Portland General Electric Company

December 30, 1992

Oregon Water Resources Department
3850 Portland Rd. NE
Salem, Oregon 97310

Re: Surface Water Registration statements

To Whom It May Concern:

I am delivering with this letter the following six surface water registration statements:

Clackamas River (River Mill Project)
Clackamas River (Cazadero/Faraday Project)
Oak Grove Fork/Three Lynx Creek (Oak Grove Project)
Sandy River/Little Sandy River (Bull Run Project)
Willamette River (Willamette Falls)
Willamette River (Willamette Falls Locks).

These registration statements are required by ORS 539.240.

Each notebook is accompanied by a rolled mylar map, prepared by a certified water rights examiner and a check for the required filing fee. I have also provided a duplicate copy of each filing, to be date stamped and returned to me for my records.

Very truly yours,

Julie A. Keil

Julie A. Keil

SURFACE WATER REGISTRATION CHECKLIST

(received after July 18, 1990)

CHECK BASIN MAP DEK NAME Lower Willamette # 2C UNADJUDICATED AREA ? YES

RECEIPT # 95626 S W R NUMBER 384

CHECK ENCLOSURES DEK PRELIMINARY DATA BASE ENTRY DLP

ACKNOWLEDGEMENT LETTER DLS ENTER ON STREAM INDEX _____

CHECK QUADRANGLE MAP _____ CHECK GLO PLATS _____

WATERMASTER CHECKLIST _____ PUBLIC NOTICE PUBLICATION Log

FORM REVIEW

_____ blanks filled in
_____ signed
_____ date received stamped

MAP REVIEW

✓ source and trib
✓ diversion point location
✓ conveyances (pipes, ditch, etc.)
_____ place of use
✓ scale
✓ township, range, section
✓ north arrow
✓ CWRE stamp
✓ disclaimer
✓ date survey was performed
✓ P.O.B. of survey
✓ dimensions and capacity of diversion system
✓ "beneficial use" type title
✓ "permanent-quality" paper

WATER RIGHT RECORD CHECK _____ FIELD INSPECTION _____

FINAL FILE REVIEW _____ FINAL DATA BASE ENTRY _____

ENTER ON PLAT CARDS _____

C:\WP51\SWR\CHCKLIST.1

7-30-92

SWR #	POWER CLAIM #
384/385	PC 25
386	PC 116
387	PC 122
388	PC 24
389	PC 117

Attorney wary of PGE's water rights

By MIKE LUCAS
Of The Pioneer

Portland General Electric is getting ready to file for "considerable" water rights on the Molalla River, an act which City Attorney Tom Rastetter warns could require the city to curtail use in the future.

Rastetter told the Molalla City Council on Nov. 18 about PGE's intentions and explained that it might affect the city during low river flows.

But according to Roxanne Bailey, a PGE spokesperson, the company at this time has no intention of curtailing municipal water use.

"Just because we're filing for them doesn't mean we're going to change our practice," she said.

Bailey explained that to comply with state law, PGE is refiling for waters rights on the Willamette River the power company obtained prior to 1909.

"State Law requires that anyone who has water rights dated prior to 1909 that they haven't used has to refile for them," said Jack Dunn, Molalla public works director. "They have water rights on the Willamette River that date way back – and Molalla is a tributary."

PGE's action could also affect other cities which are above the Willamette Falls, including Estacada, Canby, Wilsonville and Salem.

State law requires PGE to reapply for water rights within the year or risk losing them, Bailey said.

"We would be happy to discuss this the city, but right now we intend to file for those water rights to protect them," she said.

In the meantime, City Council, at Rastetter's request, asked the city attorney to prepare to defend Molalla's water rights if need be.

"Mainly, Tom will monitor what's going on between the Department of Water Resources,

See *WATER RIGHTS*, Page 3.

Molalla, OR
(Clackamas Co.)
Pioneer
(Clr. W. 2,500)

NOV 2 5 1992

WATER RIGHTS

Continued from Page 1.

PGE and the various municipalities," Dunn said, adding that Rastetter also provides legal services for the South Fork Water Board and Estacada, a city which relies on the Clackamas River -- another tributary of the Willamette – as its water source.

Molalla currently has rights to 3 cubic feet of water per second from the Molalla River, but averages 1.75 cfs a day. PGE's rights would entitle the company to draw 8,000-10,000 cfs from the Willamette River, Dunn said.

The city's water rights on the Molalla River date to 1954, but since PGE's rights are older, the company would have priority over Molalla when the river was low.

To better protect Molalla, Dunn hopes the city can transfer water rights on Trout Creek – which date back to 1914 – to the Molalla River. It will be four years before that can happen, however, Dunn said.

"As I understand it, PGE has no intention of curtailing municipal water use," Dunn said. "If they do, they'll be cutting their throats, pure and simple."

"I guess what worries me is that although they say won't use that much water, PGE would be legally entitled to it if they wanted it," Rastetter said."

Oregon

WATER
RESOURCES
DEPARTMENT

March 22, 1993

JULIE KEIL C/O
PORTLAND GENERAL ELECTRIC COMPANY
121 SW SALMON STREET
PORTLAND OR 97204

Dear MS KEIL,

This will acknowledge that your Surface Water Registration Statement in the name of PORTLAND GENERAL ELECTRIC COMPANY has been received by our office. The fees in the amount of $2637.50 have been received and our receipt #95626 was given to you. Your registration statement has been numbered SWR-384.

Our office will review your form and map in the near future. If necessary we will schedule a meeting with you that will include a site inspection. If there are problems with your form we are usually able to take care of them during our visit. We will be able to answer any questions you might have about the adjudication process at that time.

Please feel free to contact this office if you have any questions.

Sincerely,

Don Knauer
Adjudication Specialist

Enclosure

C:\WP51\SWR\CLAIMANT\SWR-0384.001

3850 Portland Rd NE
Salem, OR 97310
(503) 378-3739
FAX (503) 378-8130

HEIDI DICK JOHN CHIP

DOUG

Oct 23, 1992

US Corp Engr
333 SW 1st
9th Floor Duncan Pl

Corp of Engineers
Portland - Willamette Basin

Chip Pierson - Operations
Dick Cassidy - H&H Hydraulics
John Breiling - Legal
Heidi Brown - Public Affairs
Doug Granger - Attorney

326-6021

US Army Corps of Engineers
Portland District

Richard A. Cassidy
Certified Professional Hydrologist
Chief, Reservoir Regulation and Water Quality Section

333 S.W. First Avenue
P.O. Box 2946
Portland, OR 97208-2946

503/326-6472
FAX 503/326-6900

Willamette Falls: Power
Industrial
Fish Ladder
Locks

Willamette Transportation Co
PGE
Corp

Canal & Locks
Completed 1873
By private
interests

25 June 1910 - Authorized by Congress

- Navigation = Corp

8 Aug 1917 - Beginning of Canal & Locks

FORUM

OPINION & COMMENTARY

PGE water claims raise alarm

Water districts fear old rights may curtail their use of rivers

By ERIC GORANSON

Metropolitan Portland and Willamette Valley residents sometime in the future could wind up paying their water bills — along with their electric bills — to Portland General Electric Co.

That's the fear of dozens of water suppliers, stemming from PGE, Smurfit Newsprint Corp. and others reaffirming late last year their water rights on the Willamette, Sandy, Little Sandy and Clackamas rivers.

Their claims are among 3,900 water-rights applications pending before the Oregon Water Resources Department as water threatens to surpass the spotted owl and salmon as a political football.

Had the applicants not refiled, they face the loss of water rights that predate 1909 and are senior to the claims by most municipal water suppliers.

If PGE's claims are endorsed by the Oregon Water Resources Department, as expected, it would be treated presumptively as vested rights. PGE and the others would have the state enforce these rights against the holders of junior upstream rights.

The endorsements also could remove the Willamette River from any further appropriation during low flows.

There are only about 1,600 cubic-feet-per-second of water left to appropriate on a year-round basis in the Willamette near Wilsonville, said the Water Resources Department. But this does not include PGE's and other pre-1909 claims at Willamette Falls.

The Willamette is one of the major sources being studied to fill future municipal needs of Portland's 720,000 customers and other suppliers.

PGE officials say that water suppliers and customers need not worry.

"We're not about to be a water seller, selling water for premium prices," said Roxanne Bailey, a PGE spokeswoman.

The Portland company needs water for its Willamette Falls hydropower plant. It's a nonconsumptive use, but any drop in revenues from not having water to make electricity will have to be made up by the cities and customers benefiting from PGE's power cutback.

The utility says it won't turn off the tap for water users but probably would charge suppliers for any water the utility have to forgo to meet municipal needs.

End-water users would pay their customary purveyors; they, in turn, would pay PGE. But the next step, some water suppliers fear, would be for PGE to become a regulated water supplier in their place.

The water suppliers have united and introduced Senate Bill 1062, which would subordinate PGE's rights to those of the public.

Among those requesting the bill are water districts in Sandy, Estacada, Gladstone, Lake Oswego, Milwaukie, Molalla, Oregon City, Tualatin and the Damascus, Clairmont, Clackamas, Mount Scott, Oak Lodge, South Fork, Tigard and Tualatin Valley.

Portland is not included.

"We don't think PGE ought to get all the river water," said Dennis Klingbile, superintendent of the Damascus Water District, which uses only well water. "The way things are going, we may wind up using surface water, and PGE shouldn't have all the water just because its rights predate 1909."

The PGE claim is the biggest. On the Willamette its rights total 11,700 cfs, thus affecting almost all water users on the river's main stem plus its tributaries above Willamette Falls.

These tributaries include the Molalla, Tualatin, Yamhill, Santiam, Marys and McKenzie rivers.

Cities affected include Eugene, Corvallis, Cottage Grove, Creswell, Salem, Stayton, Albany, Philomath, Independence, Junction City, Newberg, Molalla, Monmouth and Forest Grove, plus the Tualatin Valley and Clairmont water districts.

Affected by PGE's filing for 4,600 cfs on the Clackamas River are West Linn, Estacada, Oregon City and Clairmont Water District. Affected by the Sandy River system filings for 1,600 cfs are Sandy, Portland and Hoodland corridor.

Another bill, HB2110, in effect would give water combatants and the state breathing time to work out a settlement and avoid litigation.

Both PGE and water suppliers hope the House bill will head off a repeat of the current 16-year litigation over water rights on the Klamath River.

Suppliers also want Congress to change Army Corps of Engineers policies regarding stored water behind dams that feed the Willamette. Almost all of the 1.9 million acre-feet of water is allocated for navigation, irrigation, hydro and flood-control uses.

To use that water, irrigators pay $1.50 an acre-foot, municipalities from $300 to in excess of $1,500 an acre-foot. Talks to change the allocations and charges have taken place in Washington, D.C.

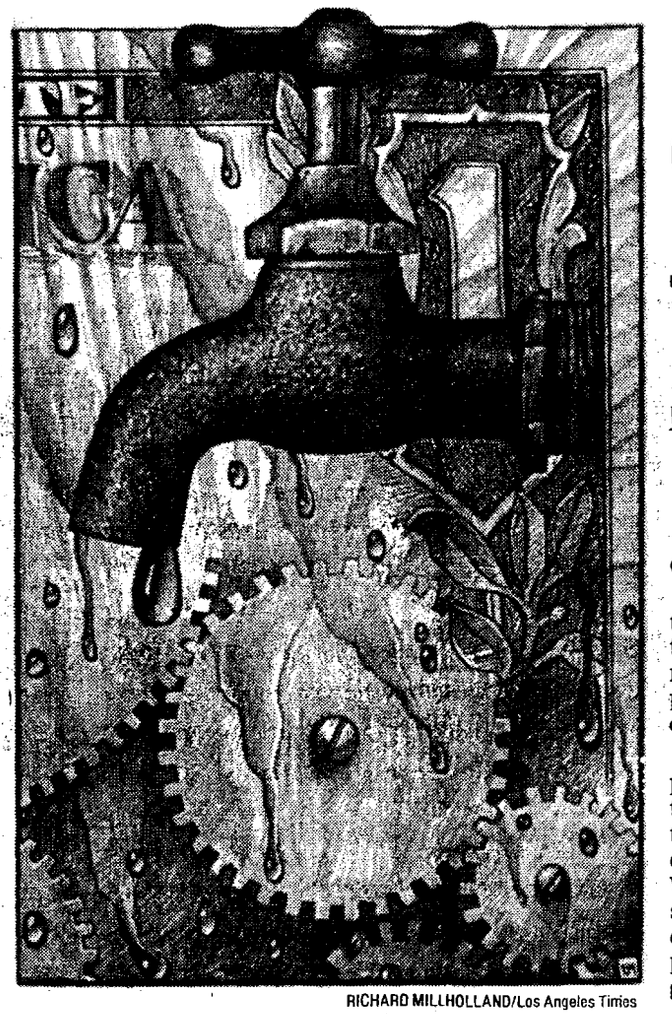
Not everyone opposes the idea of having PGE as a water purveyor. One Portland Water Bureau official said it "might not be a bad idea." He said getting water from the utility might be cheaper than tapping sources such as the Cascade reservoirs.

The efficiency of a private company providing water probably would be greater than Portland or a regional water authority. Having PGE meter readers record water and power uses on the same visit would save time and labor. The Oregon Public Utility Commission could control water rates as it does phone and power rates.

Having a utility sell power and water is not unique. The Eugene Water & Electric Board does both.

What will happen is as uncertain as the weather that supplies our water. Whether the disputing sides can settle without litigation rests with the Legislature. We need both power and water. Hopefully the lawmakers can broker a peaceful compromise.

Eric Goranson is a staff writer in The Oregonian's East Metro bureau.



RICHARD MILLHOLLAND/Los Angeles Times

High court demands judges, not lobbyists

By ANTHONY LEWIS

In the weeks since Justice Byron White's decision to retire from the Supreme Court, the press has run various stories about whom President Clinton may appoint in his place.

The speculation has proved little about the choice, but it has done one depressing thing: shown how narrowly politicized some people want the process of selection to be.

LEWIS

One story mentions a possible nominee and then says that some interest group is likely to object to him or her. Why? Because the person has strayed, however slightly, from the party line of that group.

An example to hand is Judge Ruth Bader Ginsburg of the U.S. Court of Appeals for the District of Columbia. When her name was mentioned as a Supreme Court possibility, she was said to have angered some women's groups by what she said about the 1973 abortion decision, Roe vs. Wade, in a recent speech.

Judge Ginsburg gave the James Madison Lecture at New York University Law School in March. She used the occasion to explore how appellate judges can best do their work and how they should function as one of the three branches of government in our constitutional system.

She emphasized, first, the need for collegiality — for mutual respect — on a court of many judges. "One must be sensitive," she said, "to the sensibilities and mind-sets of one's colleagues."

Kurds working toward self-reliance may set example

STATE OF OREGON

WATER RESOURCES DEPARTMENT

RECEIPT 95626

3850 PORTLAND ROAD NE
SALEM, OR 97310
378-8455/378-8130 (FAX)

RECEIVED OVER THE COUNTER

RECEIVED FROM: PGE

BY:

APPLICATION	
PERMIT	
TRANSFER	

CASH: ☐ CHECK: # ☒ 66156 OTHER: (IDENTIFY) ☐ _____ TOTAL REC'D $ 2632.50

01-00-0 WRD MISC CASH ACCT

842.010	ADJUDICATIONS		$ 2637.50
831.087	PUBLICATIONS/MAPS		$
830.650	PARKING FEES Name/month		$
_____	OTHER: (IDENTIFY)		$

REDUCTION OF EXPENSE

CASH ACCT. _____ $ _____

COST CENTER AND OBJECT CLASS _____ VOUCHER # _____

03-00-0 WRD OPERATING ACCT

MISCELLANEOUS:

840.001	COPY FEES		$
850.200	RESEARCH FEES		$
880.109	MISC REVENUE: (IDENTIFY)		$
520.000	OTHER (P-6): (IDENTIFY)		$

WATER RIGHTS:

		EXAM FEE		RECORD FEE
842.001	SURFACE WATER	$	842.002	$
842.003	GROUND WATER	$	842.004	$
842.005	TRANSFER	$	842.006	$

WELL CONSTRUCTION

		EXAM FEE		LICENSE FEE
842.022	WELL DRILL CONSTRUCTOR	$	842.023	$
842.016	WELL DRILL OPERATOR	$	842.019	$
	LANDOWNER'S PERMIT		842.024	$

06-00-0 WELL CONST START FEE

842.013	WELL CONST START FEE	$	CARD #	
	MONITORING WELLS	$	CARD #	

45-00-0 LOTTERY PROCEEDS

864.000	LOTTERY PROCEEDS	$

07-00-0 HYDRO ACTIVITY

		LIC NUMBER	
842.011	POWER LICENSE FEE(FW/WRD)		$
842.115	HYDRO LICENSE FEE(FW/WRD)		$
_____	HYDRO APPLICATION		$

RECEIPT # 95626 DATED: 12/30/92 BY: C. Engel

Distribution—White Copy-Customer, Yellow Copy-Fiscal, Blue Copy-File, Buff Copy-Fiscal

Portland General Electric Company

INVOICE DATE	INVOICE NO.	VOUCHER	GROSS	DISCOUNT	NET
12/29/92	WF LOCKS	93867	2,637.50	.00	2,637.50

RECEIVED
DEC 30 1992
WATER RESOURCES DEPT.
SALEM, OREGON

PLEASE DETACH BEFORE DEPOSITING.

TOTALS ▶	2,637.50	.00	2,637.50

ATTACHMENT A

AFFIDAVIT OF JULIE A. KEIL
PROJECT MANAGER HYDRO LICENSING
PORTLAND GENERAL ELECTRIC COMPANY

STATE OF OREGON)
) ss.
COUNTY OF MULTNOMAH)

I, Julie A. Keil, being duly sworn, depose and say:

1. I am the Project Manager Hydro Licensing of Portland General Electric Company ("PGE"). I have personal knowledge of the matters set forth in this affidavit.

2. The attachments to this affidavit have been copied or compiled from records made by PGE as a regular practice in the ordinary course of its regularly conducted business activities.

3. "Attachment A-1" is a true and correct copy of "Address of Joseph N. Teal at Dedicatory Exercises on the Formal Opening of The Oregon City Locks and Canal at Oregon City, May 6, 1915," The Quarterly of the Oregon Historical Society 197-203 (June 1915).

4. "Attachment A-2" consists of a true and correct copy of Chapter I of Arthur H. Greisser, History of Portland General Electric Company 1889-1981 (1982).

5. A memorandum in PGE's files dated May 26, 1914, states that the actual use of water through the locks at that time was 49.75 CFS.

Julie A. Keil

Subscribed and sworn to before me this 29 day of December, 1992.

William A May
Notary Public for Oregon
My Commission Expires: 3/16/96

OFFICIAL SEAL
WILLIAM A. MAY
NOTARY PUBLIC - OREGON
COMMISSION NO.013718
MY COMMISSION EXPIRES MAR. 16, 1996

THE QUARTERLY
of the
Oregon Historical Society

VOLUME XVI — JUNE, 1915 — NUMBER 2

CONTENTS

PRICE: FIFTY CENTS PER NUMBER, TWO DOLLARS PER YEAR
Entered at the post office at Portland, Oregon, as second-class matter

ADDRESS OF JOSEPH N. TEAL AT DEDICATORY EXERCISES ON THE FORMAL OPENING OF THE OREGON CITY LOCKS AND CANAL AT OREGON CITY, MAY 6, 1915

While deeply sensible of the honor conferred on me by the invitation to address you on this occasion, I am conscious of the fact that I am called on to speak rather in recognition of the work of my father and other pioneers than because of anything I myself have done. Not only was my father an active participant in the work of opening the Willamette River, but my father-in-law, the late David P. Thompson, who long claimed Oregon City as his home, was a co-worker in this cause. If therefore my talk trends somewhat to personal reminiscences, I trust that for once the seeming breach of propriety will be condoned.

On the first of January, forty-two years ago, the gates of the Willamette locks first swung ajar to permit the entrance and passage of a steamer from the lower to the upper river. To the Willamette Valley, which then represented the state to a much greater degree than it does now, it was a momentous event. From time immemorial the falls had presented an insurmountable obstacle to through navigation, and here, as at Celilo, the control of the portage carried with it the power to levy tribute. Since the producers were dependent very largely on the river for their means of transportation, the toll directly and indirectly levied was a serious burden.

As history seems to be more or less a repetition of what has gone before, we find in this instance, as in later days, an early demand for the clearing of obstructions in the river. Hence we are not surprised at learning that at a meeting held in Eugene on October 6th, 1855, at which my father acted as chairman, strong resolutions were adopted looking to the improvement of the Willamette River, where navigation of the river had been active for many years. In 1857 my father, who was then engaged in business at Eugene, chartered and

loaded the steamer "James Clinton," the first boat to ascend the Willamette that far. For one reason or another, however, it was not until about the year 1872 that work was actually begun on the locks and canal whose freeing from tolls we are celebrating today.

It was a long, long way to Washington in those days and the pioneers of Oregon were a very self-reliant, independent sort. They were a type of men fitted to found a commonwealth remote from civilization and surrounded by every danger. They endured every hardship and surmounted every obstacle borne or met by the pioneers of any land. Too often their reward has been that of the pioneer of every place and all times—discomfort and hardships during life in order that the way might be the easier for those who were to follow them. Well may we be proud of the Oregon pioneer, for the time will come when the early history of Oregon will read like a romance. The time will come when the labor and trials of these men will be known and appreciated; and generations yet unborn will do homage to those who, far removed from friends and kindred, carried the flag they loved to the land of the setting sun and laid deep and broad the foundation of this commonwealth. The federal government, then as now, had control of the navigable waters of the country, and was aiding to a limited extent only in the improvement of rivers and harbors. But, though Oregon was far away from the seat of power, this fact did not deter the men of those days from acting. While a great undertaking for those times, it was resolved that the falls at Oregon City should not continue forever as an obstruction to the free movement of commerce. In 1868 the Willamette Falls & Lock Co. was incorporated for the purpose of constructing a canal around the falls. In 1871, supplemental articles were filed authorizing the company to operate steamboats. The control of this company passed to Bernard Goldsmith, Col. James K. Kelly, Capt. John F. Miller, David P. Thompson, Judge Orlando Humason and Joseph Teal, and this company with some state aid built the canal and

locks whose acquisition by the general government and freeing from tolls this gathering is commemorating today. I have not time to go into the details of the history of construction. I was but a boy, but as my father was a most active participant in everything connected with the building of the locks; and as he would not go very far out of his way to keep out of a fight, there was something doing most of the time. I remember very distinctly hearing of the seemingly unsurmountable obstables that beset the enterprise one after another, and which made the completion of the work on time appear an impossibility. Some of these hindrances were inevitable in a work of this character while others were carefully planned by some who for one reason or another hoped to delay if not prevent the final completion of the locks and canal. During this period Ben Holladay was building a railroad up the Willamette Valley, and was a powerful factor in the state both in politics and business. As was but natural he did not look with favor on the completion of the locks. Politics were politics then, and politics entered into everything. Under the law the locks had to be completed by January 1st, 1873, and their completion would be marked by the passage of a steamer through them. A bond of $300,000 had been given that the work would be completed by the date mentioned. Col. Isaac W. Smith was the chief engineer in charge. My father has stated that the work was done in nine working months, at a cost of about $450,000, and that not a life was lost during construction. The eventful January 1st was approaching. A steamer was sought to make the trip. For some mysterious reason, through some occult influence, none could be secured. It seemed that at last the promoters of this enterprise were cornered, and that a lesson would be taught that would be remembered by any one who dared dispute the supremacy of the river with those in control. Finally, however, as a forlorn hope, the little Maria Wilkins, only 76 feet 5 inches long and 17 feet 5 inches beam, was secured, and on January 1st, 1873, she started from Portland for Oregon City. The following were among the invited

guests: Governor L. F. Grover, Ex-Governor John Whiteaker, Major Philip Wasserman, Henry Failing, George R. Helm, Col. B. B. Taylor, Harvey W. Scott, Jacob Kamm, Lloyd Brooke, Capt. Chas. Holman, Capt. Jos. Kellogg, Capt. Chas. Kellogg, J. H. Hayden, Geo. T. Myers, John Marshall, S. B. Parrish, Bernard Goldsmith, my father, and other officers of the company. My father acted as host, and from what I have been told the guests suffered neither hunger or thirst. On reaching Clackamas Rapids it seemed as though it would be impossible for the little boat to surmount them. Try as it would, there it hung, until as luck would have it a strong gust of wind added just the necessary aid to push it over and victory was in sight. Oregon City was soon reached. Mayor Walker, Charles E. Warner, F. O. McCown, and others were taken aboard. The river was crossed, the lock gates opened and closed, the Maria Wilkins passed safely through, and the deed was done; and since that day, more than forty-two years ago, the gates of the locks have swung back and forth as the steamers moved to and from the upper and lower river.

With the opening of the locks freights dropped fifty per cent almost at once. Boats were built, and the hey-dey of steamboating on the Willamette was in full swing. Wheat was taken for the first time direct from the Willamette Valley to Astoria and there loaded in ships for Europe. But here again we find the pioneer did not reap the practical reward of his work. We will not dwell on this side of the subject, for after all the real reward and satisfaction in our work cannot be measured in money. Nor should the lesson we draw from this story be anything of a sordid nature. It is the spirit of our forefathers that we should emulate, and in which we should glory. Fortunes come and fortunes go; but real service for others, service for our state, brings a reward and satisfaction that money can neither purchase nor measure. Today there is as much to do, and in as many directions, as there was forty or fifty years ago. There are more to do it, there is more to do it with; but I sometimes fear the old spirit of

self-reliance is leaving us, and that dependence on others for help and aid is beginning to be something of a habit. We have a state of splendid and varied resources, but God has so willed it, and fortunately, too, that these resources cannot be properly developed or utilized without work—hard work—work of the brain and work of the hands. The reward is sure, but only at the cost of toil.

In every part of the state special problems present themselves for solution. That solution depends on ourselves, and in working them out will be developed not only a great state materially, but a great citizenship.

As you heard the roll-call of the participants in the early days of this enterprise you must have been struck as I was with the fact that every one of the original company has passed beyond, and that nearly all who made the first trip on the Maria Wilkins are no longer with us. We are at that point in the history of our state where glancing backward we can begin to get something of a perspective. As we contemplate the work of those who have gone before, it should not only spur us on to do our part, but also teach us to be more charitable in our judgment of our fellow-men, and, while we have the opportunity, to speak the pleasant helpful word, or do the kindly act, rather than wait until the recognition we would give is too late to be of service.

At last, however, and by a curious coincidence, the Willamette and its great sister, the Columbia, sound the tocsin of freedom together, and for the first time since they began to flow to the sea, commerce can move over them without paying a toll because of some obstruction to navigation.

It is indeed fitting and proper that the freedom of the river should be celebrated. If, however, we look on this act as the end of our work instead of the beginning, a costly mistake will be made. There is much to learn as to the true use of the waterways. To my mind they are instrumentalities of commerce, developers of traffic. Far from being rivals of the railway, they are really coadjutors in the work of transportation.

Nowhere in the world has the development of the waterway injured the railway. On the contrary, experience shows that the improved waterway increases railway traffic. Rightly used, nothing seems to exercise such a powerful influence in increasing traffic of all kinds as does the waterway.

Consider the Rhine and the railroads which serve its valley and the cities on its banks. Before that river was improved for navigation there was but one railroad, the cities were small and the traffic was light. Since the improvement of the river for navigation traffic has grown to such an extent that double-track railroads on either side of the river are required to handle the movement by rail, and a constant procession of boats and barges moves up and down the river. In the last thirty years the cities on the Rhine have grown by leaps and bounds—indeed they have exceeded in growth even the rapidly-growing cities of the United States. Doubtless there were those who pictured streaks of rust and a right of way as all that would be left to represent the railroad when brought in competition with water. Yet no such result followed, nor has it followed in any country or on any river in the civilized world. On the contrary, after the waterways are improved there is more traffic, and more and varied business constantly increasing and growing in every direction. This will ultimately prove to be the case in this state. Many of the opinions which are expressed as to the effect on the railroads of the improvement of waterways seem based upon the idea and theory that there is to be no future growth, that we have reached our limit both of population and production, and that a division of existing traffic between river and rail to the detriment of both will be the only result. This is a fundamental error into which many seem to fall. In truth we are but commencing to grow. The time will come in the Northwest when we will have as dense a population as many of the eastern states, and as we can support it better, every means of transportation will be required to handle the business of the country. This is not true of Oregon only but of the entire country.

Under normal business conditions today our transportation facilities are taxed to the utmost to handle the traffic. The slightest increase produces almost unendurable congestion and ties up business in every direction. It is my opinion that the improvement of the waterways is an absolute necessity; and I fear this will be demonstrated before either the railroads or the waterways are prepared to meet the situation, to the great loss of the country at large.

We have a right to be proud of the Willamette Valley with its varied resources, productiveness, beauty and climatic conditions. It would be hard to duplicate it anywhere on earth, yet it is almost in a state of nature. When we consider the productiveness of this valley, one's mind can hardly grasp its possibilities. To secure the proper results will require hard work intelligently applied. Its development will be largely aided by the fact that it has a navigable river flowing substantially throughout its entire length. This river must be properly improved, not only for navigation but for every useful purpose. It can be done; and if we have the spirit of our fathers it will soon be done.

I congratulate the people of this valley on the final consummation of this one step. We now have a free river. Shall we make it a useful river, serving every purpose it can serve? That depends only on ourselves.

Again I thank you, not only for the compliment you have paid me in asking me to address you on this day, but in giving me the opportunity to express my regard and respect for the pioneers of this state who have left to us not only an example we should follow, but also a memory and a heritage we should honor, respect, and cherish.

CHAPTER I

THE PIONEER PERIOD IN THE WILLAMETTE FALLS AREA

The origins of the Portland General Electric Company are intimately entwined with the pioneer period of Oregon City and Willamette Falls. Improvements in river transportation and an expanding use of water power in the area's mills and factories led to the creation of predecessor companies. Land acquisitions around the falls, including Abernethy and Moore's Islands, perfected riparian water rights, ultimately producing significant direct water power income for the Company and a major resource for hydroelectric generation.

In pioneer days, the Willamette River was the only "highway" above and below the falls at Oregon City. Because of steep basalt rock cliffs rising at river-edge on each side of the falls area, goods and passengers were transported over it with considerable difficulty. In 1852 a shore road was blasted out on the easterly side at a cost of $20,000 that was funded by popular subscription in Oregon City.[1]

Later, a horse-powered railway was built on the portage road, extending from a deep-water boat anchorage at Canemah to a warehouse and dock at the foot of Eighth Street in Oregon City. A further facilitation of river navigation was the blasting of a channel on the east side of Abernethy Island. This channel generally followed the course of a mill race that had been excavated in 1832 by Dr. John McLoughlin, Chief Factor of the Hudson's Bay Company, to serve his projected sawmill.

In the early 1850s, regular river traffic consisted of two steamboats running constantly on the lower river to Portland and the Columbia, and nine boats plying the upper river to bring a variety of farm products to the falls for portage downriver. Increasing demand for boats encouraged the construction of a dry dock where Publishers' Paper Company's hydro generating plant now stands, at the east end of the falls. The dry dock was built into a natural depression in the rock river bed, which was then surrounded with a wooden crib dam and provided with a gate at the entrance.

In May 1851, the first experimental side-wheeler steamer was built at the Canemah dry dock. It was the ***Hoosier***, made from a ship's long boat and equipped with a pile driver engine and boiler. Other boats constructed in the dry dock, later in 1851, ran as far as Corvallis, carrying 1,000-bushel loads of wheat. The ***James Clinton***, built early in 1856, reached Eugene on March 12 that same year, transporting grain formerly carried downstream in flatboats paddled by Indians. In 1850 river boats had begun regular service runs from Oregon City to Astoria at an initial fare of $50 for the 25-hour, 120-mile trip. Later, more powerful steamers were able to make the trip upriver in 10 hours, with competition reducing the passenger fare to $22 for the faster trip. In the period from 1850 to 1890, rate wars were commonplace.

Early river steamers were fueled with cordwood or heavy slab where available; hence, a major problem on longer trips was the need to refuel. Although steamboat men paid up to $5 a cord, farmers along the route were not always willing (or able) to have a wood supply on a dock ready for loading. Besides, wood was bulky and reduced freight-carrying capacity. The temptation for two boats headed in the same direction to race under forced draft, with black smoke billowing from the stacks and sparks flying, was exciting for the passengers but hard on the fuel supply. Even under normal operation, sparks were a threat to the fields and forests bordering the river routes.

In December 1861, a great flood on the Willamette River carried away most of the improvements on both sides of the falls — including all the mills. Abernethy Island was swept clean of trees and soil. At the crest of the flood, a steamer, ***The St. Clair***, was navigated over the falls, landing safely with whistle blowing in the lower river where it was to be delivered as a condition of a prior sale.

6 Arthur H. Greisser, History of Portland General Electric Company 1889-1981 (1982).

A need for a deeper boat basin and other improved facilities for river-borne commerce was apparent after the flood. The first step in that direction was the incorporation, on October 27, 1862, of the People's Transportation Company, with a later capitalization of $2 million. Its purpose was to provide transport for passengers and freight on the waters of the Willamette and Columbia Rivers and tributaries.

The company built a wood crib, rock-filled dam along with the east side of Abernethy Island, extending upstream from the basin wall to a point above the head of the falls. This formed a sort of canal to the basin which boats could navigate in low-water periods. They also built a warehouse on the north end of the basin created by the wood crib dams on the north and west sides. River navigation was thereby greatly assisted and the company prospered until the Oregon Steam Navigation Company entered the Willamette River service. Rates were then reduced. Eventually, a negotiated compromise gave the People's Transportation Company a 10-year relief period from competition by the Oregon Steam Navigation Company. Although business was good, no profits were forthcoming until 1865, when a 10 percent dividend was declared. The consequent surplus covered the purchase of three more steamboats.

Plans for a railroad running from Portland to California were conceived in 1863 as a line that would pass on the east side of Willamette Falls. Surveys started that year on a route from Marysville, California were carried north to Jacksonville, where an argument erupted among the promotors as to the best route to Portland. As the argument dragged on, funds ran out.[2]

In 1864 another company was formed. It continued the survey to Portland, reaching that city on October 1 that year. In January 1870 a railroad was constructed on the surveyed route from Portland to Oregon City. Later extended to Salem, the line developed into a direct competitor of the Peoples' Transportation Company (P.T. Co.) Therefore, the P.T. Co. sold a portion of its assets — including nine steamboats — to Ben Holladay, who controlled the railroad. The price paid was $200,000. The P.T. Co. was then reorganized and reincorporated by Ben Holladay and others, on September 5, 1871, as the Willamette Transportation Company. However, it soon met with financial reverses and was absorbed by its competitor, the Oregon Steam Navigation Company.

The initial operation of PGE's predecessor companies as a "utility", consisted of managing the canal and locks at the west side of the falls. The Willamette Falls Canal and Locks Company was incorporated September 16, 1868 to build a canal and locks and to engage in general river transportation activities. However, as progress on construction of the locks went slowly and costs soared, in 1870 the Oregon Legislature granted a subsidy of $200,000 and set a date for completion of the work — January 1, 1873 — as a condition of the subsidy. On New Year's Day 1873, the first boat to navigate the locks was the steamer ***Maria Wilkins.***

The legislature had specified that toll charges were not to exceed 50 cents per ton for freight and 10 cents per person; the State should receive 10 percent of net profit (there was none); and, after 10 years, the State could purchase the property. PGE's predecessor companies operated the locks continuously until their sale on July 8, 1913, together with 11,184 acres of land; to the U.S. Government for $375,000 — payment of which was not received until March 1915.[3] A water right to operate the locks was then granted the U.S. Government by Portland Railway, Light & Power Company. That right (No. 5 in priority), was estimated by T. W. Sullivan, Hydraulic Engineer for the Company, to be the equivalent of "100 horsepower in water power value".

After the Willamette Falls Canal and Locks Company came under the domination of the Oregon Steam Navigation Company, the former entity was reorganized as the Willamette Transportation and Locks Company and was incorporated December 29, 1875 with $1 million in capital stock. The following year, the Willamette Transportation and Locks Company purchased the east-side canal, boat basin and certain lands from the Oregon Steam Navigation Company, thereby acquiring practically complete control of the water power potential at the falls. Four small water rights and plant sites with titles dating in the 1860s were not acquired. The largest of these were owned by Oregon City Manufacturing Company for their woolen mill, and by George Larocque for his flouring mill, which later became the Portland Flouring Mills Company. Ultimately, Publishers Paper Company purchased all four prior water rights and properties.

The unexploited power potential at the falls was recognized by Henry Villard, a railroad genius who was sent to Oregon in 1874 by Jay Gould of the Union Pacific Railroad (then building west from Salt Lake). Acting upon his insight, Villard engaged P. Miescher, a Swiss civil engineer, to make a power study of the falls area. Miescher's report, dated May 2, 1884, covered numerous plans for the development of power and for power transmission to mills in the Oregon City area. The plans included a large canal about 5,000 feet long, through Main Street in Oregon City to Abernethy Creek, which would develop 5,200 hp continuously to supply projected mill operations on the lands abutting the Willamette River. On the west side, Miescher envisioned a tunnel in the rock cliff 40 feet wide, 20 feet high and 400 feet long, to carry water around the locks to develop an additional 4,000 hp. He estimated that a total of 12,500 hp could be produced by turbines at the falls year around. Transmission of the turbine power to mill sites "one or more miles distant" below the falls was proposed "by means of endless wire ropes running over large pulleys". Electric transmission of power was not considered economically feasible by Miescher.

The Paper Industry

On January 3, 1867, the first paper mill in the Pacific Northwest started operation at the Oregon City side of Willamette Falls. The company was headed by W. W. Buck of Ohio and two Oregon City associates. Substantial stone and brick mill buildings were provided with two water wheels for power. Operating only a few months, the venture proved unsuccessful. A sheriff's foreclosure on a bank's note forced sale of the mill, the mill site, and equipment, for $14,000.

In the fall of 1867 Buck and his son formed a partnership with Henry L. Pittock, publisher of *The Oregonian*, establishing a paper mill at Park Place on the Clackamas River at the site of Buck's sawmill, which was to be torn down. Four water wheels were installed to operate the mill, which started producing paper on August 30, 1868. Using principally rags and straw, the mill continued in operation for 17 years, producing newsprint, manila wrapping and carpet paper. When Pittock became interested in a projected much larger paper mill on the Columbia River at "LaCamas" (now Camas, Washington), the Park Place mill was closed down. The paper machine and plant superintendent moved to Camas.

A syndicate of Oregon City and Portland businessmen with E. L. Eastham as president, secured the stock of the Willamette Transportation and Locks Company in 1886, embarking on a campaign to convince milling and manufacturing plants to locate at the falls. Initially, 10 years free water power and land lease was offered, under agreements extending an additional 40 years. The first large company to be attracted was the Willamette Pulp and Paper Company of San Francisco, which entered into an agreement on September 7, 1887 to lease 1,000 hp for a 50-year period. However, when the time came to consummate a lease, the quantity of power was increased to 2,000 hp with an option for 600 hp additional. This was the first in a long succession of direct water power leases at Willamette Falls.* Construction of a ground-wood pulp mill was started in the fall of 1888, with T. W. Sullivan as hydraulic engineer in charge after March 1889.

Under subsequent leases, dated April 17, June 19, and August 1, 1889, land areas were increased and water power requirements were modified for the Willamette Pulp and Paper Company, to the extent of 2,400 hp of "low" water power, with a priority over ultimate requirements for electric generation by PGE in its Stations A and B.

Shortly after securing a location for the Willamette Pulp and Paper Company mill, Eastham persuaded the Crown Paper Company of San Francisco to begin a mill site and 200 hp of low water power for a 30-year period beginning January 1, 1887. The agreement also granted a 10-year free right to the use of lands and power.

*See chapter entitled "Riparian Water Rights and Sale of Direct Water Power".

Electric Power Developments At Willamette Falls

After convincing two paper mills to locate at the falls, E. L. Eastham conceived a plan for developing hydroelectric power and transmitting it to Portland, where some electric lighting had been installed. He and his associates formed the Willamette Falls Electric Company, incorporated November 8, 1888, with Eastham as president. Within a short time, a "dynamo house" (later named Station A) and rock-filled, wooden bulkheads were constructed on the east side of the falls, and the plant was equipped with four "No. 8" "Brush" arc light dynamos ordered from the California Electric Light Company. Two water turbines were geared to a line shaft for belt connection to the direct current generators. A transmission line to Portland was erected and, on June 3, 1889, the first generating unit was connected to an arc light circuit in the city. On June 10, 1889, a second unit was connected. *This accomplishment was the first instance of long-distance transmission of electrical energy for commercial purposes in the United States.*

The Willamette Falls Electric Company was not the first to use the falls for electric generation. The Oregon City Electric Company was incorporated on July 20, 1888 by a group including Eastham, to supply electric lighting and other utility services in the area. A 450-light capacity Edison dynamo operated by a 200-hp water turbine was installed in an excelsior and shoddy mill on the east bank of the river. Thus, lighting services in stores, residences, and on Oregon City streets began in November 1888. However, the plant had a relatively short life, because the great flood of February 1890 wrecked the building. Only the machinery was salvaged. The flood carried away all of the bulkheads built by the Peoples Transportation Company, from the upper river, down to and including those forming the basin at the south end of the Main Street.

The basin bulkheads were rebuilt by T. W. Sullivan who, having completed his work on the Willamette Pulp and Paper Company plant, had been hired by Messrs. Morey and Eastham. The electric light plant (Station A) was thus soon able to resume operations. Sullivan was named Hydraulic Engineer for the Willamette Falls Electric Company and its successors, remaining on the PGE payroll until his death in June 1940.

As for the Willamette Falls Electric Company, its P. F. Morey and his consulting engineer, W. C. Cheney, were convinced that higher voltage generation was both necessary and feasible. Accordingly, six 4,000-V, 80 kW generators (single-phase, 125 cycles) were ordered from the Westinghouse Electric and Manufacturing Company — the only manufacturer willing to design and build such equipment. Westinghouse insisted, however, that it be absolved of any responsibility for unsatisfactory or unsuccessful operation.

In the summer of 1890 the six generators were installed. They are believed to have begun transmission of their alternating current output to Portland in September 1890. This was another "first" — *the first instance of long distance transmission of alternating current for commercial purposes in the United States.*

As the art of synchronizing two or more alternators to run in parallel had not yet been perfected, each arc light machine and alternating-current generator required its own transmission circuit. Consequently, the transmission line running to Portland along the west side of the river ultimately carried 36 separate wires. The line was rebuilt in September 1894. The *Journal of Electricity*, in December 1895, reported that the line: ". . . contains a conglomeration of circuits that makes it noteworthy. It consists of 50-foot poles, having a diameter of 12 inches at the top and varying in diameter from 20 inches to 24 inches at the butt, the poles being placed 100 feet apart. The poles erected in the country division contain three six-pin crossarms and three eight-pin crossarms . . . on these are run the following circuits: seven 4000-V incandescent circuits; six arc circuits; two three-phase circuits of No. 1 wire; one six-conductor telephone cable; one galvanized wire linemen's call-bell circuit; one copper signal circuit."

By July 1891, the Willamette Falls Electric Company generating plant had grown to a total capacity of 1,345 kW, including a 75-kW, 500-V, direct-current generator for the Portland-Oregon City electric interurban railway, which was then under construction.

On November 27, 1888, the board of directors of the Willamette Falls Electric Company (WFE) voted to acquire all the assets of the United States Electric Light and Power Company of Portland, which had been incorporated on March 17, 1884.* The directors also voted to purchase 5,100 of E. L. Eastham's shares of Willamette Transportation and Locks Company stock to give WFE a voice in the control of the canal and locks. Property of the Oregon City Electric Company was purchased June 20, 1891; Eastham had died January 18, 1891. On February 26, 1891, P. E. Morey was elected to succeed him as president.

Portland General Electric Company Incorporation

Growth of the electric industry developed rapidly in 1892, so more capital was needed to keep pace with demand. Accordingly, the Portland General Electric Company (a predecessor of the present PGE) was incorporated on August 5, 1892 with a capital of $4,250,000, to engage in a general light and power business. On August 26, a board of 11 directors elected P. F. Morey as president and Howard C. Levis as vice president and appointed Charles H. Caulfield secretary. H. W. Goode, elected director at that meeting, was later appointed general manager.

On September 1, 1892, PGE acquired the assets, liabilities and surplus of the Willamette Falls Electric Company, which had a book value of $562,191. At the same time, assets of the Willamette Falls Transportation & Locks Company, with a book value of $1,427,038, was also purchased by PGE. PGE preferred stock was issued in exchange for the outstanding securities of the purchased companies. PGE common stock, consisting of 20,000 shares with a par value of $100, and 795 shares of preferred stock with par value of $100 was issued to the Northwest General Electric Company of St. Paul, Minnesota. According to the minutes of PGE at the time, the securities were issued in payment for "certain territorial rights" in connection with the purchase and sale of General Electric Company equipment and appliances.

An early summary of manufacturing activities at Willamette Falls appeared in the December 14, 1889 issue of the publication, *West Shore*. It stated: "Oregon City has experienced greater growth during the past year than during any previous similar period of its history. The city at the falls of the Willamette has always been cited as the most favorable location in Oregon for extensive and varied manufacturing enterprises. Portland, by virtue of its being at the head of deep water navigation, grew to be the commercial entrepot of the northwest. The conditions of markets and means of transportation were such that manufacturing advantages, however great, had small weight in the building up of cities in this country. It required a certain stage of development of the natural resources to make those benefits appreciated. That stage of development (at Oregon City) has been reached. The matchless water power of Oregon City has drawn there, during the past twelve months, more capital for investment in factories than any other city in the state has obtained".

As for the water power potential at the falls, the article said: "The volume of water varies considerably at different seasons of the year, but at its lowest stage the power it furnishes is practically unlimited. The ease with which it is controlled is a consideration; the expense of utilizing a power in every way adequate to drive heavy machinery often being so great that the investment is hazardous. At either side of Willamette Falls there are factory sites where the simplest arrangements for securing and governing the water supply are entirely successful. But with all the favoring conditions that exist there the *power capacity of the falls is so vast that it is not likely to ever all be employed* . . . The Willamette Transportation & Locks Company (W.T.& L. Co.) as now organized controls the water power privileges and the liberal policy of granting free sites and free power for a term of years to those who will invest money in manufactories is bearing gratifying results."

"Besides the pulp and paper mills and electric power plants the improvements last year at Oregon City include the establishment of a flouring mill with a daily output of 125 barrels, a cement mill of a capacity of 100 barrels a day, a furniture factory, an excelsior factory, a shoddy mill, an ice factory, a soap factory, two brick yards, a box factory, scroll and moulding works, a hose factory, a sash, door and blind factory and two saw mills near

* See chapter entitled "Electric Light on the Portland Scene".

the city. These represent, in the aggregate, a vast amount of capital and surely warrant the expectations of those best acquainted with the growth and possibilities of the falls city for very rapid advancement."

E. L. Eastham's acumen in the promotion of industry for the Willamette Falls area was demonstrated by the installations of water-driven turbines, tabulated by T. W. Sullivan on April 20, 1892. The two paper mills had an installed capacity of 4,620 hp in 19 turbines; an excelsior mill, 182 hp; the Portland Cement Company, 73 hp; the Oregon City Water Works, 133 hp; Smith & Lovett's "ice factory and cold storage depot", unrecorded hp; and the Willamette Falls Electric Company, 1,877 hp in seven turbines. In addition, both the Oregon City Manufacturing Company's woolen mill and "soap factory" and the Portland Flouring Mills Company continued their operation of water-driven turbines under rights acquired in the 1860's. Other industry shown on a map of Oregon City in 1892 included Bestow's Sash, Door and Fence Factory, Oregon City Brewery, Electrical Iron & Steel Works, Oregon City Sash and Door Factory, and Oregon City Iron Works.

In May 1893, an electric interurban railway line was constructed by the East Side Railway Company (another early corporate predecessor of PGE), from Portland to Oregon City, with relatively frequent, quiet, non-polluting and — for those days — fast, service. The electric interurban was particularly convenient in that period of dirt roads and no automobiles. Sunday and holiday excursion rates were 35 cents for the round trip to the public park at Canemah, constructed by the East Side Railway Company. The Park afforded free picnic facilities, a baseball diamond, a large covered dance hall and pavilion, a bandstand, and children's playground equipment.

The interurban line also brought many fishermen to the popular river areas above and below the falls. It spurred early development of homesites in the Sellwood, Milwaukie, Jennings Lodge and Gladstone areas and provided a route for log and freight hauling from the Oregon City area to Portland. Later (in 1915), an electrified connecting railroad between Oregon City and Mt. Angel was built by the subsidiary, Willamette Valley Southern Railroad Company, enlarging the log marketing possibilities on the east side of the valley.

Early in its history, the Portland General Electric Company planned a new hydro turbine generating plant on the west side of the falls, adjacent to the ship canal and locks. It was later named "Station B", ultimately becoming the Sullivan Plant in honor of its original designer. Its design was unique in that two turbines of different head ratings were installed for each 450-kW, alternating-current generator. The turbine for low-head conditions was larger in physical dimensions, slower in speed, and connected to the generator by a wide leather belt. Under high-head conditions, tension of the belt was reduced so it could "slip", allowing the higher speed turbine to drive the generator. The station was designed for an ultimate capacity of 12,000 hp and a projected initial installation of 6,000 hp. Foundations were to be provided for 11 generating sections and a "pump" turbine section.

Construction of the Station B powerhouse was started in the summer of 1893. It required almost two years of effort, due to difficulties encountered in placing concrete in the 30-to-50 foot depth to bedrock in the old river channel that the structure bridged. The first two generating units were put into commercial service on December 1 and 12, 1895 and the third on January 1, 1896. Two 500-V, direct-current generators were installed in a fourth turbine section to furnish service for electric railways and to provide excitation for the alternating-current generators.

In 1897, an additional four 750-kW generating units, identical with the original three, were installed — as well as "alternators" moved from Station A for installation in the No. 6 and 8 sections of the powerhouse. In 1899, the latter were replaced with new 500-kW revolving-field-type generators, and a third 500-kW unit was added in the No. 5 section.

The 1899, construction program included the foundation walls for projected generating sections No. 12 and 13, completed in 1903 with the installation of two horizontal turbines, each with a 540-kW generator. This brought

the generating capacity of the station up to 5,730 kW. Until 1907, when the Cazadero (Faraday) plant was placed in service, Station B was by far the largest electric generating plant in the State of Oregon.

Station A was abandoned as a generating station circa 1897; some electrical equipment (Excelsior arc machines) was moved for use in a Portland steam plant, and the two alternators were temporarily installed in Station B. The station structures and turbines were leased for a time to the Willamette Pulp and Paper Company, for use in a cut-up and pulp grinding mill. In 1908, the site and equipment was leased to Hawley Pulp and Paper Company which used it in their "Mill A" pulp grinding operations, as did Hawley's successor, Publishers' Paper Company, until July 16, 1961 when pulp grinding by water power was finally abandoned.

In 1893, one phase of the PGE program to increase industrial activity in the Willamette Falls area included the construction of a three-mile electric railroad on the west side of the river. The line was called Willamette Falls Railway. Initially, it extended upriver, from a station near the West Linn hotel,to the townsite of Willamette Falls near the mouth of the Tualatin River where about 1,600 acres were platted for a "manufacturing city". According to *The Journal of Electricity* of December 1895: "Situated as it is . . . but a short distance above the falls, it is within easy reach of Portland, the commercial center of the Pacific Northwest, and it will in all probability soon become the Lynn of that portion of the country. At present the city of Willamette Falls contains about 800 inhabitants, many of whom find employment in the Capen shoe factory, its solitary industry, and which is operated by electric power".

The Electrical World, of May 6, 1893 reported that the railroad right-of-way was being graded and six carloads of 56-pound rails were on hand. That same publication reported that the East Side Electric Railway from Portland had reached Oregon City with a 25-cent fare in effect.

As industry did not develop at the city of Willamette Falls, the railroad was extended northerly to the Willamette River near Sucker Creek, and was used extensively to haul logs downriver from the Tualatin. In November 1912, the railroad was sold by Portland Railway, Light and Power Company, to the Portland, Eugene and Eastern Railway Company.

ATTACHMENT B

GOVERNMENT LAND OFFICE SURVEY MAPS (TRUE COPIES)

ATTACHMENT C

MAP PREPARED BY CERTIFIED WATER RIGHTS EXAMINER

(See WR Map C-20444 in Willamette Falls Filing)