



# State of Washington Application for a Drought Permit



For Ecology Use FM  
 Fee Paid 10.00  
 Date 6/28/05  
 CK# 022415

Please follow the attached instructions to avoid unnecessary delays.

## Section 1. APPLICANT - PERSON, ORGANIZATION, OR WATER SYSTEM

Name: **City of Goldendale; Attn: Dave Griffin – Public Works Director** Mobile Tel: (509) 250 - 0796  
 Mailing Address: **700 Railroad Avenue** Work Tel: (509) 773 - 5344  
 City: **Goldendale** State: **WA** Zip: **98620 - 9630** FAX: (509) 773 - 5346

## Section 2. CONTACT - PERSON TO CALL ABOUT THE APPLICATION

Same as above

Name: N/A Mobile Tel: \_\_\_\_\_  
 Mailing Address \_\_\_\_\_ Work Tel: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip+4 \_\_\_\_\_ + \_\_\_\_\_ FAX: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
 Relationship to applicant: **same**

## Section 3. STATEMENT OF INTENT

The applicant requests a permit to use not more than: **450** ( gallons per minute or  cubic feet per second) from a  surface water source or  ground water source (check only one) for the purpose(s) of: **emergency supply for municipal use within the City of Goldendale Service Area** NOTE: A tax parcel number or a plat number is not sufficient.  
 Estimate a maximum annual quantity to be used in acre-feet per year: **77 acre-feet**

Check if the water use is proposed for a short-term project. Indicate the period of time that the water will be needed:  
 From \_\_\_ / \_\_\_ / \_\_\_ to \_\_\_ / \_\_\_ / \_\_\_

## Section 4. WATER SOURCE

If SURFACE WATER					If GROUNDWATER				
Name the water source and indicate if stream, spring, lake, etc. If unnamed, write "unnamed spring," "unnamed stream," etc.:					A permit is desired for <b>1 well(s) – referred to as the Dingmon Well. See Attachment A – Well Location Map, Attachment B – Platt Map, and Attachment C – original Driller's Well Log (prior to modification)</b>				
Number of diversions: _____					Size & depth of well(s): <b>10-inch casing to 29.6 feet. Total measured depth - 513 feet (per inspection and testing by Hanson Drilling in August 2000). The well was apparently modified (reamed) from the original 8-inch diameter and depth of 307 feet. No well log is available showing the modifications.</b>				
Source flows into (name of body of water):									
<b>LOCATION</b>									
Enter the north-south and east-west distances in feet from the point of diversion or withdrawal to the nearest section corner: <b>250 feet west and 400 feet south of NE corner of section 28 (identified as 28A1 on Attachment A and POW on Attachment B)</b>									
¼ of	¼ of	Section	Township	Range(E/W)	County	If location of source is platted, complete below:			
						Lot	Block	Subdivision	
<b>NE</b>	<b>E</b>	<b>28</b>	<b>4N</b>	<b>16E</b>	<b>Klickitat</b>				
For Ecology Use Date Received: <u>JUNE 28, 2005</u> Priority Date: <u>JUNE 28, 2005</u> <span style="float: right;"><b>Klickitat</b></span>									
SEPA: Exempt/Not Exempt _____ FERC License # _____ Dept. Of Health # _____									
Date Accepted As Complete <u>06/28/05</u> By <u>[Signature]</u> Date Returned _____ By _____ WRIA: <u>30</u>									

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## Section 5. GENERAL WATER SYSTEM INFORMATION

A. Name of system, if named: **City of Goldendale**

B. Briefly describe your proposed water system. **(See instructions.)**

The City of Goldendale's Water System Plan was updated in May 2004. At the time the Plan was updated, the water system has 1,379 connections including residential, commercial, and a range of other uses. The largest single water user is the Goldendale Energy Facility (operated by Calpine), located on the south end of the City. The City has three water supply sources, including the Simcoe Mountain Springs, Chlorination Station Well, and Basse Well Field. In addition, the City historically has used Bloodgood Springs as an emergency water supply. With the transfer of the Bloodgood Springs water rights to the Chlorination Station Well in 2003 and the costly treatment requirements, the City currently does not have an on-line emergency supply source. The intent of this application is to obtain a drought permit to authorize the City to utilize the Dingmon Well as an emergency source of supply due to the drought impacts to the other sources - particularly the Simcoe Mountain Springs and Basse Well Field.

Goldendale has experienced emergency conservation measures due to shortages in meeting peak demand throughout the past 15 years and has continued to augment its predominantly spring based water supply with development of groundwater sources at the Chlorination Station and Basse Well Field. However, the drought related reduction in recharge to these sources, particularly Basse Well Field, is projected to impact the City's ability to exercise its full water right authorization in 2005. Reduced recharge to the basalt aquifer supporting the Basse Well Field has resulted in a significant reduction in the available drawdown and consequently the pumping capacity very early in the irrigation season. The City is therefore actively pursuing getting the Dingmon well on-line as an emergency supply source to offset potential drought related decline in yield of its combined sources.

C. Do you already have any water rights or claims associated with this property or system?  YES  NO  
PROVIDE DOCUMENTATION.

Certificate Record No. XVII of Adjud. Water Right Certificate (p.11) - Simcoe Mountain Springs (Emerson, Jim Shaw, Pipeline Springs). Instantaneous right of 3.0 cfs; annual quantity of 1,363 acre-feet/year (afy);

Certificate Record No. XVII Of Adjud. Water Right Certificate (p.63)- Simcoe Mountain Springs (Rockwell, Big, unnamed Springs), instantaneous right of 0.51 cfs; and annual quantity of 371 afy (supplemental);

Certificate Record No. XVII, of Adjudicated Water Right Certificates (p.66 and p.76) - Bloodgood Springs, combined instantaneous right of up to 1.6 cfs (.6 cfs of which is a shared right), and annual quantity of 1,338 afy (entirely supplemental). These two certificated rights have been transferred to the City's Chlorination Station Well under changes CS4-ADJ79p66 and CS4-ADJ79P76 approved April 7, 2003.

G3-20076CWRIS - Third Street Well, instantaneous right of 3.12 cfs and annual quantity of 784 afy (entirely supplemental).

## Section 6. DOMESTIC / PUBLIC WATER SUPPLY SYSTEM INFORMATION (Completed for all domestic/public supply uses.)

- A. Number of "connections" requested: **1,379 existing connections** Type of connection **municipal supply**  
(Homes, Apartment, Recreational, etc.)
- B. Are you within the area of an approved water system?  YES  NO  
If yes, explain why you are unable to connect to the system. *Note: Regional water systems are identified by your County Health Department. The requested drought permit is for an emergency supply source to be hooked into the City of Goldendale's existing water supply system. This application does not request any increase in the number of connections over the existing.*

**Complete C. and D. only if the proposed water system will have fifteen or more connections.**

- C. Do you have a current water system plan approved by the Washington State Department of Health?  YES  NO  
If yes, when was it approved? **Updated May 2004** Please attach the current approved version of your plan.
- D. Do you have an approved conservation plan?  YES  NO  
If yes, when was it approved? **Updated May 2004** Please attach the current approved version of your plan.

APPLICATION

**Section 7. IRRIGATION/AGRICULTURAL/FARM INFORMATION**  
(Complete for all irrigation and agriculture uses.)

- A. Total number of acres to be irrigated: N/A
- B. List total number of acres for other specified agricultural uses:  
Use \_\_\_\_\_ Acres \_\_\_\_\_  
Use \_\_\_\_\_ Acres \_\_\_\_\_  
Use \_\_\_\_\_ Acres \_\_\_\_\_
- C. Total number of acres to be covered by this application: \_\_\_\_\_
- D. Family Farm Act (Initiative Measure Number 59, November 3, 1977, as amended by Chapter 237, Laws of 2001)  
Add up the acreage in which you have a controlling interest, including only:  
‡ Acreage irrigated under water rights acquired after December 8, 1977;  
‡ Acreage proposed to be irrigated under this application;  
‡ Acreage proposed to be irrigated under other pending application(s).
1. Is the combined acreage greater than 6000 acres?  YES  NO
2. Do you have a controlling interest in a Family Farm Development Permit?  YES  NO  
If yes, enter permit no: \_\_\_\_\_
- E. Farm uses:  
Stockwater - Total # of animals \_\_\_\_\_ Animal type \_\_\_\_\_ (If dairy cattle, see below)  
Dairy - # Milking \_\_\_\_\_ # Non-milking \_\_\_\_\_

**Section 8. WATER STORAGE**

Will you be using a dam, dike, or other structure to retain or store water?  YES  NO

**The emergency supply source will be hooked into the City's existing water distribution system which includes several water supply reservoirs. No additional reservoirs are proposed as part of this emergency permit.**

*NOTE: If you will be storing 10 acre-feet or more of water and/or if the water depth will be 10 feet or more at the deepest point, and some portion of the storage will be above grade, you must also apply for a reservoir permit. You can get a reservoir permit application from the Department of Ecology.*

**Section 9. DRIVING DIRECTIONS**

Provide detailed driving instructions to the project site.

**The Dingmon Well is located east of the City of Goldendale, on the east side of Highway 97. ON Highway 97 take the Simcoe Drive exit. Once on Simcoe Dr. take a right at the first intersection onto Roosevelt St proceed North to stop sign at Collins Dr., take a right on Collins Dr. and go over the overpass of Highway 97 take a right at the first intersection onto Dingmon Rd. proceed South 2000 feet to site.**

**Section 10. REQUIRED MAP**

- A. Attach a map of the project. (See instructions.)  
See Attachment B.

**Section 11. PROPERTY OWNERSHIP**

- A. Does the applicant own the land on which the water will be used?  YES  NO  
If no, explain the applicant's interest in the place of use and provide the name(s) and address(es) of the owner(s):

The place of use is the City of Goldendale service area.

- B. Does the applicant own the land on which the water source is located?  YES  NO  
If no, submit a copy of agreement:

See Attachment D - Agreement with Well Owner

**I certify that the information above is true and accurate to the best of my knowledge. I understand that in order to process my application, I grant staff from the Department of Ecology access to the site for inspection and monitoring purposes. Even though I may have been assisted in the preparation of the above application by the employees of the Department of Ecology, all responsibility for the accuracy of the information rests with me.**

Mark Sig  
Applicant (or authorized representative)

6/26/05  
Date

Same  
Landowner for place of use (if same as applicant, write "same")

Date

Use this page to continue your answers to any questions on the application. Please indicate section number before answer.

**Section 3.0 Statement of Intent (expanded explanation):** The City of Goldendale is requesting a drought permit for use of the Dingmon Well at a maximum instantaneous of 450 gpm and maximum volume of 77 acre-feet in 2005 as an emergency supply. As a result of very low snow pack and limited recharge to its existing spring and groundwater sources, the City is experience a significant decline in yield at the Simcoe Mountain Springs and declining available drawdown in the two wells comprising the Basse Well Field. The City has requested and has been authorized a drought permit to provide a temporary increase in the maximum pumping rate at the Chlorination Station Well which will partially offset the reduced yield at the springs. However, the City is also projecting a drop in yield from the Basse Well Field based on an observed rate of decline in the water levels relative to the prior three years. The water level decline over the past 6 weeks in the Basse Wells has reduced the available drawdown by 20 to 25 percent. Although declines were observed in the Basse Wells in prior years in response to irrigation pumping by others, the water levels generally recovered this early in the season and exhibited a more gradual rate of decline as the irrigation season progressed. The water level declines appear to be due to the reduced recharge to the basalt aquifer resulting from low annual precipitation, which has been below average for 5 of the past 6 years. The limited recharge has been further exacerbated by the drought conditions so far in 2005. It is the rapid rate of decline thus far in summer 2005, relative to prior years, that has the City concerned. Attachment E shows the water level versus pumping trends for 2004 versus 2005, with assumed similar irrigation pumping by others. Attachment F shows the precipitation trend over the past 40 years and through January 2005. Coincident with declining water levels and well yield, is a projected increase in peak water supply demand with the start up and full capacity operation of the Goldendale Energy facility.

The City of Goldendale's has existing water rights at the Basse Well Field for a maximum instantaneous rate of 1,425 gpm and annual volume of 479.2 acre-feet/year. The City typically operates only one of the two Basse wells at a time, at an average rate of 800 gpm (Well #1) to 1,000 gpm (Well #2), to minimize interference effects. To meet the on-line peak water supply demand of Goldendale Energy, the City may need to fully exercise the maximum instantaneous right of 1,425 gpm. With the declining water levels at the Basse Well field and the anticipated further decline from the Simcoe Springs, this may not be feasible. The requested 450 gpm for the Dingmon Well, if approved would offset a decline in yield of approximately 30% due to loss of available drawdown in the Basse Wells. The proposed volume of 77 acre-feet would allow for 3 months of operations for 10 hours per day, which is the projected period of peak demand over the balance of 2005 through the irrigation season.

**Section 4.0 Water Source (expanded discussion):** The City contracted with Hansen Drilling Co., Inc. out of Vancouver, Washington, in August 2000 to pull the existing pump in the Dingmon Well and inspect the well. At that time it was determined that the well was 513 feet deep, not 307 feet as reported on the available well log. Based on information from the owner, the well was originally 8-inches in diameter and was later reamed to 10-inch and deepened. The well is completed in multiple members of the Wanapum Basalt, which is commonly used for water supply in the area. Most of the wells identified in the area however are generally completed at shallow depths of 150 to 360 feet. Attachment A shows the location of surrounding wells.

The City's objective in testing the well was to confirm the yield, reported to be on the order of 600 gpm by the owner, and also the water quality. The well inspection and testing occurred between August 26, 2000 and August 31, 2000. The pump intake was set at 422 feet and run for 1.5 hours at an estimated rate of 450 gpm. Hansen Drilling reported a static water level prior to the test of 83 feet (below the top of casing) and a pumping level of 141.5 feet prior to shutting down the test, resulting in approximately 59 feet of drawdown. Given the depth of the well and the reported specific capacity, the well should be capable of a sustained yield of 450 gpm. The well was reportedly pumped at a rate of 600 gpm for irrigation in the past.

The reported water quality was good, with a total hardness of 84 mg/L, based on water quality testing by the City in 1998 and 2000.

We are returning your application for the following reason(s):	
<input type="checkbox"/> Examination fee was not enclosed	APPLICANT PLEASE RETURN TO CASHIER, PO BOX 5128, LACEY, WA 98509-5128
<input type="checkbox"/> Section number(s) _____ is/are incomplete	APPLICANT PLEASE RETURN TO THE APPROPRIATE REGIONAL OFFICE
Explanation:	
Please provide the additional information requested above and return your application by _____ (date).	

← The Dingman well  
logs indicate a  
CASING depth of  
only 32 ft - effects  
of pumping would  
propagate to shall  
and deep wells  
as a result  
RW.

Ecology staff \_\_\_\_\_

Date \_\_\_\_\_

Ecology is an Equal Opportunity employer.

**APPLICATION**