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WOULD A “GOD SQUAD” EXEMPTION UNDER THE ENDANGERED SPECIES ACT SOLVE THE CALIFORNIA WATER CRISIS?

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Abstract: The Endangered Species Act’s (ESA) protection of threatened and endangered wildlife has frequently brought the law into conflict with economic interests, including those of government development agencies whose actions the statute may prohibit. When an agency wishes to override the protections of the Act, it may turn to a rarely used committee of Cabinet-level officials, known as the “God Squad,” for relief. The ESA empowers the God Squad to evaluate a proposed project and exempt the project from ESA requirements if it finds that the benefits of doing so clearly outweigh the benefits of conserving the species. Using prior God Squad rulings as guidance, this Note addresses whether the God Squad is the appropriate avenue to address California’s severe water shortages, caused by both drought and regulatory restrictions on water usage due to ESA protections of a threatened species in the Bay-Delta region of the state.

INTRODUCTION

A. *Water: A Vital Resource in Short Supply*

The world is running out of fresh water suitable for human use.¹ While water covers approximately 75% of the Earth’s surface, only 3% of the planet’s total water supply is fresh.² Of that 3%, 69% of the

* Articles Editor, BOSTON COLLEGE ENVIRONMENTAL AFFAIRS LAW REVIEW, 2010–11.

¹ See Leo Lewis, *Ecologists Warn the Planet is Running Short of Water*, TIMES (London), Jan. 22, 2009, <http://www.timesonline.co.uk/tol/news/environment/article5562906.ecc>. It is not entirely accurate to say the world is running out of fresh water. Rather, because natural forces only replenish freshwater reserves at a fixed rate, increased human water use has strained the ability of surface and groundwater sources to replenish in proportion with demand. See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO 03-514, FRESH WATER SUPPLY: STATES’ VIEWS OF HOW FEDERAL AGENCIES COULD HELP THEM MEET THE CHALLENGES OF EXPECTED SHORTAGES 5 (2003).

² STEVE GRAHAM ET AL., NASA EARTH OBSERVATORY, THE WATER CYCLE 1 (2010), available at http://earthobservatory.nasa.gov/Features/Water/water_cycle_2000.pdf; *Earth’s Water Distribution*, U.S. GEOLOGICAL SURV., <http://ga.water.usgs.gov/edu/waterdistribution.html> (last modified Feb. 8, 2011).

world's fresh water is locked in frozen glaciers and ice caps.³ An additional 30% of the world's fresh water is located in both soil and underground aquifers as groundwater.⁴ While groundwater has many domestic and industrial uses, harnessing it poses challenges.⁵ Notably, most groundwater sources do not replenish at a rate sufficient to match human demand, and some geographical areas that utilize groundwater reserves have experienced significant depletion.⁶

Although 99% of the world's fresh water is found in ice, soil, or underground aquifers, some of the world's fresh water can be found in surface water—the water in lakes, swamps, and rivers.⁷ Surface water makes up only one third of one percent (0.33%) of the planet's fresh water supply, but accounts for most of the water used by humans.⁸ An increase in human population causes an increase in residential and industrial water consumption that, combined with limited storage space and public demand to preserve lake and river ecosystems, strains the Earth's surface water supply.⁹ Additionally, naturally occurring drought cycles contribute significantly to the strain on fresh water resources.¹⁰

The shrinking reserves of available fresh water also have significant economic effects. In industrialized countries like the United States, the

³ GRAHAM ET AL., *supra* note 2; *Earth's Water Distribution*, *supra* note 2.

⁴ GRAHAM ET AL., *supra* note 2; *See Earth's Water Distribution*, *supra* note 2.

⁵ *See generally* Meena Palaniappan & Peter H. Gleick, *Peak Water*, in *THE WORLD'S WATER: 2008–2009*, at 1 (Peter H. Gleick ed., 2009). For example, groundwater is often located very deep underground, making it inaccessible. *Id.* at 5. Groundwater near the surface is easily contaminated by industrial byproducts, or salt from the intrusion of underground saltwater. *See, e.g.*, ENVTL. PROT. AGENCY, EPA/540/S-95/500, *GROUNDWATER ISSUE: LIGHT NONAQUEOUS PHASE LIQUIDS 1* (1995) (describing groundwater contamination by petroleum products); ENVTL. PROT. AGENCY, EPA/600/S2-91/064, *PROJECT SUMMARY: IDENTIFICATION OF SOURCES OF GROUNDWATER SALINIZATION USING GEOCHEMICAL TECHNIQUES 2–3* (1992) (describing sources of salt intrusion into fresh groundwater).

⁶ *See, e.g.*, U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 1, at 13, 52 (noting that “the intense use of ground-water” caused the depletion of “more than half of the ground-water that was available before pumping started” in areas of the western United States, resulting in a level that “makes the aquifer no longer economical to use”).

⁷ *See Earth's Water Distribution*, *supra* note 2.

⁸ *See Earth's Water Distribution*, *supra* note 2; U.S. GEOLOGICAL SURV., *FACT SHEET 2009-3098, SUMMARY OF ESTIMATED WATER USE IN THE UNITED STATES IN 2005*, at 1 (2009) [hereinafter *USGS FACT SHEET*], available at <http://pubs.usgs.gov/fs/2009/3098/pdf/2009-3098.pdf>. In 2005, approximately 80% of the water drawn for use in the United States was surface water, and 20% was groundwater. *USGS FACT SHEET*, *supra*, at 1.

⁹ *See* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 1, at 5–7. Global climate change may cause the amount of available surface water to decrease over time, further increasing the risk of future water shortages. *See* CONG. BUDGET OFFICE, *POTENTIAL IMPACTS OF CLIMATE CHANGE IN THE UNITED STATES 10–12* (2009).

¹⁰ *See* BETSY A. CODY ET AL., CONG. RESEARCH SERV., R40979, *CALIFORNIA DROUGHT: HYDROLOGICAL AND REGULATORY WATER SUPPLY ISSUES 2–3* (2009).

stability of large sectors of the economy depends upon access to water.¹¹ According to the Department of the Interior, domestic water consumption accounts for only 18% of the country's total water use,¹² while 33% is devoted to agricultural application, and 59% is used for industrial purposes.¹³ With so much dependent on an available supply of fresh water, it is little wonder that water access is a source of conflict between economic and environmental interests in the United States.¹⁴ Perhaps nowhere is this struggle over water more evident than in California.

B. Agriculture in the Arid West

The western United States is an arid place, subject to cyclical periods of drought.¹⁵ Nonetheless, the West is home to a thriving agricultural industry made possible by modern irrigation techniques.¹⁶ In 2005, “[o]f the total irrigation in the United States, 85 percent of the [water] withdrawals and 74 percent of the acres irrigated were in 17 conterminous Western States.”¹⁷ California, despite its dry climate, supplies 50% of the fresh produce grown in the United States.¹⁸ A growing population, combined with increasing agricultural output which relies heavily on irrigation, has strained California's water resources and made the state particularly vulnerable during droughts.¹⁹

¹¹ See, e.g., CAL. DEP'T OF WATER RES., CALIFORNIA DROUGHT—AN UPDATE: DECEMBER 2009, at 37 (2009) (noting the effect of drought on agriculture industry and employment).

¹² *Water Facts—Worldwide Water Supply*, BUREAU RECLAMATION U.S. DEP'T INTERIOR, http://www.usbr.gov/mp/arwec/news/water_facts_worldwide.html (last visited Apr. 15, 2011). By one estimate, eighty gallons of water are used to produce a single ear of corn. *Id.*

¹³ *Id.* Power plants use 136 billion gallons of fresh water each day, while farm irrigation consumes an additional 142 billion gallons, over three times more than daily domestic use. *How Do We Use Water?*, U.S. ENVTL. PROTECTION AGENCY, http://www.epa.gov/watersense/water_efficiency/how_we_use_water.html (last visited Apr. 15, 2011). It can take five hundred gallons of water to make a pair of Levi's jeans. Alexandra Alter, *Yet Another "Footprint" to Worry About: Water*, WALL ST. J., Feb. 17, 2009, at A11.

¹⁴ See Robin Kundis Craig, *Climate Change, Regulatory Fragmentation, and Water Triage*, 79 U. COLO. L. REV. 825, 866 (2008).

¹⁵ See PETER FOLGER ET AL., CONG. RESEARCH SERV., RL34580, DROUGHT IN THE UNITED STATES: CAUSES AND ISSUES FOR CONGRESS 2 (2010).

¹⁶ See HEATHER COOLEY ET AL., PAC. INST., SUSTAINING CALIFORNIA AGRICULTURE IN AN UNCERTAIN FUTURE 17 (2009), available at http://www.pacinst.org/reports/california_agriculture/final.pdf.

¹⁷ USGS FACT SHEET, *supra* note 8.

¹⁸ CAL. DEP'T OF FOOD & AGRIC., CALIFORNIA AGRICULTURAL RESOURCE DIRECTORY 2008–2009, at 5–6 (2008), available at www.cdffa.ca.gov/statistics/files/CDEFA_Sec1.pdf.

¹⁹ See STATE OF CAL., DEPT. OF FIN., E-4 POPULATION ESTIMATES FOR CITIES, COUNTIES, AND THE STATE I (2010) [hereinafter POPULATION PROJECTIONS], available at <http://www.dof.ca.gov/research/demographic/reports/view.php#objCollapsiblePanelEstimatesAnchor>.

California experienced a prolonged period of continuous drought that began more than three years ago.²⁰ The abnormally dry conditions put a strain on the state's economy, particularly in the Central Valley region.²¹ The farmers in the San Joaquin Valley have been significantly affected by these water shortages, as they rely on irrigation from pumping stations in California's Bay-Delta region.²² Many of the more profitable crops grown in the region, like rice and cotton, require large amounts of water. Thus irrigation is vital for the economic success of the local agricultural industry.²³ The health of the Bay-Delta ecosystem is also important because most of California's drinking water passes through the Delta.²⁴

While drought and high demand for water resources are the primary causes of the California water shortage, an unlikely villain has emerged to grab the ire of a diverse group of opponents. The delta smelt—a tiny three inch silver fish—has been blamed for the crisis.²⁵ To understand why the fish's listing as a threatened species has had such a profound effect on California's water supply, one must first understand the basic operation of the Endangered Species Act.

Between 1998 and 2007, California farmers' cash receipts for milk increased from \$4.14 billion to \$7.33 billion, and receipts for almonds grew from \$0.7 billion to \$2.13 billion. CAL. DEP'T OF FOOD & AGRIC., *supra* note 18, at 17. In that same time span, the State estimates that its population increased by almost five million people. See POPULATION PROJECTIONS, *supra* at 1.

²⁰ CAL. DEP'T OF WATER RES., *supra* note 11, at 1.

²¹ See CAL. DEP'T OF FISH & GAME, CALIFORNIA WILDLIFE: CONSERVATION CHALLENGES 171 (2007) (almost half of State's residents live in the South Coast region, which makes up less than ten percent of the state's land area); CODY ET AL., *supra* note 10, at Summary; Press Release, Office of Governor Arnold Schwarzenegger, Gov. Schwarzenegger Takes Action to Address California's Water Shortage (Feb. 27, 2009), <http://gov.ca.gov/press-release/11556>.

²² See CAL. DEP'T OF WATER RES., *supra* note 11, at 41. Estimates of actual job loss vary. See BUS. FORECASTING CTR., UNIV. OF THE PAC., UNEMPLOYMENT IN THE SAN JOAQUIN VALLEY IN 2009: FISH OR FORECLOSURE? 1, 3 (2009), available at http://forecast.pacific.edu/articles/PacificBFC_Fish%20or%20Foreclosure.pdf.

²³ See CAL. DEP'T OF FOOD & AGRIC., *supra* note 18, at 22 (showing cotton and rice as the fifth and eighth top agricultural exports, respectively); COOLEY, *supra* note 16, at 7.

²⁴ JAY LUND ET AL., PUB. POL'Y INST. OF CAL., ENVISIONING FUTURES FOR THE SACRAMENTO-SAN JOAQUIN DELTA 4 (2007).

²⁵ Compare Op-Ed., *California's Man-Made Drought*, WALL ST. J., Sept. 2, 2009, at A14 (calling for an end to federal protection for delta smelt, citing the fish as a cause of the California water shortage), and CAL. DEP'T OF WATER RES., *supra* note 11, at 2 (citing federal delta smelt protection order as a major cause of the water shortage), with U.S. DEP'T INTERIOR, REALITY CHECK: CALIFORNIA'S WATER CRISIS 1-2 (2009), available at http://www.doi.gov/documents/CA_Water_Reality_Check.pdf (disputing that delta smelt protections are the cause of the California water shortage).

I. ENDANGERED SPECIES ACT

Enacted in 1973, the Endangered Species Act's (ESA) primary purposes are to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species."²⁶ The Act is primarily administered by Interior's Fish and Wildlife Service (FWS).²⁷ FWS "has primary responsibility for freshwater and land species."²⁸

A. *Threatened and Endangered Species*

The Act defines an "endangered species" as one that is "in danger of extinction throughout all or a significant portion of its range."²⁹ It defines "threatened species" as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."³⁰ FWS protects threatened and endangered species through regulations designed to meet the species' needs based on the best scientific data available.³¹

In order to receive protection under the ESA, a particular species must be listed as "threatened" or "endangered."³² The listing process is

²⁶ Endangered Species Act § 2, 16 U.S.C. § 1531(b) (2006).

²⁷ M. Lynne Corn et al., *The Endangered Species Act: A Primer*, in THE ENDANGERED SPECIES ACT: PRIMER, EVALUATION AND PROSPECTS 83, 89 (Harold B. Carleton Jr. ed., 2009). The National Marine Fisheries Service administers the ESA with respect to "[m]arine species, including some marine mammals and anadromous fish." *Id.*

²⁸ See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-06-730, ENDANGERED SPECIES: MANY FACTORS AFFECT THE LENGTH OF TIME TO RECOVER SELECT SPECIES 1 (2006).

²⁹ 16 U.S.C. § 1532(6).

³⁰ *Id.* § 1532(20).

³¹ See *id.* § 1536(2), (3)(c). Under section 4 of the Act, "the Secretary [of the Interior] shall issue regulations as he deems necessary and advisable to provide for the conservation of [threatened] species." *Id.* § 1533(d). Furthermore, the Secretary may extend to "threatened" species explicit protections typically afforded to species listed as "endangered" under the Act. *Id.*

³² Section 4 of the ESA governs the listing process. See 16 U.S.C. § 1533; see also U.S. FISH & WILDLIFE SERV. (FWS), LISTING A SPECIES AS THREATENED OR ENDANGERED: SECTION 4 OF THE ENDANGERED SPECIES ACT 1–2 (2009) [hereinafter SECTION 4 LISTING], available at <http://www.fws.gov/endangered/esa-library/pdf/listing.pdf>. According to the FWS's Threatened and Endangered Species (TESS) Database System, as of May 17, 2011, a total of 1374 species of plants and animals were listed as either threatened or endangered in the United States. See *TESS Database System*, FISH & WILDLIFE SERV., http://ecos.fws.gov/tess_public/TESSBoxscore (last updated May 17, 2011). For the current total number of species listed as endangered or threatened, updated daily, visit the TESS Database System. See *id.*

as accessible one.³³ Any “interested person”—including individual citizens, environmental groups, and federal, state, or local agencies—may file a petition with FWS to add a species to the lists of endangered or threatened species.³⁴ If the Secretary determines that evidence submitted with the petition “presents substantial scientific or commercial information indicating that [inclusion on the threatened or endangered species lists] may be warranted”³⁵ FWS will initiate a review of the status of the species in question, by assessing the potential threats to the candidate species.³⁶

The Secretary must make a listing determination “solely on the basis of the best scientific and commercial data available” at the time of the review.³⁷ Although the effect of commercial activity on a wildlife population is a factor in determining whether a species is at risk of extinction, the ESA does not allow the Secretary to consider the effects of listing a species on economic interests.³⁸ Simply put, the ESA prohibits Interior from engaging in a cost-benefit analysis to determine if a particular species is economically worth preserving.³⁹ If the relevant scientific and commercial information indicates that a species is at risk of extinction, then it must be listed.⁴⁰ The United States Supreme Court reinforced the supremacy of the ESA’s conservation objective over economic considerations in *Tennessee Valley Authority v. Hill*.⁴¹ Chief Justice Burger, writing for the majority, stated that “[t]he plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, *whatever the cost*.”⁴²

Concurrent with the Secretary’s determination that a species is properly classified as threatened or endangered, Interior must also designate the species’ “critical habitat.”⁴³ A species’ “critical habitat” refers

³³ See generally 16 U.S.C. § 1533 (listing process).

³⁴ See *id.* § 1532(13) (broad definition of “person” under the ESA); *id.* § 1533(b)(3)(A); see also SECTION 4 LISTING, *supra* note 32, at 2.

³⁵ See 16 U.S.C. § 1533(b)(3)(A).

³⁶ *Id.* § 1533(a)(1). (“The Secretary [of the Interior] shall . . . determine whether any species is an endangered species or a threatened species because of any of the following factors: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.”)

³⁷ *Id.* § 1533(b)(1)(a) (emphasis added).

³⁸ See *id.* § 1533(a)(1).

³⁹ See *id.* See generally *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978).

⁴⁰ See 16 U.S.C. § 1533(a)(1).

⁴¹ See *Hill*, 437 U.S. at 184, 187–88.

⁴² See *id.* at 184 (emphasis added).

⁴³ See 16 U.S.C. § 1533(3)(A).

to “specific areas . . . occupied by the species, at the time it is listed . . . on which are found those physical or biological features” that are “essential to the conservation of the species” and “which may require special management considerations or protections.”⁴⁴ Similar to the requirements for determining whether a species qualifies for listing as threatened or endangered, the ESA requires that the Secretary make critical habitat designations “on the basis of the best scientific data available.”⁴⁵

Unlike the requirements for listing a species, however, the ESA allows a limited cost-benefit analysis when determining where to locate critical habitats.⁴⁶ The Secretary may consider the economic effects of locating a critical habitat in a particular geographic area,⁴⁷ and “may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat”⁴⁸ Nonetheless, this discretion is limited by the ESA’s directive not to exclude an area from critical habitat designation if the best scientific data available indicates that “failure to designate such area as critical habitat will result in the extinction of the species concerned.”⁴⁹ In other words, Interior must designate a reasonable amount of critical habitat that will allow the species to survive, but has discretion to locate those areas in economically friendly places, if available.⁵⁰ If a threatened or endangered species, like the delta smelt, exists only in a small geographical area, Interior may have little discretion concerning what habitat to list as critical.⁵¹

B. *Regulatory Enforcement Under the Endangered Species Act*

The ESA protects threatened wildlife and conserves critical habitats primarily through the use of three regulatory provisions.⁵² The first

⁴⁴ *Id.* § 1532(5)(A).

⁴⁵ *See id.* § 1533(b)(2).

⁴⁶ *See id.* (allowing cost-benefit considerations); *cf. id.* § 1533(a)(1) (failing to include economic factors in listing considerations).

⁴⁷ *See id.* § 1533(b)(2).

⁴⁸ 16 U.S.C. § 1533(b)(2).

⁴⁹ *Id.*

⁵⁰ *See id.*

⁵¹ *See id.*; FWS, FORMAL ENDANGERED SPECIES ACT CONSULTATION ON THE PROPOSED COORDINATED OPERATIONS OF THE CENTRAL VALLEY PROJECT (CVP) AND STATE WATER PROJECT (SWP) 145 (2008) [hereinafter BIOLOGICAL OPINION] (noting that the delta smelt spends its entire life in California’s Bay-Delta region).

⁵² *See* 16 U.S.C. § 1531 (purpose of ESA); *id.* § 1536(a)(2) (no-jeopardy provision); *id.* § 1538(a)(1)(A) (commercial use ban); *id.* § 1538(a)(1)(B) (no-take provision).

is a general ban on the commercial use of endangered animals, including the import, export, sale, or transport of any listed species.⁵³ The commercial-use ban is designed to reduce the international market for trade in endangered wild animals.⁵⁴

A second regulatory provision of the ESA prohibits the “taking” of endangered species.⁵⁵ The Act defines a “take” as any action meant to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect” an endangered animal.⁵⁶ However, federal regulations have expanded the definition of “harm” to include acts that result in “significant habitat modification or degradation [that] kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering,” thereby protecting species from a wide variety of potentially harmful human behavior.⁵⁷

A third regulatory tool designed to protect threatened or endangered wildlife can be found in the ESA’s section 7 “no-jeopardy” provision.⁵⁸ This section prohibits federal agencies from engaging in any action that is “likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species . . . unless such agency has been granted an exemption” by the Endangered Species Committee.⁵⁹ This committee is known as the “God Squad” due to its ability to exempt federal actions, thereby enabling the possible extinction of a species.⁶⁰

A section 7 “agency action” includes “any action authorized, funded, or carried out by” a federal agency.⁶¹ Because the federal government authorizes a great deal of activity, section 7 of the ESA has

⁵³ See *id.* § 1538(a)(1)(A).

⁵⁴ See FWS, *ESA BASICS: MORE THAN 20 YEARS OF CONSERVING ENDANGERED SPECIES 1* (2008), available at http://www.fws.gov/endangered/esa-library/pdf/ESA_basics.pdf.

⁵⁵ See 16 U.S.C. § 1538(a)(1)(B), (C).

⁵⁶ *Id.* § 1532(19).

⁵⁷ See 50 C.F.R. § 17.3 (2010).

⁵⁸ See 16 U.S.C. § 1536(a)(2). An “agency action” includes “any action authorized, funded, or carried out by any [Federal] agency.” *Id.*

⁵⁹ See *id.*

⁶⁰ *Id.*; see Ted Gup, *Essay: Down With The God Squad*, TIME, Nov. 5, 1990, available at <http://www.time.com/time/magazine/article/0,9171,971548,00.html> (popular use of term “God Squad”). The term “critical habitat” is defined as “specific areas . . . occupied by the species . . . on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” 16 U.S.C. § 1532(5)(A).

⁶¹ *Id.* § 1536(a)(2). “Federal Agency” is defined as “any department, agency, or instrumentality of the United States.” *Id.* § 1532(7).

wide implications, and has been the source of great conflict between environmental and economic interests.⁶²

If any agency action is likely to jeopardize a threatened or endangered species or its critical habitat, then the ESA requires that the agency proposing the action formally consult with FWS regarding the potential harm to listed species.⁶³ The purpose of the consultation is “to assist the Federal agency and any applicant [in] identifying and resolving potential conflicts” as early as possible.⁶⁴ During the consultation process, FWS develops a biological opinion based on the best available scientific data.⁶⁵ The biological opinion must include a “detailed discussion of the effects of the action on listed species or critical habitat,” as well as a “summary of the information on which the opinion is based.”⁶⁶ If FWS determines that the proposed action would jeopardize a listed species, the biological opinion must advise the acting agency of any “reasonable and prudent alternatives” that would bring the action into compliance with the ESA.⁶⁷ If FWS determines that no such alternatives exist, then the agency action is barred.⁶⁸

C. *The God Squad and Its Exemption*

Initially, the ESA did not contain any reference to the God Squad.⁶⁹ However, because the original ESA strongly emphasizes the conservation of wildlife, and did not allow weighing human economic interests against the survival of an animal species, it was inevitable that critical

⁶² See Zygmunt J.B. Plater, *Endangered Species Act Lessons Over 30 Years, and the Legacy of the Snail Darter, a Small Fish in a Pork Barrel*, 34 ENVTL. L. 289, 292, n.13 (2004) (discussing political and industrial opposition to the ESA); Patrick W. Ryan & Erika E. Malmen, *Interagency Consultation Under Section 7*, in ENDANGERED SPECIES ACT: LAW, POLICY AND PERSPECTIVES 104, 106 (Donald C. Baur & WM. Robert Irvin eds., 2d ed. 2010) (describing ways in which Federal agency action may be implicated in otherwise private or state-level activity).

⁶³ See 16 U.S.C. § 1536(a); 50 C.F.R. § 402.10 (2010).

⁶⁴ 50 C.F.R. § 402.10.

⁶⁵ See 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)–(h).

⁶⁶ 50 C.F.R. § 402.14(h).

⁶⁷ *Id.* § 402.02, -14(h). (“Reasonable and prudent alternatives [are] alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction, that is economically and technologically feasible, and that [Fish and Wildlife] believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.”).

⁶⁸ See 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14.

⁶⁹ Ryan & Malmen, *supra* note 62, at 118 (noting the Endangered Species Committee was added to ESA); see *Portland Audubon Soc’y v. Endangered Species Comm.*, 984 F.2d 1534, 1537 (9th Cir. 1993) (referring to nickname “God Squad”).

habitat designations would directly conflict with business and industrial interests.⁷⁰ In response, Congress amended the ESA in 1978 to allow for an exemption from section 7's requirements.⁷¹

The God Squad itself is made up of seven members, chaired by the Secretary of the Interior.⁷² Other members include the Secretaries of Agriculture and the Army, the Administrators of the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration, as well as the Chairman of the Council of Economic Advisors.⁷³ The seventh member is a presidential appointee from the state affected by the agency action.⁷⁴ A vote of five members is sufficient to grant an exemption from section 7's no-jeopardy requirement.⁷⁵ An exemption to the no-jeopardy requirement granted under section 7 also exempts the agency action from the ESA's prohibition on the illegal "taking" of endangered species, making the extinction of the species a genuine possibility.⁷⁶

Only a few enumerated parties who have met the procedural consultation requirements of the ESA can request a God Squad exemption.⁷⁷ These parties include "Federal agenc[ies], the Governor of the State in which an agency action will occur . . . or a permit or license applicant."⁷⁸ Once an authorized party has requested an exemption, and the Secretary of the Interior has determined that all procedural requirements have been met, public hearings on the exemption applica-

⁷⁰ See, e.g., *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978) (discussing conflict between endangered fish and hydroelectric dam project); *Portland Audubon Soc'y*, 984 F.2d at 1537 (discussing conflict between threatened owls and timber industry).

⁷¹ See 16 U.S.C. § 1536(e) (God Squad provision); ZYGMUNT J.B. PLATER ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 800 (3d ed. 2004); Ryan & Malmen, *supra* note 62, at 118. See generally *Hill*, 437 U.S. at 153. For a thorough discussion of the snail darter's conflict with the Tennessee Valley Authority's Tellico Dam project, see KENNETH MURCHISON, THE SNAIL DARTER CASE: TVA VERSUS THE ENDANGERED SPECIES ACT (2007).

⁷² See 16 U.S.C. § 1536(e)(3), (5)(B).

⁷³ *Id.* § 1536(e)(1)(3).

⁷⁴ *Id.* § 1536(e)(1)(3)(G).

⁷⁵ *Id.* § 1536(e)(5)(A).

⁷⁶ See *id.* § 1536(o); Gup, *supra* note 60.

⁷⁷ See 16 U.S.C. § 1536(g)(1). To be eligible to request an exemption, the requesting party must have: (1) made a good-faith effort to "develop and fairly consider . . . reasonable and prudent alternatives to the proposed agency action" which would not violate the ESA; (2) conducted any biological assessment required by the ESA; and (3) refrained from making an "irreversible or irretrievable commitment of resources" in furtherance of the proposed action. *Id.* § 1536(g)(3).

⁷⁸ *Id.* § 1536(g).

tion are held to elicit more information on which the God Squad may base its decision.⁷⁹

After public hearings have further developed the record, the God Squad members vote on the exemption.⁸⁰ The ESA authorizes a balancing test to determine if the God Squad should grant the exemption, taking into account the public's interest in conserving wildlife *and* its interest in the completion of the agency action.⁸¹ The ESA provides that the God Squad may grant the exemption if five of its members determine, based on the record, that:

- (i) there are no reasonable and prudent alternatives to the agency action;
- (ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;
- (iii) the action is of regional or national significance; and
- (iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitment of resources [in furtherance of the barred agency action].⁸²

The God Squad's decision to grant an exemption is judicially reviewable under the Administrative Procedures Act.⁸³

The God Squad has sixty days to reverse an exemption before it becomes permanent.⁸⁴ Furthermore, the ESA requires that if the God Squad grants an exemption, it must establish "such reasonable mitigation and enhancement measures, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement, as are necessary and appropriate to minimize the adverse effects of the agency action upon the endangered species, threatened species, or

⁷⁹ See *id.* § 1536(g)(4)-(5).

⁸⁰ See *id.* § 1536(h)(1).

⁸¹ See *id.*

⁸² *Id.* The fourth requirement prevents a federal agency from investing additional money into a project which FWS has determined will jeopardize a species, and then using that investment as justification for a God Squad exemption under the economic prong. Essentially, the ESA provides that an agency driving up the cost of such a project waives its right to request a God Squad exemption, and no such circumstance exists here. See *id.*

⁸³ See 16 U.S.C. § 1536(n) (reviewable under Administrative Procedures Act); Administrative Procedures Act, 5 U.S.C. § 706 (2006).

⁸⁴ See 16 U.S.C. § 1536(h)(2)(B).

critical habitat concerned.”⁸⁵ However, there is no requirement that these mitigation efforts be successful.⁸⁶

II. PRIOR USE OF THE GOD SQUAD EXEMPTION

The ESA’s exemption process has been infrequently used.⁸⁷ Since Congress authorized God Squad exemptions, only six applications have ever been formally filed.⁸⁸ Of those applications, three were withdrawn, while the God Squad convened to reach a decision on the other three.⁸⁹ The first two applications—concerning the snail darter and the whooping crane—were decided on the same day in January 1979.⁹⁰ In more than thirty years since these first hearings, the God Squad has made only one additional exemption decision—a 1992 decision concerning the northern spotted owl’s habitat.⁹¹

Two factors may contribute to the infrequent use of the God Squad exemption.⁹² First is the social and political pressure put on the members of the God Squad to avoid extreme acts such as approving an exemption that could lead to the extinction of an entire species.⁹³ This may be particularly true in light of polls showing strong citizen support for the protection of endangered species, even if the species’ value to humans is not apparent.⁹⁴

The second factor is the design of the amendment’s language, which puts numerous procedural hurdles before parties seeking an exemption.⁹⁵ These procedures require applicants to research and consider a full array of possible alternatives to the harmful agency action before applying for an exemption.⁹⁶ Additionally, any exemption will come with potentially burdensome mitigation requirements imposed

⁸⁵ *Id.* § 1536(h)(1)(B).

⁸⁶ *See id.* § 1536(h).

⁸⁷ *See* Corn et al., *supra* note 27, at 103; Ryan & Malmen, *supra* note 62, at 118.

⁸⁸ Corn et al., *supra* note 27, at 103.

⁸⁹ *Id.*

⁹⁰ *See* MURCHISON, *supra* note 71, at 206 (snail darter application rejected by Endangered Species Committee on Jan. 23, 1979); Corn et al., *supra* note 27, at 107 (whooping crane application approved by Endangered Species Committee on Jan. 23, 1979).

⁹¹ Corn et al., *supra* note 27, at 108.

⁹² *See* PLATER ET AL., *supra* note 71, at 803 (describing the exemption mechanism as “rigorous and embarrassing”); STANFORD ENVTL. L. SOC’Y, THE ENDANGERED SPECIES ACT: A STANFORD ENVIRONMENTAL LAW SOCIETY HANDBOOK 101 (P. Stephanie Easley et al. eds., 2001) (describing the exemption mechanism as “cumbersome”).

⁹³ *See* Plater, *supra* note 62, at 307.

⁹⁴ *See id.*

⁹⁵ 16 U.S.C. § 1536(g) (2006); *see also* STANFORD ENVTL. L. SOC’Y, *supra* note 92, at 101.

⁹⁶ *See* 16 U.S.C. § 1536(g).

by the God Squad.⁹⁷ Despite these hurdles, agencies have on six occasions requested God Squad exemptions, three of which made it before the Committee.⁹⁸ The Committee has voted once to deny an agency's request, and twice in favor of exemption.⁹⁹ The three God Squad exemption decisions are discussed below.

A. *The Snail Darter: How the God Squad Came to Be*

The Tennessee Valley Authority (TVA), a federal agency responsible for hydroelectric dam development, sought to complete its \$100 million Tellico dam project at the tail end of the Little Tennessee River.¹⁰⁰ The project would flood at least 13,500 acres, and require the additional acquisition of more than 16,000 acres of land along the newly created shoreline property, which would then be sold to private developers for a profit.¹⁰¹ TVA justified the action by claiming that the cost-benefit ratio would be 1.4 to 1 in favor of the project.¹⁰²

The project faced immediate opposition from local landowners whose property would be flooded when the Tellico dam closed, as well as from those whose land would be condemned by the government for economic development and resale.¹⁰³ The dam was not yet complete in 1973 when a biologist discovered a previously unknown species of perch, called the snail darter, living in the remaining free-flowing part of the Little Tennessee River.¹⁰⁴ Congress passed the ESA four months later, and the opponents of the Tellico dam subsequently petitioned the Secretary of the Interior to list the snail darter as an endangered species.¹⁰⁵ Interior listed the snail darter as endangered on October 8,

⁹⁷ See *id.*; Corn et al., *supra* note 27, at 106 (noting that “the exemption applicant is . . . responsible for carrying out and paying for mitigation” and must make annual reports to the Council on Environmental Quality on the mitigation efforts).

⁹⁸ See Corn et al., *supra* note 27, at 103.

⁹⁹ See *id.* at 107–08.

¹⁰⁰ See *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 157, 172 (1978).

¹⁰¹ MURCHISON, *supra* note 71, at 18–19.

¹⁰² *Id.* at 16–18; see *Hill*, 437 U.S. at 157.

¹⁰³ See MURCHISON, *supra* note 71, at 19, 21. Further, because the reservoir would flood land particularly significant to the Cherokee Nation, and land containing several historic and archeological sites, natives and a citizen's group dedicated to historic preservation joined in opposition to the dam. See *id.* at 20; see also *Hill*, 437 U.S. at 156–57. Because the undammed portion of the Little Tennessee River was one of the best trout fishing locations in the country, a group of trout fishermen joined the opposition in an attempt to preserve the free-flowing water. See *Hill*, 437 U.S. at 156; MURCHISON, *supra* note 71, at 19.

¹⁰⁴ See MURCHISON, *supra* note 71, at 22; PLATER ET AL., *supra* note 71, at 779.

¹⁰⁵ See *Hill*, 437 U.S. at 160–61. Information available at the time put the total snail darter population between 10,000 and 15,000, and identified its only known habitat as the last remaining undammed portion of the Little Tennessee River. *Id.* at 159, 162.

1975, and determined that if the project were finished, “the proposed impoundment of water behind the proposed Tellico Dam would result in total destruction of the snail darter’s [critical] habitat.”¹⁰⁶

Tellico dam opponents filed suit to enjoin the TVA from completing the dam, claiming that the destruction of the snail darter’s habitat would violate section 7 of the ESA.¹⁰⁷ The district court refused to issue an injunction, finding that Congress did not intend section 7 to apply to ongoing projects close to completion.¹⁰⁸ The Sixth Circuit reversed,¹⁰⁹ and the Supreme Court upheld the reversal.¹¹⁰ In the landmark case *Tennessee Valley Authority v. Hill*, the Court found that the ESA did not allow for cost-benefit analysis, and therefore mandated that the Tellico dam construction cease, even if that meant the loss of \$100 million already invested in the project.¹¹¹

The political fallout from the decision led industry groups, fearful of the strength of the section 7 mandate, to pressure Congress to enact the 1978 amendments, creating the God Squad.¹¹² The God Squad convened to decide the fate of the snail darter immediately after the amendment’s passage.¹¹³ The God Squad’s first decision was a unanimous denial of the Tellico dam exemption.¹¹⁴ The Committee found that the economic benefits of completing the dam did not significantly outweigh the associated costs.¹¹⁵ The evidence prompted the sitting chairman of the God Squad, Secretary of the Interior, Cecil Andrus, to describe the Tellico dam project as “ill-conceived and uneconomic in the first place.”¹¹⁶

¹⁰⁶ *Id.* at 161–62 (quoting 40 Fed. Reg. 47,505–06 (Oct. 9, 1975)).

¹⁰⁷ See 16 U.S.C. § 1536(a) (2006); *Hill*, 437 U.S. at 164.

¹⁰⁸ See *Hill v. Tennessee Valley Auth.*, 419 F. Supp. 753, 760 (E.D. Tenn. 1976), *rev’d*, 549 F.2d 1064 (6th Cir. 1977).

¹⁰⁹ *Hill*, 549 F.2d at 1070, 1075.

¹¹⁰ *Hill*, 437 U.S. at 187–88.

¹¹¹ *Id.*

¹¹² See PLATER ET AL., *supra* note 71, at 799–801; J. Michael Scott et al., *Introduction to 1 THE ENDANGERED SPECIES ACT AT THIRTY: RENEWING THE CONSERVATION PROMISE* 8–9 (Dale D. Gobel et al. eds., 2006). Kenneth Murchison notes that conservative critics of the ESA considered the *Hill* decision a “triumph of environmental ideology over common sense.” MURCHISON, *supra* note 71, at 4.

¹¹³ *Id.* note 71, at 154. The 1978 amendments provided an expedited process for the God Squad to begin hearings on the Tellico dam matter within thirty days of the amendment’s passage, bypassing the application requirements. *Id.*

¹¹⁴ See PLATER ET AL., *supra* note 71, at 801.

¹¹⁵ See *id.*

¹¹⁶ *Id.* (quoting Secretary of the Interior, Cecil Andrus).

B. *The Whooping Crane*

At the same time that the God Squad convened to hear the snail darter case, it also convened to hear the case of the whooping crane.¹¹⁷ While the TVA tried to complete the Tellico dam, another development agency, the Rural Electrification Administration, sought to complete the Grayrocks dam in Wyoming's Laramie River.¹¹⁸ The dam's closure threatened the downriver habitat in Nebraska supporting the endangered whooping crane.¹¹⁹

At one time, the whooping crane was a national symbol of the growing problem of endangered species.¹²⁰ In the late 1930s and early 1940s, the total population of surviving whooping cranes hovered near twenty birds.¹²¹ Therefore, it is ironic that the God Squad unanimously granted its first and only full exemption in a case involving this extremely imperiled species.¹²²

However, as Shannon Petersen notes in *Acting for Endangered Species*, this exemption was not much of an exemption at all.¹²³ The parties involved in the dispute, including the agency and several environmental groups, had agreed to a settlement prior to the God Squad's decision.¹²⁴ Under a federal court agreement, the Administration could complete the dam "if its builders guaranteed that enough water would be released from the dam to maintain adequate stream levels on the Platte River where it passed the Nebraska feeding grounds."¹²⁵ The God Squad granted the exemption, but required the implementation of the preexisting settlement as mitigation.¹²⁶ Because the settlement would have already preserved the feeding grounds to the extent that the habitat would not be in jeopardy, the exemption was never really

¹¹⁷ See *supra* note 90, and accompanying text; Press Release, Dep't of the Interior, Endangered Species Committee Completes Report on Grayrocks and Tellico (Feb. 8, 1979), available at <http://www.fws.gov/news/historic/1979/19790208.pdf>.

¹¹⁸ See SHANNON PETERSEN, *ACTING FOR ENDANGERED SPECIES: THE STATUTORY ARK 65* (2002); Press Release, Dep't of Interior, *supra* note 117.

¹¹⁹ See PETERSEN, *supra* note 118 at 64–65; Corn et al., *supra* note 27, at 107.

¹²⁰ See Scott et al., *supra* note 112, at 5–6.

¹²¹ See Michael J. Bean, *Historical Background of the Endangered Species Act*, in *ENDANGERED SPECIES ACT: LAW, POLICY AND PERSPECTIVES* 8, 11 (Donald C. Baur & Wm. Robert Irvin eds., 2d ed. 2010) (twenty-one surviving whooping cranes in 1941); *id.* at 6 (fewer than twenty surviving whooping cranes in 1938).

¹²² See Corn et al., *supra* note 27, at 107.

¹²³ PETERSEN, *supra* note 118, at 65.

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.* at 65–66; see 16 U.S.C. § 1536(h)(1)(B) (2006).

required in the first place.¹²⁷ Even so, by granting the exemption, the God Squad signaled that the completion of the Grayrocks dam met the ESA standard for exemptions.¹²⁸

C. *The Spotted Owl*

In 1990, FWS listed the northern spotted owl as threatened, bringing conservationists into conflict with the logging industry.¹²⁹ FWS found that, in order to survive, the spotted owl required old-growth forest with a high canopy to nest in, and room under the branches to fly and hunt.¹³⁰ Furthermore, the practice of clearing and selling discrete plots of land fragmented patches of owl habitat, reducing the chances that mating pairs would find each other and reproduce.¹³¹ Thus, the logging practices of the Federal Bureau of Land Management (BLM) had adverse effects on the owl's critical habitat, and violated section 7.¹³²

Industry representatives expressed concern that the entire lumber industry in the Pacific Northwest would be affected, with some predicting the loss of more than 25,000 jobs.¹³³ Tensions increased after FWS approved only one-third of the BLM's proposed timber sales, rejecting sales on fifty-two plots of forest land because those sales would jeopardize the survival of the spotted owl.¹³⁴ The BLM petitioned George H.W. Bush's Secretary of the Interior for a God Squad exemption on forty-four of the plots.¹³⁵ After hearings, during which timber industry proponents challenged the validity of FWS's scientific conclusions, the God Squad voted five to two in favor of exempting thirteen of the forty-four timber sales, believing that the reduced number of sales would leave enough contiguous forest to avoid harming the spotted owl popula-

¹²⁷ PETERSEN, *supra* note 118, at 65–66.

¹²⁸ See 16 U.S.C. § 1536(h).

¹²⁹ See 55 Fed. Reg. 26,114, 26,114, 26,121, 26,125 (June 26, 1990) (codified at 50 C.F.R. pt. 17); BRUCE G. MARCOT & JACK WARD THOMAS, U.S. DEP'T OF AGRIC., PNW-GTR-408, OF SPOTTED OWLS, OLD GROWTH, AND NEW POLICIES: A HISTORY SINCE THE INTER-AGENCY SCIENTIFIC COMMITTEE REPORT 5–6 (1997).

¹³⁰ See 73 Fed. Reg. 47,345, 47,345–46 (Aug. 13, 2008) (codified at 50 C.F.R. pt. 17).

¹³¹ See *id.* at 47,347. "Timber harvest has contributed significantly to habitat loss, degradation, and fragmentation for the northern spotted owl, and was the basis for the original listing of the species." *Id.* at 47,349.

¹³² See 16 U.S.C. §§ 1532(5), 1536.

¹³³ See STEVEN LEWIS YAFFEE, THE WISDOM OF THE SPOTTED OWL: POLICY LESSONS FOR A NEW CENTURY 134 (1994); Tom Kenworthy, 'God Squad' to Ponder Spotted Owl, WASH. POST, Oct. 21, 1991, at A17.

¹³⁴ See YAFFEE, *supra* note 133, at 138.

¹³⁵ See MARCOT & THOMAS, *supra* note 129, at 6; YAFFEE, *supra* note 133, at 138.

tion.¹³⁶ In addition, it ordered the implementation of FWS's owl recovery plan.¹³⁷

Although environmental groups initially contested the exemption as the result of improper political influence by President Bush,¹³⁸ by the time President Clinton had taken office, the end result was similar to the result in the whooping crane case—the exemption was granted as long as no real jeopardy would come to the threatened species.¹³⁹

III. THE DELTA SMELT AND THE CALIFORNIA WATER CRISIS

A. *The Delta Smelt's Lifecycle and Habitat*

The delta smelt is native to a limited range in the San Francisco Bay and Sacramento-San Joaquin Delta Estuary of California (Bay-Delta region).¹⁴⁰ The small fish does not have any significant economic use for farmers, local industry, or state water officials.¹⁴¹ The delta smelt's greatest value may be as an "indicator" species.¹⁴² That is, by observing the health of the delta smelt population in California's waterways, observers may draw conclusions about the health of the ecosystem in general, and its potential effects on humans who rely on the Delta estuary for drinking water.¹⁴³

Information on the lifecycle of the delta smelt is limited, but the species resides in the partially saline, brackish waters of the Bay-Delta region where the San Joaquin and Sacramento rivers empty into the Pacific Ocean.¹⁴⁴ During the winter months, adult fish migrate from

¹³⁶ See *Portland Audubon Soc'y v. Endangered Species Comm.*, 984 F.2d 1534, 1537 (9th Cir. 1993); YAFFEE, *supra* note 133, at 139; see also MARCOT & THOMAS, *supra* note 129, at 6–7 (noting that proponents of timber sales "put the science [used by FWS] on trial").

¹³⁷ MARCOT & THOMAS, *supra* note 129, at 7.

¹³⁸ See *id.*; YAFFEE, *supra* note 133, at 139, 246. See generally *Portland Audubon Soc'y*, 984 F.2d at 1534.

¹³⁹ See PETERSEN, *supra* note 118, at 65–66.

¹⁴⁰ BIOLOGICAL OPINION, *supra* note 51, at 140.

¹⁴¹ See FWS, 5-YEAR REVIEW FOR HYPOMESUS TRANSPACIFICUS (DELTA SMELT) 5 (2010) [hereinafter 5-YEAR REVIEW]; Peter B. Moyle, *Restoring Aquatic Ecosystems Is a Matter of Values*, 54 CAL. AGRIC. 16, 24–25 (2000) (suggesting that steps to protect the delta smelt should be taken for moral reasons, and "must be taken without the immediate expectation of economic gain"); *Farmers Fight Against Delta Smelt Protection*, ABC LOCAL NEWS, Jan. 25, 2010, <http://abclocal.go.com/kgo/story?section=news/state&id=7238845>.

¹⁴² See Zygmunt J.B. Plater, *The Embattled Social Utilities of the Endangered Species Act—A Noah Presumption and Caution Against Putting Gasmasks on the Canaries in the Coalmine*, 27 ENVTL. L. 845, 853 n.33 (1997).

¹⁴³ See *id.*; see also LUND ET AL., *supra* note 24, at 4.

¹⁴⁴ BIOLOGICAL OPINION, *supra* note 51, at 140, 145–46; 5-YEAR REVIEW, *supra* note 141, at 5.

the salty waters of the Bay to the shores of the freshwater rivers to spawn.¹⁴⁵ While scientists have not yet observed the rare fish mating in the wild, scientific evidence indicates that the adult delta smelt lay their eggs in fresh water near the river banks.¹⁴⁶

Due to its sharply declining population, the delta smelt has been listed as threatened under the ESA since 1993.¹⁴⁷ The reasons for the decline are varied, but one threat to the species is the water-pumping mechanisms of California's irrigation system.¹⁴⁸

B. *California's Water Diversion System: A Threat to the Delta Smelt*

The Central Valley Project (CVP), a large-scale federal water management project, and the corresponding State Water Project (SWP), divert fresh water from the Sacramento and San Joaquin rivers to more arid regions of central and southern California.¹⁴⁹ The water diversion system uses the Delta, where the rivers empty into San Francisco Bay, as a conduit for water destined for more arid parts of the state.¹⁵⁰ Most of California's farmland relies on water that flows into the Delta and is diverted for irrigation.¹⁵¹ As the state's population and agricultural sector have continued to grow, the demands on the fresh water supply have increased.¹⁵² In order to move the large volume of water necessary to meet demand, the intake pumps must draw water from the rivers at impressive rates.¹⁵³

Unfortunately, the intake pipes are located near the delta smelt's critical spawning grounds.¹⁵⁴ During spawning, the small fish are drawn into the pumping mechanisms where they are killed.¹⁵⁵ Even where the fish manage to lay eggs, the young larval smelt are often drawn into the

¹⁴⁵ See BIOLOGICAL OPINION, *supra* note 51, at 146.

¹⁴⁶ See *id.* at 145–47.

¹⁴⁷ 58 Fed. Reg. 12,854, 12,854 (March 5, 1993) (codified at 50 C.F.R. pt. 17).

¹⁴⁸ See 5-YEAR REVIEW, *supra* note 141, at 4.

¹⁴⁹ See LUND ET AL., *supra* note 24, at 31–33.

¹⁵⁰ See *id.* at 31. See generally NAT'L RESEARCH COUNCIL, COMM. ON SUSTAINABLE WATER AND ENVTL. MGMT. IN THE CAL. BAY-DELTA, A SCIENTIFIC ASSESSMENT OF ALTERNATIVES FOR REDUCING WATER MANAGEMENT EFFECTS ON THREATENED AND ENDANGERED FISHES IN CALIFORNIA'S BAY DELTA (2010) [hereinafter BAY DELTA REPORT].

¹⁵¹ See LUND ET AL., *supra* note 24, at 4, 33.

¹⁵² See *supra* note 19 and accompanying text.

¹⁵³ See 5-YEAR REVIEW, *supra* note 141, at 4. The stronger of the two major pumps has exported water at a rate of more than 6,000 cubic feet per second, and may be capable of volumes exceeding 10,000 cubic feet per second. *Id.*

¹⁵⁴ See *id.*; BIOLOGICAL OPINION, *supra* note 51, at 159–61.

¹⁵⁵ See 5-YEAR REVIEW, *supra* note 141, at 4; BIOLOGICAL OPINION, *supra* note 51, at 159–61.

pumps and killed as they migrate toward their adult habitat in the Bay.¹⁵⁶ Furthermore, because young delta smelt use the river's flow to navigate to the brackish waters of the Bay, they become disoriented during times when the pumps are operating at a level that reverses the river's flow.¹⁵⁷ This leads them away from their natural habitat and back toward the pumps, where they are entrained or eaten by striped bass in the river.¹⁵⁸ FWS found that "[a]ll size classes of delta smelt suffer near total loss when they are entrained by the pumping plants and diversions in the south Delta."¹⁵⁹

Additionally, high-volume diversions for irrigation reduce the amount of fresh water downstream and diminish the force of the out-flowing river, allowing the saline water from the Bay to push further inland.¹⁶⁰ This reduces the amount of fresh water available as breeding space for the delta smelt, as well as the water available for other human purposes.¹⁶¹ Furthermore, young smelt feed on organisms that require low salinity, making the preservation of a salt-free delta even more important.¹⁶²

The combination of entrainment and destruction of critical habitat has contributed to the continuing decline in the delta smelt population.¹⁶³ Ultimately, in 2007 a federal court ordered that water projects reduce the flow of the pumps to protect the species, pending FWS's production of an updated Biological Opinion on the delta smelt.¹⁶⁴ The revised Biological Opinion, issued in 2008, confirmed that water project diversions during spawning months would likely jeopardize the delta smelt's critical habitat, therefore barring the pumping under the ESA's section 7.¹⁶⁵ The revised Biological Opinion set out an alternative to total shutdown, requiring reduced pumping and periodic release of

¹⁵⁶ 5-YEAR REVIEW, *supra* note 141, at 4; BIOLOGICAL OPINION, *supra* note 51, at 152.

¹⁵⁷ 5-YEAR REVIEW, *supra* note 141, at 4.

¹⁵⁸ *Id.* Entrainment occurs when delta smelt are trapped in inflow pipes or other hazardous areas by currents. *Id.*

¹⁵⁹ *Id.* The study further notes that those fish that survive the entrainment in the pumps to reach "water project reservoirs or canals fail to reproduce." *Id.*

¹⁶⁰ *See id.* at 4–5.

¹⁶¹ 5-YEAR REVIEW, *supra* note 141, at 4–5; BIOLOGICAL OPINION, *supra* note 51, at 146, 148; LUND ET AL., *supra* note 24, at 4 (noting that "most Californians drink water that passes through the Delta").

¹⁶² BIOLOGICAL OPINION, *supra* note 51, at 149.

¹⁶³ *See* Matt Weiser, *Delta Smelt in Peril, Fish and Wildlife Says*, SACRAMENTO BEE, Apr. 3, 2010, at 2B.

¹⁶⁴ *See* Natural Res. Def. Council v. Kempthorne, No. 1:05-cv-1207, at *3, 5–6 (E.D. Cal. Dec. 14, 2007) (order issuing preliminary injunction).

¹⁶⁵ *See* 16 U.S.C. § 1536(a) (2) (2006); BIOLOGICAL OPINION, *supra* note 51, at 278.

upstream reservoir water to replenish the smelt's freshwater breeding habitat.¹⁶⁶ Another alternative is building a canal to bypass the delta smelt habitat entirely.¹⁶⁷

C. *Opponents of Reduced Pumping Call for the God Squad*

California's drought, which began in 2007, has put pressure on an agricultural industry reliant on irrigation.¹⁶⁸ The court ordered reduction in pumping served to agitate the brewing conflict between agricultural interests in need of water, and the need to protect the delta smelt and its habitat.¹⁶⁹

As the drought years continued, agricultural interests argued that the reduced pumping was causing an undue strain on the farm economy, threatening jobs at a time when the nation as a whole—and California in particular—was suffering high unemployment.¹⁷⁰ Opponents of water diversion restrictions continue to characterize the conflict as a battle between people and fish, with some going so far as to question whether a shortage would exist at all, even under prolonged drought conditions, absent the mandates of the ESA.¹⁷¹ Some have suggested that an exemption by the God Squad to allow high-speed pumping would be the appropriate answer to the California water crisis.¹⁷²

¹⁶⁶ BIOLOGICAL OPINION, *supra* note 51, at 279–85.

¹⁶⁷ See LUND ET AL., *supra* note 24, at 138–54 (outlining nine potential alternatives). One of the alternatives, the peripheral canal proposal, had been discussed for decades, and is not without its detractors. See, e.g., LODI CITY COUNCIL, CITY COUNCIL RESOLUTION 2009–127, A RESOLUTION OF THE LODI CITY COUNCIL OPPOSING DEVELOPMENT OF A PERIPHERAL CANAL AND EXPANSION OF STATE AUTHORITY OVER LOCAL LAND-USE DECISIONS (2009), available at <http://publicdocs.lodi.gov/Docs/RESOLUTIONS/2009/res2009-127.pdf>.

¹⁶⁸ See Dianne Feinstein, *Sen. Feinstein Responds*, CAL. PROVOCATEUR, Feb. 2010, at 10, available at <http://magissues.farmprogress.com/CLF/CF02Feb10/clf010.pdf>. (“This is the third year of severe drought in California, and farmers in the San Joaquin Valley are suffering real economic hardships due to water shortages.”).

¹⁶⁹ See *id.*; see also CODY ET AL., *supra* note 10, at 11.

¹⁷⁰ See CAL. LABOR & WORKFORCE DEV. DEP'T, CALIFORNIA LABOR MARKET REVIEW 14 (2010) (unemployment in California rose from 4.9% in 2006 to 12.5% in early 2010); Valerie Richardson, *It's Farmers vs. Fish for California Water*, WASH. TIMES, Aug. 20, 2009, at A01, available at <http://m.washingtontimes.com/news/2009/aug/20/its-farmers-vs-fish-for-california-water>.

¹⁷¹ See Richardson, *supra* note 170; *California's Man-Made Drought*, *supra* note 25.

¹⁷² See Letter from Dennis Hollingsworth, California State Senator, to Arnold Schwarzenegger, Governor of California (February 5, 2009), available at <http://cssrc.us/web/36/news.aspx?id=5422> (urging Governor Schwarzenegger to ask to convene the God Squad).

IV. WOULD A GOD SQUAD EXEMPTION SOLVE THE CRISIS?

Obtaining an exemption from the God Squad is most likely a challenging prospect. Although two of the three God Squad decisions ever issued were in favor of exempting an agency action from section 7,¹⁷³ in reality, the God Squad granted the whooping crane and spotted owl exemptions under conditions that would not actually put the animals in jeopardy.¹⁷⁴ The God Squad, even when its members have been sympathetic to industry interests, has never allowed an agency action to proceed in a manner that would clearly threaten the survival of a species.¹⁷⁵ Future Committee members would likely have similar qualms about being responsible for the extinction of a species.

The infrequency of God Squad decisions, coupled with the fact that no decision has been reviewed on its merits, provides limited guidance for determining how the Committee might rule on the case in California.¹⁷⁶ Nonetheless, it is possible to draw some inferences from past exemption applications, and recent scientific evidence helps to suggest a likely outcome, should California's governor request an exemption.¹⁷⁷ The proposal to exempt California's water diversions from section 7 would probably not meet the requirements for an exemption, and resources may be better spent pursuing a reasonable and prudent alternative to high-volume pumping from the Sacramento and San Joaquin Rivers.¹⁷⁸ The individual elements of the exemption are analyzed below.

A. *The Regional or National Significance Requirement and the Prohibition on Investment of Irretrievable Resources*

Two of the four requirements for a God Squad exemption—that the proposed agency action be of regional or national significance, and that the agency refrain from investing any irreversible or irretrievable resources in furtherance of the action prohibited by the ESA—should

¹⁷³ See *supra* notes 97–99 and accompanying text.

¹⁷⁴ See discussion *supra* Part II.B–C.

¹⁷⁵ See *id.*

¹⁷⁶ See Corn et al., *supra* note 27, at 107–08 (summary of exemption requests); Ryan & Malmen, *supra* note 62, at 118.

¹⁷⁷ See generally BAY DELTA REPORT, *supra* note 150 (discussing scientific support for delta smelt protections); POST BUCKLEY SHUH & JERNIGAN (PBS&J), INDEPENDENT EXPERT PANEL REVIEW OF THE FAMILY FARM ALLIANCE'S INFORMATION QUALITY ACT CORRECTION REQUESTS (2009) [hereinafter INDEPENDENT EXPERT PANEL REVIEW] (discussing scientific support for smelt protections).

¹⁷⁸ See 16 U.S.C. § 1536(h) (2006).

easily be satisfied by the circumstances at the diversion pumps.¹⁷⁹ The proposed action for purposes of an exemption would be the restoration of high-flow pumping that could threaten the continued existence of the delta smelt.¹⁸⁰

First, the water pumps are part of a large-scale regional water diversion system that supplies water to much of California's farmland.¹⁸¹ California farms, in turn, supply a significant percent of the nation's produce, making the maintenance of a sufficient irrigation water supply of at least regional, and probably national, significance.¹⁸² It is sensible to assume that the God Squad would come to this conclusion, given that past iterations of the God Squad have found that a modest hydroelectric dam like the Grayrocks Dam, and thirteen lumber sales in the Pacific Northwest, warranted an exemption.¹⁸³

Second, the pumping stations could already move water at a rate capable of killing the smelt and destroying critical habitat prior to the imposition of FWS's regulations.¹⁸⁴ Therefore, in the time since the court ordered reduced pumping, the water projects have not invested any irretrievable or irreversible resources that would prohibit an exemption.¹⁸⁵ The other two requirements for an exemption, however, may pose greater challenges for proponents of resuming high-speed pumping.¹⁸⁶

B. *Fish & Wildlife's Reasonable and Prudent Alternative*

One major hurdle that the CVP and SWP would have to surmount when seeking a God Squad exemption is the requirement that there be "no reasonable or prudent alternatives to the agency action."¹⁸⁷ FWS identified a multi-step reasonable and prudent alternative (RPA) in its 2008 revised Biological Opinion regarding the delta smelt.¹⁸⁸ The Biological Opinion calls for the water projects to reduce pumping to pro-

¹⁷⁹ See *id.* § 1536(h)(1)(A)(iii)-(iv); discussion *supra* Part III.B.

¹⁸⁰ See 16 U.S.C. § 1536(h).

¹⁸¹ See Lloyd G. Carter, *Reaping Riches in a Wretched Region: Subsidized Industrial Farming and Its Link to Perpetual Poverty*, 3 GOLDEN GATE U. ENVTL. L.J. 5, 6 (2009).

¹⁸² See CAL. DEP'T OF FOOD & AGRIC., *supra* note 18, at 5 (noting that California supplies fifty percent of the United States' fresh market produce).

¹⁸³ See discussion *supra* Part II.B-C.

¹⁸⁴ See 16 U.S.C. § 1536(h)(1)(A)(iv); *Natural Res. Def. Council v. Kempthorne*, No. 1:05-cv-1207, *3 (E.D. Cal. Dec. 14, 2007) (order requiring status report).

¹⁸⁵ See 16 U.S.C. § 1536(h)(1)(A)(iv); *Kempthorne*, No. 1:05-cv-1207 at *3.

¹⁸⁶ See 16 U.S.C. § 1536(h)(1)(A)(i)-(ii).

¹⁸⁷ See *id.* § 1536(h)(1)(A)(i).

¹⁸⁸ See BIOLOGICAL OPINION, *supra* note 51, at 279-85.

tect the fish and to release fresh water reserves to replenish the breeding habitat.¹⁸⁹ This proposal meets Interior's definition of an RPA; the water projects have the legal authority to control the flow of their own stations, doing so does not require adding any expensive or technologically unfeasible equipment, and the multi-step RPA would result in the conservation of the delta smelt.¹⁹⁰

The God Squad, if convened, could still find that the RPA identified in the Biological Opinion was not, in fact, reasonable and prudent based on the record developed at the hearing.¹⁹¹ However, because no additional technology is required to reduce pumping, opponents of the RPA would likely have to challenge the validity of the jeopardy finding itself.¹⁹² Advocates for the timber sales in the spotted owl case, for example, questioned the scientific basis for FWS's determination that clearing the land would harm the owl.¹⁹³

In a hearing on high-volume pumping in the Bay-Delta region, advocates for increased water diversions would be likely to challenge the science supporting the jeopardy finding, given that no observer has ever witnessed delta smelt spawning in the area around the pumps.¹⁹⁴ CVP and SWP can argue that so little is known about the delta smelt's lifecycle that FWS can not reasonably locate the critical spawning grounds of the delta smelt near the pumping stations, and determine that cutting the force of the outgoing water flow during the winter would conserve the species.¹⁹⁵ Perhaps proponents of pumping could argue that a large number of fish killed in the pumping machinery reflect a *growing* population of smelt, in that larger numbers would logically result in the entrainment of more fish.¹⁹⁶ If the smelt population is declining, could the true cause be predation by non-native species, and competition over resources, rather than the pumps?¹⁹⁷

While much of the delta smelt's lifecycle is still a mystery, a recent report by the National Research Council (NRC) supports the science

¹⁸⁹ *Id.*

¹⁹⁰ See 16 U.S.C. § 1536(h); 50 C.F.R. § 402.02 (2011) (definitions); BIOLOGICAL OPINION, *supra* note 51, at 279–85.

¹⁹¹ See BIOLOGICAL OPINION, *supra* note 51, at 279–85.

¹⁹² See *supra* note 140 and accompanying text.

¹⁹³ See MARCOT & THOMAS, *supra* note 129, at 6–7.

¹⁹⁴ See BIOLOGICAL OPINION, *supra* note 51, at 145, 147.

¹⁹⁵ See *id.* at 145–51, 161 (finding that spawning likely occurs near pumping sites).

¹⁹⁶ See BAY DELTA REPORT, *supra* note 150, at 38 (discussing notion that increase in smelt salvaged after entrainment may reflect recovery of population).

¹⁹⁷ See INDEPENDENT EXPERT PANEL REVIEW, *supra* note 177, at 5–6.

underpinning the Biological Opinion.¹⁹⁸ The NRC's findings make it less likely that the God Squad would find that FWS's RPA is unreasonable.¹⁹⁹ The NRC's report, commissioned by Congress, concluded:

[U]ntil better monitoring data and comprehensive life-cycle models [for the delta smelt] are available, it is scientifically reasonable to conclude that high [flows towards the pump] in winter probably adversely affect smelt populations. Thus, the concept of reducing [those] flows to reduce mortality of smelt at the SWP and CVP facilities is scientifically justified.²⁰⁰

The NRC report supports similar conclusions reached in an October 2009 study by a panel of independent experts addressing the effects of CVP and SWP pumping on the delta smelt.²⁰¹ With at least two studies concluding that the Biological Opinion's suggested RPA is scientifically sound, the God Squad would have a more difficult time justifying the exemption for the water projects.²⁰²

C. *Weighing the Benefits*

Even if a possible alternative to full-speed water pumping would otherwise be reasonable and prudent, it still may be too burdensome from an economic standpoint, and therefore deserve an exemption.²⁰³ But in order to grant an exemption, the God Squad must find that doing so is "in the public interest," and that the benefits of the action "clearly outweigh the benefits of alternative courses of action" that would better conserve the threatened species.²⁰⁴ While a "reasonable and prudent alternative" is suggested by FWS, "alternative courses of action" could include almost anything, and a party requesting an exemption must consider a variety of potential alternatives before receiving an exemption.²⁰⁵

The God Squad could reasonably conclude that resuming high-speed pumping would be in the public interest if it found that restoring water deliveries would have a positive impact on the agricultural econ-

¹⁹⁸ See BAY DELTA REPORT, *supra* note 150, at 3.

¹⁹⁹ See *id.*

²⁰⁰ *Id.*

²⁰¹ See INDEPENDENT EXPERT PANEL REVIEW, *supra* note 177, at 5–9.

²⁰² See BAY DELTA REPORT, *supra* note 150, at 3; INDEPENDENT EXPERT PANEL REVIEW, *supra* note 177, at 5–9.

²⁰³ See 16 U.S.C. § 1536(h)(1)(A)(ii) (2006); discussion *supra* Introduction.

²⁰⁴ See 16 U.S.C. § 1536(h)(1)(A)(ii).

²⁰⁵ See *id.* §§ 1536(h)(1)(A)(ii), 1536(g)(3)(A).

omy.²⁰⁶ The God Squad could fairly determine that increasing the production of the agricultural sector, suffering under prolonged drought conditions in a state experiencing high unemployment, was in the public interest.²⁰⁷ This is not unlike the spotted owl case, where much discussion focused on the impact that preventing timber sales would have on the forest economy and the jobs it provided.²⁰⁸ By granting a partial exemption, the God Squad suggested that allowing at least some timber sales was in the public interest.²⁰⁹

Even though high-speed pumping in the Bay-Delta region may be characterized as being in the public interest, the result might be the extinction of the delta smelt, and such a serious possibility requires a careful consideration of alternatives.²¹⁰ Only if the benefits of increased pumping significantly outweigh the benefits of the alternatives should the God Squad grant an exemption.²¹¹ It is here that proponents of increased pumping may meet their biggest challenge. A key question in the delta smelt case is whether the economic benefits of increased water pumping clearly outweigh the benefits of other choices.²¹² While the number of possible alternatives endless, two are worth consideration.²¹³

1. Following the Biological Opinion to Reduce Pumping

With respect to water pumping in the Bay-Delta region, it is worthwhile to ask whether simply following the FWS's direction to reduce pumping in winter would really cause much economic hardship, and also weigh the benefits of the reduced pumping.²¹⁴

First, the drought conditions may be temporary, and waiting may see the return of high water years, buying time to improve the water delivery system in a way that would conserve the delta smelt before the

²⁰⁶ See *id.* § 1536(h); discussion *supra* Introduction.

²⁰⁷ See *id.* § 1536(h); CAL. LABOR & WORKFORCE DEV. DEP'T, *supra* note 170, at 14; Feinstein, *supra* note 168.

²⁰⁸ See 16 U.S.C. § 1536(h); discussion *supra* Part II.C.

²⁰⁹ See 16 U.S.C. § 1536(h); discussion *supra* Part II.C.

²¹⁰ See 16 U.S.C. § 1536(h); *supra* text accompanying note 166.

²¹¹ See 16 U.S.C. § 1536(h).

²¹² See *id.*

²¹³ See, e.g., PLATER ET AL., *supra* note 71, at 800 (“[I]t is clear that one of the alternatives that must be considered is ‘no action.’”); PUB. POLICY INST. OF CAL., RESEARCH BRIEF, DEALING WITH THE DELTA: ENVISIONING FUTURES, FINDING SOLUTIONS 3–4 (2007), available at http://www.ppic.org/content/pubs/rb/RB_207JLRB.pdf (identifying alternatives to the current water delivery system in the Bay-Delta region, including a peripheral canal proposal).

²¹⁴ See BIOLOGICAL OPINION, *supra* note 51, at 279–85 (the RPA); *supra* text accompanying note 172.

next drought.²¹⁵ Second, while the delta smelt has little direct commercial value, the ecosystem of the rivers, which supply much of Southern California's drinking water, must be preserved.²¹⁶ The excessive water diversions from high-speed pumping cause the salinity line between fresh and salt water to move inland, reducing the amount of fresh water available for all purposes, not just delta-smelt spawning.²¹⁷ Additionally, a restored delta smelt population could help feed other fish in the rivers, like bass, used for sport fishing.²¹⁸ Overall, maintaining reduced pumping speed could better maintain other economically beneficial uses of the river.²¹⁹ This is similar to the snail darter case, where the God Squad refused an exemption in light of the other beneficial uses of a free-flowing Little Tennessee River.²²⁰

Third, even if the drought persists, it is possible that a reduction in available water may encourage Californians to conserve more water and improve irrigation techniques.²²¹ A long term reduction in irrigation water may encourage farmers to shift to less water-intensive crops than are currently in vogue—a shift that farmers may currently resist because water-intensive crops tend to be more profitable.²²² The end result would be a Californian agricultural economy utilizing climate-appropriate crops and less water. This would have positive implications for long-term sustainability of both the agriculture industry, and the river ecology—preserving jobs that rely on both.²²³

Finally, the NRC suggests that careful scientific monitoring of the delta smelt and its habitat may provide better information that would allow for better timed increases in pumping speed.²²⁴ This could avoid

²¹⁵ See Jim Carlton, *U.S. Opens Spigot for California Farmers*, WALL ST. J., March 17, 2010, at A6 (noting that heavy rain in March, 2010, allowed the release of more water for use by the CVP, alleviating some of the pressures on farmers); *supra* text accompanying note 15.

²¹⁶ See LUND ET AL., *supra* note 24, at 4.

²¹⁷ See *supra* text accompanying notes 160–161.

²¹⁸ See 5-YEAR REVIEW, *supra* note 141, at 4; see LUND ET AL., *supra* note 24, at 5.

²¹⁹ See LUND ET AL., *supra* note 24, at 4–5 (discussing beneficial uses of the river).

²²⁰ See *supra* Part II.A.

²²¹ See COOLEY, *supra* note 16, at 7–8 (explaining that reduced water may lead to improved irrigation techniques); Ellen Hanak et al., *Myths of California Water—Implications and Reality*, 16 W. NW. 3, 32–33 (2010).

²²² See COOLEY, *supra* note 16, at 7–8; Hanak et al., *supra* note 221, at 32. There is additional evidence that some fields currently receiving irrigation water from the Bay-Delta system are becoming contaminated with salt water, and may soon be unusable, reducing agricultural demand for water and offsetting some of the net increase in demand due to population growth. See LUND ET AL., *supra* note 24, at 101.

²²³ See CODY ET AL., *supra* note 10, at 11 (noting that Californians rely on a healthy Delta ecosystem for agriculture, salmon fishing and recreation).

²²⁴ See BAY DELTA REPORT, *supra* note 150, at 49.

harming the fish, yet allow for irrigation at a higher volume than the current Biological Opinion allows.²²⁵ While a lack of information may cause greater restrictions on pumping than is necessary to protect the smelt, better science may help achieve a more efficient solution.²²⁶ Given this, the quick-fix of increased pumping now, at the expense of the survival of the delta smelt, does not clearly outweigh the benefits of developing a long-term, sustainable economy that also conserves wild-life. At the very least, such a decision would be premature.²²⁷

2. Building a Peripheral Canal

Another possible alternative to pumping water directly from the river is the construction of an alternative canal that would circumvent the Delta, and deliver water to the pumps without using the delta smelt habitat as a through-point.²²⁸ While the peripheral canal proposal was rejected in the past, markedly increased water demands and the need to protect vulnerable species requires re-examining the canal proposal.²²⁹

A canal used as part of the California water delivery system is technologically and economically feasible—the current state-wide system already includes a network of canals and aqueducts, and adding another would not be unreasonable.²³⁰ Construction of the peripheral canal may meet resistance from affected communities, but the need to preserve the Bay-Delta ecosystem makes the canal alternative well worth exploring.²³¹ The Public Policy Institute of California estimates that a peripheral canal would cost between two and three billion dollars—expensive, but worth the cost for a sustainable water delivery system.²³² Proper

²²⁵ See *id.* The NRC report concludes, “[a]t this time, the best that can be done is to design a strategy of pumping limitations that uses the best available monitoring data and the best methods of statistical analysis . . . to manage the pumping limitations adaptively while minimizing impacts on water users.” *Id.*

²²⁶ See *id.*

²²⁷ See 16 U.S.C. § 1536(h) (2006).

²²⁸ See LUND ET AL., *supra* note 24, at 123–24. After approval in the 1930s, CVP engineers considered using a peripheral canal around the Delta as the primary means of water transport, but decided to route the water through the Delta instead. *Id.* at 32.

²²⁹ See *id.* at 123–24.

²³⁰ See Nikko Ambroselli, *California's Water: California Water Systems*, ASS'N CAL. WATER AGENCIES (Jan. 10, 2011, 9:57 AM), <http://www.acwa.com/content/california-water-series/californias-water-california-water-systems> (noting that California's water delivery system is a series of aqueducts, canals, and pipelines).

²³¹ See LODI CITY COUNCIL, *supra* note 167.

²³² See PUB. POLICY INST. OF CAL., ISSUE NO. 144, RESEARCH BRIEF: DEALING WITH THE DELTA: ENVISIONING FUTURES, FINDING SOLUTIONS 5 (2007), available at http://www.ppic.org/content/pubs/rb/RB_207JLRB.pdf.

monitoring of the canal would ensure that overuse and pollution from the canal's construction do not occur, thereby protecting the ecology of the Bay.²³³ The God Squad would have a difficult time finding that an increase of water pumping speed in the winter months justified the extinction of the delta smelt, and perhaps other species threatened by the ecological changes in the Bay.²³⁴ Reasonable alternatives, like the peripheral canal, have been available for decades, and failure to invest in a smart solution earlier should not be justification for granting an exemption now.²³⁵

D. Other Considerations

1. The Mitigation Factor

Proponents of a God Squad exemption must also consider the fact that the process would require the Committee to establish mitigation techniques designed to protect the delta smelt, even if it allowed for increased pumping.²³⁶ By comparison, the two previous God Squad decisions that granted exemptions did so only where the mitigation requirements resulted in no real harm to the threatened animals.²³⁷ The mitigation efforts chosen by the Committee to try and protect the delta smelt may be significant, and could involve expensive transplant efforts, habitat preservation and restoration, or other techniques that would make an exemption less appealing.²³⁸

2. The Political Hurdle

The God Squad is an inherently political device, even if it serves a quasi-judicial function.²³⁹ Citizens typically frown on politicians who allow the extinction of a species, and the God Squad members have significant national political exposure.²⁴⁰ Further, an industry impor-

²³³ See LUND ET AL., *supra* note 24, at 144. Researchers at the Public Policy Institute of California call the canal and monitoring alternative the "canal plus" alternative. *Id.* at 4.

²³⁴ See *supra* text accompanying note 175.

²³⁵ See LUND ET AL., *supra* note 24, at 32–34. Before water project construction began, authorities were concerned about water quality issues associated with drawing water from the Delta, which possibly could have been avoided by using a freshwater canal at the project's inception. See *id.*

²³⁶ See Endangered Species Act, 16 U.S.C. § 1536(h)(1)(B) (2006).

²³⁷ See *supra* Part II.B–C.

²³⁸ See *supra* note 97 and accompanying text.

²³⁹ See *Portland Audubon Soc'y v. Endangered Species Comm.* 984 F.2d 1534, 1540 (9th Cir. 1993); PLATER ET AL., *supra* note 71, at 800.

²⁴⁰ See Plater, *supra* note 62, at 307.

tant to one region may not have as much support nationally.²⁴¹ The timber industry in the spotted owl case may have supplied many jobs in the Pacific Northwest, but the disgust of those far removed from the forest economy over killing the photogenic bird created a political minefield.²⁴² Likewise, the nation may be reluctant to sanction the extinction of the delta smelt so that a pair of water pumping stations can increase production during a few months.²⁴³ However, if the economic situation becomes acute enough, or if food prices rise as a result of water shortages, the political pressure may grow enough for an administration to consider asking for the God Squad.²⁴⁴

Of course, the Secretary of the Interior must first agree to convene the God Squad.²⁴⁵ Currently, Interior has signaled that it would be reluctant to do so.²⁴⁶ The agency released a communication directly addressing the delta smelt situation and rejected the notion that ESA protections were responsible for the water shortages.²⁴⁷ Addressing the idea of convening the God Squad, Interior outlined its position, stating:

The creation of a “God Squad” would override protections on California’s watersheds—on which 25 million people depend for clean drinking water—and turn the state’s water crisis over to the courts. Moreover, a “God Squad” would undermine the ability of local communities, local water districts, and federal and state water experts to find collaborative, constructive solutions to deliver water where it is needed most in current drought conditions. Trying to force more water out of a dying system will only cause more human tragedy and environmental collapse, while diverting attention from the real need to fix the broken water system in California after decades of neglect.²⁴⁸

It seems unlikely that proponents of a God Squad solution to the California water crisis will find much support from the current administration.²⁴⁹

²⁴¹ See YAFFEE, *supra* note 133, at 245–46; discussion *supra* Part II.C.

²⁴² See YAFFEE, *supra* note 133, at 245–46; discussion *supra* Part II.C.

²⁴³ See *supra* note 94 and accompanying text.

²⁴⁴ Governor Schwarzenegger cited a potential rise in food prices as one factor in his declaration of a statewide emergency due to the water crisis. See CAL. DEP’T OF WATER RES., *supra* note 11, at 70.

²⁴⁵ See 16 U.S.C. § 1536(g) (2006).

²⁴⁶ See U.S. DEP’T INTERIOR, *supra* note 25, at 1–2.

²⁴⁷ See *id.*

²⁴⁸ See *id.*

²⁴⁹ See *id.*

CONCLUSION

A combination of factors makes the God Squad exemption a poor mechanism for solving the California water crisis. As past applications of the God Squad have shown, even when exemptions are granted, the results are usually not the unbridled discretion that the agency seeks. Water interests seeking to eliminate the ESA's protection of the delta smelt would have a difficult time convincing the Committee that there was no reasonable or prudent alternative to high-speed water pumping from the Delta-Bay region consistent with conserving the species. There is growing consensus that alternatives exist, and studies are underway to further explore them. Interior, already skeptical of the God Squad solution, would need much convincing before convening the Committee, and even if the God Squad did grant an exemption, the required mitigation provision ensures that it would not come without cost. The California water crisis would be better addressed directly, by pursuing an alternative that would conserve the delta smelt and its habitat.