

Preliminary Technical Report Guidance

Updated Aug 2021

Purpose

This guidance is intended to assist applicants in completing the preliminary technical report required for all new public water systems (California Health and Safety Code (CHSC), Section 116527) that are not subject to the exemptions specified in Section 116527(h). In accordance with Section 116527(b), this report is ***required to be completed 6 months before any water-related construction for a new public water system.***

This guidance is a summary of the elements to consider in completing a preliminary technical report. However, not all elements included in this guidance will apply to all proposed public water systems, and some proposed systems will require more elements, details, and documentation. Throughout this guidance sections of the California Health and Safety Code and the California Code of Regulations (CCR) are provided as a reference for the requirements included. New public water systems must demonstrate adequate financial, managerial, and technical capacity prior to the State Board issuing a domestic water supply permit.

Exemptions

Section 116527(h) provides exemptions under the following conditions: (1) domestic water supply applications deemed complete prior to January 1, 2017, (2) extension of, or annexation to, an existing public water system, or (3) building construction applicants that certify they will not rely on the establishment of a new public water system.

Section I. Applicant General Information

Name of applicant:

Phone number of applicant:

Email address of applicant:

Name of engineering consultant responsible for the project:

Phone number of engineering consultant:

Email of engineering consultant:

Have you previously applied to be a public water system for this property?

Yes

No

Who is the legal owner of the property?

(Proof of ownership of any water treatment facilities and well sites must be documented.)

Section II. General Information on the Proposed Water System

County of proposed new public water system:

Assessor's Parcel Number(s) or address of proposed new public water system:

Number of proposed connections (e.g. buildings, homes, etc.) the new public water system would serve:

Number of people the new public water system would serve:

Number of days per year the new public water system will serve water (e.g. 365):

What are the sources of water for the proposed public water system (mark all that apply, note: more detailed source information is required in Section VI):

- Lake or Pond
- River/Stream
- Spring
- Creek
- Multiple Wells
- Well within 100 feet of a lake, river, or creek
- Unknown/source does not exist yet

What type of properties will be served, indicate all that are applicable, or provide a copy of the use permit:

- Residential Community
- Businesses
- Industrial Park
- Schools/Daycares
- Winery
- Restaurant
- Park/Recreation
- Mobile Home Park
- Other:

If the proposed water source is surface water (e.g. lake, river, creek, well near river, etc.) do you currently possess water rights to the source? (*Surface water rights must be documented.*)

- Yes
- No

Is any treatment known to be required for the source water? If yes, explain.

Provide a summary description of the proposed water system (physical facilities, type of legal entity it will be, who it will serve, who will manage it, existing facilities that will be incorporated, any contamination in the local area that could impact the water quality, other pertinent factors).

A map of the proposed boundaries of the new public water system will be required.

Section III. Discussion of the Potential for the Proposed Water System to be served by an Existing Water System:

List the names of all community water systems with boundaries within a 3-mile distance from the proposed public water system's service below. CHSC (116527(c)(1). Ways to find nearby public water systems include:

- The [Drinking Water Watch website](#) has a list of all community water systems by county. Please do not consider those water systems with a status of "I", which means they are inactive.
- The [California Water System Area Boundary map](#) has locations of some, but not all, public water systems. We are in the process of collecting and verifying data for this map layer.
- If you are still unable to find a nearby community water systems using these tools, please [contact our District Offices](#) and verify that none exist in the 3-mile radius. A map of the contact numbers for our District Offices can be found on the following website.

Community Water Systems in 3-mile Radius

- 1.
- 2.
- 3.
- 4.
- 5.

(include additional systems if present in the 3-mile radius)

Is the proposed water system in the County Local Area Formation Commission's (LAFCo) sphere of influence boundary for any city or municipal water service? CHSC 116527(c)(9)

- Yes
 No

Attach a feasibility report evaluating the possibility of obtaining water supply from each public water system listed above and the estimated costs. The report should include:

- dates of contact with the public water systems;
- names and titles of all parties involved as well as phone numbers and email addresses of all parties;
- a summary of their responses;
- all actions taken to obtain service for the proposed new public water system's service area; CHSC 116527(c)(2)
- all information provided by each identified public water system regarding the feasibility of annexing, connecting or otherwise supplying domestic water to the proposed service area.

The feasibility report should also include dates of contact with the County Local Area Formation

Commission's (LAFCo) executive officer and/or staff regarding identified public water systems.

Please note: If as a result of this process you decide to be served by another public water system and not become a new public water system, write a letter to the State Water Resource Control Board, Division of Drinking Water and the County building/planning department indicating that it is your intent. Provide the name and contact of the water system that will be supplying water service to your development and begin the process of obtaining water service.

Section IV. Managerial Consolidation

If physically connecting to another water system appears unfeasible, submit a discussion of all actions taken by the applicant to pursue a contract for managerial or operational oversight from the identified community water systems in Section III. This should include a summary of names, dates and contact information of those individuals you have interacted with as well as their responses. CHSC 116527(c)(7)

Section V. Cost of Proposed New Public Water System

We recommend that you review the [Drinking Water Related Regulations](#) related to operating a public water system. Please attach a report on the proposed cost to construct, operate, and maintain the proposed new public water system for 20 years. We recommend this report be prepared by an engineer who is knowledgeable regarding the legal requirements for public water systems, typically an engineer that has experience in working on public water systems. The new water system should consider the following costs listed below, as they would apply to the proposed water system. The report must also include a discussion of the proposed rates based on the costs. CHSC 116527(c)(5) Other costs may also be applicable, particularly those with other regulatory agencies, such as Division of Water Rights, LAFCo, Public Utilities Commission, business licenses, etc. To facilitate review of each cost, the section from the CCR Title 22, Division 5 discussing the specific requirements is included in parentheses. If the requirement comes from another regulatory section, the location is noted:

- System engineering and design costs for construction and permitting (§64552), including pump tests (§64554), two water supply well sources for communities (§64554c and §64561), a 50-foot source protection zone around wells (§64560), and initial monitoring costs
- Construction costs, backup electricity for pumps to maintain 40 pounds per square inch (psi) minimum pressure at all times (§64602), proper construction of distribution systems (§64570- 64580), installation of meters (§64561), adequate storage capacity (§64554 and 64585) and fire capacity (contact local fire official)
- Monthly electricity costs for pumps, other utilities, interest on any debt service
- Cost of as-built maps (§64604)
- Annual water-treatment quality chemical costs (§64590), and equipment for distribution monitoring of any added chemical treatment (dependent on the type of needed treatment)

- Ongoing raw water chemical monitoring sampling and analysis costs (§64431-64445.2)
- Ongoing bacteriological monitoring sampling and analysis costs for untreated water (§64430)
- Ongoing bacteriological monitoring sampling and analysis costs for treated water (§64421-64430, Table 64423-A)
- Maintenance of bacteriological plans (§64422) and emergency notification plans for notification of water quality emergencies (§64463-64466)
- Required lead and copper monitoring sampling and analysis costs and maintenance of lead and copper plan (§64670-64690.80, Table 64675-A)
- Required disinfection byproducts monitoring costs and maintenance of associated plan (§64530-64537.6, Table 64534.2-A)
- Customer water quality complaint program (§64470)
- Flushing (§64575), valve and meter maintenance (§64600), and maintaining maps (§64604)
- Cross connection program and annual backflow device testing and maintenance (from Title 17, §7583-7605)
- Salary for licensed operator staff costs, including time for reports and inspections required by Division of Drinking Water staff (§64413.1-64413.7)
- The cost to maintain written procedures for system maintenance, for example main line breaks procedures, etc. (§64580, 64582, and 64583)
- Source capacity planning studies and permit amendments for any additional growth (§64558 and §64556)
- Annual Consumer Confidence Report preparation and distribution costs (§64480-64483)
- Annual electronic Report to State Water Resource Control Board-Division of Drinking Water (Health and Safety Code §116530)
- Records of the estimated life of all pumps, treatment, storage, and distribution system and an annual capital improvement plan to fund replacement
- Metering and billing staff costs
- Emergency reserve costs for drought, regulatory changes, public notice of bacteriological or chemical failures, etc.
- Maintaining of business licenses and paying annual permit fees (Ca Health and Safety Code §116565) and any State enforcement fees for actions resulting from water system non-compliance (Ca Health and Safety Code §116577)
- Appropriate workspace to house staff, records (§64470, §64423.1), and appropriate containment of chemicals
- Insurance and liability for staff, for duties including climbing tanks, handling hazardous chemicals, if appropriate.
- Knowledgeable management staff costs to coordinate the above and maintain financial controls (per Corporation Code and Government Code requirements and Health and

Safety Code §116540) and office supplies

- If the source is surface water (lake, stream, pond, etc.), additional costs should be considered for the following:
 - A water treatment plant meeting all the requirements of the Surface Water Treatment Rule (§64650 through §64666)
 - Continuous operator supervision of the water treatment plant when operating (§64660) chemical monitoring equipment, at minimum turbidity and chlorine (§64655-64656.5, §64659)
 - Operations Plan (§64661)
 - Alarms (§64659)
 - Monthly monitoring reports to the Division of Drinking Water (§64662- 64664.2)
 - Additional raw water sampling requirements (§64654.8)
 - Watershed Sanitary Survey, every five years (§64665), and
 - Engineering Report after one year of operation for system optimization for alternative technologies (§64653 (i)).

Resources to help with cost analyses

Rural community assistance corporation (RCAC) provides FREE live and online classes on water system financial management, budgeting, rate setting, board training, as well as a host of other water system related classes. Training schedules can be found on their website at www.rcac.org.

Section VI. 20 Year Evaluation of Proposed New Public Water System's Supply Capacity CHSC 116527(c)(8)

Submit an analysis of the proposed new public water systems' total projected water supplies available during normal, single dry, or multiple dry water years to meet current demand, and any anticipated growth, for the next 20 years. If a source has not yet been constructed (e.g. a well) an engineer shall evaluate demands required under these scenarios. Please be aware that for a community water system using wells, it will be required to have at least two well sources and must be capable of meeting the maximum day demand with the highest-capacity source off-line, prior to being granted an initial domestic water supply permit, per Section 64554(c).

Section VII. Cost-Comparison CHSC 116527(c)(6)

Submit an analysis comparing the 20-year estimated costs associated with the construction, operation, and maintenance of the proposed new public water system to the 20-year costs associated with providing water through connecting to an existing public water system. Also, compare the long-term sustainability of each water system, including but not limited to local groundwater contamination migration, global climate change, and potential treatment needs.

Some water systems will require proposed water system to annex or enter into an out-of-area service agreement to obtain water. These identified water systems may not be excluded from cost comparison evaluation due to the need for annexation or out-of-area agreements.

Submit the COMPLETED Preliminary Technical Report to:

State Water Resource Control Board, Division of Drinking Water's District Office

The report should be addressed to the [District Engineer for the County](#) where the proposed water system will be located.

For projects that are within the counties listed below, an [additional copy must be submitted to the County's Local Primacy Agency-Small Water System Program](#), typically found in the Environmental Health Department.

[Alpine](#)

[Butte](#)

[Calaveras](#)

[Contra Costa](#)

[El Dorado](#)

[Imperial](#)

[Kings](#)

[Los Angeles](#)

[Madera](#)

[Mono](#)

[Monterey](#)

[Napa](#)

[Nevada](#)

[Placer](#)

[Plumas](#)

[Riverside](#)

[Sacramento](#)

[San Bernadino](#)

[San Diego](#)

[San Joaquin](#)

[San Luis Obispo](#)

[Santa Barbara](#)

[Santa Cruz](#)

[Shasta](#)

[Stanislaus](#)

[Tehama](#)

[Yolo](#)

[Yuba](#)

Once the PTR has been submitted it will be reviewed by appropriate Division staff. If deemed Complete, a letter will be sent to the applicant allowing them to move forward with the permitting process through the Division and/or County Environmental Health. If rejected, a letter will be sent to the applicant notifying them as to why the PTR is rejected. If appropriate, the applicant may resubmit a revised PTR for approval.

Technical, Managerial, and Financial (TMF) Capacity -

If the applicant has received a letter deeming the PTR submittal as completed, the applicant may move forward with the permitting process with the appropriate Division and/or County Environmental Health. One of the initial requirements for all new public water systems (CHSC 116540(a)(1)) is to submit additional information regarding the technical, managerial, and financial (TMF) capacity of the proposed water system. If the Division and/or County Environmental Health deem that the required TMF components are adequate, the applicant may submit a permit application. A permit application will include items such as initial water monitoring, and a permit engineering report containing detailed plans and specifications, etc. The details of the permit application will be provided separately.

For a proposed water system with existing infrastructure, TMF Instructions and forms can be found [on our website](#).

For a proposed community water system with no existing infrastructure please provide the following:

1. A copy of the deed of trust for the location where water treatment facilities, including any wells, are proposed to be located.
2. An organizational chart and description of what organization will own and operate the water system.
3. List the median household income(s) of the zip code(s) in the area to be served by the public water system based on the most recent year available [from the U.S. census](#).
4. Calculate the average annual rate per customer needed to support the water costs previously calculated in Section V, including depreciation and replacement of all infrastructure based on its usable life over a 20-year period.
5. Is the annual rate per customer greater than 1.5% of the surrounding median household income?

Resources

[Average usable life of typical water treatment equipment](#)

[Sample Excel spreadsheet for budgeting](#)