jurisdiction under the McAteer-Petris Act generally is defined by the mean high tide line unlike its sister agency, the California Coastal Commission, whose

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<sup>77</sup> *Esplanade Props., LLC v. City of Seattle*, 307 F. 3d 978, 985 (9<sup>th</sup> Cir. 2002), *cert denied* 539 U.S. 926 (2003).

<sup>78</sup> *McQueen v. South Carolina Coastal Council*, 580 S.E. 2d 116, 199-120 (S.C. 2003), *cert. denied*, 540 U.S. 982 (2003).

<sup>79</sup> *Newcomb v. City of Newport Beach*, 7 Cal.2d at 403.

<sup>80</sup> *Lucas*, 505 U.S. at 1029.

<sup>81</sup> California law also provides that “nothing in this section shall be construed to require compensation for any change in the use of tidelands or submerged lands as a result of governmental regulation that prohibits, restricts, delays, or otherwise affects the construction of any planned or contemplated improvement.” Pub. Res. Code §6312.

<sup>82</sup> State ownership of tidelands and submerged lands is consistent with common law principles that, “[t]he state owns all tidelands below the ordinary high water mark and holds such lands in trust for the public ... [and] as the land along a body of water gradually builds up or erodes, the ordinary high water mark necessarily moves and thus the mark or line of mean high tide, i.e., the legal boundary, also moves.” *Lechuza*, 70 Cal. Rptr. 2d 399, 410 and 418 (1997). There is one exception to this rule in California, where the upland private property owner does not gain from gradual artificial accretion. *State of Cal. ex rel. State Lands Commission v. Superior Court*, 11 Cal. 4<sup>th</sup> 50, 71-72 (1995); *California ex rel. State Lands Commission v. U.S.*, 457 U.S. 273, 277 (1982).

jurisdiction is fixed geographically.<sup>83</sup> The McAteer-Petris Act confers to BCDC – without qualification – jurisdiction over “all areas that are subject to tidal action” to mean high tide,<sup>84</sup> and areas within the “shoreline band” (100 feet landward of the mean high tide line).<sup>85</sup> Therefore, BCDC jurisdiction will extend landward as sea level rises.

BCDC jurisdiction was recognized as ambulatory by California courts in 1994, which have held that, “if the sea level does rise [due to global warming], so will the level of mean high tide. BCDC’s jurisdictional limit might in the future move marginally landward.”<sup>86</sup> Therefore, Commission jurisdiction advances with mean high tide concurrently with state ownership interests.

Under California law, both the mean high tide line and the public trust doctrine are ambulatory.<sup>87</sup> Therefore, rising sea levels advance not only the Commission’s jurisdiction, but also public trust rights over newly inundated lands below mean high tide.<sup>88</sup> This increase of land subject to the public trust supports the Commission’s ability to preserve and protect public trust rights on newly submerged lands, including the protection of the environment, natural resources and open space.

As noted above, public trust uses recognized in California now include the protection of recreation, wildlife, open space and the environment, in addition to fishing, navigation and commerce. Therefore, under the Commission’s existing authority, new actions and strategies supported by the public trust doctrine could be considered to address the impacts of climate change and sea level rise. Other strategies may require new legislation, regulations, or Bay Plan amendments, or implementation in partnership with other State agencies such as the State Lands Commission, the Coastal Conservancy or the Attorney General’s Office. These strategies are examined below.

**Using the Public Trust to Address Climate Change and Sea Level Rise.** There are several ways the Commission may consider using the public trust to address climate change and sea level rise.

1. **Actions in the Bay and Certain Waterways.** BCDC’s permit and planning authority are direct expressions of its public trust responsibilities.<sup>89</sup> The Act provides considerable

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<sup>83</sup> The California Coastal Act, Pub. Res. Code §30103.

<sup>84</sup> *Littoral Development Co. v. San Francisco Bay Conservation and Development Commission*, 24 Cal. App. 4<sup>th</sup> 1050, note 5 (1994) (hereinafter *Littoral Development*).

<sup>85</sup> Gov’t Code §66610(a) and (b). BCDC also has jurisdiction over certain specified waterways and marshlands lying up to five feet above mean sea level.

<sup>86</sup> *Littoral Development*, 24 Cal. App. 4<sup>th</sup> at 1050, note 5. The court held that BCDC’s Bay jurisdiction extends to the mean high tide line, but not to the line of highest tidal action.

<sup>87</sup> *Lechuza*, 70 Cal. Rptr. 2d at 411-417.

<sup>88</sup> “As shorelines erode, the public trust doctrine follows the eroding shoreline.” James G. Titus, *Rising Seas, Coastal Erosion and the Takings Clause: How to Save Wetlands and Beaches Without Hurting Property Owners*, 57 Maryland Law Rev. 1279, 1368 (hereinafter “Titus”).

<sup>89</sup> *Bay Plan* at 79. To issue a permit the Commission must find that it is either consistent with the provisions of the McAteer-Petris Act and the Bay Plan, or that it is necessary to the health, safety or welfare of the public in the bay area. Gov’t Code §66632(f). Permits in the Suisun Marsh must conform to the Suisun Marsh Preservation Act and Protection Plan. Pub. Res. Code §§29000-29612. Bay Plan

discretion and authority to address the impacts of climate change and sea level rise within the Commission's Bay (i.e., on tidelands or submerged lands below mean high tide) and certain waterway jurisdictions.<sup>90</sup> Within the Bay and certain waterways, all fill, extraction of materials, or changes in use must be for water-oriented uses,<sup>91</sup> must provide maximum public access,<sup>92</sup> and must:

- demonstrate that “public benefits ... clearly exceed public detriments;”
- ensure that no alternative upland location is available;
- be the “minimum necessary;”
- “minimize” harmful effects on water quality and circulation, the fertility of marshes, fish or wildlife resources, and “other conditions impacting the environment;” and
- use “sound safety standards that afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters.”<sup>93</sup>

These provisions confer upon the Commission discretion to consider a wide array of impacts within the Bay and certain waterways, including impacts on and from climate change and sea level rise. For example, under these provisions the Commission could require projects to be designed to ensure that public accessways and structures on fill be protected from rising sea levels; that dredging or construction in the Bay minimizes impacts on climate change and sea level rise; and that water-oriented uses are designed to protect persons and property from flooding.

Moreover, the public trust doctrine provides additional support for Commission actions to protect recreation, navigation, commerce, open space, or the environment from the impacts of climate change and sea level rise within the Bay.

2. **Actions in the Shoreline Band.** The Commission's authority within its shoreline band jurisdiction is far more limited than within its Bay and certain waterway jurisdiction. The McAteer-Petris Act allows BCDC to deny a permit in the 100-foot shoreline band *only* if it “fails to provide maximum feasible public access, consistent with the proposed project, to the bay and its shoreline.”<sup>94</sup> The limitation on the Commission's authority

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amendments must be consistent with the findings and declarations of the McAteer-Petris Act. Gov't Code. §66652.

<sup>90</sup> Certain waterways include areas subject to tidal action and marshlands up to five feet above mean sea level, listed in Gov't Code §66610(e).

<sup>91</sup> Gov't Code §66605(a). Water oriented uses include, “ports, water-related industries, airports, wildlife refuges, water-oriented recreation and public assembly, desalinization plants, upland dredged material disposal sites, and powerplants requiring large amounts of water for cooling purposes.” Gov't Code §66602. This list, however, is not exclusive.

<sup>92</sup> Gov't Code §66602.1.

<sup>93</sup> Gov't Code §66605(a)-(e).

<sup>94</sup> Gov't Code §66632.4. The Commission can also deny a project that is inconsistent with a priority use designation. Gov't Code §66611. Commission action on projects in a priority use area located on property subject to the public trust would receive additional support from the public trust doctrine.

within the shoreline band to effects on public access, makes it difficult to address impacts of sea level rise and climate change. Moreover, projects located on private property in the shoreline band that are not subject to the public trust doctrine, also must meet the *Lucas*, *Penn Central*, *Nollan* and *Dolan* takings tests.

However, even under its more limited shoreline band authority, the Commission could still ensure that accessways are constructed to accommodate projected sea level rise, require alternative access if accessways are inundated, deny permits where projected sea level rise would destroy or harm public access, or require the payment of fees to mitigate impacts on public access.

- 3. Mitigation Fees.** When mitigation measures are infeasible on-site, the Commission may consider fee-based mitigation. The U.S. Supreme Court has not addressed the effect of the takings clause on mitigation fees directly; instead it has focused on government actions that result in the “physical occupation” of property (e.g., requiring the dedication of public access over private property).<sup>95</sup> California courts also recognize that the takings clause is intended to protect private property against physical occupation or invasion,<sup>96</sup> and acknowledge that:

[g]overnment generally has greater leeway with respect to noninvasive forms of land-use regulation, where the courts have for the most part given greater deference to its power to impose broadly applicable fees, whether in the form of taxes, assessments, user or development fees.<sup>97</sup>

Fees generally are viewed more favorably than land use exactions because they do not result in a physical occupation nor eliminate the value of property.<sup>98</sup> California courts generally give agencies deference to impose fees.<sup>99</sup> A vast array of fee-related actions

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<sup>95</sup> *Nollan*, 483 U.S. at 827; *Dolan*, 512 U.S. at 380.

<sup>96</sup> *Ehrlich v. City of Culver City*, 12 Cal. 4<sup>th</sup> 854, 875-876 (1996).

<sup>97</sup> *Id.* at 880-81. The court also states that “[f]ees of this nature may indeed be subject to a lesser standard of judicial scrutiny than that formulated by the court in *Nollan* and *Dolan* because the heightened risk of the ‘extortionate’ use of the police power to exact unconstitutional conditions is not present.” *Id.*

<sup>98</sup> The Supreme Court has ruled that courts “have not extended the rough-proportionality test of *Dolan* beyond the special context of exactions-land-use decisions conditioning approval of development on the dedication of property to public use.” *Monterey v. Del Monte Dunes at Monterey, LTD*, 526 U.S. 687, 702-03 (1997). In fact, most jurisdictions have ruled that the *Nollan* and *Dolan* heightened scrutiny does not apply at all to monetary exactions. See Daniel J. Curtin & W. Andrew Gowder, *Exactions Update: When and How Do the Dolan/Nollan Rules Apply?*, 35 Urb. Law. 729, 733-38. See, e.g., *N. Ill. Home Builders Ass'n v. County of DuPage*, 649 N.E.2d 384, 388-89 (Ill. 1995); *Home Builders Ass'n of Dayton & the Miami Valley v. City of Beavercreek*, 729 N.E.2d 349, 356 (Ohio 2000); *Rogers Mach., Inc. v. Washington County*, 45 P.3d 966, 979-80 (Or. Ct. App. 2002); *Town of Flower Mound*, 135 S.W.3d at 639-40; *Benchmark Land Co. v. City of Battle Ground*, 14 P.3d 172, 175 (Wash. Ct. App. 2000).

<sup>99</sup> *San Remo Hotel v. City and County of San Francisco*, 27 Cal. 4th 643, 672 (2002) (hereinafter *San Remo Hotel*). The California Supreme Court articulated a very deferential standard stating that only “the arbitrary and extortionate use of purported mitigation fees, even where legislatively mandated, will not pass constitutional muster.” *Id.* at 105.

have been upheld, including school development fees,<sup>100</sup> rent control laws,<sup>101</sup> fees on rents charged to daily users rather than long-term residents,<sup>102</sup> and in lieu fees imposed by the Coastal Commission for the construction of sea walls.<sup>103</sup>

Fees that rely on government discretion or target a particular individual may be subject to heightened judicial scrutiny. The California Supreme Court has noted that “individualized fees warrant a type of review akin to the conditional conveyances at issue in *Nollan* and *Dolan*.” Therefore, a regulatory agency – like BCDC – should ensure that an individual fee demonstrates “a factually sustainable proportionality between the effects of a proposed land use and a given exaction.”<sup>104</sup>

More generalized fees established by legislative mandate or formula generally are subject to the more favorable balancing *Penn Central* analysis,<sup>105</sup> and the reasonable relationship standard, because ministerial actions based on a legislatively imposed general mandate are less subject to abuse. In such cases BCDC would need to show a “reasonable relationship between the monetary exaction and the public impact of the development,”<sup>106</sup> rather than the more rigorous and particularized *Nollan/Dolan* nexus and rough proportionality tests.

Where appropriate, the Commission can use fee-based mitigation to address the impacts of projects in the shoreline band on public access, and may take into account how such access may be affected by climate change and sea level rise. Because set formula fees are more favorably viewed than discretionary fees, BCDC could also, for example, consider a fee to offset the impacts of seawalls or coastal armoring projects in the shoreline band based upon its length, location or height, to mitigate the effects of climate change and sea level rise on the Bay (seawalls and coastal armoring are discussed in greater detail below). The Commission could also amend the Bay Plan or seek new legislation authorizing the use of fees to address sea level rise and climate change since legislatively-imposed fees are generally more favorably viewed by the courts.

4. **Coastal Armoring.** The construction of seawalls, revetments and other shoreline protection devices along the coast often are necessary to protect existing development and public infrastructure. In fact, 66 percent of the shoreline of San Francisco Bay is already armored in some fashion.<sup>107</sup> However, in the wrong location, armoring can have significant adverse impacts by impeding public access to and along the shore, destroying beaches and important habitat, reducing sediment inputs, reducing shoreline resiliency, preventing the inland migration of wetlands, increasing erosion on adjacent properties, impeding the flood control functions of natural systems, increasing flooding

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<sup>100</sup> *Santa Monica Beach, LTD. v. Superior Court*, 19 Cal. 4th at 952, 964-965.

<sup>101</sup> *Id.* at 966-968.

<sup>102</sup> *San Remo Hotel*, 27 Cal. 4th at 670-672.

<sup>103</sup> *Ocean Harbor House Homeowners Association v. California Coastal Commission*, 163 Cal. App.4th 215 (2008).

<sup>104</sup> *San Remo Hotel*, 27 Cal. 4th at 670.

<sup>105</sup> *See McClung v. City of Summer*, U.S. Ct. of Appeals for the 9<sup>th</sup> Cir., No. 07-35231, July 11, 2008.

<sup>106</sup> *Ehrlich v. City of Culver City*, 12 Cal. 4th at 854.

<sup>107</sup> Titus, *supra* note 88 at 1302.

in unprotected areas, and visually impairing Bay resources.<sup>108</sup> For this reason, many states have banned or restricted the construction of seawalls and other armoring devices to protect beaches and other public trust uses.<sup>109</sup>

State laws banning or restricting sea walls and coastal armoring generally are not considered a taking, and have been upheld on various grounds.<sup>110</sup> States may also require mitigation fees for the construction of seawalls, or require the creation of new wetland areas inland of levees and armoring projects. As noted above, if these fees are general or legislatively-imposed, they would not be subject to strict judicial scrutiny.

BCDC's shoreline protection policies are more permissive than many other coastal states. They allow the construction of seawalls and coastal armoring if "necessary to protect the shoreline from erosion," if "appropriate for the project site and the erosion conditions at the site," and if "properly designed and constructed."<sup>111</sup> Nonstructural methods are required where feasible. The Bay Plan provides that "along the shorelines that support marsh vegetation or where marsh vegetation has a reasonable chance of success, the Commission should require that the design of authorized protective projects include provisions for establishing marsh and transitional upland vegetation as part of the protective structure, wherever practicable."<sup>112</sup>

The Bay Plan seawall policies were adopted 20 years ago, before the imminent threat of sea level rise from global climate change became apparent. Shoreline protection projects constructed within the Commission's Bay jurisdiction (below mean high tide, or below 5 feet above mean sea level in marshlands) must be constructed with sound safety

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<sup>108</sup> Meg Caldwell and Craig Holt Segall, *No Day at the Beach; Sea Level Rise, Ecosystem Loss, and Public Access Along the California Coast*, 43 *Ecology Law Quarterly* 533, 539-542 (2007); Todd T. Cardiff, *Conflicts in the California Coastal Act: Sand and Seawalls*, 38 *California Western Law Review* 255, 258-261 (2001).

<sup>109</sup> The California Coastal Act prohibits shoreline protective devices for *new* development and requires new development to be designed so that it does not require the construction of armoring devices. Pub. Res. Code § 30253(b). But it also allows shoreline protective devices to protect *existing* development from erosion if designed to mitigate adverse impacts on shoreline sand supply. Pub. Res. Code §30235. Maine, North and South Carolina prohibit seawalls and the construction of permanent erosion control devices on coastal dunes or areas seaward of a setback line based upon erosion rates and sea level rise projections. Maine Coastal Sand Dunes Rules Ch. 355.5(C)-(E) (2006), S.C Code Ann. §48-39-280 and 290; N.C. Gen. Stat. §§113A-115.1 (2006). Rhode Island bans erosion control devices along its entire oceanfront to protect public trust uses and allow wetlands and beaches to adapt to sea level rise. Rhode Island Coastal Resources Management Program §300.7(D)(1)(2006). Oregon bans coastal armoring altogether.

<sup>110</sup> Oregon's law banning armoring for shoreline development built after 1977 was upheld on the grounds that it did not deny all economic use of the property. *Stevens v. City of Cannon Beach*, 854 P.2d 449, 459-460 (Or. 1003). *Shell Island Homeowners Ass'n v. Tomlinson*, 124 N.C. App. 217 (1993), upheld as constitutional North Carolina's ban on hardened structures. California cases include: *Whaler's Village Club v. Cal. Coastal Comm'n*, 173 Cal. App. 3d 240 (1985) (Coastal Commission's conditions were reasonable); *Scott v. City of Del Mar*, 58 Cal. App. 4<sup>th</sup> 1296 (1997) (armoring that encroached on public lands was a nuisance); *Barrie v. Cal. Coastal Comm'n*, 196 Cal. App. 3d 8 (1987) (no vested right to construct sea wall under an emergency permit).

<sup>111</sup> *Bay Plan*, Policy 1 at 34.

<sup>112</sup> *Id.*, Policy 4 at 34-35.

standards able to “afford reasonable protection...against...flood or storm waters.”<sup>113</sup> Bay Plan policies also provide that “to prevent damage from flooding, structures on fill or near the shoreline should have adequate flood protection including consideration of future relative sea level rise as determined by competent engineers.”<sup>114</sup> These provisions allow some discretion to require shoreline protective devices constructed in the Bay to take into account projected sea level rise, but the Bay Plan does not specifically address the harmful impacts of coastal armoring on Bay resources or on efforts to address sea level rise.

The McAteer-Petris Act or Bay Plan could be amended to provide policies similar to the California Coastal Act that limit the approval of shoreline protective devices to those necessary to protect physical improvements.<sup>115</sup> This would prevent the armoring of undeveloped properties that absorb flood waters caused by sea level rise, and reduce the need to protect developed areas elsewhere. The Commission could also consider in lieu fees to mitigate impacts of shoreline protection devices on public access or purchase comparable beach access or shoreline properties.<sup>116</sup> The Commission also could seek additional legislative authority or amend the Bay Plan to address the likely impacts of increased armoring in the shoreline band from sea level rise.

5. **Rolling Easements.** The Texas Open Beaches Act authorizes the State of Texas to enforce a public easement over the dry sandy beach from the mean high tide line to the first line of natural vegetation, and to file petitions to remove encroachments on public beaches.<sup>117</sup> This easement expands and contracts – or “rolls” – with the natural migration of the beach vegetation line.<sup>118</sup> New construction on the beach is prohibited, and existing structures that end up encroaching on eroding public beaches may be removed by petition.<sup>119</sup>

The Texas Open Beaches Act was upheld against a takings claim because public trust rights to the dry sandy beach are guaranteed under Texas common law. The easement is a background principle of property law in Texas, and therefore property owners cannot exclude the public seaward of the first line of vegetation.<sup>120</sup> A rolling easement is possible in states like Texas with a common law public easement above mean high tide.<sup>121</sup>

In California, there is no public easement over the dry sandy beach above mean high tide. However, state property ownership expands or rolls with the landward movement

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<sup>113</sup> Gov’t Code §66605(e).

<sup>114</sup> *Bay Plan*, Policy 4 at 33.

<sup>115</sup> Pub. Res. Code §§30235 and 30253(b).

<sup>116</sup> *Ocean Harbor House Homeowners Association v. California Coastal Commission*, 163 Cal. App.4<sup>th</sup> 215 (2008).

<sup>117</sup> Tex. Nat. Res. Code Ann. §61.018.

<sup>118</sup> The term “rolling easement” refers to a “broad collection of arrangements under which human activities are required to yield the right of way to migrating shores.” Titus, *supra* note 88 at 1313.

<sup>119</sup> *Feinman v. State of Texas*, 717 S.W.2d 106 (1986); *Severance v. Patterson*, 485 F.Supp.2d 793 (2007).

<sup>120</sup> *Severance, Id.* at 803-804.

<sup>121</sup> New Jersey and Oregon common law also provide for public access to the dry sandy beach above mean high tide. See *Mathews*, 471 A.2d at 358; *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 294 A.2d 47, 51-54 (N.J. 1972); and *State ex rel. Thorton v. Hay*, 462 P.2d 671, 673 (Or. 1969).

of the mean high tide line. The State's ambulatory ownership rights may affect how the Commission determines that a project provides maximum feasible public access or whether an applicant can show sufficient proof of legal property interest.<sup>122</sup> It could also lead to removing structures that end up on state property because of sea level rise, or preventing activities that interfere with public trust uses, such as blocking public access, constructing sea walls, or damaging public trust resources such as wetlands or marshes.<sup>123</sup>

6. **Preserving Wetlands.** Wetlands are likely to play a critical role in how the Bay responds to sea level rise and climate change. Bay wetlands, including natural subtidal areas and tidal marshes, diked marshes, salt ponds, and agricultural baylands, absorb floodwaters, sequester greenhouse gases, and trap sediments and pollutants. Wetlands also can adapt to rising sea levels, migrate inland, and continue to provide key habitat and feeding grounds for a wide variety of aquatic and terrestrial species.<sup>124</sup>

Most of the Bay's large wetland areas vanished long ago, making the conservation of remaining wetland areas even more important.<sup>125</sup> BCDC's Bay jurisdiction is limited to areas subject to tidal action up to mean high tide, certain waterways, marshlands to five feet above mean sea level, and diked salt ponds and managed wetlands.<sup>126</sup> The public trust doctrine applies to BCDC permit and regulatory actions within tidal wetlands up to mean high tide.

As noted earlier, the trust supports the preservation of trust lands "*in their natural state*, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and *climate* of the area (emphasis added)."<sup>127</sup> However, the Commission may not act to enforce the trust outside its statutory and regulatory authority, and would likely need new legislation to expand its jurisdiction beyond the 100-foot shoreline band if it wanted to protect low-lying shoreline areas as part of a comprehensive strategy for sea level rise adaptation. The Commission also could expand its sea level rise policies in the Bay Plan to guide development and protect vulnerable wetlands and marsh areas.

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<sup>122</sup> Gov't Code §66605(g); 14 CCR §11721, Appendix F.

<sup>123</sup> Titus, *supra* note 88 at 1313.

<sup>124</sup> *Bay Plan* at 21.

<sup>125</sup> The Bay has lost 80% of its tidal marshes, and 137,000 acres of the Bay, including tidal marshes, tidal flats and managed wetlands, have been diked. *Bay Plan* at 21-22. The 200,000 original acres of tidal marsh in the Bay have been reduced to 40,000 acres, and 6,000 miles of tidal channels have been reduced to 1,000. *Baylands Ecosystem Habitat Goals, A report of habitat recommendations prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project*. U.S. EPA, San Francisco, California, San Francisco Regional Water Quality Control Board, Oakland, California at 1 (1999), [www.sfei.org/sfbaygoals](http://www.sfei.org/sfbaygoals). The Bay also has about 53,000 acres of managed wetlands, and 41,000 acres of salt ponds. *Bay Plan* at 64 and 67.

<sup>126</sup> Gov't Code § 66610(a)-(g) (2005). The Commission's authority over salt ponds and managed wetlands, diked off and used three years immediately preceding 1969, is prescribed by Gov't Code §66605(c)-(g); whereas the Commission's authority over tidelands and submerged lands below mean high tide, marshlands below mean sea level, and certain waterways is prescribed by Gov't Code §66605(a)-(g).

<sup>127</sup> *Marks v. Whitney*, 6 Cal. 3d at 259-260.

The Commission also could support the expansion of the federal Coastal Barrier Resources System (System) to protect wetlands and marshes. The System was created by Congress in 1982 to discourage development in hazardous coastal areas. It prohibits federal flood insurance and other federal subsidies for new development on coastal barrier islands particularly vulnerable to flooding and storms.<sup>128</sup> The System was expanded to barrier islands and coastal wetlands in the Florida Keys, Puerto Rico and the Great Lakes in 1990,<sup>129</sup> and the Department of the Interior was directed to map and recommend areas along the Pacific Coast for inclusion into the System. However, this effort was never undertaken. Although the System does not foreclose development, it deters the development of vulnerable coastal areas and could be expanded to the West Coast to include coastal wetlands and low-lying areas vulnerable to sea level rise. The State could support the expansion of the federal System to California, or establish a state Coastal Barrier Resources System to help remove perverse market incentives for developing flood-prone areas vulnerable to sea level rise.

7. **Implementing the CZMA and CEQA.** The Commission may use the public trust doctrine to address sea level rise and climate change issues under other state and federal laws. For example, the Commission implements the San Francisco Bay Segment of the California Coastal Management Program (CCMP) under the federal Coastal Zone Management Act (CZMA). The Commission's segment of the CCMP was approved by the Department of Commerce in 1977, giving the Commission the authority to determine if federal agency and federally-permitted activities that affect the land and water uses or natural resources of the Bay, Marsh and shoreline band are conducted in a manner "consistent" with the enforceable policies of the CCMP.<sup>130</sup> These enforceable policies include the McAteer-Petris Act, Suisun Marsh Preservation Act, and BCDC's other laws and policies, including the Bay Plan.<sup>131</sup> The Bay Plan requires the Commission to assure that actions affecting trust lands are "consistent with the public trust needs for the area."<sup>132</sup> Therefore, under the CZMA, the Commission may require federal and federally-permitted activities that affect the Bay, such as federal highways, airports, and activities requiring Corps and EPA permits, to be consistent with the public trust doctrine.

The Commission also reviews projects under the California Environmental Quality Act (CEQA).<sup>133</sup> The Commission may prepare an environmental assessment as the lead agency,<sup>134</sup> or comment on an environmental impact report (EIR) as a responsible agency under CEQA.<sup>135</sup> The Commission may also comment on the impacts of federal actions

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<sup>128</sup> 16 U.S.C. §§ 3501-3510.

<sup>129</sup> Elise Jones, *Economic Incentives for Environmental Protection: The Coastal Barrier Resources Act*, 21 *Env'tl. L.* 1015, 1020 (1991).

<sup>130</sup> 16 U.S.C. §1456(c).

<sup>131</sup> *Bay Plan* at 9.

<sup>132</sup> *Id.* at 79.

<sup>133</sup> 14 CCR §§11500-11521.

<sup>134</sup> 14 CCR §11520.

<sup>135</sup> Pub. Res. Code §21004. The California Department of Justice has prepared a fact sheet listing various mitigation measures that can be implemented by local agencies under CEQA. *The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level*.

on the Bay under the National Environmental Policy Act (NEPA).<sup>136</sup> CEQA and NEPA provide another opportunity for the Commission to recommend measures to mitigate impacts of development projects on public trust uses, including public access and the preservation of open space and natural areas needed to protect the Bay against the impacts of climate change and sea level rise.

8. **Pursuing Common Law Remedies.** Common law doctrines provide a number of potential affirmative remedies to address the impacts of sea level rise and climate change. The Commission may be unable to implement some of these remedies by itself; but it could work with other agencies such as the State Lands Commission, the Coastal Conservancy and the Attorney General’s Office to assert common law rights to protect lands and waters for public uses, including the preservation of natural areas as open space to help mitigate the impacts of sea level rise and climate change.

The common law doctrines of implied dedication, custom and prescription provide a legal mechanism to preserve public rights to beaches or other areas traditionally used by the public. Privately owned beaches and adjacent uplands that offer access to beaches may be impliedly “dedicated” for public use if members of the public use the beaches or adjacent uplands for at least five years, as if it were open to the public, without objection by the private owner.<sup>137</sup> The common law in some states also recognizes that the long and uninterrupted past use of beaches above mean high tide can create a legally-protected right by “custom” to continue to such use.<sup>138</sup> Public rights may also be gained by “prescription,” if public use is open, notorious and continuous for a statutory period of time.

Activities that endanger public life or health, obstruct the free use of property, interfere with the enjoyment of life or property, or unlawfully obstruct the free passage or use of navigable waters also may constitute a public nuisance.<sup>139</sup> For example, coastal armoring that encroaches on public land has been held a public nuisance in California justifying removal without the payment of compensation.<sup>140</sup> In Florida construction seaward of an established control line 50 feet from mean high tide is prohibited as a public nuisance under the Beach and Shore Preservation Act.<sup>141</sup> Bulkheads or sea walls that flood adjacent properties or cause public beaches to disappear, also may be considered a public nuisance.<sup>142</sup>

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[http://ag.ca.gov/globalwarming/pdf/GW\\_mitigation\\_measures.pdf](http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf). However some of these measures are not within BCDC’s statutory and regulatory authority.

<sup>136</sup> 43 U.S.C. §4321 et seq.

<sup>137</sup> *Gion v. City of Santa Cruz*, 2 Cal. 3d 29, 38-41, 465 P.2d 50 (1970); *County of Los Angeles v. Berkeley*, 605 P. 2d 381 (1980); *City of Long Beach v. Daugherty*, 75 Cal. App. 3d 372 (1977).

<sup>138</sup> *State ex rel. Thorton v. Hay*, 462 P.2d at 677-678.

<sup>139</sup> See Civil Code §3479, and *People v. Mack*, 19 Cal. App.3d 1040, 1050 (1971).

<sup>140</sup> *Scott v. City of Del Mar*, 58 Cal. App. 4th 1296 (1997). The court held that the city’s removal of the sea wall did not constitute inverse condemnation because the “legislature has the power to declare certain uses of property a nuisance and such use thereupon becomes a nuisance *per se*.” *Id* at 1306. In this case the City declared that the obstruction of a public right-of-way was an abatable nuisance.

<sup>141</sup> Florida Statutes §161.052-053.

<sup>142</sup> Titus, *supra* note 88 at 1372, note 392.

As sea level rises, development may encroach on public lands, harm other properties, or impede the protection of the Bay from the effects of climate change and sea level rise. In proper cases, public agencies may be able use their police powers to remove structures that constitute a public nuisance, or pursue other common law remedies to preserve open space, protect habitat, and provide buffers to accommodate rising sea levels or storm surge. In such cases, the Commission may need to seek additional legislative authority, or work with the Attorney General's Office, the State Lands Commission and other government agencies.

**Conclusion.** Equipped with laws and policies created to address the impacts of Bay fill, the Commission faces a tremendous challenge to address the impacts of climate change and sea level rise in the Bay. However, the public easement created by the public trust doctrine supports the Commission's limited existing authority by promoting public uses and preserving lands in their natural state.

The trust does not give the Commission additional regulatory authority it does not already have under its existing laws and policies. However, it can be used to support decisions against takings claims, support the implementation of common law remedies to protect areas vulnerable to sea level rise, and prevent activities that impede efforts to address the impacts of climate change. Some of these actions can be implemented under the Commission's existing authority, but others will require Bay Plan amendments, additional legislative authority, or new partnerships with other agencies and organizations.