STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for

GEYSERS POWER COMPANY, LLC BIG SULPHUR CREEK – III WATER EXTRACTION FACILITY REPLACEMENT PROJECT

SOURCE: Big Sulphur Creek

COUNTY: Sonoma

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

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February 2023

Acronyms and Abbreviations

2020-2022 Integrated Report 2020-2022 California Integrated Report (Clean Water Act

Section 303(d) List/305(b) Report)

Antidegradation Policy Statement of Policy with Respect to Maintaining High

Quality Waters in California

Applicant Geysers Power Company, LLC
CEQA California Environmental Quality Act

CRPR California Rare Plant Rank certification water quality certification

Construction General Permit General Permit for Stormwater Discharges

Associated with Construction and Land Disturbance

Activities

Deputy Director Deputy Director of the Division of Water Rights
Dredge or Fill Procedures State Wetland Definition and Procedures for

Discharges of Dredged or Fill Material to Waters of

the State

ESA Endangered Species Act

Quality Control Board

FERC Federal Energy Regulatory Commission

GPC Geysers Power Company, LLC

NPDES National Pollutant Discharge Elimination System
North Coast Basin Plan Water Quality Control Plan for the North Coast Basin

Region

North Coast Regional North Coast Regional Water Quality Control

Water Board Board

OHWM ordinary high-water mark

Project Big Sulphur Creek – III Water Extraction Facility

Replacement Project

Regional Water Boards Regional Water Quality Control Boards

SSC Species of Special Concern

State Water Board State Water Resources Control Board

TMDLs total maximum daily loads

USACE United States Army Corps of Engineers

USEPA United States Environmental Protection Agency
Water Boards State Water Resources Control Board and Regional

Water Quality Control Boards, collectively

1.0 Project Description

Geysers Power Company, LLC (GPC or Applicant) is proposing to replace one of its surface water intake facilities on Big Sulphur Creek in the Geysers Geothermal Steam Field in Sonoma County, California. The current diversion system, Big Sulphur Creek – III Water Extraction Facility, includes two screened pumps that hang from a bridge and are lowered into Big Sulphur Creek to pump water approximately 100 vertical feet uphill to an injection well.

As part of the Big Sulphur Creek – III Water Extraction Facility Replacement Project (Project), GPC is proposing to remove and replace an existing bridge-mounted water diversion system and construct a new in-water diversion system. The new diversion system will include a new in-channel intake screen, wet well with two pumps, and piping system to improve the overall safety and operations of the diversion and reduce impacts to multiple aquatic species.

The existing diversion is located on Big Sulphur Creek adjacent to Big Sulphur Creek Road, approximately six miles west of Highway 175 and 10 miles northwest of Middletown, California in Sonoma County (Figure A1). The existing diversion system consists of two screened pumps that hang from a pedestrian bridge and are lowered into the creek channel to divert water to an uphill injection well approximately 100 vertical feet above the creek. The new diversion will be in the same general location just upstream of the existing diversion in the active channel. The location of the new diversion was chosen because it is a concentrated localized low point resulting in a reliable pool to install the new screen. Due to the shallow depth of the new diversion point (approximately two feet) a cone screen will be used to accommodate the low water elevation conditions. The new intake screen is a low profile, 66-inch-diameter cone screen that will sit on a concrete base on the creek bed. The cone screen intake will be connected to an 18-inch pipe that will convey water via gravity to a new wet well located on the north bank of the creek. The cone screen will be outfitted with a jetting system to wash debris away from the cone screen when sediment or debris cover the screen. The jetting system will be manually activated by an operator. The new wet well will be a rectangular concrete structure (approximately 5.5-feet-wide by 9.5-feet-deep by 17-feet-high) that is located deep enough on the creek bank to allow for gravity flows, with the top of the wet well above the expected 100-year flow water surface elevation. Using two pumps in the wet well, water will be pumped through an 8-inch force main pipe to the existing injection well where it is used to replenish the steam fields and generate geothermal energy.

To install the new water diversion facilities a portion of Big Sulphur Creek will need to be dewatered. GPC is proposing to install two temporary fish screens and dewatering dikes to isolate the work area. The work area will be dewatered using portable pumps and the discharge will be treated as necessary (i.e., baker tanks) to prevent water quality impacts to Big Sulphur Creek downstream. Installation of the fish screens and dewatering activities will be conducted under the supervision of a qualified fisheries biologist approved by the California Department of Fish and Wildlife. A gravity flow stream diversion pipe will convey Big Sulphur Creek water past the dewatered work

area. Additionally, bank grading and rip rap placement will be conducted to stabilize the north side bank of the creek to prevent existing and future bank erosion.

Project components include: (1) the removal and replacement of the existing water diversion system; (2) construction of a new diversion system equipped with a cone screen, automated brush cleaner system, and jetting system; (3) installation and removal of temporary bypass systems, fish screens, and two earthen dikes for dewatering operations; and (4) a gravel staging area and bank stabilization for construction/operation access using riprap (Figure A2). Project construction is anticipated to take approximately six weeks and begin in Summer of 2023 following GPC obtaining all necessary permits.

Project implementation will require a permit from the United States Army Corps of Engineers (USACE), pursuant to section 404 of the Clean Water Act. GPC anticipates it will obtain coverage for the Project from the USACE under the following Nationwide Permits: 33 – Temporary Construction, Access, and Dewatering; and 51 – Land-Based Renewable Energy Generation Facilities. A section 404 permit from USACE requires the GPC to obtain a Clean Water Act section 401 water quality certification (certification) from the State Water Resources Control Board (State Water Board) for the Project.

2.0 Water Rights

Table A lists the water rights associated with the Project.

Table A. GPC's Big Sulphur Creek – III Water Extraction Facility Replacement Project Water Rights*

Application No.	Source	Priority Date	Place of Storage or Diversion	Purpose of Use
A027177	Big Sulphur Creek	1/11/1982	Point of Direct Diversion at Big Sulphur Creek	Power (Geothermal) and Industrial

^{*} Information is from the State Water Board's electronic Water Rights Information Management System.

3.0 Regulatory Authority

3.1 Water Quality Certification and Related Authorities

The federal Clean Water Act (33 U.S.C. §§ 1251-1388) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) The Clean Water Act relies significantly on state participation and support in light of "the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution" and "plan the development and use" of water resources. (33 U.S.C. § 1251(b).) Section 101 of the Clean Water Act (33 U.S.C. § 1251(g)) requires federal agencies to "co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources." (33 U.S.C. § 1251(g).)

Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires any applicant for a federal license or permit that may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will comply with specified provisions of the Clean Water Act, including water quality standards and implementation plans promulgated pursuant to section 303 of the Clean Water Act (33 U.S.C. § 1313). Clean Water Act section 401 directs the agency responsible for certification to prescribe effluent limitations and other conditions necessary to ensure compliance with the Clean Water Act and with "any other appropriate requirement of State law." (33 U.S.C. §1341(d).) Section 401 further provides that certification conditions shall become conditions of any federal license or permit for the project. (*Ibid.*)

The State Water Board is the state agency responsible for Clean Water Act section 401 certification in California. (Wat. Code, § 13160.) The State Water Board has delegated authority to act on applications for certification to the Executive Director of the State Water Board. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

Water Code section 13383 authorizes the State Water Board to "establish monitoring, inspection, entry, reporting, and recordkeeping requirements" and obtain "other information as may be reasonably required" for activities subject to certification under section 401 of the Clean Water Act. For activities that involve the diversion of water for beneficial use, the State Water Board delegated this authority to the Deputy Director of the Division of Water Rights (Deputy Director), as provided for in State Water Board Resolution No. 2012-0029 (State Water Board 2012). In the *Redelegation of Authorities* memo issued by the Deputy Director on June 6, 2022, this authority is redelegated to the Assistant Deputy directors of the Division of Water Rights (State Water Board 2022a).

Procedure, Application, and Noticing

On September 28, 2022, GPC filed a certification application with the State Water Board under section 401 of the Clean Water Act. On November 1, 2022, State Water Board staff provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858, by posting information describing the Project on the State Water Board's website. No comments were received in response to this notice.

On December 8, 2022, State Water Board staff requested comments from the North Coast Regional Water Quality Control Board (North Coast Regional Water Board) on the certification application. (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B).) On December 21, 2022, the North Coast Regional Water Board staff provided comments that State Water Board staff resolved in the development of this certification. State Water Board staff provided an updated version of the certification for North Coast Regional Water Board staff on February 13, 2023, and North Coast Regional Water Board with no comments.

3.2 Water Quality Control Plans and Related Authorities

The State Water Board's certification for the Project must ensure compliance with applicable water quality standards and objectives in the North Coast Regional Water Board *Water Quality Control Plan for the North Coast Region* (North Coast Basin Plan) (North Coast Regional Water Board 2018).

Water quality control plans designate the beneficial uses of water to be protected (such as municipal and domestic supply, industrial, agriculture, and fish and wildlife habitat), water quality objectives for the reasonable protection of the beneficial uses and the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Wat. Code, §§ 13241, 13050, subds. (h), (j).) The beneficial uses, together with the water quality objectives contained in the water quality control plans and applicable state and federal anti-degradation requirements, constitute California's water quality standards for purposes of the Clean Water Act. In issuing certification for a project, the State Water Board must ensure consistency with the designated beneficial uses of waters affected by the project, the water quality objectives developed to protect those uses, and anti-degradation requirements. (*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 714-719.)

The California Regional Water Quality Control Boards (Regional Water Boards) have primary responsibility for the formulation and adoption of water quality control plans for their respective regions, subject to State Water Board and United States Environmental Protection Agency (USEPA) approval, as appropriate. (Wat. Code, §§ 13240 et seq.) As noted above, the State Water Board may also adopt water quality control plans, which will supersede regional water quality control plans for the same waters to the extent of any conflict. (Wat. Code, § 13170.) The State Water Board and Regional Water Boards (collectively Water Boards) adopt the plans pursuant to their authorities under the Porter-Cologne Water Quality Control Act (Wat. Code, §§ 13000 et seq.) and the federal Clean Water Act (33 U.S.C. § 1313).

North Coast Basin Plan

The North Coast Regional Water Board adopted, and the State Water Board and USEPA approved, the North Coast Basin Plan. The North Coast Basin Plan designates the beneficial uses of water to be protected along with the water quality objectives necessary to protect those uses. The North Coast Basin Plan specifies that the beneficial uses of any specifically identified waterbody generally apply to its tributary streams. The North Coast Basin Plan identifies existing beneficial uses for the Sulphur Creek Hydrologic Subarea as: municipal and domestic supply; agricultural supply; industrial service supply; groundwater recharge; navigation; water-contact recreation; non-contact recreation; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; wildlife habitat; rare, threatened, or endangered species; migration of aquatic organisms; spawning, reproduction, and/or early development. The North Coast Basin Plan identifies potential beneficial uses for the Sulphur Creek Hydrologic Subarea as: industrial process supply; hydropower generation; and aquaculture.

Antidegradation Policy

The State Water Board's *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Antidegradation Policy)¹ (State Water Board 1968) requires that the quality of existing high-quality water be maintained unless any change will be consistent with the maximum benefit to the people of the state, will not unreasonably impact present or anticipated future beneficial uses of such water, and will not result in water quality less than that prescribed in water quality control plans or policies. The Antidegradation Policy further requires best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained. The state Antidegradation Policy incorporates the federal Antidegradation Policy (40 C.F.R. § 131.12 (a)(1)), which requires "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected."

3.3 Construction General Permit

Under the State Water Board's *National Pollutant Discharge Elimination System* (*NPDES*) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)² (State Water Board 2009) activities that disturb one or more acres of soil, or that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres must obtain coverage under the Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. Coverage is required pursuant to Clean Water Action sections 301 and 402, which prohibit certain discharges of stormwater containing pollutants except in compliance with a NPDES permit. (33 U.S.C. §§ 1311, 1342(p); 40 C.F.R. pts. 122, 123, and 124.) It is not anticipated that GPC will need to enroll in the Construction General Permit based on the current amount of anticipated disturbance associated with the Project.

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State Water Board Resolution No. 68-16 and any amendments thereto. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs 68_016.pdf. Accessed on February 6, 2023.

Water Quality Order No. 2009-0009-DWQ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, Order No. 2022-0057-DWQ, and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html Accessed on February 15, 2023.

3.4 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

On April 2, 2019, the State Water Board adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures)³, which became effective on May 28, 2020 (State Water Board 2019 and 2021)⁴. The Dredge or Fill Procedures provide California's definition of wetland, wetland delineation procedures, and procedures for submitting applications for activities that could result in discharges of dredged or fill material to waters of the state. The Dredge or Fill Procedures ensure that State Water Board regulatory activities will result in no net loss of wetland quantity, quality, or permanence, compliant with the *California Wetlands Conservation Policy*, Executive Order W-59-93. GPC must comply with the Dredge or Fill Procedures when conducting dredge or fill activities that may impact waters of the state, including wetlands.

3.5 Clean Water Act Section 303(d) Listing

On January 19, 2022, the State Water Board adopted the **2020-2022 California Integrated Report (Clean Water Act Section 303(d) List/305(b)Report)** (2020-2022 Integrated Report)⁵ (State Water Board 2022b) and it was approved by USEPA on May 11, 2022.

The 2020-2022 Integrated Report listed portions of the Big Sulphur Creek hydrological subarea as an impaired waterbody for sedimentation/siltation and water temperature.

Section 303(d) of the Clean Water Act requires total maximum daily loads (TMDLs) to be developed for impaired waterbodies. TMDLs are control programs that define the maximum amount of a pollutant that a waterbody can receive without exceeding water quality standards and establish waste load allocations and load allocations for point and nonpoint sources of pollution, respectively.

4.0 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to discretionary projects that may cause a direct or indirect physical change in the environment. (Pub. Resources Code, §§ 21000 et seq.) When proposing to undertake or approve a discretionary project, state agencies must comply with the procedural and substantive requirements

³ The Dredge or Fill Procedures and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on February 6, 2023.

Resolution No. 2021-0012 is available online at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/rs2021_ 0012.pdf. Accessed on February 6, 2023.

^{5 2020-2022} Integrated Report. Available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2 020 2022 integrated report.html. Accessed on February 6, 2023.

of CEQA. The State Water Board determined that the Project is categorically exempt from CEQA under Class 1, existing facilities (Cal. Code Regs, tit. 14, § 15301), Class 3, new construction or conversion of small structures (Cal. Code Regs, tit. 14, § 15303), and Class 4, minor alterations to land (Cal. Code Regs, tit. 14, § 15304). The State Water Board will file a Notice of Exemption with the State Clearinghouse within five days of issuing this certification.

5.0 Rationale for Water Quality Certification Conditions

This section of the certification explains that the grant of certification, as conditioned, is within the scope of certification and why the conditions in Section 7.0 are necessary to ensure that the Project and its discharges will comply with water quality requirements. This section also includes, as necessary, citations to federal, state, or tribal laws that authorize the conditions and sets forth citations to applicable regulatory authority. Section 3.0 also sets forth citations to applicable regulatory authority. The explanation and citations should be evaluated in the context of the certification as a whole, but the certification conditions are set forth only in Section 7.0.

As explained in this section, the conditions in this certification are generally required pursuant to the North Coast Basin Plan, as described in Section 3.0, Regulatory Authority.

The Dredge or Fill Procedures, adopted pursuant to Water Code sections 13140 and 13170, authorize approval of dredge or fill projects subject to satisfaction of specified requirements. California Code of Regulations, title 23, sections 3830 et seq., set forth state regulations pertaining to certifications. In particular, section 3856 sets forth information that must be included in certification requests, and section 3860 sets forth standard conditions that shall be included in all certification actions.

Water Code sections 13267 and 13383 authorize the Water Boards to establish monitoring and reporting requirements for persons discharging or proposing to discharge waste to navigable waters. Water Code section 1051 additionally authorizes the State Water Board to investigate waters diverted for beneficial use. Moreover, this certification ensures continued monitoring, reporting, and assessment of water quality for discharges that may impact waters of the state.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. Section 5937 and requirements to maintain or monitor flow or other water quality characteristics as required to meet section 5937 are appropriate conditions of state law necessary to protect fishery beneficial uses.

Authorization under this certification is granted based on the application submitted. An applicant is required to detail the scope of Project impacts in a complete application pursuant to California Code of Regulations, title 23, section 3856, subdivision (h). Pursuant to Water Code section 13260, subdivision (c), each person discharging waste or proposing to discharge waste shall file a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the

discharge. Pursuant to Water Code section 13264, subdivision (a), a permittee is prohibited from initiating the discharge of new wastes, or making material changes to character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856. (See also State Water Board Water Quality Order No. 2003-0017-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification⁶.)

In general, the code citations, plans, and policies that support issuance of this certification that are described in Section 3.0 are not duplicated in this section. The conditions in this certification were developed to ensure compliance with water quality standards and water quality requirements established under the Porter-Cologne Water Quality Control Act and the federal Clean Water Act, including requirements in applicable water quality control plans, and other appropriate requirements of state law. The conditions in Section 7.0 of this certification are necessary to protect the beneficial uses of waters of the state identified in water quality control plans, prevent degradation of water quality, and help ensure compliance with state and federal water quality requirements.

When preparing the conditions in this certification, State Water Board staff reviewed and considered the following information:

- GPC's September 28, 2022 application for certification (GPC 2022a) including its attachments (Attachments A through E);
- Beneficial uses, water quality objectives, and implementation measures and programs described in the North Coast Basin Plan;
- Applicable water quality information, permits, policies, objectives, implementation measures, and programs (e.g., Construction General Permit, Dredge or Fill Procedures, etc.);
- Project-related controllable factors; and
- Other information in the record.

To the extent USACE considers any certification condition to include requirements outside the substantive scope of USEPA's Clean Water Act Section 401 Certification Rule, 85 Fed. Reg. 42, 210 (July 13, 2020) (Certification Rule), the Certification Rule—including but not limited to 40 C.F.R. §§ 121.1(f) and (n), 121.3, 121.7(d)(1), and 121.9(b)—is inconsistent with federal law and controlling case law. Under section 401 of the Clean Water Act, when an activity requiring a federal permit or license "may result in any discharge into the navigable waters," the applicant is required to obtain a certification that states the discharge will comply with applicable water

Statewide General Waste Discharge Requirements. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf. Accessed February 15, 2023.

quality standards and that also sets forth any "limitations" and "monitoring requirements" necessary to assure that the "applicant" will comply with water quality standards and "any other appropriate requirement of State law." (33 U.S.C. § 1341(a) & (d).) Certification is required for such activity as a whole, not merely for its point-source discharges to waters of the United States. (PUD No. 1, supra, 511 U.S. at pp. 711- 712.) USEPA has indicated its intent to revise the Certification Rule because, among other faults, it "may prevent state and tribal authorities from adequately protecting their water quality," "may result in a state or tribe's certification or conditions being permanently waived as a result of non-substantive and easily fixed procedural concerns," and "may limit the flexibility of certifications and permits to adapt to changing circumstances." (86 Fed. Reg. 29,543-29,544 (June 2, 2021).) USEPA has maintained its "substantial concerns" and has asked that the Certification Rule be voluntarily remanded in ongoing litigation. Additionally, on June 9, 2022, USEPA published in the Federal Register a proposed rule to revise procedures for implementing section 401 of the Clean Water Act. The proposed rule would replace and update the Certification Rule (USEPA 2022). As explained in this certification, each certification condition is authorized by applicable state and federal law and is necessary to ensure compliance with such laws. This paragraph is hereby incorporated as part of the explanatory statement for each condition of this certification.

5.1 Rationale for Condition 1: Project Activities

As described in Section 5.0, this certification is granted based on the application and supporting information submitted in accordance with the State Water Board's regulations and subject to requirements of the Porter-Cologne Water Quality Control Act. Condition 1 requires GPC to implement the Project as described in its September 28, 2022 certification application (GPC 2022a) and as modified by the conditions of this certification. Condition 1 will help ensure that the Project is implemented in a manner that protects water quality objectives and avoids unreasonable impacts to beneficial uses. Any changes to the Project description that are inconsistent with the Project application and supplemental documents GPC provided to the State Water Board prior to certification issuance could impact the findings, conclusions, and conditions of the certification and may necessitate the filing of an amendment or new application as well as trigger additional environmental review.

Condition 1 requires GPC, if applicable, to comply with the Construction General Permit, described in Section 3.3, to ensure that construction-related Project activities do not impact water quality and beneficial uses if the total soil disturbance of the Project is one or more acres. This is required pursuant to Clean Water Act sections 301 and 402 that prohibit certain discharges of stormwater containing pollutants except in compliance with an NPDES permit. (33 U.S.C. §§ 1311, and 1342(p); 40 C.F.R. pts. 122, 123, and 124.)

Condition 1 also requires GPC to implement its Dewatering Plan (GPC 2022a, Attachment E) to ensure beneficial uses are protected and to comply with North Coast Basin Plan's water quality objectives and other appropriate requirements of state law. The Dewatering Plan includes water quality monitoring, measures to avoid water quality impacts, reporting, and adaptive management, as needed.

5.2 Rationale for Condition 2: Water Quality Monitoring

The Project includes dewatering and other in-water and water-adjacent construction work that may result in discharges that have direct impacts to water quality in Big Sulphur Creek. Water quality parameters that may be impacted by such activities include turbidity and pH. Project activities that may impact water quality include:

- (1) installation and removal of dewatering dikes and temporary fish screens;
- (2) installation and removal of Big Sulphur Creek temporary water bypass pipe;
- (3) heavy equipment operation within Big Sulphur Creek; (4) removal and installation of water diversion facilities; and (5) erosion caused by bank stabilization activities. Monitoring requirements of Condition 2 are consistent with the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383.

Existing beneficial uses in the Sulphur Creek Hydrologic Subarea that may be impacted by the Project include: industrial service supply; groundwater recharge; non-contact recreation; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; wildlife habitat; and rare, threatened, or endangered species. Potential beneficial uses for the Sulphur Creek Hydrologic Subarea that may be impacted by the Project include industrial process supply and hydropower generation.

5.3 Rationale for Condition 3: Erosion, Sediment, and Hazardous Materials Control Measures

Erosion and sedimentation can contribute to degradation of the waters of the state; therefore, it is necessary to implement actions to eliminate or limit such discharges to protect water quality and associated beneficial uses. Project activities, including vegetation removal, stockpiling, fill and excavation work, rip rap placement, and other ground disturbing activities, have the potential to cause erosion of riparian habitat and increased sedimentation in Big Sulphur Creek. Increases in erosion and sedimentation can exceed water quality objectives (e.g., turbidity) and impact beneficial uses. Condition 3 requires implementation of erosion and sediment control measures to ensure water quality standards are met during Project construction.

Hazardous materials management is essential to ensure hazardous materials are properly stored, transported, and managed in the Project area to avoid the discharge of hazardous materials to surface waters, and the associated impacts to beneficial uses, including impacts to aquatic resources and their habitats. Condition 3 requires GPC to implement and expand its Erosion Control Plan to address hazardous materials management for the protection of water quality.

The Project involves construction using heavy equipment that will require refueling and servicing. Site management requires implementation of best management practices to prevent, minimize, and/or clean up construction spills, including from construction equipment. For instance, fuels and lubricants associated with the use of mechanized equipment have the potential to result in toxic discharges to surface water in violation of water quality standards, including the toxicity and floating material water quality objectives. Secondary containment around hazardous materials storage sites helps

ensure that any leaks or spills of hazardous materials do not result in a discharge to waters. Condition 3 is required pursuant to Water Code section 13264, which prohibits any discharge that is not specifically authorized in this certification.

The North Coast Basin Plan includes narrative water quality objectives for oil, grease, and other hazardous materials. Waters must be free of hazardous materials in concentrations that cause nuisance, "detrimental physiological responses in human, plant, animal, or aquatic life," or "result in a visible film or coating on the surface of the water or on objects in the water" (North Coast Regional Water Board 2018).

Existing beneficial uses in the Sulphur Creek Hydrologic Subarea that may be impacted by the Project include: industrial service supply; groundwater recharge; non-contact recreation; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; wildlife habitat; and rare, threatened, or endangered species. Potential beneficial uses for the Sulphur Creek Hydrologic Subarea that may be impacted by the Project include industrial process supply and hydropower generation.

5.4 Rationale for Condition 4: Aquatic Biological Resources

The Project includes ground disturbing activities with the potential to impact special status wildlife. Condition 4 requires GPC to comply with the requirements of Streambed Alteration Agreement EPIMS-SON-19974-R3 (as described in Attachment C of the certification application) issued by the California Department of Fish and Wildlife to ensure Project activities do not impact existing fish and riparian wildlife. Condition 4 is necessary to ensure there are no Project-related impacts to North Coast Basin Plan existing and potential beneficial uses including wildlife and to special status species including:

- Northern spotted owl (Strix occidentalis caurina), state threatened, federal threatened:
- Geysers panicum (*Panicum acuminatum var. thermale*), state endangered and California Rare Plant Rank (CRPR);
- Mount Saint Helena morning glory (Calystegia collina ssp. oxyphylla), CRPR;
- California Coastal steelhead (Oncorhynchus mykiss irideus), federal threatened;
- California red-legged frog (Rana draytonii), federal threatened and California Species of Special Concern (SSC);
- Foothill yellow-legged frog (Rana boylii) Northwest/North Coast clade, SSC;
- Western pond turtle (*Emys marmorata*), SSC;
- California giant salamander (Dicamptodon ensatus), SSC;
- Red-bellied newt (Taricha rivularis), SSC;
- Townsend's big-eared bat (Corynorhinus townsendii), SSC; and
- Purple martin (*Progne subis*), SSC.

Condition 4 also requires that GPC compensate for permanent impacts to riparian and stream channel habitat in compliance with the Dredge or Fill Procedures described in Section 3.4.

5.5 Rationale for Condition 5: Progress and Completion Reports

Condition 5 requires GPC to submit Progress Reports during construction to document Project status and compliance with certification requirements. Additionally, Condition 5 requires GPC to submit a Project Completion Report following Project completion to document compliance with certification requirements. The Progress Reports and Project Completion Report will inform the Deputy Director of compliance with water quality objectives and protection of beneficial uses during Project implementation.

5.6 Rationale for Conditions 6 through 27

This certification imposes additional conditions regarding Project approvals, monitoring, enforcement, and potential future revisions. This section explains why a condition is necessary to assure that the authorized discharge will comply with water quality requirements, and cites to federal, state, or tribal law that authorizes the condition. (40 C.F.R. § 121.7(d)(1).) The statements in this section correspond with the conditions set forth in Conditions 6 through 27. In addition, the code citations, plans, and policies that support issuance of this certification are described in Sections 3.0 and are not duplicated in this section but are incorporated herein. Conditions 6 through 27 are necessary to protect the beneficial uses of waters of the state identified in water quality control plans, prevent degradation of water quality, and help ensure compliance with state and federal water quality requirements.

Condition 6 is necessary to comply with Water Code section 13167 and Conditions 7 through 10 contain important clarifications concerning the scope and legal effect of this certification, and other legal requirements that may apply to the Project.

Monitoring, reporting, and assessment actions, and the information developed through such actions, must be readable, shared, and coordinated with other appropriate entities, and accessible to ensure that a discharge activity complies with water quality requirements. Water Code section 13167 requires the Water Boards to ensure that monitoring data and assessment information are available in a single location and that the information is presented in a manner easily understandable by the public. To fulfill this legislative mandate, Condition 6 requires electronic data submittal in a compatible format with existing system specifications. Compliance with this condition enhances the accessibility of data and transparency of regulatory actions. This allows regulatory agencies and the public to better assess compliance and understand water quality trends or data anomalies by compiling data and making it readily available.

Pursuant to the California Endangered Species Act (Fish & G. Code, §§ 2050 et seq.) and federal Endangered Species Act (16 U.S.C. §§ 1531 et seq.), Condition 7 of the certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species. An applicant for certification is required to identify other licenses, permits, and agreements in the application. In the event an applicant for certification needs authorization from the state or federal authorities, California Code of Regulations, title 23, section 3856, subdivision (e), requires that the applicant provide copies of "any final and signed federal, state, and local licenses, permits, and agreements (or copies of the draft documents, if not finalized) that will be required for

any construction, operation, maintenance, or other actions associated with the activity. If no final or draft document is available, a list of all remaining agency regulatory approvals being sought shall be included." To help ensure the integrity of the certification process and its focus on ensuring that Project activities meet water quality standards and other appropriate requirements of state law, Condition 10 serves to notify applicants that there may be additional applicable federal, state, or local laws or ordinances with which they must comply, including the state and federal Endangered Species Acts (Condition 7).

Water Code section 13160, subdivision (b)(1) allows the State Water Board to issue a certification when there is "reasonable assurance that an activity of any person subject to the jurisdiction of the state board will comply with applicable requirements" of state and federal law. To help ensure the integrity of the certification process and its focus on the protection of water quality and compliance with other applicable state requirements, Condition 8 serves to notify applicants that there may be additional applicable federal, state, or local laws or ordinances with which they must comply. Because agency organization and authorities change over time, Condition 9 provides direction for continuity of oversight in the event an agency's authority or responsibility is transferred to or subsumed by another agency.

The State Water Board is responsible for the water right, water quality, and drinking water functions of the California state government. (Wat. Code, § 174.) Certain certifications involve an appropriation of water subject to part 2 of division 2 of the Water Code or the diversion of water for certain beneficial uses. (See, e.g., Cal. Code Regs., tit. 23, § 3855, subd. (b)(1)(A).) Condition 10 explains the State Water Board's issuance of this certification is not adjudicating or approving the validity of water rights that may be related to the Project. It also recognizes the State Water Board's authority, independent of its water quality authority, to prevent unauthorized or threatened unauthorized diversions of water. This helps to ensure that an applicant for a federal license or permit that involves a discharge to navigable waters understands that, except as specified in the certification, the certification does not constitute, or excuse the applicant from obtaining any other State Water Board approvals required for the activity.

Conditions 11 through 13 are necessary to assure that any discharge authorized under the certification will comply with water quality requirements. These conditions are included to comply with California Code of Regulations, title 23, section 3860, which sets forth conditions that must be included in all certifications. Condition 11 is a standard condition that "shall be included as conditions of all certification actions" pursuant to California Code of Regulations, title 23, section 3860, subdivision (a). This condition places the permittee on notice that the certification action may be modified or revoked following administrative or judicial review. Condition 12 is a standard condition that "shall be included as conditions of all water quality certification actions" pursuant to California Code of Regulations, title 23, section 3860(b). This condition clarifies the scope of the certification's application and ensures that any applicant for a federal license or permit, which may result in a discharge into navigable waters, is subject to the appropriate State certification. Condition 13 is a standard condition that "shall be included as conditions of all water quality certification actions" pursuant to California Code of Regulations, title 23, section 3860(c). This fee requirement condition is also

required pursuant to California Code of Regulations, title 23, section 3833(b), which requires payment of fees by project proponents applying for certification. Fees are essential to support the Water Boards certification program, which includes the development of certifications and related inspections to ensure the protection of water quality and beneficial uses that may be impacted by a project.

Conditions 14 through 24 are necessary to ensure that the Project operates to meet water quality standards and other appropriate requirements of state law, or that adjustments are made to ensure continued compliance with water quality standards in light of new information, changes to the Project, or changes to the standards themselves.

This certification requires monitoring, reporting, and analysis as important elements to ensure that the Project activities will comply with state and federal water quality requirements and other appropriate requirements of state law. Conditions 14, 15, and 16 provide for extensions of time to comply with requirements, prevention or remedy of violations, and notification of changed conditions to ensure compliance and prevent violations of water quality standards. In the event of non-compliance, modified conditions may be necessary to return the Project to compliance and prevent violation of water quality standards. Conditions 17 and 18 require GPC to comply with the North Coast Basin Plan and to take all reasonable measures to protect water quality and beneficial uses, in accordance with plans adopted pursuant to state and federal water laws. Water Code section 13267 authorizes the State Water Board to require any person or entity who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to furnish, under penalty of perjury, technical or monitoring reports when necessary to investigate the quality of any waters of the state. Condition 19 requires such reports that are necessary to ensure compliance with water quality standards.

Condition 20, related to site access requirements, is authorized pursuant to the Water Boards' authority to investigate the quality of any waters of the state, including specific site access authorized under Water Code section 13267 and 13383. Site access is needed to ensure compliance with the certification and associated protection of water quality and beneficial uses. Condition 21 requires site personnel and agencies to be familiar with the content of the certification and availability of the document at the Project site. This condition is required to assure that site personnel are familiar with the conditions needed to protect water quality and any authorized discharge will comply with the terms and conditions of this certification, which requires compliance with water quality objectives and beneficial uses adopted or approved under sections 13170 or 13245 of the Water Code, and with other appropriate requirements of state law.

Condition 22 reserves the State Water Board's authority to add or modify conditions of this certification to ensure that Project activities meet water quality objectives and protect beneficial uses.

Condition 23 requires that GPC use analytical methods approved by California's Environmental Laboratory Accreditation Program, when available, to ensure that such analyses are done in a consistent manner.

Condition 24 provides that the State Water Board will provide notice and an opportunity to be heard in exercising its authority to add or modify certification conditions.

Condition 25 ensures permanent physical loss and permanent ecological degradation of waters of the state are adequately mitigated. This condition is necessary to ensure compliance with state and federal antidegradation policies and is consistent with Section IV.B.1.a of the Dredge or Fill Procedures, which requires that the Water Boards will approve a project only after it has been determined that a sequence of actions has been taken to first avoid, then to minimize, and lastly compensate for adverse impacts that cannot be practicably avoided or minimized. (See also California Code of Regulations, section 3856, subdivision (h) [requiring submittal of proposed mitigation and description of steps taken to avoid, minimize, or compensate].) These compensatory mitigation conditions are also consistent with Executive Order W-59-93 commonly referred to as California's "No Net Loss" Policy for wetlands. The objective of the No Net Loss Policy is to ensure no overall net loss of and a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California. Further, compensatory mitigation requirements must comply with Subpart J of the Supplemental State Guidelines. Mitigation requirements related to financial assurances are also required to ensure that compensatory mitigation will be provided. (Dredge or Fill Procedures, § IV.B.5.f.)

Condition 26 clarifies that this certification also constitutes a waste discharge requirement. Pursuant to Water Code section 13264, subdivision (a), a permittee is prohibited from initiating the discharge of new wastes, or making material changes to the character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856. (See also State Water Board Water Quality Order No. 2003-0017-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification.)

In the event that any provision of this certification is found invalid, Condition 27 ensures that all other provisions will remain effective and water quality will still be protected. (Wat. Code, § 13160.)

6.0 Conclusion

The State Water Board finds that, with the conditions and limitations imposed by this certification, the Project will be protective of state and federal water quality standards and other appropriate requirements of state law.

7.0 Water Quality Certification Conditions

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES that implementation of the Big Sulphur Creek – III Water Extraction Facility Replacement Project (Project) will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, under the following terms and conditions.

CONDITION 1 Project Activities

Unless otherwise modified by conditions of this water quality certification (certification) or approved by the Deputy Director of the Division of Water Rights (Deputy Director), Geysers Power Company (GPC or Applicant) shall implement the Project as described in GPC's September 28, 2022 certification application (GPC 2022a).

If the Project construction activity, or the Project construction activity in combination with a larger common plan, will disturb one or more acres, the Applicant shall obtain coverage under and comply with the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit)⁷ (State Water Board 2009) and any amendments thereto.

The Applicant shall monitor water quality for the duration of the Project in implementing its Dewatering Plan submitted to the State Water Resources Control Board (State Water Board) on September 28, 2022 (GPC 2022a, Attachment E). Any changes to the Dewatering Plan shall be submitted to the Deputy Director for review and consideration of approval. The Deputy Director may require modifications as part of any approval. The Applicant shall implement any Deputy Director-approved modifications to the Dewatering Plan upon receipt of Deputy Director and any other required approvals. Any changes to the Dewatering Plan shall be approved by the Deputy Director prior to implementation.

CONDITION 2 Water Quality Monitoring

The Applicant shall implement the water quality monitoring in its Dewatering Plan (GPC 2022a, Attachment E) for the duration of the Project. Additionally, the Applicant shall perform the following water quality monitoring activities.

 <u>Turbidity</u>. The Applicant shall ensure that the Project does not exceed the turbidity water quality objective in the Water Quality Control Plan for the North Coast Region (North Coast Basin Plan), which specifies: <u>Turbidity shall not be</u>

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Water Quality Order No. 2009-0009-DWQ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, Order No. 2022-0057-DWQ, and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html Accessed on February 15, 2023.

increased more than 20 percent above naturally occurring background levels. (North Coast Basin Plan, p. 3-6.)

- Water quality monitoring for turbidity shall occur at least twice per day during in-water work and adjacent work with the potential to discharge to Big Sulphur Creek. At a minimum, turbidity monitoring shall be conducted during construction and removal of the dewatering dams, installation and removal of temporary fish screens, work area dewatering, bank stabilization work, rain events, operation of dewatering equipment, construction of the new water intake, initial operation of the new water intake, and any work within Big Sulphur Creek ordinary high-water mark.
- o If turbidity monitoring indicates concentrations above natural background levels, but below the North Coast Basin Plan turbidity water quality objective, monitoring shall be conducted every two hours during Project activities until turbidity levels have returned to background levels.
- <u>pH</u>. The Applicant shall ensure that the Project does not exceed the pH water quality objective in the North Coast Basin Plan, which specifies: <u>pH shall not be</u> <u>depressed below 6.5 nor raised above 8.5</u>. (North Coast Basin Plan, p. 3-5.)
 - Water quality monitoring for pH shall occur at least twice per day during concrete work, including concrete truck cleanup, to ensure discharges do not exceed North Coast Basin Plan objectives.
- <u>Notification of Exceedance</u>. The Deputy Director and the North Coast Regional Water Quality Control Board Executive Officer (Executive Officer) shall be notified promptly, and in no case more than 24 hours following a turbidity or pH exceedance of the North Coast Basin Plan water quality objective. Regardless of when such notification occurs, activities associated with the North Coast Basin Plan turbidity or pH exceedance shall cease immediately upon detection of the exceedance. Work activities may resume after corrective actions have been implemented, water quality meets the North Coast Basin Plan water quality objective, and the Deputy Director has provided approval to proceed.
- Monitoring Locations. Unless otherwise approved by the Deputy Director monitoring shall be conducted immediately upstream of the Project influence and no farther than 300 feet downstream of the Project area. The Applicant shall take a global positioning system point and a photograph for each proposed monitoring location and provide them to North Coast Regional Water Quality Control Board (North Coast Regional Water Board) and State Water Board staff at least one week prior to starting any activities that may contribute to a discharge to Big Sulphur Creek. These locations shall be used for monitoring unless the Deputy Director directs the Applicant to use other monitoring locations or to work with State Water Board staff to find alternate locations.
- Monitoring Reports. The Applicant shall submit monitoring reports for the duration of Project activities that may affect water quality. The Applicant shall submit the first monitoring report to State Water Board staff within 30 days of initiating monitoring and every two weeks thereafter for the remainder of any inwater and water-adjacent Project work. The monitoring reports shall include:

 (1) monitoring locations;
 (2) a description of the equipment, frequency, methods, and quality assurance process for water quality monitoring; and
 (3) monitoring results.

CONDITION 3 Erosion, Sediment, and Hazardous Materials Control Measures

The Applicant shall implement its Erosion Control Plan submitted to the State Water Board on September 28, 2022 (GPC 2022a, Attachment B), with the following modifications:

- All disturbed areas of the Project site shall be provided with effective erosion and sediment control measures both during and after completion of construction. The Applicant shall implement an effective combination of erosion and sediment control measures during Project construction. All disturbed areas that drain to Big Sulphur Creek shall be protected with adequate and correctly installed erosion and sediment control measures (e.g., jute, straw, coconut fiber erosion control fabric, coir logs). These measures shall be implemented prior to the onset of precipitation, and shall be constructed and maintained to prevent the discharge of earthen materials to Big Sulphur Creek, including all ephemeral and intermittent drainages, seasonal swales, storm drain systems, and tributaries to Big Sulphur Creek, from disturbed areas during all periods of site grading and construction.
- Any disposal sites for non-hazardous waste materials shall be away from waterways and graded in a manner that prevents erosion and the discharge of sediments to surface waters.
- No vehicles or equipment shall drive off-road through wetlands, environmentally sensitive areas, or riparian areas to access the Project area.
- In areas prone to run-off, inundation, and/or erosion, structures such as riprap, culverts, or retaining walls may be necessary to protect water quality. Where necessary, the Applicant shall install sediment basins or silt fences to prevent sediment runoff into streams or waterbodies and negate water quality and aquatic habitat impacts.
- All vehicles and any ground or vegetation disturbing equipment must be cleaned and free of mud, soil, and plant materials prior to entering the Project area.
- Vegetation removal shall be limited to the minimum amount necessary. No cut materials, including chipped materials, shall be disposed of within wetlands, environmentally sensitive areas, surface waters, or riparian areas.
- The Applicant shall have on-site spill response materials. At a minimum,
 hazardous materials spill kits shall be maintained onsite and in vehicles for small
 spills for the duration of construction activities. These kits shall include oilabsorbent material and tarps to contain and control any minor releases. During
 Project construction, emergency spill supplies and equipment shall be kept
 adjacent to all work areas and at staging areas and shall be clearly marked.
- Hazardous materials, including petroleum-based materials, shall not be stored in or near a floodplain.
- Vehicle refueling and maintenance shall be conducted at locations at least 50 feet away from Big Sulphur Creek and in locations that include spill containment measures.
- All staff and personnel of contractors and subcontractors shall receive training regarding the appropriate work practices necessary to effectively comply with the applicable environmental laws and regulations, including hazardous materials

- spill prevention and response measures. The training shall include identification and reporting to the appropriate onsite person of any visual observations that may indicate a water quality impairment (e.g., oil sheen, etc.)
- Hazardous materials or other materials that can affect water quality shall be stored with secondary containment and shall not be disposed of or released onto the ground, the underlying groundwater, or any surface water.

Any changes to the Erosion Control Plan shall be submitted to the Deputy Director for review and consideration of approval. The Deputy Director may require modifications as part of any approval. The Applicant shall implement any Deputy Director-approved modifications to the Erosion Control Plan upon receipt of Deputy Director and any other required approvals. Any changes to the Erosion Control Plan shall be approved by the Deputy Director prior to implementation.

CONDITION 4 Aquatic Biological Resources

The Applicant shall implement Streambed Alteration Agreement EPIMS-SON-19974-R3 issued by the California Department of Fish and Wildlife as submitted to the State Water Board on September 28, 2022 (GPC 2022a, Attachment C) unless otherwise revised by the California Department of Fish and Wildlife. Any changes to the Streambed Alteration Agreement proposed by GPC with the potential to impact water quality shall be approved by the Deputy Director prior to implementation.

The Project will result in temporary and permanent impacts to riparian and stream channel habitat. Temporary impacts include approximately 4,580 square feet of stream channel at or below the ordinary high-water mark (OHWM). Permanent impacts include 340 square feet of stream channel at or below the OHWM and 4,130 square feet of stream channel above the OHWM along Big Sulphur Creek. The Applicant shall notify the Deputy Director of any update to the estimated temporary and permanent impacts if they vary from what is noted in this condition. Additionally, permanent impacts shall be compensated for at a minimum of a 1:1 ratio and must be consistent with the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures)⁸ (State Water Board 2019 and 2021), the California Wetlands Conservation Policy (Governor's Executive Order W-59-93 (August 23, 1993)), and any amendments thereto (Condition 25). The Applicant shall provide the Deputy Director with documentation of compliance with this mitigation provision and its compliance with the Dredge or Fill Procedures and California Wetlands Conservation Policy.

⁸ The Dredge or Fill Procedures and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on February 15, 2023.

CONDITION 5 Progress and Completion Reports

Every 30 days following initiation of Project construction and throughout Project construction, the Applicant shall submit Progress Reports to the Deputy Director. The Progress Reports shall include:

- A summary of Project activities performed;
- Documentation of compliance with each condition of this certification and details of any failure to meet the certification requirements;
- Details of Project-related adverse impacts to beneficial uses, if applicable;
- Any anticipated Project implementation activities (e.g., construction, dewatering, or diversion) differing from those described in the certification application or required by this certification;
- A description of upcoming activities that may cause erosion; and
- Any additional Project-specific water quality parameters that will be monitored as part of the Project.

The Applicant may request consultation regarding the need for development and implementation of additional best management practices for water quality protection or approval of additional site-specific construction measures as part of a Progress Report or as part of a separate request if more immediate action is needed to protect water quality.

The Deputy Director may require the Applicant to implement corrective actions or approve additional measures proposed by the Applicant in response to the information provided in a Progress Report, a request for consultation, new information in the record, or approval of additional measures to protect water quality.

Within 60 days of Project completion, the Applicant shall provide the Deputy Director with a Project Completion Report that comprehensively summarizes the first three bullets from the list above. The Applicant shall provide any additional information or clarification requested by the Deputy Director related to a Progress Report or the Project Completion Report. Upon request from State Water Board staff, the Applicant shall meet with staff to discuss a Progress Report or the Project Completion Report.

CONDITIONS 6 – 27

CONDITION 6. Unless otherwise specified in this certification or at the request of the Deputy Director, data and/or reports shall be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.

CONDITION 7. This certification does not authorize any act which results in the take of a threatened, endangered, or candidate species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050 – 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 – 1544). If a "take" will result from any act authorized under this

certification or water rights held by the Applicant, the Applicant must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Applicant is responsible for meeting all requirements of the applicable Endangered Species Acts for the Project authorized under this certification.

- **CONDITION 8.** This certification shall not be construed as replacement or substitution for any necessary federal, state, and local approvals. The Applicant is responsible for compliance with all applicable federal, state, or local laws or ordinances and shall obtain authorization from applicable regulatory agencies prior to the commencement of Project activities.
- **CONDITION 9.** Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another local, state, or federal agency, will apply equally to the successor agency.
- **CONDITION 10.** Nothing in this certification shall be construed as State Water Board approval of the validity of any water rights, including pre-1914 or riparian claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action, if necessary, to prevent any unauthorized or threatened unauthorized diversions of water.
- **CONDITION 11.** This certification is subject to modification or revocation upon administrative or judicial review, including but not limited to review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).
- **CONDITION 12.** This certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent application for certification was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application for certification specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- **CONDITION 13.** This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.
- **CONDITION 14.** Notwithstanding any more specific provision of this certification, any plan or report developed as a condition of this certification requires review and approval by the Deputy Director. The State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes the authority to withhold approval or to require modification of a plan, proposal, or report prior to approval. The State Water Board may take enforcement action if the Applicant fails to provide or implement a required item in a timely manner. If a time extension is needed to submit an item for Deputy Director approval, the Applicant shall submit a written request for the extension, with justification, to the Deputy Director no later than 15 days prior to the deadline. The

Applicant shall not implement any plan, proposal, or report until after the applicable State Water Board approval and any other necessary regulatory approvals.

CONDITION 15. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to any remedies, penalties, process, or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

CONDITION 16. The Applicant shall submit any change to the Project, including, operations, facilities, technology changes or upgrades, or methodology, which could have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. The State Water Board shall determine significance and may require consultation with other state and/or federal agencies. If the State Water Board is not notified of a change to the Project, it will be considered a violation of this certification.

CONDITION 17. This certification is contingent on compliance with all applicable requirements of the North Coast Basin Plan.

CONDITION 18. Unless otherwise specified by conditions in this certification, Project activities shall be conducted in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. The Applicant shall take all reasonable measures to protect the beneficial uses of waters of the state, including Big Sulphur Creek.

CONDITION 19. In response to a suspected violation of any condition of this certification, the State Water Board or North Coast Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. (Wat. Code, §§ 1051, 13165, 13267, & 13383.)

CONDITION 20. Upon request, a construction schedule shall be provided to State Water Board and North Coast Regional Water Board staff. The Applicant shall provide State Water Board and North Coast Regional Water Board staff access to Project sites to document compliance with this certification.

CONDITION 21. A copy of this certification shall be provided to any contractor and all subcontractors conducting Project-related work, and copies shall remain in their possession at the Project site. The Applicant shall be responsible for work conducted by its contractor, subcontractors, or other persons conducting Project-related work.

CONDITION 22. The State Water Board reserves the authority to add to or modify the conditions of this certification: (1) to incorporate changes in technology, sampling, or methodologies; (2) if monitoring results indicate that Project activities could violate water quality objectives or impair beneficial uses; (3) to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act; and (4) to require additional monitoring and/or other measures, as needed, to ensure that Project activities meet water quality objectives and protect beneficial uses.

CONDITION 23. The Applicant shall use analytical methods approved by California's Environmental Laboratory Accreditation Program, where such methods are available. Samples that require laboratory analysis shall be analyzed by Environmental Lab Accreditation Program-certified laboratories.

CONDITION 24. The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

CONDITION 25. The Applicant shall ensure no net loss of wetland or riparian habitat functions under the standards and procedures set forth in the **State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State** (Dredge or Fill Procedures)⁹ (State Water Board 2019 and 2021) and the California Wetlands Conservation Policy (Governor's Executive Order W-59-93 (August 23, 1993)) and any amendments thereto. The Applicant shall demonstrate compliance with the Dredge or Fill Procedures upon request from the Deputy Director.

CONDITION 26. This certification serves as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Water Code sections 13000 et seq.) as authorized by **State Water Board Water Quality Order No. 2003-0017- DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification** (Statewide General Waste Discharge Requirements)¹⁰(State Water Board 2003).

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The Dredge or Fill Procedures and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on February 15, 2023.

Statewide General Waste Discharge Requirements. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf. Accessed February 15, 2023.

CONDITION 27. The provisions of this certification are severable. If any provision of this certification is found invalid, affects the validity of the certification, or would result in a determination that the State Water Board has waived its section 401 certification authority for the Project, the State Water Board reserves authority to consider whether an alternative term would address the water quality issue without being found invalid or resulting in a waiver determination. If any provision of this certification is found invalid, affects the validity of the certification, or would result in a determination that the State Water Board has waived its section 401 certification authority for the Project, the remainder of this certification shall not be affected.

Eileen Sobeck

Executive Director

<u>February 22, 2023</u>

Date

8.0 References

- North Coast Regional Water Quality Control Board (North Coast Regional Board). 2018. Water Quality Control Plan for the North Coast Region (North Coast Basin Plan). Available at: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/b asin_plan_documents. Accessed on February 6, 2023.
- State Water Resources Control Board (State Water Board). 1968. Statement of Policy with Respect to Maintaining High Quality Waters in California. Resolution No. 68-16. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/19 68/rs68_016.pdf. Accessed on February 6, 2023.
- State Water Board. 2003. Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have received State Water Quality Certification (General WDRs). Water Quality Order No. 2003-0017-DWQ. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf. Accessed on February 15, 2023.
- State Water Board. 2009. National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities. Water Quality Order No. 2009-0009-DWQ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction. html. Accessed on February 6, 2023.
- State Water Board. 2012. Delegation of Authority to State Water Resources Control Board Members Individually and to the Deputy Director for Water Rights. Resolution No. 2012-0029. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0029.pdf. Accessed on February 6, 2023.
- State Water Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Resolution No. 2019-0015 and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on February 6, 2023.
- State Water Board. 2021. Confirmation That the "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" (1) Are in Effect as State Policy for Water Quality Control for All Waters of The State and (2) Shall be Applied via the Inland Surface Waters and Enclosed Bays and Estuaries Plan to only Waters of The United States. Resolution No. 2021-0012. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/20

21/rs2021-0012.pdf. Accessed on February 6, 2023.

- State Water Board. 2022a. Redelegation of Authorities Memorandum. June 6, 2022.
- State Water Board. 2022b. 2020-2022 California Integrated Report for Clean Water Act Sections 303(d) and 305(b). Available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020 2022 integrated report.html. Accessed on February 6, 2023.
- Geysers Power Company, LLC's (GPC). 2022a. 401 Water Quality Certification Application, Big Sulphur Creek III Water Extraction Facility Replacement Project. Submitted September 28, 2022.
- United States Environmental Protection Agency (USEPA). 2022. *Proposed Clean Water Act Section 401 Water Quality Certification Improvement Rule*. Available at: https://www.epa.gov/cwa-401/proposed-clean-water-act-section-401-water-quality-certification-improvement-rule. Accessed on February 6, 2023.

ATTACHMENT A: PROJECT OVERVIEW FIGURES

WATER QUALITY CERTIFICATION FOR BIG SULPHUR CREEK – III WATER EXTRACTION FACILITY REPLACEMENT PROJECT

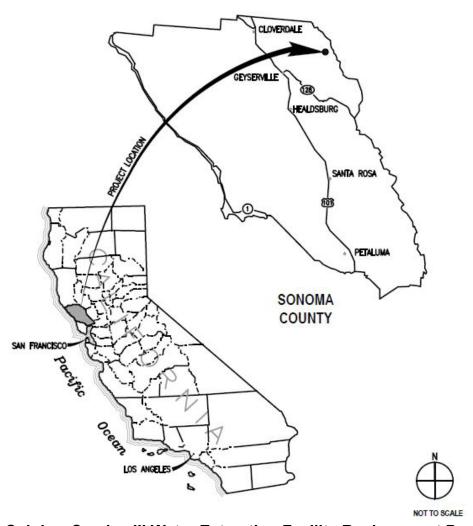


Figure A1. Big Sulphur Creek – III Water Extraction Facility Replacement Project Area Map

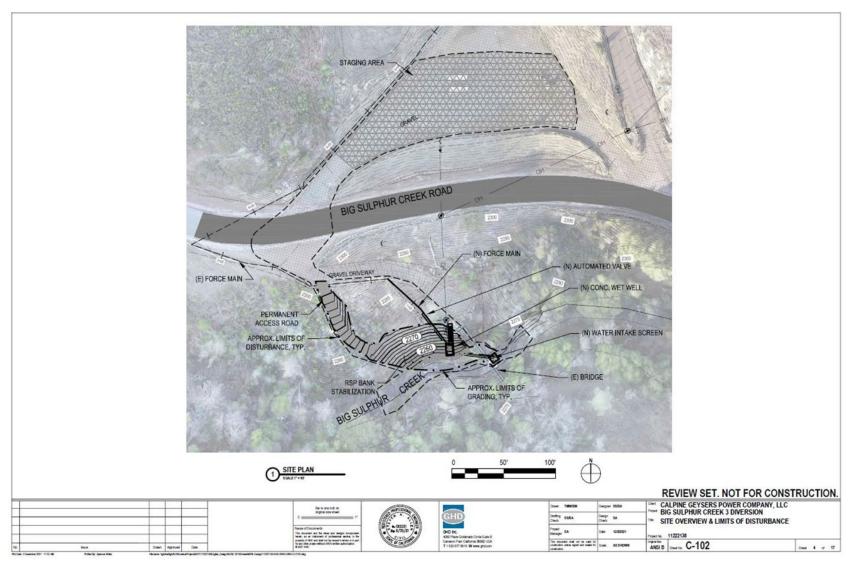


Figure A2. Big Sulphur Creek - III Water Extraction Facility Replacement Project Site Overview