

# Seattle City Light Load and Flow Data, 1905-1995

## Overview of the Collection

<b>Creator</b>	Seattle City Light
<b>Title</b>	Seattle City Light Load and Flow Data
<b>Dates</b>	1905-1995 (inclusive) 1905 1995
<b>Quantity</b>	10.4 cubic feet, (11 boxes)
<b>Collection Number</b>	1206-11
<b>Summary</b>	Data from City Light hydroelectric projects.
<b>Repository</b>	<a href="#">Seattle Municipal Archives</a> Seattle Municipal Archives Office of the City Clerk City of Seattle PO Box 94728 98124-4728 Seattle, WA Telephone: 206-233-7807 Fax: 206-386-9025 <a href="mailto:archives@seattle.gov">archives@seattle.gov</a>
<b>Access Restrictions</b>	Records are open to the public.
<b>Languages</b>	English
<b>Sponsor</b>	Funding for processing this record series was provided through a grant from the National Historical Publications and Records Commission.

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## Historical Note

City Light provides electricity and electrical and conservation services to its public and private customers. It is the largest public utility in the Pacific Northwest. Public responsibility for electrical energy dates to 1890 with creation of the Department of Lighting and Water Works. In 1902, Seattle voters passed a bond issue to develop hydroelectric power on the Cedar River under the administration of the Water Department. Electricity from this development began to serve Seattle in 1905. A City Charter amendment in 1910 created the Lighting Department. Under the leadership of Superintendent James D. Ross, the department developed the Skagit River hydroelectric project which began supplying power in 1924. Both public and private power was supplied to Seattle until 1951 when the City purchased the private electrical power supply operations, making the Lighting Department the sole supplier. The Boundary Project in northeastern Washington began operations in 1967 and supplied over half of City Light's power generation. By the early 21st century, approximately ten percent of City Light's income came from the sale of surplus energy to customers in the Northwest and Southwest with the remainder of City Light's financial support coming from customer revenue. The current name of the agency was adopted in 1978 when the Department was reorganized.

## Content Description

Records of the Power Management Branch, consisting of data on stream discharge and flows, lake and reservoir elevations, energy generation, load estimates and forecasts, and power studies on system capability. Data pertains to the Skagit Basin, Cedar River, Boundary Dam and other sources.

Flow data for Boundary Dam may also be found in Boundary Dam Project Records, series 1206-07.

## Use of the Collection

### Preferred Citation

[Item and date], [Seattle City Light Load and Flow Data , Record Series 1206-11. Box [number], Folder [number]. Seattle Municipal Archives.

## Administrative Information

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## Detailed Description of the Collection

The following section contains a detailed listing of the materials in the collection.

### 1206-11: Load and Flow Data, 1905-1995

Container(s)	Description	Dates
Box/Folder		
1/1	Big Beaver Creek Measurement	1934-1942
1/2	Cedar River Hydrography	1909-1931
1/3	Cedar River Hydrography	1905-1933
1/4	Cedar River Hydrography	1919-1933
1/5	Cedar River Hydrography	1919-1934
1/6	Cedar River Hydrography	1905-1934
1/7	Cedar River Daily Discharges	1963-1964

<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
1/8	Cedar River Daily Discharges	1960-1963
1/9	Cedar River Annual Runoff Summary	1926-1940
1/10	Cedar Lake Water Elevations	1919-1920
1/11	Cedar Lake Stream Gaging	1945
1/12	Daily Discharge Tables - USGS	1932-1962
1/13	Diablo Lake, Cedar Lake, Ruby Storage Dams Elevations	1919-1946
1/14	Diablo Lake Elevations	1928-1935
1/15	Diablo Lake Elevations	1929-1960
1/16	Diablo Lake Storage, Daily Change	1932-1937
1/17	Diablo Lake Water Levels	1929-1940
1/18	Diablo Reservoir Hydrographs	1929-1937
1/19	Diablo Reservoir - Skagit Runoff, July 1 to June 30, 39 years (unregulated)	1946-1963
1/20	Diablo Reservoir - Skagit Runoff, Aug 1 to July 31, 39 year (unregulated)	1946-1963
1/21	Diablo Reservoir - Skagit Runoff, Oct 1 to Sep 30, 40 year (unregulated)	1945-1963
1/22	Diablo Reservoir Water Levels, Discharge	1931-1955
1/23	Annual Runoff At Ferry Bar	1935-1959
1/24	Annual Runoff At Ferry Bar	1935-1936
1/25	Ferry Bar Flow computations	1950-1956
1/26	Ferry Bar Flow computations	1945-1949
1/27	Monthly Discharge At Ferry Bar	1953-1954

Container(s)	Description	Dates
1/28	Gorge (Newhalem) Annual Runoff	1930-1963
1/29	Gorge (Newhalem) Annual Runoff	1929-1933
1/30	Annual Runoff at Gorge - Newhalem Stream Gaging Station Remote Registration	1946-1948
1/31	Annual Inflows Between Ross and Diablo	1950-1962
1/32	Annual Inflows Between Ross and Newhalem	1953-1962
1/33	Ross Dam Annual Runoff	1946-1958
1/34	Hydrographs of Skagit at Ross Dam Site	1919-1953
1/35	Ross Dam - Mass Diagram Data	1933-1942
1/36	Ross Lake Elevations	1928-1940
1/37	Ross Lake Elevations	1940-1966
1/38	Skagit Runoff - Ross Reservoir, July 1 to June 30, 39 Years (Unregulated)	1946-1963
1/39	Skagit Runoff - Ross Reservoir, August 1 to July 31, 39 Years (Unregulated)	1946-1963
1/40	Skagit Runoff - Ross Reservoir, Oct 1 - Sep 30, 40 Year (Unregulated)	1942-1964
2/1	Ross Reservoir Pondage and Stream Flow Study	1927
2/2	Ross Reservoir	1931-1951
2/3	Ross Reservoir Spillway, Preliminary Study	1944
2/4	Skagit River Above Devil's Elbow Measurement	1940-1941
2/5	Skagit River At Reflector Bar	1914-1943
2/6	Skagit Below Ruby, Flows	1939-1944

Container(s)	Description	Dates
2/7	Skagit - Bert De Shaw's Notes	1932-1942
2/8	Skagit - British Columbia Discharge Notes	1932-1954
2/9	Skagit Below Ruby Discharge Sheets and Thunder Creek Gage Heights	1925-1930
2/10	Skagit Above Ruby, Gage Height	1931-1934
2/11	Skagit Hydrography	1947-1948
2/12	Skagit Hydrography	1948-1949
2/13	Skagit Hydrography	1949-1950
2/14	Skagit Hydrography	1950-1951
2/15	Skagit Hydrography	1951-1952
2/16	Skagit Hydrography	1952-1953
2/17	Skagit Hydrography	1953-1954
2/18	Skagit Hydrography	1954-1955
2/19	Skagit Hydrography	1955-1956
2/20	Skagit Hydrography	1956-1957
2/21	Skagit Hydrography	1957
2/22	Skagit Hydrography	1958-1959
2/23	Skagit Runoff Data	1939-1941
2/24	Skagit Runoff Summaries	1952-1958
2/25	Skagit Runoff - Diablo	1933-1960
2/26	Skagit Streamflow	1928-1948
2/27	Skagit Stream gaging	1931-1948

<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
2/28	Skagit Stream gaging - Thunder Creek and Newhalem Creek	1962-1963
2/29	Skagit - Fisheries Minimum Flow Agreement	1980-1981
2/30	Skagit - Fisheries Minimum Flow Agreement	1973-1979
2/31	Skagit - Fisheries Minimum Flow Agreement	1974-1981
2/32	British Columbia Stream Gaging	1941-1957
2/33	Skagit River British Columbia and Dominion River Stage Gages - Photographs and Notes	1954
2/34	Low Water Complaint - Darigold Creamery At Burlington	1949
2/35	Summary Info For Northwest Power Pool - Skagit and Cedar Lake Runoff	1953-1955
2/36	Northwest Power Pool Flow Data - 25 Year Record, Skagit and Cedar Rivers	1953-1954
2/37	Northwest Power Pool Flow Data - 27 Year Record	1956
3/1	Northwest Power Pool Flow Data - 29 Year Record Skagit and Cedar Rivers	1956-1958
3/2	Northwest Power Pool Flow Data - 31 Year Record Skagit and Cedar Rivers	1960
3/3	Northwest Power Pool Flow Data - 33 Year Record Skagit and Cedar Rivers	1960-1964
3/4	Stream gaging and Hydrography Correspondence (Includes Photographs)	1935-1946
3/5	Conversion, AC to DC, Annual	1920-1957
3/6	Conversion and Self-Consumed	1963-1964
3/7	Current Used In Operation	1963-1964
3/8	Generated KW and Power	1926-1946

<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
3/9	Load Studies	1920-1950
3/10	Load Studies	1930-1959
3/11	Operating Statistics	1915-1961
3/12	Daily Load Curves	1934-1961
3/13	Daily Load Curves	1939-1963
3/14	Federal Secondary Energy Combined With Boundary and Skagit	1962
3/15	Special 36-37 Analyses - Gorge Tunnel	1962
3/16	Load / Flow Reports and Summaries	1971-1972
3/17	Load Data	1937-1946
3/18	Load Data Reports	1943-1948
3/19	Future Growth Forecasts, Curves	1935-1938
3/20	Load Data	1972
3/21	Load Data Book	1928-1950
3/22	Hydro System Out-Put	1939-1940
3/23	Flow of Power - Account Form - Annual Records	1926-1951
3/24	Flow of Power - Account Form	1941
3/25	Flow of Power - Annual Records	1920-1943
3/26	Flow of Power Summary	1963-1964
3/27	Load Data	1940
3/28	Load Data (1,2,3,4) Original Sheets	1959
3/29	Load Data (1,2,3,4)	1963

<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
3/30	Load Data (1,2,3,4)	1964
3/31	Load Data	1913-1962
3/32	Load Data	1963
3/33	Load Data	1964
3/34	Load Forecasts	1944-1945
3/35	System Forecasts	1946
3/36	System Load Curves	1937-1950
3/37	Ship Yard and System Load Curves	1918-1919
3/38	Maximum Load Demands	1917-1939
3/39	Load Durations and Energy Curves	1959-1961
3/40	Load Frequency Graphs, Load Curves - Seattle and Tacoma	1963
3/41	Load Frequency Graphs, Load Curves - Seattle and Tacoma	1964
3/42	Load Frequency Graphs, Load Curves - Seattle and Tacoma	1965
3/43	Load Frequency Graphs, Load Curves - Tacoma	1966
4/1	Operating Conditions, Load Curves	1941-1942
4/2	Operating Reports	1942
4/3	Operating Condition Reports - Interchange, BPA Allocations	1969
4/4	Operating Condition Reports - Interchange, BPA Allocations	1970
4/5	Net Seattle Load, Monthly	1948-1965
4/6	Net System Weekly Load	1950-1964
4/7	Coordinated Operation Report - Loads and Resources	1963-1964



<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
4/8	Coordinated Operation Report - Loads and Resources	1964-1965
4/9	Coordinated Operation Report	1965
4/10	Transit System	1963-1964
4/11	Daily Load Worksheet	1989
4/12	Daily Load Worksheet	1990
4/13	Daily Load Worksheet	1990
4/14	Daily Load Worksheet	1990
4/15	Daily Load Worksheet	1990
4/16	Daily Load Worksheet	1991
4/17	Daily Load Worksheet	1991
4/18	Daily Load Worksheet	1992
4/19	Daily Load Worksheet	1992
4/20	Daily Load Worksheet	1992
4/21	Daily Load Worksheet	1993
4/22	Daily Load Worksheet	1993
5/1	Daily Load Worksheet	1993
5/2	Daily Load Worksheet	1994
5/3	Daily Load Worksheet	1994
5/4	Daily Load Worksheet	1994
5/5	Daily Load Worksheet	1995
5/6	Daily Load Worksheet	1995

Container(s)	Description	Dates
5/7	Daily Load Worksheet	1995
5/8	Kilowatt Hour Production Statements	1920-1941
5/9	Load Data, Annual (FPC - 12E)	1952-1974
5/10	Boundary Plant Generation Summaries	1974-1975
5/11	Columbia, Kootenay and Pend Oreille River Regulation, for Rev. Base With Full Storage	1961
5/12	FPC Power Statements (Form 12E-1)	1974
5/13	Bonneville Power Administration Statements	1974
5/14	Bonneville Power Administration Letters re Computed Demand	1974-1975
5/15	Bonneville Power Administration Allocation Table No. 32	1962-1963
5/16	Allocation Tables and Correspondence	1964-1973
5/17	Snoking Loss Data	1967
5/18	Special Jobs (Calculations)	1966-1975
5/19	Completed Assignment (Calculations, etc.)	1961-1970
5/20	Load Forecast For Northwest Power Pool	1959-1965
5/21	Load Estimating For Northwest Power Pool	1955-1965
5/22	Load Estimates For Northwest Power Pool	1964-1965
5/23	Load Estimates For Northwest Power Pool, July 1963 - June 1965	1963
5/24	Loads, Actual and Estimated	1968-1969
5/25	Reservoir Operation and Calculations - Seattle and Tacoma	1958
5/26	Regulation Studies - Hydro Capabilities	1936-1959

<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
5/27	Computed Demand, Loads	1956-1961
5/28	Computed Demand Studies	1957-1958
5/29	Computed Demand Studies With and without Ross 4th Unit	1956
5/30	Computed Demand Programs	1961-1973
6/1	Capability Studies - Loads	1956-1961
6/2	Seattle and Tacoma Load Estimates	1956-1963
6/3	Seattle and Tacoma Load Estimates	1957
6/4	Capability Studies By Tacoma Public Utilities	1960-1962
6/5	Seattle Capabilities In Regard To Combined Seattle - Tacoma Contract With BPA	1943-1944
6/6	Capability Studies - System	1950
6/7	Capability Studies - Total System	1947-1950
6/8	Capability Studies - Total System	1947-1950
6/9	Capability Data	1930-1948
6/10	Seattle and Tacoma Systems Computed Demands	1937-1952
6/11	Seattle and Tacoma Systems Computed Demands	1937-1952
6/12	Priest Rapids Critical Year Capability	1963-1964
6/13	Capability Studies - Ross	1947-1950
6/14	System Capability, Without Ross Dam	1937-1942
6/15	System Capability, With Ross Dam To 1380'	1942-1943
6/16	System Capability, With Ross Dam To 1525'	1942-1947
6/17	System Capability, Ross Dam To Various Elevations	1937-1945

Container(s)	Description	Dates
6/18	System Capability, Ross Dam To Various Elevations	1930-1949
6/19	System Capability, Ross Dam To Various Elevations	1950
6/20	System Capability, Ross Dam To Various Elevations	1949-1950
6/21	System Capability, Ross Dam To Various Elevations	1949
6/22	System Capability, Ross Dam To Various Elevations	1944-1950
6/23	System Capability, Ross Dam To Various Elevations	1937-1944
6/25	System Capability, Ross Dam To Various Elevations	1937-1951
6/26	System Capability Without Ross Dam	1934-1940
6/27	System Capability, With Ross To 1380'	1939-1941
6/28	System Capability, With Ross Dam To 1525'	1942
6/29	System Capability, With Ross Dam To 1600'	1946
6/30	System Capability, With Ross Dam To 1630'	1944
6/31	High Ross Dam and Columbia River Study Summaries	1962
6/32	High Ross Dam Capability Study Coordinated With Base System Study	1962
6/33	High Ross Dam and Columbia River Study	1962
6/34	Columbia, Kootenay, Pend Oreille and Skagit Rivers Regulation	1962
7/1	Loss Incurred by Coordination Agreement	1963-1964
7/2	Coordination Study of Federal - Tacoma Hydro Systems	1963
7/3	Northwest Power Pool Hydro Probability Study	1963
7/4	Northwest Power Pool Hydro Probability Study	1964
7/5	Northwest Power Pool Hydro Probability Study	1964

<b>Container(s)</b>	<b>Description</b>	<b>Dates</b>
7/6	Northwest Power Pool Hydro Probability Study	1964
8/1	Load Computations and System Load Data	1936-1941
9/1	Boundary Base Duration Curves	1961-1971
9/2	System Power Study - Base System (Sequence VI)	1960
9/3	Power Study - Base System (Sequence VI) - BPA	1958
9/4	Power Study - Base System Plus Mica, Arrow Lakes, and Duncan Lake, BPA	1960
9/5	Power Study - Sequence III-J Columbia River Base System With Mica, High Arrow Lakes and Duncan Lake	1960
9/6	Power Study - Columbia River Base System Plus	1960
9/7	Power Study - Hydro Regulation 75-14 U.S. Storage Only	1964
9/8	Power Study - Hydro Regulation 75-11 U.S. Storage Only	1964
10/1	Discharge Data - Sauk River Above Whitechuck, 1912-1982	undated
10/2	Discharge Data - Wynoochee River / Lake, 1966-1982	undated
10/3	Discharge Data - Calawah River Near Forks, 1898-1979	undated
10/4	Discharge Data - Hoh River At US 101, 1961-1979	undated
10/5	Discharge Data - Soleduck River Near Fairholm, 1918-1980	undated
10/6	Discharge Data - Trout Lake Creek, 1910-1969	undated
10/7	Discharge Data - White Salmon River, 1959-1969	undated
10/8	Discharge Data - White Salmon River, 1957-1979	undated
10/9	Seattle and Tacoma Systems Computed Demand Studies, 1961-1976	undated
10/10	Computer Studies Tabulations	1955-1958

Container(s)	Description	Dates
10/11	Seattle and Tacoma BPA Computed Demands, 1961-1976	1961
10/12	Northwest Power Pool 1960-1961 Hydro Probability Study	1960
10/13	Study of Skagit and Boundary Capabilities, Water years 1928-1948	1959
10/14	Study of Skagit and Boundary Capabilities, Water years 1928-1948	1959
11/1	Discharge Data - Dewatto, 1959-1981	undated
11/2	Discharge Data - Dow Creek, 1950-1954	undated
11/3	Discharge Data - Nooksack River, 1956-1979	undated
11/4	Discharge Data - Bacon Creek, 1943-1950	undated
11/5	Discharge Data - Skookum Creek Near Wickersham, 1950-1969	undated
11/6	Discharge Data - Big Quilcene River, 1971-1981	undated
11/7	Discharge Data - South fork Tolt River, 1961-1981	undated
11/8	Discharge Data - Morse Creek Near Port Angeles, 1967-1979	undated
11/9	Discharge Data - Snow Creek, 1952-1979	undated
11/10	Discharge Data - North Fork Stillaguamish, 1928-1979	undated
11/11	Discharge Data - Pend Oreille River Near International Boundary, 1967-1983	undated
11/12	Power Study	1985
11/13	Power Study	1984

## Names and Subjects

### Subject Terms :

Cedar River (King County, Wash.)

Seattle City Light Load and Flow Data, 1905-1995  
<http://archiveswest.orbiscascade.org/ark:/80444/xv63366>

Electric power--Washington--Seattle

Pend Oreille River

Reservoirs--Washington (State)

Rivers--Washington (State)

Ross Dam (Wash.)

Skagit River (B.C. and Wash.)

Skagit River Hydroelectric Project

Streamflow--Washington (State)

**Corporate Names :**

Seattle City Light

Seattle (Wash.). Lighting Dept.

Tacoma (Wash.). Dept. of Public Utilities

**Geographical Names :**

Seattle (Wash.)

Finding aid prepared by Janet Ness

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