



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

September 25, 2013

HOWARD HOSKINS
21815 HUMMINGBIRD LN
CULDESAC ID 83524

RE: License Nos. 85-15746 & 85-15747

Issuance of Licenses

Dear Water Right Holder(s):

The Department of Water Resources has issued the enclosed Water Right Licenses confirming that water rights have been established in accordance with your permits. Please be sure to thoroughly review the conditions of approval and remarks listed on your licenses.

The licenses are PRELIMINARY ORDERS issued by the Department pursuant to section 67-5243, Idaho Code. They can and will become final orders without further action by the Department unless a party petitions for reconsideration or files an exception and/or brief within fourteen (14) days of the service date as described in the enclosed information sheet.

Both of your licenses are based on the field examinations that were previously conducted. The field examiner found that your irrigation ponds exceed the volume authorized by any of your water rights. You will need to file an application for permit to cover the water that is stored in the ponds. Please note that your application for permit should include enough volume to account for the capacity of the ponds and losses caused by evaporation and seepage.

Please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a \$100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

If you have any questions, please contact me at 208-287-4916.

Sincerely,

Craig L. Saxton
Water Rights Supervisor

Enclosure(s)

CERTIFICATE OF SERVICE

I hereby certify that on September 26, 2013, I mailed a true and correct copy, postage prepaid, of the foregoing PRELIMINARY ORDERS (Approved Licenses) to the person(s) listed below:

RE: WATER RIGHT NOS.

85-15746 & 85-15747

**HOWARD HOSKINS
21815 HUMMINGBIRD LN
CULDESAC ID 83524**



**Darla Block
Technical Records Specialist**

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "Preliminary Order" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) The petition for reconsideration is disposed of; or
- (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held,
- ii. The final agency action was taken,
- iii. The party seeking review of the order resides, or
- iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

State of Idaho
Department of Water Resources
Water Right License

WATER RIGHT NO. 85-15747

Priority: February 15, 2005

Maximum Diversion Rate: 0.07 CFS
Maximum Diversion Volume: 24.3 AF

It is hereby certified that HOWARD HOSKINS
21815 HUMMINGBIRD LN
CULDESAC ID 83524 has complied with the terms and
conditions of the permit, issued pursuant to Application for Permit dated February 15, 2005; and has
submitted Proof of Beneficial Use on October 27, 2010. An examination confirms water is diverted from:

SOURCE

GROUND WATER

and a water right has been established as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL DIVERSION VOLUME</u>
HEATING	01/01 to 12/31	0.03 CFS	21.7 AF
COOLING	01/01 to 12/31	0.03 CFS	21.7 AF
DOMESTIC	01/01 to 12/31	0.04 CFS	2.6 AF

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 11, Twp 36N, Rge 03W, B.M. NEZ PERCE County

PLACE OF USE: COOLING, DOMESTIC, and HEATING

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
36N	03W	11											X						

CONDITIONS OF APPROVAL

1. Domestic use is for one home.
2. Rights 85-7547 and 85-15747 when combined shall not exceed one home.
3. Heating and cooling uses are for one home.
4. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed this 25th day of September, 2013.


for GARY SPACKMAN
Director

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-15747
Exam Date: June 15, 2012

1. Current Owner: HOWARD HOSKINS
21815 HUMMINGBIRD LN
CULDESAC ID 83524
(208)836-5888

2. Accompanied by: Howard Hoskins

3. **SOURCE**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 85-15746 (irrigation only), 85-7547 (irrigation and domestic)
2. Other water rights with the same point of diversion: none

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER SW1/4SW1/4 Sec. 11, Twp 36N, Rge 03W, B.M. NEZ PERCE County

Method of Determination: GPS (46.472934, -116.681378)

2.

PLACE OF USE: HEATING, COOLING, AND DOMESTIC

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
36N	03W	11																	

Method of Determination: Aerial Imagery and Field Visit

3. ☒ Delivery System Diagram Attached (required).
- ☐ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required).
- ☐ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
A0018516		5hp			2"

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
FUJI Ultrasonic Flow Meter						04/2013

2. Measurements:

Open discharge from the fire hydrant using Fuji
Discharge to two lawn sprinklers using Fuji

E. FLOW CALCULATIONS

___x___Additional Computation Sheets Attached

Measured Method:

When the system is open discharging, the Fuji recorded a measurement of 45 gpm.

When the system was running through the sprinkler, the Fuji recorded a measurement of 11 gpm. --Higher pressure is occurring in this case. If all domestic fixtures were running at one time, the system can obviously provide a higher rate of water.

Conclusion: The system is capable of diverting up to 45 gpm and the license will be based on a system capacity of 45 gpm or 0.10 cfs. Note that the licensed rate will be limited to 0.07 cfs because the heating/cooling system runs either cooling or heating water, they don't run at once so the overall water requirements of the system is 12 gpm or 0.03 cfs. Domestic + Heating/Cooling = 0.07 cfs

--There is a separate feed for domestic water from the heating/cooling water so the domestic and heating/cooling water is additive.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation for domestic use: 0.5 acre x 4 = 2 af

2. Volume Calculations for Other Uses:

domestic use standard in-home use = 0.6 af

Heating and cooling determined to use the maximum volume available (see attached spreadsheet)

$0.03 \times 1.9835 \times 365 = 21.7$ af

Total = 24.3 af

G. NARRATIVE/REMARKS/COMMENTS

The domestic use includes irrigation of lawn and garden from two frost free hydrants and garden hose. There is a fire hydrant on the property—directly west of the pond, near the garden. The hydrant is fed by the domestic well. The heating and cooling system is a Hydron Module, model HC48-4 ton.

There is a spring water right, 85-7547, that provides domestic and irrigation purposes. However, the spring is not used for domestic purposes or irrigation of the lawn/garden. The spring water is on-stream of the pond and is used in connection with irrigation of the place of use of 85-15746. Just in case the spring is ever used again for domestic use, a condition will be added to this license to address the overlap.

Have conditions of permit approval been met? ___x___Yes _____No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
HEATING	01/01 to 12/31	0.030 CFS	21.70 AF
COOLING	01/01 to 12/31	0.030 CFS	21.70 AF
DOMESTIC	01/01 to 12/31	0.040 CFS	2.60 AF
<u>Totals:</u>		0.070 CFS	24.30 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name

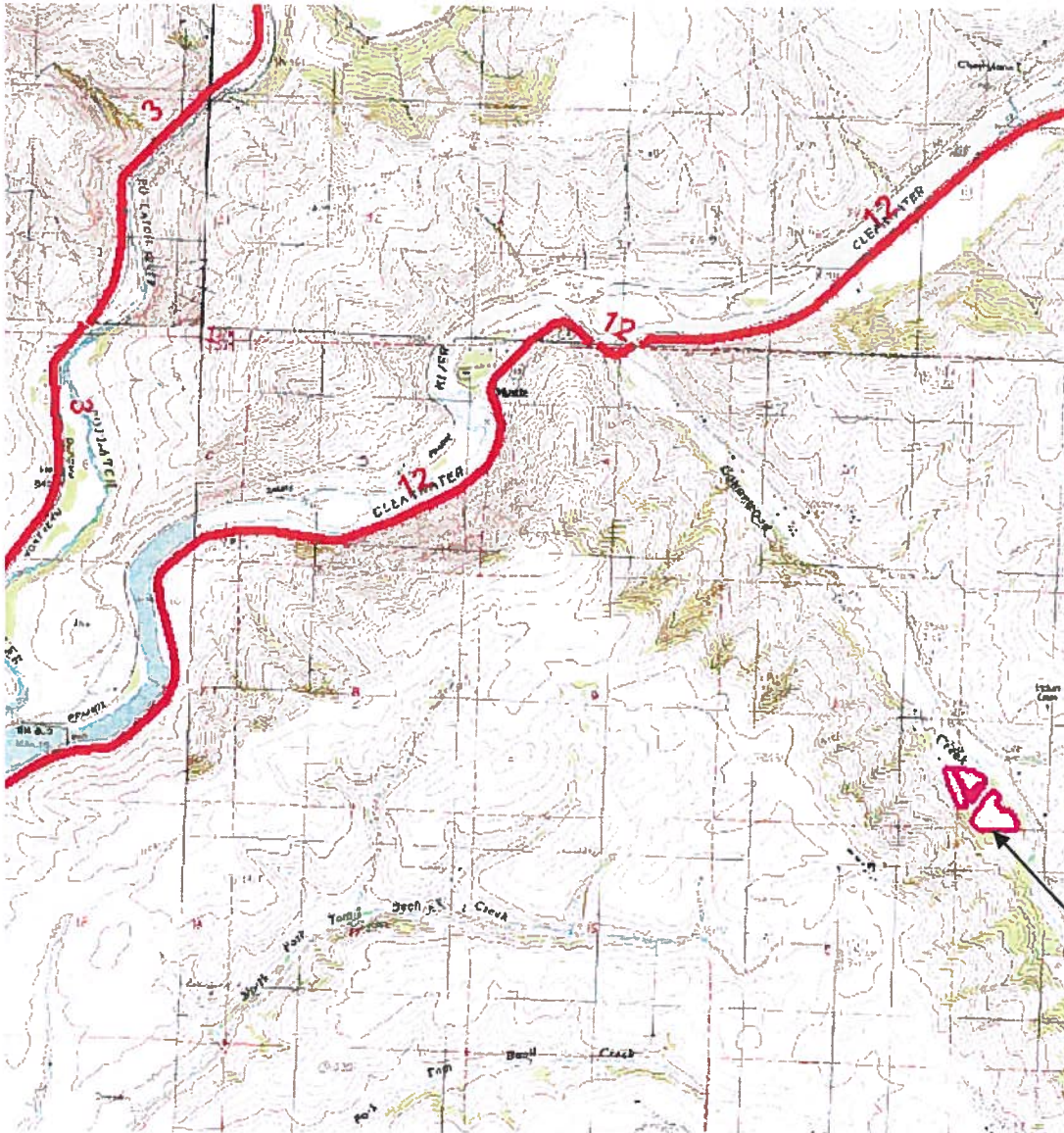
Cherie Palmer

Date

9/17/13

Reviewer

Date

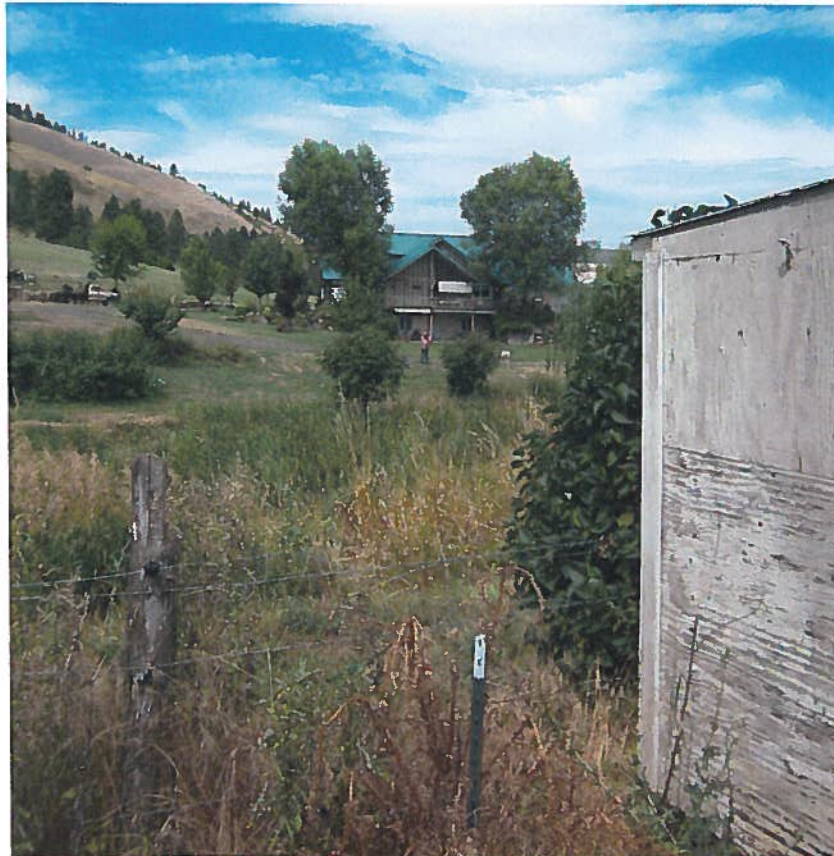


Attachment #1 - overlap analysis

" #2 - Hydron Module Specs

" #3 - Heating/Cooling Worksheet





view of the home
looking north at the
house. PD is to the
right.



Domestic well

Shp pump



open discharge at the well



Pressure gauge on same
spigot as above

Pressure 75 w/ no
water being diverted

when open discharge
45 gpm @ 14'



Hydrant and
irrigation hydrant



Heating/cooling system
in the home's basement



Heating/cooling unit

Manufacturer: **Hydron Module, LLC**
 Mitchell, South Dakota
 Visit our Web Page: <http://www.hydronmodule.com>

Model No.: **HC48**
 Type No.: **WA1V1TR1220**
 Serial No.: **03094196**
 Volts: **208/230** Phase: **1**
 Hz: **60** FLA: **23.1**
 Recommended Breaker Size: **40.0**
 Minimum Circuit Ampacity: **30.0**
 Maximum Overcurrent Protection Device: **45.0**

REFRIGERANT
 Type: **R-22** Oz: **80.0**
 Test PSIG: **400**

COMPRESSOR 
 RLA: **20.7** MCC:
 LRA: **104.0**

BLOWER MOTOR **ECM-2**
 RLA: **2.4** MCC:
 LRA: **9.1** HP: **1.0**

ELECTRO-MODULE
 Model No.: **32EMP152-1**
 KW: **15.0** AMPS: **60.0**
 MIN. CFM: **900**
 Recommended Breaker Size: **75.0**
 Minimum Circuit Ampacity: **75.0**
 Maximum Overcurrent Protection Device: **75.0**
Note: 140' Max. Duct; Minimum Spacing To Combustible Structures 4"



Heating/cooling system

System Notes

There are 2 - 3/4" copper pipes from the well's 2" PVC.

Discharged water from HVAC system is piped to pond. But, when I was on site there was only a drip discharging.



OVERLAP ANALYSIS FOR 85-15747

Type	WR #	Owner	Source	TRS	SESE	Total	SIGNIFICANT Y/N?
Right	85 7547	ANN HOSKINS, HOWARD HOSKINS,	SPRING	36N03W11		5	Y
Right	85 11728	MARLAND P HART,	GROUND WATER	36N03W11	X		N
Right	85 15746	HOWARD HOSKINS,	GROUND WATER	36N03W11		17	N
Right	85 15747	HOWARD HOSKINS,	GROUND WATER	36N03W11		24	N

Conclusion: Right 85-7547 is for the spring water that is comingled in the pond with groundwater.

Spring water is no longer used for domestic purposes.

Right 85-11728 is for a neighboring property and is not overlapping 85-15747.

Attachment 1



Home

**What is a Ground
Source Heat Pump?**



Products

Construction Features

Advantages & Benefits

Training

Technical Support

Newsletters

Company Information

Testimonials

Contact Us

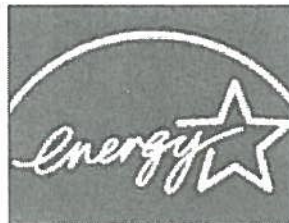
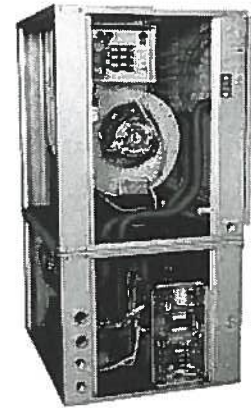
Hydron® module *Colony Series Plus*

ALL STAINLESS STEEL CABINET WITH A LIFETIME WARRANTY

Products >> Single Speed Upflow and Downflow

Small Water to Air HC18 thru HC72 (1.5 thru 6 ton):

- Standard Water to Air Units
- Single Package
- Available in Upflow, Downflow and Horizontal
- Right or Left Return
- 10, 15, and 20 kW Internal Strip Heat Options
- Domestic Water Heating Option
- 208/230 Volt, Multi-Speed, Direct Drive Fans (with ECM Motor optional)
- High Heating Out-Put
- All Panels Removable for Easy Service



All models in this section qualify for Energy Star except the 6 ton units. Energy Star requires the desuperheater option to qualify

Forced Air (Water to Air) Single Compressor

Attachment 2

ARI 330 Performance Ratings (ISO 13256-1)

Based on 32° entering water temperature in heating mode
and 77° entering water temperature in cooling mode.
(Includes Pump Penalties)

Model #	CFM	GPM	BTU/hr Heating	COP	BTU/hr Cooling	EER
HC18	600	5.0	16,200	3.7	20,000	16.3
HC24	800	6.0	21,300	3.4	25,800	15.5
HC30	1000	7.0	26,700	3.5	32,100	16.0
HC36	1200	9.0	32,000	3.4	38,500	15.8
HC42	1400	11.0	37,300	3.6	46,400	15.7
4ton HC48	1600	12.0	41,800	3.5	50,400	15.4
HC54	1800	13.0	48,000	3.5	57,800	15.4
HC60	2000	14.0	56,200	3.4	65,300	15.0
HC72	2400	16.0	61,000	3.1	72,800	13.5

*World's Best Built Heat Pump*E-mail: heatpump@energy-dynamics.com

Copyright © Energy Dynamics 1997-2003; All Rights Reserved.

Heating, Water Heating and Cooling Energy, Cost and Carbon Dioxide Estimator*

Heating Cost Estimator

Fuel Type	Cost/Unit	Units	c/kBtu (site)
Electric	12	c/kWh	3.52
Natural Gas	\$1.60	\$/therm	1.55
Propane	\$2.50	\$/gal	2.74
Heating Oil	\$3.00	\$/gal	2.14
Wood	\$200.00	\$/cord	1.00
FYI - Unit Energy Cost Comparison to Gasoline			
Gasoline	\$3.00	\$/gal	= 2.46

FloorArea	3000	ft ²
HeatLoss		kBtu/h
HeatSqFt	30	kBtu/h-ft ² →
HeatReqd	90.0	kBtu/h
HeatHours	1500	Hours/year

Read Me



GPMpTonH
GPMpTonC

Heating
Cooling
Total

Read Me

12	Gal/min
12	Gal/min
8100000	Gal/year
504000	Gal/year
8604000	Gal/year
1150267	Cu.Ft./year
26.407	AcreFt/year

HeatHours Estimates			
Region		Low	High
South	House	600	800
	School	200	400
	Office	200	700
Mid-USA	House	800	1000
	School	300	500
	Office	700	900
North	House	1000	1500
	School	500	800
	Office	900	1100

HeatSqFt Estimates (kBtu/h per 1000 ft ² of Floor Area)					
Region		Poor Quality	Std. Quality	Hi. Quality	Super Eff.
South	House	30	20	15	10
	School	30	22	15	10
	Office	22	18	14	11
Mid-USA	House	40	32	25	16
	School	35	27	20	13
	Office	25	22	15	12
North	House	50	40	30	20
	School	40	30	25	15
	Office	30	24	18	13

Cooling Cost Estimator

Cooling Electric Rate	Cost/Unit	Units	HeatGain
ElectricSum	14	c/kWh	
			kBtu/h
			CoolSqFt
			CoolReqd
			CoolHours

CoolHours Estimates			
Region		Low	High
South	House	1100	1600
	School	600	1000
	Office	1200	1800
Mid-USA	House	800	1000
	School	400	550
	Office	700	1100
North	House	200	300
	School	200	300
	Office	300	600

CoolSqFt Estimates (kBtu/h per 1000 ft ² of Floor Area)					
Region		Poor Quality	Std. Quality	Hi. Quality	Super Eff.
South	House	32	25	17	10
	School	65	53	36	31
	Office	35	28	20	15
Mid-USA	House	30	22	15	9
	School	60	48	38	28
	Office	30	25	17	14
North	House	28	20	14	8
	School	50	42	30	26
	Office	28	22	16	12

*Reference: Steve Kavanagh PhD, Professor of Mechanical Engineering at University of Alabama

Conclusion: This spreadsheet provides a quick check on the volume of water necessary to heat/cool a standard home. Based on standard heating and cooling hours and BTU requirements, the calculator suggests that ~26 af is at the upper limit of how much water is required. Because the diversion rate could only provide for 21.7 AF, I recommend that the heating/cooling volume be 21.7 AF.



GPMpTonH
GPMpTonC

Heating
Cooling
Total

12	Gal/min
12	Gal/min
=(HeatReqd/12)*GPMpTonH*HeatHours*60	Gal/year
=(CoolReqd/12)*GPMpTonC*CoolHours*60	Gal/year
=SUM(K7:K8)	Gal/year
=K9/7.48	Cu.Ft./year
=K10/43560	AcreFt/year

* indicates input information