Application No. 58177 Permit No. 43944 DB

RECEIVED
DEC 12 1978
WATER RESOURCES DEPT
SALEM, OREGON

STATE OF OREGON WATER RESOURCES DEPARTMENT

Application for Permit to Appropriate Surface Water

I, Leonard D. Terry (Name of Applicant)

of Box 41 A Cow Cr. Rd. (Mailing Address), Azalea (City)

State of Oregon, 97410 (Zip Code) Phone No. 837-3350 do hereby

make application for a permit to appropriate the following described waters of the State of Oregon:

1. The source of the proposed appropriation is 4 unnamed streams, tributaries of Cow Cr. and Cow Creek & 5 Reservoirs and 2 springs, a tributary of S. Umpqua R.

2. The point of diversion is to be located .... ft. (N. or S.) and .... ft. (E. or W.) All located from the W 1/4 corner of section 28 T. 31S. R. 4W. W.M. (Public Land Survey Corner)

Div. #1: ~~630~~ 720'S and ~~120'E~~ 10'W; w/in NW 1/4 SW 1/4. Div. #5: ~~2470'S~~ 2530'S & ~~1360'E~~ 970'E; w/in ~~SE 1/4~~ SW 1/4 SW 1/4.

(If there is more than one point of diversion, each must be described)

Div. #2: ~~1730'S~~ 1790'S and ~~40'E~~ 110'W; w/in SW 1/4 SW 1/4. Div. #6: ~~2400~~ ~~1080~~ 1200'N & ~~1550'E~~ 1370'E; w/in SE 1/4 NW 1/4.

Div. #3: ~~1190'S~~ 1250'S and ~~1100'E~~ 500'E; w/in NW 1/4 SW 1/4. Div. #7: ~~740'N~~ 750'N & ~~1440'E~~ 1150'E; w/in ~~SE 1/4~~ SW 1/4 NW 1/4.

Div. #4: ~~640'S~~ 770'S and ~~2350'E~~ 2160'E; w/in NE 1/4 SW 1/4. ~~Pond~~ #8: ~~940'S~~ 1060'S and ~~530'E~~ 450'E; ~~Pond~~ #9: ~~400'S~~ 210'S and ~~630'E~~ 910'E } w/in NW 1/4 SW 1/4 being within the .... 1/4 of the .... 1/4 of

Sec. 28 Tp. 31 S (N. or S.) R. 4W (E. or W.), W. M., in the county of Douglas

3. Location of area to be irrigated, or place of use if other than irrigation.

Township	Range	Section	List 1/4 1/4 of Section	List use and/or number of acres to be irrigated
31S	4W	28	SW 1/4 NW 1/4	~~12.0 Ac.~~ 2.8
			~~SE 1/4 NW 1/4~~	~~3.5 Ac.~~ 0.0
			~~NW 1/4~~ NE 1/4 SW 1/4	~~33.5 Ac. and Domestic~~ 6.3
			~~NE 1/4~~ NW 1/4 SW 1/4	~~11.0 Ac.~~ 22.0
			SW 1/4 SW 1/4	Domestic ~~inc. 1/2 ac.~~ (DIV #2)
			~~SE 1/4 SW 1/4~~	Domestic inc. 1/2 ac.
				~~60~~ 31.1 Ac. Total.

6-9-90 BJ - FIELDCHECK 4019 376 286R

Form 690-1-0-1-77

Application No. 58177 Permit No. 43944

Permit to Appropriate the Public Waters of the State of Oregon

This is to certify that I have examined the foregoing application and do hereby grant the same SUBJECT TO EXISTING RIGHTS INCLUDING THE EXISTING FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 0.41 cfs ~~0.765~~ *cubic feet per second measured at the point of diversion from the stream, or its equivalent in case of rotation with other water users, from* four unnamed streams and 2 springs storage of water in ~~five~~ seven reservoirs to be constructed under application No. R-58176 permit No. R-7800, and Cow Creek.

The use to which this water is to be applied is irrigation and domestic use, being 0.01 cfs from unnamed stream No. 1 for domestic use for two families including the irrigation of not to exceed ½ lawn and garden for each from unnamed stream No. 1, 0.005 cfs from unnamed stream No. 2 for domestic use for one family, 0.375 cfs from unnamed stream No. 2 and reservoirs No'd. 1, 2 and 3 for irrigation, 0.225 cfs from unnamed stream No.3 and reservoir No. 4 for irrigation, 0.15 cfs from * of 31.1 A for (4) families

If for irrigation, this appropriation shall be limited to 1/70th *of one cubic foot per second or its equivalent for each acre irrigated* and shall be further limited to a diversion of not to exceed 3½ acre feet per acre for each acre irrigated during the irrigation season of each year.

* unnamed stream No. 4 and reservoir No. 5 for irrigation, with any defeciency in the avaljable supply of water for irrigation to be made up by diversion from Cow Creek.

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The priority date of this permit is December 12, 1978

Actual construction work shall begin on or before March 20, 1980 *and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19*80

*Complete application of the water to the proposed use shall be made on or before October 1, 19*81

WITNESS my hand this 20th *day of* March, *19*79

DEPUTY Water Resources Director

Application No. R-58176 Permit No. R 7800

DB

RECEIVED
DEC 12 1978
WATER RESOURCES DEPT.
SALEM, OREGON

STATE OF OREGON WATER RESOURCES DEPARTMENT

Application for a Permit to Construct a Reservoir

I, Leonard D. Terry (Name of Applicant) 443 Manor Dr Pacifica, Ca. 94044

of Box 41 A Cow Cr. Rd. (Mailing Address), Azalea (City)

State of Oregon, 97410 (Zip Code), Phone No. 837-3350 ok

do hereby make application for a permit to construct ~~the~~ 5 unnamed reservoirs

and to store the unappropriated waters of the State of Oregon, subject to existing rights.

1. The name of the stream from which the reservoir is to be filled is 3 unnamed streams

(Streams 2, 3, ~~& 4~~ ~~2 springs (#5 #6, 7)~~) tributary to Cow Creek

2. If not in channel of a stream, state how it is to be filled. (in channel)

Ponds 1, 2 & 3 in channel of stream #2 ; Pond 4 in stream #3, ~~Pond 5 in stream #4~~

Pond 3 receives water from str #2 ; Pond 5 receives water from str #4

~~Pond 6 spring~~ ~~Pond 7 spring & runoff~~

See attached sheet for items 3 - 10

3. The dam will be located in the SOUTH HALF of the NORTHWEST ¼ of the SOUTH WEST ¼ of Section 28,

Township 31 SOUTH, Range 4 WEST, W. M.

4. The maximum height will be ..... feet above stream bed or ground surface at the centerline. The top width will be ..... feet, slope of upstream face ....., slope of downstream face ....., and height of dam above water line when full ..... feet.

5. The dams will be (check one) ..✓.. earthfill, ... concrete, ... flashboard, ... other.

If "other", give description: .....

See back of application map for other permits in 40's

6. Give the location, description, and dimensions of the outlet conduit: Pond #3 will have 6" net let placed Bottom of Pond, plus spillway.

(All dams across natural stream channels must be provided with an outlet conduit, of such capacity and location to pass the normal flow of the stream at any time)

Ponds #4 & 5 will have Spillways, water will be delivered By Ditch or Pipe To Pond #3

Form 690-2-0-1-77

41019-378-296 R

FTS w/ field term LEC Feb 28, 29 and March 1, 2

B/A/80 BSJ - REED CREEK 41019-378-296R

Application No. R-58176 *Permit No.* R 7800

Permit to Construct a Reservoir and Store for Beneficial Use the Public Waters of the State of Oregon

This is to certify that I have examined the foregoing application and do hereby grant the same subject to the following limitations and conditions. The right herein granted is limited to the construction of five reservoirs and storage of water from three unnamed streams to be appropriated under application No. 58177, permit No. 43944 for irrigation, being 0.15 acre feet in Reservoir No. 1, 0.4 acre feet in Reservoir No. 2, 0.85 acre feet in Reservoir No. 3 from stream No. 2; 0.3 acre feet in Reservoir No. 4 from stream No. 3, and 0.3 acre feet in Reservoir No. 5 from stream No. 4

The right hereunder shall be limited to the storage of 2.0 *acre feet.*

The priority date of this permit is December 12, 1978

Actual construction work shall begin on or before March 20, 1980 *and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19*80

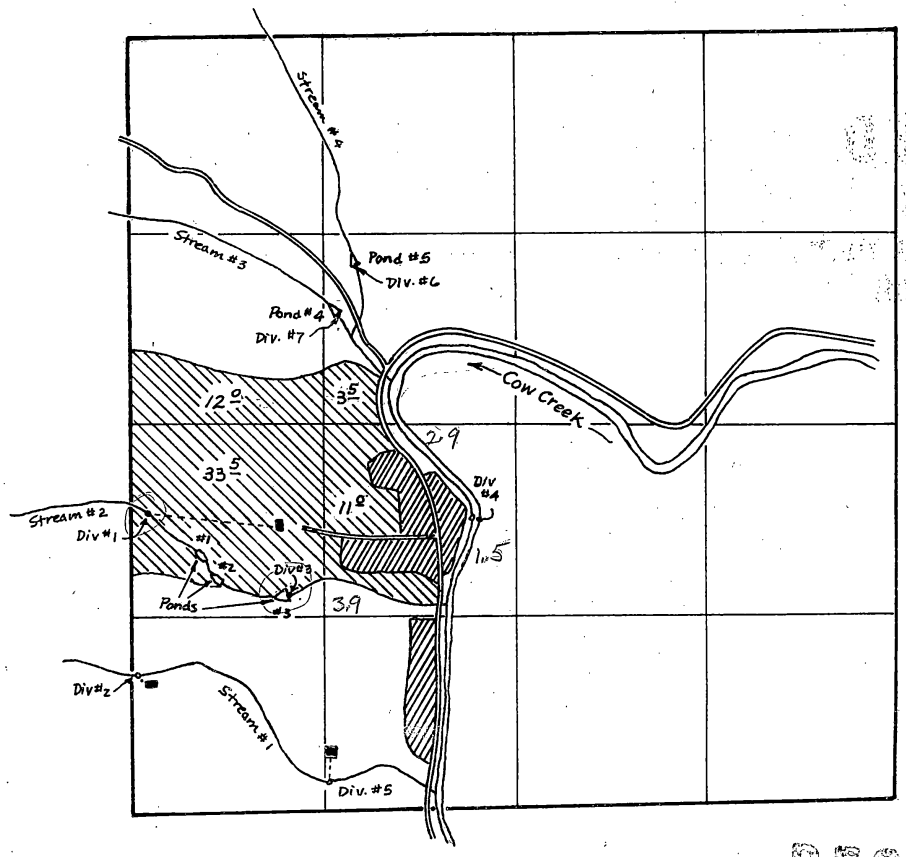
WITNESS my hand this 20th *day of* March, *19*79

DEPUTY Water Resources Director

Application No. 58177
Permit No. 43944

T. 31 S. R. 4 W. W.M.

Section 28



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Scale: 4" = 1 mile

Portions of P# 19730
Cert # 20184

New Irrigation

Div #1: 630'S and 120'E
Div #2: 1730'S and 40'E
Div. #3: 1190'S and 1100'E
Div. #4: 640'S and 2350'E
Div. #5: 2470'S and 1360'E
Div. #6: 1080'N and 1550'E
Div. #7: 740'N and 1440'E
pond #1 940'S. 1530'E
pond #1 1100'S. 1680'E

} All from W¼ cor. Sec. 28

Other permits

SW	NW	—	
SE	NW	#44439	(east of creek)
NE	SW	#19730	(old right shown on app. map)
NW	SW	Cert #9609	

Conflict There are 4 # of adjudicated right on the Terry property. John Albro is the name and source appears to be unnamed stream #2 on this permit.

Contents of FP Report

Info
Sources
Use
Heads
Pipe
Tie
Div. Pts
Sketch of surveyed area
Reservoir Info
Calculations
PTS

Terry, Leonard A# R-58176 R 7800
58177 43944

Into: Mr and Mrs Terry showed me location of field boundaries, reservoirs and POD's. We drove and walked to various areas. An aerial photo supplied and marked by Mr Terry was also used. Photo is w/ field form. I surveyed all of Terry's water development, part of which he did not file on (eg Res #~~6~~7 which holds runoff water - no inlet). This was done to obtain a complete picture of what has been done on the property. Terry changed location of several reservoirs (Res # 3, 5). This property is immediately downstream of the Galesville dam site.

Source: 4 unnamed streams, 7 reservoirs, ~~and~~ Cow Creek and 2 springs

Use: domestic (4) families; irrigation of pasture, hay, oats; stock

Heads: 10 RB w/ various single port nozzles 9/64" to 5/16"
1 RB w/ single port 5/16"
(counted on site)

15 max @ one time per Mrs Terry

1 "Big Gun" type nozzle w/ 5/8" ϕ nozzle
Pressure = 35 - 80 psi (per Mrs Terry)
RB and Big Gun can be used simultaneously (two pumps) per Mrs Terry

Pipe: 3" ϕ 4" mainline 1450' } Alum. pipe for irrigation only
2" laterals 240'

pipe stacked in 3 locations on property

Terry, Leonard A# R-58176 58177 P# R-7800 43944

Tie: PTS attached to field form

DIV. PTS: (Numbers correspond to PTS not app. map)

#1 Source: unnamed stream #2
Use: water used in barn (per Mr Terry)
Description: currently nothing @ POD except mangled metal pipe in creek bed. Mr Terry states he plans to re-install pipe and a 2'x4' concrete box in the stream to divert water to the barn. He states that there is underground pipe from POD area to barn. I did see one end of a plastic pipe coming out of the ground and the 2'x4' concrete box. They are located approx. 100' downstream from mangled pipe in the creek bed. location of mangled pipe is surveyed as POD #1. Application map shows this POD to be used for domestic purposes.

#2 Source: unnamed stream #1
Use: domestic for ② small mobile; no lawn or garden seen
Description: 24" CMP 13' deep (per Terry)
is located several feet from centerline of creek. It is not currently in the stream bed directly.

Sears 1/2 HP motor RPM
SDD pump 1¼" x ¾"

Lift: 20'
This property has been sold to another owner.

DIV PTS (continued)

#3 This was originally to be the div. pt. for the ~~three~~ second in-channel reservoirs on stream #2. Reservoir #3 was not constructed in-channel. It was built north of its location on the application map. This reservoir however does receive water from stream #2 via a pipe from reservoir #1.

On the PTS, I indicated POD #3 as the div. pt. for the second in-channel reservoirs. (The div. pt. is located on Res. #2 rather than Res #3.) There is no outlet conduit at this div. pt.

#4 Source: Cow creek
Use: irrigation of oats & pasture (A# 58177 and Cert. # 20184)
Description: directly from creek

Unknown brand & size (no nameplate) on pump & motor. Mr Terry states it pulls approx. the same amount of electricity as a 7½ HP pump that they have. Motor is trailer mounted and ~~is~~ is gas ~~pump~~. Inlet and outlet sizes are 2¾" X 2½". Pump is CDD.

Terry, Leonard A# R-58176
58177

DIV PTS (continued)

#5 Source: unnamed stream # 1
Use: domestic for 1 moho inc. ½ A lawn and garden
Description: water pumped directly from creek

Sears motor ½ HP @ 3450 RPM
CDD pump 1¼" X ¾"
(same as POD #2)

Lift: 35'-40'

#6 This div pt. was originally for Res #5 (see app. map). ~~There was never~~ The pond was never built at this location. The POD is just now being developed as a domestic source. The moho that is served was moved several hundred feet upstream because the Galesville Project road is being built where the trailer was once located. A trench w/ 1" PVC connects the POU w/ the POD. The trench is still open. 12' of 18" Ø CMP is lying next to trailer, as is the pump described below.

Sears ½ HP motor @ 3450 RPM
CDD pump 1¼" X 1"

Lift: 55'

Terry, Leonard A# R-58176
58177

Div. PTS (continued)

#7 This is the diversion point for Res # 4. There is no outlet conduit visible. There is a small amount of water in the stream channel resulting from seepage through the dam.

Pond #1 Div pt located @ east end of reservoir This is labelled POD #8 on PTS. Reservoir is in-channel. POD #8 is not listed on app. map. There is a 6" ϕ pipe @ div. pt.

#9 This is div. pt. for Res #5 <u>on</u> <u>PTS</u>. It is not listed on application map. Res #5 is an out-of-channel reservoir which receives water from the spillway of Res # 4 (unnamed stream #3 is actual source). Res #5 was not built on unnamed stream #4.

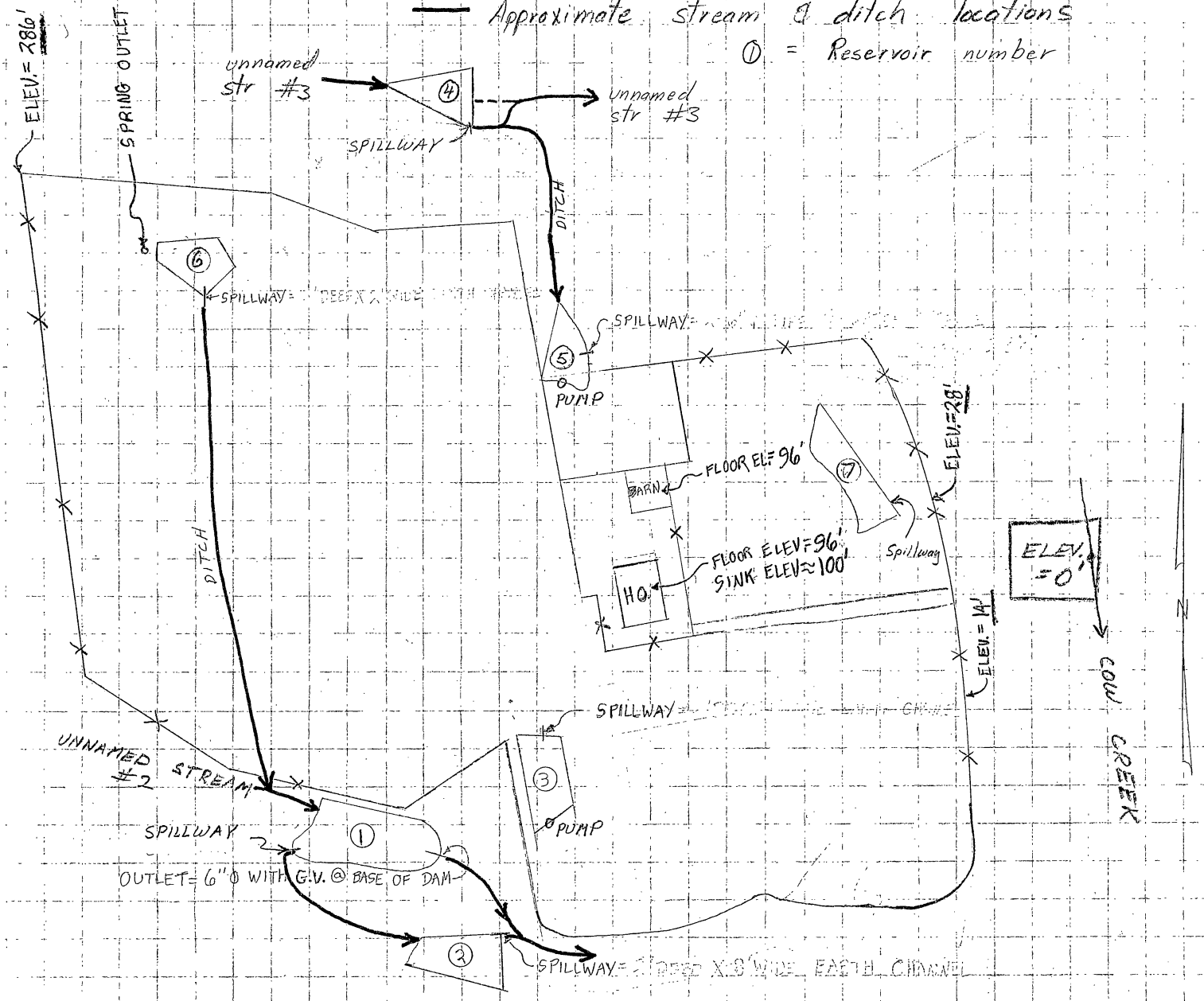
(Pond #3 Div pt located @ east end of reservoir #1. This pond receives run-off water and water from Res #1. I did not designate a ~~specific~~ separate div. pt. for this pond or for ponds 6 and 7.)

The following pages give <u>reservoir</u> info.

Stock animals (cattle & 2 horses) have access to all ponds except #3, 4.

Terry, Leonard
A# 58177, P-58176
Enlargement of Surveyed Area
showing spillways & lift info
(Not to Scale)

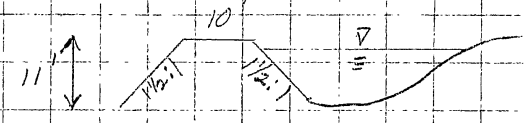
— Approximate stream & ditch locations
① = Reservoir number



RESERVOIR INFO

Numbers correspond to PTS on previous page, not app. map

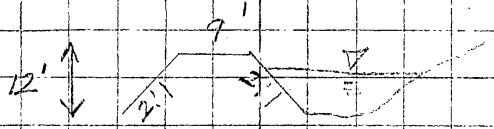
#1 EMBANKMENT CONDITION: good; scattered grass. Horses have access to this pond. Pond is in-channel and in approx. location shown on app. map.



Dam X-section

WATER DEPTH: 8-10' (per Terry)
EMBANKMENT LENGTH: All but west edge of res. ~450'
SPILLWAY: 5' wide dirt trench. Bottom is ~6' below dam crest at west end of reservoir.
CREST ELEV: 142' } east end of reservoir
WATER SURFACE: 138' }
OUTLET: 6" ϕ pipe with gate valve @ D.S. base of dam. This is the only pond w/ spillway & outlet conduit. Minor erosion around outlet pipe.

#2 EMBANKMENT CONDITION: minor erosion @ center of D.S. side. This reservoir is in channel and receives water from Res. #1 spillway. Dam is soil and some rock - little vegetative cover. Location on app. map is correct.

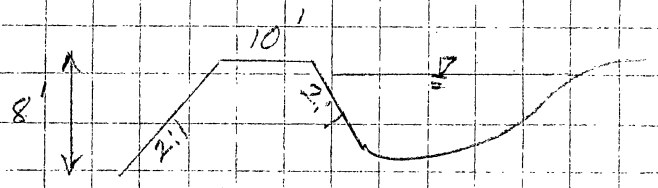


Dam X-section

WATER DEPTH: 8-10' (per Terry)
EMBANKMENT LENGTH: ~125' (east end of res)
SPILLWAY: 2' deep & 8' wide earth channel. Water flows back into stream #2.
CREST ELEV: 113'
WATER SURFACE: 111'

RESERVOIR INFO

#3 EMBANKMENT CONDITION: good; covered w/ thick grass and some blackberry. Reservoir is not in-channel as shown on map. Water from run-off and Res #1. Pond is partially dug w/ spoils forming dam. Irrigation water is pumped directly from this pond

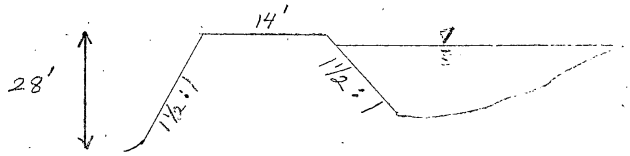


WATER DEPTH: 5' (per Mrs. Terry)
EMBANKMENT LENGTH: ~200' (all but west side of res.)
SPILLWAY: 2' deep x 4' wide earth channel
CREST ELEV: 120'
WATER SURFACE: 115' @ present, could be increased to 118'
Reservoir is located in the middle of a field.

Pump: Sears 2 HP motor @ 3450 RPM
CDD pump 2" x 1½"

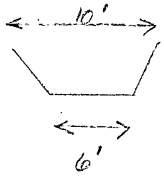
Reservoir Info

#4 EMBANKMENT CONDITION: Embankment is loose soil & rock with no vegetative cover; some log and tree stumps in fill; seepage seen on D.S. side of embankment but no erosion. Reservoir is in-channel. Location as shown on app. map



Dam X-section

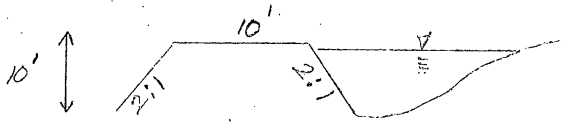
WATER DEPTH: 15' (per Mr. Jones)
EMBANKMENT LENGTH: 145' (east end of reservoir)
SPILLWAY: Bottom of earth channel is 3½' below crest.



(Spillway X-section)

Cow Creek road is D.S. from this embankment. Water stored in Res #4 can be routed back into stream #3 or into Res #5.

#5 EMBANKMENT CONDITION: Minor erosion on outside bank caused by water flowing from spillway. Embankment heavily used by stock, little grass cover. This pond is not in-channel and is partially excavated w/ spoils forming embankment. Pond not in location shown on app. map



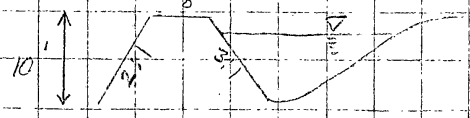
WATER DEPTH: 8' (per Mr. Jones)
EMBANKMENT LENGTH: ~100' (east edge of reservoir)
SPILLWAY: 2 - 6" ϕ pipes are 1' below crest
CREST ELEV: 97'
WATER SURFACE: 96'

PUMP: Century motor 7½ HP @ 3600 RPM
CDD pump 2¼" X 1⅞" ID
200 gpm rating

Reservoir is located in the middle of a field. Water is pumped directly from this reservoir for irrigation. Source of water is run-off and flow from Res #4.

RESERVOIR INAO

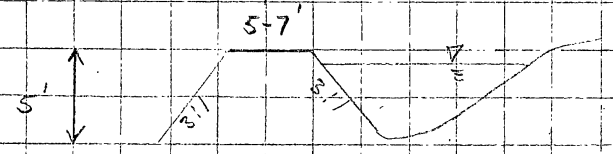
#6 EMBANKMENT CONDITION: good; This small pond holds water from a spring ~150' west of the pond. Water is used for domestic purposes @ Leonard Terry's house. Terry did not file on the spring on this permit. Res. is not in channel. There is no well defined stream channel below the spring. Spring is not visible - Terry installed a french drain.



EMBANKMENT LENGTH: ~50' (east edge of res.)
SPILLWAY: 2'X2' earth channel delivers water to unnamed stream # 2 above Res. # 1.
CREST ELEV: 197'
WATER SURFACE: 195'

Reservoir is located in the middle of a field.

#7 EMBANKMENT CONDITION: good; dam is grass covered. Reservoir is not in channel. Water source is run-off and a spring in the bottom of the pond (per Terry). Stock have access to this pond. Construction is earthfill - dug all spoils forming the embankment. Terry did not file on this pond. Pond appears to be very shallow.



EMBANKMENT LENGTH: ~200' (east side of res.)
SPILLWAY: 2' deep X 3' wide earth channel; water simply runs out onto field below pond. Bottom of spillway is 18"-24" below crest.

Reservoir is just above Cow Creek road.

Lynn Cashion
WRE
March 17 1994

Calculations: (Values used are underlined in red throughout report)

$$Q_{RB} = \frac{(15)(5\ gpm)}{450\ gpm/cfs} = 0.17\ cfs$$

$$Q_{BIG\ GUN} = \frac{(1)(2)(48.4)}{450\ gpm/cfs}\ ^{*} = 0.22\ cfs$$

* used values for two 7/16" nozzles @ 80 psi to approximate 5/8 nozzl

$$Q_{HEADS} = Q_{RB} + Q_{BIG\ GUN} = 0.17 + 0.22\ cfs = \underline{0.39\ cfs}$$

$$Q_{PUMP\ @\ RES.\ 3} = \frac{7.05\,(2\ HP)}{-50' + 114'}\ ^{*} = .22\ cfs \quad (maximum)$$

* 1) assume 80% efficiency and 45 psi operating pressure for RB
2) -50 Terry states he pumps downhill. This value is elevation difference between Res #3 and the middle of lower fields.

$$Q_{PUMP\ @\ RES\ 5} = \frac{7.05\,(7.5\ HP)}{10' + 203'}\ ^{**} = 0.25\ cfs$$

** 1) assume 80% efficiency and 80 psi operating pressure for "Big Gun" nozzle
2) 10' lift - maximum flow would occur when Big Gun nozzle is being used immediately above reservoir, ∴ assume small lift e.g. 10'

$$Q_{BOTH\ PUMPS} = 0.22 + 0.25 = 0.47\ cfs$$

$$Q_{ACRES} = 31.1/70 = \underline{0.44\ cfs} \quad (use\ this\ value\ for\ total\ flow\ calc.)$$

$$Q_{TOTAL} = irrigation\ (value\ based\ on\ \#\ of\ heads) + 4\ domestics$$
$$= 0.39 + 4(.005) = \underline{0.41\ cfs}$$

Reservoir Volumes:

#1 Area = .4 A (planimeter and direct scaling)
Volume = (.4 A)(10')(.4) = 1.6 A.F.

#2 Area = .3 A (planimeter and direct scaling)
Volume = (.3 A)(10')(.4) = 1.2 A.F.

#3 Area = .2 A (planimeter and direct scaling)
Volume = (.2 A)(5')(.3) = 0.3 A.F.

#4 Area = .5 A (direct scaling)
Volume = (.5)(15')(.4) = 3.0 AF

#5 Area = 0.1 A (direct scaling)
Volume = (.1 A)(8')(.3) = 0.2 AF

Volumes of reservoirs #6 & 7 were not calculated because Mr Jerry did not like on either. Res #6 has a very small surface area and appears to be <10' deep. Res. #7 appears very shallow.

Storage is greater than the 2.0 AF listed in the permit

Drafting Notes: Section layout from 1972 BLM survey of Sec. 27, 28, 33, 34

Cert # 9609 area traced from adjudication maps. East line of NW 1/4 SE 1/2 is what I used to "line up" with. Except for one very small area, western portions of #9609 lie within unirrigated area by ponds #1, 2.

VICTOR ATIYEH
Ggovernor

Water Resources Department

JUSTICE BUILDING, Rm. 103, ROSEBURG, OREGON 97470 PHONE 440-4255

September 10, 1984

Mr. Leonard Terry
41A Cow Creek Road
Azalea, Oregon 97410

Dear Sir:

On September 7, 1984, two of my assistants inspected a dam in the channel of an unnamed stream on your property in the SW 1/4 NW 1/4 section 28, Township 31S., Range 4W., W.M., and found it to be in excess of 40 feet tall. Earlier this year, a water rights examiner inspected a dam in that same location in connection with the final proof survey of your water right application number R-58176 and found it to be in excess of 25 feet tall. In Oregon, plans and specifications prepared by a licensed professional engineer must be submitted to the Water Resources Department for any dam in excess of 10 feet in height.

In your application, you indicated that the dam would be 10 feet tall and therefore, were not required to submit plans at that time. It is, however, necessary for me at this point to request that as-built plans and specifications for the dam be submitted by a registered engineer. (For your reference, I am enclosing copies of pertinent ORS and OAR).

In addition, storage at the site when the dam was 25 feet tall was estimated at 3.0 acre feet, 2.7 acre feet in excess of the amount requested for the site. (Were the dam to fill now, we would estimate between 15 and 20 AF capacity). Therefore, it is also necessary for you to file for a permit to cover the additional storage. I have enclosed water right application forms for your convenience.

If you have questions or need assistance with the applications, please drop in to the office or give me a call.

Very truly yours,

Gary L Ball

Gary L. Ball, Watermaster
District #15

GLB:sl

Enclosures

xc: Barry Norris, Dam Safety Division
Steve Applegate, Surveys and Certificates

DIVISION 20

APPROPRIATION AND USE OF SURFACE WATER

How to Fill Out an Application Form

690-20-005 (1) Each application must be prepared in ink or be typewritten.

(2) The applicant shall write into the blanks of the various items of the application for a permit to appropriate the public waters of the State of Oregon data as follows:

(a) Name and mailing address.

(b) The legal description of the property on which water is to be used must accompany the application. This may be copied from the deed, title insurance, or contract.

(c) Item 1. The source of water must be designated (river, stream, creek, spring, lake, etc.). If the stream has no official name, the source should be listed as "unnamed".

A spring is the point where water first emerges from the ground. Any water flowing away from this point constitutes a stream. Unless a catch basin or other means of diversion is to be constructed at the point the water first arises, the source should be designated as a stream or creek. If the appropriation is to be made directly from a spring, additional data will be required on forms to be furnished.

Applications covering appropriation from more than one source will be accepted if the sources are part of the same stream system, the water will be used in the same general location and the use is to be on a single contiguous property.

(d) Item 2. Each point of diversion at which water is to be taken from a stream or other source must be located accurately in reference to a public land survey corner in the same manner as shown on the map. If prints of a platted, recorded subdivision are submitted, the diversion point may be located in reference to a lot corner of the subdivision.

(e) Item 3. The place of use must be identified by its location within the public land survey. If within a platted, recorded subdivision, further identification by lot and block should be given.

(f) Item 4. The amount of water for the appropriation shall be stated in gallons per minute or cubic feet per second. If more than one source is proposed, the amount from each must be listed.

(g) Item 5. If more than one use is contemplated, the amount for each use must be listed. If there is both multiple uses and multiple sources, the amount of water for each use from each source must be shown to agree with Item 4. Domestic use generally has been accepted to mean household use of water. If the intent is to irrigate lawn and garden not exceeding one-half acre through the household system, this use can be included with "Domestic Use" if specifically stated on the application.

(h) Items 6, 7, 8, and 9 must be completed.

(3) The application must be signed by the applicant or applicants listed on the first page.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

Maps

690-20-010 ORS 537.140 requires that each application for a permit shall be accompanied by a map of the proposed development. A map is intended to show certain features of a development in greater detail than the application and becomes an important part of the permit. It should be prepared with care to insure reasonable accuracy. Each map is made part of the record, must be permanent quality, and drawn with sufficient clarity to be easily reproduced.

If you are not experienced in the preparation of maps, it is advisable to obtain technical assistance.

Maps measuring 11" x 17" or less may be prepared on a good quality paper. Larger maps must be drawn on tracing linen, tracing vellum, or mylar. All maps must be drawn to a standard, even scale of not less than 4" = 1 mile. Small area maps are more easily and clearly drawn to a larger scale such as 1" = 400 feet.

Four prints of a platted and recorded subdivision may be submitted as the application map if all of the required information is clearly shown on each print. The location of the diversion point may be given with reference to a lot or block corner of the subdivision.

Four permanent quality prints of other maps such as deed description survey maps and county assessor maps may also be used if all the required information is clearly shown on each print. A single print of these may be used only if it is reproduced as a transparency such as a sepia print or mylar film.

Each map must show clearly such of the following requirements as shall apply to the proposed appropriation:

(1) The location of each point of diversion in reference to a recognized public land survey corner. The locations may be shown by distance and bearing or by coordinates (distance north or south and distance east or west from the corner).

(2) The location and direction of flow of the stream or streams from which the appropriation is to be made.

(3) The location of all dams and regulating or control works.

(4) The location of main canals, ditches, pipe lines, or flumes.

(5) The location of the place where water is to be used. If for irrigation, the area to be irrigated in each 1/4 — 1/4 of a section must be shaded and the number of acres in each 1/4 — 1/4 indicated.

(6) The scale to which the map is drawn, the section number, township and range, and a north directional symbol.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

Thirty Day Period

690-20-015 No application will be approved and permit issued until expiration of at least 30 days from date of filing in Water Resources Department except in cases when special circumstances justify earlier action.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

Notice Required

690-20-020 Upon the commencement of construction work, notice must be sent to the Water Resources Director using the form attached to the permit. Similar notice must be sent to the Water Resources Director when the construction work has been completed and also when the water has been applied to beneficial use.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

Dams

Generally

690-20-025 All maps, plans, and specifications for the construction, enlargement, repair, or alteration of all dams which are, or will be, 10 feet or more in height, or will impound 3,000,000 gallons or more, must be prepared by a professional engineer licensed to practice in the State of Oregon.

An outlet conduit must be installed in any instream

reservoir to permit drainage of the reservoir and for passage of flow to downstream prior rights if necessary. The conduit is normally asphalt dipped corrugated metal pipe with watertight joints. The conduit valve should be installed at the upstream end and should be an Armco 101 C or equivalent.

Requirements for preparation of plans and specifications for construction of dams 10 feet or more in height or impounding more than 3,000,000 gallons of water can be found in rules 690-20-030, 690-20-035, and 690-20-040.

The following information is presented for your assistance in constructing small earthfill dams less than 10 feet in height or impounding less than 3,000,000 gallons (9.2 acre feet) (see Exhibit 1):

(1) The crest width of the dam should be not less than 8 feet.

(2) The upstream slope should be no steeper than 3:1.

(3) The downstream slope should be no steeper than 2:1.

(4) The spillway channel should be constructed around the dam, not over the top. The spillway is normally excavated in natural material and, if necessary, lined to prevent erosion. The spillway should be large enough to pass the 50 year flood flow without overtopping the dam. Assistance is available from this office in sizing the spillway. Flow passing through the spillway should be returned to the creek channel at a sufficient distance downstream to prevent erosion of the embankment.

(5) All brush, stumps, roots, and organic matter should be cleared from the area to be occupied by the dam. All such material should also be removed from the borrow area.

(6) A minimum of two cutoff collars should be constructed. These cutoff collars are normally constructed of concrete with a minimum thickness of 6 inches and should extend from the outside of the conduit a minimum of 24 inches in all directions. Prefabricated asphalt dipped metal cutoff collars are acceptable providing a watertight joint is obtained between conduit and collar.

(7) Embankment material should be spread longitudinally along the dam axis in layers not exceeding 8 inches in thickness and adequately compacted with sheepfoot roller or other similar equipment.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

Preparation of the Application

690-20-030 All entries must be made with dark ink or be typewritten:

(1) Item 2. If the pond or reservoir is not in the channel of a stream, a description of the method of filling, including a description of any diversion structure planned must be included.

(2) Item 7. If more than one use is planned, the quantity to be stored for each use must be stated.

(3) Item 10. A spillway must be provided for reservoirs not in a stream channel as well as for those within a stream channel.

(4) Items 1, 3, 4, 5, 6, 8, 9, 10, 11, and 12 must be completed even though part or all of the information requested may appear on a supplemental diagram or dam plans.

The completed application, maps, and fees should be mailed to Water Rights Division, Water Resources Department, Salem, Oregon 97310.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

Engineering Design Requirements

690-20-035 Registered professional engineers commissioned to prepare plans and specifications for the construction of dams who are not familiar with our minimum design criteria, should submit preliminary data to the Water Resources Department and obtain from the Water Resources Department the minimum requirements on which to base the design of the dams:

(1) Plans. Plans for dams submitted for approval must accurately portray the work to be accomplished and be of sufficient detail to adequately define all features of the project. Plans must be submitted on good quality tracing material and must be neatly and accurately drawn to a scale sufficiently large, with an adequate number of views, for the drawing to be readily interpreted.

Several sheets may be used to eliminate the necessity of large bulky drawings. No map or plan should be larger than 28 x 40 inches if conveniently possible. The following information will be required:

(a) A contour map of the reservoir site which will show the location of the dam by section, township and range, and the name and location of the stream flowing through the reservoir. Government survey lines must be indicated on this map. Area and capacity curves and/or tables of the proposed reservoir must be shown.

(b) A map of the drainage basin showing the location of the dam and reservoir and the streams within the drainage area. This map may be prepared from topographical maps of the U.S. Geological Survey or U.S. Forestry Department where available and it must include: the number of square miles of drainage area; a brief description of the area; the percentage of bare and timbered lands; and general characteristics of the watershed, whether precipitous, rolling, or comparatively flat.

(c) A topographic map of the damsite with contour intervals of not to exceed 5 feet. A plan of the dam should be superimposed on this map showing the location of spillways, outlet conduits, and cutoff walls.

(d) A profile of the damsite taken on the axis of the dam and a profile of the spillway along its axis. The profile should also show the location of the outlet conduit and spillway. A log showing the classification of materials encountered below the surface as shown by test pits or borings should be included.

(e) A cross section of the dam at maximum section showing complete details and dimensions.

(f) Plans showing sections of outlet conduit, control works, and spillways. These sections should be in sufficient number and detail to make definite all features of the structure.

All maps and plans must be drawn to a scale which will clearly show the dimensions and character of construction.

(2) Specifications. All plans for dams must be accompanied by specifications.

The specifications shall describe in detail the methods to be followed in performing each class of work and shall set forth the requirements for the various types of material to be used in the permanent construction.

The specifications must contain a provision for supervision by the engineer during construction and for inspection by the Director of the Water Resources Department at any time during the construction period.

The specifications must also contain aprovision to the effect that plans or specifications shall not be altered or changed without the written approval of the Director of the Water Resources Department.

Stat. Auth.: ORS Ch. 536 & 543
Hist: WRD 3, f. & ef. 2-18-77

General Requirements

690-20-040 (1) Water Resources Director may require any information or data in addition to that outlined herein which the Water Resources Director may believe necessary for determining the safety of the proposed structure.

(2) Whenever possible, precipitation or rainfall and runoff records shall be submitted.

ties of the law for changing or interfering with headgates, until the requirements of the director as to such measuring devices are complied with.

540.340 Reservoir and diversion dam; suitable outlet; effect of noncompliance. (1) Whenever it may be necessary for the protection of other water users, the Water Resources Director shall require every owner or manager of a reservoir or diversion dam, located across or upon the bed of a natural stream, to construct and maintain a suitable outlet in the reservoir or diversion dam which will allow the free passage of the natural flow of the stream. The director shall determine what constitutes a suitable outlet.

(2) If any owner or manager of a reservoir or diversion dam refuses or neglects to construct or put in such outlet in the reservoir or diversion dam after 10 days' notice by the director, the director may close the ditch carrying water from the reservoir or diversion dam and it shall not be opened or any water diverted from the reservoir or diversion dam, under the penalties prescribed by law for the opening of headgates lawfully closed, until the requirements of the director regarding such outlet have been complied with.

540.350 Dams, dikes and other hydraulic works; when showing for power generation use to be made; examination and approval by director; approval not to relieve owners of responsibility; inspections; modification of works; hearing. (1) No person, firm or private or municipal corporation shall construct any dam, dike, or other hydraulic structure or works, the failure of which the Water Resources Director finds would result in damage to life or property, unless the director has made an examination of the site and of the plans and specifications and other features involved in the construction of such works, and has approved them in writing.

(2) When a person, firm or private or municipal corporation seeks the written approval of the Water Resources Director after June 22, 1981, of the site, plans, specifications and features for a dam more than 25 feet high at a site where there is an average annual flow exceeding two cubic feet a second, that party must demonstrate that the dam includes measures that make it readily adaptable to power generation in a manner meeting statutory requirements for the safe passage of fish. These measures shall include the installation of a pressure conduit, penstock, drain or similar water diversion system at the time the dam is built.

(3) A person, firm or private or municipal corporation seeking approval for a dam described in subsection (2) of this section need not make the showing required by that subsection if that party demonstrates to the director's satisfaction that:

(a) It is not likely the installation of hydroelectric generating facilities at the proposed site would be feasible anytime during the life of the proposed dam; or

(b) It would be more feasible to install hydroelectric facilities after construction of the proposed dam.

(4) The director's approval of the site, plans and specifications, or other features involved in the construction, maintenance and operation of any hydraulic works whatsoever shall not relieve the owners of their legal responsibilities.

(5) The director may make inspections of any hydraulic structure, the site thereof, and of the plans and specifications, and any other features involved in the construction, maintenance and operation of the works. If, as a result of the inspections, the director considers any modifications necessary to insure the safety of the works with reference to possible damage to life or property, the director shall notify the legal owners by registered mail, stating why the works are unsafe. The notice shall set forth the modifications necessary to insure the safety of the works in so far as it affects possible damage to life or property. The notice also shall set a hearing at such time and place as will give the owners a reasonable time to prepare therefor. [Amended by 1981 c.210 §1]

540.360 Order to modify. After the hearing the Water Resources Director may issue a written order to the owners to make such modifications as the director considers necessary to insure the safety of the works with reference to possible damage to life or property and shall fix the time within which work shall begin in good faith and the time for completion. The owners, upon receipt of the order, shall make the modifications ordered within the time limit prescribed or shall initiate an appeal as above provided. [Amended by 1975 c.581 §26a; 1981 c.210 §2]

540.370 Enforcing compliance with order or decree. (1) If the owners fail to make the modifications within the time limits set by the Water Resources Director, or to institute their appeal or to comply with the decree of the appellate court in case an appeal is taken, the director shall issue an order in writing to the owners directing that the gates be kept open, or an opening made in the dam if necessary, or that

the structure shall not be used for the storage, restraint or conveyance of water until the modifications have been made.

(2) No owner shall refuse to comply with the orders of the director or the decree of an appellate court.

(3) In case of noncompliance, the director shall direct the watermaster or other authorized assistant to carry out the orders, or he may file a copy of his order with the Attorney General or with the district attorney of the county within which the works are located. The Attorney General or district attorney shall bring proceedings in the name of the state, in the circuit court of the county within which the works or any part thereof are situated, to abate the offending works. The court, after a full hearing on the matter, may declare the works a nuisance and order their removal, or order any repairs or alterations, and may enforce its orders in the manner provided by law.

540.380 Reports of consultants; payment. The Water Resources Director may accept the reports of consulting engineers, geologists or other specialists whom the owners of the works in question may have employed. But if, for any reason, he deems the reports insufficient, he may employ consulting engineers, geologists or other specialists outside of his office to make special examinations and inspections and to prepare reports thereon for his guidance. The cost of such special examinations, inspections and reports shall be paid by the director from any funds at his disposal, or it may be divided by mutual agreement between the state and the owners.

540.390 Inspection by director upon application by resident, landowner or on own motion; expenses; deposit by applicant; payment by owner of works; lien. Should any person residing on or owning land in the neighborhood of any dam, dike or other hydraulic structure after completion, or in course of construction, apply to the Water Resources Director in writing desiring an inspection of the works, the director may order an inspection, or he may make such order on his own motion. Before doing so he may require the applicant for such inspection to make a deposit of a sum of money sufficient to pay the expenses of an inspection. In case the application appears to him not to have been justified he may cause the whole or part of the expenses to be paid out of the deposit. In case the application appears to the director to have been justified, he may require the owner of the works to pay the whole or any part of the expenses of the inspection, and it shall constitute a valid lien against the works, which may be enforced in the same manner as provided for the enforcement of mechanics' liens.

540.400 Law not applicable to certain works. ORS 540.350 to 540.390 shall not apply to:

(1) Any dam less than 10 feet in height or impounding less than 3,000,000 gallons of water.

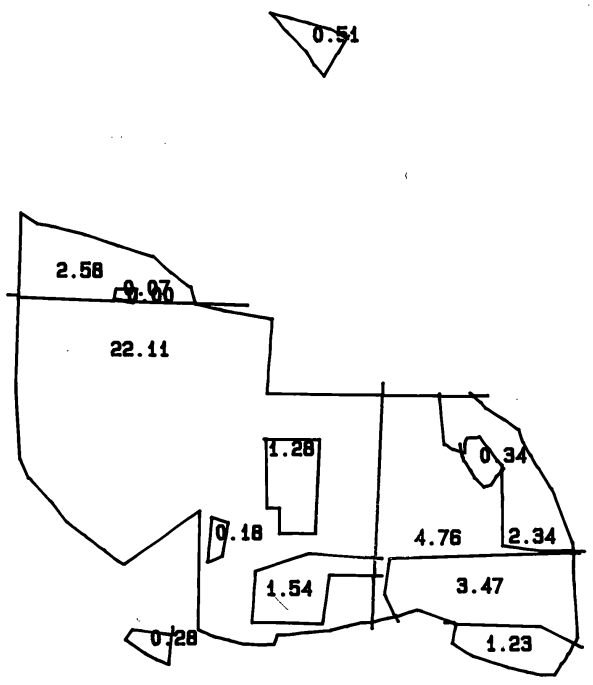
(2) Splash dams used for driving logs.

(3) Farm dikes constructed by individuals on their own property.

(4) Ditches carrying less than five cubic feet of water per second.

540.410 Use of watercourse to deliver reservoir water; notice to watermaster; adjustment of headgates; expenses; liability for, and collection of, payment. Whenever the owner, manager or lessee of a reservoir constructed under the provisions of the Water Rights Act (as defined in ORS 537.010) desires to use the bed of a stream, or other watercourse, to carry stored or impounded water from the reservoir to the consumer thereof, he shall, in writing, notify the watermaster of the district in which the stored or impounded water from the reservoir is to be used, giving the date when it is proposed to discharge water from the reservoir, its volume, and the names of all persons and ditches entitled to its use. The watermaster shall then close, or so adjust the headgates of all ditches from the stream or watercourse, not entitled to the use of such stored water, as will enable those having the right to secure the volume to which they are entitled. The watermaster shall keep a true and just account of the time spent by him in the discharge of his duties as defined in this section, and the Water Resources Director shall present a bill of one-half the expense so incurred to the reservoir owner, manager or lessee. If the owner, manager or lessee neglects for 30 days, after presentation of the bill of costs, to pay it, the costs shall be made a charge upon the reservoir and the state shall have a preference lien therefor. Upon notice from the director, the Attorney General shall foreclose the lien and collect the amount due, as provided in this section, in the same manner as other liens on real property are foreclosed.
[Amended by 1955 c.39 §1; 1961 c.636 §7]

540.420 Maintenance and operation of jointly owned ditches; performance by coowner; recovery from one in default. In all cases where ditches are owned by two or more persons and one or more of such persons fails or neglects to do a proportionate share of the work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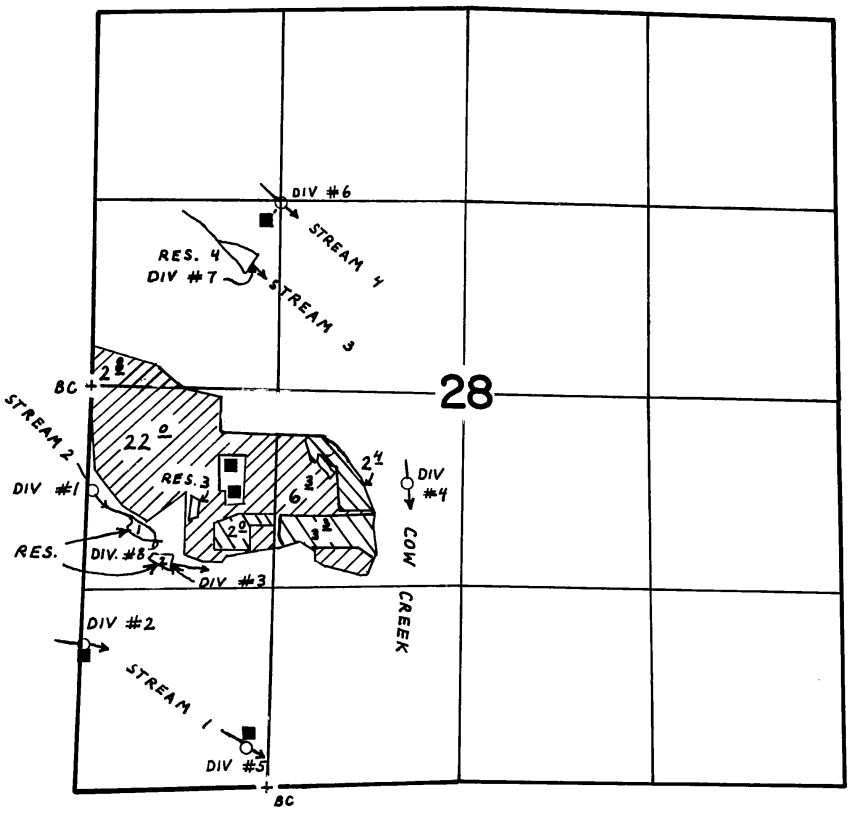
T. 31S., R. 4W., W.M.



N

SCALE:
4" = 1 mile

DIV. PT. LOCATION:

#1	720' S	and	10' W
#2	1790' S		110' W
#3	1250' S		500' E
#4	770' S		2160' E
#5	2550' S		970' E
#6	1200' N		1370' E
#7	750' N		1150' E
#8	1060' S		450' E
#9	210' S		910' E

ALL FROM W. 1/4 COR. of SEC. 28.

PORTIONS OF CERT. 9609, 20184

NEW IRRIGATION

FINAL PROOF SURVEY

UNDER

R-58176 R 7800

Application No. 58177 Permit No. 43944

IN NAME OF

LEONARD TERRY

Surveyed FEB 28,29 19 84, by L. E. Cashion

MAR. 1, 1984

JUNE 9, 1990 by BS James

PTS WITH FIELD FORM LEC 6/90 BSJ

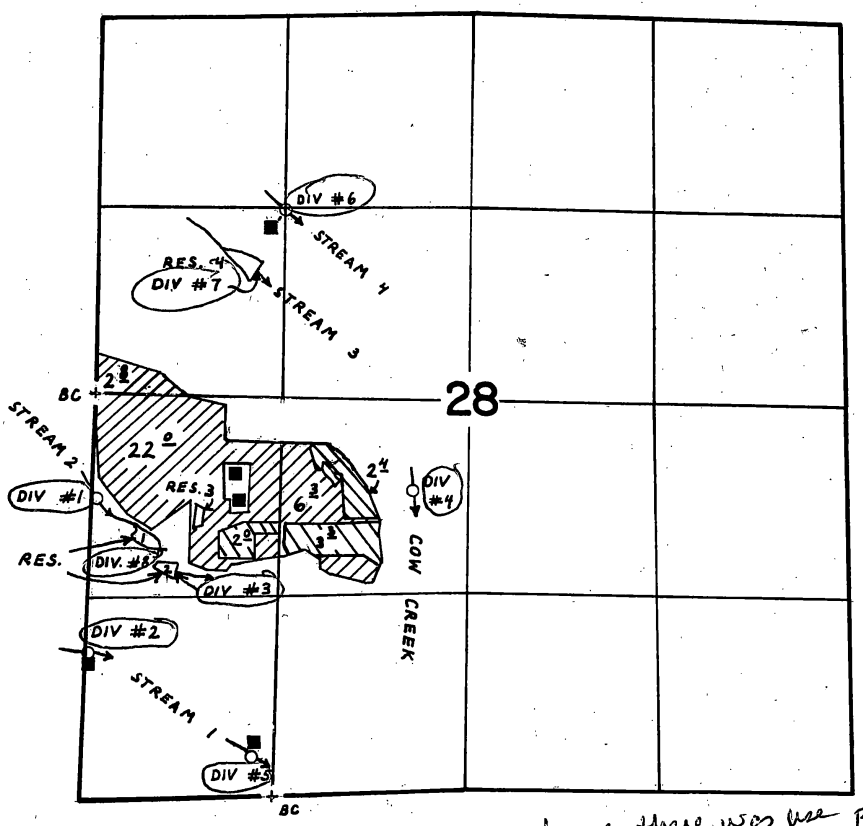
8:30

TC - 1981
FPS - 1990

T. 31S., R. 4W., W.M.

Only 4 Reservoirs

Res 3 - Source Run-off
Permit source STREAM 2



N

SCALE:
4" = 1 mile

DIV. PT. LOCATION:

#1	720' S	and	10' W
#2	1790' S		110' W
#3	1250' S		500' E
#4	770' S		2160' E
#5	2550' S		970' E
#6	1200' N		1370' E
#7	750' N		1150' E
#8	1060' S		450' E
#9	210' S		910' E

ALL FROM W. 1/4 COR. of SEC. 28.

out per claim - not in use at time of inspection - evidence there was use prior to inspection.

PORTIONS OF CERT. 9609, 20184

NEW IRRIGATION

out ~~not~~ not shown on FPS

FINAL PROOF SURVEY

UNDER

R-58176 R 7800

Application No. 58177 Permit No. 43944

IN NAME OF

LEONARD TERRY

Surveyed FEB. 28, 29 19 84, by ~~L. E.~~ Cashion

MAR. 1, 1984

JUNE 9, 1990 by BS James

PTS WITH FIELD FORM LEC

Issue

1. Reservoirs larger than permitted - 1984 - ltr to deny new applications for reser WRIS does not show any new apps for Reser
2. Ownership?

3.

unnamed stream 1 - ~~? Use~~ ? Source for RES 1 & 2

UNNAMED STREAM 1 - Domestic 2 family | Domestic expanded 1 Family

DIV 6 - STREAM 4 - 1 Domestic

All Reservoirs stores more H_2O than allowed in permit. Need ltr to owners - need to apply to enlarge Reser or ~~store~~ less "q".