

61590

ASSIGNED

Name Mt. Bachelor. Inc., incorp in Bend 1957
By
Address PO Box 1031
Bend, Oregon, 97701

Application No. 61590

Permit No. 46221

Certificate No. 82604

Stream Index, Page No. 5-32

Date filed January 21, 1981
Priority Jan. 21, 1981
Action suspended until Jan
Return to applicant
Date of approval FEB 23 1982

CONSTRUCTION

Date for beginning FEB 23 1983
Date for completion OCT 1 1983
Extended to
Date for application of water OCT 1 1984
Extended to

PROSECUTION OF WORK

Form "A" filed March 10, 1983
Form "B" filed October 3, 1983
Form "C" filed October 3, 1983

FINAL PROOF

Blank mailed
Proof received
Date certificate issued 12/01/2006

FEES PAID

Date	Amount	Receipt No.
4/24/81	40.00	Trsf. from PG rec. # 22456
10-7-81	5.00	27571
8/26/93	100.00	103998

Cert. Fee

FEES REFUNDED

Date	Amount	Check No.
.....

Aschutes Nat'l Forest ASSIGNMENTS

Date	To Whom	Address	Volume	Page
4-13-83	USDA Forest Service	211 N.E. Revere, Bend, Or. 97701	6	1114
.....

REMARKS

Card for A FEB 24 1983

Form C (690-9-77)

IMPORTANT—This form is a notice to the Water Resources Director that permittee is ready to make final proof to the extent to which the water has actually been applied to the intended use under the terms of the permit. Permittee is cautioned that Certificate of Water Right will be issued based on the extent of the quantity and use as determined by the final proof inspection and survey which will be made in response to the filing of this Form C.

NOTE: In the case of an irrigation permit, this Form C should not be mailed to the Water Resources Department until all of the land described in the permit, which it is intended to irrigate under this permit at any time, has actually been irrigated.

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when all of the water has been applied.

Application No. 61590

NOTICE OF COMPLETE APPLICATION OF WATER TO A BENEFICIAL USE

I, We, USDA-Forest Service, Deschutes N F, the holder of Permit No. 46221

to appropriate the public waters of the state of Oregon, completely applied the waters to a beneficial use in accordance with the terms of said permit, on the 28 day of September, 1983

Remarks: Bachelor Butte Water System, Various Sites

IN WITNESS WHEREOF, I have hereunto set my hand this 29 day of September, 1983

Walt Schloer District Ranger 211 NE Revere, Bend, OR 97701

Form B (690-9-77)

Application No. 61590

NOTICE OF COMPLETION OF CONSTRUCTION

I, We, USDA-Forest Service, Deschutes N F, the holder of Permit No. 46221

to appropriate the public waters of the state of Oregon, completed the construction of the works described herein on the 28 day of September, 1983

Remarks: Constructed as planned

If the works have less capacity than described in the permit, or you have definitely abandoned part of the proposed development, you should so state in order that our records may not be unnecessarily encumbered.

IN WITNESS WHEREOF, I have hereunto set my hand this 29 day of September, 1983

Walt Schloer District Ranger 211 NE Revere, Bend, OR 97701

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is completed.

Form A (690-9-77)

Application No. 61590

NOTICE OF BEGINNING OF CONSTRUCTION

I, MT. BACHELOR, INC., the holder of Permit No. 46221

to appropriate the public waters of the state of Oregon, began the actual construction of the works described therein on the day of June, 1982

Remarks: A portable pump has been acquired and placed in operation, and water has been utilized for the purposes designated in our permit. (5 HP Pump)

The appropriator must state the manner of beginning of construction, the amount of work completed and the type of equipment acquired for the water system up to the date of this statement, and any additional information which shows a substantial beginning of construction as authorized by your permit.

IN WITNESS WHEREOF, I have hereunto set my hand this 8th day of March, 1983

Dave Marsh Vice President - Operations P.O. Box 1031, Bend, OR 97709

Fill out, detach and mail to the Water Resources Department, Salem, OR 97310, when construction work is begun.

SP*35567-690

RECEIVED

OCT 3 1983 WATER RESOURCES DEPT. SALEM, OREGON

RECEIVED

OCT 3 1983 WATER RESOURCES DEPT. SALEM, OREGON

RECEIVED

MAR 10 1983 WATER RESOURCES DEPT. SALEM, OREGON

OK SPA

OK SPA

RECEIVED MAR 22 1983 WATER RESOURCES DEPT. SALEM, OREGON

OK SPA

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate at any time before it has issued, and after the time has expired for the completion of the appropriation under the permit, or within three months after issuance of the certificate.

STATE OF OREGON

COUNTY OF DESCHUTES

PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

U.S.D.A. DESCHUTES NATIONAL FOREST
1001 EMKAY DRIVE
BEND, OREGON 97702

confirms the right to use the waters of TODD CREEK, a tributary of DESCHUTES RIVER, for COMMERCIAL USE FOR SKI LODGES AND IRRIGATION OF 33.6 ACRES FOR EROSION CONTROL.

This right was perfected under Permit 46221. The date of priority is JANUARY 21, 1981. This right is limited to 100.0 GALLONS PER MINUTE (GPM), BEING 100.0 GPM FOR SKI LODGE USE; 30.0 GPM FOR DAY CAMP USE AND 70.0 GPM FOR EROSION CONTROL; AND SHALL BE FURTHER LIMITED TO DIVERSION OF 100.0 GPM SO LONG AS THE FLOW OF TODD CREEK IMMEDIATELY ABOVE THE POINT OF DIVERSION EXCEEDS 200.0 GPM; AT FLOWS BELOW 200.0 GPM THE DIVERSION SHALL NOT EXCEED 50 PERCENT OF THE STREAM FLOW, or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 SW 1/4, SECTION 8, T 18 S, R 9 E, W.M.; 1056 FEET NORTH AND 845 FEET EAST FROM THE SW CORNER, SECTION 8.

A description of the place of use to which this right is appurtenant is as follows:

NW 1/4 SE 1/4 2.8 ACRES
NE 1/4 SW 1/4 7.6 ACRES
SECTION 20

SW 1/4 SW 1/4 4.0 ACRES
SE 1/4 SW 1/4 7.6 ACRES
SECTION 21

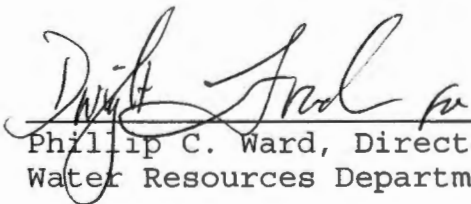
NE 1/4 NW 1/4 4.0 ACRES
NW 1/4 NW 1/4 7.6 ACRES
SECTION 28

TOWNSHIP 18 SOUTH, RANGE 9 EAST, W.M.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

WITNESS the signature of the Water Resources Director, affixed

DEC 01 2006


Phillip C. Ward, Director
Water Resources Department

Recorded in State Record of Water Right Certificates numbered 82604

S-61590.RCK

Mailing List for Certificate

Scheduled Mailing Date:

Application: S-61590

Permit: S-46221

Certificate: 82604

Permit/Certificate Holder:

U.S.D.A. DESCHUTES NATIONAL FOREST
1001 EMKAY DRIVE
BEND, OREGON 97702 ✓

Copies Mailed

by: Connie Jance
(STAFF)

on: 12/01/2006
(DATE)

Other persons to receive copies: (include map):

1.

Copies of Final Certificate to be sent to:

1. Watermaster #11 ✓
2. Water Availability ✓
3. Data Center ✓
4. File ✓
5. Vault ✓

This is a final order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate at any time before it has issued, and after the time has expired for the completion of the appropriation under the permit, or within three months after issuance of the certificate.

*Should address be
1001 Emkay Dr
Bend OR 97702
???*

STATE OF OREGON
CNTY OF DESCHUTES
CERTIFICATE OF WATER RIGHT

PROPOSED

*As noted on mailing list
for Cert 17*

FOREST

he waters of TODD CREEK, a tributary of
IAL USE FOR SKI LODGES AND IRRIGATION OF
FOR EROSION CONTROL.

33.6 gpm

This right was perfected under Permit 46221. The date of priority is JANUARY 21, 1981. This right is limited to 100.0 GALLONS PER MINUTE (GPM), BEING 100.0 GPM FOR SKI LODGE USE; 30.0 GPM FOR DAY CAMP USE AND 70.0 GPM FOR EROSION CONTROL; AND SHALL BE FURTHER LIMITED TO DIVERSION OF 100.0 GPM SO LONG AS THE FLOW OF TODD CREEK IMMEDIATELY ABOVE THE POINT OF DIVERSION EXCEEDS 200.0 GPM; AT FLOWS BELOW 200.0 GPM THE DIVERSION SHALL NOT EXCEED 50 PERCENT OF THE STREAM FLOW , or its equivalent in case of rotation, measured at the point of diversion from the source.

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STATE OF OREGON
COUNTY OF DESCHUTES

PROPOSED

PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

U.S.D.A. DESCHUTES NATIONAL FOREST
211 NE REVERE
BEND, OREGON 97701

confirms the right to use the waters of TODD CREEK, a tributary of DESCHUTES RIVER, for COMMERCIAL USE FOR SKI LODGES AND IRRIGATION OF 27.6 ACRES FOR EROSION CONTROL.

33.6 JWY
This right was perfected under Permit 46221. The date of priority is JANUARY 21, 1981. This right is limited to 100.0 GALLONS PER MINUTE (GPM), BEING 100.0 GPM FOR SKI LODGE USE; 30.0 GPM FOR DAY CAMP USE AND 70.0 GPM FOR EROSION CONTROL; AND SHALL BE FURTHER LIMITED TO DIVERSION OF 100.0 GPM SO LONG AS THE FLOW OF TODD CREEK IMMEDIATELY ABOVE THE POINT OF DIVERSION EXCEEDS 200.0 GPM; AT FLOWS BELOW 200.0 GPM THE DIVERSION SHALL NOT EXCEED 50 PERCENT OF THE STREAM FLOW, or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 SW 1/4, SECTION 8, T 18 S, R 9 E, W.M.; 1056 FEET NORTH AND 845 FEET EAST FROM THE SW CORNER, SECTION 8.

S-61590.RCK

Certificate Number

82604

A description of the place of use to which this right is appurtenant is as follows:

NW 1/4 SE 1/4 2.8 ACRES
NE 1/4 SW 1/4 7.6 ACRES

SECTION 20

SW 1/4 SW 1/4 4.0 ACRES
SE 1/4 SW 1/4 7.6 ACRES

SECTION 21

NE 1/4 NW 1/4 4.0 ACRES
NW 1/4 NW 1/4 7.6 ACRES

SECTION 28

TOWNSHIP 18 SOUTH, RANGE 9 EAST, W.M.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

WITNESS the signature of the Water Resources Director, affixed

PROPOSED

Phillip C. Ward, Director
Water Resources Department

Recorded in State Record of Water Right Certificates numbered

S-61590.RCK

Mailing List for Certificate

Scheduled Mailing Date:

Application: S-61590

Permit: S-46221

Certificate: 82162

Permit/Certificate Holder:

U.S.D.A. DESCHUTES NATIONAL FOREST

~~211 NE REVERE~~ 1001 Emkay Drive
BEND, OREGON 97701-2

██████████
Copies Mailed

by: Cornie Vance
(STAFF)

on: 6/27/2006
(DATE)
██████████

Other persons to receive copies: (include map):

1.

Copies of Final Certificate to be sent to:

1. Watermaster #11
2. Water Availability
3. Data Center
4. File
5. Vault



Oregon

Theodore R. Kulongoski, Governor

Water Resources Department
North Mall Office Building
725 Summer Street NE, Suite A
Salem, OR 97301-1271
503-986-0900
FAX 503-986-0904

DATE MAILED: June 23, 2006

NOTICE

Reference: Permit S-46221 Application S-61590

Enclosed is a proposed certificate of water right and a map which illustrates the location of the right. The map and proposed certificate represent the extent water was used within the terms of the permit based upon a survey and inspection.

If you do not agree with the proposed certificate or the map, Oregon Administrative Rule 690-330-010 (2) allows the permittee or landowner 60 days from the mailing date of this notice to request the Department to reconsider the contents of the proposed certificate.

If you agree with the proposed certificate and map no response to this notice is required. Sometime after the 60 day period, the recorded certificate of water right will be mailed to the permittee.

If you have any questions please contact Gerry Clark at 503-986-0811.

Sincerely,

Dwight French
Administrator
Water Rights Division



STATE OF OREGON

DESCHUTES COUNTY ASSIGNED, See Misc. Rec., Vol. 6 Page 1114

PERMIT TO APPROPRIATE THE PUBLIC WATERS

This is to certify that I have examined APPLICATION 61590 and do hereby grant the same SUBJECT TO EXISTING RIGHTS INCLUDING THE APPROPRIATE MINIMUM FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions:

This permit is issued to Mt. Bachelor, Inc. of PO Box 1031, Bend, Oregon 97701, phone 382-2442, for the use of the waters of Todd Creek, for the PURPOSE of commercial use for ski lodges and day use facilities and irrigation for erosion control, being 100 gallons per minute for ski lodge use, 30 gpm for day camp use, and 70 gpm for erosion control, and shall be further limited to a diversion of 100 gpm so long as the flow of Todd Creek immediately above the point of diversion exceeds 200 gpm; at flows below 200 gpm, the diversion shall not exceed 50 percent of the streamflow; that the PRIORITY OF THE RIGHT dates from January 21, 1981, and is limited to the amount of water which can be applied to beneficial use and shall not exceed 100 gpm measured at the point of diversion from the stream, or its equivalent in case of rotation with other water users.

The POINT OF DIVERSION is to be LOCATED: 730 feet South and 100 feet East from the Northwest Corner of Section 17, being within the NW 1/4 NW 1/4 of Section 17, Township 18 South, Range 9 East, WM, in the County of Deschutes.

A description of the PLACE OF USE under the permit, and to which such right is appurtenant, is as follows:

Township 18 South Range 9 East, WM Section 20 NE 1/4 SW 1/4 Commercial use for ski lodges and irrigation of 30-40 acres around lodges for erosion control

Actual construction work shall begin on or before February 23, 1983 and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1983.

Complete application of the water to the proposed use shall be made on or before October 1, 1984.

WITNESS my hand this 23rd day of February, 1982.

/s/ JAMES E. SEXSON
WATER RESOURCES DIRECTOR

Abstract of Permit

USDA Deschutes
211 N.E. Revere
Bend, Or. 97701

This is to certify that I have examined APPLICATION 61590 and do hereby grant the same SUBJECT TO EXISTING RIGHTS INCLUDING THE APPROPRIATE MINIMUM FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions: **ASSIGNED** →

This permit is issued to Mt. Bachelor, Inc. of PO Box 1031, Bend, Oregon 97701, phone 382-2442, for the use of the waters of Todd Creek, for the PURPOSE of commercial use for ski lodges and day use facilities and irrigation for erosion control, being 100 gallons per minute for ski lodge use, 30 gpm for day camp use, and 70 gpm for erosion control, and shall be further limited to a diversion of 100 gpm so long as the flow of Todd Creek immediately above the point of diversion exceeds 200 gpm; at flows below 200 gpm, the diversion shall not exceed 50 percent of the streamflow; that the PRIORITY OF THE RIGHT dates from January 21, 1981, and is limited to the amount of water which can be applied to beneficial use and shall not exceed 100 gpm measured at the point of diversion from the stream, or its equivalent in case of rotation with other water users.

The POINT OF DIVERSION is to be LOCATED: 730 feet South and 100 feet East from the Northwest Corner of Section 17, being within the NW 1/4 NW 1/4 of Section 17, Township 18 South, Range 9 East, WM, in the County of Deschutes.

A description of the PLACE OF USE under the permit, and to which such right is appurtenant, is as follows:

Township 18 South Range 9 East, WM Section 20 NE 1/4 SW 1/4

Commercial use for ski lodges and irrigation of 30-40 acres around lodges for erosion control

Actual construction work shall begin on or before February 23, 1983 and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1983.

Complete application of the water to the proposed use shall be made on or before **October 1, 1984.**

WITNESS my hand this 23rd day of February, 1982.

WATER RESOURCES DIRECTOR

RECEIVED

FEB - 8 1994

WATER RESOURCES DEPT
SALEM, OREGON

APPLICATION 61590

PERMIT 46221

Survival 9-30-93
R.M.S
Photo - USDA-F 16 616010B 1491-139

RECEIVED

FEB - 8 1994

WATER RESOURCES DEPT.
SALEM, OREGON

Info: Tom A. Walker of W+H Pacific Works
for Mt. Bachelor Inc. as a Planning, Engineering,
Surveying, Landscape Architecture, Environmental
Services. Said Address and Phone # are
Correct. The proposed intake in Tabb Lake,
The proposed Todd Lake Diversion, and the
Proposed pump vault do not exist.

Source: Todd creek at two Div. pts. and a well
that is being Redrilled due to silting

Pumps: Station #1 ^{East} at Todd creek 5HP submersible
Starite pumps, also at Station #2 there is
a Myerscentrifugal pump that is 5HP with 1745 RPM.
with 1 1/2" outlet that goes to a 4" main to the
60 PSI → ~~at Bachelor Lodge's~~ Treatment plant. From there
it goes to the Reservoir through a 6" main, and
a 10" main from the Reservoir to the Lodge's.

Station #1 is 5HP submersible pump with a 3"
Discharge and a 6" intake to a tank from the
Todd creek.

~~Next~~
From the creeks to Treatment plant is a 3" main
line, from Treatment plant to Holding Tank is
a 2" line from Holding Tank at 100 PSI it goes
through first a 4" main then to a 6" main to
Reservoir, then from there it goes through a
10" main to the Lodge's. AT A GRAVITY FEED
SYSTEM.

Stairigo

2 5 HP 2" outlet
2 submersible pumps

1 CENTRIFUGAL pump
5 HP 1745 RPM
PUMP MYERS 1 1/2" outlet
all goes to 4"

main to treatment
plant to 6" Res. +
10" coming out

60 PSI ON OFF
150 PSI

6360 TO 6240 FEET.

5 HP submersible
3" outlet steel to PVC
6" intake from creek

Treatment Plant

3" intake

From Holding Tank

A 2" outlet

15 HP 3450 RPM

Baldor motor

Paco pump 1/2" outlet

100 psi or gage

From 4" To 6" MAIN LIN.

To Res. 10 From Res

GRAVITY FEED

4" main 2000'

3" lin. $\frac{9}{64}$ Pipe B. 30 1600'

RECEIVED

FEB - 8 1994

WATER RESOURCES DEPT.
SALEM, OREGON

Pipe: 2000' OF 4" MAIN LINE AND 1600' OF 3" HAND LINE WITH $\frac{9}{16}$ " RAIN BID 30. AT 40 SECTIONS OF 40' 3" HAND LINE

USE: Erosion control, DOMESTIC DRINKING WATER USE AND IRRIGATION FOR LAWNS.

LIFT: -120' TO +100'

Paul M. Dutterfield

9/30/93

STATE OF OREGON

COUNTY OF DESCHUTES

DRAFT

PROPOSED CERTIFICATE OF WATER RIGHT

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U.S.D.A. DESCHUTES NATIONAL FOREST
211 NE REVERE
BEND, OREGON 97701

confirms the right to use the waters of TODD CREEK, a tributary of DESCHUTES RIVER, for COMMERCIAL USE FOR SKI LODGES AND IRRIGATION OF 27.6 ACRES OF LAWN AND EROSION CONTROL.

This right was perfected under Permit 46221. The date of priority is JANUARY 21, 1981. This right is limited to 100.0 GALLONS PER MINUTE, BEING 100.0 GPM FOR SKI LODGE USE; 30.0 GPM FOR DAY CAMP USE AND 70.0 GPM FOR EROSION CONTROL; AND SHALL BE FURTHER LIMITED TO DIVERSION OF 100.0 GPM SO LONG AS THE FLOW OF TODD CREEK IMMEDIATELY ABOVE THE POINT OF DIVERSION EXCEEDS 200.0 GPM; AT FLOWS BELOW 200.0 GPM, THE DIVERSION SHALL NOT EXCEED 50 PERCENT OF THE STREAM FLOW, or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 SW 1/4, SECTION 8, T 18 S, R 9 E, W.M.; 1056 FEET NORTH AND 845 FEET EAST FROM THE SOUTHWEST CORNER OF SECTION 8.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NW 1/4 SE 1/4 2.8 ACRES
NE 1/4 SW 1/4 7.6 ACRES
SECTION 20

SW 1/4 SW 1/4 4.0 ACRES
SE 1/4 SW 1/4 1.6 ACRES
SECTION 21

NE 1/4 NW 1/4 4.0 ACRES
NW 1/4 NW 1/4 7.6 ACRES
SECTION 28

TOWNSHIP 18 SOUTH, RANGE 9 EAST, W.M.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

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COUNTY OF DESCHUTES
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NE 1/4 SW 1/4	7.6 ACRES
SECTION 20	

SW 1/4 SW 1/4	4.0 ACRES
SE 1/4 SW 1/4	1.6 ACRES
SECTION 21	

NE 1/4 NW 1/4	4.0 ACRES
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This right was perfected under Permit 46221. The date of priority is JANUARY 21, 1981. This right is limited to ~~700~~²⁰⁰ GALLONS PER MINUTE, BEING 100.0 GPM FOR SKI LODGE USE; 30.0 GPM FOR DAY CAMP USE AND 70.0 GPM FOR EROSION CONTROL; AND SHALL BE FURTHER LIMITED TO DIVERSION OF 100.0 GPM SO LONG AS THE FLOW OF TODD CREEK IMMEDIATELY ABOVE THE POINT OF DIVERSION EXCEEDS 200.0 GPM; AT FLOWS BELOW 200.0 GPM, THE DIVERSION SHALL NOT EXCEED 50 PERCENT OF THE STREAM FLOW, or its equivalent in case of rotation, measured at the point of diversion from the source.

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SW 1/4 SW 1/4, SECTION 8, T 18 S, R 9 E, W.M.; 1056 FEET NORTH AND 845 FEET EAST FROM THE SOUTHWEST CORNER OF SECTION 8.

OK Retype
The amount of water used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-FORTIETH of one cubic foot per second (or its equivalent) and 3.0 acre-feet for each acre irrigated during the irrigation season of each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NW 1/4 SE 1/4 2.8 ACRES
NE 1/4 SW 1/4 7.6 ACRES
SECTION 20

SW 1/4 SW 1/4 4.0 ACRES
SE 1/4 SW 1/4 1.6 ACRES
SECTION 21

NE 1/4 NW 1/4 4.0 ACRES
NW 1/4 NW 1/4 7.6 ACRES
SECTION 28

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Application No. 61590

Permit No.

STATE OF OREGON WATER RESOURCES DEPARTMENT RECEIVED

Application for Permit to Appropriate Surface Water JAN 21 1981

WATER RESOURCES DEPARTMENT SALEM, OREGON

I, Mt. Bachelor, Inc., incorporated in Bend in 1957 (Name of Applicant)

of P.O. Box 1031 Bend (Mailing Address) (City)

State of Oregon 97701 Phone No. 382-2442 do hereby (Zip Code)

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

1. The source of the proposed appropriation is Todd Creek (Creek disappears underground approximately 1-1/2 miles downstream of proposed diversion point.)

2. The point of diversion is to be located 730 ft. S and 100 ft. E (N. or S.) (E. or W.)

from the N.W. corner of Section 17, T18S, R9E (Public Land Survey Corner)

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

being within the N.W. 1/4 of the NE 1/4 of Sec. 17 Tp. 18S R. 9E, W. M., in the county of Deschutes (N. or S.) (E. or W.)

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

Table with 5 columns: Township, Range, Section, List 1/4 of Section, List use and/or number of acres to be irrigated. Row 1: 18S, 9E, 20, NE 1/4 SW 1/4, Commercial use for ski lodges and irrigation of 30-40 acres around lodges for erosion control.

*See comments on back page for limited use. Take care this out not sure correct Bill

STATE OF OREGON WATER RESOURCES DEPARTMENT

RECEIVED

Application for Permit to Appropriate Surface Water

JAN 21 1981

WATER RESOURCES DEF
SALEM, OREGON

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(Name of Applicant)

of P.O. Box 1031 Bend
(Mailing Address) (City)

State of Oregon 97701 Phone No. 382-2442 do hereby
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approximately 1-1/2 miles down-
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(N. or S.) (E. or W.)
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(Public Land Survey Corner)

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

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Sec. 17 Tp. 18S R. 9E, W. M., in the county of Deschutes
(N. or S.) (E. or W.)

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
18S	9E	20	NE 1/4 SW 1/4	Commercial use for ski lodges and irrigation of 30-40 acres around lodges for erosion control.

4. The amount of water which the applicant intends to apply to beneficial use is223.....

cubic feet per second.....(100 gpm) to supplement existing diversion point.....
(If water is to be used from more than one source, give quantity from each)

5. The use to which the water is to be applied is.....To serve Mt. Bachelor ski lodges during the winter (100 gpm) and to serve proposed camping and day use facilities (30 gpm) and irrigate 30-40 acres around ski lodges for erosion control during the summer (100 gpm). Of the 130 gpm required for summer use, 30 gpm would come from the existing diversion point.

6. DESCRIPTION OF WORKS

Include dimensions and type of construction of diversion dam and headgate, length and dimensions of supply ditch or pipeline, size and type of pump and motor, type of irrigation system to adequately describe the proposed distribution system.

See attached sheet.

If for domestic use state number of families to be supplied.....

7. Construction work will begin on or before.....July 1, 1981.....

8. Construction work will be completed on or before.....October 31, 1981 for Phase I.....

9. The water will be completely applied to the proposed use on or before.....January 1, 1982.....

Application No.61590.....

Permit No.

DESCRIPTION OF WORKS

Construction at the proposed diversion point began in January 1977 with the installation in the stream of a Myers 16 stage, 5 horsepower submersible pump (50 gpm at 210 TDH) and construction of a 2,500 foot, 2-inch diameter PVC water line from the pump to the existing diversion point for which Mr. Bachelor, Inc. has a water right of 30 gpm granted under Permit No. 31105. This construction was an emergency measure to augment flow at the existing diversion point. Drought conditions experienced during 1976 reduced the flow to a level inadequate to permit opening of the Mt. Bachelor ski area. The emergency installation provided enough water to the diversion point so that the two existing 30 gpm submersible pumps could supply water through the 9,000 foot, 3.5-inch diameter steel line to the 112,000 gallon water storage reservoir which serves the three Mt. Bachelor day lodges.

In 1979, Mt. Bachelor, Inc. initiated a master planning process for future ski facility development. Based on the results of the master planning process, Lee Engineering, Inc. prepared a report entitled, The Water Supply Study for Mt. Bachelor, Inc., January 1980, which projected a future winter domestic demand for the Mt. Bachelor day lodges of 80 to 93 gpm and a future summer water demand of 130 gpm for day use, camping, and irrigation of approximately 30 to 40 acres around the ski lodges for erosion control. Because winter water demand will be approximately 100 gpm, the report recommended that a new water source of the same capacity be developed and that the existing source be used in conjunction with the new source to meet average summer demand of 130 gpm, which will be primarily related to irrigation requirements.

As a result, a three-phase water source development plan was prepared:

Phase I, planned for the summer of 1981, involves the construction of a 100 gpm package water treatment plant and building immediately north of the Mt. Bachelor Main Lodge parking lot and immediately east of the 3.5-inch steel water line which carries water from the diversion point to the reservoir. The plant will treat water from the proposed and existing diversion points supplied initially by the existing pumping equipment and water lines. Plans and specifications for the water treatment plant have been prepared and construction is scheduled to start at the end of June 1981.

Phase II, tentatively planned for the summer of 1982, involves the installation of a second 50 gpm submersible pump at the proposed diversion point and replacement of the existing 2-inch PVC water line with a 4-inch line in order to increase pumping capacity to 100 gpm.

Phase III, to be implemented concurrently with Phase II or the following year, involves replacing the existing 3.5-inch diameter steel line with a 6-inch diameter ductile iron line to increase total pumping capacity from the existing and proposed diversion points to 150 gpm.

The existing irrigation system consists of a buried PVC pipe network covering approximately 10 acres around the day lodges. Irrigation is used to promote more rapid establishment and better maintenance of grass for erosion control in areas of heavy pedestrian traffic. Water is applied from 5 gpm sprinkler heads at the rate of 1-inch per week from mid-July through the end of September each night between 4 p.m. and 4 a.m. in order to minimize evaporation loss. It is anticipated that the irrigation program will be expanded to include a total of between 30 and 40 acres as the new lodges and ski runs are constructed according to the master plan.

Application No. 61590
Permit No.

Remarks:

David Marsa U.P. Operations
Signature of Applicant
DAVID MARSA

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for..... SIGNATURE

In order to retain its priority, this application must be returned to the Water Resources Director with corrections on or before NOVEMBER 24, 19 81

WITNESS my hand this 25th day of SEPTEMBER, 19 81

JAMES E. SEXSON Water Resources Director

By *Ralph H. Jackson*
RALPH H. JACKSON

RECEIVED
OCT 7 1981
WATER RESOURCES DEPT
SALEM, OREGON

This instrument was first received in the office of the Water Resources Director at Salem, Oregon, on the 21st day of JANUARY, 19 81, at 8:00 o'clock A.M.

Application No. 61590

Permit No.

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 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

The use to which this water is to be applied is

If for irrigation, this appropriation shall be limited to of one cubic foot per second or its equivalent for each acre irrigated.....

and shall be further limited to a diversion of 100 gpm so long as the flow of Todd Creek immediately above the point of diversion exceeds 200 gpm. At flows below 200 gpm, the diversion shall not exceed 50 percent of the stream flow.

100 gpm
Todd Cr.
Commercial use for ski lodges and day use facility and pricing for erosion control being 10¢ per ski lodge use, 30 gpm for day camp use and 70 gpm for erosion control

(see note)

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

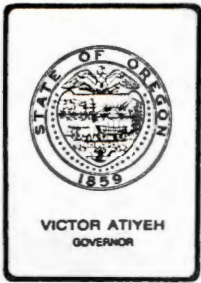
The priority date of this permit is

Actual construction work shall begin on or before..... and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19.....

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

WITNESS my hand this day of....., 19.....

200/280
1-21-81



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-8508

1-800-452-7813

(message line)

April 22, 1983

USDA Deschutes National Forest
211 NE Revere,
Bend, Oregon 97701

REFERENCE: File Number 61590

Gentlemen:

The assignment of Permit Number 46221 from Mt. Bachelor, Inc., to you has been recorded in the records of the Water Resources Department. Our records have been changed accordingly, and the original is enclosed.

Our Receipt Number 35885 covering the \$3 recording fee along with a copy of this letter is being sent to Mt. Bachelor, Inc.

Under the terms of the permit the water system for commercial use, to include plumbing, is to be completed by October 1, 1983. Adequate irrigation equipment for the project is to be on hand by that date also.

Finally, water is to be used to the fullest extent intended on or before October 1, 1984. Forms for reporting are enclosed.

Sincerely,

Thomas E. Shook
Senior Water Rights Examiner

TES/jw

Enclosure

cc: Robert F. Main, Watermaster



RECEIVED

APR 13 1983

**WATER RESOURCES DEPT.
SALEM, OREGON**

April 11, 1983

Mr. Walt Schloer
Bend District Ranger
211 NE Revere
Bend, OR 97701

Dear Walt:

I have enclosed an executed copy of the water rights assignment for Permit #46221.

The original has been sent to the Oregon Water Resources Director along with the \$3.00 recording fee.

This action should conclude the permit question.

Yours truly,

MT. BACHELOR, INC.

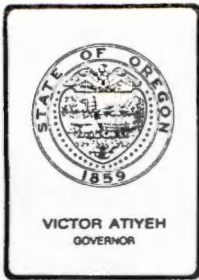
Bill Healy (Ev)

Bill Healy
President

BH:et

Enclosure

cc: Chuck Johnson
Dave Marsh



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-8508
1-800-452-7813
(message line)

March 16, 1983

Mt. Bachelor, Inc.
PO Box 1031,
Bend, OR 97701

REFERENCE: File Number 61590

Attention: David Marsh, Vice President - Operations

The notice of Beginning of Construction for the project described in Permit Number 46221 has been received.

The notice is being returned to allow you the opportunity to sign the statement in the space provided. Please add the horse power of the pump.

Sincerely,

Thomas E. Shook
Senior Water Rights Examiner

TES/jw

Enclosure

The completed assignment must be submitted to the Water Resources Director,
555 13th St., N.E., Salem, Oregon 97310, together with a recording
fee of \$3.00.

4.13.83
\$ 3.00
R#35885

RECEIVED

APR 13 1983

**WATER RESOURCES DEPT.
SALEM, OREGON**

8:00 am

RECEIVED
MAR 10 1983
WATER RESOURCES DEPT.
SALEM, OREGON



March 8, 1983

Mr. James E. Sexson
Water Resources Director
Water Resources Department
555 - 13th Street, NE
Salem, OR 97310

Re: Mt. Bachelor, Inc.
Water Right Application 61590

Dear Mr. Sexson:

I have completed and enclosed Form "A", documenting commencement of construction activities, for the appropriation of water on Todd Creek. A portable pump was installed in June of 1982 to serve our projects on Mt. Bachelor.

I apologize for the delay in submittal of the necessary forms, and assure you we will not be delinquent in the future.

Our plans for the utilization of Todd Creek have not changed. We will keep you informed of our construction progress.

Your assistance and patience are appreciated. Please do not hesitate to contact this office if you require additional information.

Very truly yours,

MT. BACHELOR, INC.

A handwritten signature in black ink, appearing to read "David Marsh".

David Marsh
Vice President - Operations

DM/wr
Enclosure

March 9, 1982

Mt. Bachelor, Inc.
PO Box 1031
Bend, OR 97701

61590

46221



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-3066
or
1-800-452-7813
(message line)

September 25, 1981

David Marsh, Director Lodge Operations
Mt. Bachelor, Incorporated
PO Box 1031
Bend, OR 97701

Dear Mr. Marsh:

REFERENCE: File 61590

On January 21, 1981, an application was received and accepted in the name of Mt. Bachelor, Incorporated, which proposed the use of 100 gallons per minute of water from Todd Creek for commercial use for ski lodges and irrigation around the lodges for erosion control.

The Water Policy Review Board found the use of water proposed in the application to be in keeping with the Basin Program. This determination eliminated the problems existing in the granting of a permit which might be contrary to the provision of that order.

As you know, the Deschutes National Forest also took considerable interest in your project. We received a letter within the last few days from Walter C. Schloer, Jr., the District Ranger, indicating that the Forest Service has no objections to issuing a permit, provided certain provisions are incorporated. The substance of these is that the total diversion be allowed so long as the flow in the creek immediately above the point of diversion exceeds 200 gallons per minute. During periods when the flow is less than 200 gallons per minute, the diversion shall not exceed 50 per cent of the streamflow. The letter was also signed in behalf of Mt. Bachelor, Incorporated, so our presumption is that you are aware of the limitations they proposed and have no objection to these.

In reviewing the application and its supporting data, there appears to be but one remaining problem; the application has not been signed. I am returning it, endorsed so as to retain its date of priority if received in this office on or before November 24, 1981, in order for you or some officer of the corporation to sign in behalf of Mt. Bachelor, Incorporated in the space provided on the third page.

COPY

David Marsh, Director Lodge Operations
September 25, 1981
page two

The fees required with the application are: examination fee \$20, permit recording fee for the commercial use \$15, and permit recording fee for the irrigation \$10 for a total of \$45. A total of \$40 was initially received for the two applications submitted; only one was filed and the fees were applied in their entirety to the Todd Creek filing. Therefore, an additional \$5 will be required before the permit can be issued.

Upon receipt of the signed application and the additional \$5, processing can be completed on the application.

Sincerely,

RALPH H. JACKSON, Supervisor
Application/Permit Section

RHJ:wpc
enclosures
7034A

RECEIVED

SEP 14 1981

WATER RESOURCES DEPT
SALEM, OREGON

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
DESCHUTES NATIONAL FOREST
Bend Ranger District
211 NE. Revere
Bend, Oregon 97701

SEP 11 1981

IN REPLY REFER TO

2720

Director, Water Resource Department
ATTN: Ralph Jackson
555 Thirteenth Street NE.
Salem, Oregon 97310

Dear Mr. Jackson:

Although the summer season is not over, our evaluation of Todd Creek to date has shown there is little, if any, contribution from the meadows above Todd Creek to the flow of the stream. We have also had an opportunity to observe that at least in drought years the flow of Todd Creek drops below 75 gpm as early as the first part of August.

Recognizing the benefit of the Mt. Bachelor, Inc., development as well as the riparian needs along Todd Creek, the Forest Service is modifying our recommendations in regard to Mt. Bachelor, Inc.'s water right application to permit up to 100 gpm withdrawal from Todd Creek as long as the flow immediately above the point of diversion exceeds 200 gpm. As the stream flow drops below 200 gpm at the point of diversion the withdrawal shall not exceed 50 percent of the stream flow.

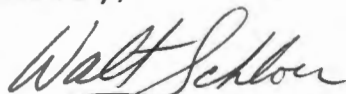
Our position remains the same, that is opposed, to any diversion from Todd Lake.

We recommend these conditions be a part of any certificate of water right granted to Mt. Bachelor, Inc.


Mt. Bachelor, Inc., is aware of our concerns in regard to this diversion and are agreeable to the above conditions and have so indicated by jointly signing this communique.

Should you have any questions, please give me a call.

Sincerely,

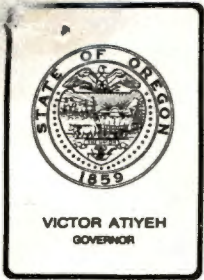


WALTER C. SCHLOER, JR.
District Ranger



Mt. Bachelor, Inc.





Water Resources Department
MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-3066

File No. 61590

April 24, 1981

Mt. Bachelor, Inc.,
P. O. Box 1031
Bend, Oregon, 97701

Attention: David Marsh, Director
Lodge Operations

Dear Mr. Marsh:

On January 21, 1981, two applications for permits were received from Mt. Bachelor, Inc. One proposed the use of 0.223 cubic feet per second from Todd Creek for commercial use for ski lodges and irrigation of up to 40 acres for erosion control; the other proposed the use of 0.223 from Todd Lake for the same purposes.

The applications were not filed, as the proposed uses appeared to be contrary to the Water Use Program for the Upper Deschutes. You petitioned the Water Policy Review Board for a determination that the proposed uses were encompassed by the classifications established in the basin program, or that the program be modified so as to allow these uses.

The Water Policy Review Board has informed us that the uses proposed from Todd Creek are in keeping with the basin program. On the basis of this information, the Todd Creek application has been accepted and filed as No. 61590. The fees submitted with the applications have been applied to the appropriate filing fees. The application will enjoy a date of priority of January 21, 1981, the date it was first received in this office. The application will be examined in detail, and we will be communicating further with you at that time.

The application proposing the use of water from Todd Lake is a different matter. The existing policy for the lakes of the area is substantially more restrictive, and the Board apparently feels the proposed uses would be in conflict with the Order, and with the public interest. This application cannot therefore be filed, and is being returned for your records.

The Deschutes National Forest has taken an interest in the proposed project, and has even made some hydrologic studies on Todd Creek. I do not know if you have been in close contact with the Forest people, but if this has not been done, I suggest you discuss your proposed project with them. If they are not satisfied that the use of water in the quantity you propose is in keeping with other uses they are charged with administering, they

Application No. 61590
Permit No.

Mt. Bachelor, Inc.,
April 24, 1981
Page 2

may choose to protest the application.

We will be contacting you further.

Sincerely,

Ralph H. Jackson
Supervisor
Application/Permit Section

RHJ/jw

Enclosures



STATE OF OREGON

INTEROFFICE MEMO

TO: Larry Jebousek

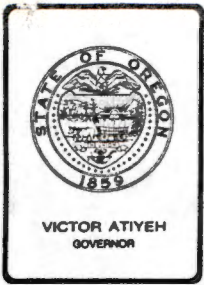
DATE: April 14, 1981

FROM: Tom Kline

SUBJECT: Water Use Proposed by Mt. Bachelor, Inc. from Todd Creek

The Policy and Planning Division has reviewed the proposed use of water from Todd Creek in the Deschutes Basin for Mt. Bachelor. It is our opinion that the use as proposed is encompassed by the classifications established in the basin program.

Application No. 61590
Permit No.



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-3671

April 14, 1981

Walter C. Schloer, Jr.
District Ranger
U.S. Forest Service
211 N.E. Revere
Bend, Oregon 97701

Dear Mr. Schloer:

Thank you for the information you provided on Todd Creek. I anticipate that our Water Rights Division will be in contact with you prior to the issuance of a permit for the use proposed by Mt. Bachelor, Inc.

Sincerely,

Thomas E. Kline

TEK:bw

cc: Ralph Jackson

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
DESCHUTES NATIONAL FOREST
Bend Ranger District
211 NE. Revere, Bend, Oregon 97701

APR 2 1981

IN REPLY REFER TO

2540

RECEIVED

APR 6 1981

WATER RESOURCES DEPT
SALEM, OREGON

Tom Kline
555 13th Street NE.
Salem, Oregon 97310

Dear Mr. Kline:

Enclosed is an evaluation of the Mt. Bachelor, Inc., water supply proposal by Bruce McCammon, Forest Hydrologist for the Deschutes National Forest. I concur in his recommendation no right or permit be granted for a diversion out of Todd Lake, and no right or permit be granted above 100 gpm from Todd Creek at this time.

Furthermore, in order to substantiate the effect on riparian vegetation I concur in the need to keep diversions keyed to maintaining minimum flows in Todd Creek. We would prefer to see minimum flows as outlined in the "2540 - Water Uses and Development" letter by McCammon in order to complete our studies in the summer of 1981.

Should you have any questions, please give me a call.

Sincerely,



WALTER C. SCHLOER, JR.
District Ranger

Enclosure

Application No. 61590
Permit No.



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Deschutes National Forest
211 NE. Revere, Bend, Oregon 97701

REPLY TO: 2540 Water Uses and Development

SUBJECT: Todd Creek - Mt. Bachelor Water Supply



TO: District Ranger, Bend RD

Formal calculation on the amount of water needed to maintain the riparian ecosystem along Todd Creek have not been made. We had planned to assess groundwater gradient at several points along Todd Creek last summer but the needed supplies were late in coming. We plan to install several observation holes in the meadow this summer.

The groundwater observations will tell us whether the meadow is contributing to the flow of Todd Creek or vice versa. With supplemental measurements of streamflow and channel geometry we should be able to assess the effects of a withdrawal of 100 gpm on the riparian communities.

Until these studies are completed, it is impractical to make quantitative recommendations about minimum flows. I can, however, offer some gut feelings.

1. When the flow of Todd Creek is less than 500 gpm, flow diversion should be decreased; i.e., less than 100 gpm.

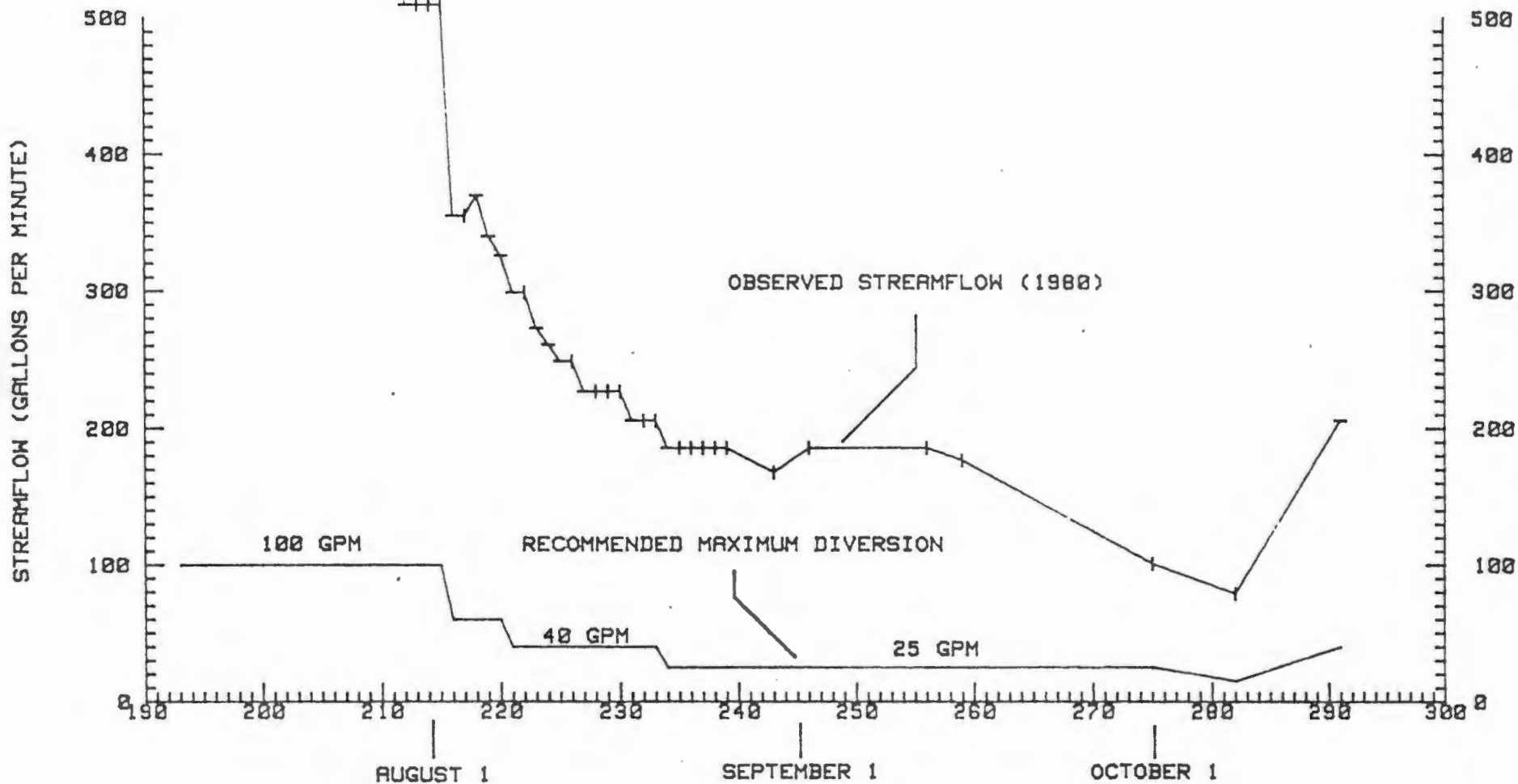
2. The amount of diversion should decrease proportionally with the flow decrease below 500 gpm.

3. When flows are less than 75 gpm, no diversion should be allowed.

These comments are based solely on my personal observations and feelings. They are subjective and, therefore, subject to scrutiny. I would feel much more confident making recommendations after tracking groundwater depletion this summer.

BRUCE P. MCCAMMON
Forest Hydrologist

TODD CREEK 200 FEET UPSTREAM FROM HWY 46



JANUARY 1981

B.P. McCAMMON

MT. BACHELOR WATER SUPPLY EVALUATION

The water supply system proposed for development by Mt. Bachelor includes a pumped diversion from Todd Lake, a storage vault, and a 6-inch distribution line to the resort area. This alternative was chosen by Lee Engineering from a set of four based primarily on the reliability of the supply. My comments on each of the alternatives follow.

Alternative I - Deep Well: I agree that this is a risky venture. The risks, however, are strictly monetary. This is, without a doubt, the most acceptable supply from an environmental standpoint and I would prefer that this option be selected.

Alternative II - Shallow Wells: I agree that the quantity of water available in the perched aquifer is probably not large enough to be considered a viable source.

Alternative III - Todd Creek: I do not agree that this alternative is infeasible due to environmental concerns. In all actuality, I think that, with a modification of the intake point, this alternative represents the best surface supply source. It can be shown that the sustained low flows in Todd Creek have a 50 percent chance of being 1350 gpm and a 95 percent chance of being greater than or equal to 860 gpm. I will discuss this in some length later in this letter.

Alternative IV - Todd Lake: I do not like the logic for selecting this alternative. On pages 3 to 8 of the Proposed Master Plan it is stated that Alternative IV presents environmental concerns similar to those in Alternative III. Since this was enough justification to eliminate Alternative III it should follow for Alternative IV also. The other factor, the reliability of the source, is not the question or a valid selection criteria. The only time the Todd Lake alternative would represent a more stable source of water is if the inflow to the Lake was not large enough to cause outflow to Todd Creek. At this point, Mt. Bachelor would be pumping from a fixed reservoir quantity and would inevitably lower the lake level. The USFS cannot allow that to happen.

I do not agree with the proposal to divert water from Todd Lake for the following reasons:

1. The monitoring of the effects of pumping on the outflow from Todd Lake would be very difficult to do. Since we are concerned about the possible effects of depleting water supply to the stream's riparian communities, we would need to state regulatory requirements in terms of acceptable minimum flows.
2. I am concerned that once the system is established we would not have adequate control of its use.
3. I feel that the proposed installation results in unnecessary environmental disturbance to the Todd Lake area and additional cost.

The Todd Lake-Todd Creek hydrologic balance and geologic framework are both very complicated. We do not know a lot about either of these items. With all the uncertainties involved, the sensitivity of the Todd Lake area and the importance of water to the proposed development I feel it is only prudent to present an alternative which eliminates environmental concerns around Todd Lake and still results in a technically feasible supply, with minimal impacts to the Todd Creek riparian zone.

A major concern is the diversion of water from Todd Creek during periods of low flow and the effects this would have on the riparian communities and, to a lesser degree, fish habitat. The reliability of water quantity in Todd Lake has been used as an argument to select that source over the Todd Creek source. The following statistics show that when sustained low flows are expressed in terms of probability of occurrence, the flows in Todd Creek should be adequate to supply 100 gpm without more than a 12 percent decrease in flows in all but very dry years.

Low flows may be evaluated on the basis of daily low flows or low flows which are sustained over some length of time. I have chosen the low flows for a 7-day period as the basis for my evaluation since low flows of this duration could have serious implications to benthic and aquatic organisms and riparian plants.

The Upper Deschutes River basin is dominated by groundwater flows. In fact, the major sources of supply to Todd Lake and Todd Creek are spring sources. Due to this large groundwater flow in the area, low flows tend to be very stable characteristics of a stream's annual hydrograph. Variability in low flow between years, on a given stream, is usually damped out or lessened due to the groundwater inflow to the streams.

Probability of low flows is analyzed in the same manner as an analysis of peak flows. Both events, peaks or minimum flows, are extreme events within the hydrologic time series. It is relatively easy to develop probability relationships for low flows on a gaged stream through the use of standard statistical techniques. These computations have been completed for all gaged streams on the Deschutes National Forest and are available from the Forest Hydrologist.

A prediction model for low flows, at a given level of probability, on an ungaged watershed may be developed by correlating streamflow or basin characteristics with known low flows at the gaged sites. This is a widely used technique for developing peak flow relationships and is appropriate to use for low flows.

Using eight gaged streams in the vicinity of Todd Creek I developed a predictive model for 7-day low flows with a 50 percent probability of occurrence, Q7L2.

By using the Deschutes National Forest flood prediction technique and published data we can compute the predicted 7-day low flow with a 50 percent chance of occurrence for Todd Creek at a point just below the confluence of the outflow stream from Todd Lake.

$$Q7L2 = 3.01 \text{ cfs}$$

Using published flow records we can determine that on the average, the 7-day low flow with a 2-year return interval (50 percent probability) is 1.57 times higher than the 7-day low flow with a 20-year return period, Q7L20, or a 5 percent chance of occurrence.

$$Q7L20 = \frac{Q7L2}{1.57}$$

Using this relationship we can predict that Q7L20 for Todd Creek is 1.92 cfs.

Figure 1 shows this relationship graphically. I have plotted the measured Todd Lake outflow 7-day low flow value along with the low flow probability distribution. The extreme difference makes one wonder if my predictions are valid. Apparently the 1979 flows had significantly less than a 1 percent chance of occurrence.

Conversations with the Watermaster indicate that streams in the Upper Deschutes Basin were flowing at the lowest levels ever recorded in October and November 1979. By constructing a similar graph (Figure 2) for Tumalo Creek we can see that the measured low flows in 1979 were significantly less than the probability distribution based on measured, not predicted, data. The 1977 drought value is also plotted on Figure 2 and we can see that it had approximately a 5 percent chance of occurrence.

Figure 2 and my conversations with the Watermaster lead me to conclude that the relationship for Todd Creek is valid. We can state that at least 50 percent of the time the low flow in Todd Creek, below the lake outflow stream's confluence, will be at least 1350 gpm (3.01 cfs) and that there is a 95 percent chance that the low flow would be greater than 860 gpm (1.92 cfs).

At first glance, the diversion of 100 gpm would not appear to be a significant reduction in streamflow. This summer we will measure cross sections in the stream. By modeling flows through a given cross section we will be able to better assess the impacts to fish habitat and riparian communities at given probabilities of natural flows. The computations in this letter do show, however, that there is a sufficient quantity of water in Todd Creek to supply the projected 100 gpm demand.

The Proposed Master Plan presents a water system which delivers 100 gpm during the winter and allows for 148 gpm peak use in the summer. Realistically, the 100 gpm during the winter does not present any problem. The potential diversion of 148 gpm during the summer has serious ramifications during dry years since flows as low as 174 gpm were measured during the summer of 1979. The 148 gpm is given as the maximum potential summer use; that is, if Mt. Bachelor were irrigating 40 acres and supplying 2,500 day-use recreationists and some overnight guests it would require up to 148 gpm. While this is good for design purposes I do not feel that the 148 gpm is a realistic diversion. If irrigation is limited to 10 acres and Mt. Bachelor still provides for 2,500 day-use folks the diversion would not need to exceed 50 gpm. The effects of the 98 gpm "savings" which the stream system would realize are substantial. Diversion of about one-third of the water volume is much more environmentally acceptable than the 148 gpm.

FIGURE 1

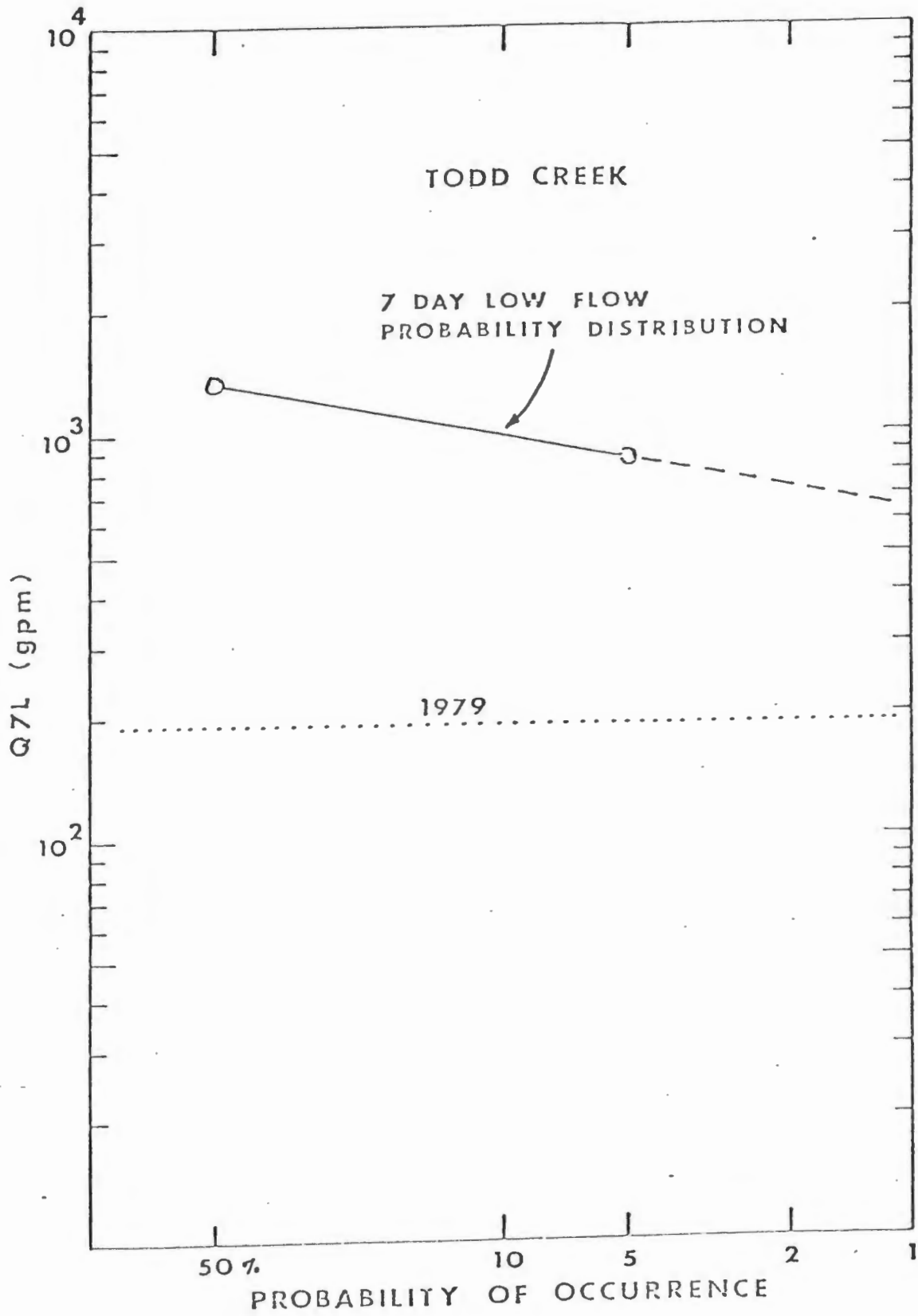
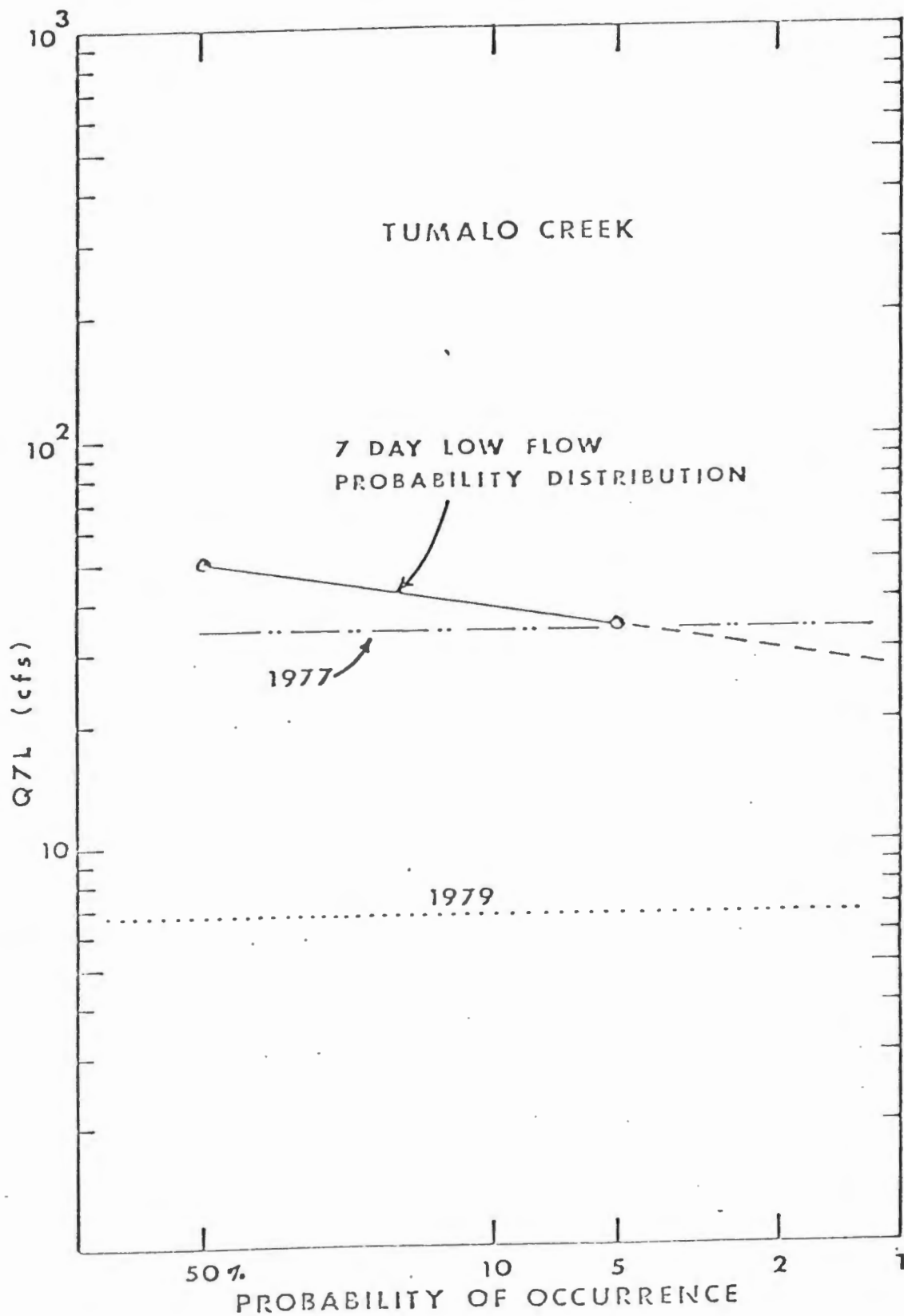


FIGURE 2.



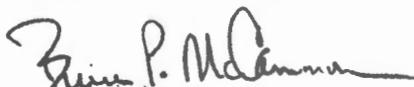
I would propose that, if the deep well alternative is not selected, Mt. Bachelor should look at developing a small dam or intake structure at a point near their existing emergency intake. A buried pump vault in the trees could supply water to the existing pump facility and the existing supply lines. Increasing the pipe's size to a 6-inch diameter would be required to adequately handle the 100 gpm. The water supply at this location is as stable as the outflow from Todd Lake. Since this is where Mt. Bachelor got water when their existing system froze up, supply in the winter should not be impaired. Monitoring the effects of the diversion on the streamflow and plant communities would be much more feasible. Installation of the intake in Todd Lake and the layout of pipe from Todd Lake to the existing pumphouse would not be necessary. The possibility of the intake in the Lake being frozen and inaccessible is real. If the intake froze up, Mt. Bachelor would need to look at the stream as a contingency supply.

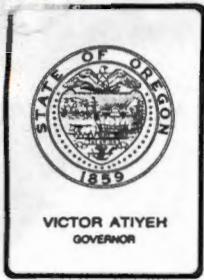
In summary, my recommendations for securing a water source for Mt. Bachelor are:

1. Dig a deep well.
2. Upgrade the existing supply from the emergency pump location to the existing diversion structure and pumphouse.
3. Do not take water from Todd Lake.

A final point, with respect to the water supply, is centered on recent water legislation. Mt. Bachelor will need to obtain a surface water right for irrigation and domestic use of Todd Creek if they do not drill a well. They have a permit for ~~0.5 cfs~~ (224 gpm) on Todd Creek now. *0.07 cfs (31.4 gpm)* (46658 10/20/78)

This permit will probably be perfected and become a water right as soon as Mt. Bachelor informs the State that they are using the water. The permit is for domestic use. Expansion of the permit to include irrigation may be critically received by the State. While the Water Supply Study done by Lee Engineering indicates that the State will probably grant the right, personal conversations with the local watermaster lead me to believe that the right will not be granted without review by the Water Board. I would recommend that the water right not be allowed for anything greater than 100 gpm (0.22 cfs). The USFS should contest the request for a right of any greater amount.


 BRUCE P. McCAMMON
 Hydrologist



Water Resources Department

MILL CREEK OFFICE PARK

555 13th STREET N.E., SALEM, OREGON 97310

PHONE 378-3066

January 22, 1981

Mt. Bachelor, Inc.,
P. O. Box 1031
Bend, Oregon, 97701

Attention: David Marsh, Director, Lodge Operations

This will acknowledge receipt of two applications for permits submitted by Mt. Bachelor, Inc., along with supporting data and a letter directed to the Water Policy Review Board requesting an exception to the Upper Deschutes policy to allow the use of water proposed in the applications. The letter will be referred to the Board by Tom Kline, who will be contacting you regarding the request.

In the meantime, we will hold the applications without action. If the policy statement is changed, the applications will be filed on the effective date of the change. The \$40.00 submitted with the applications has been placed in a pending account and will be applied to the filing fees at the time the applications are accepted. Water Resources Department receipt No. 22456 is enclosed for your records.

Sincerely,

Ralph H. Jackson
Supervisor
Application/Permit Section

RHJ/jw

Enclosure



January 15, 1981

Mr. Tom Kline
Water Policy Review Board
Mill Creek Office Park
555 -13th Street, N.E.
Salem, OR 97310

RECEIVED
JAN 21 1981
WATER RESOURCES DEPT
SALEM, OREGON

Dear Tom:

Enclosed please find two applications for a Permit to Appropriate Public Waters of the State of Oregon with all necessary maps attached. One application is for water withdrawal from Todd Creek and the other is for water withdrawal from Todd Lake, both being in the Upper Deschutes Basin. The purpose of the proposed water withdrawal is to supply water to the existing and future Mt. Bachelor ski area facilities as proposed under the master planning effort soon to be completed. Although only one of the two proposed points of diversion would be developed we are making application for both locations at this time while the Forest Service continues its field studies prior to granting its approval for one of the locations.

Because these applications are for waters in the Upper Deschutes Basin and because water will be used to serve the Mt. Bachelor Ski Lodges and proposed summer visitor facilities and to irrigate 30 to 40 acres around the ski lodges for erosion control, the staff of the Water Resources Department has informed us that these applications conflict with the Water Policy Review Board's Program for the Deschutes River Basin, dated April 1, 1980.

The applicable portion of that Program states:

"NOW THEREFORE BE IT RESOLVED that this board hereby adopts the following program in accordance with the provisions of ORS 536.300(2) pertaining to the waters of the Upper Deschutes River Basin:

"A. The maximum economic development of this state, the attainment of the highest and best use of the waters of the Upper Deschutes River Basin, and the attainment of an integrated and coordinated program for the benefit of the state as a whole will be furthered through utilization of the aforementioned waters only for domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife, and fish life uses and the waters of the Upper Deschutes River Basin are hereby so classified with the following exception:

Page 2
Mr. Tom Kline
January 15, 1981

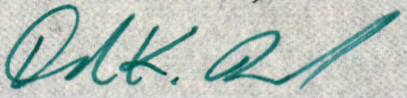
"The maximum economic development of this state, the attainment of the highest and best use of the waters of the natural lakes of the Upper Deschutes River Basin, except for Crescent Lake, and the attainment of an integrated and coordinated program for the benefit of the state as a whole, will be furthered through utilization of the aforementioned waters only for domestic, live-stock, irrigation of lawn or non-commercial garden not to exceed one-half acre in area, power development not to exceed 7-1/2 theoretical horsepower, recreation, wildlife, and fish life uses and the waters of the natural lakes, Upper Deschutes River Basin except for Crescent Lake, are hereby so classified."

The staff considers Mt. Bachelor's intended uses to be commercial and therefore not in accordance with the policy. However, we contend that the intended uses are directly related to recreation, are for the public benefit, and are necessary for the proper economic development of the Central Oregon area. Therefore, on these grounds, we hereby petition the Water Policy Review Board for an exemption to the Program for the Upper Deschutes River Basin dated April 1, 1980, so that the enclosed application may be processed and approved as soon as possible.

Should you have any questions or need further information about this request or the application, please contact our consulting engineer, Walter C. Mintkeski, P.E. of Lee Engineering, Inc., 708 Main Street, Suite 202, Oregon City, Oregon 97045, phone 655-1342.

Sincerely,

MT. BACHELOR, INC.



David Marsh
Director, Lodge Operations

DM:bc

Application No. 61590
Permit No.

STATE OF OREGON

COUNTY OF DESCHUTES

PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

U.S.D.A DESCHUTES NATIONAL FOREST
211 NE REVERE
BEND, OREGON 97701

confirms the right to use the waters of TODD CREEK, a tributary of
DESCHUTES RIVER, for COMMERCIAL USE FOR SKI LODGES AND IRRIGATION OF
27.6 ACRES *of lawn and erosion control.*

This right was perfected under Permit 46221. The date of priority is
JANUARY 21, 1981. This right is limited to 200.0 GALLONS PER MINUTE or
its equivalent in case of rotation, measured at the point of diversion
from **Being 100 GPM for ski lodge use, 30 GPM for day camp use and*

The *70 GPM for erosion control. And shall be further limited to*
diversion of 100 GPM so long as the flow of Todd Creek
AND *immediately above the point of diversion exceeds 200 GPM.*
The *At flows below 200 GPM, the diversion shall not exceed 50*
und *percent of the stream flow.*
div

equivalent) and 3.0 acre-feet for each acre irrigated during the
irrigation season of each year.

The use shall conform to such reasonable rotation system as may be
ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is
as follows:

NW 1/4 SE 1/4	2.8 ACRES ✓
NE 1/4 SW 1/4	7.6 ACRES ✓
SECTION 20	
SW 1/4 SW 1/4	4.0 ACRES ✓
SE 1/4 SW 1/4	1.6 ACRES ✓
SECTION 21	
NE 1/4 NW 1/4	4.0 ACRES ✓
NW 1/4 NW 1/4	7.6 ACRES ✓
SECTION 28	

TOWNSHIP 18 SOUTH, RANGE 9 EAST, W.M.

The right to the use of the water for the above purpose is restricted to
beneficial use on the lands or place of use described. The use
confirmed herein may be made only at times when sufficient water is
available to satisfy all prior rights, including rights for maintaining
instream flows.

2

STATE OF OREGON
COUNTY OF DESCHUTES
PROPOSED CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

U.S.D.A DESCHUTES NATIONAL FOREST
211
BENI

conf
DESC:
27.6

This
JANU

its equivalent in case of rotation, from the source.

The point of diversion is located as follows:

SW 1/4 SW 1/4, SECTION 8, T 18 S, R 9 E, W.M.; 1056 FEET NORTH
AND 845 FEET EAST FROM THE SOUTHWEST CORNER OF SECTION 8.

The amount of water used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-FORTIETH of one cubic foot per second (or its equivalent) and 3.0 acre-feet for each acre irrigated during the irrigation season of each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NW 1/4 SE 1/4	2.8 ACRES ✓
NE 1/4 SW 1/4	7.6 ACRES ✓
SECTION 20	

SW 1/4 SW 1/4	4.0 ACRES ✓
SE 1/4 SW 1/4	1.6 ACRES ✓
SECTION 21	

NE 1/4 NW 1/4	4.0 ACRES ✓
NW 1/4 NW 1/4	7.6 ACRES ✓
SECTION 28	

TOWNSHIP 18 SOUTH, RANGE 9 EAST, W.M.

The right to the use of the water for the above purpose is restricted to beneficial use on the lands or place of use described. The use confirmed herein may be made only at times when sufficient water is available to satisfy all prior rights, including rights for maintaining instream flows.

STATE OF OREGON
COUNTY OF DESCHUTES
PROPOSED CERTIFICATE OF WATER RIGHT

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U.S.D.A DESCHUTES NATIONAL FOREST
211 NE REVERE
BEND, OREGON 97701

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This right was perfected under Permit 46221. The date of priority is JANUARY 21, 1981. This right is limited to 200.0 GALLONS PER MINUTE or its equivalent in case of rotation, measured at the point of diversion from the source.

The point of diversion is located as follows:

SW 1/4 SW 1/4, SECTION 8, T 18 S, R 9 E, W.M.; 1056 FEET NORTH AND 845 FEET EAST FROM THE SOUTHWEST CORNER OF SECTION 8.

The amount of water used for irrigation together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-FORTIETH of one cubic foot per second (or its equivalent) and 3.0 acre-feet for each acre irrigated during the irrigation season of each year.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

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NE 1/4 NW 1/4	4.0 ACRES ✓
NW 1/4 NW 1/4	7.6 ACRES ✓
SECTION 28	

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DATE

INVOICE NUMBER

DESCRIPTION

AMOUNT

4-11-83

Application # 61590 Permit No. #46221

883-104

\$3.00

SKI

MT. BACHELOR, INC. P.O. BOX 1031 BEND, OREGON 97701



Jan
January 21, 1981

E
Application No. **61590**
Permit No. **46221**

Name Mt. Bachelor, Inc. incorp. in Bend, 1957
Address PO Box 1031 Bend, OR 97701

4/13/83 Assigned **USDA Forest Service - Deschutes Nat'l Forest**
Address **211 NE Revere Bend, Or. 97701**

Beginning construction **FEB 23 1983**

Completion of construction **OCT 1 1983**

Extended to

Complete application of water **OCT 1 1984**

Extended to

T.17S. R.9E.
T.18S. R.9E.

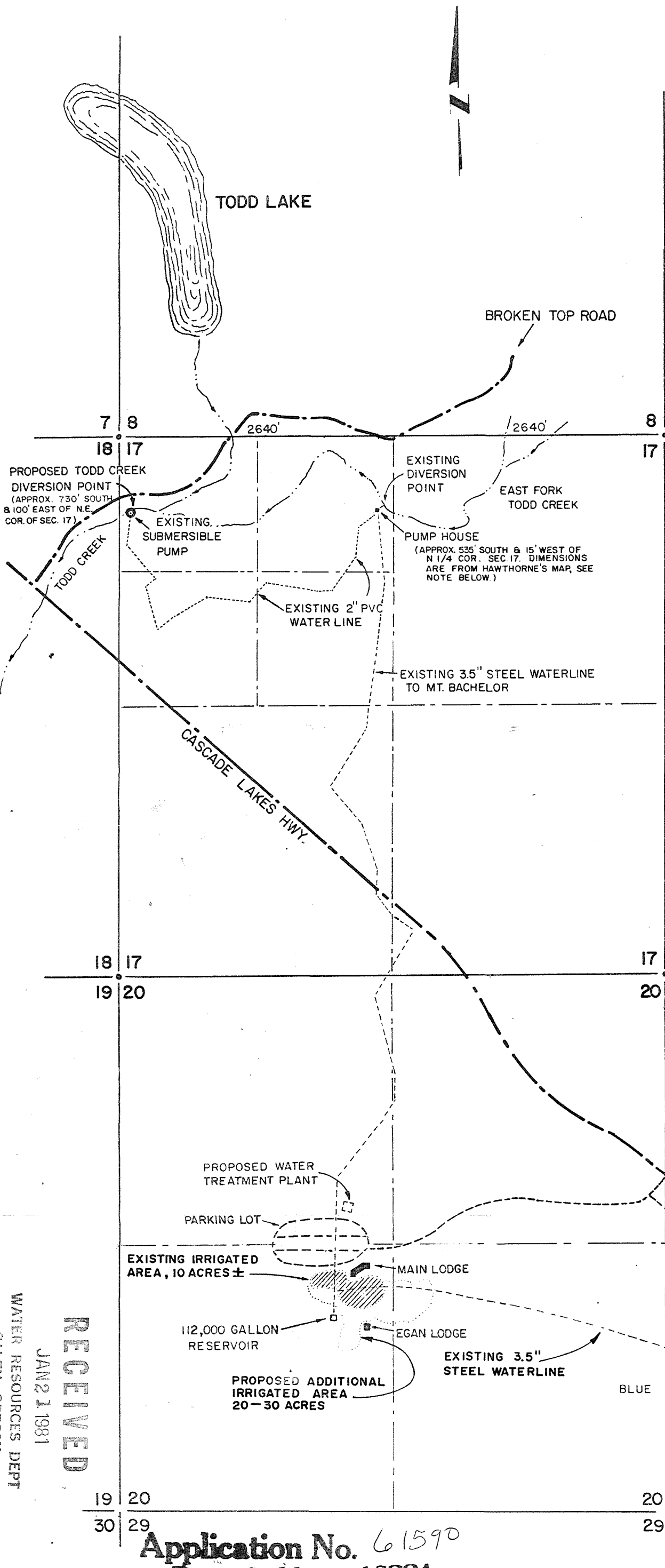
33|34
4|3

NORTH
5280'

4|3
9|10

NORTH
5280'

5280'
EAST
9|10
16|15



NOTE:

No evidence of section corners, 1/4 corners or original G.L.O. Survey work could be found in this area.

Section line location and dimensions are based on measurements and information taken from USC & GS Topographic maps. The tie to the NE corner of Section 4, T.18S., R.9E. was made by Jean Hawthorne as shown on his "Water Application Permit Map" for MT. BACHELOR INC. dated Sept. 22, 1966.

The location of the proposed and existing waterline is approximate and subject to any inaccuracies which a subsequent survey of this township may reveal.

**WATER SYSTEM
PERMIT MAP
FOR
MT. BACHELOR INC.**
SCALE 1"=1000' NOV. 1980

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Jeff Kern

EXPIRES
MAY 31 1979
JEFF A. KERN
1031

JEFF KERN & ASSOC. INC.
1030 NW NEWPORT AVE.
BEND, ORE.

RECEIVED
JAN 21 1981
WATER RESOURCES DEPT
SALEM, OREGON

Application No. 61590
Permit No. 46221

T.17S. R.9E.
T.18S. R.9E.

33|34
4|3

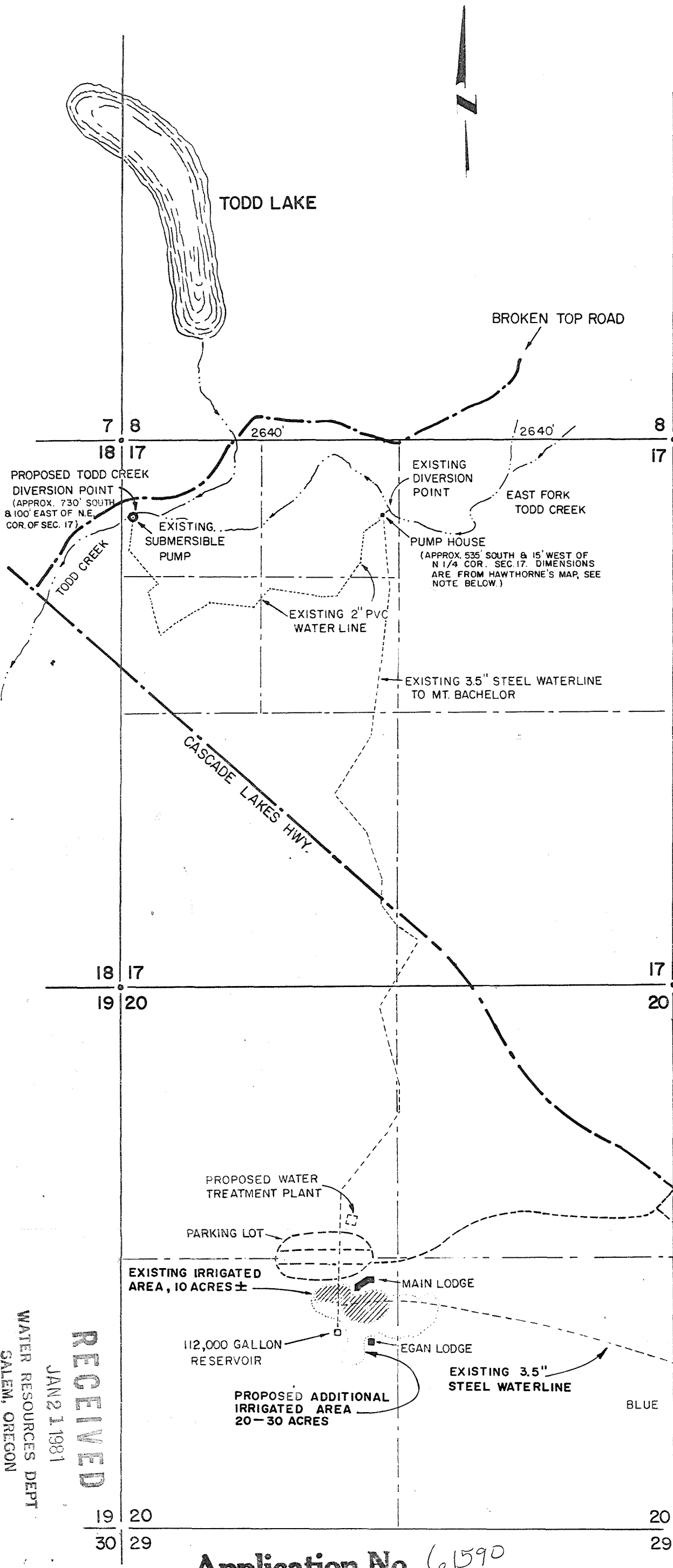
NORTH
5280'

4|3
9|10

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SALEM, OREGON

Application No. 61590
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T.17S. R.9E.
T.18S. R.9E.

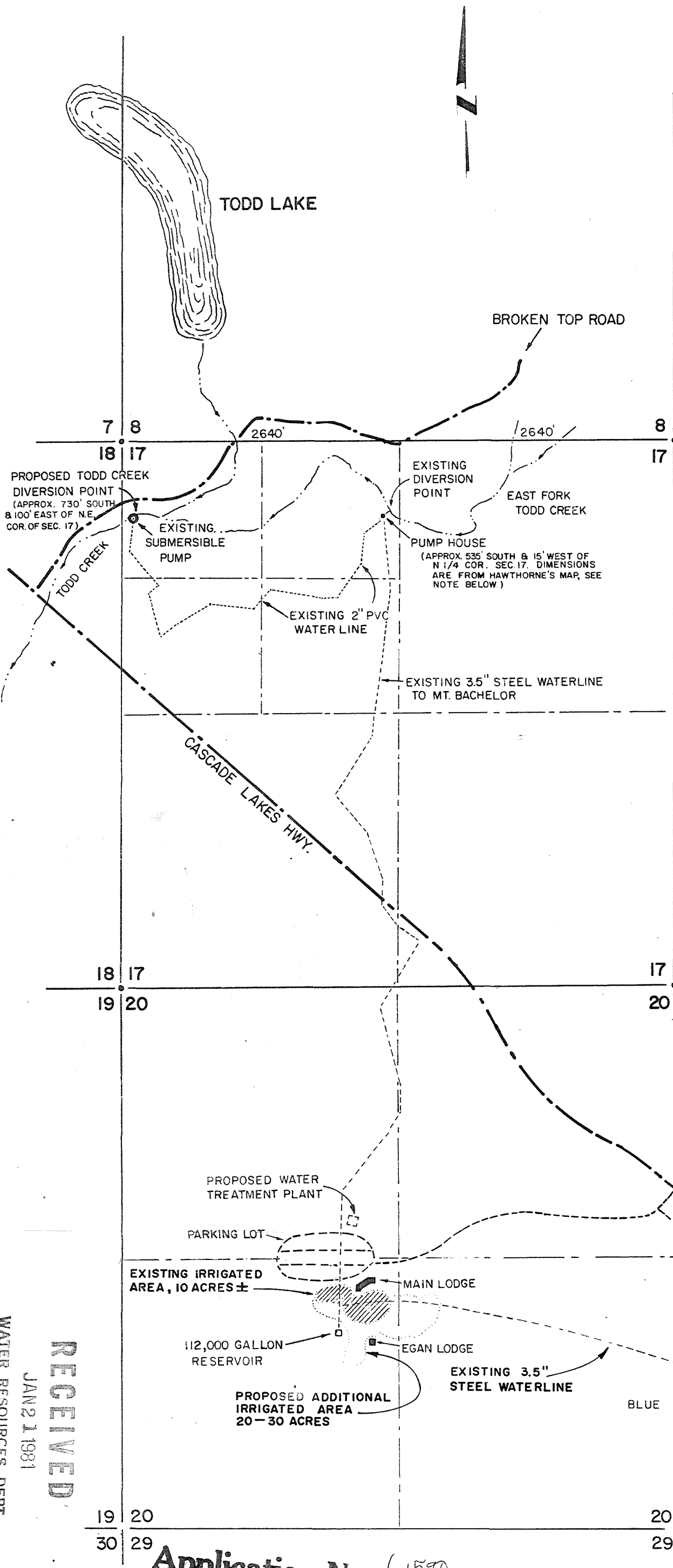
33|34
4|3

NORTH
5280'

4|3
9|10

NORTH
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**WATER SYSTEM
PERMIT MAP
FOR
MT. BACHELOR INC.**
SCALE 1"=1000' NOV. 1980

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Jeff Kern
JULY 3 1975
JEFF A. KERN
1081

JEFF KERN & ASSOC. INC.
1030 NW NEWPORT AVE.
BEND, ORE.

RECEIVED
JAN 21 1981
WATER RESOURCES DEPT
SALEM, OREGON

Application No. 6590
Permit No. 46221

T.17S. R.9E. 33 34
T.18S. R.9E. 4 3

NORTH 5280'

4 3
9 10

NORTH 5280'

8 9 5280'
17 16 EAST 9 10
16 15

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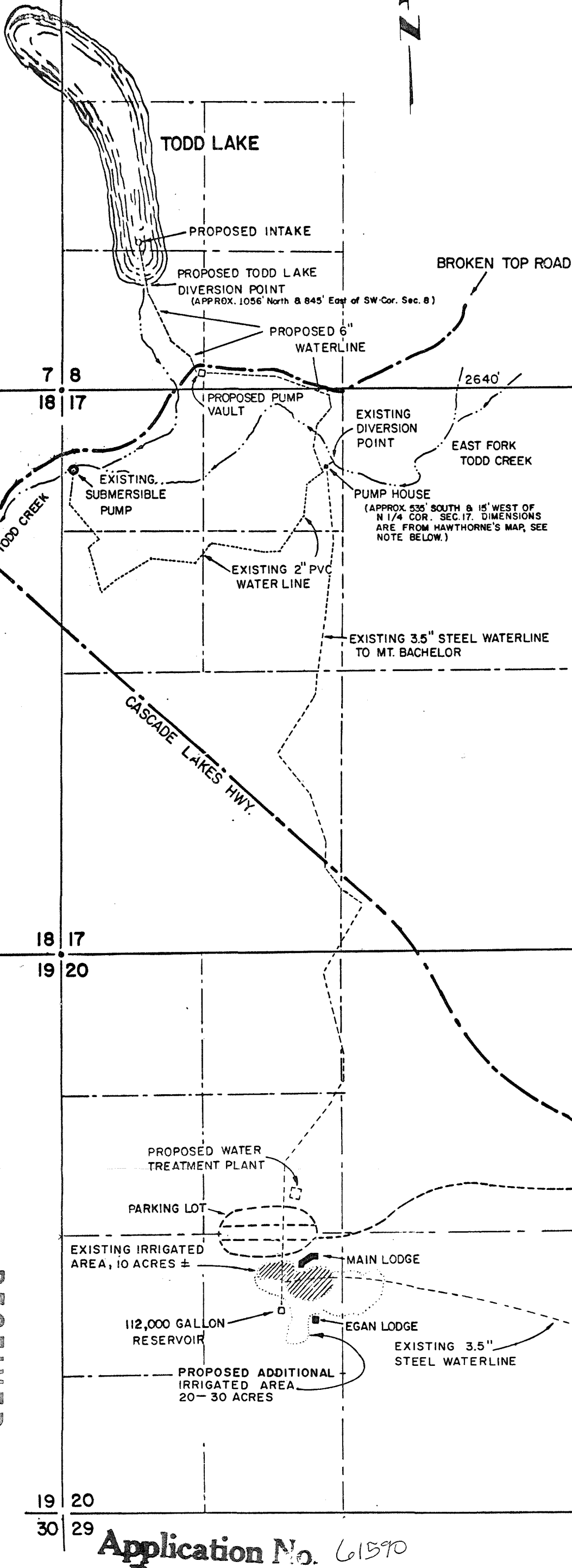
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WATER SYSTEM
PERMIT MAP
FOR
MT. BACHELOR INC.
SCALE 1"=1000' NOV. 1980

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Jeff Kern
JUL 31 1975
JEFF A. KERN
1081

JEFF KERN & ASSOC. INC.
1030 NW NEWPORT AVE.
BEND, ORE.



Application No. 61590
Permit No. 46221

RECEIVED
JAN 21 1981
WATER RESOURCES DEPT
SALEM, OREGON

T.17S. R.9E. 33/34
T.18S. R.9E. 4/3

NORTH
5280'

4/3
9/10

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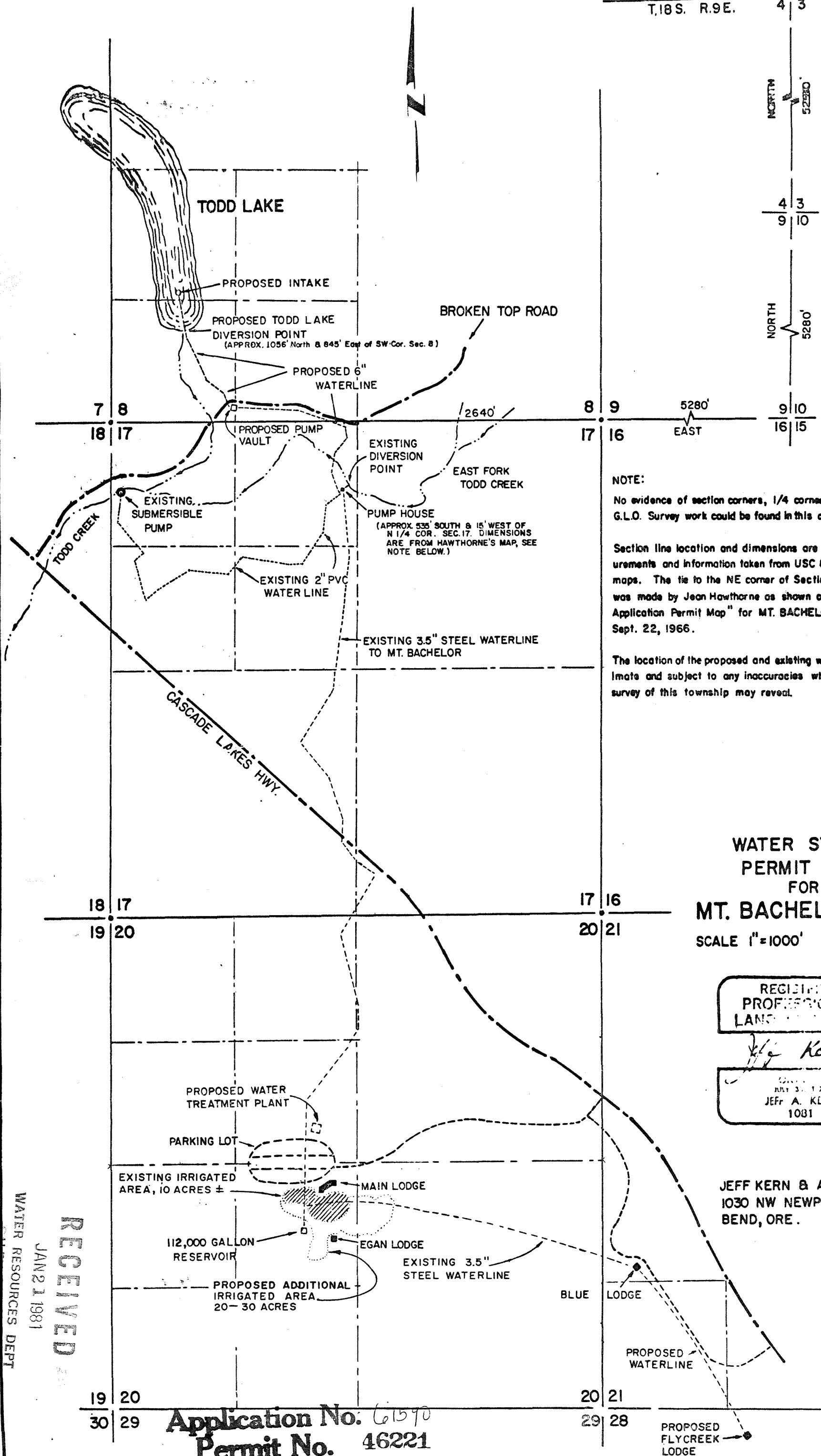
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WATER SYSTEM PERMIT MAP FOR MT. BACHELOR INC.
SCALE 1"=1000' NOV. 1980

REGISTERED PROFESSIONAL LAND SURVEYOR

Jeff Kern
JULY 31, 1975
JEFF A. KERN
1081

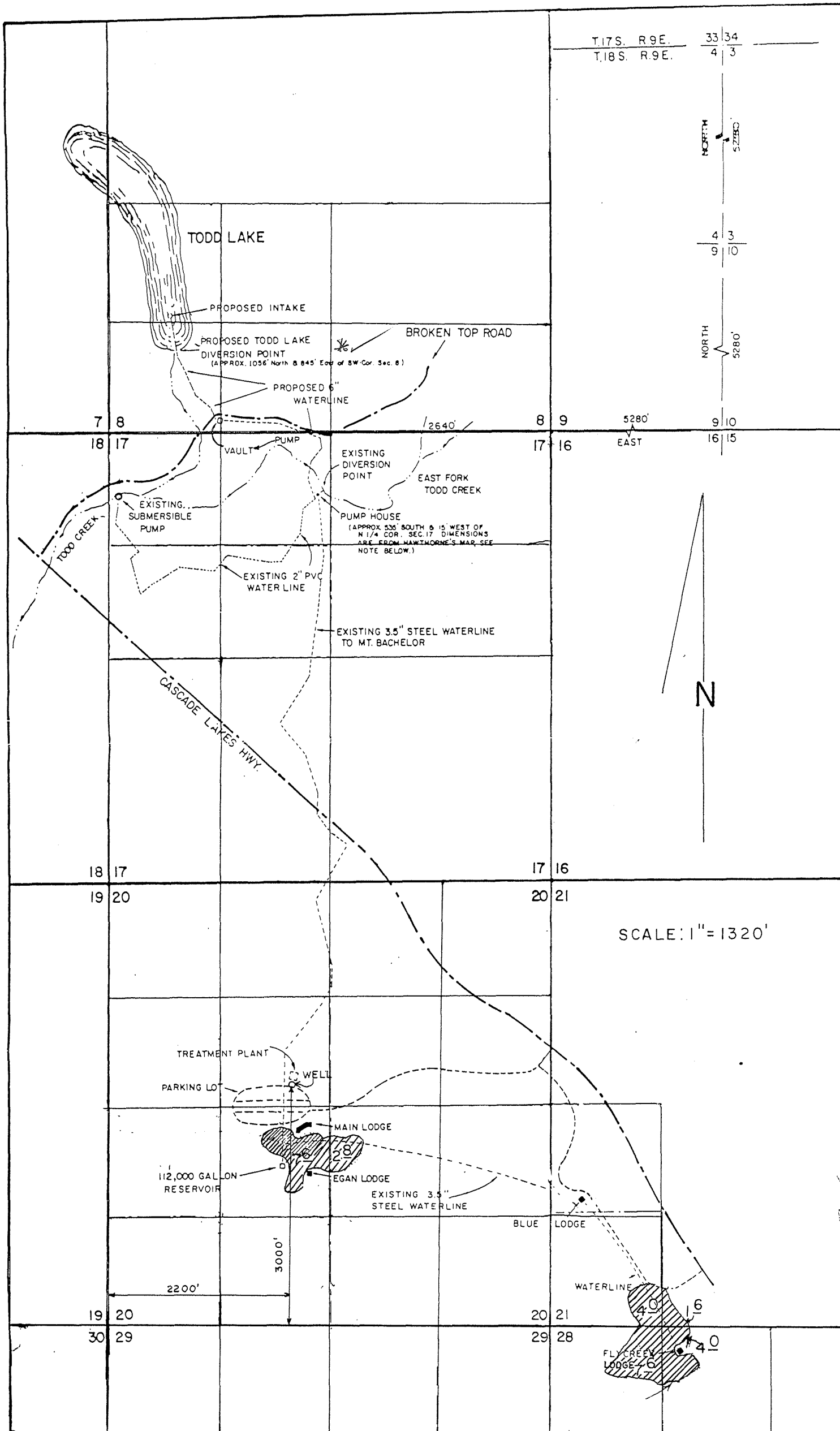
JEFF KERN & ASSOC. INC.
1030 NW NEWPORT AVE.
BEND, ORE.



Application No. 61590
Permit No. 46221

RECEIVED
JAN 21 1981
WATER RESOURCES DEPT
MOUNTAIN OREGON

T. 18 S., R. 9 E., W.M.



FINAL PROOF SURVEY

UNDER

APPLICATION NO. 61590 PERMIT NO. 46221

IN NAME OF

USDA DESCHUTES NAT'L FOREST

SURVEYED SEPT. 30, 1993, BY R.M. SUTTERFIELD

RECEIVED

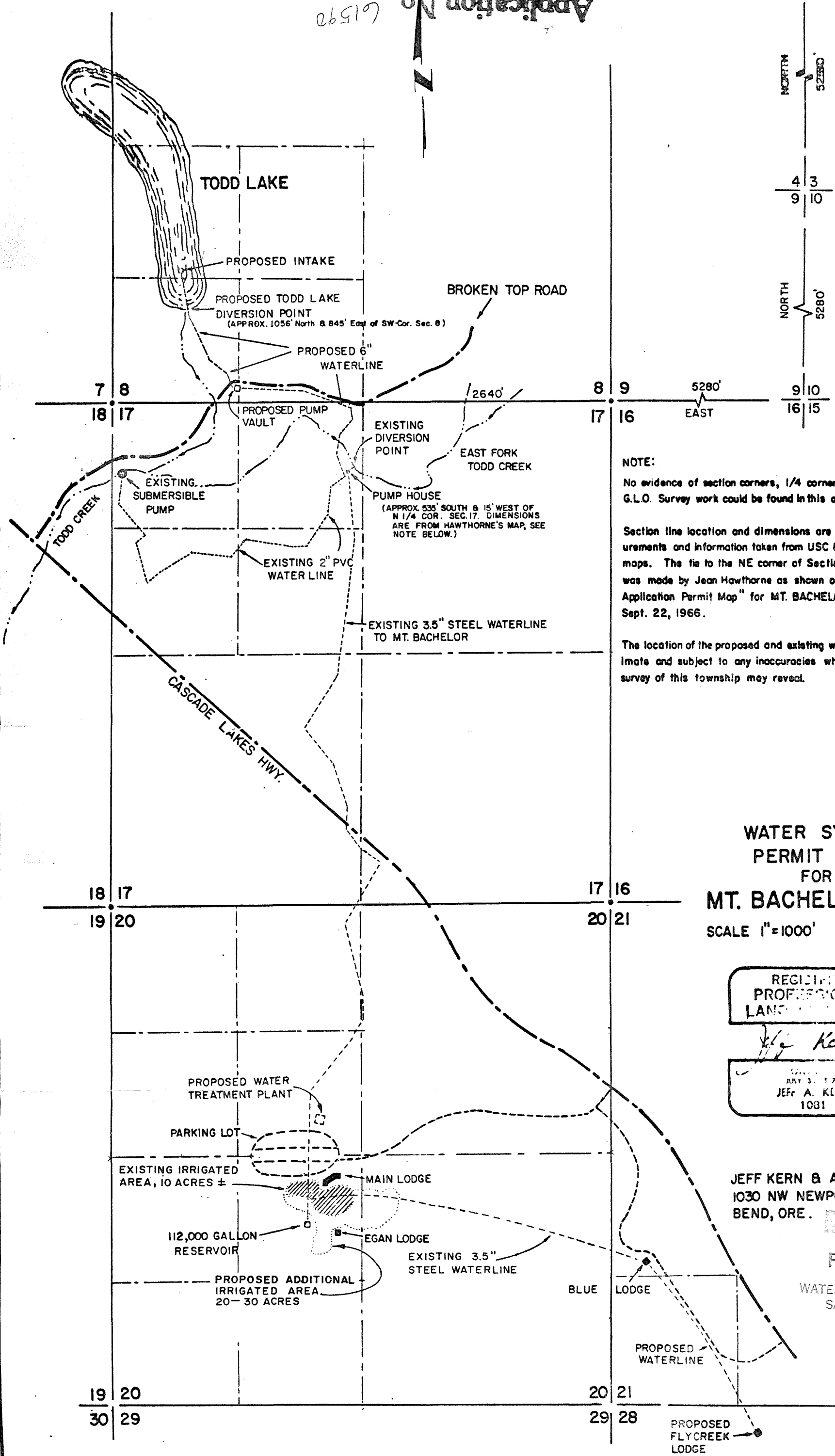
FEB - 8 1994

WATER RESOURCES DEPT.
SALEM, OREGON

Application No. 46221
 Permit No. 61590

T.17S. R.9E. 33/34
 T.18S. R.9E. 4/3

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 JAN 21 1981
 WATER RESOURCES DEPT
 SALEM, OREGON



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WATER SYSTEM
 PERMIT MAP
 FOR
MT. BACHELOR INC.
 SCALE 1"=1000' NOV. 1980

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR

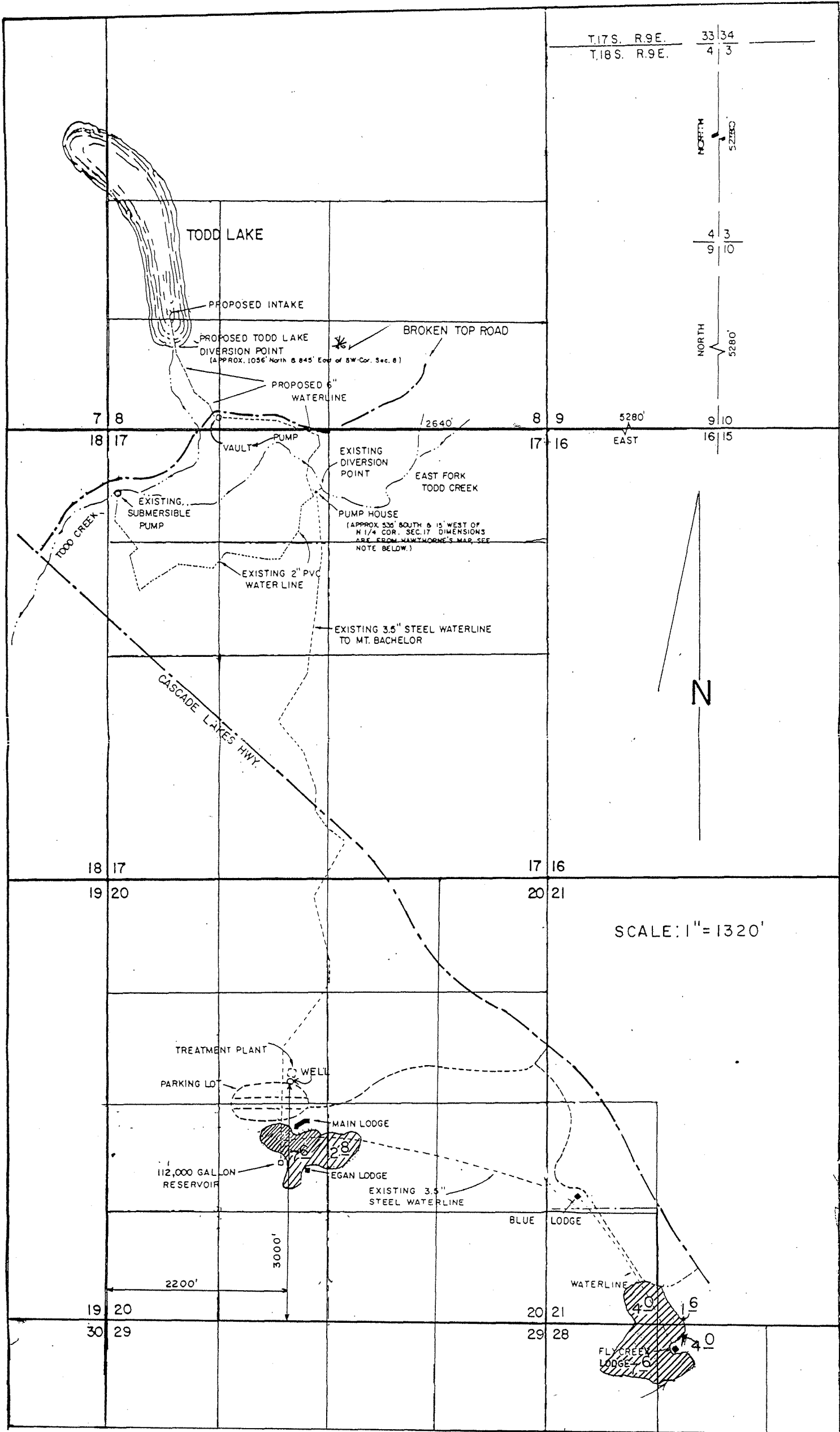
Jeff Kern
 MAY 31 1975
 JEFF A. KERN
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JEFF KERN & ASSOC. INC.
 1030 NW NEWPORT AVE.
 BEND, ORE.

RECEIVED
 FEB - 8 1994

WATER RESOURCES DEPT.
 SALEM, OREGON

T.18S., R.9E., W.M.



FINAL PROOF SURVEY

RECEIVED

FEB - 8 1994

WATER RESOURCES DEPT.
SALEM, OREGON

UNDER

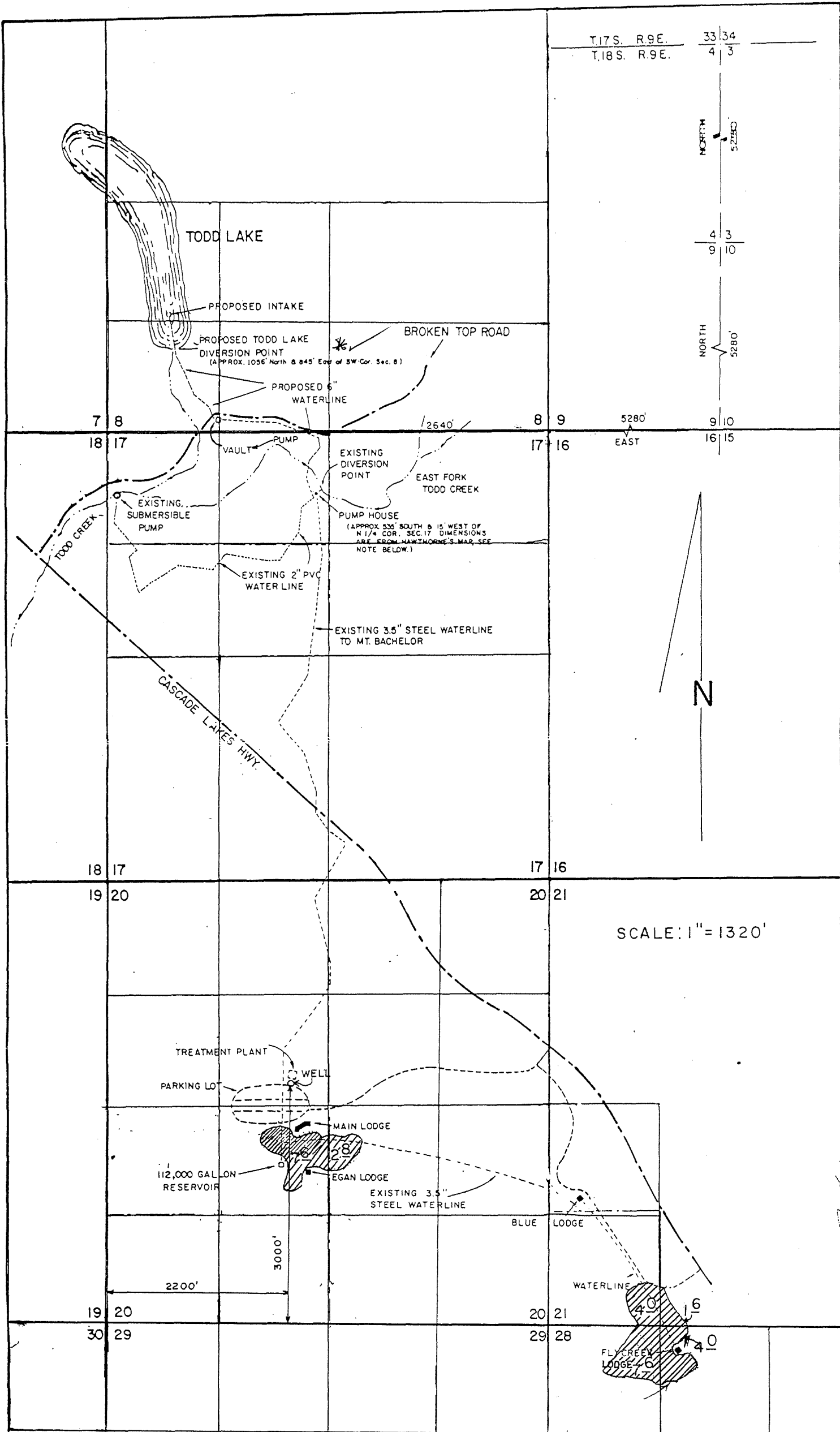
APPLICATION NO. 61590 PERMIT NO. 46221

IN NAME OF

USDA DESCHUTES NAT'L FOREST

SURVEYED SEPT. 30, 1993, BY R.M. SUTTERFIELD

T.18S., R.9E., W.M.



FINAL PROOF SURVEY

UNDER

APPLICATION NO. 61590 PERMIT NO. 46221

IN NAME OF

USDA DESCHUTES NAT'L FOREST

SURVEYED SEPT. 30, 1993, BY R.M. SUTTERFIELD

RECEIVED

FEB - 8 1994

WATER RESOURCES DEPT.
SALEM, OREGON