1. Pending before us are two requests for rehearing of the Commission’s June 19, 2014 order issuing an original license to Eagle Crest Energy Company (Eagle Crest) to construct, operate, and maintain its Eagle Mountain Pumped Storage Hydroelectric Project No. 13123.¹ The 1,300-megawatt (MW) project will be located on the site of the inactive Eagle Mountain mine in Riverside County, California, near the town of Desert Center, and will occupy federal lands.

2. Kaiser Eagle Mountain, LLC (Kaiser), the U.S. Department of the Interior (Interior), and the Desert Protection Society, intervenors in the licensing proceeding, filed requests for rehearing of the License Order. Interior also filed a motion for a stay of the license. As discussed later in more detail, Kaiser raised issues concerning the licensee’s authority to acquire the property needed for its project by eminent domain, but subsequently withdrew its rehearing request. Because these issues also involve the Commission’s licensing jurisdiction, we address them in this order despite Kaiser’s withdrawal of its rehearing request. On rehearing, the two remaining parties raise issues concerning the adequacy of the Commission’s environmental review and the project’s effects on the resources of nearby Joshua Tree National Park. Interior requests a stay of the license to allow time for further environmental analysis. For the reasons discussed below, we deny rehearing and a stay.

¹ Eagle Crest Energy Co., 147 FERC ¶ 61,220 (2014) (License Order).
**Background**

3. Eagle Crest filed a license application for the Eagle Mountain Project on June 22, 2009. The project will operate as a closed-loop pumped storage facility, with water for the initial reservoir fill and replenishment supplied by groundwater wells. In response to the Commission’s public notice of the application, a number of parties intervened, including Kaiser, Interior, and the Desert Protection Society.\(^2\) Kaiser initially objected to the proposed project on the grounds that it would be incompatible with use of Kaiser’s land for a proposed landfill, but later filed comments contending that the project would conflict with Kaiser’s mines and mining operations. Interior filed comments raising concerns about the project’s effects on the nearby Joshua Tree National Park and later filed a notice of intervention in response to the draft environmental impact statement (EIS). The Desert Protection Society raised a number of environmental concerns.

4. Commission staff issued a draft EIS on December 23, 2010, analyzing the environmental impacts of the proposed project and alternatives. Staff held two public meetings on the draft EIS in Palm Desert, California, on February 3, 2011. Various federal and state agencies, companies, individuals, and non-governmental organizations, including Kaiser, Interior, and the Desert Protection Society, filed comments on the draft EIS. Kaiser and Interior, among others, opposed issuance of a license for the project. Staff issued a final EIS for the project on January 30, 2012. The EIS addressed a range of environmental issues and comments, including Kaiser’s, Interior’s, and Desert Protection Society’s concerns, and recommended licensing the project as proposed, with some staff modifications and additional measures. The EIS found that the staff alternative would provide a dependable source of electrical energy for the region and would adequately protect and enhance environmental resources affected by the project.

5. On April 10, 2012, Interior’s Fish and Wildlife Service concluded formal consultation with the Commission under section 7(a)(2) of the Endangered Species Act\(^3\) and issued a Biological Opinion on the project’s effects on the desert tortoise. The biological opinion included measures to minimize incidental take of that species.

6. On May 8, 2013, staff held a public meeting with Interior’s Bureau of Land Management (BLM) to discuss BLM’s comments on the EIS and issues associated with land withdrawals under section 24 of the Federal Power Act (FPA). Staff placed a

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\(^2\) Desert Protection Society originally intervened as Citizens for Chuckwalla Valley, and later informed the Commission it had reorganized under its current name. We refer to the group as the Desert Protection Society in this order.

summary of the meeting in the Commission’s public record for the proceeding on July 16, 2013.


8. On July 1, 2015, Kaiser filed a notice of withdrawal of its request for rehearing. No party filed a motion in opposition to the notice and the Commission did not issue an order disallowing the withdrawal. Therefore, the withdrawal was effective at the end of July 15, 2015.4

Discussion

A. Interior’s Request for a Stay

9. As part of its rehearing request, Interior filed a request for a stay of the license pending rehearing and any subsequent petition for judicial review, if filed. Interior maintains that it will suffer irreparable injury without a stay because necessary information concerning resources under its jurisdiction has not been made available during the decision-making process and that, as a result, the project’s true impacts cannot be ascertained without further environmental analysis. Interior asserts that the Commission should therefore issue a stay and prepare an appropriate analysis, pursuant to the National Environmental Policy Act (NEPA), “that contains accurate and up-to-date information about the central project area and the effects of the Project on resources of concern to the Department and the public.”5 Interior argues that a stay is in the public interest because it will provide an opportunity for public comment on information that should have been collected and disclosed in the EIS, and will further “the public interest inherent in NEPA and the FPA.”6 Interior adds that the harm to Eagle Crest by any delay associated with the supplemental analysis will not be serious, because the Commission’s order requires the licensee to gather this data eventually and Eagle Crest will not therefore incur any additional costs or be required to undertake substantially different work.

5 Interior’s request for rehearing at 17.
6 Id.
10. In response, Eagle Crest argues that Interior cites no Commission precedent indicating that a stay should be granted in this case. The company adds that the Commission took the requisite “hard look” in its EIS examining the project’s environmental effects pursuant to NEPA, and maintains that the Commission’s actions in the License Order are fully consistent with its obligations under the FPA.

11. In acting on stay requests, the Commission applies the standard set forth in the Administrative Procedure Act; that is, the stay will be granted if the Commission finds that “justice so requires.”\(^7\) Under this standard, the Commission considers a number of factors, such as whether the movant will suffer irreparable injury in the absence of a stay, whether issuance of a stay would substantially harm other parties, and where the public interest lies.\(^8\)

12. In order to meet the requirement of irreparable injury for a stay, the injury must be both certain and great, actual and not theoretical.\(^9\) In this case, Interior provides no basis for its claim that it will suffer irreparable harm in the absence of further environmental analysis. Rather, it simply asserts that the information in the EIS is insufficient to disclose the project’s impacts on resources under its jurisdiction. We examined Interior’s concerns about project effects in the License Order and we also consider them in this order on rehearing. As discussed in more detail below, we find that the EIS contains sufficient information to support our licensing decision, and the license requirements are adequate to monitor and protect birds, wildlife, and the resources of the adjacent Joshua Tree National Park. As a result, we find no support for Interior’s claim of irreparable harm. In addition, a stay could delay the development of this project, which we have found is in the public interest. We therefore find that justice does not require a stay, and we deny Interior’s request.

**B. Kaiser’s Withdrawal of Its Rehearing Request**

13. As noted, Kaiser has withdrawn its rehearing request. As a result, we would not ordinarily address any of Kaiser’s arguments on rehearing. However, Kaiser’s notice of withdrawal purports to reserve certain rights. Kaiser states that, due to changed circumstances, it elects not to pursue its rehearing request. Kaiser adds that, among other

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\(^9\) *Guardian Pipeline, L.L.C.*, 96 FERC ¶ 61,204, at 61,870 (2001) (citing *Wisconsin Gas Co. v. FERC*, 758 F.2d 669, 674 (D.C. Cir. 1985)).
reasons, the request for rehearing challenges the License Order on the grounds that the
project does not involve the improvement or development of a waterway, and that the
licensee therefore lacks the authority to acquire private property rights by exercising the
power of eminent domain pursuant to section 21 of the FPA. Kaiser states that it has
entered into a settlement agreement with Eagle Crest to withdraw its rehearing request
subject to a reservation of “its right to challenge and contest, in any subsequent judicial,
administrative or other formal or informal proceeding (including, but not limited to, any
mediation, arbitration or other alternative dispute resolution proceeding), whether the
holder of the License for the Project has the right of eminent domain.”10 Kaiser further
states that its notice of withdrawal is made “on the condition that such withdrawal is
allowed by FERC and entered into the record of this proceeding without prejudice to the
foregoing reservation of rights.”11

14. The significance of Kaiser’s purported reservation of rights is unclear. When a
party withdraws its rehearing request, it no longer has the right to seek rehearing or
judicial review of the Commission’s License Order. Therefore, it would appear that
Kaiser could not raise these reserved arguments before the Commission or on judicial
review. Moreover, in a press release issued on July 1, 2015, Eagle Crest announced its
agreement with Kaiser to buy the Kaiser Eagle Mountain mine for its pumped storage
project.12 As a result, it would appear that Kaiser is no longer “aggrieved” by the License
Order within the meaning of section 313 of the FPA and thus would not have standing to
seek rehearing and judicial review.

15. Nevertheless, Kaiser’s notice of withdrawal purports to reserve the legal
authorities, factual grounds, and arguments set forth at pages 9 through 22 of its rehearing
request as “reserved arguments.” Although Kaiser can no longer make these arguments
on rehearing or judicial review of the License Order, there may be other forums or
proceedings in which Kaiser might seek to advance them. The reserved arguments
involve questions concerning the Commission’s jurisdiction, which is of threshold
importance to our licensing authority and is thus within our discretion to consider at any
appropriate time.13 In addition, they raise questions about the relationship between the

10 Kaiser’s notice of withdrawal at 3.

11 Id.

12 See Kaiser Eagle Mountain, LLC, “Renewable Energy Storage Project Near
Desert Center Advances” (filed July 8, 2015).

13 See Alaska Power Co., 82 FERC ¶ 61,331, at 62,311 n.2 (1998). See also
Nantahala Power and Light Co. v. FPC, 384 F.2d 200, 206 (4th Cir. 1967) (Commission
may alter a prior jurisdictional finding based on a change in facts or law).
Commission’s licensing authority and a licensee’s eminent domain authority under section 21 of the FPA. To avoid any possible confusion about the Commission’s views regarding these matters, we address the reserved arguments here, as if they were presented on rehearing.

C. **Section 21 of the FPA**

16. Kaiser argues that the License Order is fatally flawed because it erroneously assumes that Eagle Crest can obtain the necessary property rights for its project by exercising the power of eminent domain under section 21 of the FPA.\(^\text{14}\) Kaiser maintains that the order fails to recognize that such condemnation authority may not be exercised unless the licensee is engaged in “improving or developing a waterway” under that section.\(^\text{15}\) Kaiser contends that the License Order fails to address whether the project

\(^{14}\) Section 21, 16 U.S.C. § 814 (2012), provides, in relevant part:

That when any licensee can not acquire by contract or pledge an unimproved dam site or the right to use or damage the lands or property of others necessary to the construction, maintenance, or operation of any dam, reservoir, diversion structure, or the works appurtenant or accessory thereto, in conjunction with an improvement which in the judgment of the commission is desirable and justified in the public interest for the purpose of improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, it may acquire the same by the exercise of the right of eminent domain in the district court of the United States for the district in which such land or other property may be located, or in the State courts. The practice and procedure in any action or proceedings for that purpose in the district court of the United States shall conform as nearly as may be with the practice and procedure in similar action or proceeding in the courts of the State where the property is situated: Provided, That United States district courts shall only have jurisdiction of cases when the amount claimed by the owner of the property to be condemned exceeds $3,000. . . .

\(^{15}\) *Id.* Desert Protection Society makes a similar argument, contending that the licensee cannot exercise eminent domain authority under FPA section 21 because the project does not develop or modify a “water of the United States,” citing the Supreme Court’s decision in *Rapanos v. United States*, 547 U.S. 715 (2006). Desert Protection Society’s request for rehearing at 19. This argument is misplaced. *Rapanos* involved the terms “navigable waters” and “waters of the United States” as used in the Clean Water Act provisions prohibiting discharge of pollutants into such waters without a permit. In (continued...)
involves a waterway or merely the development of a groundwater resource. Kaiser argues that the term waterway means “stream” or “definite channel,” and maintains that a groundwater resource is not a waterway.\textsuperscript{16} Kaiser argues that, as a result, the licensee

\begin{quote}
the License Order, we relied on \textit{Rapanos} to support our finding regarding a different issue – that the project did not require a water quality certification under section 401 of the Clean Water Act because it did not involve an activity that may result in a discharge into “navigable waters,” defined broadly in that act as “waters of the United States.” \textit{See} License Order, 147 FERC \textcites{61,220} at P 50 and n.25. We noted that in \textit{Rapanos}, the Supreme Court held that this definition includes only relatively permanent, standing or flowing bodies of water, not intermittent or ephemeral flows of water, and only those wetlands with a continuous surface connection to bodies that are waters of the United States in their own right. \textit{Id.}; \textit{see} \textit{Rapanos}, 547 U.S. at 739. Our finding regarding these terms for purposes of the Clean Water Act has no bearing on what types of waters are subject to the Commission’s licensing jurisdiction or whether the licensee can exercise eminent domain authority under section 21 of the FPA.
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\textsuperscript{16} Kaiser’s request for rehearing at 18. In support, Kaiser cites a law review article concerning surface waterways and submerged lands of the Great Lake States (\textit{id.} n.11); Black’s Law Dictionary, which does not define “waterway” but states “see watercourse” (\textit{id.} at 19), several state cases (\textit{id.} at 19-20), and Webster’s New World College Dictionary (\textit{id.} at 19), and suggests that in these sources, the definition of waterway is synonymous with “stream.” \textit{Id.} at 19. Apart from the dictionary definition, which we discuss later (at P 20 and n.23, \textit{infra}), these sources are not helpful in discerning the meaning of the term “waterway” in the FPA. Moreover, Kaiser appears to suggest that the term “stream” must refer only to surface streams, citing \textit{Public Service Co. of New Mexico}, 10 FERC \textcites{61,273}, at 61,258 (1980). In that case, the Commission held that a pumped storage project located on an arroyo or intermittent stream and using groundwater pumped from a mine did not require licensing under section 23(b)(1) of the FPA. Among other things, the Commission observed that “[t]he legislative history of Part I of the FPA focuses entirely on surface streams and bodies of water.” \textit{Id.} However, the Commission also noted that “any kind of water body” is a “stream” because “it has the essential ‘stream’ characteristics of containing ‘moving’, ‘flowing’, or ‘running’ water.” \textit{Id.} at 61,531 n.4. Later, in \textit{Swanton Village}, the Commission reconsidered the jurisdictional status of groundwater, and concluded that while it is not a typical surface stream for purposes of mandatory licensing jurisdiction under FPA section 23(b)(1), it is a Commerce Clause water for purposes of voluntary licensing jurisdiction under FPA section 4(e). \textit{Swanton Village and Vermont Hydro Associates}, 70 FERC \textcites{61,325} (1995). Thus, although groundwater is not a surface stream, it can be considered a “stream” in the “waterway” sense.
\end{quote}
will be unable to obtain the necessary property rights for its project, and the Commission should have dismissed the license application, as it did in *Crown Hydro*.17

17. We disagree. Kaiser focuses narrowly on the use of the term “waterway” in section 21, and fails to consider its interrelationship with other sections of the FPA, as well as how various terms are used in those sections to refer to the nation’s water resources. We find that, when considered in this context, the term “waterway” in section 21 should not be so narrowly construed.18

18. The term “waterway” appears in several sections of the FPA, including section 4(e), which authorizes the Commission to license hydropower projects; section 23(b)(1), which requires a Commission license for certain hydroelectric projects; and section 10(a)(1), which establishes the comprehensive development standard for the Commission’s issuance of all licenses. Section 21 simply adds to this mix by allowing a licensee to use the federal power of eminent domain to acquire the necessary property rights to develop its project. The use of the term “waterway” in section 21 is similar to its use in these other sections of the FPA that define the Commission’s licensing jurisdiction and provide the public interest standard under which these licenses must be issued. Our long standing practice, while not expressly stated, has been to construe the

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17 *Crown Hydro LLC*, 110 FERC ¶ 62,121, *reh’g denied*, 111 FERC ¶ 61,315 (2005). In that case, Commission staff dismissed a proposed amendment application because the licensee was unable to demonstrate that it could acquire the necessary property rights within a reasonable time. Eminent domain was not available under section 21 because the land was included within a public park and the Park Board was unwilling to convey the necessary property rights. The second proviso of section 21, which was added by the Energy Policy Act of 1992, prohibits a licensee from using eminent domain authority under that section to acquire lands that, before the date of enactment, were owned by a state or political subdivision thereof and were included within any public park, recreation area, or wildlife refuge established under state or local law, unless specified conditions are met. See Section 179(d), Pub. L. 102-486 (106 Stat. 3009).

18 The Supreme Court has recognized the importance of taking context into account in interpreting a statute. *See King v. Burwell*, 135 S. Ct. 2480, 2489 (2015), citing *FDA v. Brown and Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) (in deciding whether language is plain, words in a statute must be read “in their context and with a view to their place in the overall statutory scheme”); *Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997) (in analyzing a statute, courts must look to “the specific context in which that language is used, and the broader context of the statute as a whole”).
term waterway as coextensive with the water resources that are subject to our licensing jurisdiction.¹⁹

19. Under the FPA, the Commission has two types of licensing jurisdiction; voluntary and mandatory.²⁰ This is a result of the different language and requirements of the two sections. FPA section 4(e) authorizes the Commission to issue licenses for hydropower projects that are located “across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States . . . .”²¹ FPA section 23(b)(1) is narrower,

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¹⁹ See, e.g., Arizona Power Authority, 39 FPC 955 (1968). In that case, we issued a license for the Montezuma pumped storage project to be located on tribal lands of the Gila River Indian reservation in Arizona. The project would not be located on or utilize any permanent stream, and would use groundwater pumped from wells for the initial filling of the project reservoirs. Thereafter, the project would be essentially a closed system recycling the same water, with additional groundwater needed only to replace any losses due to seepage and evaporation. In its License Order, the Commission found that the project “will be best adapted to a comprehensive plan to improving or developing the resources of the area for the use or benefit of interstate commerce, for the improvement and utilization of waterpower development, and for other beneficial public uses, including irrigation.”²⁹ Thus, in a case very similar to this one, the Commission considered the water resources and other resources of the area in making its comprehensive development finding, and did not regard the use of the term “waterway” in FPA section 10(a)(1) as limiting its ability to issue a license. See also Swanton Village, Vermont, 70 FERC ¶ 61,325 at 61,991 (holding that the Commission is authorized to issue a voluntary license, and therefore a preliminary permit, under FPA section 4(e) for a closed system pumped storage hydroelectric project not located on any surface stream and using only groundwater as its source for initial filling and later replacement for evaporation).

²⁰ See Cooley v. FERC, 843 F.2d 1464, 1468 (D.C. Cir. 1988) (affirming the Commission’s authority to issue a voluntary license under FPA section 4(e) for an existing, unlicensed project that did not require licensing under section 23(b)(1) of the FPA).

²¹ Section 4(e), 16 U.S.C. § 797(e) (2012), authorizes the Commission:

To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses,

(continued...)
and makes it unlawful for any person to construct, operate, or maintain a hydroelectric project located on a non-navigable Commerce Clause “stream or part thereof” without a Commission license, if the Commission finds that the project will affect “the interests of interstate or foreign commerce.”

20. The FPA does not include a definition of the term “waterway.” The dictionary definition includes two different senses of the term: (1) “a canal, river, etc., that is deep and wide enough for boats and ships to travel through,” in other words, “a navigable

transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States. . . .

22 Section 23(b)(1), 16 U.S.C. § 817 (2012), states:

It shall be unlawful for any person, State, or municipality, for the purpose of developing electric power, to construct, operate, or maintain any dam, water conduit, reservoir, power house, or other works incidental thereto across, along, or in any of the navigable waters of the United States, or upon any part of the public lands or reservations of the United States (including the Territories), or utilize the surplus water or water power from any Government dam, except under and in accordance with the terms of a permit or valid existing right-of-way granted prior to June 10, 1920, or a license granted pursuant to this chapter. Any person, association, corporation, State, or municipality intending to construct a dam or other project works across, along, over, or in any stream or part thereof, other than those defined herein as navigable waters, and over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States shall before such construction file declaration of such intention with the Commission, whereupon the Commission shall cause immediate investigation of such proposed construction to be made, and if upon investigation it shall find that the interests of interstate or foreign commerce would be affected by such proposed construction such person, corporation, State, or municipality shall not construct, maintain, or operate such dam or other project works until it shall have applied for and shall have received a license under the provisions of this chapter. . . .
As used in the FPA, it is clear that the term waterway must mean something broader than simply navigable waters, because FPA section 4(e) authorizes the Commission to license hydroelectric projects located on not only navigable waters but also on “any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States.” In Commission practice, these waters

23 Merriam-Webster Online, available at: www.merriam-webster.com/dictionary/waterway. The dictionary definition that Kaiser cites is consistent: it defines “waterway” as a “channel or tunnel through or along which water runs” and “any body of water wide enough and deep enough for boats, ships, etc. as a stream, canal, or river; water route.” Kaiser’s request for rehearing at 19-20, citing Webster’s New World Collegiate Dictionary (4th ed. 2001). The “channel or tunnel” sense of the definition Kaiser cites is essentially the same as the “way or channel for water” sense of the online version.

24 The FPA defines only one term referring to water resources: “navigable waters.” Section 3(8), 16 U.S.C. § 796(8) (2012), defines navigable waters broadly as:

those parts of streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which either in their natural or improved condition notwithstanding interruptions between the navigable parts of such streams or waters by falls, shallow, or rapids compelling land carriage, are used or suitable for use for the transportation of persons or property in interstate or foreign commerce, including therein all such interrupting falls, shallows, or rapids, together with such other parts of streams as shall have been authorized by Congress for improvement by the United States or shall have been recommended to Congress for such improvement after investigation under its authority.”

This broad definition furthers the purpose of the statute, as recognized by the Supreme Court, to provide for “a complete scheme of national regulation which would promote the comprehensive development of the water resources of the Nation.” First Iowa Hydroelectric Coop. v. Federal Power Commission., 328 U.S. 152, 180-81 (1946); see also Federal Power Commission v. Union Electric Co. (Union Electric), 381 U.S. 90, 98 (1965), in which the Court stated: “The central purpose of the Federal Water Power Act [which later became Part I of the FPA] was to provide for the comprehensive control over

(continued...
(both navigable and non-navigable) are commonly referred to as Commerce Clause waters. Similarly, FPA section 23(b)(1) expressly requires licensing of hydroelectric projects located on not only navigable waters but also on some non-navigable waters as well. Moreover, section 23(b)(1) requires licensing of all hydroelectric projects that are located on U.S. lands or reservations, without any qualification regarding the type of water that the project proposes to use. For this reason, the Commission has construed the term waterway broadly to reflect all of the different types of water that are subject to its licensing jurisdiction.


26 Depending on the type of licensing (mandatory or voluntary, license or exemption), these waters could include headwaters and tributaries of navigable waters, streams, rivers, lakes, canals, water supply conduits, estuaries, tidewater, bays, oceans, and groundwater. See, e.g., Union Electric, 381 U.S. 90, 97 (affirming licensing of Taum Sauk Pumped Storage Project; headwaters and tributaries of navigable rivers are Commerce Clause streams); FPL Energy Maine Hydro LLC v. FERC, 287 F.3d 1151 (D.C. Cir. 2002) (affirming navigability of Messalonskee Stream, tributary to the navigable Kennebec River in Maine); Avista Corporation, 139 FERC ¶ 61,265 (2009) (issuing new license for the Spokane Project, including the Post Falls development on Coeur d’Alene Lake); Domtar Maine Corp., Inc. v. FERC, 347 F.3d 304 (D.C. Cir. 2003) (affirming licensing requirement for storage reservoirs that substantially benefitted generation at downstream projects that did not require licensing); Metropolitan Sanitary District of Greater Chicago, 19 FERC ¶ 61,176 (1982) (affirming authority to license the Lockport Project, located on a canal used for navigation and sewage disposal); Escondido Mutual Water Co., 6 FERC ¶ 61,189 at p. 61,375 (1979) (relicensing Escondido Project based on location of water supply conduit on several Indian reservations; also required licensing of related dam, reservoir, and groundwater pumping facilities as part of the complete project), aff’d in part and rev’d in part on other grounds, Escondido Mutual Water Co. v. La Jolla Indians, 466 U.S. 75 (1984); City of Tacoma Washington, 84 FERC ¶ 61,107 at p. 61,540 (1998) (relicensing Cushman Project, including primary transmission line crossing Skokomish River estuary), aff’d in part, rev’d in part and remanded on other grounds, City of Tacoma, Washington v. FERC, 460 F.3d 53 (D.C. Court of Appeals 2006).
21. Kaiser maintains that the question of whether the project involves a waterway is distinct from the question of whether the Commission can properly exercise licensing jurisdiction over a project. Kaiser suggests that a project could require licensing based on its use of federal lands without necessarily involving a “waterway” that would give rise to eminent domain authority under FPA section 21.

22. This is incorrect. As noted, a hydroelectric project located on federal lands is subject to the Commission’s mandatory licensing jurisdiction under FPA section 23(b)(1). However, under section 10 of the FPA, all licenses are subject to certain conditions, including the condition in FPA section 10(a)(1) that

the project adopted, . . . shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes referred to in section 4(e) . . . .

This provision, commonly referred to as the comprehensive development standard, must be met for issuance of any license for a hydroelectric project, regardless of whether licensing is permissive under FPA section 4(e) or mandatory under FPA section 23(b)(1). Under the latter section all hydroelectric projects located on federal lands or reservations are required to be licensed, without any qualification regarding the type of water that the project proposes to use. Simply put, the source of water used for a hydroelectric project

Cir. 2006); Public Utility District No. 1 of Snohomish County, Washington, 149 FERC ¶ 61,206 (2014) (affirming issuance of a pilot license for the Admiralty Inlet Project in tidal waters of Admiralty Inlet in Puget Sound); Sheldon Jackson College, 55 FERC ¶ 61,266 (1991) (requiring licensing of Indian River Project in Alaska because project tailrace is located on Sitka Sound at Crescent Bay); Pacific Gas & Electric Co., 125 FERC ¶ 61,045 (2008) (affirming jurisdiction to issue preliminary permits for wave energy projects in the Pacific Ocean); Swanton Village, 70 FERC ¶ 61,325 at p. 61,991 (affirming authority to license a pumped storage project using groundwater); Big Bear Area Regional Wastewater Agency, 33 FERC ¶ 61,115 at p. 61,245 (1985) (requiring licensing of generating facilities to be located on an outfall pipeline from a wastewater treatment plant because part of the pipeline was located on federal lands; agency obtained water from artesian wells, delivered it to various users, processed the resulting effluent at its treatment plant, and delivered the reclaimed water through the outfall pipeline to a disposal site).
on federal lands would be considered a “waterway” for purposes of the Commission’s mandatory licensing jurisdiction for that project. Construing the term “waterway” narrowly for purposes of the eminent domain provision in FPA section 21, as Kaiser suggests, would necessarily require the same narrow construction for purposes of the licensing standard in FPA section 10(a). This, in turn, would defeat the purpose of ensuring that all hydroelectric projects on federal lands and reservations must be licensed.\(^\text{27}\)

23. The legislative history of FPA section 21, together with that of sections 4(e) and 23(b)(1), supports this interpretation. Congress considered water power legislation in 1918, in the 65\(^{th}\) Congress, but failed to enact it. That year, bills in the House and Senate included a version of what is now section 21 that was limited to projects in navigable waters.\(^\text{28}\) In the 66\(^{th}\) Congress, the bill that became the Federal Water Power Act of 1920, H.R. 3184, as passed by the House initially included a version of section 21 that did not

\(^{27}\) See Escondido, 466 U.S. at 761 n. 12. In that case, the Commission licensed the entire project, including project works not located on a reservation, because the project canal crossed several Indian reservations. The Court of Appeals affirmed the Commission’s jurisdiction and no party sought review of that ruling. See also Big Bear Area, 33 FERC ¶ 61,115 (finding licensing required for all project works related to power production, but not entire water delivery and treatment system, because a 300-foot section of pipeline that provided head for generation was located on federal land).

\(^{28}\) Section 21 (designated as section 22) in these bills provided:

That if any permittee or licensee hereunder, proposing to construct its project works across, along, or in any of the navigable waters of the United States, is a municipality or a public service corporation, it may acquire the right to use or damage any land or property of others, except the land and property of the United States, necessary in the construction, maintenance or operation of such works, by the exercise of the right of eminent domain in the district court of the United States for the district in which said land or property is located, or in the State Courts. The practice and procedure in any action or proceeding brought for that purpose in the district court of the United States shall conform as nearly as may be with the practice and procedure in similar action or proceeding in the courts of the State where said land or other property is located. [H.R. 8716 and S. 1419, 65\(^{th}\) Cong., 2d Sess. (1918)].
reference navigable waters. The Senate amended section 21 to include the reference to waterways and the bill became law on June 10, 1920, with the language that now appears as section 21 of the FPA.

24. Concurrently with these changes, a House amendment to Senate bill 1419 in the 65th Congress included a definition of navigable waters that was broad enough to include the waters of a river system from its mouth to its source, as well as any other waters that might be held to be subject to the jurisdiction of Congress. The Conference committee substituted a definition that was limited to streams navigable in fact. This definition

29 As passed by the House, H.R. 3184 contained section 21 as follows:

That when the licensee is a municipal corporation or a political subdivision of a State, or a public service agent of a State, or a public utility or a service corporation, and can not acquire by contract or pledges the right to use or damage the lands or property of others necessary to the construction, maintenance, or operation of any dam, reservoir, diversion structure, or the works appurtenant or accessory thereto, it may acquire the same by the exercise of the right of eminent domain in the district court of the United States for the district in which such land or other property may be located, or in the State courts. The practice and procedure in any action or proceeding for that purpose in the district court of the United States shall conform as nearly as may be with the practice and procedure in similar action or proceeding in the courts of the State where the property is situated. Provided that the United States District Courts shall only have jurisdiction of cases where the amount claimed by the owner of the property to be condemned exceeds $3,000.00.


30 See note 14, supra. The only subsequent amendment to section 21 of the FPA was the provision added in by the Energy Policy Act of 1992 to restrict the use of eminent domain authority with regard to state parks, recreation areas, or wildlife refuges. See note 17, supra.

31 It provided: “Navigable waters” means all streams or parts of streams, and other bodies of water or parts thereof, over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several states.” House amendment to S. 1419, 65th Cong., 2d Sess. (1918).

32 It proposed: “That the term “navigable waters” as used in this Act and as applied to streams shall be construed to include only such streams or parts of streams as are in their ordinary natural condition used for the transportation of persons or property in (continued...)
excluded the shoals and falls which held the major water potential and, therefore, was unacceptable to the conservationists. A filibuster in the closing hours of the session on March 4, 1919, postponed consideration of any water power legislation until the next Congress. In the 66th Congress, H.R. 3184 initially contained the same language when it left the House. However, a compromise achieved the final broad definition of navigable waters that appears in section 3(8) of the FPA. At the same time, the conference committee added new language to section 23 of the act concerning the licensing of project on non-navigable streams if the Commission found that the interests of interstate or foreign commerce would be affected. The Supreme Court has observed that “conservationists and opponents seemed to agree that the Act embodies the full measure of Congress’ authority under the Commerce Clause to regulate hydroelectric projects.”

25. Taken together, these changes suggest that the scope of section 21 expanded from its initial focus on navigable waters to its present use of the term waterways, to allow for the possibility that some projects on non-navigable waters might require licensing under section 23(b) of the FPA. This use of the term “waterway” is also consistent with the different types of water that can provide a basis for either voluntary licensing under section 4(e) or mandatory licensing under section 23(b) of the FPA. Finally, it is consistent with the comprehensive development standard for licensing all projects that appears in FPA section 10(a)(1). We therefore conclude that the term waterway is not a limitation, and that section 21 eminent domain authority is available to all licensees for their licensed hydroelectric projects.

interstate or foreign commerce or which through improvement hereto or hereafter may have been or shall become usable in such commerce.” 65th Cong., 3rd Sess. (1918).

33 57 Cong. Rec. 4638.

34 Union Electric, 381 U.S. at 102 n. 18, citing Kerwin, Federal Water Power Legislation at 253-54 (1926).


38 Union Electric, 381 U.S. at 106-07.
26. The cases Kaiser cites do not suggest the contrary. Kaiser argues that the power of eminent domain mentioned in the FPA “involves only waterway improvements,” citing Dunk v. Pennsylvania PUC.\textsuperscript{39} That case did not define or otherwise construe the term “waterway improvements,” and held that eminent domain authority was not available to condemn land for a high-voltage transmission line that was not associated with a hydropower project. It was not a case about the nature of section 21 under Part I of the FPA, which concerns the construction, operation, and maintenance of hydropower projects. Instead, it held that section 21 (a provision of Part I of the FPA) does not apply to the construction of facilities under Part II of the FPA, which is concerned with the interstate sale of electric energy. Similarly, the cases Kaiser cites concerning the analogous eminent domain provision in the Natural Gas Act do not have any bearing on the use of the term waterway in FPA section 21.\textsuperscript{40}

27. Kaiser contends that under section 4(e) of the FPA, the Commission’s finding of a “waterway or waterways” must be expressly set forth in the Commission’s decision and that, in the absence of a waterway, no such finding can be made, and eminent domain is not available.\textsuperscript{41} This provision of section 4(e) is similar to the licensing standard of FPA section 10(a)(1), which provides that “the project adopted, . . . shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce.”

\textsuperscript{39} 252 A.2d 589 (Pa. 1969).

\textsuperscript{40} In Columbia Gas Transmission, LLC v. Singh, 707 F.3d 583, 587 (6th Cir. 2013), a natural gas pipeline sought to enjoin property owners’ interference with its duties regarding natural gas service and pipeline safety in its pipeline right-of-way. Eminent domain under the NGA was not at issue and the court mentioned it in passing. In Tennessee Gas Pipeline Co. v. 104 Acres of Land, 749 F. Supp. 427, 431-31 (D. R.I. 1990), which involved the scope of a pipeline company’s certificate of public convenience and necessity, the court held that the certificate is to be construed narrowly, and eminent domain could not be used to get the right to dig up and replace a pipeline with larger pipe, or to transport substances other than natural gas, where the certificate authorized only construction of a natural gas pipeline.

\textsuperscript{41} Kaiser points out that section 4(e) provides, in relevant part, that “whenever the contemplated improvement is, in the judgment of the Commission, desirable and justified in the public interest for the purpose of improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, a finding to that effect shall be made by the Commission and shall become a part of the record of the Commission.” Kaiser’s request for rehearing at 14, quoting 16 U.S.C. § 797(e) (2012). As discussed above, this is similar to the language used in section 10(a)(1).
commerce . . . ” As explained earlier, our longstanding interpretation of the licensing standard in FPA section 10(a) has been to equate the term “waterway” with the water resources to be developed. Therefore, we find nothing in the similar language used in section 4(e) that would suggest a different result. If the project meets the standard, a license can be issued and the licensee can use eminent domain to obtain the property needed for its project.

28. Kaiser further contends that the License Order fails to make a determination regarding whether the project involves improvement or development of a waterway, but instead uses the term “water resource” rather than “waterway.”\textsuperscript{42} Kaiser maintains that, because the water resource at issue is groundwater, it cannot be a waterway. As we have explained, the term waterway as used in the FPA is sufficiently broad to include groundwater. To the extent that it may be considered necessary, we expressly find that the groundwater that the Eagle Mountain Project will use is a waterway within the meaning of sections 4(e), 10(a)(1), and 21 of the FPA, and that the Eagle Mountain Project, with staff-recommended measures and mandatory conditions, is best adapted to a comprehensive plan for improving or developing a waterway for all beneficial public uses in this case.

29. Kaiser appears to suggest that the term “stream” must refer only to surface streams.\textsuperscript{43} In support, Kaiser cites \textit{Public Service Co. of New Mexico}.\textsuperscript{44} In that case, the Commission held that a pumped storage project located on an arroyo or intermittent stream and using groundwater pumped from a mine did not require licensing under section 23(b)(1) of the FPA. Among other things, the Commission observed that “[t]he legislative history of Part I of the FPA focuses entirely on surface streams and bodies of water.”\textsuperscript{45} However, the Commission also noted that “any kind of water body” is a “stream” because “it has the essential ‘stream’ characteristics of containing ‘moving’, ‘flowing’, or ‘running’ water.”\textsuperscript{46} Later, in \textit{Swanton Village}, the Commission reconsidered the jurisdictional status of groundwater, and concluded that while it is not a typical surface stream for purposes of mandatory licensing jurisdiction under FPA section 23(b)(1), it is a Commerce Clause water for purposes of voluntary licensing jurisdiction

\begin{footnotesize}
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\item \textsuperscript{42} Kaiser’s request for rehearing at 17, citing P 170 of the License Order.
\item \textsuperscript{43} \textit{Id.} at 20.
\item \textsuperscript{44} 10 FERC ¶ 61,273, at 61,258 (1980).
\item \textsuperscript{45} \textit{Id.}
\item \textsuperscript{46} \textit{Id.} at 61,531 n.4.
\end{itemize}
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Thus, although groundwater is not a surface stream, it is a “stream” in the “waterway” sense of a channel for moving or flowing water.

30. Kaiser argues that the Commission has recognized the distinction between groundwater and streams under the FPA and must do so here, again citing Swanton Village. While it is true that we have recognized this distinction, Kaiser misunderstands its significance. In that case, we distinguished the typical surface streams, which can give rise to mandatory licensing if other requirements are also met, from groundwater sources, which we held were Commerce Clause waters for purposes of voluntary licensing under section 4(e). In doing so, we implicitly accepted that groundwater qualifies as a waterway as used in the FPA. Contrary to Kaiser’s assertion, the Commission cannot have mandatory licensing jurisdiction over a groundwater development project on federal lands, and permissive licensing jurisdiction over a groundwater development project that affects interstate or foreign commerce, without also giving effect to language of FPA section 21 granting eminent domain authority to these projects, as well as recognizing that they must involve improvement or development of a waterway under FPA section 10(a)(1). In our view, there is simply no other way to harmonize section 21 with the jurisdictional requirements of sections 4(e)


48 Kaiser’s request for rehearing at 20.

49 Kaiser points out that in Swanton Village, we stated that groundwater could not “properly be considered a ‘stream’ of any sort.” Kaiser’s request for rehearing at 21, citing Swanton Village, 70 FERC ¶ 61,325 at 61,995. Kaiser overlooks the fact that our statement was in the context of contrasting a typical surface stream, as contemplated in section 23(b)(1), with other bodies of water that are subject to the jurisdiction of Congress under the Commerce Clause, as contemplated in section 4(e). We noted in that case (at n.20) that a “stream” is defined as “a body of water flowing in a channel or watercourse.” Because the issue was not before us, we had no occasion to consider whether groundwater might be considered an underground “stream” in the context of licensing a pumped storage project on federal lands using groundwater, as is the case here. Similarly, because we found that licensing was not required, we had no occasion to consider the comprehensive development standard for licensing a project under section 10(a)(1). In any event, we have reexamined the issue in this case and conclude that groundwater can be considered a waterway within the meaning of sections 10(a)(1) and 21 of the FPA. To the extent that Swanton Village might be read to suggest anything to the contrary, we reject that suggestion.

50 Kaiser’s request for rehearing at 22.
and 23(b)(1) and the comprehensive development standard for licensing these projects in section 10(a)(1).

D. National Environmental Policy Act

31. Interior and the Desert Protection Society argue that the License Order violates NEPA because the Commission’s final EIS is not based on adequate information concerning a number of different issues. We address these in turn.

1. Baseline Data on Wildlife

32. Interior and Desert Protection Society argue that the impact analysis for wildlife in the final EIS is flawed because it is not based on adequate baseline data and surveys of the project area. They maintain that, by deferring plant and wildlife surveys and development of mitigation measures until after license issuance, the EIS failed to take the “hard look” at environmental impacts and proposed mitigation that NEPA requires. Interior also contends that the EIS is inadequate because it assumes that mitigation measures can be developed to address conditions that are not yet known.

33. As Interior points out, the EIS acknowledges that Kaiser did not permit Eagle Crest to access the central project area to conduct surveys. As a result, Commission staff relied on existing information to prepare the EIS, including reports prepared for the Eagle Mountain Landfill EIS, the landfill biological opinion, and staff’s analysis of historical and recent aerial photography, to describe the affected environment and potential effects on terrestrial resources in the central project area. Staff further noted that, if the Commission were to grant a license for the project, Eagle Crest would begin a two-year period of final design engineering during which it would conduct the necessary site-specific surveys, consult with resource agencies, and prepare reports detailing the results, and prepare or amend mitigation plans before any ground-disturbing activities could commence.

51 Interior’s request for rehearing at 6-7, Desert Protection Society’s request for rehearing at 9-10 and 14-15.

52 EIS at 115.

53 Id. at A-72. As noted in the License Order (at P 88 n.74), the Sanitation District announced in May 2013 that it was no longer negotiating to use the proposed Eagle Mountain landfill site.

54 Id.
34. In our License Order we reviewed the available sources of information that staff used to prepare the EIS and found that they provided substantial information about environmental resources in the project area. We adopted staff’s recommendation that Eagle Crest conduct surveys and develop and implement appropriate mitigation measures before any land-disturbing activities begin, and to refine the project’s design and proposed measures before the start of construction. We also required Eagle Crest, in license Article 401, to conduct detailed site investigations of the central project area after access is obtained. We found that the information sources staff used were the best commercially or scientifically available, and were adequate to support the NEPA process.\textsuperscript{55}

35. Interior contends that by deferring site-specific surveys until after issuing a license, the Commission violated NEPA in failing to consider the environmental impacts of the proposed project before making its licensing decision.\textsuperscript{56} Interior maintains that the Commission was required to obtain adequate baseline data to support its environmental review before licensing the project, and may not use post-licensing surveys and mitigation plans as a proxy for baseline data. In support, Interior cites \textit{Northern Plains Resource Council v. Surface Transportation Board}\textsuperscript{57} and \textit{LaFlamme v. FERC}.\textsuperscript{58}

36. Both cases are inapposite. In \textit{Northern Plains}, the court invalidated an EIS that relied on post-licensing surveys of the project area to mitigate the effects of a proposed railroad project. In \textit{LaFlamme}, the court suspended a hydroelectric project license and remanded the proceeding for compliance with NEPA after the Commission failed to prepare either an EIS or an EA analyzing the effects of the project. In each case, the necessary information was either missing or inadequate, and the court found that reliance of post-approval studies and mitigation could not substitute for an adequate analysis of the environmental effects of the project before a decision to approve the project was made. In this case, the existing information included in the EIS is substantial and includes reports prepared for the landfill EIS, a biological opinion prepared for the landfill, and historic and recent aerial photography. This information adequately supports the facts found and the conclusions reached in support of our decision to license the project. The additional information gathering and refinement of mitigation plans that will occur during the post-licensing period is not essential to our licensing decision, but rather will enable the licensee to better develop and implement the required mitigation plans.

\textsuperscript{55} License Order, 147 FERC ¶ 61,220 at P 137.

\textsuperscript{56} Interior’s rehearing request at 6.

\textsuperscript{57} 668 F.3d 1067, 1084-85 (9th Cir. 2011).

\textsuperscript{58} 852 F.2d 389, 400 (9th Cir. 1988).
37. Desert Protection Society makes a similar argument, maintaining that, by deferring the formulation of mitigation plans, the EIS failed to discuss mitigation measures in “sufficient detail to ensure that environmental consequences have been fairly evaluated.” This is incorrect. The EIS examined the effects of the project on water quantity and quality, wildlife, land use, recreation, cultural resources, aesthetics, and air quality. It also discussed in detail a full range of applicant- and staff-proped environmental measures to mitigate possible adverse effects of constructing and operating the project. The license requires Eagle Crest to prepare and implement plans for conducting site-specific investigations and monitoring programs to protect environmental resources, and to develop specific plans to avoid or mitigate the effects of project construction and operation on those resources. The Commission typically requires a licensee to develop and implement these types of resource protection plans as license conditions, which the licensee must satisfy according to their terms after a license is issued.

38. Contrary to Desert Protection Society’s suggestion, NEPA does not require federal agencies to include a fully developed mitigation plan in an EIS before approving a proposed action. Rather, it simply requires that agencies discuss possible mitigation “in sufficient detail to ensure that environmental consequences have been fairly evaluated.” In this case, the Commission prepared an EIS to address the project’s significant environmental effects, and discussed possible mitigation measures in sufficient detail to ensure that those effects were fairly evaluated. In addition, the required mitigation plans

59 Desert Protection Society’s request for rehearing at 9, citing South Fork Band Council v. U.S. Dept. of the Interior, 588 F.3d 718, 727 (9th Cir. 2009). In that case, the Bureau of Land Management’s EIS for a gold mine project was inadequate because it did not address whether anticipated harms could be avoided by listed mitigation measures, but simply noted that the “[f]easibility and success of mitigation would depend on site-specific conditions and details of the mitigation plan.” Id. at 727.

60 See EIS at 23-40 for a summary of these proposed measures.

61 Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351-53 (1989) (NEPA does not include a substantive requirement to mitigate adverse effects or to include a detailed explanation of specific mitigation measures which will be employed).

62 Id. at 352.
are enforceable license conditions, and can be modified if necessary to ensure adequate protection of the affected resources. In these circumstances, the Commission’s deferral of these plans to the post-licensing phase does not violate NEPA.\(^{63}\)

2. **Acid Mine Drainage**

39. Interior and Desert Protection Society argue that the EIS lacks sufficient information regarding the risks associated with acid mine drainage. They maintain that because baseline data on the rock composition of the mine pits was not obtained, the EIS could not accurately disclose potential adverse effects or provide any basis for assurance that these effects could be avoided or mitigated. They contend that, as a result, the EIS failed to take the necessary “hard look” at the project’s environmental impacts concerning this issue.\(^{64}\)

40. As the EIS acknowledged, Eagle Crest was unable to obtain access to the proposed project site to sample the central and eastern mining pits to calculate the amount of pyrite and the potential for acid rock drainage. As a result, quantitative information to determine whether acid production would occur during project operations does not exist, and the extent of acid production is speculative.\(^{65}\) To the extent possible, the EIS discussed available information regarding this issue and described potential environmental impacts and mitigation measures.

41. As discussed in the EIS, interaction between water stored in the reservoirs and the surrounding material in the exposed mine pit could affect water quality by exposing minerals to surface water and oxygen. When iron disulfide or pyrite is exposed, it reacts with oxygen and water (oxidizes) to form sulfate and acidic conditions. The acidic solution can then interact with the surrounding materials and leach out arsenic, copper, cadmium, silver, zinc, and other heavy metals. The outflow of this water is referred to as acid rock drainage or acid mine drainage.\(^{66}\)

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\(^{63}\) The courts have affirmed the Commission’s use of post-licensing studies to develop additional information about the impacts of a project. *See, e.g.*, *LaFlamme v. FERC*, 945 F.2d 1124, 1129-30 (9th Cir. 1991), (citing *California v. FPC*, 345 F.2d 917, 924-25 (9th Cir.), *cert. denied*, 382 U.S. 941 (1965)).

\(^{64}\) Interior’s request for rehearing at 7-8, Desert Protection Society’s request for rehearing at 13-14.

\(^{65}\) *Id.* at 92-94.

\(^{66}\) EIS at 91-92.
42. The EIS states that one report suggests that the lower ore zone of the central mining pit contains 10 to 50 percent platy pyrite, while earlier reports suggest pyrite ranges up to 10 percent, averaging 3 to 4 percent. The EIS notes that, because materials were removed during past mining operations, the composition of the remaining material and its acid producing potential are unclear. It adds that the buffering capacity of the surrounding materials and groundwater could offset the rate and concentration of acids generated in the reservoirs. Because the pH of groundwater proposed to fill the reservoirs is slightly basic (pH 7.4 to 8.5), this would help to neutralize acid production.

43. To address this issue, the EIS recommended and the license requires that Eagle Crest implement a full range of measures to protect water quality, some of which must be completed before final design and construction of the project. This involves collecting and analyzing field samples to determine the site-specific acid production potential and the net neutralizing capacity. Article 401 requires Eagle Crest to conduct site investigations to evaluate potential water quality impacts to the reservoirs and groundwater associated with ore-body contact. Article 402 requires Eagle Crest to test excavated material for acid producing potential and if necessary dispose of it outside the reservoir. Article 403 requires Eagle Crest to develop a groundwater monitoring plan. Article 404 requires groundwater quality monitoring in the vicinity of the project's reservoirs, desalination ponds, seepage recovery wells, and water supply wells over the term of the license. Article 405 requires Eagle Crest to use reservoir liners to control seepage and to develop a seepage management and monitoring plan, including installation of observation wells to monitor groundwater levels. Article 406 requires Eagle Crest to operate the reverse osmosis desalination facility to maintain the reservoir at the same water quality as the source groundwater. In the License Order, we concluded that the testing and disposal requirements, combined with the treatment system and the seepage recovery system, will protect water quality both in the reservoir and in the groundwater.\(^67\)

44. Interior argues that the Commission cannot rely on Article 406 because it does not ensure that plans can address any adverse effects on groundwater, but instead “simply requires Eagle Crest to ‘[d]escribe] steps that would be taken in the event that reservoir water quality degrades to levels below that of the project’s water supply wells.’”\(^68\) Interior further maintains that Article 406 does not ensure against seepage of acidified water into groundwater near the central project area, but only requires Eagle Crest to identify what steps would be take if water quality in the seepage recovery wells degrades below pre-project groundwater baseline levels. Interior argues that the Commission

\(^{67}\) License Order, 147 FERC ¶ 61,220 at P 75.

\(^{68}\) Interior’s request for rehearing at 7-8, quoting item 3 of the construction and operation plan for the reverse osmosis and desalination facilities required in Article 406.
cannot rely on the reverse osmosis system to address acidified reservoir water because the EIS acknowledges that the system “is not designed for treating the pH of the water and would have to be retrofitted in some unspecified way.”

45. Interior fails to recognize that Article 406 does not exist in isolation, but rather is an integral part of a range of measures that are designed to obtain the necessary information and develop and implement plans that will work together to protect water quality. The licensee must develop the required plans in consultation with federal and state resource agencies and file them with the Commission for review and approval. The Commission reserves the right to direct the licensee to modify these plans, as well as project structures or operations, or to conduct other appropriate actions if necessary to protect water quality. In these circumstances, it is not necessary to specify the details of these plans or mitigation measures now, or explain how they might be modified, if needed, to address any new information that may be obtained in the future.

46. Desert Protection Society argues that the Commission “presumes” that acid leachate from the project can be avoided by treating the reservoir water for low pH and using reservoir liners to control seepage. It adds that the EIS “fails to address the disconnect between maintaining the pH of the reservoir waters and preventing acid leachate (which would occur independently of the pH of the reservoir waters due to leaking of water from the reservoirs into sulfide-bearing rock formations such as those within Eagle Mountain.”

47. This argument is misplaced. The EIS does not presume that acid leachate can be avoided. Rather, it notes that the pH of the groundwater that would be used to fill the reservoirs is already slightly basic and would help neutralize acid production. It adds that liners would be used to minimize seepage, and that the reverse osmosis system could be retrofitted, if necessary, to accommodate buffering agents to treat water returning to the lower reservoir. Thus, the EIS discusses specific information and measures that pertain to this issue.

48. Desert Protection Society also argues that the Commission’s reliance on liners such as fine tailings, roller-compacted concrete, or clay materials is unfounded because these measures have not been tested on site. As discussed in the EIS, the proposed seepage control measures consist of lining the reservoirs with fine tailings, lining the eastern portion with fine tailings and roller-compacted concrete, and installing a series of

69 Id. at 8, citing EIS at 94.

70 Desert Protection Society’s request for rehearing at 13.

71 Id. at 14.
groundwater monitoring wells for seepage monitoring and pump-back recovery. These measures are likely to be sufficient. As noted earlier, however, Eagle Crest is required to conduct onsite reconnaissance and subsurface investigation in support of its final engineering design. If this investigation reveals that the fine tailings available onsite are not sufficiently impermeable, Eagle Crest has proposed and the Commission can require additional measures, such as supplementing these materials with imported clay materials, roller-compact concrete, or soil cement, and grouting bedrock fractures to further reduce permeability.\textsuperscript{72} The Commission has not yet determined whether these measures might be required, and there is no need to test them onsite before it is known whether they might be needed.

49. Desert Protection Society maintains that the “viability of containment of reservoir waters seems dubious” because the site is “seismically active” and the project is located near several “active faults.”\textsuperscript{73} The Society argues that, because the project site is on the eastern edge of a region of high historic seismicity involving the San Andreas, San Jacinto, and Brawley faults, “movement of the rock formations beneath the reservoir sites is certainly foreseeable, and militates against the FEIS’ assumption that the reservoirs can be lined with cement or clay to prevent leakage.”\textsuperscript{74}

50. The EIS acknowledges that there are numerous active and potentially active faults and fault zones located within 100 miles of the proposed project area.\textsuperscript{75} It notes, however, that there are no active faults in the project area and concludes that the risk of

\textsuperscript{72} EIS at 101-02 and A-32 to A-33.

\textsuperscript{73} Desert Protection Society’s request for rehearing at 14.

\textsuperscript{74} Id. The Society also mentions, without elaboration, range-front faulting which has caused vertical displacements of up to several thousand feet (with no location specified, but the EIS indicates at 48 that this is to the east of the project site, along the eastern side of the Chuckwalla Valley parallel to the base of the Coxcomb Mountains); east-west trending faults about five miles from the site, both to the north and south; northwest-trending faults along the edge of the Eagle Mountains, including the Bald Eagle Canyon fault zone and several smaller faults that traverse the planned tunnel alignments; and the Hot Springs fault, located 30 miles southwest of the site (citing EIS at 46).

\textsuperscript{75} EIS at 52, \textit{see also} pages 46-48 and 54. Active faults are those along which seismically induced (tectonic) displacement has occurred in the past 11,000 years, although the California Division of Safety of Dams criterion for active faults is displacement within the last 35,000 years. Potentially active faults are those along which tectonic displacement has occurred between 11,000 and 1.6 million years before present.
surface rupture at the project caused by local faulting is considered to be very low, as these faults were determined to be inactive within the past 40,000 years or more.\textsuperscript{76}

51. Article 304 requires Eagle Crest to develop information and prepare reports related to seismicity and the structural integrity of project works for the Board of Consultants, and to use the results of these investigations to develop the final engineering design for the project. The Board of Consultants and the Commission’s Division of Dam Safety and Inspections will review the design of the dams and other structures for safety before the Commission grants final approval to construct the project. These measures are adequate to ensure that seismic issues are taken into account in designing and constructing the project. We find no basis to conclude that seismicity is likely to cause the reservoirs to leak.

3. Stale Data

52. Interior argues that the EIS improperly relied on stale data. Interior points out that because Eagle Crest was unable to obtain access to the central project area, Eagle Crest and the Commission relied on 1990-era field surveys from the Eagle Mountain landfill project for most species of wildlife, supplemented “with a limited set of aerial photography” that revealed “few details about conditions on the ground.”\textsuperscript{77} In support, Interior cites the Biological Opinion that FWS prepared, indicating that because documents associated with the landfill project are 15-20 years old, “some recovery of vegetation may have naturally occurred” and the documents “should not be treated as a definitive representation of what is currently on the project site.”\textsuperscript{78} Interior also cites recent studies on bighorn sheep, discussed in more detail below. Interior maintains that aerial photography cannot take the place of field surveys, and that reliance on stale data “may be arbitrary and capricious,” citing \textit{Northern Plains Council}.\textsuperscript{79}

53. In that case, the most recent aerial surveys and photography were ten years old and the agency was unable to explain how the photographs could allow it to identify fish populations or sensitive plant species. Here, recent aerial surveys and photography were used to supplement the earlier data, and FWS acknowledged that the landfill documents could be used to “inform the habitat baseline discussed” in the Biological Opinion.\textsuperscript{80} In

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\item \textsuperscript{76} EIS at 56.
\item \textsuperscript{77} Interior’s request for rehearing at 9.
\item \textsuperscript{78} \textit{Id.}, quoting the FWS Biological Opinion at 24 (April 10, 2012).
\item \textsuperscript{79} \textit{Id.} at 8, citing \textit{Northern Plains Council}, 668 F.3d at 1086.
\item \textsuperscript{80} FWS Biological Opinion at 24 (April 10, 2012).
\end{itemize}}
addition, as discussed in more detail below, the studies of bighorn sheep that Interior cites would not significantly affect our conclusions in this case.

54. As we explained in the License Order, during the NEPA process Commission staff relied on publicly available information, such as prior environmental documents associated with the Eagle Mountain Landfill EIS, the Environmental Impact Report by Riverside County for the Landfill, BLM’s Record of Decision approving the land exchange for the landfill in the central project area, recent aerial photography, historical information, mining studies, and information from nearby and similar areas, to analyze the environmental impacts of the project and prepare the EIS. As noted earlier, this material provided substantial information about environmental resources in the project area. In addition, Article 401 requires Eagle Crest to conduct detailed site investigations of the central project area after obtaining access to the site. We reaffirm that these sources of information are the best commercially or scientifically available and are adequate to support the NEPA process. 81

4. Bighorn Sheep

55. Interior argues that the analysis of project effects on bighorn sheep in the EIS is flawed and fails to consider recent peer-reviewed studies. Interior states that there are two groups of bighorn sheep that inhabit the park and use the central project area; the Eagle Mountain population near the eastern boundary of the park and the Coxcomb Mountain population to the northeast of the central project area. 82 Interior contends that the EIS erroneously concluded that these two groups of bighorn in the project area do not mix. 83

56. This is incorrect. The EIS does not state that these two populations do not mix. Rather, as Interior acknowledges, the EIS includes Figure 13 (at 142) showing bighorn sheep ewe migration routes through the central project area. It also discusses other bighorn sheep populations in the project vicinity and notes that the movement of individuals between these populations contributes to gene flow and promotes genetic diversity. 84 The EIS discusses a two-year radiotelemetry study that identified two distinct ewe populations in the Eagle Mountains, one near the central project area and one to the

81 License Order, 147 FERC ¶ 61,220 at P 137.

82 Interior’s request for rehearing at 9. See EIS Figure 5 (at 47) for the general location of these mountains.

83 Interior’s request for rehearing at 9-10, citing EIS at 140-41.

84 EIS at 141.
southwest. It states that during the study these two ewe populations did not mix, and rams generally occupied the area between the two ewe populations. These ewe populations were both in the Eagle Mountains. Thus, contrary to Interior’s assertion, the EIS did not find that the Eagle Mountain and Coxcomb Mountain populations of bighorn sheep do not mix.

57. Interior takes issue with the conclusion in the EIS that “major construction activities” in the central project area would be “similar to historical mining activities” and would result in only “minor and temporary” effects on bighorn sheep. Interior maintains that, because large scale mining activities ceased in 1983, bighorn sheep using the area have been largely unaffected by human or industrial activity for many years and the conclusion that the project “would not create any new disturbance” to bighorn sheep is arbitrary and unsupported.

58. Interior misreads the EIS. The conclusion regarding no “new disturbance” pertained to the undisturbed habitat between the upper and lower reservoir, which project operations would not affect, and was based on the fact that sheep traveling through the central project area are most likely to use this undisturbed habitat. It did not pertain to effects of project construction.

59. Regarding construction impacts, the EIS found that major construction activities during a three to four year period would increase noise levels and human presence compared to current conditions and that these activities could disturb bighorn sheep populations that spend much of the year in the surrounding mountainous areas. It found that construction of project roads and desert tortoise exclusionary fencing, as well as increases in artificial lighting, have the potential to disrupt migratory paths for bighorn sheep moving between available water sources and to breeding and lambing grounds. It also noted that the potential for vehicular collisions is a concern. Because the central project area had been heavily mined over the past several decades, the EIS found it reasonable to assume that the levels of disturbance would be similar to the historical mining operations. Based on the topography of the region, the EIS found it probable that migration paths that traversed the perimeter of the mine during past mining operations would not have changed in recent years when the mine has been mostly inactive. The EIS therefore concluded that, under this scenario, project construction activities would

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85 Interior’s request for rehearing at 10, quoting EIS at 159-60.

86 Id., quoting EIS at 161.

87 See EIS at 161.

88 EIS at 159.
not create a migratory barrier and the effects of project construction would be minor and temporary.\textsuperscript{89} We agree with this analysis.

60. Regarding project operations, effects would include maintenance activities, fluctuating levels of standing water in the reservoirs, lighting, and vehicle traffic. Following construction, Eagle Crest would reduce traffic to about one vehicle trip per day. During active mining operations, bighorn sheep were exposed to more frequent vehicle activity and were observed along roadways during those periods, so the EIS found that vehicular activity and road maintenance were not expected to affect bighorn sheep or create barriers to movement in the project. Eagle Crest would limit lighting effects by using light hoods, minimizing light sources, and using low-light bulbs. As noted, project operations would not create new disturbance in undisturbed habitat areas, and project activity near the powerhouse, switchyard, evaporation ponds, and administrative offices are unlikely to disturb sheep located in other parts of the central project area.\textsuperscript{90} As required in the Biological Opinion, wildlife fencing would prevent access to water in the project reservoirs to avoid attracting or subsidizing predators, to protect the desert tortoise.\textsuperscript{91} The EIS adequately considered the effects of project operations on bighorn sheep and found that they were not significant and could be adequately mitigated. Interior’s contention that this analysis is inadequate lacks merit.

61. Interior argues that the EIS “failed to take into account existing and new peer-reviewed research regarding the migration patterns and habitat preferences of the Eagle and Coxcomb Mountains bighorn populations that use the central project area.”\textsuperscript{92} None of these studies are any newer than the draft EIS. They all bear publication dates between 1996 and 2010. Commission staff issued a draft EIS for public comment on December 23, 2010, and issued the final EIS in January 2012. Interior makes no attempt to explain why it did not mention any of these studies earlier, instead of waiting until

\textsuperscript{89} See EIS at 159-60; see also EIS at 141-43, discussing sheep location data during mining operations and noting researchers’ observation that sheep were somewhat tolerant of human activity during these operations.

\textsuperscript{90} EIS at 161.

\textsuperscript{91} License Order, 147 FERC ¶ 61,220 at P 123.

\textsuperscript{92} Interior’s request for rehearing at 10. Interior lists these studies in footnote 10 on p. 11 of its rehearing request.
filing its request for rehearing on July 21, 2014. The Commission looks with disfavor on parties’ attempts to introduce new evidence for the first time on rehearing.93

62. In any event, Interior relies on these studies to support of its assertion that the EIS erroneously concluded that the Eagle Mountain and Coxcomb Mountain populations of bighorn sheep do not mix. As we have discussed, the EIS did not reach that conclusion. Furthermore, based on staff’s review it appears that, if these studies were considered, they would not have a significant effect on the analysis in the EIS or our conclusions in the License Order.94

5. Brine Ponds

63. Interior argues that, although the EIS recognized that the project’s desalination (brine) ponds could attract birds and the concentrations of salts and heavy metals in the ponds could be harmful or fatal to birds and other wildlife, the Commission improperly deferred the development and analysis of mitigation measures for birds until after license issuance.95 In support, Interior cites the statement in the EIS that Eagle Crest’s description of its proposed mitigation “does not provide enough detail for [staff] to fully analyze the effects.”96

64. As discussed in the EIS and the License Order, the project facilities include a reverse osmosis system and brine ponds to remove salts and metals from reservoir water and maintain total dissolved solids concentrations within the reservoirs at the level of the

93 See Erie Boulevard Hydropower, L.P., 136 FERC ¶ 61,044, at PP 40, 50 (2011) (affirming rejection of late-filed evidence that would not compel or persuade to a different result); McCallum Enterprises I, Limited Partnership, 126 FERC ¶ 61,127, at P 20 (2009) (rehearing is not the time to introduce additional evidence absent a compelling showing of good cause).

94 With one exception, all of the studies concern the issue of whether the two bighorn sheep populations mix. The remaining study includes information about the sensitivity of bighorn sheep to various types of disturbances.

95 Interior’s request for rehearing at 13.

96 EIS at 156.
source water. Article 413 of the license requires Eagle Crest to construct and monitor security or exclusion fencing around the ponds and to file an avian deterrence plan with measures to discourage or prevent birds from accessing the ponds. The EIS discussed several of these possible measures, including habitat modification and hazing to make the ponds less attractive to birds and, if necessary, pond covering that does not impede evaporation. After Commission approval of the deterrence plan, Eagle Crest would use monitoring and adaptive management to minimize and manage the effects of the ponds on birds. The EIS adequately disclosed the possible effects of the ponds on birds and the types of mitigation measures that could be used to deter or exclude them from access. In these circumstances, the Commission can defer a more detailed examination of the effectiveness of these measures to post licensing.

6. **Project Decommissioning**

Interior argues that the EIS failed to address the risks of “long-term treatment and disposal of more than 17,000 acre feet of potentially hazardous acid mine drainage upon decommissioning.” Interior contends that this is an indirect effect of the project that the Commission must analyze now, before construction has begun, rather than deferring it to a future proceeding on decommissioning. Desert Protection Society makes a similar argument about decommissioning in general, maintaining that because the Commission issued a finite 50-year license, decommissioning is reasonably foreseeable and must be analyzed now, not only because it is an indirect effect of the project but also because it will affect the impacts of project construction and operation, either by exacerbating or ameliorating them.

As discussed above, the EIS considered the potential risk of acid mine drainage and possible measures to mitigate that risk. Article 406 of the license requires Eagle Crest to operate the reverse osmosis desalination facility to maintain the reservoir’s water quality at the same level as the source groundwater. Articles 404 and 405 require Eagle Crest to monitor and manage groundwater seepage quantities and quality, and reserve the Commission’s authority to modify project structures or operations if groundwater monitoring indicates that such actions are necessary to protect water quality in the project.

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97 Id. at 88-91; License Order, 147 FERC ¶ 61,220 at P 20. Reverse osmosis is a process for removing contaminants by applying pressure to contaminated water to force it through a semipermeable membrane. The membrane filters out contaminants allowing only uncontaminated water (permeate) to pass. The leftover water is in the form of a saltwater solution (brine).

98 EIS at 156.

99 Interior’s request for rehearing at 13.
area. Interior provides no basis for its assumption that if and when the project is decommissioned, there will be more than 17,000 acre feet of potentially hazardous acid mine drainage that will require long-term treatment and disposal, and we find nothing in the EIS to suggest that this would be the case.\footnote{100}

Moreover, decommissioning is not an effect of project construction and operation, but rather is a separate action that may occur at some point in the future, with effects that can be described in hypothetical terms but cannot be analyzed absent more specific information about when and how the project may be decommissioned. Although hydroelectric licenses are issued for a definite term, they can be renewed multiple times and the projects they authorize can operate indefinitely as long as they continue to meet the statutory standards for relicensing. Some currently operating projects include facilities that were constructed more than 100 years ago and can reasonably be expected to continue to operate for many more years in the future.\footnote{101} As a result, decommissioning is not a reasonable alternative to relicensing a project in most cases. In addition, decommissioning can be accomplished in different ways depending on the project, its environment, and particular resource needs. For these reasons, the Commission does not speculate about possible decommissioning measures at the time of initial license issuance or any subsequent license renewals, but rather waits until an applicant actually proposes to decommission a hydroelectric project, or a participant in a licensing proceeding demonstrates that there are serious resource concerns that make decommissioning a reasonable alternative in a particular case.\footnote{102} This is consistent with NEPA, which does not require federal agencies to consider effects that are remote and speculative.

\footnote{100} The EIS notes (at 17) that the upper reservoir has a total storage capacity of 20,000 acre-feet and a usable storage of 17,700 acre feet at an elevation of 2,485 feet; the lower reservoir has a total storage capacity of 21,900 acre-feet and a usable storage of 17,700 acre-feet at elevation 1,092 feet. Presumably, Interior’s reference to “more than 17,000 acre feet” is based on this usable storage amount. However, we find no basis for assuming that this reservoir water would be hazardous.

\footnote{101} For example, the Commission issued a new 40-year license for the School Street Project No. 2539 in 2007; the dam was constructed in 1831 and power generation commenced in 1916. See Erie Boulevard Hydropower, L.P., 118 FERC ¶ 61,101, at P 2 (2007). The Commission issued a new 40-year license for the Missouri-Madison Hydroelectric Project No. 2188 in 2000; eight of the project’s nine developments were constructed between 1906 and 1930. See PP&L Montana, LLC, 92 FERC ¶ 61,261, at 61,829 (2000), order on reh’g, 97 FERC ¶ 61,060 (2001).

7. Alternatives

68. Desert Protection Society maintains that the EIS fails to consider a reasonable range of alternatives. The Society argues that NEPA requires an EIS to “[r]igorously explore and objectively evaluate all reasonable alternatives” and to include alternatives that may require approval or participation by others.\(^{103}\) Specifically, the Society contends that in this case, the EIS should have considered alternatives such as locations closer to the energy demand centers that the project would serve, alternatives that would not require industrial-scale facilities or long transmission lines, such as roof-top solar facilities, and different means of generating the same energy at less environmental cost.

69. While an agency may be required in some cases to consider alternatives not within its jurisdiction to implement, those alternatives must be reasonable.\(^{104}\) NEPA is subject to a “rule of reason” and the requirement to consider alternatives to the proposed action must be understood in that light.\(^{105}\) The Supreme Court has recognized that “the concept of alternatives must be bounded by some notion of feasibility” and that an EIS need not consider every conceivable alternative to a proposed action.\(^{106}\) When an agency is asked to act on a specific plan, such as a license application, it must “look hard at the factors relevant to the definition of purpose,” taking into account the “needs and goals of the parties involved” and the views of Congress as expressed in the agency’s authorizing legislation, and “define goals for its action that fall somewhere within the range of reasonable choices.”\(^{107}\) This suggests that, in defining reasonable alternatives, an agency

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\(^{104}\) See 40 C.F.R. § 1502.14(c) (2014), which requires that an EIS “[j]include reasonable alternatives not within the jurisdiction of the lead agency.”


may consider the extent to which an alternative could achieve the purpose of its proposed action.108

70. Here, the EIS examined the applicant’s proposal, the applicant’s proposal as modified by agency conditions and staff recommendations, and the “no-action” alternative of license denial. This can constitute a reasonable range of alternatives.109 In this case, as staff explained in the EIS, the applicant’s proposal was for a pumped storage project, which requires certain physical attributes that are not readily available close to sites of energy consumption. These include existing topography to hold the upper and lower reservoirs, sufficient elevation difference between the reservoirs to create a substantial hydraulic head, and minimal distance between the reservoirs to limit costs associated with developing infrastructure. The project would also need to be located near high voltage transmission corridors with sufficient capacity to exchange the energy that the project would use and produce. Because mining activities had already disturbed the proposed site, staff found it unlikely that another project location would meet these physical requirements and have lower environmental effects.110 We agree with this analysis.

71. In Commission practice, a proposed action results from a specific license or amendment application, which requires the Commission to determine whether to approve the request and, if so, under what conditions.111 This influences the range of reasonable alternatives that the Commission must consider. While different means of generating the same amount of energy, such as roof-top solar facilities, might hypothetically be considered, no one has proposed them, and an analysis of their environmental effects would not serve to inform our decision about whether to approve the applicant’s proposal and, if so, under what conditions. As a result, we do not consider these options to be reasonable alternatives to the proposed project.

108 See id. at 196-97.

109 See Richard Balagur, 57 FERC ¶ 61,315, at 62,018 (1991), aff’d sub nom. Friends of the Ompompanoosuc v. FERC, 968 F.2d 1549, 1555-56 (2nd Cir. 1992); Citizens Against Burlington, Inc. v. Busey, 938 F.2d at 197-98 (affirming adequacy of EIS that examined in detail only the proposed action and the no-action alternative, and eliminated other alternatives from further study).

110 EIS at A-8 to A-9.

8. **Groundwater Overdraft**

72. Desert Protection Society argues that the EIS impermissibly downplays evidence that the project will cause a severe groundwater overdraft. The Society maintains that the EIS dismissed comments concerning the project’s adverse impacts on the aquifer in the Chuckwalla Valley, adding that instead of analyzing means to avoid the overdraft, the Commission “shifts the burden of solving the problem onto the public.”

In support, the Society cites our conclusion in the License Order that well owners who believe the project is adversely affecting their wells must seek redress in the appropriate court.

73. The EIS examined the effects of the project on groundwater storage and water levels in detail, and also considered cumulative effects on groundwater. It found that the initial reservoir filling during the first four years of project operation would result in adverse effects on groundwater storage and water levels, because project pumping is expected to exceed recharge rates during this period. However, after the initial filling recharge of the basin would exceed groundwater withdrawals for the rest of the license term. The EIS concluded that in the long term, the effect of the project’s withdrawal of groundwater should not cause the aquifer to approach depletion, because project withdrawals over the 50-year license period would total about one percent of the recoverable water in the Chuckwalla groundwater basin. Thus, Desert Protection Society’s contention that the project would cause a severe groundwater overdraft is without merit.

74. The EIS also examined cumulative effects on groundwater and found that future groundwater use in the basin would have the potential to cumulatively exceed recharge by up to 3,200 acre-feet per year during the time that the project would be withdrawing water (for initial filling and normal operations). As noted in the License Order, however, the total amount of water available in storage in the aquifer is estimated to be 10 million acre-feet and the total groundwater withdrawal from the project over a 50-year

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112 Desert Protection Society’s request for rehearing at 12-13.

113 License Order, 147 FERC ¶ 61,220 at P 74.

114 See EIS at 96-115.

115 Id. at 98.

116 Id. at 113.
license term would be less than one percent of the volume of available groundwater stored in the aquifer.\textsuperscript{117}

75. The EIS did not dismiss comments concerning the project’s effects on groundwater. Rather, it examined and responded to them with additional analysis and support.\textsuperscript{118} Moreover, the Commission did not shift the burden of solving the problem of groundwater to the public. Rather, we responded to the State Water Board’s recommendation that Eagle Crest be required to establish water level monitoring wells and develop a plan to mitigate any adverse effects on neighboring private wells. We explained that the license does not include this requirement because the Commission does not have the authority to adjudicate claims for or require payment of damages, and that private well owners who believe that their wells are adversely affected would have to seek redress in the appropriate court. We also noted that under section 10(c) of the FPA, a licensee of a hydropower project is liable for all damages that may result from project construction, operation, or maintenance.\textsuperscript{119}

76. Desert Protection Society contends that the license allows Eagle Crest to establish the maximum allowable change to the groundwater table at one of the monitoring wells; thus, in the Society’s view, “impermissibly privatizing regulation of groundwater levels.”\textsuperscript{120} This is incorrect.

77. Article 403 requires Eagle Crest to develop a plan, in consultation with federal and state resource agencies, to establish a network of water level monitoring wells and sets the maximum allowable change for each well, with one exception. At well MW-111, the article requires Eagle Crest to specify the exact location of the proposed monitoring well and the maximum allowable change to the groundwater table at that well or an appropriate alternative at a nearby site, if the proposed location is unsuitable due to encountering bedrock above the level of the groundwater table. Eagle Crest will not determine the maximum allowable change unilaterally; the licensee must prepare its groundwater level monitoring plan in consultation with not only the State Water Board but also the Bureau of Land Management, U.S. Geological Survey, National Park Service, and Metropolitan Water District of Southern California. Eagle Crest must then file the plan with the Commission for review and approval, and the Commission reserves the right to require changes to the plan. Moreover, Eagle Crest may not implement the

\textsuperscript{117} License Order, 147 FERC ¶ 61,220 at P 70, citing EIS at A-39.

\textsuperscript{118} See EIS at A-38 to A-39.


\textsuperscript{120} Desert Protection Society’s request for rehearing at 13.
plan until the Commission notifies the licensee that the plan is approved. As a result, the license does not delegate the regulation of groundwater levels to the licensee, but rather preserves the Commission’s authority over the monitoring plan and its implementation.

9. Climate Change

Desert Protection Society argues that the EIS fails to address climate change scenarios as too speculative, in violation of NEPA. The Society contends that NEPA requires an examination of foreseeable project impacts on “existing and foreseeable environmental conditions, including climate change scenarios based on sound science.”

The Society maintains that, contrary to this requirement, the Commission failed to examine the project’s impacts “in light of the foreseeable warming of climate and increasing aridity, resulting in foreseeable reductions in surface water flows and groundwater levels.” It adds that the Commission was required to use “best efforts” to provide an assessment of effect of climate change on the project, and the project’s effects on climate change.

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121 Id. at 15. In support, it cites Center for Biological Diversity v. National Highway Traffic Safety Administration, 538 F.3d 1172, 1214 (9th Cir. 2008); and Border Power Plan Working Group v. Department of Energy, 260 F. Supp. 2d 997, 1029 (S.D. Cal. 2003). In our view, these cases do not suggest that a detailed analysis of climate change was required for the Eagle Mountain Project. In Center for Biological Diversity, which involved review of a final rule setting fuel economy standards, the court remanded the rule to the agency to promulgate new standards and to prepare either a revised EA or an EIS. Among other things, the court found that the agency’s cost-benefit analysis arbitrarily quantified the costs of reducing carbon emissions without assigning any value to the benefit of reducing those emissions. 538 F.3d at 1198. In addition, despite the fact that the fuel standards were directly related to the carbon emissions, the agency concluded that it was not required to assess the cumulative impact of its rule on climate change. Id. at 1216-17. In this case, there is no comparable direct nexus between the project and climate change. Similarly, in the Border Power Plant case, the court reviewed the adequacy of an EA and found that, because the record contained information about ammonia and carbon dioxide gas emissions from natural gas powered turbines, the EA’s failure to disclose and analyze their significance was counter to NEPA. 260 F. Supp. 2d at 1029. Here, there is no comparable information in the record concerning greenhouse gas emissions attributable to or associated with the project.

122 Desert Protection Society’s request for rehearing at 16.

123 Id.
79. In analyzing cumulative effects on groundwater, the EIS noted that recharge rates to the aquifer have the potential to decrease in the future while cumulative water needs may increase as a result of climate change.\textsuperscript{124} The EIS also noted that desert regions of the U.S. Southwest are projected to have more severe periods of drought during the remainder of the twenty-first century, as BLM and the U.S. Department of Energy stated in their draft Programmatic EIS for the Solar Energy Development in Six Southwestern States. The EIS added, however, that no data are available about forecasted precipitation or evaporation rates specifically for the Chuckwalla Valley, or the greater Mohave-Sonoran Desert region, that could be used in revising the cumulative groundwater balance for the Eagle Mountain Project.

80. In the License Order, we considered comments that the Commission should have evaluated the effects of climate change on the proposed project. We concluded that it would be too speculative to attempt to predict future scenarios that may occur due to climate change. We added that if there is a need to modify project operations or facilities to accommodate changes because of climate change or related factors during the license term, and reliable data became available to justify such modifications, the Commission has retained the authority to reopen the license to determine whether additional environmental measures are necessary.\textsuperscript{125}

81. Climate change is a complex issue. Inherent in NEPA and CEQ regulations is a rule of reason which ensures that agencies are afforded the discretion, based on their expertise and experience, to determine whether and to what extent to prepare an environmental analysis based on the availability of information, the usefulness of that information to the decision making process, and the extent of the anticipated environmental consequences. For hydroelectric projects, the Commission considers historical information on water sources and often includes monitoring and adaptive management provisions. The Commission’s longstanding practice of including in hydropower licenses reopener provisions that allow the Commission to alter license requirements in response to changed environmental conditions gives the Commission the ability to respond to the impacts of climate change, and provides appropriate environmental safeguards. We have explained, however, that we are unaware of any current climate model that would allow the Commission to predict matters such as water supply or flows in a given basin during the 30 to 50 year term of a typical hydropower license in such a manner as to assist the Commission in analyzing alternatives and determining appropriate mitigation for environmental impacts.\textsuperscript{126} We therefore conclude

\textsuperscript{124} EIS at 114.

\textsuperscript{125} License Order, 147 FERC ¶ 61,220 at P 141.

\textsuperscript{126} See Alaska Energy Authority, 144 FERC ¶ 61,040, at PP 17-19 (2013).
that a detailed examination of the effects of climate change on the project, and the project’s effects on climate change, was not required in this case.

10. Fossil Fuels

82. Desert Protection Society argues that the EIS assumes no fossil fuels will be burned to provide the energy required for the project. The Society contends that Eagle Crest proposes to pump water at night and on weekends, but solar energy is not generated at night, there are few operating wind energy facilities near the project, and there is no assurance that any of them will be available to provide the energy needed to pump. The Society adds that even if the project used only wind and solar power for pumping, that use “would foreseeably displace use of those renewable sources by other consumers,” forcing them to use fossil fuels. The Society contends that because this would contribute to global warming and defeat the purpose of the project to generate energy from renewable resources, this impact should be examined and its omission violates NEPA.

83. This argument is based on a misreading of the EIS. Contrary to Desert Protection Society’s assertions, the EIS neither states nor implies that Eagle Crest would use only renewable resources to power its project. Rather, it states that Eagle Crest hopes to use available power produced by existing and proposed wind and solar projects in the area “to provide at least a portion of the pumping power to the project.” It also states that project operation would have minimal direct effects on air quality, and notes that the indirect effects “could be beneficial if power from the pumped storage project replaces or supplements fossil-fueled peaking generation facilities.” Because the amounts and types of different sources of pumping power are variable and unknown, it is not feasible to provide a more detailed analysis of the project’s possible use of fossil fuels in this case.

11. Cumulative Effects

84. Desert Protection Society argues that the EIS fails to adequately address the cumulative effects of the project together with other existing and foreseeable large-scale energy projects. In support, the Society cites comments on the draft and final EIS filed by others, but does not describe or discuss those comments in any detail. The Society

\[127\] Desert Protection Society’s request for rehearing at 18.

\[128\] EIS at 22. The License Order (at P 25) makes a similar statement that Eagle Crest will use available wind and solar projects to provide at least a portion of the pumping power to the project.

\[129\] *Id.* at 265.
also fails to include any information of discussion that would help identify these “other projects” or explain how and why the Society believes the analysis of cumulative effects is lacking. This is insufficient to preserve the argument on rehearing.

85. The EIS examined cumulative effects by resource area, and identified water resources, terrestrial resources (including federally listed threatened and endangered species), land use, recreation, and air quality as having the potential to be cumulatively affected by the project in combination with other past, present, and foreseeable future activities. It explained that these resources were selected because of the potential that they could be cumulatively affected by development of the Eagle Mountain Project in addition to other residential and agricultural groundwater uses, the Colorado River Aqueduct, the proposed Eagle Mountain landfill, proposed solar and wind energy developments, and other actions identified in the analysis. The cumulative effects analysis appears throughout the EIS, in the environmental analysis of the proposed action and alternatives, for each affected resource.

86. The Society acknowledges that the EIS “includes a table listing projected water usage by various solar projects in the vicinity,” but contends that the information in the EIS is not sufficiently “quantified or detailed.” This is incorrect. In its examination of cumulative effects on groundwater, the EIS includes information on the water use of a number of nearby solar projects, during both construction and operation. It also includes information on the water use and energy production of other types of nearby energy projects (combustion turbine, combined cycle turbine, and nuclear). Contrary to Desert Protection Society’s contention, this analysis of cumulative effects on groundwater is both “quantified” and “detailed.”

87. Desert Protection Society further maintains, without elaboration, that the analysis of cumulative effects on wildlife and on threatened and endangered species fails to provide a detailed assessment “because neither Eagle Crest nor the Commission conducted the on-site wildlife surveys and habitat assessments required for meaningful review.” This is nothing more than a restatement of the argument that because Eagle Crest could not gain access to the central project area to conduct surveys, the EIS is based

130 EIS at 44.

131 See EIS Section 3 (pages 43-270).

132 Desert Protection Society’s request for rehearing at 17.

133 Id.; see EIS at 110-15.

134 Desert Protection Society’s request for rehearing at 17.
on insufficient information. As discussed earlier in this order, we reject that argument. In any event, the EIS analyzed cumulative effects on wildlife and threatened and endangered species.\(^{135}\)

### 12. Supplemental NEPA Analysis

88. Interior argues that a supplemental NEPA analysis should be prepared and circulated for public comment because new information is available that raises substantial questions about whether the project will have significant environmental effects. In support, Interior cites studies containing “new and existing information regarding bighorn sheep movements in and through the central project area [which] exists but was not considered.”\(^{137}\) Interior contends that this information in these studies raises substantial questions about the accuracy of the conclusions in the EIS that project construction will have only minor, temporary effects and that 50 years of project operations will not result in new impacts on bighorn sheep.

89. CEQ regulations require a supplementary NEPA analysis when there are “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.”\(^{138}\) That standard is not met here. We addressed Interior’s arguments about these studies earlier and found them without merit. There is no need for a supplement to the EIS based on this information.

90. Interior also maintains that supplementation is required because the license requires Eagle Crest to conduct surveys for many species of wildlife and to gather data about the acid-producing potential of the mine pits without subjecting this information to public review and comment under NEPA. Interior contends that the Commission may not correct deficiencies in the EIS by obtaining information through a “non-NEPA procedure,” citing *Idaho Sporting Congress v. Alexander*.\(^{139}\)

91. In that case, the agency’s environmental analysis had been determined insufficient, and the agency was not permitted to supplement that analysis with an information report that was not subject to NEPA, but instead was required to prepare a supplemental

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\(^{135}\) See EIS at 169-71.

\(^{136}\) Id. at 187-89.

\(^{137}\) Interior’s request for rehearing at 15.

\(^{138}\) 40 C.F.R. § 1502.9(c)(ii) (2014).

\(^{139}\) 222 F.3d 562, 567 (9th Cir. 2000).
environmental review under NEPA. Here, we have found that the information used to prepare the EIS is sufficient. Therefore, the use of post-license surveys and data gathering is not providing information that should have been obtained earlier, but rather will be used to confirm that the proposed locations of project features are appropriate, provide basic design parameters for the final layout of project features, and confirm the relevance of the studies of the central project area relied on during the environmental review. In short, this post-license information gathering does not provide a basis for concluding that a supplement to the EIS is required.

E. Federal Power Act

92. Interior argues that the License Order violates the FPA because it is contrary to the Commission’s obligation to equitably balance competing resources under FPA section 10(a)(1) and give equal consideration to power and non-power values under FPA section 4(e). Interior contends that, because the Commission failed to obtain adequate baseline data on terrestrial wildlife and the acid-producing potential of the mining pits, it was “impossible” for the Commission to meet these statutory requirements.

93. This argument is without merit. As we have seen, the EIS is based on adequate information. In the License Order, we note that sections 4(e) and 10(a)(1) of the FPA require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation; the protection, mitigation of damage to, and enhancement of wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. We observe that any license issued for a project must be such as in the Commission’s judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all public uses. We reaffirm that the decision to license the Eagle Mountain Project, and the terms and conditions included in the license, reflect this consideration and meet the statutory standards for licensing under the FPA.

94. Desert Protection Society argues that the License Order exceeds the Commission’s jurisdiction under the FPA because it assumes that the licensee can exercise the power of eminent domain even though the project does not “develop a water of the United States.” As noted earlier, this argument is misplaced, because it is based on the

\[\text{\textsuperscript{140}}\text{ See License Order, 147 FERC } \| 61,220 \text{ at P 99.}\]

\[\text{\textsuperscript{141}}\text{ Interior’s request for rehearing at 17.}\]

\[\text{\textsuperscript{142}}\text{ See License Order, 147 FERC } \| 61,220 \text{ at P 168.}\]

\[\text{\textsuperscript{143}}\text{ Desert Protection Society’s request for rehearing at 19.}\]
definition of navigable waters used in the Clean Water Act, not the FPA. In any event, we discuss the eminent domain issue at length earlier in this order and conclude that the licensee does have eminent domain authority in this case under FPA section 21.

95. Desert Protection Society maintains, without elaboration, that the License Order exceeds the Commission’s jurisdiction because the project does not comply with California laws protecting water quality, as demonstrated in petitions for reconsideration of the State Water Board’s section 401 water quality certification decision. These petitions are not in the record, and the Society makes no attempt to summarize their contents or provide any basis for their assertion that the project does not comply with California law. In these circumstances, we are unable to evaluate their argument and the issue is waived.

96. Desert Protection Society argues, without elaboration or support, that the License Order violates the FPA because the Commission has failed to consider the extent to which the project violates applicable federal and state comprehensive plans, as required by FPA section 10(a)(2). This unsupported statement is insufficient to preserve the issue and is waived. In any event, as stated in the License Order, staff identified and reviewed 11 comprehensive plans that are relevant to this project and found no conflicts.

F. Endangered Species Act

97. Desert Protection Society argues that the License Order violates the Endangered Species Act (ESA) because it fails to implement a conservation recommendation that the U.S. Fish and Wildlife Service (FWS) included in its biological opinion. FWS recommended that the project’s transmission line be co-located with the project’s water supply line along the west side of Kaiser Road. The Society maintains that in order to meet the Commission’s obligation under the ESA to insure that any action it authorizes is not likely to jeopardize the continued existence of any endangered or threatened species,

144 Id.

145 The State Water Board filed copies of its notices of the filing of these petitions, but not the petitions themselves, on September 16, 2013.

146 See License Order, 147 FERC ¶ 61,220 at P 160; EIS at 335-36. Desert Protection Society further maintains, again without elaboration or support, that the Commission’s conclusion that the project poses no conflicts with the California Desert Conservation Area Plan is contrary to FPA section 10(a)(1) and is not supported by substantial evidence. This unsupported statement is insufficient to preserve the issue and is also waived.
the Commission “must consult with and abide by FWS’ expert guidance.” The Society contends that the Commission abused its discretion in declining to adopt this conservation recommendation.

98. This is incorrect. Conservation recommendations are not mandatory and agencies have discretion to decline to adopt them. In the License Order, we considered this recommendation, as well as concerns raised by Eagle Crest and the Metropolitan Water District of Southern California based on environmental issues, the need for a new right-of-way, proximity to a school and air strip, and potential to interfere with the Water District’s operations. We concluded that, in comparison with the FWS-recommended transmission route, the EIS-recommended route would require less revegetation, present fewer predation risks to desert tortoises from perching and nesting raptors, occur in less designated critical habitat for desert tortoises, and not interfere with the Water District’s aviation operations. We therefore declined to adopt the FWS conservation recommendation. Because we included a statement of reasons for our decision and explained how we considered all relevant information, our decision was not an abuse of discretion.

99. Desert Protection Society asserts that the Commission’s consultation with FWS is incomplete because it relies on future surveys for desert tortoises instead of requiring that the surveys be completed before project approval. This is incorrect. As discussed earlier, the information used to prepare the EIS is adequate, and the post-license surveys will be used to confirm the available information and to inform the final project design.

100. Desert Protection Society further maintains that ESA consultation is incomplete because it presumes that tortoises can be relocated without harm, presumes that exclusion fencing will prevent harm, and fails to consider information from other ESA review “that tortoises migrate in straight lines and thus will strand themselves on such exclusion fencing, where they will remain until dead.”

101. This is incorrect. As required by ESA section 7(a)(2), the Commission consulted formally with the FWS regarding the effects of the project on desert tortoises. In its biological opinion, FWS determined that the project is not likely to jeopardize the continued existence of the desert tortoise or destroy or adversely modify designated

147 Desert Protection Society’s request for rehearing at 18.


149 Id. at 19.
critical habitat. To minimize the impact of incidental take of desert tortoises, FWS included an incidental take statement with reasonable and prudent measures to minimize incidental take and terms and conditions to implement those measures.\textsuperscript{150} These require Eagle Crest to: (1) conduct surveys for desert tortoises in the central project area prior to any land-disturbing activities; (2) employ an authorized biologist to capture, handle, or relocate tortoises; and (3) design and construct exclusion fencing in construction areas and around project facilities to minimize risks of injury and mortality to tortoises and other wildlife. The license requires these measures.

102. FWS is the expert agency charged with implementing the ESA, in consultation with the Commission, to protect desert tortoises. In these circumstances, it is reasonable to conclude that an authorized biologist can safely handle and relocate desert tortoises, exclusion fencing will help protect the tortoises, and tortoises can be moved to a safe location if they strand themselves on the fencing. Desert Protection Society’s contentions to the contrary are without merit.

G. Federal Land Policy Management Act

103. Desert Protection Society argues that the License Order violates the Federal Land Policy Management Act (FLPMA) “because the Commission has presumed that Eagle Crest will obtain by purchase or condemnation 448.6 acres of land” that BLM “unlawfully granted to Kaiser in 1999.”\textsuperscript{151} The Society contends that this land is owned by the United States and is not subject to acquisition or condemnation. In support, the Society cites National Parks Conservation Association v. Bureau of Land Management.\textsuperscript{152}

104. This argument is incorrect. The National Parks case involved a challenge to the BLM’s 1997 decision approving a land exchange with Kaiser for the landfill project. The land exchange was completed in 1999. The district court, finding NEPA and FLPMA violations, set aside the land exchange pending preparation of a new EIS. The Ninth Circuit Court of Appeals affirmed in part and reversed in part, and remanded the case for further proceedings. In 2013, after the Los Angeles County Sanitation District decided not to pursue acquiring Kaiser’s interest in the landfill project, the district court directed the parties in the litigation to commence settlement negotiations. BLM subsequently

\textsuperscript{150} Biological Opinion at 49-54 (April 12, 2012).

\textsuperscript{151} Id. at 20.

\textsuperscript{152} 606 F.3d 1058, 1065-75 (9\textsuperscript{th} Cir. 2009).
issued a notice of intent to prepare a supplemental EIS for the land exchange in response to the court decisions. 153

105. In the License Order, we stated that, under current land ownership, the Eagle Mountain Project would occupy 2,527 acres of land, of which 699.2 is federal land managed by BLM with the remaining 1,827.9 acres privately owned. We noted that the privately-owned acreage included 448.6 acres within the project boundary associated with a public and private land exchange “currently in litigation.” 154 Eagle Crest recently stated that, as a result of a 2014 settlement, “these acres are now back in federal management.” 155

106. Regardless of their status as a result of the litigation and settlement, however, these lands have at all times remained subject to a power site reservation pursuant to section 24 of the FPA. 156 That section provides that any federal lands included in a proposed project “shall from the date of filing of application therefore be reserved from entry, location, or other disposal under the laws of the United States until otherwise directed by the Commission or by Congress.” 157 This means that an application for a hydroelectric project results in an automatic withdrawal of the land to preserve its use for power purposes. 158

153 See Letter from Donald Clarke, counsel for Eagle Crest, to Kimberly Bose, Commission Secretary, attaching a copy of BLM’s notice of intent (filed Aug. 28, 2014).

154 License Order, 147 FERC ¶ 61,220 at P 10 and n.12.


157 Id.

158 The Commission expressly recognized this in connection with the proposed land exchange in 1996, stating that the power value of any U.S. lands within the project boundary would not be affected by the proposed land exchange. See letter from J. Mark Robinson, FERC, to E. Hasley, BLM (June 7, 1996).
107. As discussed earlier in this order, Eagle Crest’s license allows it to use the federal authority of eminent domain to acquire privately-owned lands or interests in lands, if necessary, to construct and operate its project. Any federally-owned lands or interests in lands needed for the project are subject to the automatic power site reservation created under FPA section 24, and Eagle Crest can obtain the necessary rights-of-way from BLM. Desert Protection Society’s argument to the contrary is without merit.

The Commission orders:

(A) The requests for rehearing of the Commission’s June 19, 2014 order issuing an original license for the Eagle Mountain Pumped Storage Hydroelectric Project No. 13123, filed in this proceeding on July 21, 2014, by the U.S. Department of the Interior and the Desert Protection Society, are denied.

(B) The motion for stay filed by the U.S. Department of the Interior on July 21, 2014, is denied.

By the Commission.

( S E A L )

Kimberly D. Bose,
Secretary.