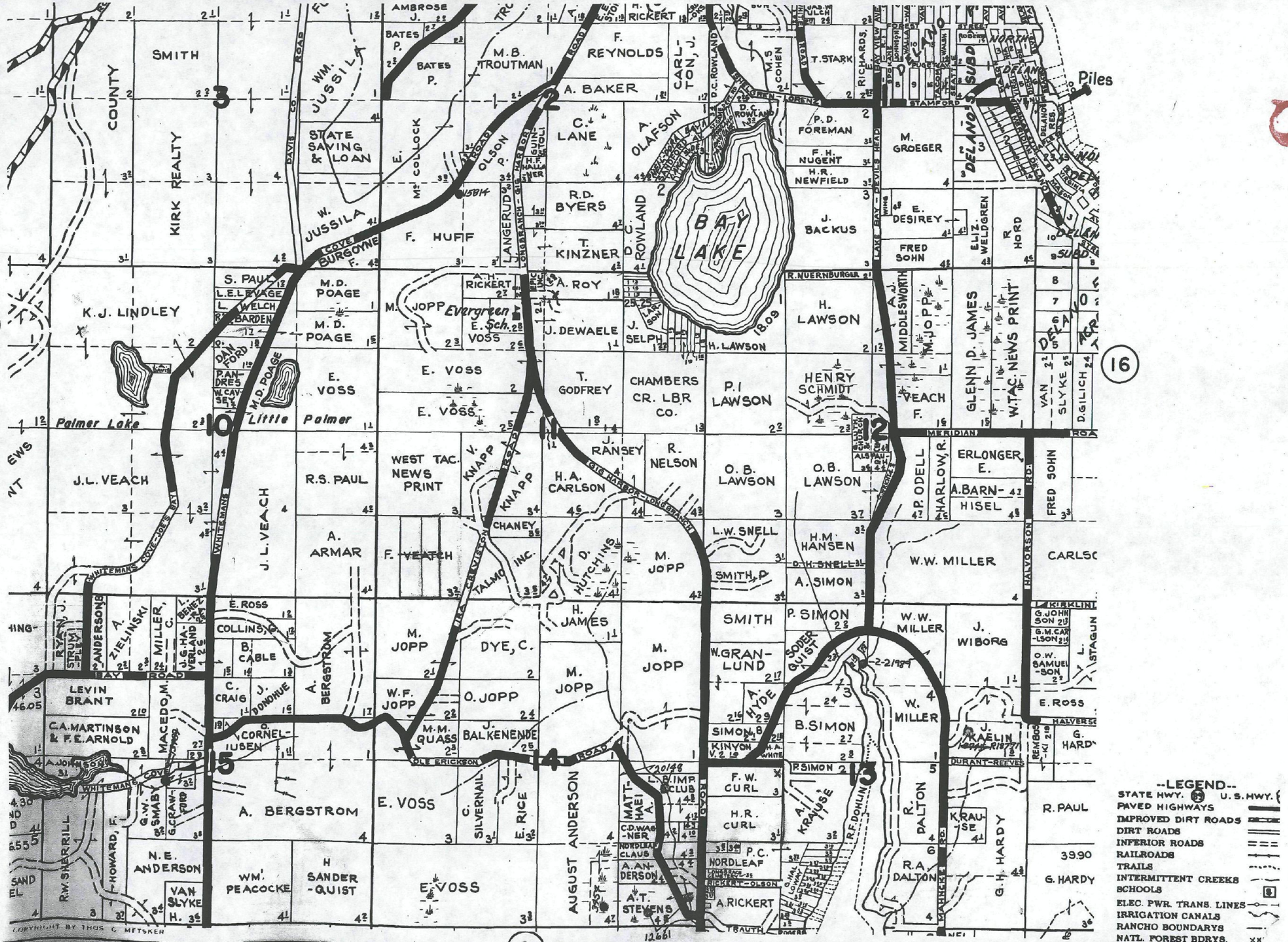
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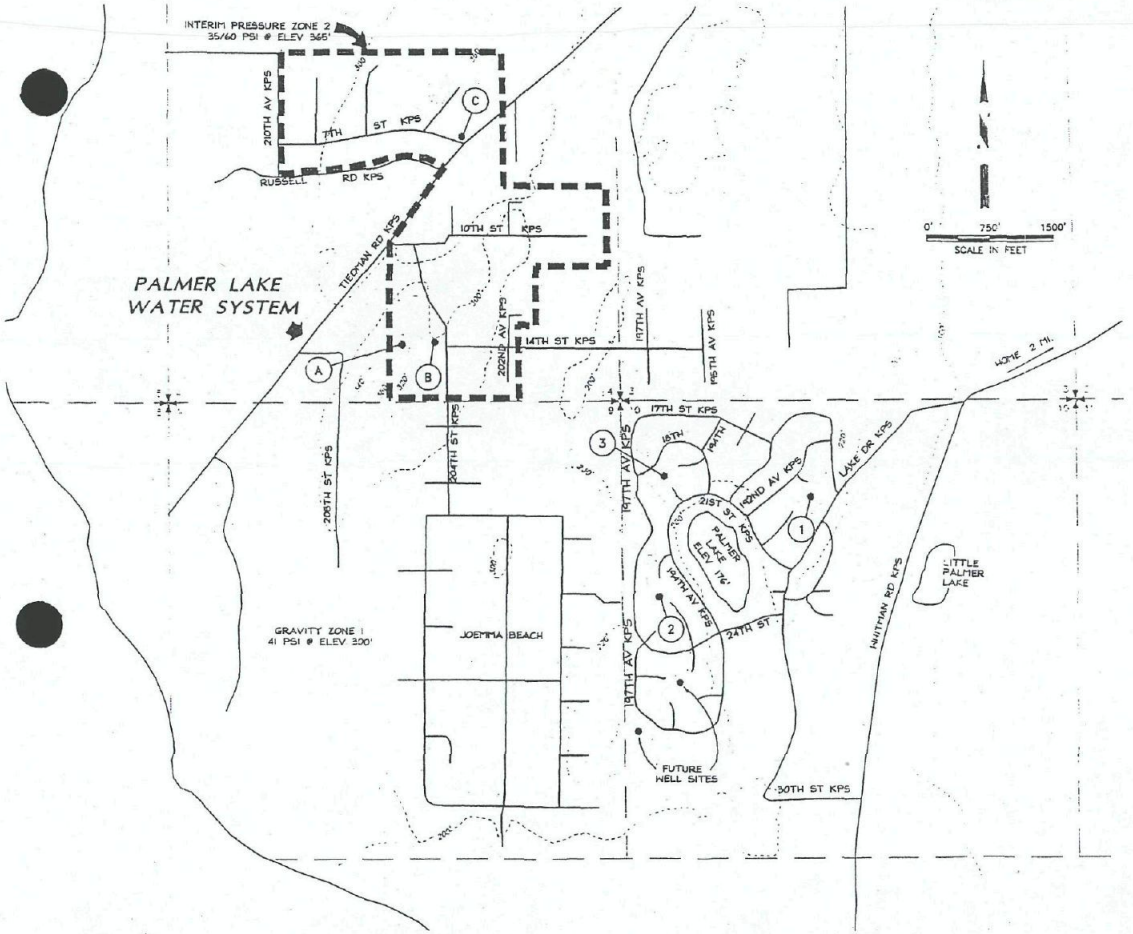
SOURCE OF SUPPLY INVENTORY

PALMER LAKE WATER SYSTEM

D.O.H. I.D. NO. 657451



EXISTING WELLS

INDEX NO. / WELL NO.	DOE PERMITS: PERMIT NUMBER & DATE ISSUED	GPM	AF/Y	STATE I.D. NO.	SIZE: DIAMETER X DEPTH & H.P.	CAPACITY (GPM): DIRECT TO STORAGE	CAPACITY (GPM): DIRECT TO DISTRIBUTION	ELEV.	SUPPLY PRESSURE
A	G2-28315P 04/09/93	200	120	557451	8" X 289' - 20 HP		85 GPM	220'±	72 PSI
B	G2-28314P 04/09/93	300	59.3		8" X 351' - 25 HP		195 GPM	240'±	85 PSI
C	G3-28601P	200	83 (40.5)		8" X 265.3' - 10 HP		98 GPM	220'±	72 PSI
	TOTALS	700	279.3 (40.5)				428 GPM		

RESERVOIRS AND BOOSTER PUMP CAPACITIES

MAP	RESERVOIR: LOCATION NAME	ELEV. SITE	DIMENSIONS: DIAMETER & HEIGHT	CAPACITY: GALLONS	BOOSTER PUMPS: PRESSURES	INDIVIDUAL PUMP SIZES & CAPACITIES: GPM (HP) + GPM (HP) + GPM (HP)	TOTAL: TOTAL GPM
A	PALMER LAKE GRAVITY STANDPIPE	363'	26' X 35'	FUNCTIONAL 131,500 GAL	ELEV 300' 41 PSI	GRAVITY SUPPLY TO PRESSURE ZONE 1	
B	ZONE 2 BOOSTER PUMP STATION NO. 1	214'		70 GPM	ELEV 314' 57/82 PSI	PRESSURE ZONE #2 22 GPM (1 HP) + 98 GPM (2 HP)	120 GPM
C	FUTURE ZONE 2 PUMP STATION NO. 2	345'		MIC FOR 201 CONNECTIONS	ELEV 345' 44/98 PSI	FUTURE B.P. STATION NO. 2 WILL BE SIZED FOR 201 CONNECTIONS	

SOURCE OF SUPPLY DESIGN CRITERIA for 557 CONNECTIONS (473 GPM MID)

An evaluation based on current (1983 Blue Book) D.O.H. Sizing Guidelines

PEAK DAY SUPPLY REQUIRED = 557 RES. CONN. X 800 GAL/DAY/CONN. = 445,600 GALLONS
PEAK DAY SUPPLY PROVIDED = 185 + 195 + 98 GPM X 60 MIN/HR X 17.4 HRS = 446,832 GALLONS

REQUIRED STANDBY STORAGE = 557 RES. CONN. X 800 GAL/DAY/CONN. = 445,600 GALLONS
STANDBY CREDIT REQUESTED = 185 + 195 + 98 GPM X 24 HRS X 60 MIN/HR = 335,520 GALLONS
= 110,080 GAL THEORETICAL STANDBY

MIN STANDBY REQ'D = LARGER OF 110,080 GAL THEORETICAL OR: 557 CONN X 200 GAL/CONN = 111,400 GAL MIN STANDBY
STANDBY RECOVERABLE IN 3 DAYS = (24 HRS - 17.4 HRS PEAK DAY)(185 + 195 + 98) GPM (60 MIN/HR)(3 DAYS) = 308,484 GAL > 400 GAL

EQUALIZING STORAGE (473 GPM MID - 428 GPM SUPPLY) X 150 MIN = 6,750 GAL
EQUALIZING STORAGE BY DIURNAL ANALYSIS = 557 CONN X 35 GAL/CONN = 19,495 GAL WHEN RATIO OF SUPPLY TO AVE DEMAND = 1.38

REQUIRED FIRE STORAGE = NONE

TOTAL STORAGE REQ'D = 111,400 GAL STANDBY + 19,495 GAL EQUALIZING + 0 GAL FIRE STORAGE = 130,895 GALLONS <—— CONTROLS
TOTAL STORAGE PROVIDED = 131,000 GALLONS

PEAK INSTANTANEOUS DEMAND FOR 67 BOOSTERED CONNECTIONS = 120 GPM FOR PRESSURE ZONE NO. 2 FROM BOOSTER STATION NO. 1
SUPPLY PROVIDED = 1 HP BOOSTER 22 GPM + 2 HP BOOSTER PUMP 98 GPM = 120 GPM

CURRENT APPROVED SERVICE CAPACITY

SOURCE OF SUPPLY FACILITIES ARE CURRENTLY CERTIFIED (06/18/93) COMPLETE FOR 400 CONNECTIONS PER D.O.H. APPROVAL #91-0715 DATED JANUARY 29, 1992

TYPICAL SUPPLY PRESSURES

PRESSURE ZONE IDENT	CONTROL LOCATION: ELEVATION	CONTROL LOCATION: PRESSURE	HIGHEST TAP: ELEVATION	HIGHEST TAP: PRESSURE	LOWEST TAP: ELEVATION	LOWEST TAP: PRESSURE
PRESSURE ZONE #1	300'	41 PSI	300'	41 PSI	LAKE EL. 176	99 PSI
PRESSURE ZONE #2	INTERIM BOOSTER STA #1	365	365	35/80 PSI	252	85/110 PSI

JOHN K. POBLOCKI — STATE OF WASHINGTON — 7877 REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 3-12-97

July 28, 1995

Robischon Engineers, Inc.
6800 Meridian Road S.E.
Olympia, WA 98513 (360) 456-6800

EXHIBIT B

PALMER LAKE WATER SYSTEM
SOURCE INVENTORY FOR 557 CONNECTIONS
SEC.3,4,10 - T20N - R1W, PIERCE COUNTY

HARBOR WATER CO.,INC.
P.O. BOX 336
GIG HARBOR, WA 98335
(206) 851-4060

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RECEIPT

Department of Ecology (4610)
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(360) 407-7095

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Remitter Name **HARBOR WATER CO INC** Receipt Name

Check/Draw Number **31646**
Document Amount **$10.00**
Method of Payment **Check**
Comment Description **WATER RIGHTS**

Ref Doc Nr	Ref Doc Sfx	Inv Nr	Id Nr	Prgm Cd	T C	R	Fund	Maj Grp	Maj Src	Sub Src	Cnty	Work Cls	PIC	AI	Org	Prj	Sub Prj	Prj Phs	Sub Obj	Sub Sub Obj	Var GL	Sub Sid Dr	Sub Sid Cr	Alloc Amt
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