2023 Annual
Water Source Capacity Analysis

Appendices

Prepared for:
Garberville Sanitary District
Board of Directors
May 21, 2024 Meeting

Prepared by:
Jennie Short
Consultant Project Manager

Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542
(707)923-9566

April 2024

Appendix A

License and Permit
for South Fork Eel River Diversion

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

AMENDED LICENSE FOR DIVERSION AND USE OF WATER

APPLICATION 9686 PERMIT 5487 LICENSE 3404

Licensee: Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542

The State Water Resources Control Board (State Water Board) authorizes the diversion and use of water by the licensee (right holder) in accordance with the limitations and conditions stated herein SUBJECT TO PRIOR RIGHTS. The priority of the right confirmed by this license dates from **July 31, 1939.**

This license (right) supersedes any previously issued permit or license on **Application 9686**.

This license confirms that right holder has an appropriative right for the diversion and use of water as follows:

1. Source of water: **South Fork Eel River**

tributary to: **Eel River thence the Pacific Ocean**

within the County of **Humboldt**.

2. Location of point of diversion:

By California Coordinate System of 1983 in Zone 1	40-acre subdivision of public land survey or projection thereof	Section (Projected)*	Township	Range	Base and Meridian
North 1,922,330 feet and East 6,059,360 feet	**SW ¼ of SE ¼**	**24**	**4S**	**3E**	**H**

3. Purpose of use	4. Place of use
Municipal	**Within the Garberville Sanitary District service area boundary within Sections 13, 23, 24, 25, 26 and 35, T4S, R3E, HB&M; and Sections 18, 19, and 20, T4S, R4E, HB&M; and portions of Sections 25 and 26 not within the existing Garberville Sanitary District services boundary as shown on map.**

The place of use is shown on map dated July 31, 2019, on file with the State Water Board.

5. The water appropriated under this right shall be limited to the quantity that can be beneficially used and shall not exceed **0.155 cubic foot per second** by direct diversion to be diverted from January 1 to December 31 of each year. The maximum amount diverted under this right shall not exceed **112.2 acre-feet per year.**

(0000005A)

6. The maximum amount of water diverted under this right and the right pursuant to Application 29981 shall not exceed **245.5 acre-feet per year**.

(0000005Q)

7. The maximum combined total rate of diversion under this right and the right pursuant to Application 29981 shall not exceed **0.75 cubic foot per second**.

(0000005S)

8. The equivalent of such continuous flow allowance for any 30-day period may be diverted in a shorter time provided there is no interference with other rights and instream beneficial uses and provided further that all terms or conditions protecting instream beneficial uses are observed.

(0000027)

9. Upon a judicial determination that the place of use for the right confirmed by this license or a portion thereof is entitled to the use of water by riparian right or pre-1914 appropriative right, the right so determined and the right confirmed by this license shall not result in a combined right to the use of water in excess of that which could be claimed under the larger of the two rights.

(0000021C)

10. No water shall be diverted or used under this right for commercial and applicable personal medical use cannabis cultivation unless the water right holder is in compliance with all applicable conditions, including the numeric and narrative instream flow requirements, of the current version of the State Water Board's *Cannabis Cultivation Policy – Principles and Guidelines for Cannabis Cultivation*.

(0000120)

11. The total amount of water right holder's deliveries to the Southern Humboldt Community Park under this right and the right pursuant to Application 29981 shall not exceed 3,000 cubic feet per month during two months of any 12-month period and shall not exceed 2,000 cubic feet per month during the remaining months of any such period. Right holder shall attach a table to each year's annual report of licensee that lists (in cubic feet) the amount of water right holder delivered to the Southern Humboldt Community Park during each month of the year covered by the annual report.

(0430300)

12. Right holder shall attach to each year's annual report of licensee a diagram of the water-conveyance infrastructure that conveys water diverted under this right within the Southern Humboldt Community Park and a map of the places within the park where such water is used, sufficient to demonstrate that no water diverted under this right and delivered to Southern Humboldt Community Park is used anywhere outside the authorized place of use specified in this license.

(0430300)

THIS LICENSE IS ALSO SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

A. Right holder is on notice that: (1) failure to timely commence or complete construction work or beneficial use of water with due diligence, (2) cessation or partial cessation of beneficial use of water, or (3) failure to observe any of the terms or conditions of this right, may be cause for the State Water Board to consider revocation (including partial revocation) of this right. (Cal. Code Regs., tit. 23, § 850.)

(0000016)

B. Right holder is on notice that when the State Water Board determines that any person is violating, or threatening to violate, any term or condition of a right, the State Water Board may issue an order to that person to cease and desist from that violation. (Wat. Code, § 1831.) Civil liability may be imposed administratively by the State Water Board pursuant to Wat. Code, § 1055, or may be imposed by the superior court. The Attorney General, upon the request of the board, shall petition the superior court to impose, assess, and recover those sums. (Wat. Code, § 1846.)

(0000017)

C. Right holder is not authorized to make any modifications to the location of diversion facilities, place of use or purposes of use, or make other changes to the project that do not conform with the terms and conditions of this right, prior to submitting a change petition and obtaining approval of the State Water Board.

(0000018)

D. Right holder shall measure the amount of water beneficially used under this right using devices and/or methods satisfactory to the Deputy Director for Water Rights. In order to demonstrate compliance with the beneficial use monitoring requirements of this right, right holder shall provide evidence that the devices and/or methods are functioning properly, in a manner satisfactory to the Deputy Director of Water Rights, within thirty days of first use of the device and/or method, with the reports required by chapter 2.7, title 23, California Code of Regulations, and whenever requested by the Division of Water Rights.

(0000015)

E. Right holder shall comply with the reporting requirements as specified in the terms of this right or any reporting requirements by statute, order, policy, regulation, decision, judgment or probationary designation. The more stringent requirement shall control in each instance where there is conflict or inconsistency between the requirements.

Right holder shall comply with the reporting requirements of chapter 2.7, title 23, California Code of Regulations.

Right holder shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and beneficial use under this right, and documentation of compliance with the terms and conditions of this right.

(0000010)

F. Right holder shall grant, or secure authorization through right holder's right of access to property owned by another party, the staff of the State Water Board, and any other authorized representatives of the State Water Board the following:

1. Entry upon property where water is being diverted, stored or used under a right issued by the State Water Board or where monitoring, samples and/or records must be collected under the conditions of this right;

2. Access to copy any records at reasonable times that are kept under the terms and conditions of a right or other order issued by State Water Board;

3. Access to inspect at reasonable times any project covered by a right issued by the State Water Board, equipment (including monitoring and control equipment), practices, or operations regulated by or required under this right; and,

4. Access to photograph, sample, measure, and monitor at reasonable times for the purpose of ensuring compliance with a right or other order issued by State Water Board, or as otherwise authorized by the Water Code.

(0000011)

G. This right shall not be construed as conferring right of access to any lands or facilities not owned by right holder.

(0000022)

H. All rights are issued subject to available flows. Inasmuch as the source contains treated wastewater, imported water from another stream system, or return flow from other projects, there is no guarantee that such supply will continue.

(0000025)

I. This right does not authorize diversion of water dedicated by other right holders under a senior right for purposes of preserving or enhancing wetlands, habitat, fish and wildlife resources, or recreation in, or on, the water. (Wat. Code, § 1707.) The Division of Water Rights maintains information about these dedications. It is right holders' responsibility to be aware of any dedications that may preclude diversion under this right.

(0000212)

J. No water shall be diverted or used under this right, and no construction related to such diversion shall commence, unless right holder has obtained and is in compliance with all necessary permits or other approvals required by other agencies. If an amended right is issued, no new facilities shall be utilized, nor shall the amount of water diverted or used increase beyond the maximum amount diverted or used during the previously authorized development schedule, unless right holder has obtained and is in compliance with all necessary requirements, including but not limited to the permits and approvals listed in this term.

Right holder shall prepare and submit to the Division of Water Rights a list of, or provide information that shows proof of, attempts to solicit information regarding the need for, permits or approvals that may be required for the project. At a minimum, right holder shall provide a list or other information pertaining to whether any of the following permits or approvals are required: (1) lake or streambed alteration agreement with the Department of Fish and Wildlife (Fish & G. Code, § 1600 et seq.); (2) Department of Water Resources, Division of Safety of Dams approval (Wat. Code, § 6002); (3) Regional Water Quality Control Board Waste Discharge Requirements (Wat. Code, § 13260 et seq.); (4) U.S. Army Corps of Engineers Clean Water Act section 404 permit (33 U.S.C. § 1344); and (5) local grading permits.

Right holder shall, within 30 days of issuance of any permits, approvals or waivers, transmit copies to the Division of Water Rights.

(0000203)

K. Urban water suppliers shall comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.). An “urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. All Urban Retail Water Suppliers shall comply with the provisions of Division 6, Part 2.55 (commencing with Chapter 9, section 10609.20) and Part 2.6 (commencing with Chapter 3, section 10608.34) of the Water Code. An “urban retail water supplier” means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

Agricultural water users and suppliers shall comply with the provision of Division 6, Part 2.55 of the Water Code and the Agricultural Water Management Planning Act (Water Code, § 10800 et seq.). An “agricultural water supplier” means a supplier, either publicly or privately owned, providing water (excluding recycled water) to 10,000 or more irrigated acres, including a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.

(0000029D)

L. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine all rights and privileges under this right, including method of diversion, method of use,

and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method
of diversion of said water.

(0000012)

M. The quantity of water diverted under this right is subject to modification by the State Water Board if, after notice to right holder and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(0000013)

N. This right does not authorize any act which results in the taking of a candidate, threatened or endangered 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 et seq.) or the federal Endangered Species Act (16 U.S.C. § 1531 et seq.). If a "take" will result from any act authorized under this right, right holder shall obtain any required authorization for an incidental take prior to construction or operation of the project. Right holder shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this right.

(0000014)

This right is issued, and right holder is subject to the following provisions of the Water Code:

Section 1627. A license shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code) but no longer.

Section 1629. Every licensee, if he accepts a license, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefore shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Section 1630. At any time after the expiration of twenty years after the granting of a license, the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State shall have the right to purchase the works and property occupied and used under the license and the works built or constructed for the enjoyment of the rights granted under the license.

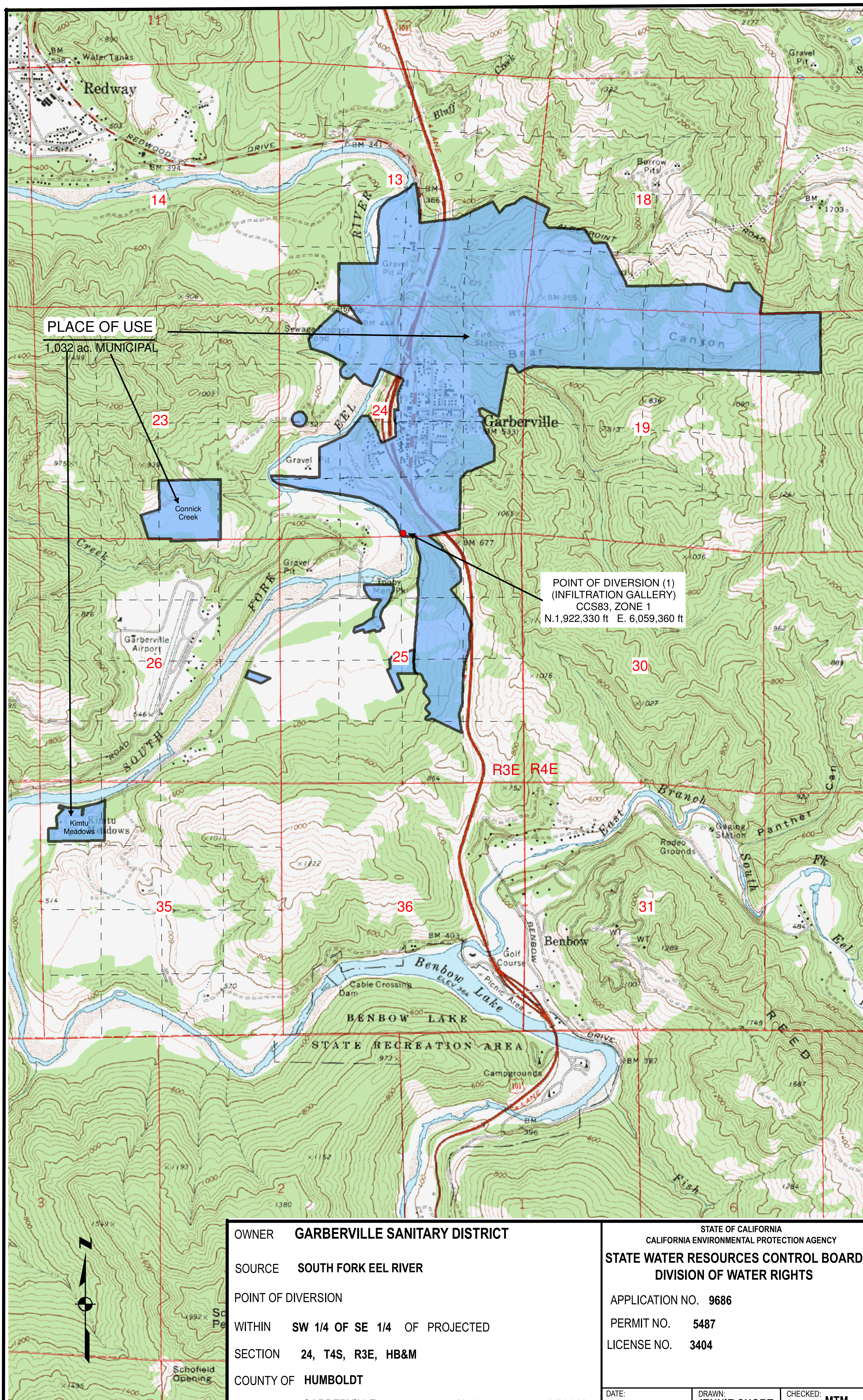
Section 1631. In the event that the State, or any city, city and county, municipal water district, irrigation district, lighting district, or political subdivision of the State so desiring to purchase and the owner of the works and property cannot agree upon the purchase price, the price shall be determined in such manner as is now or may hereafter be provided by law for determining the value of property taken in eminent domain proceedings.

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:
JULE RIZZARDO, FOR

Erik Ekdahl, Deputy Director
Division of Water Rights

Dated: October 4, 2023



OWNER	**GARBERVILLE SANITARY DISTRICT**
SOURCE	**SOUTH FORK EEL RIVER**
POINT OF DIVERSION	
WITHIN	**SW 1/4 OF SE 1/4** OF PROJECTED
SECTION	**24, T4S, R3E, HB&M**
COUNTY OF	**HUMBOLDT**
U.S.G.S. QUAD:	**GARBERVILLE** DATE: **1970** SCALE: **1:24,000**

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

APPLICATION NO. **9686**
PERMIT NO. **5487**
LICENSE NO. **3404**

DATE:	DRAWN:	CHECKED:
07-31-2019	JENNIE SHORT	MTM

Note: This map does not constitute a public land survey as defined by California Business & Professions Code section 8726. It has been prepared for descriptive purposes only.

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

AMENDED PERMIT TO APPROPRIATE WATER

APPLICATION 29981 PERMIT 20789

Permittee: Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542

The State Water Resources Control Board (State Water Board) authorizes the diversion and use of water by the permittee (right holder) in accordance with the limitations and conditions herein SUBJECT TO PRIOR RIGHTS. The priority of this permit (right) dates from **July 22, 1991.**

This permit supersedes any previously issued permit on **Application 29981**.

Right holder is hereby authorized to appropriate water as follows:

1. Source of water: **South Fork Eel River**

tributary to: **Eel River thence the Pacific Ocean**

within the County of **Humboldt**.

2. Location of point of diversion:

By California Coordinate System of 1983 in Zone 1	40-acre subdivision of public land survey or projection thereof	Section (Projected)*	Township	Range	Base and Meridian
North 1,922,330 feet and East 6,059,360 feet	**SW ¼ of SE ¼**	**24**	**4S**	**3E**	**H**

3. Purpose of use:	4. Place of use:
Municipal	**Within the Garberville Sanitary District service area boundary within Sections 13, 23, 24, 25, 26 and 35, T4S, R3E, HB&M; and Sections 18, 19, and 20, T4S, R4E, HB&M; and portions of Sections 25 and 26 not within the existing Garberville Sanitary District services boundary as shown on map.**

The place of use is shown on map dated July 31, 2019, on file with the State Water Board.

5. The water appropriated under this right shall be limited to the quantity that can be beneficially used and shall not exceed **0.595 cubic foot per second** by direct diversion to be diverted from January 1 to December 31 of each year.

(0000005A)

6. The maximum amount of water diverted under this right and License 3404 (Application 9686) shall not exceed **245.5 acre-feet per year**.

(0000005Q)

7. The maximum simultaneous rate of diversion under this right and License 3404 (Application 9686) shall not exceed **0.75 cubic foot per second**.

(0000005S)

8. The equivalent of such continuous flow allowance for any 30-day period may be diverted in a shorter time provided there is no interference with other rights and instream beneficial uses and provided further that all terms or conditions protecting instream beneficial uses are observed.

(0000027)

9. Construction work and complete application of the water to the authorized use shall be prosecuted with reasonable diligence and completed by December 31, 1999.

(0000009)

10. Upon a judicial determination that the place of use under this right or a portion thereof is entitled to the use of water by riparian right or pre-1914 appropriative right, the right so determined and the right acquired under this right shall not result in a combined right to the use of water in excess of that which could be claimed under the larger of the two rights.

(0000021C)

11. No water shall be diverted or used under this right for commercial and applicable personal medical use cannabis cultivation unless the water right holder is in compliance with all applicable conditions, including the numeric and narrative instream flow requirements, of the current version of the State Water Board's *Cannabis Cultivation Policy – Principles and Guidelines for Cannabis Cultivation.*

(0000120)

12. The total amount of water right holder's deliveries to the Southern Humboldt Community Park under this right and the right pursuant to Application 9686 shall not exceed 3,000 cubic feet per month during two months of any 12-month period and shall not exceed 2,000 cubic feet per month during the remaining months of any such period. Right holder shall attach a table to each year's annual permittee progress report that lists (in cubic feet) the amount of water right holder delivered to the Southern Humboldt Community Park during each month of the year covered by the annual report.

(0350900)

13. Right holder shall attach to each year's annual permittee progress report a diagram of the water-conveyance infrastructure that conveys water diverted under this right within the Southern Humboldt Community Park and a map of the places within the park where such water is used, sufficient to demonstrate that no water diverted under this right and delivered to Southern Humboldt Community Park is used anywhere outside the authorized place of use specified in this permit.

(0350900)

THIS RIGHT IS ALSO SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

A. Right holder is on notice that: (1) failure to timely commence or complete construction work or beneficial use of water with due diligence, (2) cessation or partial cessation of beneficial use of water, or (3) failure to observe any of the terms or conditions of this right, may be cause for the State Water Board to consider revocation (including partial revocation) of this right. (Cal. Code Regs., tit. 23, § 850.)

(0000016)

B. Right holder is on notice that when the State Water Board determines that any person is violating, or threatening to violate, any term or condition of a right, the State Water Board may issue an order to that person to cease and desist from that violation. (Wat. Code, § 1831.) Civil liability may be imposed administratively by the State Water Board pursuant to Wat. Code, § 1055, or may be imposed by the superior court. The Attorney General, upon the request of the board, shall petition the superior court to impose, assess, and recover those sums. (Wat. Code, § 1846.)

(0000017)

C. Right holder is not authorized to make any modifications to the location of diversion facilities, place of use or purposes of use, or make other changes to the project that do not conform with the terms and conditions of this right, prior to submitting a change petition and obtaining approval of the State Water Board.

(0000018)

D. Once the time to develop beneficial use of water ends under this permit, right holder is not authorized to increase diversions beyond the maximum annual amount diverted or used during the authorized development schedule prior to submitting a time extension petition and obtaining approval of the State Water Board.

(0000019)

E. The amount of water for consideration when issuing a license shall be limited to only the amount of water diverted and applied to beneficial use in compliance with the terms and conditions of this right, as determined by the State Water Board. (Wat. Code, § 1610.)

(0000006)

F. Right holder shall measure the amount of water beneficially used under this right using devices and/or methods satisfactory to the Deputy Director for Water Rights. In order to demonstrate compliance with the beneficial use monitoring requirements of this right, right holder shall provide evidence that the devices and/or methods are functioning properly, in a manner satisfactory to the Deputy Director of Water Rights,

within thirty days of first use of the device and/or method, with the reports required by chapter 2.7, title 23, California Code of Regulations, and whenever requested by the Division of Water Rights.

(0000015)

G. Right holder shall comply with the reporting requirements as specified in the terms of this right or any reporting requirements by statute, order, policy, regulation, decision, judgment or probationary designation. The more stringent requirement shall control in each instance where there is conflict or inconsistency between the requirements.

Right holder shall comply with the reporting requirements of chapter 2.7, title 23, California Code of Regulations.

Right holder shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and beneficial use under this right, and documentation of compliance with the terms and conditions of this right.

(0000010)

H. Right holder shall grant, or secure authorization through right holder's right of access to property owned by another party, the staff of the State Water Board, and any other authorized representatives of the State Water Board the following:

1. Entry upon property where water is being diverted, stored or used under a right issued by the State Water Board or where monitoring, samples and/or records must be collected under the conditions of this right;

2. Access to copy any records at reasonable times that are kept under the terms and conditions of a right or other order issued by State Water Board;

3. Access to inspect at reasonable times any project covered by a right issued by the State Water Board, equipment (including monitoring and control equipment), practices, or operations regulated by or required under this right; and,

4. Access to photograph, sample, measure, and monitor at reasonable times for the purpose of ensuring compliance with a right or other order issued by State Water Board, or as otherwise authorized by the Water Code.

(0000011)

I. This right shall not be construed as conferring right of access to any lands or facilities not owned by right holder.

(0000022)

J. All rights are issued subject to available flows. Inasmuch as the source contains treated wastewater, imported water from another stream system, or return flow from other projects, there is no guarantee that such supply will continue.

(0000025)

K. This right does not authorize diversion of water dedicated by other right holders under a senior right for purposes of preserving or enhancing wetlands, habitat, fish and wildlife resources, or recreation in, or on, the water. (Wat. Code, § 1707.) The Division of Water Rights maintains information about these dedications. It is right holders' responsibility to be aware of any dedications that may preclude diversion under this right.

(0000212)

L. No water shall be diverted or used under this right, and no construction related to such diversion shall commence, unless right holder has obtained and is in compliance with all necessary permits or other approvals required by other agencies. If an amended right is issued, no new facilities shall be utilized, nor shall the amount of water diverted or used increase beyond the maximum amount diverted or used during the previously authorized development schedule, unless right holder has obtained and is in compliance with all necessary requirements, including but not limited to the permits and approvals listed in this term.

Right holder shall prepare and submit to the Division of Water Rights a list of, or provide information that shows proof of, attempts to solicit information regarding the need for, permits or approvals that may be required for the project. At a minimum, right holder shall provide a list or other information pertaining to whether any of the following permits or approvals are required: (1) lake or streambed alteration agreement with the Department of Fish and Wildlife (Fish & G. Code, § 1600 et seq.); (2) Department of Water Resources, Division of Safety of Dams approval (Wat. Code, § 6002); (3) Regional Water Quality Control Board Waste Discharge Requirements (Wat. Code, § 13260 et seq.); (4) U.S. Army Corps of Engineers Clean Water Act section 404 permit (33 U.S.C. § 1344); and (5) local grading permits.

Right holder shall, within 30 days of issuance of any permits, approvals or waivers, transmit copies to the Division of Water Rights.

(0000203)

M. Urban water suppliers shall comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.). An "urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. All Urban Retail Water Suppliers shall also comply with the provisions in Water Code § 10609.20, §10609.22, and §10609.24. An "urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

Agricultural water users and suppliers shall comply with the Agricultural Water Management Planning Act (Act) (Water Code, § 10800 et seq.). Agricultural water users applying for a permit from the State Water Board are required to develop and implement water conservation plans in accordance with the Act. An "agricultural water supplier" means a supplier, either publicly or privately owned, supplying more than 10,000 acre-feet of water annually for agricultural purposes. An agricultural water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.

(0000029D)

N. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine all rights and privileges under this right, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this right with a view to eliminating waste of water and to meeting the reasonable water requirements of right holder without unreasonable draft on the source. Right holder may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this right and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by right holder in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution, article X, section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

(0000012)

O. The quantity of water diverted under this right is subject to modification by the State Water Board if, after notice to right holder and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(0000013)

P. This right does not authorize any act which results in the taking of a candidate, threatened or endangered 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 et seq.)

(0000014)

This right is issued, and right holder is subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

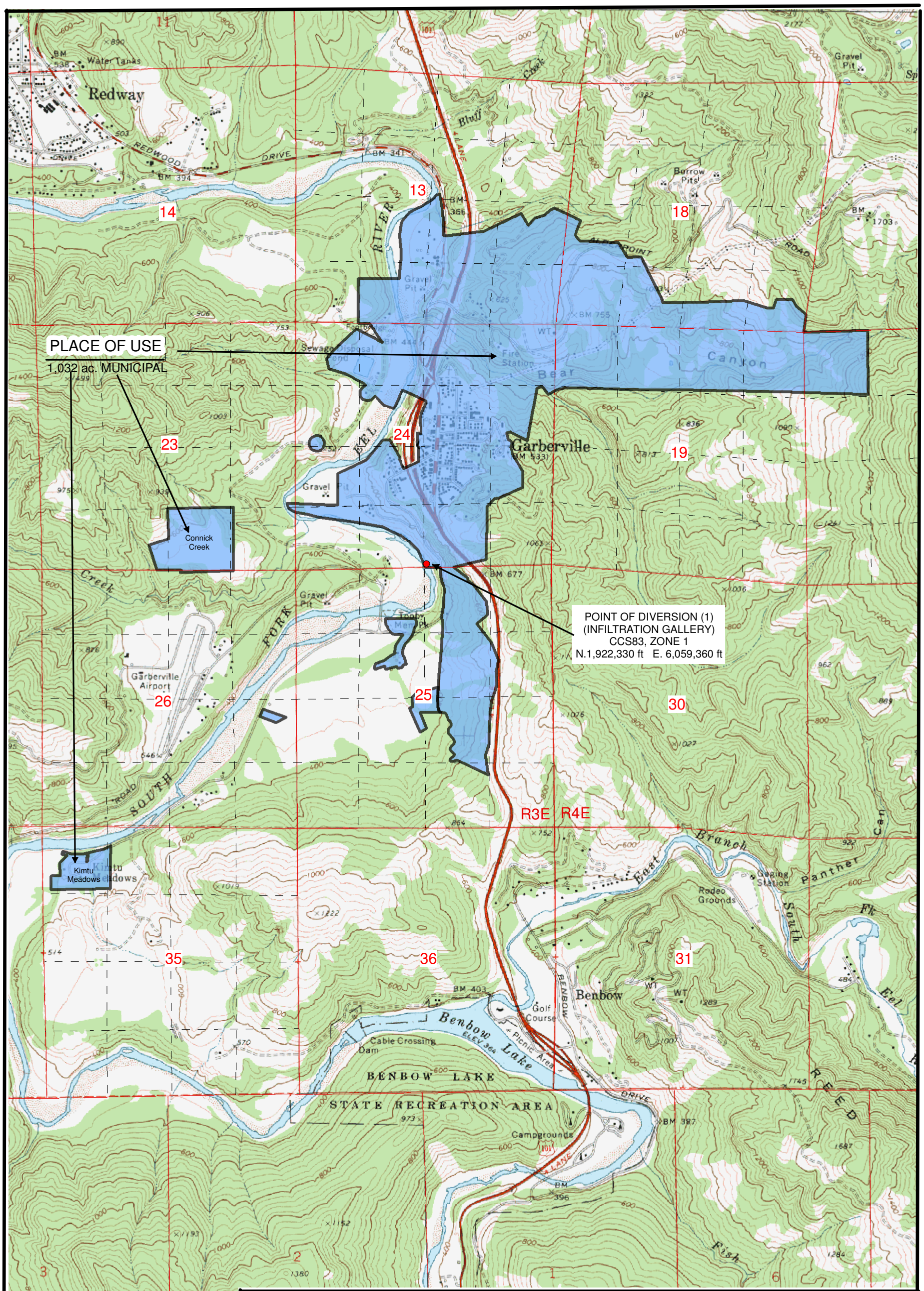
Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:
JULE RIZZARDO, FOR

Erik Ekdahl, Deputy Director
Division of Water Rights

Dated: OCT 04 2023



OWNER	**GARBERVILLE SANITARY DISTRICT**
SOURCE	**SOUTH FORK EEL RIVER**
POINT OF DIVERSION	
WITHIN	**SW 1/4 OF SE 1/4** OF PROJECTED
SECTION	**24, T4S, R3E, HB&M**
COUNTY OF	**HUMBOLDT**
U.S.G.S. QUAD:	**GARBERVILLE** DATE: **1970** SCALE: **1:24,000**

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

APPLICATION NO. **29981**

PERMIT NO. **20789**

LICENSE NO. –

DATE:	DRAWN:	CHECKED:
07-31-2019	**JENNIE SHORT**	**MTM**

Note: This map does not constitute a public land survey as defined by California Business & Professions Code section 8726. It has been prepared for descriptive purposes only.

Appendix B

DFG Agreement
for South Fork Eel River Diversion

CALIFORNIA DEPARTMENT OF FISH AND GAME
REGION 1 – NORTHERN REGION
601 Locust Street
Redding, CA 96001

LAKE or STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2012-0030-R1
Unnamed Tributaries to the South Fork Eel River and the South Fork Eel River

GARBERVILLE SANITARY DISTRICT
GARBERVILLE SANITARY DISTRICT WATER SYSTEM IMPROVEMENT PROJECT

This Lake or Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and Garberville Sanitary District represented by Mr. Herb Schwartz (Permittee).

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on April 27, 2012, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is located at unnamed tributaries to South Fork Eel River and South Fork Eel River, in the County of Humboldt, State of California; Sections 24 and 25; Township 5S; Range 3E; Humboldt Base and Meridian, U.S. Geological Survey (USGS) Garberville map; Assessor's Parcel Number 032-211-019; 222-091-006; and 032-231-045.

PROJECT DESCRIPTION

The project is limited to the diversion of water from the South Fork Eel River; upgrading a South Fork Eel River water intake facility; constructing a new surface water treatment plant; upgrading the Oak Street Booster Pump station; and constructing or upgrading the raw and treated water distribution mains from the intake to the treatment plant and storage tank. Facility upgrading and construction work was determined by Army Corps of Engineers to be above ordinary high water mark.

The South Fork Eel River diversion for the Kimtu subdivision has been replaced with Garberville Sanitary District water supply as part of the project upgrades. The rate of diversion from the South Fork Eel River does not exceed 0.75 cubic feet per second (cfs). Water is diverted from an infiltration gallery in the South Fork Eel River.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: steelhead trout (*Oncorhyncus mykiss*), Chinook (*O. tschawytscha*) and coho salmon (*O. kisutch*), amphibians, other aquatic species and native riparian vegetation. The adverse effects the project could have on the fish or wildlife resources identified above include: direct and/or incidental take, impede up- and/or down- stream migration of aquatic species, damage to spawning and/or rearing habitats and potential cumulative impacts.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site at any time to verify compliance with the Agreement.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

2.1 Except where otherwise stipulated in this Agreement, all work shall be in accordance with the work plan submitted with Notification No. 1600-2012-0030-R1, as of April 27, 2012.

2.2 Except for the diversion of water, all work in or adjacent to a stream shall conducted be during the period June 1 through October 15 of each year.

2.3 The Permittee shall contact DFG within the 7-day period preceding the beginning of work permitted by this Agreement. Information to be disclosed shall include Agreement number and the anticipated start date. The Permittee shall contact DFG within thirty days of completion of the work permitted by this Agreement. Information to be disclosed shall include Agreement number.

2.4 Work at encroachments shall be left in a finished condition with all hydrologic connectivity from the road or ditch to the crossing eliminated as feasible and effective erosion control in place prior to any rainfall event capable of generating runoff. Effective erosion control shall extend away from the crossing to at least the first waterbreak.

2.5 No fill material shall be placed within a stream except as specified in this Agreement. No native fill shall be placed in a live stream. Any fill material used shall be placed and/or removed in such a manner that it shall cause no sediment discharge or siltation in the stream.

2.6 All heavy equipment that will be entering the live stream shall be cleaned of materials deleterious to aquatic life including oil, grease, hydraulic fluid, soil and other debris. Cleaning of equipment shall take place outside of the riparian area and prior to entering the water.

2.7 For all activities performed in the field involving the use of petroleum or oil based substances, the Permittee shall employ absorbent material designated for spill containment and clean up activity on site for use in case of accidental spill. Clean-up of all spills shall begin immediately. The Permittee shall immediately notify the State Office of Emergency Services at 1-800-852-7550. DFG shall be notified by the Permittee and consulted regarding clean-up procedures.

2.8 Refueling of equipment and vehicles and storing, adding or draining lubricants, coolants or hydraulic fluids shall not take place within riparian areas or within streambeds, banks or channels. All such fluids and containers shall be disposed of properly. Heavy equipment including water drafting trucks parked within riparian areas or streambeds, banks or channels shall use drip pans or other devices (i.e., absorbent blankets, sheet barriers or other materials) as needed to prevent soil and water contamination.

2.9 No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any logging, construction, or associated activity of whatever nature shall be allowed to

enter into or be placed where it may be washed by rainfall or runoff into Waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area.

2.10 Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations.

2.11 Adequate and effective erosion and siltation control measures shall be used to prevent sediment or turbid or silt-laden water from entering streams. Where needed, the Permittee shall use native vegetation or other treatments including jute netting, straw wattles, and geotextiles to protect and stabilize soils. Geotextiles, fiber rolls, and other erosion control treatments shall not contain plastic mesh netting.

2.12 All bare mineral soil exposed in conjunction with construction and/or maintenance activities shall be treated for erosion prior to the onset of precipitation capable of generating run-off or the end of the yearly work period, whichever comes first. Restoration shall include the seeding, covering, and armoring of all bare mineral soil exposed in conjunction with encroachment work. Erosion control shall consist only of native blue wild rye seed (*Elymus glaucus*). No annual (Italian) ryegrass (*Lolium multiflorum*) shall be used.

2.13 The Permittee shall provide site maintenance including, but not limited to, re-applying erosion control to minimize surface erosion and ensuring drainage structures, streambeds and banks remain sufficiently armored and/or stable.

Site-Specific Conditions

2.14 Equipment shall not operate in a live (flowing) stream.

2.15 The Permittee shall not divert more than 0.75 cfs or 10% of the streamflow as measured at the USGS Gauge Station No. 11476500 at Miranda.

2.16 The Responsible Party shall maintain log books when required to measure streamflow. Log books shall have current operational information including: (a) site location, (b) date and time, (c) diversion rate (in gallons per minute or cubic feet per second), and (d) measured streamflow at USGS Gauge Station No. 11476500 shall be maintained. The log books shall be made available to DFG upon request.

2.17 Rock slope protection shall be of sufficient size to remain in place during 100-year flood flows.

2.18 Revegetation of the water intake work site shall occur. Vegetation planted shall utilize the native plant pallet of species currently or historically present in the work area. Seeds, cuttings and divisions of locally-collected native plants are recommended.

2.19 Planting shall be conducted during the most favorable period of the year for plant establishment.

2.20 Restoration of native plants at a ratio of 3:1 or with a planting density typical of historic conditions or at a level that will facilitate natural recruitment and recovery of the native riparian species.

2.21 If an invasive non-native plant species is present in the water intake work area, then non-native species shall be removed.

2.22 All stream work on an unnamed tributary at Oak Street Booster Station shall be completed using hand tools. Work shall cause no sediment delivery to the stream or head-cutting or down-cutting of the stream.

3. Reporting Measures

Permittee shall meet each reporting requirement described below.

3.1 The Permittee shall notify the DFG, in writing, at least five (5) days prior to initiation of construction (project) activities and at least five (5) days prior to completion of construction (project) activities. Notification shall be faxed to the Department at (707) 441-2021.

3.2 Permittee shall provide log books to DFG upon request.

CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other.

To Permittee:

Mr. Herb Schwartz
Garberville Sanitary District
919 Redwood Drive
Garberville, California 95542

To DFG:

Department of Fish and Game
Northern Region
619 2nd Street
Eureka, California 95501

Attn: Lake and Streambed Alteration Program
Notification #1600-2012-0030-R1
Fax: (707) 441-2021

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 *et seq.* (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

DFG may amend the Agreement at any time during its term if DFG determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in DFG's current fee schedule (see California Code Regulations, Title 14, section 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see California Code Regulations, Title 14, section 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see California Code Regulations, Title 14, section 699.5). DFG shall process the extension request in accordance with FGC section 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (FGC section 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire five years from execution, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR GARBERVILLE SANITARY DISTRICT
MR. HERB SCHWARTZ

Mr. Herb Schwartz — Date 6/15/12

FOR DEPARTMENT OF FISH AND GAME

for Curt Babcock — Date 6/26/12
Environmental Program Manager

Prepared by: Jane Arnold, Staff Environmental Scientist

Appendix C

Division of Drinking Water
Inspection Report

State Water Resources Control Board
Division of Drinking Water

September 2, 2022

Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542

Attention: Ralph Emerson, General Manager
Dan Arreguin, Chief Operator

Subject: **Inspection of Garberville Sanitary District**
Public Water System #1210008

On May 18 and August 19 of 2022, Water Resource Control Engineer, Scott Gilbreath conducted an inspection of the Garberville Sanitary District (GSD) public water system. The inspection report and other relevant forms are attached.

During the inspection, and subsequent file review, the following system deficiencies, issues, and concerns were noted.

1. Need updated BSSP – Please update the existing bacteriological sampling siting plan (BSSP) and provide a copy to the Division via email at dwpredding@waterboards.ca.gov office **by September 15, 2022**.

2. Need updated WQENP – Please update the existing water quality emergency notification plan (WQENP) and provide a copy to the Division via email at dwpredding@waterboards.ca.gov **by September 15, 2022**.

3. Tobin Well:

    a. Sample the raw (unchlorinated) water monthly for total coliform bacteria.
    b. Relocated the chlorine injection location from inside the well to the outlet pipe.
    c. Add dedicated, threadless, raw-water sample tap.
    d. Add accessible check-valve to outlet pipe, located upstream of chlorine injection point.
    e. Ensure all openings around the base of the well house are sealed.
    f. Recommend fire-hardening well house and maintain defensible space.
    g. Document and report all chlorination records for the Tobin Well when in use. Send a copy to the Division via email at dwpredding@waterboards.ca.gov by the 10th of the following month.
    h. Sample for volatile organic compounds (VOCs) and nitrate (overdue). Chemical monitoring information is available online at: https://sdwis.waterboards.ca.gov/PDWW/

4. Distribution Sampling for Asbestos – Monitoring for asbestos in the distribution system is overdue. Please sample at a tap served by asbestos-cement pipe under conditions where asbestos contamination is most likely to occur **by September 30, 2022**.

5. Facility Data Sheets – Please complete the attached Facility Data Sheets and provide copies to the Division via email at dwpredding@waterboards.ca.gov at your earliest convenience but not later than **December 31, 2022.**

6. Need SWTP Monthly Report Updates – Please update report to include the following:

    a. The average daily turbidity level measured of the "finished water" (i.e., combined filter effluent) for each day per CCR, Section 64664(b)(2)(E).
    b. All raw water turbidity measurements taken during the month. If more than one sample is taken each day, the highest value of all samples taken that day may be reported in lieu of reporting all that day's values per CCR, Section 64664(d)(1)
    c. Daily recycled water turbidity and flow for each day of the month that backwash water was recycled back into the treatment process per CCR, Section 64664(d)(4). If more than one turbidity sample (or flow measurement) is taken each day, the highest value of all turbidity samples (or flow measurements) taken that day may be reported in lieu of reporting all that day's values.
    d. Report the lowest measurement of residual disinfectant concentration in mg/L in the water entering the distribution system per CCR, Section 64664(c)(3).
    e. Complete the enclosed *DISINFECTION PROCESS DATA MONTHLY SUMMARY and SUMMARY OF WATER QUALITY COMPLAINTS* form each month and provide a copy to the Division by the 10th of the following month via email at dwpredding@waterboards.ca.gov per CCR, Section 64464(c)(1),(2), and (f).

7. Hurlbutt Tank – It is highly recommended that this tank be replaced with a new tank that complies with CA Waterworks Standards. It is our understanding that GSD has pursued funding opportunities using the SWRCB's Financial Assistance Program and is planning to replace this tank. In the interim, the following recommendations should be followed:

    a. Inspect the tank's exterior and interior weekly. The date of the inspection and findings of each inspection should be documented and kept for future reference.

    b. Replace or repair tank appurtenances such as roof hatches, vents, and roof material as necessary to ensure a water-tight seal and to secure against potential pest intrusion.

    c. Maintain or removal of all vegetation within at least five feet surrounding the tank and, if possible, pave the perimeter around the tank (at least 36" in width) to prevent new plant growth. All paving should be sloped such that all rainwater will drain away from the tank wall.

    d. Install security fencing with a lockable gate around the tank.

8. Weekly Turbidity Accuracy Validation – Continuous turbidity measurements of the combine filter effluent may be substituted for the requirement to perform grab sample monitoring at least once every four hours provided the supplier validates the accuracy of the measurements on a weekly basis per CCR, Section 64655(a)(2)(B) footnote (d). Please keep and maintain records of performing this weekly validation at the treatment plant.

9. Alderpoint Road Tank – It is highly recommended that cathodic protection and high/low water level monitoring with remote alarm notification be installed.

10. CIPP – It is highly recommended that GSD develop a general distribution system capital improvement plan program (CIPP) to be updated at future periodic intervals (e.g. every 5 years).

11. Hydraulic Profile – It is highly recommended that GSD have an engineered hydraulic profile of the water system completed to assist with current and future planning for improvements.

12. Water Main Repair Reminder – Perform adequate flushing, disinfection, and "other" bacteriological sampling after water main repairs in accordance with AWWA Standard C651.

If you have any questions or concerns regarding this letter or the enclosures, please contact Scott Gilbreath at (530) 224 4876 or me at (530) 224-4875.

Barry S. Sutter, P. E., Klamath District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

SMG:lar

Enclosures

- 2022 Inspection Report
- Water System Record
- Raw source water and distribution, chemical monitoring schedules
- Bacteriological sampling siting plan (BSSP) form
- Water quality emergency notification plan (WQENP) form
- Tobin Well monthly chlorine and production report form
- Monthly disinfection and complaints summary form
- Monthly rTCR bacteriological summary form
- Monthly turbidity summary form
- Facility data sheet forms
- Water supply permit
- System schematic

System No. #1210008

California State Water Resource Control Board – Division of Drinking Water
Klamath District 01, Redding Field Operations Branch
Public Water System Inspection Report

Purveyor: Garberville Sanitary District (GSD) System Number: 1210008
Persons Contacted and Positions: Dan Arreguin, WTO/WDO (707-223-4569; gsddan@gmail.com)
Office Address: 919 Redwood Drive, Garberville, CA 95542
Date of Inspection: May 18 & August 19, 2022 Reviewing Engineer: Scott Gilbreath
Last Inspection: January 15, 2019 by Franklin Saylor District Engineer: Barry Sutter

A. INTRODUCTION

1. Water Supply Permit Status

Permit No. 01-01-19(P)001 issued 11/22/2019 to address new direct filtration surface water treatment plant constructed in 2014-15 and new 20K-gal. horizontal CT Tank constructed in 2018; Current permit supercedes previously issued permits and permit amendments.

Amendments: None post Permit No. 01-01-19(P)001 issued 11/22/2019.

Are the permit provisions being complied with? Reportedly, yes.

Is the permit up to date? No; The Robertson Tank was taken permanently offline in February 2022 which previously served the Arthur Road pressure zone; The Arthur Road pressure zone is now served via a new water service lateral & PRV connection to the Alderpoint Road water main with supply & pressure maintained by the 0.2 MG Alderpoint Road Tank.

System Classification. Community System; Large Surface Water Pristine (CLSP).

2. Changes in System

Since last inspection. New water service later & PRV connection tied to the Alderpoint Road water main to serve Arthur Road pressure zone (Robertson Tank no longer used/permanently taken offline); Replaced filter media at treatment plant (dual media filters: silica sand & anthracite).

Planned future changes. Planning project to replace the Hurlbutt Tank and the Wallen Road Tank.

3. Consumer & Production Data (Source: DRINC Portal EAR or Monthly Records to DDW)

Number of service connections 470 Number with meters 470
Approximate population served 913
Water production during recent 12 month period 57.8244 MG
Maximum month (amount/month) 6.8689 MG / July Maximum day (amount/date) 0.2601 MG; 7/17/21

Year	Total Annual Water Production (MG)	Maximum			Estimated Population Served	Number Active Service ConXs	Max Day Flow per ConX (gpd)	Max Day Flow per Person (gpd)
		Month (MG)	Day (MG)	Day Avg. (gpm)				
2021	57.8244	6.8689; Jul.	0.2601	181	913	470	553	285
2020	57.7583	6.807; Aug.	0.2892	201	1500	442	654	193
2019	58.0474	6.7091; Jul.	0.2711	188	1500	442	613	181
2018	56.9683	5.574; Aug.	0.2853	198	1500	442	646	190
2017	58.62	7.20, Aug.	0.2957	205	913	442	670	324
2016	53.15	6.28, Jul.	0.2535	175	913	442	575	278
2015	55.34	6.15, Aug.	0.263	183	913	417	630	288
2014	63.47	6.77, Jul.	0.269	187	1,396	422	637	193
2013	62.60	7.18, Aug.	0.384	267	1,396	423	909	275
2012	62.66	7.69, Aug.	0.319	221	734	418	762	435
2011	57.92	6.77, Sept.	0.279	194	1,500	398	701	186
2010	60.85	6.86, Aug.	0.321	223	--	399	805	--
2009	57.09	7.01, Jul.	0.262	182	--	409	641	--
2008	60.34	6.835	0.257	178	--	409	628	--
2007	65.32	8.259,Aug.	0.312	217	--	409	763	--
2006	62	7.64, Jul.	0.33	229	--	409	807	--
2005	63.33	8.45, Aug.	0.31	215	--	409	758	--

Year	Total Annual Water Production (MG)	Maximum			Estimated Population Served	Number Active Service ConXs	Max Day Flow per ConX (gpd)	Max Day Flow per Person (gpd)
		Month (MG)	Day (MG)	Day Avg. (gpm)				
2004	--	--	--	--	--	--	--	--
2003	63.72	8.43, Jul.	0.31	215	--	394	787	--

Discussion. Reportedly, estimated population dropped from 1,500 to 913 and number of active service connections increased from 442 to 470 in 2021; Total annual water production reported in 2021 is consisted with previous years; Peak Hour Demand (PHD) in the distribution system is estimated to be at least 400 gpm (267 gpm & 1.5 peaking factor) and Maximum Day Demand (MDD) estimated to be at least 384,000 gallons based on highest maximum day demand reported in last 10 years.

B. SOURCE DATA

Sources	Status	Capacity	Comments
SURFACE WATER – PRIMARY			
Eel River *PS Code: 1210008_001_001*	Active	350 gpm one pump; only one pump can run at a time.	4' dia CMP infiltration gallery with 2 variable frequency drive submersible pumps. Two 4-inch diameter perforated pipes in river bed feed to the gallery.
Unnamed creek *PS Code: 1210008_004_004*	*Inactive* **No longer connected to system.*	*Unknown*	*Last used as low turbidity source during January 2006 Eel River flood stage storm. Flow was too low during last several winters to be useful. Not in use since 2006, per operator Dan Arreguin 1/15/19.*
GROUNDWATER			
Tobin Well (Well 1) *PS Code: 1210008_003_003*	Active *(Standby Emergency Use)*	Winter: <=~40 gpm Summer: <=~18 gpm *Capacity drops significantly during the dry / summer season.	~70-year-old shallow well that is ~45 feet deep and, reportedly, was originally hand dug. Well house located on small lot/parcel between residences adjacent to street. *Per operator Dan Arreguin, well no longer placed in standard service since completion of the new surface water treatment plant in 2015; Reportedly, kept ONLY as active standby source for emergency use now*; Operator performs routine annual maintenance check and start-up procedures (e.g., disinfection, pump-to-waste flushing). Continuous chlorination is required and a free chlorine residual of at least 0.5 ppm must be maintained when in emergency use at all times; Well start-up procedures should be performed before placing in emergency use (e.g., disinfection, flushing, free chlorine residual monitoring, and raw water bacteriological sampling) and DDW notified. **Well is not constructed to CA Waterworks Standards; No control zone with a 50-foot radius around the site to protect the source from vandalism, tampering, or other threats. Wellhead is secured inside wellhouse.** Has ~6" raised curb to reduce possibility of surface water entering wellhead, a check valve and gate valves (for isolation from the distribution system when not in emergency use) as backflow prevention, a totalizing water production meter, and small openings in cover plate serve to vent well. Chlorination is performed by direct injection at wellhead into the well. ***NEED dedicated, threadless, down-turned, raw water sample tap to collect raw water bacteria samples.**
Purchased from other systems: NONE.			
Emergency Connections: NONE.			

Discussion & Appraisal (i.e., location of septic systems in relation to wells and does source capacity comply with Waterworks Standards?). GSD's primary supply source is the Eel River via two (2) surface water diversion rights: Application 9686/Permit 5487 (from July 31, 1939), and Application 29981/Permit 20789 (from July 22, 1991). Application 9686/Permit 5487 is limited to the quantity which can be beneficially used and shall not exceed 0.155 cubic foot per second by direct diversion (up to 112.2 acre-feet total per year), to be diverted from January 1 to December 31 of each year. Application 29981/Permit 20789 is limited not exceed 0.595 cubic foot per second by direct diversion (up to 430 acre-feet total per year) to be diverted from January 1 to December 31. The total quantity of water diverted under Application 9686/Permit 5487 and Application 29981/Permit 20789 is limited to a total of 542.2 acre-feet per year and 0.75 cubic foot per second (~336.62 gpm). Reportedly, Tobin Well provides an additional standby source for emergency use; It is no longer placed in standard service since completion of the new surface water treatment plant (SWTP) in 2015. Reportedly, the Tobin Well was historically used as a supply source dating back to the 1950's and in more recent years used only during storm events when the raw source water turbidity was >=~500 NTU rendering compliance with turbidity performance standards more difficult to achieve using the old surface water filtration plant. Since completion of the new SWTP in 2015, operator reports no issues treating elevated raw surface water turbidity levels year-round and GSD no longer relies on the Tobin Well for standard use during winter/ wet weather storm events.

CA Waterworks Standards: Eel River surface water diversion right provides capacity beyond the reported maximum day demand (MDD). Tobin Well capacity does not meet MDD. Existing Tobin Well construction does not comply with CA Waterworks Standards and, per the water supply permit, continuous chlorination achieving a minimum free chlorine residual of at least 0.5 ppm at all times when in use is required; The Tobin Well should be used only during an emergency when necessary. A separate monthly well operations report must be included in the standard monthly report to DDW when used and raw bacteriological monitoring must be performed monthly. A monthly well operations report template is included with this inspection report for reference or use by GSD.

C. TREATMENT

1. Surface Water Sources

Name of surface water sources and treatment plant. Eel River / GSD Water Treatment Plant

Are there significant sewage hazards? None reported; None observed; There are individual OWTS systems upstream of GSD's intake within 500 feet of the Eel River and tributaries.

Is there significant recreation that affects the water source? None reported, none observed; Typically, there is significant day use recreation at Benbow Lake State Recreation Area (BLSRA) >4 river miles upstream of GSD's intake and likely at other upstream locations for recreation between GSD's intake and the BLSRA; However, recent drought years with reduced flows in the Eel River have likely reduced recreation during the late summer/dry weather period.

Have there been significant changes to or activities on the watershed since the last inspection or changes in raw water quality, such as, turbidity or coliform levels? None reported; None observed; Recent drought years have resulted in extremely low flow levels in the Eel River during the late summer/dry weather period resulting in increased algal blooms along the warm edge-waters of the Eel River; However, no significant raw water quality impacts or related operational issues reported by GSD.

What is the date of the most recent watershed survey (DWSAP or "SWAP")? DWSAP for Tobin Well dated January 2002, DWSAP for Eel River dated January 2003.

Are there any potential contaminating activities (PCA) within the watershed of the source? Vulnerabilities and PCA's include: (Eel River infiltration gallery) Physical Barrier Effectiveness – Low, Drinking Water Treatment Plants, Mining – Sand/Gravel, Septic Systems – Low Density, Storm Drain Discharge Points, Transportation Corridors, Underground & Above Ground Storage Tanks, Agricultural Activities (e.g., Managed Forests, Agricultural Drainage, Fertilizer & Pesticide/Herbicide Application).

2. Surface Water Treatment Requirement

Requirement (General). Multibarrier treatment that includes a series of water treatment processes that provide for both removal and inactivation of waterborne pathogens and demonstrates compliance with Surface Water Treatment Rule (SWTR) and federal and state drinking water standards.

Pathogen removal/inactivation requirement. 2-log (or 99 percent) removal of Cryptosporidium, 3-log (or 99.9 percent) reduction of Giardia lamblia cysts, and 4-log (or 99.99 percent) reduction of viruses.

3. Surface Water Treatment Process

Treatment classification and log-removal credit for filters. Direct filtration: Coagulation, flocculation, pressure filtration, and disinfection via chlorination.

Direct filtration treatment: 2.0-log (or 99 percent) removal credit of Cryptosporidium, 2.0 log (or 99 percent) removal credit of Giardia lamblia cysts, 1.0 log (or 90 percent) removal credit of viruses when complying with operating criteria and performance standards specified in CCRs (e.g., Title 22, section 64660, performance standards specified in Table 64653, etc.); Note: No additional bank filtration treatment credit granted for operating the Eel River infiltration gallery.

Describe treatment process (i.e., chemicals used, typical dosages, injection points, rapid mix, flocculation & sedimentation, type of filters, filter media, media depth). Raw surface water is pumped from the Eel River infiltration gallery pump station to the filter plant; Ultrion 8157 cationic polymer is directly injected into the raw surface water for coagulation prior to entering the flocculation tank; Post coagulation & flocculation, influent is then pumped through two (2), 10-foot dia., dual media (silica sand & anthracite), downflow, pressure filter vessels operated in parallel; Post-filtration, combined filter effluent is disinfected using chlorine and pumped through a roughly 10-foot dia. by 36-foot long, internally baffled, horizontal, 20,000-gallon contact tank (baffling factor of 0.54). Per CCR, Section 64660(b)(1), maximum approved filter rate for each pressure filter is 3 gpm/ft.^{2} or 235.6 gpm. (Calculation: One (1), 10-foot dia. pressure filter at ~78.53 ft.^{2} surface area and 3 gpm/ ft.^{2} provides max. filter rate of 235.6 gpm); Combined maximum filter capacity at treatment plant is 471.2 gpm. Raw water VFD river pumps are capable of delivering up to 350 gpm with one pump (reportedly, only one pump at a time can be operated due to telemetry) and per water right, maximum permitted surface water diversion is 336.62 gpm.

Chemicals used	Range	Measurement Location	Injection Points	Mixing Provided
12.5% Sodium Hypochlorite	0.76 – 2.6 ppm, chlorine residual	Post CT Tank	Post filtration, before CT tank	Pipe static mixing before entering CT tank
Cationic Polymer (Ultrion 8157)	0.01 – 0.42 gph, usage rate	LMI chemical injection pump & SCADA	Before flocculation tank	Pipe static mixing before entering flocculation tank
Note: *Range* data above based on review of monthly report records provided by GSD to DDW from January 2019 through June 2022.				

4. Filtration Facilities

Multiple filter units for redundant capacity? Yes; 2 pressure filters.

Filter Description. Two (2), 10-foot dia. pressure filters each consisting of (from the bottom up) 24 inches of 3/4" course gravel, 18 inches of 3/8" pea gravel, 36 inches of silica sand, and 18 inches of anthracite.

Applicable filter media standard(s). Filter media in use must be NSF/ANSI Standard 61 certified.

Filter media type in use. Dual media (silica sand and anthracite); NSF/ANSI Standard 61 certified.

Are filtration design criteria met? If not, what facilities are needed? Filter media standard met? Yes; Media replaced in 2022 and packaged media onsite labelled NSF/ANSI Standard 61 certified.

Does polymer/monomer meet applicable NSF/ANSI standard? Treatment technique requirements of Section 64448 (if applicable)? What is maximum allowable dosage? Yes; Trade name: Ultrion 8157 polymer blend; Manufacturer: Nalco Company with four USA-based, manufacturing facilities (#68, #69, #70, #72); NSF/ANSI Standard 60 certified; Cationic; Max. allowable dosage per NSF listed certification is 200 mg/L; Per SDS, ingredients include aluminum hydroxychloride, aluminum phosphate, and calcium chloride; acidic (pH=2.7).

Standby power for treatment plant? Yes, backup diesel (cummins) generator onsite.

5. Filtration Operation

Approved maximum filter rate and plant capacity. 3.0 gpm max. filter rate per square foot of filter surface area per CCR, section 64660(b)(1); 235.6 gpm per pressure filter; Maximum combined filter capacity of 471.2 gpm (See section C.3 above for treatment plant capacity details).

How is filter rate controlled? SCADA & HMI, pump controllers (Eel River infiltration gallery pump station), flow meters, and manual adjustments.

Have filter rates exceeded maximum approved rate? Reportedly, no.

Are filters operated to minimize shutdowns and startups or rapid changes in filter rates and are filter rates constant or varied to meet system demands? No, filter plant production is operated to maintain finished water storage tank levels in the Hurlbutt Tank to meet system demand; However, the filter rate (i.e., production capacity) is limited by the Eel River infiltration gallery VFD pump capacity (350 gpm max.) which is much lower than maximum allowed filter rate resulting in longer filter run times; Production starts whenever the tank level drops to 10 feet and shuts off when the tank level reaches 10 ½ feet; Reportedly, this can take up to a maximum of ~35 minutes to fill back to the 10 ½-foot level. Filter rates are kept constant but can be manually adjusted by the operator; Pump controls operate two (2) VFD raw water river pumps located at the Eel River infiltration gallery pump station which provide supply & pressure through the filter plant; Operator manually configures "set-points" in the HMI/SCADA system to control filter rates by manually setting the pump speed of each VFD pump as a percentage of the maximum pump capacity using the HMI screen (i.e., 0 – 100%).

Coagulation (and flocculation) used at all times and optimized or 80% reduction in turbidity? Yes, used at all time. Turbidity reduction appears to be optimized.

How is coagulant feed rate determined and optimized? Feed rates initially determined during design and start-up process of new SWTP (2015); Later optimized by operator based on jar testing, operational experience, and maintaining operational records for reference; Operator performs winter/wet weather and summer/dry weather seasonal adjustments to feed rate coinciding with changes to raw water turbidity ranges observed.

Coagulant metering/feed pumps (make, model, and capacity) Two (2) LMI pumps (0.21 gph @ 250 psi each); Total capacity: 0.42 gph.

Standby metering pumps? Yes; Same make/models.

How often metering pumps calibrated? Field adjusted under load, monitored daily, calibrated as needed.

Are filters physically inspected at least annually? Reportedly, yes; Filter media replaced in 2022.

Is the Surface Water Treatment Operations Plan up-to-date? No up-to-date operations plan.

6. Backwash Cycle

Describe backwash cycle (source of backwash water, flowrates, use of air/water, length of backwash, surface wash). The backwash cycle uses up to ~16,000 gallons of finished water from the distribution and consists of the following processes: (1) Combined surface wash and upflow filter backwash, (2) upflow filter backwash only, and (3) rinse-to-waste (note: no air scour). First, each filter is backwashed one at a time and then a combined filter effluent rinse-to-waste cycle runs before placing both (two) filters back into production. Reportedly, the surface wash and upflow filter backwash cycle operates at ~1,100 gpm for 4 minutes, then the upflow filter backwash cycle at ~900 gpm for 3 minutes, followed by the combined filter effluent rinse-to-waste cycle at ~220 gpm for 8 minutes; Total backwash cycle time of 22 minutes. Note: Backwash cycle flow rates and run times of each process can be manually adjusted by the operator. All backwash water is stored in an ~30K-gallon bottled steel settling tank for recycling; A minimum of 24-hours for settling is provided before recycling back to headworks at 10% of production rate. The backwash cycle can be initiated manually or automatically. Reportedly (*per operator Dan Arreguin*), settled sludge in the backwash settling tank is removed using sludge pumps seasonally or more often as needed and hauled by truck offsite to GSD's wastewater plant in batches for further drying and disposal.

Frequency of backwashing and/or what initiates backwash. The backwash cycle can be initiated manually or automatically for a specified day/time in a month, after reaching a specified filter production run time, or based on reaching a specified head loss across the filters; The operator typically performs manual backwashing and does not use the automatic features; Need for backwashing is monitored daily and performed as needed; Per GSD reports to DDW from 2019 through June 2022, backwashing was either not performed in a given month or performed once, twice, or three times in a given month.

Method used to minimize turbidity spikes after backwashing or other interruption events. After the operator manually initiates the backwash cycle, operator monitors the combined filter effluent turbidity levels during the rinse-to-waste cycle before resuming to finished water production. Once back in production, the operator continues to monitor finished water using SCADA system and turbidity alarm set-points; Operator can manually adjust each backwash cycle processes and filter rate when necessary to minimize turbidity spikes (e.g., extend rinse-to-waste process run time or lower and gradually increase filter rate).

If filter to waste provided, length of time? Rinse-to-waste cycle typically set to run for 8 minutes.

Are filter rates gradually increased after backwashing or other shut down? Yes. Control system is not currently configured to provide adjustable automatic gradual increasing of pump rate for a specific time period after backwashing but operator performs manually. Pump controls are manually adjusted by operator using the HMI. Filter rates are gradually increased directly by the operator and automatic valve closing and opening time also provides some initial gradual flow increase period. Operators manual backwash SOP appears adequate but does require the operator to be at the SWTP to perform.

If coagulant added to backwash water, dosage and coagulant used? No; Finished water used for backwash drawn directly from distribution main at plant.

If coagulant added to backwash water, dosage and name of coagulant? No coagulant added to backwash water prior to settling tank.

If reclaimed backwash water returned to headworks, describe treatment, settling time provided, percent solids removal, and return rate to plant. Reclaimed (recycled) backwash decant from settling tank is returned to headworks after at least 24-hours of settling time at a rate of 10% of production capacity. Percent solids removal not reported to DDW.

Discussion. No reported issues to DDW regarding backwash cycle. **Need operator to monitor and report the turbidity and the flow of the recycled water returned to the headworks** at least once a day or once during each recycle event and monitoring shall be representative of the recycled water per CCR, Section 64654.8(b)(3) and 64664(d)(4).

7. Filtration Performance

Summarize performance over last year, (performance standard is ≤0.3 NTU 95% of time and not to exceed 1 NTU for more than 1 continuous hour, 1 NTU at four-hour intervals, 1.0 NTU for more than

eight consecutive hours, and 5 NTU at any time). Reportedly, complies with performance standards; Monthly reports to DDW indicate combined filter effluent performance meets standards per CCR, Table 64653.

Does turbidity after backwashing meet criteria for each filter? (≤0.3 NTU after 4 hours and ≤ 1.0 NTU 90% of time during last 12 months and not to exceed 2.0 NTU) Reportedly, yes.

Are performance standards met for combined effluent and individual filters? Reportedly, combined filter effluent has met performance standards. Two filters at treatment plant, serves less than 10,000 persons, and continuously monitors combined filter effluent turbidity; Therefore continuous individual filter monitoring not required per CCR, Section 64655(a)(2)(A) footnote (c) which states, "If there are two or fewer filters, a supplier may conduct continuous monitoring of the combined filter effluent in lieu of continuous monitoring of each individual filter. The results shall be recorded at least once every 15 minutes."

Discussion. Reportedly, filtration performance has met standards since last inspection; Reportedly, GSD monitors and records combined filter effluent turbidity every minute while in production and provides summary in monthly report to DDW.

8. Compliance with Federal Long Term 1 Enhanced Water Treatment Rule (LT1)

Summarize the combined filter effluent (CFE) performance (as of January 2005 federal standard is ≤0.3 NTU 95% of time, not to exceed 1 NTU). Reportedly, combined filter effluent has met performance standards.

Summarize the individual filter effluent (IFE) performance. The system is required to conduct continuous turbidity monitoring & report to DDW if

(1) The turbidity exceeds 1.0 NTU in two consecutive recordings 15 minutes apart, or
(2) For 3 months in a row, turbidity exceeds 1.0 NTU in 2 consecutive recordings 15 minutes apart (also requires a self-assessment), or
(3) For 2 months in a row, turbidity exceeded 2.0 NTU in 2 consecutive recordings 15 minutes apart (also requires a comprehensive performance evaluation)

Discussion. Reportedly, no combined filter effluent turbidity performance trigger exceedances since last inspection, and, therefore, no IFE performance monitoring required since last inspection.

Is the Monthly Summary of Monitoring for the Federal LT1 being submitted monthly? Yes, **but provided new summary** to GSD via email to update format consistent with CCR, Section 64660(b) as part of this report.

Was disinfection profiling performed? No, not required since last inspection. Distribution samples below 40/30 disinfection profile triggers.

Discussion & Appraisal. Reportedly, no combined filter effluent turbidity performance trigger exceedances since last inspection, and, therefore, no IFE performance monitoring required since last inspection; Provided water system with DDW-standard NTU monthly summary form to reference or use as part of this report.

9. Turbidimeters

Type and model of turbidity monitors. Continuous raw water and finished water monitoring; Hach 1720E with Hach SC200 Controllers for SCADA/HMI, and Hach 2100A bench top turbidimeter.

Turbidity sampled at proper locations? Yes; A raw water turbidity sampling port configured with a Hach 1720E is located at the headworks and prior to polymer/coagulant dosing, and a final post-filtration turbidity sampling port configured with a Hach 1720E is located after the two filters trains to monitor combined filter effluent prior to the disinfection segment; **Note: Operator must monitoring the turbidity (and flow) of the settled backwash water recycled from the settling tank to the headworks at least once a day per CCR, Section 64654.8 & 64664.**

How often turbidimeters calibrated? Calibrated per manufacturer specification two to three times per year as needed. **Note: Operator to validate the accuracy of the measurements on a weekly basis per CCR, Section 64655(a)(2)(B), footnote (d).**

How are they calibrated and what standards are used? Per manufacturer specifications and using manufacturer standards (StablCal Stabilized Formazin Standard).

Discussion & Appraisal. Raw and finished water continuous turbidimeters appear to be in good working condition. Operator must perform grab samples when monitoring the turbidity of recycled backwash sent to headworks (no continuous turbidimeter to monitor recycled backwash).

10. Surface Water Disinfection

Required log inactivation. 1.0-log inactivation for Giardi lamblia cysts, 2-log inactivation for viruses

Type and model of chlorine residual monitors or test kits. Continuous, Hach CL17 & pocket colorimeter.

Is emergency plan for disinfection failure up-to-date? Reportedly, yes.

Prechlorination. No prechlorination process after 2016. Historically, sodium hypochlorite solution was injected prior to filtration (no post-chlorination) which required increased dosage due to higher chlorine demand and need to meet CT requirements, and resulted in free chlorine residuals typically >= 2.0 ppm. After installation of the new CT Vessel and other disinfection segment improvements, system now only chlorinates combined filter effluent (having reduced chlorine demand) and before the CT Vessel which provides improved control over chlorine dosage and lower free chlorine residual levels (<2.0 ppm) before entering the distribution system.

Post-chlorination. Yes; Combined filter effluent is chlorinated using NSF/ANSI Standard 60 certified 12.5% sodium hypochlorite solution injected prior to CT Vessel; Filtered and disinfected water is then boosted into the distribution system post CT Vessel.

Is continuous disinfection provided? Yes.

Disinfectant injected at proper location? Yes, before CT Vessel.

Does disinfectant meet applicable NSF/ANSI standard? What is maximum allowable dosage? Reportedly, is NSF/ANSI Standard 60 certified 12.5% NaOCl. Maximum allowable free chlorine residual of 4 mg/L (ppm) post CT Vessel and before entering the distribution during normal water treatment operations.

Chlorine metering/feed pumps (make, model, and capacity). LMI 24 gpd @ 100 psi

Standby metering pumps? Yes; Same make/model.

How often metering pumps calibrated? Reportedly, field tested under load.

How often is chlorinator(s) inspected? Daily.

Typical dosage, chlorine demand, free chlorine residual before entering distribution. Dosage adjusted to meet CT requirements based on operator set production rate; Free chlorine residuals typically maintained above 1 mg/L (ppm) before entering distribution.

Free chlorine residual sample location (post-chlorination). Continuous analyzer with samples drawn after the CT Vessel.

How often is calibration/verification performed for analyzers? Factory calibrated and serviced by manufacturer (Hach) when necessary; Analyzers inspected by operator daily and verified weekly or more often, as necessary; Verification by comparison with portable analyzer.

Type and model of pH and Temperature analyzers. Continous raw and finished water monitoring; Hach SC200 Controllers with pH and temperature probes.

Monitoring Alarms. Yes; SCADA system configured to provide alerts & remote messaging (see Monitoring & Alarms section below).

Standby power for disinfection? Yes. Onsite diesel generator to power treatment plant.

Are residuals entering distribution system ≥ 0.2 ppm? Reportedly, yes. Residuals typically > 1.0 ppm (mg/L).

Are distribution system residuals at least a trace 95%? Reportedly, yes.

Discussion. Facilities appears well-equipped and maintained. Reportedly, operator typically maintains > 1.0 mg/L free chlorine residual after CT Vessel and before entering distribution.

"CT" Evaluation

Facilities providing disinfecting contact time as required by Surface Water Treatment Rule.

Facility	Dimension and Volume Calculation	Available volume (gal.)	Short circuit factor	Effective contact volume (gal.)
CT Vessel	One, 10-foot dia. by 36-foot long, internally baffled, horizontal, 20,000 gallon contact tank (baffling factor of 0.54 per DDW tracer study)	20,000	0.54	10,800

Total Effective Volume: 10,800 gallons

Example "CT" Calculation for Winter/Summer Operating Scenarios

Flow. Assumption for worst-case: 150 gpm (Winter PHD); 300 gpm (Summer PHD)

Temperature. Assumption for worst-case: Winter: 7 °C; Summer 15 °C

pH. Assumption for worst-case: 7.5 SU

Free Chlorine Residual. Assumption for worst-case: 1.0 ppm measured post CT Vessel.

Required CT. Winter: (7 °C, 7.5 SU) **56.19 min*mg/L** for 1.0-log inactivation of Giardia lamblia cysts; 8 min.*mg/L for 4-log inactivation of viruses; Summer: (15 °C, 7.5 pH); **32.79 min.*mg/L** for 1.0-log inactivation of Giardia lamblia cysts; 4 min*mg/L for 4-log inactivation of viruses;
(Ref.: US EPA Guidance Manual, Disinfection Profiling and Benchmarking, Appendix E, August 1999)

Contact Time. Estimated: Winter: 10,800 gal./150 gpm = 72 min. ; Summer: 10,800 gal./300 gpm = 36 min.

Available CT. Estimated: Winter: 72 min.*1.0 mg/L= **72 min.*mg/L (CT Ratio=1.28)**
Estimated: Summer: 36 min. *1.0 mg/L = **36 min.*mg/L (CT Ratio=1.1)**

Has disinfection profiling and benchmarking been performed? No; Not required (see DBP section).

Discussion. Operator monitors and controls the production flow rate and disinfection metering pump rates using the HMI/SCADA system to ensure that contact time requirements for 1.0-log inactivation of Giardia is achieved during production; Review of monitoring records since last inspection indicate a free chlorine residual post CT Vessel >= 1.0 ppm, summer production rates <300 gpm and winter production rates <150 gpm. Monthly

reports submitted to DDW since last inspection indicate that disinfection contact time regulatory requirements have been met during finished water production.

11. Monitoring and Alarms

Parameter	Location	Sample Frequency	Alarm (yes/no)	Alarm Set point	Alarm Result
Raw Water River Pumps On/Off	Eel River Infiltration Gallery Pump Station	Continuous	Yes	Power failure	Auto dialer/ messaging
Raw Water Flow	Headworks	Continuous	No	--	--
Backwash Cycle Flow	Before Settling Tank	Continuous	No	--	--
Recycled Backwash Flow	Headworks	Continuous	No	--	--
Finished Water Flow	Before entering distribution	Continuous	No	--	--
Raw pH & Temp.	Headworks	Continuous	No	--	--
Finished pH & Temp.	After CT Vessel	Continuous	No	--	--
Storage Tank Water Level	Hurlbutt Tank	Continuous	Yes	High/Low water level	Auto dialer/ messaging
Storage Tank Water Level	Alderpoint Rd. Tank	--	No	--	--
Pump Station – Alderpoint Rd. Tank	Alderpoint Rd.	Continuous	Yes	Power failure	Auto dialer/ messaging
Storage Tank Water Level	Wallen Tank	--	No	--	--
Pump Station – Wallen Tank	Wallen Rd.	Continuous	Yes	Power failure	Auto dialer/ messaging
Backwash Settling Tank Level	Settling Tank	Continuous	No	--	--
Settled Turbidity	Settling Tank	--	No	--	--
Coagulant Pump On/Off	Treatment Plant	Continuous	Yes	Pump failure	Auto-dialer/ messaging
Coagulant Day Tank Level	Day Tank at Plant	--	No	--	--
Chlorine Pump On/Off	Treatment Plant	Continuous	Yes	Pump failure	Auto-dialer/ messaging
Chlorine Day Tank Level	Day Tank at Plant	--	No	--	--
Raw Turbidity High	Headworks	Continuous	Yes	2.0 NTU Adjusted seasonally	Auto-dialer/ messaging
Finished Turbidity High	After Filter	Continuous	Yes	2-minute: 0.08 NTU 5-minute: 0.15 NTU	Auto-dialer/ messaging
Recycled Backwash Turbidity	Headworks	Grab	No	--	--
Finished High/Low Chlorine Residual	After CT Vessel	Continuous	Yes	High: 3.0 ppm Low: 0.8 ppm	Auto-dialer/ messaging
Diesel Generator Failure	Eel River Infiltration Gallery Pump Station	Continuous	Yes	Failure	Auto-dialer/ messaging

Parameter	Location	Sample Frequency	Alarm (yes/no)	Alarm Set point	Alarm Result
Diesel Generator Failure	Treatment Plant	Continuous	Yes	Failure	Auto-dialer/ messaging
Security/Trespass	Treatment Plant	Continuous	Yes	Cameras/ Door opening	Auto-dialer/ messaging

Are samples collected at proper locations that give accurate and representative results (i.e., turbidity sample must be before clearwell). Yes.

Can each filter and/or filter cell be monitored for turbidity? Yes. Configured with a single turbidimeter for combined filter effluent monitoring for the two filters; No additional, separate turbidimeters to monitor each individual filter; However, operator can monitor each filter individually by shutting down one of the two filters (if necessary) to perform an individual filter effluent (IFE) performance evaluation if a trigger exceedance occurs.

Discuss other monitoring or sampling (particle counters, etc.). None.

Other alarms related to treatment plant process. None.

Alarms adequate to provide warning of coagulation, filtration, and disinfection failures or describe alternatives? Appears adequate given operators perform routine daily inspection of all facilities and backwash cycle is only ran manually by operator onsite.

Are alarms tested, and if so, how often? During instrument recalibrations, as needed, per mfg. spec and when backup power generators are tested routinely throughout the year.

Monthly records maintained of treatment. Yes, monitoring files on file at DDW.

Discussion & Appraisal. Routine daily inspection, monitors, and alarms appear adequate. Recommend adding chemical day tank level alarms and using treatment plant auto-shutdown feature when finished water high turbidity or low chlorine residual alarm set-points are exceeded. Note: Operator required to collect turbidity grab samples when recycling settled backwash water to headworks (no continuous turbidimeter for monitoring recycle backwash turbidity). Reminder: Must maintain standby equipment available to assure continuous operation and control of unit processes for coagulation, filtration, and disinfection per CCR, Section 64659.

12. Groundwater Sources. Tobin Well (**for standby emergency use**).

What is date of last well re-charge area survey (DWSAP, or "SWAP")? DWSAP January 2002; Physical Barrier Effectiveness – Low, Automobile – Gas Stations/Repair Shops, Historic Gas Stations, Chemical/Petroleum Pipelines, Underground & Above Ground Storage Tanks, Offices/Buildings, Known Contaminant Plumes, Sewer Collection Systems, Storm Drainage/Discharge Points, Housing – High Density, Transportation Corridors. Wellhead secured in wellhouse but no 50-foot radial control zone surrounding well site.

Is continuous disinfection provided? Yes; Continuous using sodium hypochlorite solution.

Disinfection requirements (minimal residual or CT)? Maintain at least 0.5 ppm (mg/L) free chlorine residual; Well is directly disinfected through wellhead; No separate disinfection segment (i.e., CT vessel) designed for continuous 4-log virus inactivation before entering the distribution.

Describe facilities. Tobin Well is operated manually using the following equipment within the well house: LMI chlorine metering pump (max capacity .85 gph/20.4 gpd @ 110 psi) configured to power on with well pumps; One 25-gallon chlorine day tank with direct chlorine injection at wellhead into well (no clear well); Two submersible well pumps each equipped with Goulds Aquavar centrifugal pump controllers; Two submersible pressure transducers placed in well to control each well pump start/stop; One pump-to-waste valve with discharge piping at wellhead; One source meter for chlorinated well supply pumped directly to the Pine Lane distribution water main; One check valve after the wellhead and before the source meter; Two hose bibs before check valve; Two isolation valves (one for each well pump) at wellhead; Two isolation valves in series between the source meter and Pine Lane distribution water main connection; One hose bib after the check valve and before the source meter.

Discussion. Reportedly, Tobin Well is maintained for emergency use only and the well house isolation valves are kept closed, the wellhead is powered off year-round, and the operator performs well start-ups for operational verification once or twice a year. Reportedly, start-up procedures include disinfecting the well at the wellhead prior to flushing via wellhead pump-to-waste discharge piping (well does not pump into the distribution). During this inspection, isolation valves were closed and well pumps/pump controllers were powered off. Continuous disinfection must provide at least 0.5 ppm chlorine residual at all times when in use per water supply permit. Recent usage history: 2012-1.54 MGA; 2013 not used; One day in 2016; Emergency use in November 2017 due to chlorine contact pipe break at plant (later replaced with CT Vessel); Not used for domestic supply in 2018 or 2019 through 1/14/2019; Not used in 2020; Operator disinfected, flushed via pump-to-waste 1 day in June and 1 day in August 2021 for maintenance. System operator was informed during 2022 inspection to **notify DDW before placing in emergency use, provide monthly operation report, and need to perform raw (unchlorinated) source water bacteriological monitoring at the wellhead every 3 months as required per rTCR.**

13. Other Treatment or Blending Facilities. None.

14. Describe Records Maintained of Treatment. **Monthly operator log includes**: Operator's Signature, Date, Daily Produced (gallons), Flow (gpm), Raw (NTU), Raw Temp., Raw pH, Finished (NTU), Finished Temp., Finished pH, Chlorine residual after CT Vessel, CT Log Inactivation, NaOCl Speed %, NaOCl Stroke %, NaOCl gallons, Chlorine (gpd), Coagulation polymer (gph), Coagulation/polymer use (gpd), Backwash cycle ran ("x"= yes), Added coagulant/polymer to day tank ("x"= yes), added sodium hypochlorite to day tank ("x"= yes).
Monthly Summary of Turbidity Monitoring for Surface Water Treatment Rule form includes completed monthly and includes a summary of all combined effluent turbidity measurements recorded every 1 minute (and the total number of those <= 0.3 NTU), % of reading <= 0.3 NTU; Incidents of turbidity >= 1.0 NTU at any time, and raw water bacteriological sampling results.
Chlorine Contact Time Monitoring Form includes the date, max flow (gpm), chlorine residual after CT Vessel, temperature, pH, CT produced calculation, CT required determination, and CT Ratio.

D. STORAGE DATA

Name	Type	Capacity	Zone	Comments
Main-Hurlbutt Tank	concrete	0.20 MG	Main	Maintains pressure and flow throughout distribution (and to booster pump stations and other tanks); Old in-ground concrete construction; Wood roof with composition/shingle overlay constructed ~0.5 foot above grade with nearly flat roof slope not ideal for ensuring water tight seal during storm events; Overall, difficult to keep sanitary and secure from intrusion (e.g. pests, trespass, etc.) and to inspect for sanitary condition; **Tank should be replaced for new tank meeting CA Waterworks Standards.**
~~*Robertson Tank*~~ *(No longer in use)*	~~*concrete*~~	~~*0.05 MG*~~	~~*Robertson (Arthur Road)*~~	*Tank has failed and has been permanently disconnected from the system. New PRV vault installed and now maintains pressure/flow to Arthur Road pressure zone from Alderpoint Point Tank water main.*
Alderpoint Road Tank	Welded Steel	0.20 MG	Alderpoint	New in 2014. No defects observed during inspection. **Recommendation: Install cathodic protection. Install high/low remote monitoring/alarms.**
Wallen Road Tank	Redwood	0.02 MG	Wallen Road	Alderpoint Road Tank provides supply to booster station for Wallen Road Tank. Significant leaks have developed, signs of carpenter bee infestation on exterior of tank, and significant rot/deterioration observed. **Replace tank before complete failure occurs.**
Pressure Tanks at Hurlbutt Tank	Steel pressure tank w/bladder	5 tanks @ 120 gal/ea.	Booster	Good condition. Reportedly, serves Hillcrest Dr. and Maple Lane pressure needs.
~~*Pressure Tank at Maple Ln. PS*~~ *(No longer in use)*	~~*Steel pressure tank w/No bladder*~~	~~*800 gal.*~~	~~*Maple*~~	Poor condition; Very old tank with significant surface rust; supplies 21 homes. **Maple Lane Pump Station taken offline and no longer used**. Submersible pumps installed in Hurlbutt Tank and pressure tanks are now used to maintain pressure and flow at Maple Lane.

Does storage capacity comply with Waterworks Standard? Yes, total storage volume meets MDD **BUT** may not have sufficient capacity in each pressure zone (e.g., MDD plus fire flow requirements) as entire distribution system pressure/supply is managed through Hurlbutt Tank; Hurlbutt Tank capacity is less than MDD.

Are DDW coating procedures adhered to? Yes, for steel tanks.

Discussion & Appraisal. Wallan Tank has significant leaks and exterior shows signs of wood rot, significant deterioration, and pest infestation (carpenter bees?); Interior condition during inspection appeared sanitary but Wallan Tank should be replaced before complete failure occurs; Unknown whether Wallan Tank capacity is sufficient for compliance with water demand and fire flow requirements for pressure zone served; Hurlbutt Tank is not constructed to CA Waterworks Standards, difficult to inspect for sanitary condition and difficult to secure from trespass and vandalism and difficult to ensure sanitary conditions are kept year-round due to in-ground construction with nearly flat sloped roof, access hatches, screened soffit vents, large screened roof apex vent, etc., constructed ~1/2 foot above grade. Hurlbutt Tank should be replaced to meet CA Waterworks Standards. The interior of Hurlbutt Tank appeared to be in a sanitary condition during inspection, but I was unable to view the entire interior of the tank

due to design/construction. Recommendation: Add remote monitoring/alarms for low and high water level and add cathodic protection to Alderpoint Road Tank.

E. TRANSMISSION FACILITIES

Describe Facilities. 4" steel pipe in Eel River infiltration gallery wet well for each river pump combine in valving vault into 6" steel pipe to treatment plant; 6" steel pipe from treatment plant to & under Freeway 101; 8" asbestos cement pipe from 101 Freeway to Hurlbutt Tank. However, plan for some future customer services to take water from this line, so it will no longer solely a transmission line in the next few years.

Are there low head transmission lines? Reportedly, no.

Discussion & Appraisal. Reportedly in good condition; Transmission pipe from Eel River infiltration gallery to treatment plant new in 2014.

F. DISTRIBUTION SYSTEM

1. Pressure Zones

Pressure Zone Name	Pressure Range (psi)	Water Sources	Storage Capacity	No. of Conn.
Zone 1 – Main	?	Main-Hurlbutt Tank	0.2 MG	379
Zone 2 – Off Main (Hillcrest Dr.)	?	Main-Hurlbutt Tank *Supply boosted from tank to serve residences near tank.	Zone 1 capacity	6
Zone 3 – Off Main (Maple Ln.)	?	Main-Hurlbutt Tank *Supply boosted from tank to serve Maple Ln.	Zone 1 capacity	21
Zone 4 – Alderpoint Rd.	?	Alderpoint Tank *Zone 1 – Main boosted to tank.	0.2 MG	39
Zone 5 – Arthur Rd.	?	Alderpoint Tank *PRV off Zone 4 – Alderpoint Rd. water main	Zone 4 capacity	18
Zone 6 – Wallen Rd.	?	Wallen Tank *Zone 4 – Alderpoint Rd. boosted to tank.	0.02 MG	7

Discussion & Appraisal. All pressure zones maintained from main zone managed via water levels in the Hurlbutt Tank. Reportedly, service provided in all pressure zones is >= 35 psig.

2. Booster or Reducing Stations

Station	Capacity	Status	From Zone	To Zone	Comments
Booster Station – at Hurlbutt Tank	2 @ 5 HP	active	Zone 1	Zone 2 & 3	Submersible pumps in Hurlbutt Tank. Serves residences on Hillcrest Dr. and Maple Ln.
Pump Station – Alderpoint Rd.	2 @ 15 HP	active	Zone 1	Zone 4	Pumps in lead/lag arrangement. Controlled by pressure transducer in Alderpoint Rd. Tank
Pump Station – Wallen Rd.	2 @ 7.5 HP	active	Zone 4	Zone 6	Controlled by pressure transducer in Wallen Road Tank. Two parallel pumps.
PRV Vault – Arthur Rd.	--	Active	Zone 4	Zone 5	Robertson Tank no longer used to serve Zone 5.
~~*Pump Station – Maple Lane*~~	~~*5 HP*~~	*inactive*	~~*Zone 1*~~	~~*Zone 3*~~	*No longer in use; Isolated from the system. Booster Station at Hurlbutt Tank now used.*

3. Mains

Material	Amount	Size	Condition	Comments
Galvanized Steel	Unknown	1 to 8 inches	Unknown	Extremely poor records of system
Cast Iron	Unknown	1 to 8 inches	Unknown	
PVC	Unknown	1 to 8 inches	Unknown	
Copper	Unknown	1 to 8 inches	Unknown	
Asbestos Concrete	Unknown	1 to 8 inches	Unknown	

Discussion. Reportedly, no complete and comprehensive record or map of existing distribution system. Exact location and delineation of all mains not documented. GSD staff documents water main data when encountered during maintenance, repair, or improvement projects over time.

Main Leak History 2020-2021 (source: EAR)

Type-Calendar Year	Number	Comments
2021		
Service Connection Breaks/Leaks	7	Repaired leak
Main Breaks/Leaks	4	Repaired main
TOTAL	**11**	
2020		
Service Connection Breaks/Leaks	18	Repaired broken laterals
Main Breaks/Leaks	4	Repaired main
Water Outages	3	Main break
TOTAL	**25**	

Discussion. Water system to perform adequate flushing, disinfection, and "special" bacteriological sampling after water main repairs in accordance with AWWA Standard C651; NOTE: The 2017 AWWA Partnership for Safe Water Distribution System Optimization Program performance goal for a fully-optimized distribution system is no more than 15 breaks/leaks per 100 miles of pipe annually (i.e., 1 break/leak per 6.7 miles of pipe annually) **-OR-** a declining 5-year break/leak frequency trend that demonstrates progress towards optimization.

Are there low (or high) operating pressures in water mains? Reportedly, no pressure issues.

Are Distribution facilities constructed in accordance with **Waterworks Standards**? Yes for new facilities, Unknown for older existing infrastructure reportedly due to limited or no records, distribution maps, etc.

Describe **water main & sewer line separation** practices: There is a sewer collection system and wastewater treatment facility located on Connick Creek Road. Unknown whether separation criteria met for all water mains reportedly due to limited or no historical records and distribution maps.

Extent of **lead** pipes, etc. Unknown; Per a letter dated 6/25/2020, GSD requested financial assistance in order to complete the lead service line inventory and to verify existence of any lead piping, fittings, etc. Per a letter dated 7/1/2020, GSD presented a proposal and schedule to complete the lead service line inventory by 7/1/2022. DDW followed-up via email on 8/24/22 requesting status and is waiting for GSD to complete the survey and report the results.

G. WATER QUALITY & MONITORING

1. Bacteriological Monitoring

Raw Source Water Monitoring

Description of program. This water system is required to monitor the raw, unchlorinated surface water supply for total coliform and Escherichia coli (E.coli) bacteria using density analysis at least once per month; Tobin Well is not constructed to CA Waterworks Standards and historical raw water bacteriological monitoring records are limited; therefore, this water system is required to monitor the raw, unchlorinated groundwater well supply monthly for presence of coliform and Escherichia coli (E.coli) bacteria per rTCR.

Raw Source Water Bacteriological Results Summary.

Year	Total Coliform Organisms (MPN/100 mL)			Escherichia coli (E.coli) (MPN/ 100 mL)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
2021	1	816.4	146.8	Non-detect	63.8	6.6
2020	Non-detect	58.1	13.7	Non-detect	4.1	0.43
2019	Non-detect	160.7	30.1	Non-detect	127.4	11

Additional Cryptosporidium sampling required? No; System serves less than 10,000 people; Supply source is Luffenholtz Creek watershed via infiltration gallery surface water diversion; Annual mean E.coli concentration sampling results indicate less than 50 E.coli/100 mL.

Discussion. **Need to perform raw, unchlorinated groundwater** monitoring at Tobin Well for the presence of coliform and E.coli bacteria monthly.

Routine Distribution Bacteriological Monitoring

Description of program. Distribution monitoring requirements are based on the number of service connections, population size, number of pressure zones, and other site-specific factors; Based on CCR, Section 64423, Table 64423-A for monthly population served of 1,001 – 2,500, 401 – 890 service connections, this water system is required to collect at least two (2) routine bacteriological samples in the distribution system every month to be

analyzed for the presence or absence of coliform and Escherichia coli (E.coli) bacteria; One sample is to be collected every ~two (2) weeks during a month in accordance with the DDW-approved Bacteriological Sample Siting Plan (BSSP); The BSSP must provide sample locations representative of the treated water quality provided throughout the distribution system in each pressure zone; Rotate sample sites monthly to ensure all pressure zones are sampled each year. Free chlorine residual must be measured at the same location and time that a routine bacteriological sample is collected.

Routine bacteriological sample siting plan (BSSP) for distribution approved & current? BSSP on file but need updated sampling plan on new format to address recently adopted revised total coliform rule (rTCR).

Who collects the samples? Operators

Controlling factor for required number of routine distribution samples per month (population or service connections)? Population served and characteristics of distribution system.

Minimum number of samples required in distribution? Two per month (collected one every 2 weeks).

Special or other additional monitoring done in past year: None.

Name/location of analytical laboratory: North Coast Laboratories Ltd., Arcata CA, (707)-822-4649.

MCL violations in past year? None.

Boil Water Orders/Notifications Issued? Reportedly, none.

Discussion: At this time, not required to provide additional cryptosporidium sampling per review of raw water bacteriological results; **Need updated BSSP to address rTCR.**

2. Chemical Monitoring

Description of program. One surface water infiltration gallery source (PS Code: CA1210008_001_001) drawing from Eel River and classified as CLSP; One ground water well (PS Code: CA1210008_003_003) and classified CLGP.

Who collects samples? Operators

Discussion & appraisal. Updated raw source water monitoring schedules for the supply sources provided to the water system with inspection report and a copy sent via email. **Nitrate and VOC monitoring for Tobin Well is PAST DUE.**

Other Organics. None.

3. Disinfection Byproducts (Trihalomethanes, TTHM and Haloacetic Acids, HAA5).

Description of program. RAA 2005-2010 <40/30 TTHM/HAA5. System qualifies for Federal DBPR Stage 2 40/30 Waiver. Stage 2 DBP Plan signed by the District 8/21/2013, approved by DDW. Requires 1 DSS sample per year during summer from the hydrant across from 1100 Wallen Road.

Distribution Sampling Data for TTHM and HAA5.

Date	TTHM Result (µg/L)	TTHM LRAA (µg/L)	HAA5 Result (µg/L)	HAA5 LRAA (µg/L)
2022	*TBD*	*TBD*	*TBD*	*TBD*
2021	24.39	24.39	12.91	12.91
2020	12	12	10	10
2019	11	11	16	16
2018	21, 11	16	25, 5.4	15.2

Discussion: Reportedly, improvements made to disinfection segment after 2016 are more effective in managing/optimizing sodium hypochlorite disinfection process, lowering free chlorine residuals post CT Vessel, and reducing the potential for DBP generation. Reported DBP sampling results since 2016 demonstrate compliance with MCLs post improvements.

4. Lead and Copper Rule.

Description of program. (CCR, Section 64675, 64675.5) Water system is performing lead and copper sampling at 10 sites every three years in either June, July, August, or September under reduced tap sampling as required.

Distribution Sampling Data for Lead and Copper.

Date	No. Samples	90% Lead (mg/L)	90% Copper (mg/L)	Comments
2022	10	*TBD*	*TBD*	*2020-22 DUE*
2020	10	ND	0.16	*2017-19 Make-up sampling; Complies with ALs*
2019	10	DNS	DNS	Missed; Citation issued requiring 2020 sampling
2/2/16	10	ND	0.19	2014-16; Complies with ALs
9/11/12	10	0.00192	0.19	2010-12; Complies with ALs
9/15/09	10	0.0033	0.47	2007-09; Complies with ALs
9/14/06	10	ND	0.46	2004-06; Complies with ALs
9/1/03	10	ND	0.43	2001-03; Complies with ALs

Date	No. Samples	90% Lead (mg/L)	90% Copper (mg/L)	Comments
10/1/00	10	0.006	0.38	2000-02; Complies with ALs
8/31/99	20	ND	0.43	1 Year; Complies with ALs
7/1/94	20	0.006	0.52	6-month; Complies with ALs
12/1/93	20	ND	0.36	6-month; Complies with ALs
DNS = Did Not Sample; TBD = To Be Determined; ND = Non-Detect				

Discussion: System was issued citation for missed monitoring in 2019 with requirement to make-up in 2020; System is now current with lead and copper monitoring requirements with next sampling due by 9/30/2022. Recent historical sampling results indicate no lead or copper action level exceedances; Continue on reduced sampling tap frequency performing monitoring every 3 years.

5. **Additional Monitoring:** Asbestos sampling in the distribution system is required every 9 years, at minimum. Sampling to be performed at a tap served by asbestos-cement pipe under conditions where asbestos contamination is most likely to occur.

Distribution Sampling Data for Asbestos.

Date	12/16/1998	Summer 2009	Summer 2016	Summer 2022
Result (MFL)	Non-detect	Missed?	Missed?	**PAST DUE**

Discussion: System is past due on asbestos sampling in the distribution system; GSD was directed to sample by September 30, 2022, in the inspection letter.

6. Was the **Consumer Confidence Report (CCR)** sent to the customers? Yes.
Date sent? 6/2/22 Is a copy of the report on file with DDW? Yes.
Are there needed additions or changes? None.
7. Most recent **Annual Report to Drinking Water Program** sent to DDW? 5/20/22

H. OPERATION & MAINTENANCE

1. Planning & Personnel.

System improvements made per Waterworks Standards? Reportedly, yes.
Does the utility have up-to-date distribution system maps? No.
Is up-to-date copy of system schematic on file? No. General Conceptual Schematic provided with this report.
What are the minimum WTO and WDO requirements? T2 and D2.

Certified Personnel	Title	Treatment	Treatment Expiration Date	Distribution	Distribution Expiration Date
Ralph Emerson	General Manager	T1 #36423	7/1/23	D2 #45367	5/1/24
Dan Arreguin	Chief Operator	T2 #33213	1/1/24	D2 #39353	11/1/23
Brian Miller	Operator	T2 #33055	4/1/25	D2 #39410	11/1/23

Discussion. Operator and certification requirements for water system are met.

2. **Water System Funding:** What are the water rates billed to customers?

Residential Water Rates RATE PER MONTH STARTING					
Description	June 2020	July 2021	July 2022	July 2023	July 2024
Base rate – all meter sizes ($/mo.)	65	70	75	79	79
Upper zone surcharge – Meadows ($/mo.)	8	9.5	11	12	12
Consumption Charges:					
Residential Tier 1: 0-8 units ($/hcf)	1	1.75	2.5	3	3
Residential Tier 2: 9-20 units ($/hcf)	3	3.75	4.5	5	5
Residential Tier 3: 21 + units ($/hcf)	11	11	12	13	13
Upper Zone Variable Surcharge ($/hcf)	1	1	1	1	1

Date of most recent water rate revision? 2020-24
Does water system have a Capital Improvement Plan? Yes, projects based planning for new tank replacements and meadows aerial waterline over Bear Gulch. Recommend developing general distribution system capital improvement plan program (CIPP) to be update at future periodic intervals (e.g. every 5 years).
Does water system maintain cash reserves? Yes.

3. Cross-Connection/Backflow Prevention Control Program

Cross-connection control ordinance on file? Yes, adopted 3/22/16; Copy on file at DDW.

Does the system have a cross-connection/backflow prevention program? Yes.
Date of last cross-connection control survey completed: Reportedly, 10/9/21
Total number of backflow assemblies: 11
Number of active backflow assemblies in service: 11
Number of inactive backflow assemblies: 0
Are backflow assemblies tested at least annually as required? Reportedly, yes. Last tested in 2021.
Program inspector(s): Operators implement and maintain cross-connection control program.
Certified backflow device tester: Brian McNeill, Cert.#10383 by NCBPA.
Discussion. Based on reports, GSD is in compliance with requirements.

4. **Complaints Program.** Formal complaint program consists of logging the complaint, investigating the complaint, correcting any problems, and responding to the complainant; GSD also provides a citizen complaint form that can be downloaded from GSD's website under Customer Comment and faxed or emailed to them.

Type-Calendar Year 2021	Number	Comments
Taste and Odor	2	Smell of chlorine noticed by operator
Color	1	Tap in home was flushed
Turbidity	0	
Visible Organisms	0	
Pressure (high or low)	3	Pressure was raised
Outages	0	
Illnesses (waterborne)	0	
Other	0	
TOTAL	6	
Type-Calendar Year 2020	**Number**	**Comments**
Taste and Odor	6	Changed chlorine dosage
Color	0	
Turbidity	0	
Visible Organisms	0	
Pressure (high or low)	3	None
Outages	0	
Illnesses (waterborne)	0	
Other	0	
TOTAL	9	

Discussion. Complaint tracking and follow-up appears adequate.
Up-to-date **emergency notification plan** on file? Yes, but need updated.
Does the system have an emergency response plan? Reportedly, yes dated 4/6/21
Emergency disinfection plan up-to-date? Reportedly, yes.
Does the system notify DDW of significant system problems? Reportedly, yes; GSD knows to notify DDW.

5. **Main Disinfection Program:** Reportedly, Water system follows flushing, disinfection, and follow up special bacteriological sampling procedures per AWWA.
Does the main disinfection program comply with AWWA standards? Reportedly, yes.

6. **Valve Maintenance**
Description of program. No formal valve exercising program. Reportedly, most valves exercised over 24-month period. No complete/comprehensive distribution mapping, so unknown whether all valves in system are known.
Are number & location of valves satisfactory? Reportedly, 170 (2-in. to 8-in.)
Discussion: Reportedly, most valves exercised about every 2 years.

7. **Flushing:** Reportedly, flushing is performed throughout the year quarterly.
Approximate number of dead-ends Unknown Percent with flushing valves Unknown %
Discussion. Reportedly, system is flushed at known dead-ends and other locations but system lacks comprehensive maps of distribution system construction.

8. **Facility Data Sheets**
List Facility Data Sheets in File (Facility/Date; See *Permit Manual*, Appendix L for examples). (2016) Engineering plan/specs for new treatment plant upgrade and new Alderpoint Tank on file at DDW; No comprehensive/complete distribution map with construction details or data sheet for other facilities.
Does the utility have up-to-date distribution system maps? Yes
Is up-to-date copy of system schematic on file? Yes.

I. CLIMATE CHANGE VULNERABILITY ASSESSMENT

1. **Fire.** Is a Defensible Space of 100 feet (California Public Resources Code, 4291) maintained around all structures managed by this CWS? System meet demand plus fire flow requirements? No, not for all facilities; Treatment Plant and Alderpoint Road Tank appear to have adequate defensible space; Tobin Well appears to have adequate defensible space and building has metal siding/roof which may reduce fire vulnerability; Eel River Infiltration Gallery facilities (i.e. above grade power appurtenances at wet well site and backup diesel generator site) are surrounded by significant vegetation which may increase fire vulnerability; Wallen Tank is redwood construction and likely vulnerable to fire due to location and road accessibility; Hurlbutt Tank wood roof construction is likely vulnerable to fire though appears there is defensible space available surrounding the tank; Alderpoint Road Pump Station wood-constructed building may have adequate road accessibility but building may be vulnerable to fire due to location and building material (i.e., near vegetation and trees); Wallen Tank Pump Station wood-constructed building may have adequate defensible space next to building but is located along a steep grade with significant vegetation next to and below the building which may increase fire vulnerability due to location and building material.
2. **Flooding.** Are any of the drinking water facilities vulnerable to flooding? (Per F.Saylor research) Cascadia Earthquake and Tsunami: Tsunami appraisal performed by FEMA has identified roughly 200-foot MSL as the high-water mark for the Cascadia Earthquake Event Tsunami. The elevation of the majority of the service area is roughly 500 feet MSL or greater. Thus, it is not likely that Cascadia Earthquake and Tsunami would reach the Garberville facilities. Eel River flood stages: 1) The Eel River flood stage is below the treatment plant and other system facilities. The Eel River raw water pumps are submersible and designed to operate under water. No facilities observed vulnerable to reasonably expected flooding conditions during inspection.
3. **Drought.** Is the system prepared for drought related shortages or outages? (e.g., Interties, backup supply, increased storage, etc.) (Y/N) Unknown; System has single primary surface water source, Eel River and a backup well source, Tobin Well only used for emergency purposes. No reported outages to DDW during recent drought years. System is planning for increasing storage with new tank construction projects which may improve preparation for drought related shortages or outages.
4. **Backup Power.** Is backup power available via portable generators or permanent generators? (Y/N). If liquid fuel is used, is it properly contained and stored away from the source? (Y/N). Yes, a permanent backup power diesel generator for raw water river pumps at the Eel River Infiltration Gallery and a permanent backup power diesel generator at the treatment plant for finished water production and boosting to Hurlbutt Tank.

J. OVERALL SYSTEM APPRAISAL.

Reportedly, finished water quality complies with state and federal regulatory requirements as specified under the Surface Water Treatment Rule since last inspection; Recommend GSD have an engineered hydraulic profile of the water system completed, and if completed, please provide a copy to DDW; Need to measure and report flow and turbidity of recycle water when reclaiming settled backwash to the headworks; Past due on asbestos distribution sampling; Need to begin routine raw, unchlorinated bacteriological monitoring of Tobin Well year-round (see cover letter to this report); Need updated BSSP and WQENP; Nitrate and VOC sampling for Tobin Well is past due; Complete water system data sheets included with this report and provide copies to DDW; Need operator to keep records of performing weekly turbidimeter accuracy validation onsite at the treatment plant. See the attached Water System Record for deficiencies, recommendations, and reminders based on this field inspection and follow-up file review of records provided to DDW.

K. APPENDIX:

Water System Record
BSSP Form
WQENP Form
Tobin Well Monthly Report Form
Raw Water Chemical Monitoring Schedule
Water Distribution Chemical Monitoring Schedule
General Water System Schematic
Facility Data Sheet Forms & GSD Water Supply Permit
Monthly Disinfection & Complaints Summary Form
Monthly rTCR Bacteriological Summary Form
Monthly Turbidity Summary From

Report prepared by: Scott Gilbreath

9/1/22

Signature Date

WATER SYSTEM RECORD

Name of System: Garberville Sanitary District (GSD) **System No.:** 1210008

Date Noted	Description of Defect or Hazard	Order No.	Reported Corrected	Confirmed Corrected
8/19/11	Alderpoint Tank: Roof hatch cover needs complete replacement *New tank constructed in 2015	---	9/10/15	9/10/15
1/29/14	Other defects-WTP inadequacy, Alderpoint tank leakage, etc., will be replaced with new, compliant facilities within the next year	---	1/1/16	1/1/16
2/13/17	Tobin Well: Steel cover plate needs 3 openings sealed	---	1/23/19	1/23/19
2/13/17	Main (Hurlbutt) Tank: seal openings beneath roof-2 locations	---	1/19/19	1/19/19
2/13/17	Alderpoint Road Tank: Screen or otherwise protect overflow outlet	---	1/19/19	1/19/19
5/2/06	Need to adopt a cross-connection control ordinance	---	3/22/16	3/22/16
1/15/19	Revise treatment monitoring records to include daily CT calculations	3/31/19	--	5/18/22
2/13/17	Do filter inspection for 2019; send DDW a copy of the report. (2022) Media replaced 2022, verified during inspection.	6/30/19	--	5/18/22
1/15/19	Need one annual TTHM and HAA5 sample from distribution system during June-September 2019. Completed 7/16/19.	9/30/19	7/16/19	5/18/22
1/15/19	Routine distribution system Lead & Copper sampling due; 10 sites required.*Missed 2019 Sampling; citation issued with requirement to perform in 2020.	9/30/19	9/22/20	5/18/22
1/15/19	Recommend repairing leaking check valve at Arthur Road booster pump station.	R		5/18/22
1/15/19	Recommend rebuilding Tobin Well cover to improve seal & accessibility	R		5/18/22
2/13/17, 5/18/22	Per CCR Title 22 Section 64432.2(a), must sample distribution system water for Asbestos at least once every nine years. **PAST DUE.** Sample at a tap served by asbestos-cement pipe under conditions where asbestos contamination is most likely to occur by September 30, 2022.	3		
1/15/19 5/18/22	Update Water Quality Emergency Notification Plan (WQENP); provide signed & dated copy to DDW.	3		
2/13/17, 5/18/22	Need SWTP operations plan per CCR, Section 64661(a). The operations plan shall consist of a description of the utility's treatment plant performance monitoring program, unit process equipment maintenance program, filter media inspection program, operating personnel, including numbers of staff, certification levels and responsibilities; how and when each unit process is operated; laboratory procedures; procedures used to determine chemical dose rates; records; response to plant and watershed emergencies; and reliability features per CCR, Section 64661(b). Provide copy to DDW.	4		
1/15/19, 5/18/22	Complete and return system facility data sheets. **PAST DUE.** Data sheets and original DDW letter attached with this report.	3		
1/15/19, 5/18/22	Need routine raw water chemical monitoring for Tobin Well completed. Nitrate & VOC monitoring for Tobin Well **PAST DUE**.	2		
1/15/19	Recommend replacing Hurlbutt ~~and Robertson Tanks~~; recommend interim measures prior to tank replacements. (2022) Robertson Tank no longer in use and isolated from system.	R		
1/15/19, 5/18/22	Take monthly raw coliform sample at Tobin Well. **PAST DUE.**	2		
5/18/22	Install dedicated, threadless, down-turned, raw water sample tap at Tobin Well for collecting monthly raw water bacteria samples	2		
5/18/22	Update BSSP for rTCR requirements. Provide copy to DDW.	3		
5/18/22	Provide monthly operator's chlorination log report for Tobin Well with monthly records. *Monthly report template provided to Dan A. of GSD via email on 8/13/22.	2		

Date Noted	Description of Defect or Hazard	Order No.	Reported Corrected	Confirmed Corrected
5/18/22	Recommend completing improvements necessary for Tobin Well construction to comply with CA Waterworks Standards or construct new well.	R		
5/18/22	Update the monthly report to DDW to clearly identify and report the following per CCR, Section 64664(b)(2)(E): The average daily turbidity level measured of the combined filter effluent "finished water" for each day.	2		
5/18/22	Update the monthly report to DDW to clearly identify and report the following per CCR, Section 64664(d)(1): All raw water turbidity measurements taken during the month. If more than one sample is taken each day, the highest value of all samples taken that day may be reported in lieu of reporting all that day's values.	2		
5/18/22	Update the monthly report to DDW to clearly report the following per CCR, Section 64664(d)(4): Daily recycled water turbidity and flow for each day of the month that backwash water was recycled back into the treatment process. If more than one turbidity sample (or flow measurement) is taken each day, the highest value of all turbidity samples (or flow measurements) taken that day may be reported in lieu of reporting all that day's values.	2		
5/18/22	Update the monthly report to DDW with information required to demonstrate compliance with CCR, Section 64664(c)(1) & (2), & Section 64664(f); A report template is attached to this report for reference or use and was provided via email to GSD on 8/4/22.	2		
5/18/22	Update the monthly report to DDW to clearly identify and report the following per CCR, Section 64664(c)(3): For each day the lowest measurement of residual disinfectant concentration in mg/L in the water entering the distribution system. An updated CT Tracking Sheet was provided to GSD via email on 8/8/22 where this daily measurement can be reported.	2		
5/18/22	Reminder: Continuous turbidity measurements of the combine filter effluent may be substituted for the requirement to perform grab sample monitoring at least once every four hours provided the supplier validates the accuracy of the measurements on a weekly basis per CCR, Section 64655(a)(2)(B) footnote (d). **Need operator to keep records of weekly turbidimeter accuracy validation onsite at the treatment plant.**	R	--	--

Order No.

1. Serious health hazard; corrective action must be taken immediately.
2. Critical system or operational defect &/or potential health hazard; must be corrected as soon as possible.
3. System or operational defect &/or potential contamination hazards of lesser public health significance. Must be corrected as workload permits.
4. System or operational defect &/or potential health hazard - costly to correct - to be included in any long-range water improvement project.

R. Requested or Recommended as good waterworks practice.

CALIFORNIA STATE WATER QUALITY CONTROL BOARD

DIVISION OF DRINKING WATER
364 KNOLLCREST DRIVE, SUITE 101
REDDING, CA 96002

Distribution Monitoring Schedule
Garberville Sanitary District
System No. 1210008

CHEMICAL		MCL (mg/L) (u.n.o.)	Recent Data on File with DDW			SAMPLING SCHEDULE								
						2019	2020	2021	2022	2023	2024	2025	2026	2027
Lead and Copper (Section 64685)														
Lead	number of samples date 90th percentile, mg/L	0.015 (a)	10 9/2009 0.0033	10 9/13/12 0.002	10 2/2/16 ND	10 sites *Missed; Cit issued; Sample 2020	10 9/22/20 ND *Make-up, 2019		**10 sites required; take June-Sept. (c)**			10 sites required; take June-Sept. (c)		
Copper	number of samples date 90th percentile, mg/L	1.3 (a)	10 9/2009 0.47	10 9/13/12 0.19	10 2/2/16 0.19	10 sites *Missed; Cit issued; Sample 2020	10 9/22/20 0.16 *Make-up, 2019		**10 sites required; take June-Sept. (c)**			10 sites required; take June-Sept. (c)		
Total Trihalomethanes (Section 64439)														
Total Trihalomethanes = RAA Haloacetics Acids (5) = RAA (d)		Year 0.080 0.060	Many prior - all <<AL's		6/28/18 & 9/18/18 0.016 0.015.2	7/16/19 0.011 0.016	9/29/20 0.012 0.010	8/17/21 0.02439 0.01291	**1 DSS TTHM & HAA5; take July-Sept.**	1 DSS TTHM & HAA5; take July-Sept.	1 DSS TTHM & HAA5; take July-Sept.	1 DSS TTHM & HAA5; take July-Sept.	1 DSS TTHM & HAA5; take July-Sept.	1 DSS TTHM & HAA5; take July-Sept.
Asbestos (Section 64432.2, Table 64432-A)														
Asbestos - Distribution (e)		7 MFL			12/16/98-ND	**once every 9 years**			PAST DUE					

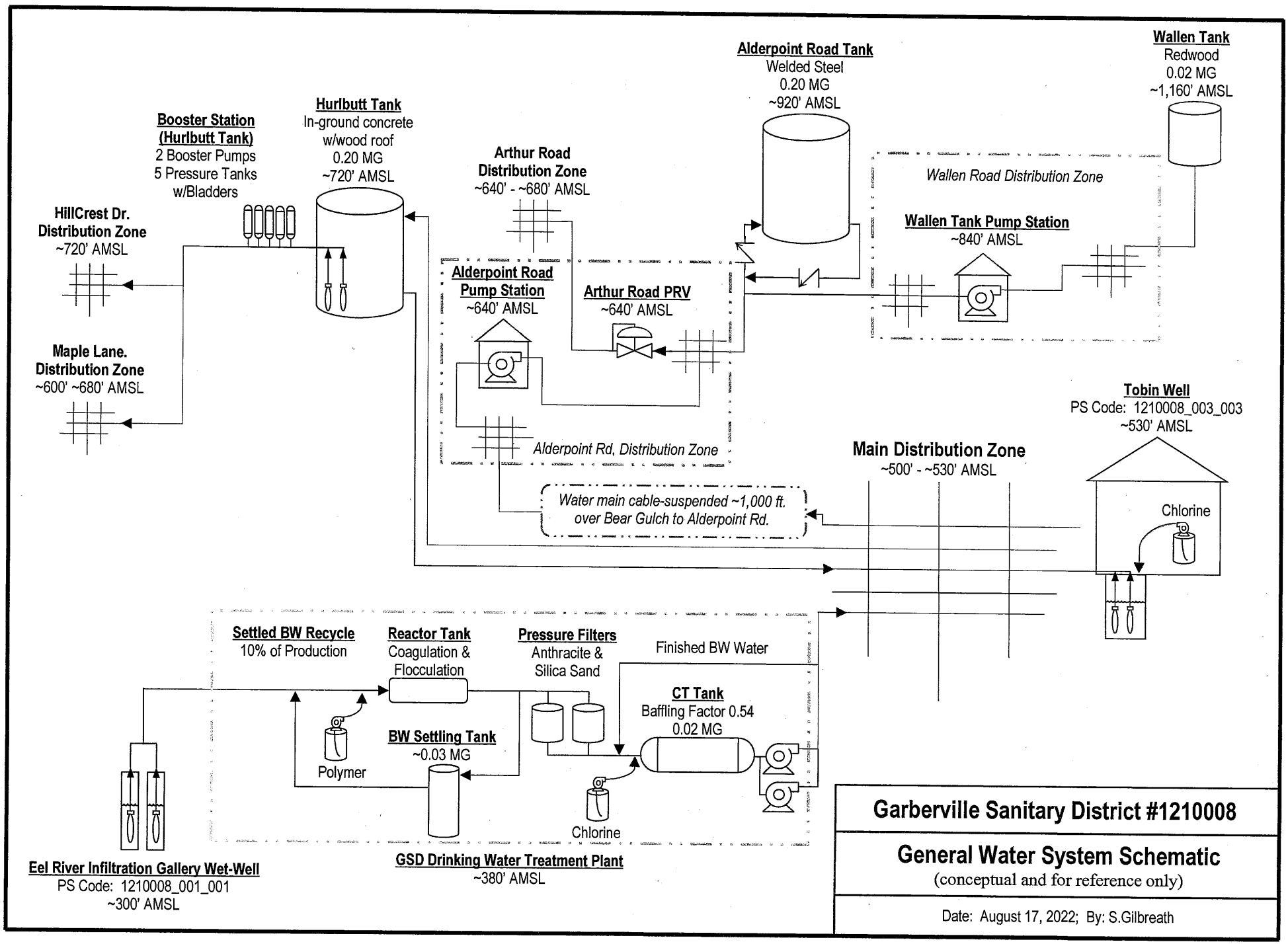
Footnotes:
(a)..90th percentile action level instead of MCL.
(b)..After two six-month sampling periods with no exceedance of action levels, frequency can be reduced to once/year. Sample sites must be chosen from those used in initial two rounds & samples must be taken Jun., Jul., Aug., or Sep.
(c)..After 2 one-year sampling periods with no exceedance of action levels, frequency can be reduced to once every 3 years. Sites must be chosen from those in initial two rounds & samples must be taken in Jun., Jul., Aug. or Sep.
(d)..One sample during warmest month as long as values are TTHM/HAA5 <40/30 PPB
(e)..Also shown on source chemical monitoring schedule.

Abbreviations:

DDW	Division of Drinking Water
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
MFL	million fibers per liter
N/A	Not applicable
ND	None Detected
u.n.o.	unless noted otherwise
DSS	Dual Sample Set

NOTE: THIS SCHEDULE ASSUMES THAT FUTURE LEAD AND COPPER 90th PERCENTILE RESULTS CONTINUE TO FALL BELOW THE ACTION LEVELS

Revised 8/25/22 by SMG



Garberville Sanitary District #1210008

General Water System Schematic

(conceptual and for reference only)

Date: August 17, 2022; By: S.Gilbreath

Appendix D

Division of Drinking Water

Public Water System

Water Supply Permit

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

November 22, 2019

Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542

Attention: Ralph Emerson, General Manager

Subject: Garberville Sanitary District, Public Water System 1210008
Permit 01-01-19(P)001

Please find the enclosed water supply permit for the operation of the Garberville Sanitary District public water system. Implementation and adherence to the permit conditions will help to ensure that your domestic water supply system complies with the California Safe Drinking Water Act and serves water to the public that is continuously safe for human consumption.

If you have any questions, please contact Ronnean Lund at (530) 224-6505 or me at (530) 224-4875.

Barry Sutter, P.E., Klamath District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosures

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Garbverville Sanitary District
Public Water System No. 1210008

By The

State Water Resources Control Board
Division of Drinking Water

PERMIT NO. **01-01-19(P)001** EFFECTIVE DATE: **November 22, 2019**

WHEREAS:

1. The State Water Resources Control Board (State Water Board), through its Division of Drinking Water (DDW) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [State Water Board] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

And WHEREAS:

1. The public water system is known as the Garberville Sanitary District and is located in Garberville California, Humboldt County.

2. The legal owner of the Garberville Sanitary District public water system is the Garberville Sanitary District, whose headquarters is located at 119 Redwood Drive, Garberville, CA 95542. The Garberville Sanitary District, therefore, is responsible for compliance with all statutory and regulatory drinking water requirements and the conditions set forth in this permit.

3. The Garberville Sanitary District public water system meets the criteria for and is hereby classified as a ***community*** water system.

4. The applicant has demonstrated adequate technical, managerial, and financial capacity to operate reliably the proposed water system.

5. The applicant has demonstrated that the existing water system has sufficient source capacity to serve the anticipated water demand for the community.

6. The former owner, *Garberville Water Company*, was issued a permit on February 6, 1978, with a permit engineering report dated December 1977.

7. On October 27, 2011, an amended permit was issued to the current owner, Garberville Sanitary District.

8. An amended permit was issued to Garberville Sanitary District requiring lead sampling at K-12 schools on January 17, 2019.

9. A new surface water treatment plant was constructed in 2015 and a new baffled 20,000 gallon *disinfectant contact time* tank was added in 2018.

10. The 20,000 gallon disinfectant contact time tank was manufactured by *Hyland Tank Company* and has been deemed to provide a baffling factor of 0.54 as demonstrated by a tracer study performed on February 4, 2019, by DDW employee Guy Schott, PE.

11. The Garberville Sanitary District public water system is described below:

    The Garberville Sanitary District (GSD) is a community public water system that serves treated surface water to approximately 442 service connections and approximately 1,500 people in the community of Garberville California, located in Humboldt County. The approved surface water sources are the Eel River Source, and Tobin Well. GSD's surface water is pumped from a wet well which is fed from an infiltration gallery beneath the Eel River. Water is pumped from the wet well to the filtration and disinfection plant where it is treated with coagulant prior to entering a 10,000 gallon flocculation contact vessel which precedes two multi-media pressure filters. After passing through the parallel-configured pressure filters, sodium hypochlorite is added to the water before entering a 20,000 gallon disinfectant contact time tank after which the water enters the distribution system. The plant is capable of recycling backwash water. The GSD's distribution system includes one (1)-200,000 gallon in-ground concrete storage tank with a wood roof, one (1)-50,000 gallon above-ground concrete storage tank with a wood roof, one (1)-200,000 gallon welded steel tank, and one (1)-20,000 gallon redwood tank. There are five pressure zones in the distribution system.

12. The Garberville Sanitary District provides multibarrier treatment of surface water using *direct filtration* and disinfection via chlorination. GSD's treatment plant has been deemed capable of providing 99% (2-log) removal of Giardia lamblia cysts, 90% (1-log) removal of viruses, and 99% removal of Cryptosporidium. The disinfection portion of the water system has been deemed capable of providing 90% (1-log) Giardia lamblia cyst inactivation by chlorination.

13. The design of the current water system complies with the California Water Works Standards and all applicable regulations.

14. The sanitary survey report conducted by DDW on January 15, 2019, serves as the engineering report for this permit.

15. The State Water Resources Control Board, Division of Drinking Water has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

THEREFORE:

The State Water Resources Control Board, Division of Drinking Water determines for the protection of public health, this Domestic Water Supply Permit is hereby issued to the Garberville Sanitary District public water system and is subject to the following conditions:

1. The only water sources permitted for use are the South Fork Eel River (PS Code = 1210008-001) and the Tobin Well (PS Code = 1210008-003).

2. The Tobin Well source water shall be continuously disinfected before entering the distribution system. Free chlorine residuals of at least 0.5 parts per million shall be maintained at the first downstream service connection.

3. A baffling factor of 0.54 or less shall be applied to the effective volume calculation of the 20,000 gallon disinfectant contact time tank in all disinfectant contact time calculations.

4. By not later than January 31, 2020, the Garberville Sanitary District shall complete and submit to the DDW Redding Field Office the following system component Data Sheets:

    a. Pumping Station Data Sheet (each pump station)

    b. Reservoir Data Sheet (each reservoir)

    c. Distribution Data Sheet

    d. Filtration Plant Data Sheet

    e. Surface Water Source Data Sheet

    f. Well Data Sheet

    g. Chlorine Disinfection Data Sheet

This permit supersedes all previous domestic water supply permits issued for this public water system and shall remain in effect unless and until it is amended, revised, reissued, or revoked by the California Water Resources Control Board, Division of Drinking Water. This permit is non-transferable.

Any change in the source of water for the water system, any modification of the method of treatment as described in this permit, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the California Water Resources Control Board, Division of Drinking Water.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

Dated: 11-22-2019

Barry Sutter, P.E., Klamath District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Appendix E

Excerpts from Annexation IS/MND related to Water Capacity

Prepared for:

Garberville Sanitary District

Final Recirculated Initial Study/Mitigated Negative Declaration

Garberville Sanitary District Annexation Project: Change in Jurisdictional Boundary & Place of Use



Prepared by:

Consulting Engineers & Geologists, Inc.

September 2013
011184

wastewater collection infrastructure. The area to meet these additional housing units will need to be annexed into the Boundary once the location for this future development has been identified. The location will be highly dependent upon property owners desiring to develop their property to meet the need for the additional housing units.

See Figure 8 for existing land use designations within and adjacent to the existing GSD boundaries and SOI. See Figure 9 for existing zoning. See Figure 10 for proposed land use designations from the proposed Humboldt County General Plan Update Planning Commission recommended draft.

Table 2
Existing General Plan Land Use Designations in District Boundary

Land Use Designation	Acres	% of Total
Residential Low Density (RL)	32	5.5%
Residential Medium Density (RM)	9	1.5%
Agricultural Rural (AR)	189	32.5%
Agricultural Lands-40 (AL-40)	214	36.8%
Agricultural Suburban (AS)	7	1.2%
Public Facilities (PF)	8	1.4%
Green Gulch	65	11.2%
Commercial Services (CS)	8	1.4%
Commercial General (CG)	31	5.3%
Other (highway/roads)	18	3.1%
Total	**581**	**100%**

Source: Humboldt LAFCo GSD MSR (2013d)

Current Water System

The following is directly obtained from the GSD MSR prepared and approved by Humboldt LAFCo (Humboldt LAFCo, 2013d):

> *The water system consists of two water sources, a treatment plant, four water tanks, three booster stations, approximately 420 active water service connections, and a waterline distribution network. One of the water sources is surface water from the South Fork of the Eel River and one is a shallow well in downtown Garberville. The surface water source is regulated by the California Surface Water Treatment Rules and Regulations.*
>
> *The South Fork of the Eel River Infiltration Gallery provides collection of the main water source. It was originally installed in 1940. The infiltration gallery has one 6-inch, 320-gpm, 50-HP submersible pump that was installed in November 2009 and was replaced in November 2012. The pump operates against an approximate 380 feet differential elevation head. The pump discharges to the water treatment plant adjacent to the 160,000-gallon main storage tank. The pressure filter in the water treatment plant has a limited capacity of 250 gpm. Over the past five years, the treatment plant processed between 55 and 65 million gallons of water each year. The largest year on record was shown on the 1999 Annual Progress Report submitted by the GWC to the State Water Resources Control Board, which showed 80 million gallons of water processed.*

The District holds a water diversion permit from the State Water Resources Control Board for appropriation of water from the South Fork of the Eel River. The permit is number 20789. This permit allows the District to divert a maximum of 0.595 cubic feet per second (267 gpm) from the river, year round. The District also has a fixed license that allows the District to divert an additional 0.155 cfs. The total maximum instantaneous diversion allowed is 0.75 cfs (336 gpm). This would equate to a maximum daily diversion of approximately 484,700 gallons and 177 million gallons per year, if adequate pumps and treatment facilities were available.

The Tobin Well is the only subsurface water source and it has a limited capacity of 40 to 70 gpm. There is substantial draw down during sustained pumping. The District is evaluating the replacement of the pump with a duplex pumping system.

The existing system has adequate production, treatment, and storage capacities for the average peek daily demand. The maximum daily demand is 427,780 gpd recorded during the month of July in 1999. The total storage capacity for the system is approximately 260,000 gallons which is the sum of the four storage tanks in the system. This is sufficient to meet the average dry day water demand. The water treatment facility produces water that meets or exceeds the State regulations for drinking water but does not meet the Surface Water Treatment Regulations. The turbidity and residual free chlorine levels comply with the maximum allowable levels. The existing system provides four pressure zones with adequate pressure throughout the District.

As discussed above, the "face value" of the South Fork of the Eel River diversion permit is 0.595 cfs or 430 acre-feet per year. The "face value" of the South Fork of the Eel River diversion license is 0.155 cfs or 112.2 acre-feet per year. The license amount is fixed so long as the District continues to divert and beneficially use the amount allowed in the license.

The development period for the South Fork of the Eel River diversion permit from SWRCB DWR expired December 31, 1999. During the development period, the maximum amount of water diverted under the Permit for beneficial use was 43,337,048 gallons in 1999. During that same year 36,662,952 gallons were diverted under the license, for a total of 80 million gallons. The terms and conditions of the permit state that the District is limited in all future years to the maximum amount diverted during the development period, unless an extension to the permit is approved by SWRCB-DWR. The District had submitted a petition for extension in conjunction with the petition for change in the POUs, but has since withdrawn that petition for extension in support of converting the South Fork of the Eel River diversion permit into a license. The District cannot divert more than the 80 million gallons under the terms of the license and permit, and the District will indefinitely be limited to 80 million gallons per year of diversion under the combined permit and license.

The following quantities of water were billed to customers within the two POUs and the areas outside of the POU. These numbers do not reflect the bulk water sales, errors in readings, backwashes, nor system losses, but are purely the number of units of water billed to the customers.

Table 3 Water Billed to Customers						
Description	**Connections**	**Units Billed in 2008**	**Units Billed in 2009**	**Units Billed in 2010**	**Units Billed in 2011**	**Units Billed in 2012**
In License POU	255	42,786	43,553	40,435	38,761	37,057
In Permit POU	129	15,228	14,603	14,042	13,613	13,509
Outside POU	34	2,058	2,172	1,485	1,305	3,132
Total[1]	**418**	**60,072**	**60,328**	**55,962**	**53,679**	**53,698**

1. There are three additional water meters that pay the base rate, but do not currently consume water. These customers include the SHCP and two Connick Creek APNs.

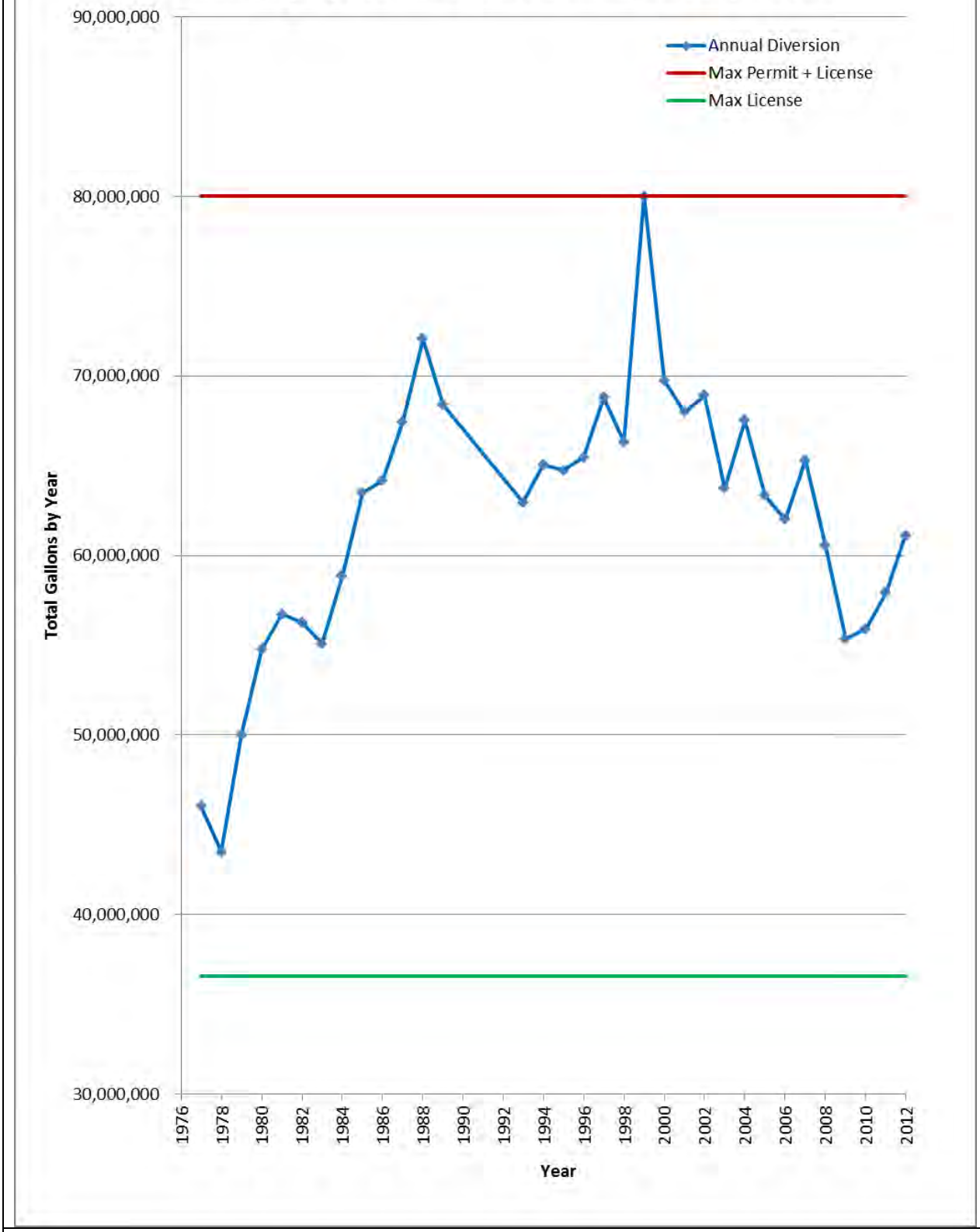
The following graph depicts the annual diversions from the South Fork of the Eel River as reported to the SWRCB for the license plus the permit. The graph reflects the total water diverted by calendar year from the SF of the Eel River. The average from 1985 to 2012 was 65,131,644 gallons per year.

Figure 3b in Attachment 1 illustrates the APNs that are not currently consuming water. There are APNs within the existing jurisdictional boundary, the existing license POU and the existing permit POU that are not consuming water.

In addition to the annual average, the total consumption of the 20 Kimtu Meadows Subdivision customers for August 2012 through June 2013 was 2.4 million gallons, when annualized is 2.6 million gallons. The KMWC was utilizing an unauthorized diversion from the South Fork of the Eel River. When KMWC consolidated to GSD, the historical diversion amount under the unauthorized diversion was not added to the GSD license or permit although this unauthorized diversion has ceased. Thus, GSD must serve these 20 new connections from the existing diversion limits on the license and permit. This additional diversion amount was included in half of the 2012 reporting amounts, but none of the previous years, and is not accounted for in the average annual diversion amount. The 2013 annual report will be the first time that the total annual amount of additional diversion to service the Kimtu Meadows Subdivision has been included in the total water consumption for the District. This additional diversion amount for Kimtu has been accounted for below, as part of the baseline conditions for water consumption.

In addition to the existing consumption, there are vacant APNs and/or APNs that are not GSD customers and are not consuming water within the existing permit and license POUs. For the purposes of determining potential water consumption within the existing license and permit POUs, the following tables 4 and 5 document by APN the potential water consumption in areas within the license POU and permit POU that may be realized in the future if the parcels not currently consuming water becomes GSD customers. The parcels not currently consuming water in the permit POU expansion area were not included, because all of these APNs are also included in the annexation area which is summarized below.

The potential water consumption is based upon the customer type, zoning, and estimates the anticipated future consumption associated with each APN. The GSD customers' billing data was separated by billing code into two categories: residential and commercial/industrial. This separated data was then averaged. The average annual demand of the GSD commercial customers is 177,500 gallons or 237 units per year. This average has been applied to the properties that are commercially or industrially zoned. The average demand of the GSD residential customers is 70,500 gallons or 94 units per year, and this average has been applied to parcels that are residentially zoned.



Graph 1. Summary by Year of Water Diversion Reported

Table 4 APNs Not Currently Consuming GSD Water in Existing Jurisdictional Boundary and License POU				
APN	**Acres**	**Zoning[1]**	**Potential Development (Residential or Commercial)**	**Annual Consumption Potential Based upon Development Type (gallons)**
032-042-017	0.17	C-2-D	Commercial	177,500
032-102-028	0.26	R-4	SFR[2]	70,500
032-231-045	1.65	RS-B-5(5)	Has Shops	177,500
032-111-024	1.41	R-4-Q	16 multifamily units	1,128,000
032-121-019	0.55	C-2-D	Commercial	177,500
032-121-020	0.48	C-2-D	Commercial	177,500
			Total	**1,908,5001~~,908,500~~**

1. C-2-D: Community Commercial-Design Review Combining
   R-4: Apartment Professional Zone
   R-4-Q: Apartment Professional Zone – Qualified Combing Zone
   RS-B-5(5): Residential Suburban- Special Building Site, 5 acre minimum lot size
2. SFR: Single Family Residence

Table 5 APNs Not Currently Consuming GSD Water in Existing Jurisdictional Boundary and Permit POU				
APN	**Acres**	**Zoning[1]**	**Potential Development (Residential or Industrial**	**Annual Consumption based upon Development Type (gallons)**
223-181-012	1.79	AE-B-6	SFR[2]	70,500
223-181-017	2.03	AE-B-6	SFR	70,500
223-181-020	2.52	AE-B-6	SFR	70,500
223-183-010	2.38	AE-B-6	SFR	70,500
032-231-056	0.77	R-1	SFR	70,500
032-231-053	0.20	R-1	SFR	70,500
032-231-054	0.10	R-1	SFR	70,500
032-231-016	0.53	R-1	SFR	70,500
032-231-028	0.12	R-1	SFR	70,500
032-231-043	0.85	R-1	SFR	70,500
			Total	**705,000**

1. AG-B-5(5): Special Building Site, 5 acre minimum lot size
   AE-B-6: Agriculture Exclusive, Special Building Site Combining Zone -6 acre minimum parcel size
   MH: Heavy Industrial
   RS-B-5(5): Residential Suburban- Special Building Site, 5 acre minimum lot size
2. SFR: Single Family Residence

Table 6 APNs Not Currently Consuming GSD Water Outside Existing Jurisdictional Boundary and Inside Permit POU				
APN	**Acres**	**Zoning[1]**	**Potential Development (Residential or Industrial**	**Annual Consumption based upon Development Type (gallons)**
223-171-002	1.14	MH	Industrial	177,500
223-171-007	5.57	MH	Industrial	177,500
032-211-014	0.54	RS-B-5(5)	SFR[2]	70,500
032-211-021	8.83	RS-B-5(5)	SFR	70,500
032-171-015	4.16	AG-B-5(5)	SFR	70,500
			Total	**566,500**

1. AG-B-5(5): Special Building Site, 5 acre minimum lot size
   AE-B-6: Agriculture Exclusive, Special Building Site Combining Zone -6 acre minimum parcel size
   MH: Heavy Industrial
   RS-B-5(5): Residential Suburban- Special Building Site, 5 acre minimum lot size
2. SFR: Single Family Residence
   Potential development also included in areas proposed for annexation into the jurisdictional boundary.

Table 7 summarizes the existing water consumption from the current water customers and potential consumption from the existing permit and license POU.

Table 7 Summary of Water Consumption	
Description of Consumption	**Amount (gallons)**
Existing Average Use	65,131,644
Kimtu Meadows Subdivision Customers	2,600,000
APNs Not Currently Consuming GSD Water in Existing Jurisdictional Boundary and License POU	1,908,500
APNs Not Currently Consuming GSD Water in Existing Jurisdictional Boundary and Permit POU	705,000
APNs Not Currently consuming GSD Water Outside Existing Jurisdictional Boundary and inside Permit POU	566,500
Total	70,911,644

There are also two APNs for which there is either a historical water service or a contract that obligates GSD to provide future water service. One is APN 222-091-014 and the other is APN 222-156-012. APN 222-091-014 has been allocated up to 2,000 cubic feet per month (180,000 gallons per year) and APN 222-156-012 allocated one SFR connection. This brings the total allocated water to 71,162,144 gallons per year.

XVII. Utilities and Service Systems. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X		
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have insufficient water supplies available to serve the project from existing entitlements and resources (i.e., new or expanded entitlements are needed)?		X		
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Violate any federal, state, and local statutes and regulations related to solid waste?				X

Thresholds of Significance:

This IS/MND considers impacts of the proposed project as follows: a) result in expansion of existing wastewater facilities or construction of new wastewater facilities and exceeding wastewater treatment requirements established by the RWQCB; b) result in environmental effects caused by the construction of any new stormwater drainage; c) result in expansion of water entitlements due to insufficient supplies for the proposed project; d) exceed the capacity of the wastewater treatment provider and/or landfill provider, thus impacting their service commitments to other customers; or e) result in the violation of any federal, state, or local solid waste regulations.

Discussion:

(a and e) Less Than Significant Impact: The GSD is not proposing to provide sewer services to all of the proposed annexation areas, thus a separate service area is proposed to provide only water service. Of the 11 APNs that are proposed to be served both water and sewer service, 9 SFRs are within a "Housing Opportunity Zones." In November 2011, the NCRWQCB issued Order No. R1-2011-0096 WDID No. 1B831200HUM which contains capacity limitations of an average dry weather flows (ADWF) of 0.162 million gallons per day and an average wet weather flow (AWWF) of 0.235 million gallons per day. The ADWF for the new plant is about 59,000 gallons per day, and the AWWF for 2011 and 2012 is 130,412 gallons per day, which is 55.49 percent of the AWWF allowed in the WDID order. The WWTP is currently operating at 38.88 percent of the capacity during dry weather flows. There is sufficient wastewater capacity to serve these future users because the treatment plant is operating well below the allowable flows in the order; therefore, the project will not result in exceeding applicable RWQCB requirements. Furthermore, the existing services will

continue, and APNs with existing onsite wastewater systems will not be required to connect to the wastewater system unless there is a failing onsite wastewater system or new project or permit is issued.

Cumulative Impacts

The GSD recently constructed the Wastewater Treatment Plant Improvement Project to achieve compliance with the NCRWQCB WDR Order No. R1-2000-58. On November 29, 2004, the North Coast Water Board issued CDO No. R1-2004-0097 due to chronic violations of effluent limitations for various constituents, including BOD, TSS, and Total Coliform. In addition, effluent flow rates chronically exceed the Monthly ADWF effluent limitation during the months of June through October. This project was completed in 2011. The NCRWQCB adopted Order No. R1-2011-0096 on November 3, 2011, which rescinded previous orders. This WDR contains capacity limitations for an average dry weather flow of 162,000 gpd, 235,000 gpd average wet weather flow, and wet weather peak flow of 600,000 gpd. The treatment plant is currently operating at 38.88 percent of the capacity during dry weather flows and 55.49 percent of average wet weather flows.

One project recently constructed is the Chautauqua Natural Food Store located in downtown Garberville. This project included a general plan amendment and zone reclassification to change the 9,800 square foot parcel from Residential, Multiple Family (RM) general plan land use designation and zoned Apartment Professional (R-4) to Commercial General (CG) plan designation and Community Commercial (C-2) zone classification. The result of the general plan amendment and zone reclassification will result in relocation of the Chautauqua Natural Foods to the Masonic Lodge Building and the development of four apartment units on the second floor. Information about this project was gathered from the June 14, 2010 staff report to the Humboldt County Planning Commission (Humboldt County, 2009a). Sufficient wastewater supplies are available for this project.

Another project in Garberville is the Winters multifamily project on APN 032-111-024 (16-units proposed). This project only required a building permit from the Humboldt County Planning and Building Department. Sewer service is proposed. It is estimated that this project will utilize up to 1,128,000 gallons of water per year and discharge approximately 789,600 gallons of sewage per year (2,163 gpd).

The wastewater system is operating below its capacity it is capable of serving the additional development that could result from this project and the other related cumulative projects identified. Therefore, the cumulative impacts to exceeding wastewater treatment requirements of the applicable RWQCB are less than significant.

(b and d) Less Than Significant with Mitigation Incorporated:

Background

The purpose of the annexation is to change the existing District boundary to achieve consistency with the actual area being served.

GSD holds water diversion license #03404 from the SWRCB for appropriation of water from the SF Eel River, which allows the instantaneous diversion rate of 0.155 cfs, which is equivalent to 112.2 acre-feet or 37 million gallons annually for continual diversion. At the same point of diversion, GSD maintains a water diversion permit #20789, which allows a total annual diversion of 430 acre-feet,

which equals a continual maximum (instantaneous) rate of 0.595 cfs. The total of these two diversion rights is 177 million gallons per year (542 acre-feet per year), or continual maximum withdrawal rate of 0.75 cfs. This would equate to a maximum daily diversion of approximately 484,000 gallons, if adequate pumps and treatment facilities were available. The new drinking water treatment plant will be capable of pumping and treating up to 336 gallons per minute and can divert this maximum amount. Over the past five years, the water treatment plant processed between 55 and 65 million gallons of water each year. The average from 1985 to 2012 is 65,131,644 gallons per year. The 1999 Annual Progress Report submitted to the SWRCB documented the greatest year on record of 80 million gallons of processed water from both the license and permit. The maximum future annual diversions are limited to the maximum amount diverted under the permit development timeframe. This timeframe expired December 31, 1999, therefore the 80 million gallon maximum diversion for 1999 is the maximum annual diversion allowed for the license plus the permit. The maximum daily demand was recorded in July 1999 and was 427,780 gallons.

Potential Development

The following section presents a discussion regarding the potential water consumption that could result from the potential future development within the project area. A summary of this information is also presented in Table 9, above.

The change in boundary will result in several APNs that are vacant and/or not currently fully developed under current regulations that could be further developed for housing. The development potential was derived from a review of all areas proposed for annexation. The project could result in development of an additional 14 SFRs on a combination of vacant or underdeveloped APNs. Of these 14 SFRs, three are already within the POU and were accounted for in the baseline analysis above. Based on the average consumption of a single family residence (70,500 gallons), the projected consumption of development potential of the remaining 11 SFRs is 775,500 gallons per year. Because one of the vacant residential APNs is within the existing license this quantity of future water consumption was assumed as part of the baseline.

There are also two industrial APNs that are vacant in the annexation area that are within the POU and the future consumption for those two parcels was included in the baseline above. There is one industrial APN that is currently developed with a residence that could develop into an industrial customer. The additional water consumption for this conversion is 107,000 gallons per year. This information was included in the baseline information because they are located within the existing Permit POU, but outside the existing jurisdictional boundary.

There could be development as a result of "Housing Opportunity Zones" and second dwelling units, but this is considered unlikely due to the previous development history that does not include second dwelling units in the Garberville area. There are 14 APNs within "Housing Opportunity Zones," and 9 APNs that are allowed second dwelling units (these are all within the "Housing Opportunity Zones)," and one APN with Agriculture Exclusive zoning that allows 4 single detached dwelling units. For planning purposes, water supplies were identified to include potential second dwelling units. Assuming that most second dwellings units are equivalent to an apartment type user, Metcalf & Eddy's estimates that apartment flows are approximately 93% of the average residential house. Using this ratio, the equivalent consumption per second dwelling unit would be 65,465 gallons per year. For the 14 APNs located within a "Housing Opportunity Zone," this would equate to an additional 1,198,510 gallons per year.

In addition to the potential development as a result of the project, there is one developed APN in the Connick Creek subdivision that uses a water source other than GSD. GSD is contractually obligated to provide service to this parcel should they apply, so that APN has been included in the summary of water consumption (Table 10) because water service could be requested in the future. This amount is for one SFR.

Table 10
Summary of Water Consumption for Expanded Jurisdictional Boundary

Description of Consumption	Amount (gallons)
Baseline (from Table 7)	70,911,144
11 SFRs	775,500
14 "Housing Opportunity Zones"	1,198,510
APN 222-156-012 (Connick Creek Subdivision Parcel with own water source)	70,500
Total Potential Water Consumption	72,955,654

This demonstrates that on average, the GSD's license and permit maximum diversion of 80 million gallons per year is sufficient to accommodate the average total water consumption at build out with approximately 7,044,346 gallons per year excess. Other than the maximum year of 1999, there has been no other year since 1977 for which the diversion would have exceeded the allowable 80 million gallons after factoring in all of the non-consuming parcels and the development potential in the annexation and POU expansion areas.

The existing system has sufficient water supplies available to serve any potential future development on APNs that are part of the project from the existing license and permit. Because the water license and permit have limits and individual consumers will change over time, Mitigation Measure No. 1 has been included to ensure that GSD has sufficient water supplies for any future development or change in intensification of use. Mitigation Measure No. 1 includes adoption of an ordinance by the GSD that, at a minimum, states that any future and existing development that proposes intensifying uses within the GSD service boundaries that relies on use of the GSD services for implementation will be reviewed by the GSD. A "will serve" letter will be provided to the developer that indicates the ability of the GSD to provide a service connection, based upon the current system capacity (water or wastewater) to provide that service. The ordinance will clearly articulate that future connections to the GSD services will be based, in part, on availability of the water or wastewater system to handle additional demands. Additionally, any change to the General Plan and zoning requires discretionary review by GSD.

Future Service

APN 222-156-012. Water service is currently provided to the Connick Creek area from a master meter regulated by the GSD. Mitigation Measure No. 2 has been included to address continuing service from the Connick Creek Subdivision private water line because it will not be maintained by the GSD. GSD will not be financially responsible for any modification necessary to ensure that distribution meets appropriate and applicable regulations for providing water service or costs associated with obtaining easements. This will ensure that GSD activities will not result in impacts to the delivery of water service that could potentially require the construction of new water treatment facilities or expansion of existing facilities. Furthermore, APN 222-156-012 was a party to the Connick Creek Subdivision agreement recorded on October 8, 2010, as Instrument Number 2010-22217-9. This APN does not have an existing water connection, and is not included in the proposed

District boundary or existing SOI. Mitigation Measure No. 3 specifies that connection of this parcel is subject to approval by all applicable planning and building regulations. Water service to APN 222-156-012 will also require an update to the POU and any approvals by Humboldt LAFCo (annexation or out of boundary connection). A single family residential connection equivalent quantity of water has been set aside for the service of this parcel.

Conclusion

Based the above analysis, the District will be able to serve the existing and potential customers within the proposed POU and jurisdictional boundary within the allowable 80 million gallons per year.

Cumulative Impacts

SHCP. In the area known as the SHCP, water service has been previously provided to two residences and outbuildings, but they do not currently consume water. A previous water connection was extended to bring water to a caretaker's cottage and various other outbuildings on the former APN 222-091-006 from the yellow house. As a result of several lot line adjustments, the structures served by the GWC (and subsequently GSD) are now split between a portion of APN 222-091-014 and 222-091-011.

Currently, the Humboldt County Planning and Building Department is processing an application from the SHCP for a general plan amendment and rezone for APN 222-241-009 and APN 222-091-014. A Draft EIR is being prepared and is scheduled for public circulation September 2013 (Richardson, 2013a). It is conceivable that changes in use will result in increased water demand, but the specific details of such a change in service are not known at this time. Implementation of Mitigation Measure No. 1 will ensure that any changes to the existing water quantities or areas of water service will allow review and approval by GSD to confirm sufficient water supplies are available.

Alderpoint Road Tank Project. The GSD is currently in the planning and engineering phase of the Alderpoint Road Tank Replacement Project. The GSD has adopted a Mitigated Negative Declaration to replace a 30,000 gallon tank with a 200,000 gallon tank at the same location as the existing tank. As documented in the Initial Study and Environmental Checklist prepared by LACO Associates (2013) for the project, the current water system lacks sufficient storage, therefore GSD proposes a 200,000 gallon tank. The storage will be increased by 170,000 gallons, which currently operates in a deficit between 74,000 and 182,780.

The storage tank deficit is based upon the maximum daily demand. The average residential customer uses 305 gallons per day in the maximum annual month. For 23 residential services this would theoretically add 7,015 gallons to the existing storage deficiency. The average commercial customer uses 640 gallons per day in the maximum annual month. For 3 commercial or industrial services this would theoretically add 1,920 gallons to the existing storage deficiency. The total deficiency would then be between 82,935 and 191,715 gallons. The environmental analysis concluded that the GSD has sufficient water supplies for the change in tank size necessary (LACO, 2013). Even though the GSD does not have sufficient storage to meet state standards, the additional capacity necessary would not result in any additional water diversions from the South Fork of the Eel River.

Water System Improvement Project. The SWTP is currently in construction and was designed to treat up to 336 gallons per minute (gpm) from the South Fork of the Eel River plus up to 33 gpm of

recycled backwash water. The treatment plant upgrade is to meet existing water demands and current CDPH requirements for redundancy, providing reliable high quality water to the District's costumers. The environmental analysis concluded this project will not result in additional water supplies other than those already established for GSD.

Based the above discussion, the District will be able to serve all the developable parcels within the proposed POU within the allowable 80 million gallons per year. These projects, in conjunction with the proposed project, will not result in a significant cumulative environment impact because the water infrastructure projects planned for the GSD are intended to satisfy current water demands.

(c) No Impact: The project does not require or result in the construction of any new stormwater drainage facility or the expansion of any existing facility the construction of which would cause significant environmental effects.

(f– g) No Impact: The project does not include development that would require a change in landfill capacities, or conflict with any federal, state, and local statues and regulations related to solid waste.

Mitigation Measure No. 1. The GSD Board of Directors shall adopt an ordinance that, at a minimum, states that any future development or intensification of use within the GSD boundary or future annexations or outside agency boundary service that relies on connection to the GSD water or sewer services for implementation will be reviewed by the GSD prior to approval by the County. A "will serve" letter will be provided by GSD to Humboldt County and the project applicant, indicating the ability of the GSD to provide a service connection based upon the current water and/or wastewater system capacity to provide that service. If sufficient water or wastewater service is not available, the applicant will be denied service until such time that the service is available. This ordinance will also identify the location of the water and sewer service area and only water service area overlay. These areas are shown on Figure 16. GSD shall notify Humboldt County of the new ordinance so that it will be included in current planning activities.

Mitigation Measure No. 2. The GSD Board of Directors shall adopt a resolution stating that the Connick Creek Subdivision as described in this IS/MND is responsible for any maintenance necessary to ensure that distribution meets appropriate and applicable regulations for providing water service from the private water line. The resolution shall state that the GSD is not responsible for any costs or maintenance associated with provision of water in this area other than from the master meter described in agreement recorded on October 8, 2010, as Instrument # 2010-22217-9. The resolution shall note that annexation of the Connick subdivision is not intended to constitute a modification, express or implied, of the October 8, 2010, agreement (recorded as Instrument # 2010-22217-9), or an expansion of any rights or interests any member of the Connick Creek Subdivision Association possess under said agreement."

Mitigation Measure No. 3. The GSD Board of Directors shall adopt a resolution stating that in the future, all new connections that are guaranteed through existing agreements that are outside of the GSD boundary must satisfy all planning and building regulations at the owner's cost and expense. Specifically, the area adjacent to the Connick Subdivision includes APN 222-156-012, which is a party to the agreement recorded on October 8, 2010, as Instrument Number 2010-22217-9. This APN does not have an existing water connection. No service will be provided until the property owner petitions the District for water service and appropriate approvals have been granted by all appropriate agencies including, but not be limited to the SWRCB DWR, County of Humboldt, and Humboldt LAFCo.

Appendix F

December 2012
SWRCB Cease and Desist Order

November 2018
Notice of CDO Violation

State Water Resources Control Board

Mr. Ralph Emerson, General Manager
Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542

Dear Mr. Emerson:

NOTICE OF VIOLATION OF ORDER WR 2012-0036-DWR

On December 27, 2012 the State Water Resources Control Board (State Water Board) issued Order WR 2012-0036-DWR requiring Garberville Sanitary District (GSD) to cease and/or abate a threatened or ongoing violation of one or more conditions of License 3404 (Application 9686) and Permit 20789 (Application 29981).

Order WR 2012-0036-DWR required GSD to cease and desist the bulk sale and delivery of water under License 3404 and/or Permit 20789 to areas outside the authorized place of use, unless it is demonstrated to the satisfaction of the State Water Board that the water is needed for emergency domestic water supply.

On September 4, 2018 the State Water Board, Division of Water Rights (Division) received a complaint requesting an investigation to determine if GSD was in violation of Order WR 2012-0036-DWR. In a September 5, 2018 email correspondence with the complainant Ed Voice, GSD confirmed that it sold water outside of its licensed and permitted place of use for construction related activities.

This letter serves to inform GSD that sales of bulk water for construction related activities outside of the place of use of License 3404 and Permit 20789 is a violation of Order WR 2012-0036-DWR. Order WR 2012-0036-DWR specifies that bulk water can only be sold outside of the place of use for License 3404 and Permit 20789 if it is for emergency domestic water supply. GSD shall cease all sales of bulk water for purposes other than emergency domestic water supply.

If you have any questions, please contact Skyler Anderson at (916) 341-5307 or via e-mail at: skyler.anderson@waterboards.ca.gov. Written correspondence should be addressed as follows: State Water Resources Control Board, Division of Water Rights Attn: Skyler Anderson, P.O. Box 2000 Sacramento, CA 95812-2000.

Sincerely,

ORIGINAL SIGNED BY:

Skyler Anderson
North Coast Enforcement Unit
Division of Water Rights

Ec: Mr. Ed Voice
evice@mchsi.com

Ms. Jane Arnold
jane.arnold@wildlife.ca.gov

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

DEC 27 2012

In Reply Refer to:
KB:262.0(12-18-04),
A009686, A029981

CERTIFIED MAIL NO. 7004-2510-0003-9146-5724
Return Receipt Requested

Mr. Mark Bryant, General Manager
Garberville Sanitary District
P.O. Box 211
Garberville, CA 95542

Dear Mr. Bryant:

ORDER ADOPTING CEASE AND DESIST ORDER FOR LICENSE 3404 (APPLICATION 9686) AND PERMIT 20789 (APPLICATION 29981)

Enclosed is a copy of Order WR 2012-0036-DWR, signed by the Assistant Deputy Director of the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) on December 27, 2012. This Order adopts the draft Cease and Desist Order (CDO), transmitted to you by certified letter dated November 20, 2012.

The November 20, 2012 draft CDO required Garberville Sanitary District (GSD) to: (1) cease and desist the bulk sale and delivery of water under its permit and license to areas outside the authorized place of use, unless the water is needed for emergency domestic water supply; (2) diligently pursue the processing of its petitions for change in place of use under its permit and license filed with the Division; and (3) submit required annual use reports for your Permit and License. The Division allowed 20 days from your receipt of the draft CDO for you to request a hearing to contest the findings and requirements of the CDO as written.

GSD did not submit a request for hearing. In accordance with California Water Code section 1834, the Division is adopting the draft CDO as written. The Division appreciates Garberville's ongoing cooperation in meeting the requirements of the draft CDO. To date, GSD informed the Division that it has taken appropriate measures to come into compliance with the directives of the draft CDO, as follows:

- On December 3, 2012, the GSD Board of Directors held a special meeting to review the draft CDO. The GSD Board of Directors took action to cease the sale of bulk water, effective January 2, 2013, unless the water is needed for emergency domestic use. Future delivery of bulk water for emergency domestic use must be approved by GSD and the Division and is limited to the quantity of water necessary to sustain human and animal life, including sanitary use.

- GSD submitted petitions for change in place of use for their permit and license and, as of the date of this letter, are working with Division staff in the processing of the petitions.

- The 2010 and 2011 annual use reports for License 3404 and Permit 20789 were submitted by GSD to the Division within the 20 days allowed in the notice of the draft CDO.

Your failure to comply with the terms or requirements of a CDO may subject you to civil liability in a sum up to $1,000 for each day in which the violation occurs in accordance with California Water Code section 1845.

Division staff has reviewed the 2010 and 2011 annual use reports for License 3404 and Permit 20789, submitted by GSD on December 2, 2012 and has determined that GSD has satisfied the third directive of the CDO. In order to avoid future potential liability, GSD must remain in compliance with the remaining directives of the CDO regarding bulk water sales and the petition for change in place of use.

If you have any questions, please contact me, the Division's Enforcement Section Manager, at (916) 341-5368; or Ms. Ellen Howard, Staff Counsel, Office of Enforcement, at (916) 341-5677 or via e-mail at: Ellen.Howard@waterboards.ca.gov. If you wish to write a letter, please send a written response to:

State Water Resources Control Board
Division of Water Rights
Attention: Enforcement Section
P.O. Box 2000
Sacramento, CA 95812-2000

Sincerely,

for

John O'Hagan, Manager
Enforcement Section
Division of Water Rights

Enclosure: Cease and Desist Order

cc: Please see next page.

cc: Mr. Ed Voice
P.O. Box 580
Garberville, CA 95542

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

ORDER WR 2012–0036-DWR

CEASE AND DESIST ORDER

In the Matter of Unauthorized Diversion and Violation of Terms and Conditions for License 3404 (Application 9686) and Permit 20789 (Application 29981) by

Garberville Sanitary District

SOURCE: South Fork Eel River

COUNTY: Humboldt County

The State Water Resources Control Board (State Water Board or Board) is authorized under California Water Code section 1831 to issue a Cease and Desist Order (CDO) requiring Garberville Sanitary District (referred to herein as GSD) to cease and/or abate a threatened or ongoing violation of one or more conditions of License 3404 (Application 9686) and Permit 20789 (Application 29981).

GSD is alleged to have violated or is threatening to violate California Water Code (Water Code) section 1052 and/or license terms issued in accordance with Water Code Division 2. Water Code section 1831 et seq. authorizes the State Water Board to issue a Cease and Desist Order when it determines that any person is violating or threatening to violate any of the following:

> *(1) The prohibition set forth in Section 1052 against the unauthorized diversion or use of water subject to this division.*
>
> *(2) Any term or condition of a permit, license, certification, or registration issued under this division.*
>
> *(3) Any decision or order of the board issued under (part 2 of Division 2 of the Water Code [commencing with Section 1200]), Section 275, or Article 7 (commencing with Section 13550) of Chapter 7 of Division 7, in which decision or order the person to whom the cease and desist order will be issued, or a predecessor in interest to that person, was named as a party directly affected by the decision or order.*

On November 20, 2012, and in accordance with the provisions of section 1834 of the California Water Code, the State Water Board, Division of Water Rights (Division) provided notice of the CDO against GSD for the violation of the terms and conditions of its license and permit and/or Chapter 2, Article 20, sections 847, 925, and 929 of the California Code of Regulations and the unauthorized diversion or use of water. Pursuant to State Water Board Resolution 2012-0029, the Deputy Director for Water Rights is authorized to issue a notice of cease and desist, and when a hearing has not been timely requested, issue a Cease and Desist Order (CDO) in accordance with California Water Code section 1831 et seq. State Water Board Resolution 2012-0029 also authorizes redelegation of this authority from the Deputy Director for Water Rights to the Assistant Deputy Director for Water Rights. This authority has been redelegated.

FACTUAL BASIS FOR ISSUING THE CDO

The facts and information upon which this CDO is based are as follows:

1. The Division issued License 3404 (Application 9686) to Garberville Water Company (GWC) on February 29, 1952. License 3404 authorizes the diversion of 0.155 cubic foot per second (cfs) from the South Fork of the Eel River at North 26° East, 190' from the south quarter corner of Section 24, T 4 S, R 3 E, H.B.M. The licensed place of use is "Town of Garberville as bounded by Garberville Sanitary District," and the licensed purpose of use is "municipal use."

2. On April 2, 1990, Division staff conducted an inspection of GWC and noted that water was being diverted in excess of license limits and being delivered outside the licensed place of use. Division staff noted in the inspection report that GWC was delivering water to areas outside of the Place of Use depicted on the map submitted with Application 9686 (Exhibit A). On July 22, 1990 GWC submitted Application 29981 to appropriate water by permit, expanding the place of use to the GWC service boundaries. A map of the town of Garberville, depicting the proposed place of use under permit Application 29981 was submitted on April 19, 1990 as part of the application package (Exhibit B). Application 29981indicates that 366 residences, equal to 1400 people, would be served domestic water under the water right. The application also indicates that zero acres per year will be irrigated under the water right.

3. On May 15, 1995, the Division issued Permit 20789 (Application 29981) to GWC, which authorizes the diversion of 0.595 cfs and a maximum of 430 acre-feet per year from the same point of diversion as License 3404. The permitted place of use is "within the boundaries of the town of Garberville," as shown on the map submitted with the application, and the permitted purpose of use is "municipal." GSD purchased GWC in November 2004 and notified the Division of the change of name and ownership on October 23, 2007. The Division's records indicate the ownership for License 3404 and Permit 20789 were changed on October 23, 2007.

4. In 2012 the Division received two complaints alleging that GSD was violating terms and conditions of License 3404 and Permit 20789. The first complaint, filed on August 6, 2012 by Mr. Ed Voice, alleged that GSD was selling bulk water to commercial water delivery companies that re-sell the water to customers outside of the GSD's licensed and permitted place of use. The second complaint, filed on September 6, 2012, alleged that GSD was providing service connections to residential homes and properties outside of the authorized place of use. As part of its investigations for the complaints, Division staff reviewed GSD's record, including its required reports of water diversion and use under its permit and license. The Division notified GSD of the first complaint by letter dated August 23, 2012 and of the second complaint by e-mail dated September 13, 2012. GSD responded to the complaints by letter dated September 18, 2012.

Bulk Water Sales and Place of Use

5. The August 6, 2012 complaint and September 18, 2012 response indicate that GSD sells water to commercial water haulers through an unmetered fire hydrant on Redwood Drive. The third-party commercial water haulers provide GSD with self-reported information about the quantity of water purchased, but GSD does not maintain records about the purpose and location of the use of this water. GSD summarized the annual bulk water sales reported by the haulers for 2010/2011 and 2011/2012 as 877,720 gallons (2.69 acre-feet) and 1,734,200 gallons (5.32 acre-feet), respectively.

6. The September 18, 2012 response from GSD included a statement from Heather Kornberg of Pura Vida Water Delivery, a commercial water hauler that obtains water from GSD. The letter indicates that most of Pura Vida's water deliveries are to "rural homesteads" in the Eel River watershed. It does not indicate if Pura Vida keeps records on the purpose of use of trucked water. It also does not indicate if these residences are inside or outside of the town of Garberville. During a telephone conversation with Division staff on September 25, 2012, Mr. Ed Voice indicated that he has observed commercial water haulers deliver water obtained from GSD to customers outside of the GSD's place of use.

7. In its September 18 response, GSD indicated that it may use groundwater from its Tobin well to provide water to commercial water haulers. According to GSD, Tobin well is a shallow well located in downtown Garberville with a limited capacity of 40 to 70 gallons per minute (gpm), a rate which appears to be sufficient to provide water equivalent to the annual volume of bulk water sales. GSD ordered and installed a water meter to quantify the water produced from the well as a result of the complaint. The direct sale of pumped groundwater from Tobin well may not require or involve a water right, provided that the well does not draw from a subterranean stream within the jurisdiction of the State Water Board. The existence of a subterranean stream is determined through a hydrogeologic analysis, in consultation with the Division.

8. Based on the information provided to the Division, continued bulk water sales would pose a threat of unauthorized diversion and use of water outside the authorized place of use covered by GSD's permit and license.

Residential Property Service Connections Outside of Place of Use

9. In the September 18 response, GSD confirmed that they are currently providing water service to 35 parcels that are outside of the licensed and permitted place of use. Twenty of the thirty-five parcels are within the Kimtu Meadows Subdivision project, which connected to GSD's water system in July 2012. GSD states that the remaining fifteen parcels have been receiving water prior to November 2004, when GSD purchased the water system from the Garberville Water Company.

10. On April 5, 2012, Division staff notified GSD that a Petition for Change and a Petition for Extension of Time must be filed with the Division to expand the place of use and to come into compliance with the terms and conditions of License 3404 and Permit 20789. According to the September 18 response, GSD is working with the Division to submit the necessary documents to petition to expand the place of use under License 3404 and Permit 20789 to include the 35 parcels. The GSD jurisdictional boundary, sphere of influence, and types of provided services are regulated by the Humboldt County Local Agency Formation Commission (HLAFCo). GSD has contracted with SHN Engineers and Geologists to conduct the CEQA review to support the change in their jurisdictional boundaries required by HLAFCo.

11. GSD intends to submit the appropriate documents to the Division within two months of the September 18 response. However, the unauthorized service outside of the GSD place of use will continue until the State Water Board approves the Petition for Change and Petition for Extension of Time, if ever. Continued delivery of water to parcels outside of the authorized place of use covered by GSD's permit and license constitutes an unauthorized diversion and use of water.

Failure to File Water Use Reports

12. Senate Bill X7-8, which was signed into law in 2009, authorized the State Water Board to adopt regulations requiring online reporting of water diversions. Consistent with the Senate Bill, the State Water Board has adopted regulations requiring annual reporting of water diversion and use under permits and licenses, and developed a new online Report Management System (RMS) as a component of the enhanced Water Right Information Management System (eWRIMS). The regulation specifying annual permittee and licensee reporting requirements is codified in Title 23, Chapter 2.7, Article 2, sections 925 and 929 of the California Code of Regulations.

13. In February 2011 the Division mailed out initial notices to GSD, notifying GSD of the annual use reporting requirements and instructions on how to access the RMS system to submit, at a minimum, the 2010 use reports online. GSD was also notified that if there were any questions on the new reporting process, GSD could contact the Division by telephone or e-mail. The deadline to submit the 2010 use reports online was July 1, 2011.

14. In September 2011 the Division mailed out delinquency letters, which also included a copy of the February 2011 letter, to all the permittees and licensees who had not submitted their 2010 use report by July 1, 2011. The delinquency letter provided notice that failure to submit the annual use report was a violation of the terms and conditions of the applicable permit and/or Chapter 2, Article 20, section 847 of the California Code of Regulations, and that continued failure to submit the annual use report may result in enforcement action by the State Water Board.

15. As of November 16, 2012, the Division has not received GSD's 2010 annual use reports for License 3404 and Permit 20789.

16. On March 5, 2012, the Division mailed out notices to GSD, notifying GSD of the annual use reporting requirements and instructions on how to access the RMS system to submit the 2011 use reports online. GSD was also notified that if there were any questions on the reporting process, GSD could contact the Division by telephone or e-mail. The deadline to submit the 2011 use reports online was June 30, 2012.

17. As of November 16, 2012, the Division has not received GSD's 2011 annual use report for License 3404 or Permit 20789.

IT IS HEREBY ORDERED, pursuant to sections 1831 through 1836 of the California Water Code, that:

1. Within 30 days of the date of this order, GSD must: (1) cease and desist the bulk sale and delivery of water under License 3404 and/or Permit 20789 to areas outside the authorized place of use, unless it is demonstrated to the satisfaction of the State Water Board that the water is needed for emergency domestic water supply; and (2) if bulk water sales continue, then GSD shall keep accurate records of each sale, including the volume of water sold, the date of the sale, the name of the commercial water hauler purchasing the water, and the final place of use. Records of any bulk sales of water, including place of use of water, shall be made available to the Division upon request.

2. By letter dated November 14, 2012, GSD filed petitions for change in place of use under License 3404 and Permit 20789 to include areas served by GSD with water diverted under these water rights. GSD shall diligently pursue the processing of these petitions by submitting all necessary fees, environmental documents, and other information required by the State Water Board within the time schedules specified. If and until the State Water Board approves the change petitions, GSD shall maintain monthly records of the amount of water served to areas outside the authorized places of use and report the monthly amounts separately from the amounts reported on its annual permit and license reports. The monthly records of amounts served outside the places of use shall be submitted as an attachment to the annual permit and license reports.

3. GSD shall immediately come into compliance with the terms of License 3404 and Permit 20789 by submitting its reports of 2010 and 2011 annual use by accessing the Report Management System at www.waterboards.ca.gov/RMS using the User ID and Passwords shown on the User Information Sheet accompanying this CDO. For these two years, GSD shall estimate an annual amount for the water served by bulk water sellers outside the place of use and separate these amounts from the monthly amount beneficially diverted and used under the permit and license. The bulk water sales should be reported in the Remarks section of the online reports. Please note the User ID is a seven-digit alphanumeric string that begins with the letter "A" and followed by six numbers corresponding to your original application number. If you have any problems accessing the reporting system, please contact Division staff noted on the letter accompanying this CDO.

Consequences of Non-Compliance

In the event GSD fails to comply with the requirements of this Order, GSD shall be in violation of this CDO and subject to additional enforcement, which may include the imposition of administrative civil liability, pursuant to California Water Code section 1845 (b)(1), of up to $1,000 for each day in which the violation occurs or referral to the Attorney General to take further enforcement action as described in California Water Code section 1845(a):

> **Upon the failure of any person to comply with a cease and desist order issued by the board pursuant to this chapter, the Attorney General, upon the request of the board, shall petition the superior court for the issuance of prohibitory or mandatory injunctive relief as appropriate, including a temporary restraining order, preliminary injunction, or permanent injunction.**

Reservation of Enforcement Authority and Discretion

Nothing in this Order is intended to or shall be construed to limit or preclude the State Water Board from exercising its authority under any statute, regulation, ordinance, or other law, including but not limited to, the authority to bring enforcement against GSD for unauthorized diversion of water in accordance with California Water Code section 1052.

Regulatory Changes

Nothing in this Order shall excuse GSD from meeting any more stringent requirements that may be imposed hereafter by applicable legally binding legislation, regulations, or water right license requirements.

STATE WATER RESOURCES CONTROL BOARD

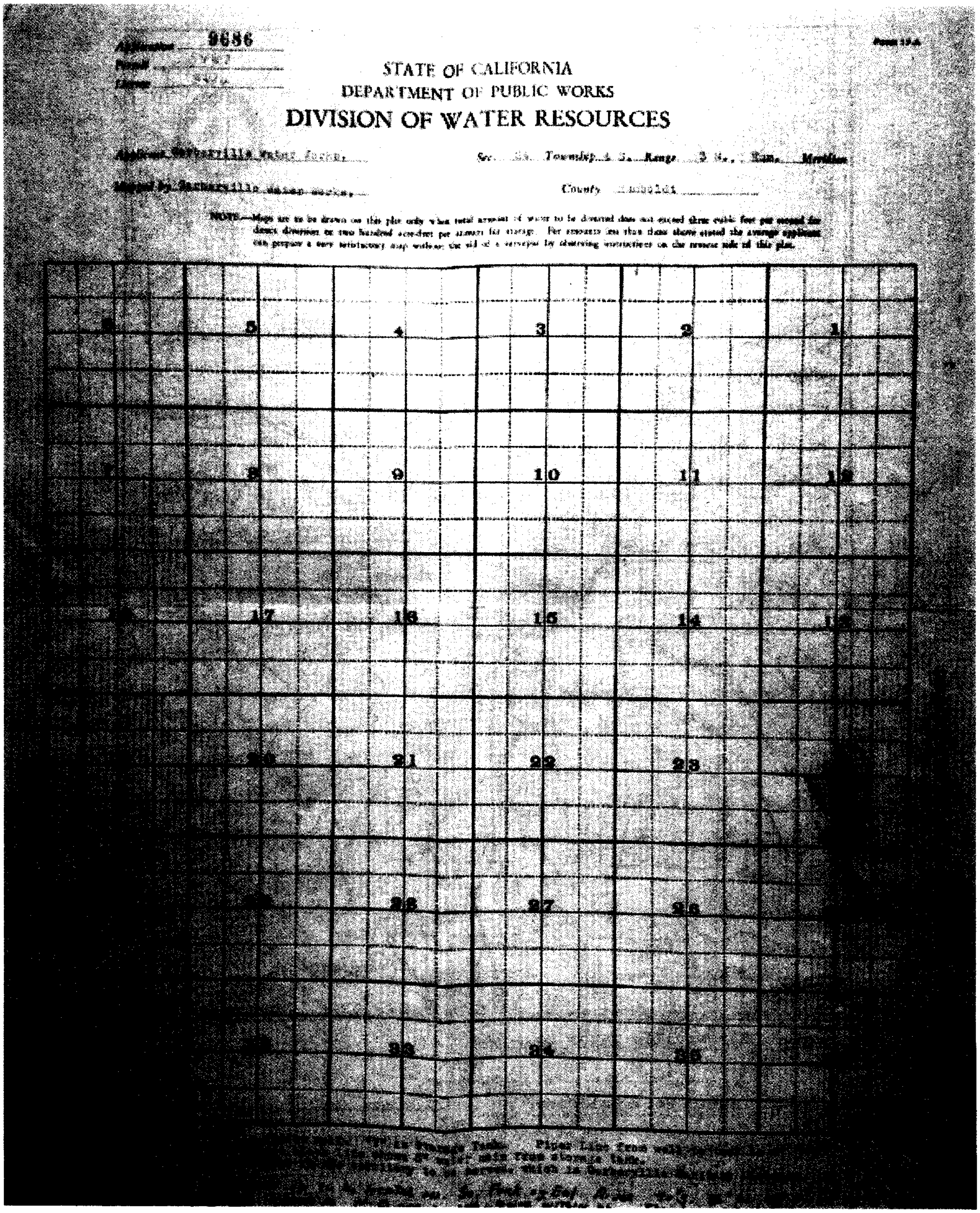
James W. Kassel

James W. Kassel, Assistant Deputy Director
Division of Water Rights

Dated: DEC 27 2012

Exhibit A

ORDER WR 2012–0036-DWR



Application 9686

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

Applicant [illegible]

Sec. [illegible] Township [illegible] Range [illegible] Meridian

Mapped by [illegible]

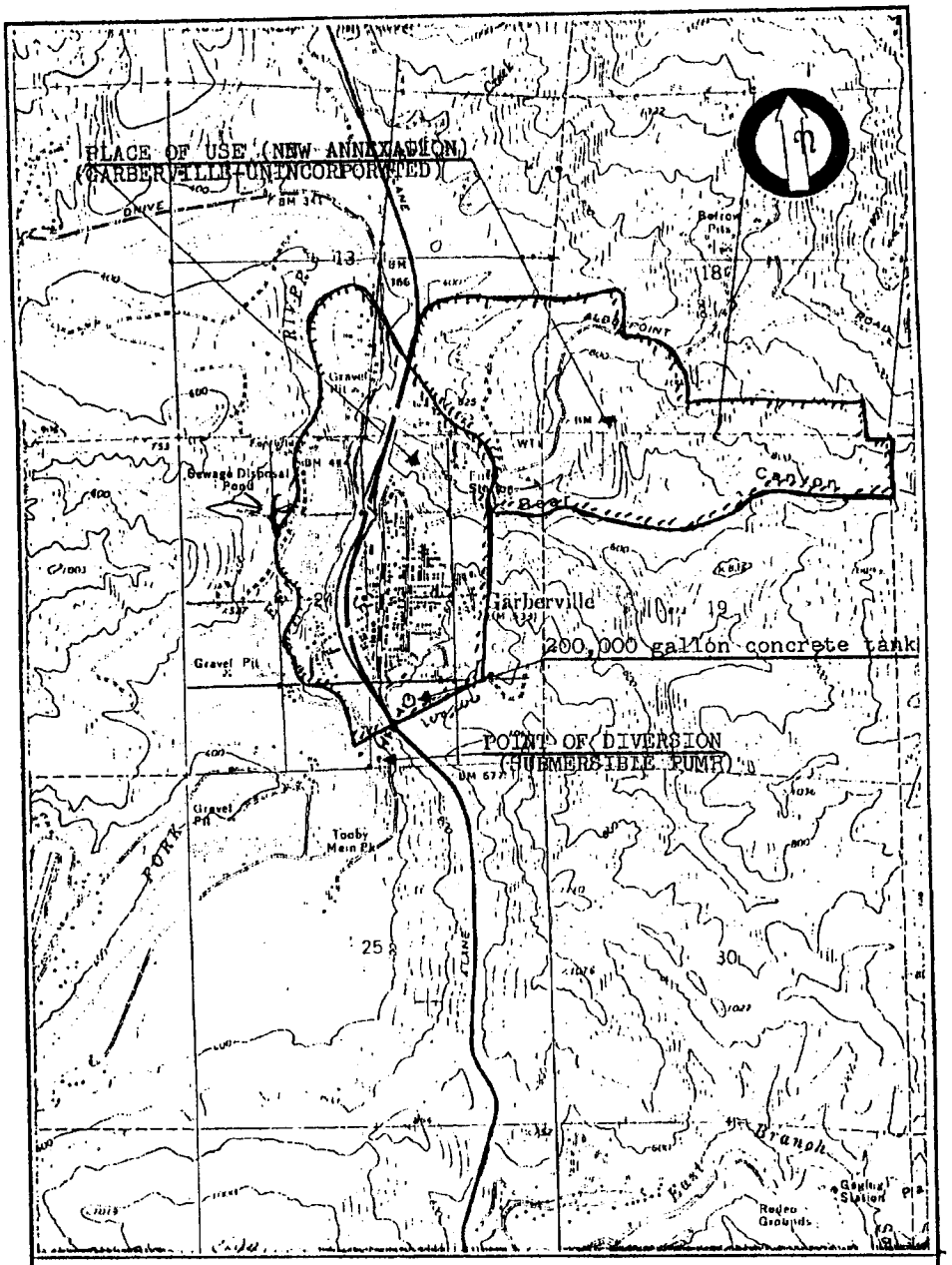
County [illegible]

NOTE—Maps are to be drawn on this plat only when total amount of water to be diverted does not exceed three cubic feet per second for direct diversion or two hundred acre-feet per annum for storage. For amounts less than those above stated the average applicant can prepare a very satisfactory map without the aid of a surveyor by observing instructions on the reverse side of this plat.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Exhibit B

ORDER WR 2012–0036-DWR



OWNER Garberville Water Co., Inc

SOURCE South Fork Eel River

POINT OF DIVERSION
WITHIN SW 1/4 SE 1/4 OF
SECTION 24, T. 4S, R. 3E, H B & M

COUNTY OF Humboldt

Garberville 1970 1:24,000
U.S.G.S. QUAD DATE SCALE

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

APPLICATION ~~9686~~ 29981
PERMIT ~~5487~~
LICENSE ~~3401~~

DATE 4/19/90 DRAWN BY: JTA

FOR002A-2