



WATER AVAILABILITY FORM
PRIVATE WATER SUPPLY
RAINWATER CATCHMENT

WHATCOM COUNTY
HEALTH DEPARTMENT
509 Girard Street
Bellingham, WA 98225
Telephone: 360-778-6000
Fax: 360-778-6001

Applicant Information:

Application
FEE: \$126.00

Applicant/Owner(s): Phone:
Address: City: State: Zip:
Contact Person: Phone:
Email and/or Alternate Contact:

Property Information: Project Type (check one): Single Family Home ADU

Tax Parcel Number (twelve digit number):

Address of Project:

Building Permit Number: Plat Name: Lot:

Document Checklist: See Instructions for more information on required application documentation.

A. Design Approval (Building Permit Application)

- 1. Public Water Denial Form, if applicable.
2. Evaluation of Alternative Sources.
3. Completed Water Budget.
4. Completed Rainwater Catchment Design Checklist.
5. Current site plan drawn to scale on 8 1/2 x 11 inch paper.
6. Water Treatment System Schematic.
7. Operations and Maintenance Plan.
8. Affidavit of Owner.
9. Affidavit of Water Treatment System Designer.

B. Final Approval (Occupancy)

- 10. Affidavit of Water Treatment System Installer.
11. Post Treatment Bacteriological Water Test Results. Date:

I certify that I have read and examined this application with attachments and know the same to be true and correct. I understand that nothing in this approval shall be construed as satisfying other applicable federal, state, or local, statutes, ordinances or regulations and that information submitted is subject to the Public Records Act RCW 42.56.

Sign: Print: Date:

For Health Department Use Only:

A. Design Approval (Building Permit Application)

Approved
Denied Date:

By:

Design Approval Expires:

B. Final Approval (Occupancy)

Approved
Denied Date:

By:

Final Approval Expires:

Required Water Storage: gallons

Required Rooftop Catchment Area: ft^2

Comments or Conditions:

Notify Via: Email Phone Mail

The subdivision/building permit is located in an area that is governed by chapter 173-501 WAC and in which instream flows are not met and/or are subject to closure. In compliance with ch 58.17 RCW/RCW 19.27.097 the County has determined adequate potable water is available for this subdivision/building permit on the basis of evidence supplied by the Applicant. Other authorities, including courts of competent jurisdiction and the Department of Ecology, exercise jurisdiction over water resources in the state of Washington. Those authorities may determine that the proposed source of water for this project identified by the Applicant is not a valid water right appropriation or is subject to curtailment or seasonal restrictions on availability that could impact its reliability for the intended use. The County's issuance of this subdivision/building permit should not be relied upon by the Applicant or any successor in interest as an assurance, warranty or guarantee of the future availability of water to serve the subdivision/building permit.



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**WHATCOM COUNTY
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509 Girard Street
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Instructions:

Please read the following information for instructions on how to obtain an approved Water Availability Form (WAF) using rainwater catchment. Submit the original signed WAF application (copies are not accepted) and one of each document required on the document checklist, to Whatcom County Health Department (WCHD) for review per Whatcom County Code 24.11. **This is a two part application.** Section **A** is required for the initial building permit. Section **B** is required when the applicant is ready for occupancy. **Please allow at least 2 weeks for the initial review process.**

The Washington State Department of Ecology (Ecology) issued Policy Number 1017 on October 9, 2009, stating that residents can collect and store rooftop-collected rainwater for on-site use without having to go through the water right permit process per state water law RCW 90.03.

IMPORTANT: It is the specific intent of this application and approval process to place the obligation of complying with the requirements specified Operation & Maintenance Plan upon the owner or operator of the water system. No provision and no term used in this application is intended to impose any duty whatsoever upon the WCHD. The WCHD will simply act to receive the documents and information requested in these sections.

Designer Qualification

Qualified water treatment designers are accredited professionals with the American Rainwater Catchment Systems Association (ARCSA) and professional engineers with experience in the design of drinking water treatment systems. Unless all components and materials used in the treatment system are certified by the National Sanitation Foundation (NSF), a WA licensed professional engineer must design the entire treatment system.

APPLICABILITY:

WCHD approval of Water Availability **may not** be required if the building project:

- Does not include plumbing for potable water.
- Is a remodel or addition of an existing building.
- Is a replacement of a demolished or removed building.
- Does not result in a change of use.

Contact Planning & Development Services (PDS) for more information at 360-778-5900.

A. Initial Approval (Building Permit) – Items 1-10 must be completed to obtain a building permit.

1. PUBLIC WATER DENIAL

The applicant must first determine if the project can be served by a Public Water System (PWS) per Whatcom County Code 24.11 and the Whatcom County Coordinated Water System Plan (CWSP). If the PWS has connections available and is willing to provide water, the applicant **must** connect to the PWS when any one or more of the following apply:

- a. The applicant proposes to use spring water, rainwater or contaminated ground water.
- b. The applicant proposes to build on a lot in a short subdivision or long subdivision that was approved based on the availability of public water per PDS.
- c. The existing PWS has distribution lines adjacent to the project property.
- d. The project property is within the PWS Service Area Boundary as defined in accordance with the CWSP.

If the PWS **does not** have connections available or is **unable** to provide public water to the project, the applicant **must** obtain a signed Public Water Denial form from the PWS. Submit the **original** Public Water Denial form, signed by the PWS Authorized Representative, with the Water Availability Application to the WCHD. Contact WCHD for more information on the location of PWS service area boundaries.

2. **EVALUATION OF ALTERNATIVE DRINKING WATER SUPPLY**

The use of an alternative drinking water source, like rainwater catchment, for a private water supply will be considered only if no other suitable drinking water source is available. Complete the Evaluation of Alternative Private Water Supply Worksheet and submit with your WAF application. Some examples of evidence of no alternative water supply include:

- Documentation that a drinking water well is not legally available.
- An evaluation of well logs in the area showing lack of sufficient groundwater.
- Evidence of nearby groundwater contamination.
- Written statement from a licensed well driller indicating there is no groundwater the area.
- Descriptions of the site limitations, such as setbacks to property lines, sewer lines or on-site septic systems.

3. **WATER BUDGET WORKSHEET**

Complete the Water Budget Worksheet to determine the gallons of storage required and the required square footage of roof top for the project.

4. **DESIGN CHECKLIST**

Complete the Design Checklist to determine the specifications of the rainwater catchment system. Include dry period calculations, specifications on water system components used, including filtration and disinfection. Provide specification sheets and NSF certifications for water system components.

5. **SITE PLAN**

Submit a site plan on 8 ½ x 11 inch paper, drawn to scale. Included property lines, location of roof-top where collection is to occur, water storage tank location (include a reserve area for future water storage), water line easements (if required), and the location any potential sources of contamination such as septic drainfields, septic tanks, sewer lines, and storm water infiltration trenches.

6. **TREATMENT SYSTEM SCHEMATIC**

A detailed schematic of the water treatment system must include filtration and disinfection. All equipment and materials used in the treatment system must be certified by the most recent NSF Listings (www.nsf.org) as follows:

Filtration – Certified NSF 53, Point of Entry Filtration System.

Ultraviolet (UV) Microbiological Water Treatment System – Certified NSF 55, Point of Entry, Class A system (40 mJ/cm²).

Where NSF certified equipment or materials are not available to address contamination problems for a particular water supply, the WCHD may accept alternates designed by a WA licensed professional engineer. Ultraviolet light disinfection systems must conform to State Department of Health Guidelines for Ultraviolet Water Treatment Systems.

The treatment system must be designed as a whole house treatment system; all faucets must provide treated water. Plans for a storage tank(s) must be included in the design. Plans must include storage size, type, and location on property and a designated area for additional storage.

7. OPERATIONS AND MAINTENANCE PLAN

The O&M Plan must be completed by the system designer and be written in clear language so that the homeowner understands the purpose of the treatment system and how to successfully operate the system. Outline the homeowner activities required to operate the system and ensure that treated water meets the quality standards for which the system was designed. Specify daily, weekly, monthly, and annual maintenance activities as needed. The O&M plan must include at least the following:

Roofing: Roof should be cleaned as needed or at least once per year.

Rain Gutters: Gutters should be cleaned at least monthly during winter storm season to prevent accumulation of debris, leaves and needles. Screens should be installed on top of downspouts to prevent accumulation of debris from getting into system.

Pre-storage filtration: Designed to provide settling and prevent accumulation of sediments and other particles in water storage tank(s).

Storage Tanks: Should be cleaned and disinfected as needed or at least once per year.

Filtration: Proper filter maintenance is important to ensure contaminants do not pass through the filter and/or collect and multiply on the filter's surface. Specific maintenance schedules are based on manufacturer's recommendation.

Disinfection: Provides a maintenance schedule of the UV system, including bulb specifications and replacement. Specific maintenance schedules are based on manufacturer's recommendation.

Water Testing: Treated water should be tested at least annually for bacteria and after any maintenance or repairs. Satisfactory water tests show the water is absent of coliform bacteria.

8. AFFIDAVIT OF OWNER

The system owner must submit a signed, notarized and recorded copy of an Affidavit of Owner (see attached form). This document indicates that the property owner is aware that the drinking water source rainwater catchment and that treatment is required to ensure the water is safe to consume.

9. AFFIDAVIT OF WATER TREATMENT SYSTEM DESIGNER

The system designer must submit a signed, notarized and recorded copy of an Affidavit of Designer (see attached form) indicating that the water treatment design is in compliance with the requirements specified in this application.

The water treatment system designer must work with the system installer to ensure proper installation of the treatment system.

NOTE: Once items 1-9 are complete, submit the signed WAF application and each document required to the WCHD for review. Please allow at least 2 weeks for the review process. Once the WAF is approved by WCHD, the applicant will be provided a copy of the approved application page for the building permit.

The remaining items on the checklist are completed after the water treatment system is installed and operational.

B. Final Approval (Occupancy) – Items 10-11 must be completed for final approval and occupancy.

10. AFFIDAVIT OF INSTALLER

The water treatment system installer must submit a signed, notarized and recorded copy of an Affidavit of Installer (see attached form) indicating that the installed treatment system is the same as the approved design. Any changes to the approved design must be submitted to WCHD by the system designer for approval. Occupancy may be delayed if there are changes to the approved design. The installer must work under the oversight of the system designer.

11. POST TREATMENT WATER TEST

A water sample must be taken following treatment and analyzed for total and fecal coliform. Satisfactory results show that no coliform bacteria is present in the treated water. Please see the below list of local certified water labs.

ADDITIONAL REQUIREMENTS

Additional requirements may be specified by the Health Officer.

NOTE: Once items 10-11 are complete, submit these documents to the WCHD for review. Please allow at least 1 week for the review process. Once the final WAF is approved by WCHD, the applicant will be provided a copy of the approved application page for occupancy.



WATER AVAILABILITY FORM
PUBLIC WATER SYSTEM
DENIAL

WHATCOM COUNTY
HEALTH DEPARTMENT
509 Girard Street
Bellingham, WA 98225
Telephone: 360-778-6000
Fax: 360-778-6001

Applicability:

This form is for new land use applications where the project parcel is located within the service area boundary of a public water system (PWS) or within 1/2 mile of an existing PWS. According to Whatcom County Code 24.11 and the Coordinated Water System Plan, the applicant must first attempt to obtain water service from an existing PWS. If a PWS is unable to provide water service, complete and submit this form with original signatures (copies are not accepted) to WCHD with your Water Availability Form application.

Applicant Information:

Applicant/Owner(s): Phone:
Address: City: State: Zip:
Contact Person: Phone:
Email and/or Alternate Contact:

Property Information:

Tax Parcel Number (twelve digit number):
Project Type (check one): Single Shared (2) ADU (2) Commercial (1 or 2) Plat (1or 2)
Address of Project:
Building Permit Number: Plat Name: Lot:

Certification of DENIAL of Public Water:

This Section to be Completed by the Public Water System Authorized Representative

Public Water System Name: DOH ID#:
This PWS is currently unable to supply water to the above listed parcel for the noted land use application.
This form expires three years from the date of water system authorized representative signature.

- Reason for denial:
Conditions of denial if applicable:

I certify that I am an authorized representative of the above PWS. I understand that information submitted is subject to the Public Records Act RCW 42.56.

Sign: Print: Date:
Title: Address: Phone:

For Health Department Use Only:

Received Date: Expires:

By:

Comments or Conditions



WATER AVAILABILITY
PRIVATE WATER SUPPLY
ALTERNATIVE SOURCE EVALUATION
WORKSHEET

WHATCOM COUNTY
HEALTH DEPARTMENT
509 Girard Street
Bellingham, WA 98225
Telephone: 360-778-6000
Fax: 360-778-6001

Applicant Information:

Property Owner(s): Phone:

Tax Parcel Number (twelve digit number):

Alternative Water Supply: Contaminated Well Rainwater Catchment Surface Water Spring

Instructions:

The use of an alternative drinking water source for a private drinking water supply will be considered only if no other suitable drinking water source is available. The applicant must first determine if the project can be served by a Public Water System (PWS) per Whatcom County Code 24.11 and the Coordinated Water System Plan. Preferred water sources include connection to a PWS and uncontaminated groundwater. If no other water source is available to the above parcel, provide evidence to the WCHD showing that all other drinking water sources have been explored.

Complete the below worksheet and include any documentation required to support the request to use an alternative water source for a private drinking water supply. Include this worksheet with your water availability form application.

- 1. Is the above parcel within the service area boundary of a PWS or within 1/2 mile of a PWS?
2. Can a new uncontaminated well be drilled?
3. Is there a nearby uncontaminated well that can provide a connection?

Additional explanation for requesting an alternative private drinking water supply:

Blank lines for providing additional explanation.

I certify that I have read and examined this application with attachments and know the same to be true and correct. I understand that nothing in this approval shall be construed as satisfying other applicable federal, state, or local, statutes, ordinances or regulations and that information submitted is subject to the Public Records Act RCW 42.56.

Sign: Print: Date:



WATER AVAILABILITY FORM
PRIVATE WATER SUPPLY
RAINWATER CATCHMENT
Water Budget

WHATCOM COUNTY
HEALTH DEPARTMENT
 509 Girard Street
 Bellingham, WA 98225
 Telephone: 360-778-6000
 Fax: 360-778-6001

Applicant Information:

Property Owner: _____ Phone: _____

Tax Parcel Number (twelve digit number): _____

Instructions:

Complete this worksheet to determine the size of the roof collection area and the amount of water storage required for a rainwater catchment water supply. If a different rainfall amount or location is used for the calculations, justify the alternate values.

Step 1 Number of users (minimum 2): _____
 Gallons per day/person: x _____ (50gal/person/day min, recommend 65gal)*
 Gallons per day: = _____
 *Gallons per day for indoor water use only. Increase amount for outdoor water use, if necessary.

Step 2 Gallons per day: _____ (Total from Step 1)
 Days in residence/year: x _____
 Total water use per year: = _____

Step 3 Rainfall (see table below): _____
 Water/square ft/inch of rain: _____ 0.623
 Gallons water/square ft/year: = _____

Rainfall Table (Western Regional Climate Center www.wrcc.dri.edu)

Blaine	41"
Bellingham	35"
Clearbrook	46"
Glacier	61"
Lake Whatcom	64"
Marietta	32"

Step 4 Total water use per year: _____ (Total from Step 2)
 Gallons water/square ft./year: ÷ _____ (Total from Step 3)
 Square ft. roof area required: = _____ ft²

Step 5 Days of storage needed: _____ (90 days minimum)
 Gallons required per day: x _____ (Total from Step 1)
 Gallons of storage required: = _____

REQUIRED COLLECTION AREA (roof area): _____ ft² (Total from Step 4)

REQUIRED STORAGE CAPACITY: _____ gallons (Total from Step 5)

CERTIFICATION OF DESIGNER:

I have carefully reviewed the requirements of the Whatcom County Health Department's Water Availability Policy for design of rainwater catchment and treatment systems. The rainwater catchment and treatment system designed for the above building is in full compliance with the Health Department's Water Availability Policy and effectively secures a potable water supply for the building.

Sign: _____ Print: _____ Date: _____



WATER AVAILABILITY FORM
PRIVATE WATER SUPPLY
RAINWATER CATCHMENT
Design Checklist

WHATCOM COUNTY
HEALTH DEPARTMENT
509 Girard Street
Bellingham, WA 98225
Telephone: 360-778-6000
Fax: 360-778-6001

Applicant Information:

Property Owner: _____ Phone: _____

Tax Parcel Number (twelve digit number): _____

Instructions:

Complete the following list of required components for the rainwater catchment system. Itemize materials used and **include specification and certification sheets**. Items c-f below must comply with NSF, FDA, or AWWA Drinking Water Standards for potable water (include model #, manufacturer and NSF, FDA or AWWA certification, and sizing).

Include a water system schematic on 8 ½ x 11 inch paper.

a. Roofing Material (enameled metal, tile or cement tile): _____

b. Rain gutters (PVC or enameled metal): _____

c. Pre-storage filtration: _____

d. Water Storage Tanks: _____

e. Filtration (must meet NSF Standard 53 or 58 for cyst removal): _____

f. Disinfection (ultraviolet disinfection units must be NSF Standard 55 approved Class A and have a system failure warning device): _____

CERTIFICATION OF DESIGNER:

I have carefully reviewed the requirements of the Whatcom County Health Department's Water Availability Policy for design of rainwater catchment and treatment systems. The rainwater catchment and treatment system designed for the above building is in full compliance with the Health Department's Water Availability Policy and effectively secures a potable water supply for the building.

Sign: _____ Print: _____ Date: _____

RETURN DOCUMENT TO:

Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225

Use dark black ink and print legibly. Documents not legible will be rejected per RCW.

Document Title(s):

Affidavit of Owner or Operator and Designer

Grantor(s):

Page number where additional grantor(s) can be found:

Grantee(s):

Page number where additional grantee(s) can be found:

Abbreviated legal description: (lot, block, plat name or; qtr/qtr, section, township & range or; unit, building and condo name). *Complete legal description from current deed must also be attached.*

Page number where complete legal description can be found:

Assessor's Parcel Number:

RETURN DOCUMENT TO:

Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225

Use dark black ink and print legibly. Documents not legible will be rejected per RCW.

Affidavit of Owner/Operator

STATE OF WASHINGTON)
)
COUNTY OF WHATCOM) ss. Affidavit of _____

being first duly sworn upon oath, deposes and says: I have a rainwater catchment and treatment system for the building located at:

Address: _____

Tax Parcel Number (twelve digit number): _____

Legal description: _____

I understand that the only source of water for this property is collected rainwater that is stored and treated. The total number of gallons stored on-site and the treatment system design are detailed in the approved water availability packet. I agree to adhere to the operation, maintenance and monitoring plan outlined in the approved rainwater catchment treatment design.

I understand that the obligation to comply with treatment system design, installation, operation and monitoring lies with the property owner and not Whatcom County.

I agree to disclose all provisions of the plan to any person to whom I sell, lease, rent, or otherwise allow to occupy the building or operate the treatment system.

The rainwater catchment system is designed for _____ person(s), _____ days per year.

SUBSCRIBED and SWORN to before me this _____ day of _____, 20____.

NOTARY PUBLIC in and for the State of Washington

Residing at: _____

My Commission expires: _____

RETURN DOCUMENT TO:

Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225

Use dark black ink and print legibly. Documents not legible will be rejected per RCW.

Document Title(s):

Affidavit of Installer

Grantor(s):

Page number where additional grantor(s) can be found:

Grantee(s):

Page number where additional grantee(s) can be found:

Abbreviated legal description: (lot, block, plat name or; qtr/qtr, section, township & range or; unit, building and condo name). *Complete legal description from current deed must also be attached.*

Page number where complete legal description can be found:

Assessor's Parcel Number:

RETURN DOCUMENT TO:

Whatcom County Health Department
509 Girard Street
Bellingham, WA 98225

Use dark black ink and print legibly. Documents not legible will be rejected per RCW.

Affidavit of Installer

STATE OF WASHINGTON)
)
COUNTY OF WHATCOM) ss. Affidavit of _____

being first duly sworn upon oath, deposes and says: I have installed a rainwater catchment and treatment system for the building located at:

Address: _____

Tax Parcel Number (twelve digit number): _____

Legal description: _____

The rainwater catchment and treatment system installed at the above residence is installed according to the design approved by the Whatcom County Health Department. All components and materials used in the water treatment system are as specified in the approved design. The attached treated water sample results verifying system performance were taken from the residence served by the treatment system.

SUBSCRIBED and SWORN to before me this _____ day of _____, 20____.

NOTARY PUBLIC in and for the State of Washington

Residing at: _____

My Commission expires: _____