

Notes on Hydrologic Activities
Bulletin Number 10

U.S.C. Grand Depository

**FEDERAL PROGRAMS
FOR
COLLECTION OF DATA
ON
WATER USE**

Compiled for publication by
U.S. DEPARTMENT OF HEALTH,
EDUCATION, AND WELFARE
Public Health Service

Prepared under the auspices of
INTER-AGENCY COMMITTEE
ON WATER RESOURCES
Subcommittee on Hydrology

NOTES ON HYDROLOGIC ACTIVITIES
BULLETIN NUMBER 10

FEDERAL PROGRAMS
FOR COLLECTION OF DATA ON
WATER USE

Prepared under the auspices of the Subcommittee on Hydrology
U.S. Inter-Agency Committee on Water Resources, with
the following agencies represented

DEPARTMENT OF AGRICULTURE
Agriculture Research Service
Forest Service
Soil Conservation Service

DEPARTMENT OF THE ARMY
Corps of Engineers

DEPARTMENT OF COMMERCE
Bureau of Public Roads
Weather Bureau

DEPARTMENT OF THE INTERIOR
Bureau of Mines
Bureau of Reclamation
Geological Survey

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

FEDERAL POWER COMMISSION

TENNESSEE VALLEY AUTHORITY

PUBLICATIONS OF THE SUBCOMMITTEE ON HYDROLOGY

This bulletin is the 10th in a series issued by the agencies represented on the Subcommittee on Hydrology. The series is intended as a medium for dissemination of the results of specific work projects of the subcommittee, and for general information on work being undertaken in the hydrologic field by the agencies on the subcommittee.

Copies of Bulletin Nos. 1, 2, 3, 4, and 8 are available for administrative use only, from the agencies listed as subcommittee members. Copies of Bulletin Nos. 5, 6, 7, and 9 may be purchased for \$1.75, \$.50, \$1.25, and \$.60, respectively, from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Bulletins previously issued are listed as follows:

Bulletin No. 1--INSTRUCTIONS FOR COMPILATION OF UNIT HYDROGRAPH DATA	April 1948
Bulletin No. 2--INVENTORY OF PUBLISHED AND UNPUBLISHED CHEMICAL ANALYSES OF SURFACE WATERS IN THE WESTERN UNITED STATES	October 1948
Bulletin No. 3--SUMMARY OF CURRENT REQUIREMENTS FOR ADDITIONAL HYDROLOGIC STATIONS TO MEET FEDERAL NEEDS	September 1948
Bulletin No. 4--INTER-AGENCY COORDINATION OF DRAINAGE AREA DATA	November 1951
Bulletin No. 5--ANNOTATED BIBLIOGRAPHY ON HYDROLOGY	June 1952
Bulletin No. 6--INVENTORY OF PUBLISHED AND UNPUBLISHED CHEMICAL ANALYSES OF SURFACE WATERS IN THE EASTERN UNITED STATES	February 1954
Bulletin No. 7--ANNOTATED BIBLIOGRAPHY ON HYDROLOGY 1951-1954 AND SEDIMENTATION 1950-1954 (UNITED STATES AND CANADA)	December 1955
Bulletin No. 8--PRINCIPAL FEDERAL SOURCES OF HYDROLOGIC DATA - 2 VOLUMES	July 1956
Bulletin No. 9--INVENTORY OF PUBLISHED AND UNPUBLISHED CHEMICAL ANALYSES OF SURFACE WATERS IN WESTERN UNITED STATES, 1947-1955	1959

Miscellaneous reports and publications have also been issued as follows:

RIVER BASIN MAPS SHOWING HYDROLOGY STATIONS	1947, Revised 1949
ADEQUACY OF BASIC DATA IN HYDROLOGY AND SEDIMENTATION Prepared jointly with Subcommittee on Sedimentation	July 1950

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FEDERAL PROGRAMS
FOR COLLECTION OF DATA ON WATER USE
PROGRAM ABSTRACTS

Agency	Office	Geographic Scope of Program	Collection Schedule	Data Availability	Detail Sheet Page
A. RURAL DOMESTIC					
DEPARTMENT OF THE ARMY					
Corps of Engineers	St. Paul	Limited	Irregularly	Published	1
DEPARTMENT OF THE INTERIOR					
Geological Survey	Washington, D. C.	Limited	Irregularly	Published	1
B. PUBLIC WATER SUPPLIES					
DEPARTMENT OF THE ARMY					
Corps of Engineers	Fort Worth	Limited	Regularly	Files	2
	Garrison	Limited	Regularly	Files	2
	Lake Survey	Limited	Regularly	Published	2
	Pittsburgh	Limited	Regularly	Files	3
	St. Paul	Limited	Irregularly	Published	3
	Savannah	Limited	Regularly	Files	4
	Tulsa	Limited	Regularly	Files	4
	Walla Walla	Limited	Regularly	Files	4
	Washington, D. C.	Limited	Regularly	Files	5
	Wilmington	Limited	Regularly	Files	5
DEPARTMENT OF THE INTERIOR					
Bureau of Reclamation	Region V	Limited	Regularly	Published	5
	Region VI	Limited	Regularly	Published	6
	Region VII	Limited	Regularly	Files	6
Geological Survey	Washington, D. C.	Nationwide	Regularly	Published	6
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE					
Public Health Service	Washington, D. C.	Nationwide	Regularly	Published	7
C.1 AGRICULTURE, IRRIGATION					
DEPARTMENT OF AGRICULTURE					
Agriculture Research Service	Ft. Collins	Limited	Regularly	Published	8
DEPARTMENT OF THE ARMY					
Corps of Engineers	Albuquerque	Limited	Regularly	Published	9
	Jacksonville	Limited	Regularly	Published	9

Agency	Office	Geographic Scope of Program	Collection Schedule	Data Availability	Detail Sheet Page
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C.1 - Department of the Army (continued)

Corps of Engineers	St. Paul Washington, D. C.	Limited Limited	Irregularly Irregularly	Published Files	9 10
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DEPARTMENT OF COMMERCE

Bureau of Census	Washington, D. C.	Nationwide	Regularly	Published	10
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DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs	Washington, D. C.	Limited	Regularly	Files	11
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Bureau of Reclamation	Region I	Limited	Regularly	Files	11
	Region II	Limited	Regularly	Published	12
	Region III	Limited	Regularly	Published	12
	Region V	Limited	Regularly	Files	12
	Region VI	Limited	Regularly	Files	13
	Region VII	Limited	Regularly	Files	14

Geological Survey	Washington, D. C.	Nationwide	Regularly	Published	14
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TENNESSEE VALLEY AUTHORITY

Tennessee Valley Authority	Knoxville	Limited	Irregularly	Published	15
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C.2 AGRICULTURE, STOCK WATERING

DEPARTMENT OF THE ARMY

Corps of Engineers	St. Paul	Limited	Irregularly	Published	15
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D. MANUFACTURING INDUSTRIES

DEPARTMENT OF THE ARMY

Corps of Engineers	St. Paul Washington, D. C.	Limited Limited	Irregularly Regularly	Published Files	16 16
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DEPARTMENT OF THE INTERIOR

Geological Survey	Washington, D. C.	Nationwide	Regularly	Published	17
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DEPARTMENT OF COMMERCE

Bureau of Census	Washington, D. C.	Nationwide	Periodically	Published	18
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Agency	Office	Geographic Scope of Program	Collection Schedule	Data Availability	Detail Sheet Page
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E. MINERAL INDUSTRIES

DEPARTMENT OF THE INTERIOR

Bureau of Mines	Washington, D. C.	Limited	Irregularly	Published	18
Fish and Wildlife Service	Washington, D. C.	Limited	Regularly	Files	19
Geological Survey	Washington, D. C.	Nationwide	Regularly	Published	19

DEPARTMENT OF COMMERCE

Bureau of Census	Washington, D. C.	Nationwide	Periodically	Published	20
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F.1 POWER, HYDRO

DEPARTMENT OF THE ARMY

Corps of Engineers	Buffalo	Limited	Regularly	Files	20
	Chicago	Limited	Regularly	Published	21
	Fort Worth	Limited	Regularly	Files	21
	Garrison	Limited	Regularly	Files	22
	Lake Survey	Limited	Regularly	Published	22
	Little Rock	Limited	Regularly	Files	23
	Mobile	Limited	Regularly	Files	23
	Nashville	Limited	Regularly	Published	23
	Norfolk	Limited	Regularly	Published	24
	Omaha	Limited	Regularly	Files	24
	Pittsburgh	Limited	Regularly	Files	25
	Portland	Limited	Regularly	Files	25
	St. Paul	Limited	Irregularly	Published	25
	Savannah	Limited	Regularly	Files	26
	Seattle	Limited	Regularly	Files	26
	Tulsa	Limited	Regularly	Published	26
	Vicksburg	Limited	Regularly	Published	27
	Walla Walla	Limited	Regularly	Files	27

TENNESSEE VALLEY AUTHORITY

Tennessee Valley Authority	Knoxville	Limited	Regularly	Published	27
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DEPARTMENT OF THE INTERIOR

Bureau of Reclamation	Region I	Limited	Regularly	Files	28
	Region VI	Limited	Regularly	Files	28
	Region VII	Limited	Regularly	Files	29
Geological Survey	Washington, D. C.	Nationwide	Regularly	Published	29

Agency	Office	Geographic Scope of Program	Collection Schedule	Data Availability	Detail Sheet Page
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F.2 POWER, THERMO

DEPARTMENT OF THE ARMY

Corps of Engineers	St. Paul	Limited	Irregularly	Published	29
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DEPARTMENT OF THE INTERIOR

Bureau of Mines	Washington, D. C.	Limited	Regularly	Published	30
Geological Survey	Washington, D. C.	Nationwide	Regularly	Published	30

TENNESSEE VALLEY AUTHORITY

Tennessee Valley Authority	Knoxville	Limited	Regularly	Files	31
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FEDERAL POWER COMMISSION

Federal Power Commission	Washington, D. C.	Nationwide	Irregularly	Published	31
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G. NAVIGATION

DEPARTMENT OF THE ARMY

Corps of Engineers	Buffalo	Limited	Regularly	Files	31
	Chicago	Limited	Regularly	Published	32
	Jacksonville	Limited	Regularly	Files	32
	Lake Survey	Limited	Regularly	Published	33
	Mobile	Limited	Regularly	Files	33
	New Orleans	Limited	Regularly	Files	33
	Omaha	Limited	Regularly	Files	34
	Pittsburgh	Limited	Regularly	Files	34
	Portland	Limited	Regularly	Files	34
	Rock Island	Limited	Regularly	Published	35
	Savannah	Limited	Regularly	Published	35
	Seattle	Limited	Regularly	Files	36
	Walla Walla	Limited	Regularly	Files	36

TENNESSEE VALLEY AUTHORITY

Tennessee Valley Authority	Knoxville	Limited	Regularly	Published	36
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H. POLLUTION ABATEMENT

DEPARTMENT OF THE ARMY

Corps of Engineers	Pittsburgh	Limited	Regularly	Files	37
	Portland	Limited	Regularly	Files	37
	St. Paul	Limited	Irregularly	Published	37
	Tulsa	Limited	Regularly	Published	38

Agency	Office	Geographic Scope of Program	Collection Schedule	Data Availability	Detail Sheet Page
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H. Pollution Abatement (continued)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service	Washington, D. C.	Nationwide	Irregularly	Published	38
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I. RECREATION, FISH AND WILDLIFE

DEPARTMENT OF THE ARMY

Corps of Engineers	Omaha	Limited	Regularly	Files	39
	Portland	Limited	Regularly	Files	39
	St. Paul	Limited	Irregularly	Published	39
	Seattle	Limited	Regularly	Files	40
	Walla Walla	Limited	Regularly	Files	40

J. FEDERAL INSTALLATIONS (WATER SUPPLIES)

DEPARTMENT OF THE AIR FORCE

Chief of Staff	Washington, D. C.	Nationwide	Regularly	Published	40
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DEPARTMENT OF THE ARMY

Chief of Engineers	Washington, D. C.	Nationwide	Regularly	Published	41
Corps of Engineers	Omaha	Limited	Regularly	Files	41
	Washington, D. C.	Limited	Regularly	Files	42

DEPARTMENT OF THE NAVY

Bureau of Yards and Docks	Washington, D. C.	Nationwide	Regularly	Published	42
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DEPARTMENT OF THE INTERIOR

Geological Survey	Washington, D. C.	Limited	Irregularly	Published	43
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PREFACE

Planning for effective development and use of water resources requires a continuing supply of basic data. Many data on water supplies are being collected but often data on use, re-use, and quality and quantity requirements of these supplies are not so readily available. Estimates of future demands depend in part upon knowledge of current usage, and as demands for use approach the supply, data on usage become more important for planning.

With this need in mind and recognizing that many agencies currently are collecting data on various water uses, the Subcommittee on Hydrology set out to determine the types of water-use data being collected and their coverage. As a result, this inventory of Federal Programs for Collection of Data on Water Use was compiled.

This inventory shows for each category the Federal agencies collecting data and some details regarding the extent of collection and availability of these data as of 1958. The compilation was prepared to aid those seeking data on the use of water and also to aid in continuing a coordination of data collection by the many agencies concerned. It is hoped that this coordination will focus attention on deficiencies in current collection programs, in order that greater effort might be exerted in the areas where more data are needed.

FEDERAL PROGRAMS FOR COLLECTION OF DATA ON WATER USE

A. RURAL DOMESTIC

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
2. Schedule: Once only, 1940-1945.
3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.
4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability: Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.
6. Miscellaneous: Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

DEPARTMENT OF THE INTERIOR

1. Source: Geological Survey, Water Resources Division, Washington, D. C.
2. Schedule: Once only, at time of ground water investigation (see 5.a.(1)).
5-year intervals (see 5.a.(2)).
3. Scope: Limited to specific activity; part of basic data collected during an areal ground water study; generally limited to ground water supplies.
4. Program: Data are collected by field studies and surveys, as a routine part of a regular program having other than data collection objectives.
5. Availability:
 - a. Published reports:
 - (1) Published reports and open file reports of the USGS and cooperating State agencies.
 - (2) "Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).
 - b. Other:
 - (1) Open file data in district offices.
6. Miscellaneous: Data are reported as intake by all users.
Quantity used is generally not given (see 5.a.(1) and 5.b.(1)).
Geological source of water and type, depth, and diameter of well are reported.
Source of supply is ground water only (see 5.a.(1) and 5.b.(1)).
Data are collected with cooperation of State geologists, State engineers, and other Federal, State, county, and municipal agencies (see 5.a.(1) and 5.b.(1)).

B. PUBLIC WATER SUPPLIES

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, Southwestern Division, Fort Worth District, Texas.
 2. Schedule: Regularly, monthly.
 3. Scope: Limited to local agencies owning storage space in the Corps of Engineers reservoirs in Fort Worth District.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability: As monthly reports on daily water use and treatment--State Board of Water Engineers.
 6. Miscellaneous:
Data are available as water use by individual water supply systems.
Units are MGD.
Net use, water treatment by user, and source of supply are reported.
Data are obtained in cooperation with local agencies.
-
1. Source: Corps of Engineers, Missouri River Division, Garrison District, North Dakota.
 2. Schedule: Regularly, daily, 1934-1958, Fort Peck, Montana; 1949-1958, Riverdale, North Dakota.
 3. Scope: Limited to operation of water treatment plants for the town sites.
 4. Program: Data are collected by established collection systems--Fort Peck and Riverdale Water Treatment Plants--as a routine part of a regular program having other than data collection objectives.
 5. Availability: As monthly reports on file at Fort Peck, Montana, and Riverdale, North Dakota, area offices and district office.
 6. Miscellaneous:
Data are reported as water use by individual water plants.
Units are gallons per day.
Water treatment by user and source of supply are reported.
-
1. Source: Corps of Engineers, North Central Division, Lake Survey District, Detroit, Michigan.
 2. Schedule: Regularly, monthly, 1900-1958.
 3. Scope: Limited to Chicago.
 4. Program: Data are collected by an established collection system--city of Chicago--as a part of a basic-data-gathering program and as needed for making studies of lake regulation.

Corps of Engineers, Lake Survey District (continued)

5. Availability:

Published reports:

"Monthly Report of the Metropolitan Sanitary District of Greater Chicago", diversions from Lake Michigan Watershed through the Chicago Sanitary and Ship Canal.

6. Miscellaneous:

Data are reported as use by individual user.
Units are cubic feet per second.

1. Source: Corps of Engineers, Ohio River Division, Pittsburgh District, Pennsylvania.

2. Schedule: Regularly, daily, 1954-1958, Mosquito Creek Reservoir; 1954-1958, Deer Creek Reservoir; 1958, Berlin Reservoir.

3. Scope: Limited to municipalities using water from Mosquito Creek, Deer Creek, and Berlin Reservoirs.

4. Program: Data are collected by established collection systems (city of Warren, Ohio; Mahoning Valley Sanitary District, Youngstown, Ohio; city of Alliance, Ohio) as a routine part of a regular program having other than data collection objectives--reservoir regulation.

5. Availability:

In district office computation files for respective reservoirs.

6. Miscellaneous:

Data are reported as withdrawal by user.
Units are MGD.
Water treatment by city of Warren, Ohio, is reported.

1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.

2. Schedule: Once only, 1940-1945.

3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.

4. Program: Data are collected by field studies and surveys, as needed for specific projects.

5. Availability:

Published reports:

House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer Committee, Red River Watershed.

6. Miscellaneous:

Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year; ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality requirements, re-use, and source of supply are reported.

Department of the Army (continued)

1. Source: Corps of Engineers, South Atlantic Division, Savannah District, Georgia.
 2. Schedule: Regularly, yearly, November 1955-1958.
 3. Scope: Limited geographically to Clark Hill Hydro-Electric Project located on the Savannah River.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives--control of withdrawal to contract amount.
 5. Availability: Data and analysis of data are available in the district office, Savannah.
 6. Miscellaneous: Data are reported as use by individual water supply systems. Units are cubic feet per year.
-

1. Source: Corps of Engineers, Southwestern Division, Tulsa District, Oklahoma.
 2. Schedule: Regularly, monthly, 1956-1958, Muskogee, Oklahoma; 1957-1958, Bartlesville, Oklahoma; 1952-1958, Dennison, Texas.
 3. Scope: Limited to Corps of Engineers reservoir projects with storage leased to municipalities.
 4. Program: Data are collected by established collection systems, as needed for specific projects.
 5. Availability: Monthly reports on reservoir operations available in the Office of the Chief of Engineers or the Tulsa District Office.
 6. Miscellaneous: Data are reported as use by individual water supply systems. Units are average gallons per day for Dennison; acre-feet per month for Bartlesville and Muskogee. Source of supply is reported. Data are obtained with cooperation of local authorities.
-

1. Source: Corps of Engineers, North Pacific Division, Walla Walla District, Washington.
2. Schedule: Regularly, monthly, 1948-1958.
3. Scope: Limited to specific phase of activity; domestic water supply for personnel at McNary Dam, Umatilla, Oregon. Limited to water supply at Walla Walla District Office and Walla Walla Airport.
4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability: On file at McNary Projects Office. In district office.

Corps of Engineers, Walla Walla District (continued)

6. Miscellaneous:

Data are reported as gross use.
Units are cubic feet per month.
Source of supply is reported.

1. Source: Corps of Engineers, North Atlantic Division, Washington, D. C. District.
2. Schedule: Regularly, daily, 1951-1958 (graphical data from 1863).
3. Scope: Limited geographically to metropolitan Washington, D. C.
4. Program: Data are collected by an established collection system--Dalecarlia Water Filtration Plant--as a routine part of a regular program having other than data collection objectives.
5. Availability: Manuscript records in district office.

6. Miscellaneous:

Data are reported as use by District of Columbia, Falls Church and Arlington County, Virginia.
Units are MGD.
Net use, water treatment, and source of supply are reported.
Data collected in cooperation with USGS and USPHS.

1. Source: Corps of Engineers, South Atlantic Division, Wilmington District, North Carolina.
2. Schedule: Irregularly, 1955 and 1957.
3. Scope: Limited to activities of the Planning and Reports Branch.
4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability: Records of filter plants and other municipal records; records of Department of Conservation and Development, State of North Carolina.
6. Miscellaneous: Data are reported as use by individual public water supply systems. Units are MGD for average day and/or thousand gallons per month. Source of supply is reported; water treatment and waste treatment, or lack thereof, are sometimes reported. Data are obtained in cooperation with Federal and local officials.

DEPARTMENT OF THE INTERIOR

1. Source: Bureau of Reclamation, Region V, Amarillo, Texas.
2. Schedule: Regularly, daily, 1946-1958.
3. Scope: Limited to project operation, W. C. Austin Project, Altus, Oklahoma (Lugert-Altus Irrigation District).

Bureau of Reclamation, Region V (continued)

4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
5. Availability:
 - Published reports:
 - Monthly and annual summaries in project histories.
 - Other:
 - Files of W. C. Austin Project Office.
6. Miscellaneous:
 - Data are reported as water diverted to city of Altus.

-
1. Source: Bureau of Reclamation, Region VI, Billings, Montana.
 2. Schedule: Regularly, daily.
 3. Scope:
 - a. Limited to specific area.
 - (1) City of Dickinson, North Dakota.
 - (2) Rapid City, South Dakota.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability:
 - Data available in project histories and files of U. S. Bureau of Reclamation Offices in Bismarck, North Dakota (see 3.a.(1)), Huron, South Dakota, and Billings, Montana, (see 3.a.(2)).
 6. Miscellaneous:
 - Data are reported as gross use by all users in category.
 - Units are MGD, cubic feet per second, and acre-feet.
 - Treatment is reported.
 - Source of supply is reported.

-
1. Source: Bureau of Reclamation, Region VII, Denver, Colorado.
 2. Schedule: Regularly, continuous recorder.
 3. Scope: Limited to specific area--Colorado Big Thompson, Loveland, Colorado.
 4. Program: Data are collected by established collection systems--three recording stations in Colorado Big Thompson Project--as a routine part of a regular program having other than data collection objectives.
 5. Availability:
 - Records on file in project office.
 6. Miscellaneous:
 - None.

-
1. Source: Geological Survey, Water Resources Division, Washington, D. C.

Geological Survey, Water Resources Division (continued)

2. Schedule: Regularly, 5-year intervals (see 5.a.(1)).
Irregularly, 1932 and 1952 (see 5.a.(2)).
Once only (see 5.a.(3) and (4) and 5.b).
3. Scope: Nationwide (see 5.a.(1)).
Limited to the following criteria: cities over 15,000 population; minimum of 10 cities in each State; 80% of urban population represented in each State (see 5.a.(2)).
Limited geographically to a drainage basin, part of State, or other political subdivision (see 5.a.(3)).
Generally limited to ground water supplies (see 5.a.(4) and 5.b).
Limited to industrial areas surrounding selected cities (see 5.a.(3)).
4. Program: Data are collected by field studies and surveys, as a part of a basic-data-gathering program (see 5.a.(1), (3), and (5) and as a part of a routine program having other than data collection objectives (see 5.a.(2) and (4) and 5.b).
5. Availability:
 - a. Published reports:
 - (1) "Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).
 - (2) "Industrial Utility of Public Water Supplies" (USGS Water Supply Papers 658, 1299, and 1300).
 - (3) Selected information--refer to agency for information.
 - (4) Published and open file reports of the USGS and cooperating State agencies.
 - b. Other:
 - (1) Data of 5.a.(4) are found in file of State district offices.
6. Miscellaneous:

Data are reported as intake by all users (see 5.a.(1)).
Data are reported as use by individual users (see 5.a.(3)).
Units are MGD and acre-feet per year.
Water treatment, quality requirements, and source of supply are reported in 5.a.(2) and (3).
Source of supply is reported in 5.a.
Data are obtained in cooperation with State geologists, State engineers, and other State, Federal, county, and municipal agencies.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

1. Source: Public Health Service, Division of Water Supply and Pollution Control.
2. Schedule:
 - a. Regularly, once a year, 1954-1958.
 - b. Irregularly, 1945, 1948, 1949, and 1958.
 - c. Once only, 1954.
3. Scope:
 - a. All U. S. communities over 25,000 in 1950 (see 2.a).
 - b. All U. S. communities (see 2.b).
 - c. All U. S. communities 10,000 and over; 40% of 5,000 to 10,000 (see 2.c).
4. Program: Data are collected by use of field data forms and by established collection systems, as part of a basic-data-gathering program.

5. Availability:

a. Published reports:

- (1) "Municipal Water Facilities, Communities of 25,000 Population and Over" (see 2.a and 3.a).
- (2) "Inventory of Water and Sewage Facilities in U. S.", 1945 (see 2.b and 3.b).
- (3) "Inventory of Municipal Water Facilities for Larger Communities" (see 2.c and 3.c).

b. Unpublished reports:

- (1) "Inventory of Water and Sewage Facilities", 1948 and 1949 (see 2.b and 3.b). Special listings of data and analysis can be produced from machine card record on file in Washington office.

6. Miscellaneous:

Data are reported as water use by individual public water supply systems and water use is broken down by special use of system's supply, viz, domestic, commercial, industrial, public, or other. Water use is reported in units of MGD--maximum day, maximum month, and maximum hours (see 5.a.(1)).

Water treatment by user is reported, but type of waste water treatment or lack thereof, water quality requirements of user, and amount of re-use are not reported.

Source of supply is reported (see 5.a.(1), (2), and (3)).

C.1 AGRICULTURE, IRRIGATION

DEPARTMENT OF AGRICULTURE

1. Source: Agriculture Research Service, Soil and Water Conservation Research Division, Western Soil and Water Management Research Branch, Ft. Collins, Colorado.

2. Schedule: Regularly, daily, and weekly, as required for specific projects.

3. Scope: Limited to specific investigations within the 17 western States on irrigation water uses.

4. Program: Data are collected by field surveys, as needed for continuing investigations of uses per land area unit for specific crops and climate areas.

5. Availability:

Published reports:

Data are available in reports published by various State and Federal agriculture agencies.

6. Miscellaneous:

Data are reported as water used by sub-users, individual users, and gross users, as required by specific projects.

Water quality requirements of users, the source of supply, and the difference between the quality of water withdrawn and the quantity returned are reported.

Data are reported in acre-feet per year for gross areas and acre-inches per acre per time unit.

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, Southwestern Division, Albuquerque District, New Mexico.
 2. Schedule: Regularly, daily, during release period, December 1938-1958, Conchas Reservoir; January 1943-1958, John Martin Reservoir.
 3. Scope: Limited geographically to Conchas Reservoir in New Mexico and John Martin Reservoir in Colorado.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability:
 - Published reports:
 - USGS Water Supply Papers.
 - Other:
 - Data in office records of Albuquerque District Office.
 6. Miscellaneous:
 - Data are reported for individual users.
 - Units are acre-feet.
 - Source of supply is reported.
-

1. Source: Corps of Engineers, South Atlantic Division, Jacksonville District, Florida.
 2. Schedule: Regularly, earliest records 1912, others vary.
 3. Scope: Limited geographically to central and southern Florida projects--conservation areas 1, 2, and 3, and Lake Okeechobee.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability:
 - Published reports:
 - USGS Water Supply Papers.
 - Content reports of daily discharges.
 - Other:
 - Original records on file with USGS, central and southern Florida flood control districts, and Corps of Engineers unpublished progress reports.
 6. Miscellaneous:
 - Data are reported as use by individual user.
 - Units are elevations in feet, quantities in cubic feet per second, acre-feet, and inches.
 - Portions of data collection program are conducted in cooperation with U. S. Fish and Wildlife Service, Florida State Game and Fresh Water Fish Commission, and central and southern Florida flood control districts.
-

1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
2. Schedule: Once only, 1940-1945.

Corps of Engineers, Jacksonville District (continued)

3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.
4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability: Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.
6. Miscellaneous: Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year,
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

-
1. Source: Corps of Engineers, North Atlantic Division, Washington, D. C. District.
 2. Schedule: Once only, July 1957.
 3. Scope: Limited geographically to Potomac River Basin.
Limited to specific phase of agency's activity--Potomac River
Basin Survey.
 4. Program: Data are collected by field studies and surveys, as needed for specific projects.
 5. Availability: Manuscript tabulations in district office.
 6. Miscellaneous: Data are reported as use by individual user in category.
Units are MGD.
Source of supply is reported.

DEPARTMENT OF COMMERCE

1. Source: Bureau of the Census, Division of Agriculture, Washington, D. C.
2. Schedule: Regularly, every 10 years since 1889, every 5 years since 1934
(see 5.a.(1), (2), and (3)).
Irregularly, 1954 and 1955 (see 5.a.(4)).
3. Scope: Nationwide (see 5.a.(1), (2), and (3)).
Limited geographically--28 eastern States (see 5.a.(4)).
4. Program: Data are collected by questionnaire from farmers and irrigation
water supply enterprises, as part of a basic-data-gathering program.
(Greater detail in 19 or 20 of the more important irrigation
States.)

Bureau of the Census, Division of Agriculture (continued)

5. Availability:

a. Published reports for 1949 and 1954:

- (1) Census of Agriculture, Vol. I, Counties and State Economic Areas.
- (2) Census of Agriculture, Vol. II, General Report.
- (3) Census of Agriculture, Vol. III, Irrigation of Agricultural Lands.
- (4) Irrigation in Humid Areas.

Note: Corresponding reports, perhaps with different volume numbers, are available for earlier years for regularly collected data.

6. Miscellaneous:

Data are reported as use by individual user.

Data are broken down in various ways, viz, geographically, by land use, physical source of water, and by institutions supplying water. Units are reported in acre-feet per year and acres of land irrigated. Source of supply is reported.

DEPARTMENT OF THE INTERIOR

1. Source: Bureau of Indian Affairs, Washington, D. C.

2. Schedule: Regularly, monthly.

3. Scope: Limited to land irrigation by project on Indian reservations.

4. Program: Data are collected as needed for specific projects by established collection systems, as a routine part of a regular program having other than data collection objectives.

5. Availability:

File records, located in area offices.

6. Miscellaneous:

Data are reported for individual users.

Units are acre-feet per year and cubic feet per second.

Source of supply is reported; some projects report amount of re-use and the difference between the amount of water withdrawn and the amount returned.

1. Source: Bureau of Reclamation, Region I, Boise, Idaho.

2. Schedule: Regularly, daily during irrigation season.

- 1926-1958 (see 3.a).
- 1948-1958 (see 3.b).
- 1940-1958 (see 3.b).
- 1938-1958 (see 3.c).
- 1944-1958 (see 3.d).
- 1930-1958 (see 3.e).
- 1947-1958 (see 3.f).

3. Scope: Limited to land irrigated by the following projects:

- a. Boise Project Board of Control.
- b. Black Canyon Irrigation District, Notus, Idaho.
- c. North Board of Control, Owyhee Project, Myssa, Oregon.
- d. South Board of Control, Owyhee Project, Homedale, Idaho.
- e. Vale, Oregon Irrigation District.
- f. Okanogan, Washington Irrigation District.

Bureau of Reclamation, Region I (continued)

4. Program: Data are collected by established collection systems, as a routine part of seasonal irrigation operation.
5. Availability: Unpublished Bureau of Reclamation records (see 3).
6. Miscellaneous:
Data are reported as gross use per division.
Units are cubic feet per second.
Source of supply is reported.

-
1. Source: Bureau of Reclamation, Region II, Sacramento, California.
 2. Schedule: Regularly, annually.
 3. Scope: Limited geographically to Central Valley, Cachum, Klamath, and Oroville Projects.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability:
Published reports:
"Annual Crop Census and Related Statistics", U. S. Bureau of Reclamation, Washington, D. C.
 6. Miscellaneous:
Data are reported as use by individual user in category.
Units are acre-feet per acre.
Source of supply is reported.

-
1. Source: Bureau of Reclamation, Region III, Boulder City, Nevada.
 2. Schedule: Regularly, monthly.
 3. Scope: Limited to Imperial Irrigation District, California.
 4. Program: Data are collected by an established collection system--Imperial Dam--as a routine part of a regular program having other than data collection objectives.
 5. Availability:
Published reports:
"Regional Director's Report of Flows and Diversions at Imperial Dam and All Actions Affecting the Coordination Thereof".
 6. Miscellaneous:
Data are reported as gross use by all users in category.
Units are gallons and cubic feet per second for average monthly and annual flows.

-
1. Source: Bureau of Reclamation, Region V, Amarillo, Texas.
 2. Schedule: Regularly, daily.
1946-1958 (see 3.a and d).
1948-1958 (see 3.b).

Bureau of Reclamation, Region V (continued)

2. Schedule (continued)

1912-1958 (see 3.c).

1916-1958 (see 3.e).

3. Scope: Limited to project operation.

- a. W. C. Austin Project, Altus, Oklahoma.
- b. Balmorhea Project, Balmorhea, Texas.
- c. Carlsbad Project, Carlsbad, New Mexico.
- d. Tucumcari Project, Tucumcari, New Mexico.
- e. Rio Grande Project, El Paso, Texas.

4. Program: Data are collected as a routine part of a regular program having other than data collection objectives.

5. Availability:

Published reports:

Monthly and annual summaries in project histories.

Other:

Files in project offices listed in 3, above.

6. Miscellaneous:

Data are reported as gross use by all users in category for each project--discharge of wasteway, farm deliveries.

Units are acre-feet.

Net use and source of supply are reported.

Rio Grande Project reports annual water quality and salt-balance--prepared by U. S. Salinity and Rubidoux Laboratories, Riverside, California.

1. Source: Bureau of Reclamation, Region VI, Billings, Montana.

2. Schedule: Regularly, daily during irrigation season.

3. Scope: Limited to specific areas as follows:

Montana:

Billings	Huntley-Ballantine
Fairfield	Greenfields Irrigation District; Sun River
Ft. Shaw	Ft. Shaw Irrigation Project
Malta	Milk River
Sidney	Intake Unit; Lower Yellowstone; Salvage Unit
Terry	Buffalo Rapids
Testin	Crow Creek Unit

North Dakota:

Bismarck	Fort Clark Unit; Western Heart River
Trenton	Buford-Trenton

South Dakota:

Huron	Rapid Valley Conservancy District
Newell	Belle Fourche
Oral	Angustora Project

Wyoming:

Cody	Shoshone Project
Riverton	Riverton Project
Thermopolis	Owl Creek
Worland	Hanover Bluff Unit

4. Program: Data are collected by established collection systems (20 project offices), as part of a routine irrigation project.

5. Availability:

Published reports:

Data available in project histories.

Other:

Files of U. S. Bureau of Reclamation in Bismarck, North Dakota;
Great Falls and Billings, Montana; Oral and Huron, South Dakota.

6. Miscellaneous:

Data are reported as gross user by all users in category; some projects report individual use.

Units are cubic feet per second and acre-feet.

Source of supply is reported.

1. Source: Bureau of Reclamation, Region VII, Denver, Colorado.

2. Schedule: Regularly, continuous recorder.

3. Scope: Limited to specific areas:

Colorado:

Loveland Colorado Big Thompson

Nebraska:

Hay Springs Mirage Flats Project

McCook Kansas River Projects

Sargent Sargent Unit

Wyoming:

Casper Kendrick and North Platte Projects

4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.

Three recording stations in Colorado Big Thompson Project.

5. Availability:

Records on file in project offices.

6. Miscellaneous:

None.

1. Source: Geological Survey, Water Resources Division, Washington, D. C.

2. Schedule: Regularly:

Annually (see 5.a.(1) and 5.b).

5-year intervals (see 5.a.(2)).

Once only (see 5.a.(3), (4), and (5) and 5.b).

3. Scope: Nationwide (see 5.a.(2)).

Limited geographically to:

A few western States (see 5.a.(1) and 5.b).

A drainage basin, part of a State, or other political subdivision (see 5.a.(4)).

Industrial areas surrounding selected cities (see 5.a.(5)).

Limited to ground water supplies (see 5.a.(3) and 5.b).

4. Program: Data are collected by field studies and surveys, as part of a basic-data-gathering program (see 5.a.(1), (2), (4), and (5) and 5.b) and as a routine part of a regular program having other than data gathering objectives (see 5.a.(3) and 5.b).

5. Availability:

a. Published reports:

- (1) Sometimes published by cooperating State agencies; sometimes as press notices.
- (2) "Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).
- (3) Published and open file reports of USGS and cooperating State agencies.
- (4) Two examples: USGS Water Supply Papers 1364 and 1414.
- (5) List on file in agency office.

b. Other:

Open file data in district offices.

6. Miscellaneous:

Data are reported as intake by all users.

Units are acre-feet per year and MGD.

Source of supply is reported.

Net use and quality requirements are sometimes reported.

Data are collected in collaboration with State geologists, State engineers, and other State, Federal, county, and municipal agencies.

TENNESSEE VALLEY AUTHORITY

1. Source: Division of Water Control Planning, Hydraulic Data Branch, Knoxville, Tennessee.

2. Schedule: Once only, summer and fall 1957.

3. Scope: Limited to Tennessee River Basin.

4. Program: Data are collected by field studies and surveys, as needed for specific projects.

5. Availability:

Published reports:

Summary to be published as part of water use report.

Other:

Details available from files on request.

6. Miscellaneous:

Data are reported as use by individual user.

Water use is reported in inches per acre and acre-feet in crop season.

Source of supply is reported.

C.2 AGRICULTURE, STOCK WATERING

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.

2. Schedule: Once only, 1940-1945.

3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.

Water supply studies for flood control surveys.

Water use survey for International Joint Commission.

Corps of Engineers, St. Paul District (continued)

4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability:
Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.
6. Miscellaneous:
Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

D. MANUFACTURING INDUSTRIES

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
 2. Schedule: Once only, 1940-1945.
 3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.
 4. Program: Data are collected by field studies and surveys, as needed for specific projects.
 5. Availability:
Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.
 6. Miscellaneous:
Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.
-
1. Source: Corps of Engineers, North Atlantic Division, Washington, D. C. District.
 2. Schedule: Regularly, daily, 1951-1958.
 3. Scope: Limited geographically to North Branch, Potomac River.
Limited to specific phase of activity--flood control data for
District Engineer.
 4. Program: Data are collected by established collection systems, as a routine
part of a regular program having other than data collection
objectives.

5. Availability:

Manuscript form, "Daily Operations Report", in district office.

6. Miscellaneous:

Data are reported as gross use by all users in category.

Units are cubic feet per second and acre-feet per year.

Source of supply is reported.

Data are collected in cooperation with the Department of the Interior, Geological Survey.

DEPARTMENT OF THE INTERIOR

1. Source: Geological Survey, Water Resources Division, Washington, D. C.

2. Schedule: Regularly, 5-year intervals (see 5.a.(1)).

Once only.

At time of ground water survey (see 5.a.(2) and 5.b).

See 5.a.(3), (4), and (5).

3. Scope: Nationwide (see 5.a.(1) and (5)).

Limited to ground water supplies (see 5.a.(2) and 5.b).

Limited to drainage basins, part of a State, or other political subdivision (see 5.a.(3)).

Limited to industrial areas surrounding selected cities (see 5.a.(4)).

Limited to selected industries (see 5.a.(5)).

4. Program: Data are collected by field studies and surveys, as a part of a basic-data-gathering program (see 5.a.(1), (3), (4), and (5)) and as a routine part of a regular program having other than data collection objectives (see 5.a.(2) and 5.b).

5. Availability:

a. Published reports:

(1) "Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).

(2) Published and open file reports of the USGS and cooperating State agencies.

(3) Two examples: USGS Water Supply Papers 1364 and 1414.

(4) List on file in agency office.

(5) "Water Requirements of Selected Industries", Water Supply Paper 1330. (List on file in agency office.)

b. Other:

Open file data in district offices.

6. Miscellaneous:

Data are reported as intake by all users.

Data are reported also by individual user and by sanitary, process, cooling, and company housing in 5.a.(5) only.

Units are MGD and acre-feet per year.

Units are MGD and gallons per quantity of end product for 5.a.(5) only.

Source of supply is reported.

Net use, water treatment, quality requirements, and re-use are reported in 5.a.(5) only.

DEPARTMENT OF COMMERCE

1. Source: Bureau of the Census, Industry Division, Washington, D. C.
2. Schedule: Periodically, collected in 1955 for 1954 operations.
3. Scope: Nationwide.
4. Program: Data are collected by questionnaire, as a part of a basic-data-gathering program.
5. Availability:
 - Published reports:
 - Volume I, General Summary U. S. Bureau of the Census, U. S. Census of Manufactures, 1954, Subject Bulletin MC-209, Industrial Water Use--available from the Government Printing Office, Washington, D. C.
 - Other:
 - Data and analyses are possible through special runs of IBM cards on which the data were punched and recorded.
6. Miscellaneous:
 - Data are reported as use by individual user in category and further broken down into: process water, cooling and air conditioning, boiler feed, sanitary, and other uses.
 - Units are gallons per year.
 - Re-use of water, water treatment, water intake by kind, and source of supply are reported.

E. MINERAL INDUSTRIES

DEPARTMENT OF THE INTERIOR

1. Source: Bureau of Mines, Washington, D. C.
2. Schedule: Irregularly.
3. Scope: Specific project areas.
4. Program: Data are collected by questionnaires and surveys, as a part of a regular program having other than data collection objectives.
5. Availability:
 - Published reports:
 - "Bureau of Mines Report of Investigation 5289" (survey made in New York, 1952-1954).
 - "Sources of Water for Flooding in North Texas", 1958.
6. Miscellaneous:
 - Data reported as water use by individual plants.
 - Units are MGD (in oil fields, barrels per day).
 - Net water use generally not reported, but this can usually be computed from data on hand.
 - User's method of water treatment, re-use data, and treatment given waste water before discharge are frequently reported.
 - Source of supply is usually reported.

Department of the Interior (continued)

1. Source: Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife.
 2. Schedule: Regularly, for water levels daily. Quantity data are collected when there is a change in water use--approximately monthly.
 3. Scope: Limited to Federal fish hatcheries and refuges.
 4. Program: Data are collected as a part of a regular program having other than data collection objectives.
 5. Availability: Data are available in files of regional offices and may be photocopied when needed.
 6. Miscellaneous:
Data are reported in cubic feet per second in most cases; however, some refuges report acre-feet.
Water quality requirements, the difference between the amount withdrawn and the amount returned, the amount of re-use, and the source of supply are reported.
-
1. Source: Geological Survey, Water Resources Division, Washington, D. C.
 2. Schedule: Regularly.
Once only.
Since 1951, four reports on different industries (see 5.a.(2).
See 5.a.(3)).
 3. Scope: Nationwide (see 5.a.(1) and (2)).
Limited geographically to industrial areas surrounding selected cities (see 5.a.(3)).
Limited to selected industries (see 5.a.(2)).
 4. Program: Data are collected by field studies and surveys, as a part of a basic-data-gathering-program.
 5. Availability:
 - a. Published reports:
 - (1) "Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).
 - (2) "Water Requirements of Selected Industries" (USGS Water Supply Paper 1330).
 - (3) List on file in agency office.
 6. Miscellaneous:
Data are reported as intake by all users.
Units are MGD and acre-feet per year.
Source of supply is reported.
Data are reported also as to individual use and subdivided as to sanitary, processing, cooling, and company housing in 5.a.(2) only.
Units are reported as MGD and per quantity of end product in 5.a.(2) only.
Net use, water treatment, quality requirements, amount of re-use, and source of supply are reported in 5.a.(2) only.
Waste treatment, or lack thereof, is not reported.

DEPARTMENT OF COMMERCE

1. Source: Bureau of the Census, Industry Division, Washington, D. C.
2. Schedule: Periodically, collected in 1955 for 1954 operations.
3. Scope: Nationwide.
4. Program: Data are collected by questionnaire, as a part of a basic-data-gathering program.
5. Availability:
 - Published reports:
 - Volume I, Summary and Industry Statistics, U. S. Census of Mineral Industries, 1954.
 - Volume II, Area Statistics, U. S. Census of Mineral Industries, 1954, U. S. Bureau of the Census.
 - Such statistics were summarized at the industry State level in Bulletin MI-F, "Energy, Water, and Selected Supplies", and more detailed statistics were preprinted on the individual and State bulletins.
 - Other:
 - Further detailed statistics could be prepared by special tabulations from IBM cards.
6. Miscellaneous:
 - Data are reported as gross use by all users and as use by individual user within category.
 - Data is further broken down.
 - Units are gallons or million gallons per year net use, water treatment, type of waste treatment or lack thereof, quality requirements, re-use, and source of supply are reported.

F.1 POWER, HYDRO

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, North Central Division, Buffalo District, New York.
2. Schedule: Regularly:
 - Monthly and annually, 1925-1958 (see 5.a).
 - Daily, 1944-1958 (see 5.a).
 - Monthly, 1935-1958; annually, 1926-1957 (see 5.b).Irregularly:
 - Monthly and annually, 1886-1925 (see 5.a).
3. Scope: Limited geographically to area of Niagara Falls, New York; Niagara Falls, Ontario; and Welland Ship Canal, Ontario (see 5.a).
 - Limited to diversion of Niagara River flows (see 5.a).
 - Limited by other restrictions--"Treaty Between the U. S. of America and Canada Concerning Uses of the Waters of the Niagara River, 1950" (see 5.a).
 - Limited to Massena, New York (see 5.b).
 - Limited to diversion of St. Lawrence River flows (see 5.b).
 - Limited by International St. Lawrence Board of Control for the International Joint Commission (see 5.b).

Corps of Engineers, Buffalo District (continued)

4. Program: Data are collected by established collection systems (power companies submit daily report of hourly water diversions for power (see 5.a); Aluminum Company of America), as needed for specific projects (compliance with treaty of 1950 (see 5.a); as needed by the International Joint Commission (see 5.b)).
5. Availability:
From the files of:
a. International Niagara Committee, 536 South Clark Street, Chicago 5, Illinois; U. S. Army Engineer District, Buffalo, New York; Department of Northern Affairs and Natural Resources, Ottawa, Canada.
b. International St. Lawrence Board of Control--U. S. Section, 536 South Clark Street, Chicago 5, Illinois.
6. Miscellaneous:
Data are reported as water used by all hydro-power companies and water used by individual hydro-power companies (see 5.a).
Total amount used by Alcoa (see 5.b).
Units are cubic feet per second, means for day, month, and year, except 5.a mean for day only.
Data are obtained in cooperation with Department of Northern Affairs and Natural Resources, Hydro-Electric Power Commission of Ontario, Niagara Mohawk Power Company (see 5.a), and Alcoa (see 5.b).

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1. Source: Corps of Engineers, North Central Division, Chicago District, Illinois.
2. Schedule: Regularly, daily, 1896-1958.
3. Scope: Limited geographically to Fox River, Wisconsin.
4. Program: Data are collected by an established collection system--Rapids Croche Dam--as needed for specific projects.
5. Availability:
Published reports:
USGS Annual Water Supply Papers.
Other:
Available in Chicago District Office, Corps of Engineers.
6. Miscellaneous:
Data are reported as use by individual user.
Units are cubic feet per second.

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1. Source: Corps of Engineers, Southwestern Division, Fort Worth District, Texas.
2. Schedule: Regularly, hourly, and daily, 1953-1958.
3. Scope: Limited to Whitney Dam, Texas.
4. Program: Data are collected by an established collection system--powerhouse personnel--as a part of a regular program having other than data collection objectives--power plant operation.
5. Availability:
In records at district office.

6. Miscellaneous:

Data are reported as water use by the Whitney Power Plant.
Units are acre-feet.

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1. Source: Corps of Engineers, Missouri River Division, Garrison District, North Dakota.
 2. Schedule: Regularly, hourly, 1943-1958, Ft. Peck Dam; 1956-1958, Garrison Power Plant.
 3. Scope: Limited to operation of Corps of Engineers power plants in the Garrison District.
 4. Program: Data are collected by established collection systems at each power plant, as a routine part of a regular program having other than data collection objectives.
 5. Availability: Unpublished information in district offices:
Power plant daily operation report.
Power plant daily river control report.
Monthly summary of hydro-plant operation.
Charts of recording flow meters.
Charts from total flow meters.

6. Miscellaneous:

Data are reported as hourly, daily, and monthly flow through each power turbine.
Units are hour-second-feet on river control report and flow recorder charts; day-second-feet on operation report; acre-feet on monthly summary report.
Source of supply is reported.

-
1. Source: Corps of Engineers, North Central Division, Lake Survey District, Detroit, Michigan.
 2. Schedule: Regularly, monthly:
1893-1958 (see 5.a) 1954-1958 (see 5.d)
1860-1958 (see 5.b) 1939-1958 (see 5.e)
1909-1958 (see 5.c) 1952-1958 (see 5.f)
 3. Scope: Limited geographically to Great Lakes region.
 4. Program: Data are collected by established collection systems (Engineer District; Hydro-Electric Power Commission of Ontario; Canadian Government; private companies) for specific project-forecasting and regulating lake levels, as a part of a basic-data-gathering program.
 5. Availability: Published reports:
 - a. "Noble and Woodards Report on Lake Superior Regulations".
 - b. "Monthly Report of Flow Over Niagara Falls and Diversion From Niagara Falls and Welland Canal", International Niagara Committee.
 - c. "Average Diversion From St. Lawrence River Power Company Canal", letter report from the St. Lawrence River Power Company.
 - d. "Monthly Diversions Through Cornwall Canal", Water Resources Branch, Canada.

Corps of Engineers, Lake Survey District (continued)

5. Availability (continued)

- e. "Monthly Diversions From Albany River Basin", letter report from Canadian member, International Lake Superior Board of Control.
- f. "Monthly Mean Diversion in the Great Lakes System Above Cornwall, Canada", U. S. Lake Survey Report.

6. Miscellaneous:

Data are reported as use by individual user.
Units are cubic feet per second.
Source of supply is reported.
Data in 5.a, b, c, and e are included in 5.f.

-
- 1. Source: Corps of Engineers, Southwestern Division, Little Rock District, Arkansas.
 - 2. Schedule: Regularly, daily, 1944-1958, Norfolk Reservoir; 1952-1958 Bull Shoals Reservoir.
 - 3. Scope: Limited geographically to Little Rock District.
 - 4. Program: Data are collected by an established collection system--powerhouse personnel--as needed for specific projects.
 - 5. Availability: In records at district office.

6. Miscellaneous:

Data are reported for individual hydro-power projects.
Units are average cubic feet per second per day.

-
- 1. Source: Corps of Engineers, South Atlantic Division, Mobile District, Alabama.
 - 2. Schedule: Regularly, daily, 1950-1958, Allatoona Reservoir; 1957-1958 Jim Woodruff and Buford Reservoirs.
 - 3. Scope: Limited to specific phase of agency's activity; Corps of Engineer multi-purpose reservoirs with hydro-power facilities in the Mobile District.
 - 4. Program: Data are collected by an established collection system--powerhouse personnel at three dams--as a routine part of a regular program having other than data collection objectives.
 - 5. Availability: From copies of daily reports prepared by the powerhouse superintendent.

6. Miscellaneous:

Data are reported as use by individual power plants.
Source of supply is reported.

-
- 1. Source: Corps of Engineers, Ohio River Division, Nashville District, Tennessee.
 - 2. Schedule: Regularly, daily, since start of power operations:
1948-1958, Dale Hollow 1952-1958, Wolf Creek
1950-1958, Center Hill 1957-1958, Old Hickory

Corps of Engineers, Nashville District (continued)

3. Scope: Limited geographically to Cumberland River Basin.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability:
 - Published reports:
 - "Operation of TVA Reservoirs", annual report containing daily reservoir elevation, storage volume, and discharge.
 - Other:
 - Records maintained at project and district offices.
 6. Miscellaneous:
 - Data are reported as use by individual user in category.
 - Units are cubic feet per second for average day or day-second-feet.
-

1. Source: Corps of Engineers, North Atlantic Division, Norfolk District, Virginia.
 2. Schedule: Regularly, 1953-1958, Philpott Reservoir; 1952-1958, John H. Kerr Reservoir.
 3. Scope: Limited geographically to Philpott and John H. Kerr Reservoirs.
 4. Program: Data are collected by established collection systems--Philpott and John H. Kerr Reservoirs--as a routine part of a regular program having other than data collection objectives.
 5. Availability:
 - a. Published reports:
 - USGS Water Supply Papers
 - b. Other:
 - Records at Norfolk District Office.
 6. Miscellaneous:
 - Data are reported for each dam as total daily discharges in 5.a and as hourly discharges in 5.b.
 - Units are cubic feet per second.
 - Source of supply is reported.
-

1. Source: Corps of Engineers, Missouri River Division, Omaha District, Nebraska.
2. Schedule: Regularly, hourly, 1953-1958, Ft. Randall Dam; 1956-1958, Gavins Point.
3. Scope: Limited to specific phase of agency's activity--reservoir regulations.
4. Program: Data are collected by established collection systems, by operating personnel at Ft. Randall and Gavins Point Dams, as needed for specific projects.
5. Availability:
 - As operation reports at dam sites and Omaha District Office.
6. Miscellaneous:
 - Data are reported as gross use by all users in category.
 - Units are cubic feet per second.

Department of the Army (continued)

1. Source: Corps of Engineers, Ohio River Division, Pittsburgh District, Pennsylvania.
 2. Schedule: Regularly, daily, 1950-1958, Deep Creek Reservoir; 1955-1958, Piney Reservoir.
 3. Scope: Limited geographically to Deep Creek and Piney Reservoirs.
 4. Program: Data are collected by an established collection system--monthly reports from the Pennsylvania Electric Company--as a part of a basic-data-gathering program.
 5. Availability: District office files.
 6. Miscellaneous: Data are reported as use by individual power plant for power generation.
Units are million cubic feet per day.
-
1. Source: Corps of Engineers, North Pacific Division, Portland District, Oregon.
 2. Schedule: Regularly, hourly, 1953-1957.
 3. Scope: Limited to Corps of Engineers multi-purpose dams and reservoirs in Willamette River Basin and Lower Columbia River Plants at Bonneville and The Dalles.
 4. Program: Data are collected by an established collection system--Corps of Engineers field offices--as a routine part of a regular program having other than data collection objectives--daily operation.
 5. Availability: Office records, Corps of Engineers, Portland District Office.
 6. Miscellaneous: Data are reported as water use for the generation of power.
Units are cubic feet per second.
Data are obtained in cooperation with Bonneville Power Administration.
-
1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
 2. Schedule: Once only, 1940-1945.
 3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.
 4. Program: Data are collected by field studies and surveys, as needed for specific projects.
 5. Availability: Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer Committee, Red River Watershed.

Corps of Engineers, St. Paul District (continued)

6. Miscellaneous:

Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

1. Source: Corps of Engineers, South Atlantic Division, Savannah District, Georgia.

2. Schedule: Regularly, hourly, 1953-1958.

3. Scope: Limited to specific phase of agency's activity--Clark Hill Hydro-Electric Project.

4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.

5. Availability: Office of the District Engineer, Savannah, Georgia.

6. Miscellaneous:

Data are reported as use by individual user in category.
Units are cubic feet per second, maximum month, day, and hour.
Amount of water withdrawn is used for navigation downstream.
Data are collected in cooperation with other Federal agencies.

1. Source: Corps of Engineers, North Pacific Division, Seattle District, Washington.

2. Schedule: Regularly, hourly, 1955-1958, Albeni Falls and Chief Joseph Dams.

3. Scope: Limited to operation of Albeni Falls and Chief Joseph Dams.

4. Program: Data are collected by established collection systems--Albeni Falls and Chief Joseph Dams--as a routine part of a regular program having other than data collection objectives.

5. Availability: Basic files in district office.

6. Miscellaneous:

Data are reported for individual dams.
Units are cubic feet per second.

1. Source: Corps of Engineers, Southwestern Division, Tulsa District, Oklahoma.

2. Schedule: Regularly, daily, 1945-1958, Dennison Reservoir; 1950-1958, Ft. Gibson and Tenkiller Ferry Reservoirs.

3. Scope: Limited to Corps of Engineers reservoirs with hydro-power functions in the Tulsa District.

4. Program: Data are collected by an established collection system--stream gauging stations at Dennison, Ft. Gibson, and Tenkiller Ferry Reservoirs--as part of a basic-data-gathering program.

Corps of Engineers, Tulsa District (continued)

5. Availability:

Published reports:

"Surface Water Supply of the U. S.", Part 7, USGS.

6. Miscellaneous:

Data are reported as gross use.

Units are cubic feet per day.

Discharge records and power logs must be analyzed to determine amount of water used for power generation.

Data published by USGS.

1. Source: Corps of Engineers, Lower Mississippi Valley Division, Vicksburg District, Mississippi.

2. Schedule: Regularly, at regular intervals throughout the year, 1950-1958.

3. Scope: Limited to specific phase of agency's activities--operation of multi-purpose reservoirs, Narrows and Blakely Mountain Reservoirs.

4. Program: Data are collected by field studies and surveys, as part of a basic-data-gathering program.

5. Availability:

Published reports:

"Surface Water Supply of the U. S.", Part 7, USGS.

"Stages and Discharges--Mississippi River and Tributaries", Mississippi River Commission.

"Stages and Discharges--Mississippi River and Tributaries", U. S. Army Engineers District, Vicksburg.

6. Miscellaneous:

Data are reported as use at each dam.

Units are cubic feet per second.

Source of supply is reported.

1. Source: Corps of Engineers, North Pacific Division, Walla Walla District, Washington.

2. Schedule: Regularly, hourly, 1955-1958.

3. Scope: Limited to specific activity--power production.

4. Program: Data are collected by field studies and surveys, as needed for specific projects.

5. Availability:

On file at McNary Project Office and Walla Walla District Office.

6. Miscellaneous:

Data are reported as use by individual user.

Units are cubic feet per second.

TENNESSEE VALLEY AUTHORITY

1. Source: Division of Water Control Planning, Hydraulic Data Branch, Knoxville, Tennessee.

Division of Water Control Planning, Hydraulic Data Branch (continued)

2. Schedule: Regularly, hourly.
3. Scope: Limited to Tennessee and Cumberland River Basins.
4. Program: Data are collected by established collection systems at 33 projects, as part of a basic-data-gathering program.
5. Availability:
 - Published reports:
 - "Operations of TVA Reservoirs", annual calendar years 1947-1957.
 - "TVA Reservoir Elevations and Storage Volumes", annual water years 1945-1946.
 - Other:
 - Data prior to 1945 available in files.
6. Miscellaneous:
 - Data are reported as water use by each dam.
 - Units are day-second-feet.
 - Source of supply is reported.

DEPARTMENT OF THE INTERIOR

1. Source: Bureau of Reclamation, Region I, Boise, Idaho.
2. Schedule: Regularly, daily.
 - 1953-1958 (see 3.a through f).
 - 1956-1958 (see 3.g).
 - 1957-1958 (see 3.h).
3. Scope: Limited to power generation operations:
 - a. Grand Coulee Power Plant, Washington.
 - b. Hungry Horse Power Plant, Montana.
 - c. Minidoka Power Plant, Idaho.
 - d. Anderson Ranch Power Plant, Idaho.
 - e. Black Canyon Power Plant, Idaho.
 - f. Boise River Power Plant, Idaho.
 - g. Chandler Power Plant, Idaho.
 - h. Palisades Power Plant, Idaho.
4. Program: Data are collected by established collection systems, as a routine part of power plant operations.
5. Availability: Unpublished Bureau of Reclamation records.
6. Miscellaneous:
 - Data are reported as gross use at each power plant for generation.
 - Units are cubic feet per second.

-
1. Source: Bureau of Reclamation, Region VI, Billings, Montana.
 2. Schedule: Regularly, daily.
 3. Scope: Limited to specific areas:
 - Montana:
 - Billings Canyon Ferry Dam
 - Wyoming:
 - Cody Boysen and Buffalo Bill Dams
 - Riverton Bull Lake and Pilot Butte Dams

Bureau of Reclamation, Region VI (continued)

4. Program: Data are collected by established collection systems--five power projects--as a routine part of a regular program having other than data collection objectives.
5. Availability: In project histories and project office files.
6. Miscellaneous: Data are reported as gross water use for power generation at each dam. Units are cubic feet per second and acre-feet.

-
1. Source: Bureau of Reclamation, Region VII, Denver, Colorado.
 2. Schedule: Regularly, continuous recorder.
 3. Scope: Limited to specific area:
Colorado Big Thompson and Willow Creek Pump Canal junction,
Loveland, Colorado.
 4. Program: Data are collected by an established collection system, as a routine part of a regular program having other than data collection objectives.
One recording station in Colorado Big Thompson Project.
 5. Availability: Records on file in project office.
 6. Miscellaneous: None.

-
1. Source: Geological Survey, Water Resources Division, Washington, D. C.
 2. Schedule: Regularly, 5-year intervals.
 3. Scope: Nationwide.
 4. Program: Data are collected by field studies and surveys, as a part of a basic-data-gathering program.
 5. Availability: Published reports:
"Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).
 6. Miscellaneous: Data are reported as gross use by all users.
Units are MGD and acre-feet per year.
Source of supply is reported.

F.2 POWER, THERMO

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
2. Schedule: Once only, 1940-1945.

Corps of Engineers, St. Paul District (continued)

3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.
4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability: Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.
6. Miscellaneous: Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

DEPARTMENT OF THE INTERIOR

1. Source: Bureau of Mines, Washington, D. C.
 2. Schedule: Regularly, 1933-1958.
 3. Scope: Data are collected from many Federal and industrial plants without relation to geographical distribution.
 4. Program: Data are collected for special projects, as part of a regular program having other than data collection objectives.
 5. Availability: Published reports and in the files of the Bureau of Mines, Washington, D. C.
 6. Miscellaneous: Data are reported as water used by individual plants.
Units are MGD.
Users' methods of treatment are reported.
-
1. Source: Geological Survey, Water Resources Division, Washington, D. C.
 2. Schedule: Regularly, 5-year intervals (see 5.a).
Once only (see 5.b).
 3. Scope: Nationwide (see 5.a).
Limited geographically to a drainage basin, part of a State, or other political subdivision (see 5.b).
 4. Program: Data are collected by field studies and surveys, as part of a basic-data-gathering program.
 5. Availability: Published reports:
 - a. "Estimated Use of Water in the U. S." (USGS Circulars 115 and 398, 1950 and 1955, respectively).
 - b. Two examples: USGS Water Supply Papers 1364 and 1414.

Geological Survey, Water Resources Division (continued)

6. Miscellaneous:

Data are reported as intake by all users.
Units are MGD and acre-feet per year.
Quality requirements are reported in 5.b.
Source of supply is reported.

TENNESSEE VALLEY AUTHORITY

1. Source: Division of Water Control Planning, Hydraulic Data Branch, Knoxville, Tennessee.
2. Schedule: Regularly, hourly.
3. Scope: Limited geographically to TVA power service area.
4. Program: Data are collected by established collection systems at 15 plants of the TVA system, as a routine part of a regular program having other than data collection objectives.
5. Availability: No direct data are kept, but water use can be computed from pump capacities and operations records of units.
6. Miscellaneous:
Data are reported as use by individual plants.
Units depend upon computation.
Source of supply is reported.

FEDERAL POWER COMMISSION

1. Source: Federal Power Commission, Washington, D. C.
2. Schedule: Periodically, as requested by other agencies.
3. Scope: Nationwide.
4. Program: Data are collected as part of a basic-data-gathering program.
5. Availability: Published reports:
"Water Requirements of Utility Steam Electric Generating Plants, 1954".
6. Miscellaneous:
Data are requested by geographic divisions and States giving total steam generated, percent coverage, total intake, discharge to ground, evaporation losses, amount re-circulated, kind of water, and source of supply.
The data are reported in million gallons per year and gallons per kilowatt-hour steam generation.

G. NAVIGATION

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, North Central Division, Buffalo District, New York.

Corps of Engineers, Buffalo District (continued)

2. Schedule: Regularly, monthly, and annually, 1927-1958, Welland Ship Canal; 1952-1958, New York Barge Canal. Irregularly, monthly, 1860-1927, Welland Ship Canal; 1860-1917, Old Erie Canal.
3. Scope: Limited to area of Welland Ship Canal, Ontario, and New York Barge Canal between the Niagara and Genessee Rivers. Limited to diversions of Niagara River flows. Limited by treaty of 1950 concerning Niagara River water uses.
4. Program: Data are collected by established collection systems--New York Barge Canal and Welland Ship Canal--as needed for compliance with the treaty of 1950.
5. Availability: Files of: International Niagara Committee; U. S. Army Engineers District, Buffalo, New York; Department of Northern Affairs and Natural Resources, Ottawa, Canada.
6. Miscellaneous: Data are reported as total water diverted by each canal. Units are cubic feet per second for the month. Data are obtained in cooperation with New York Department of Public Works; Department of Transport, Canada; and Department of Northern Affairs and Natural Resources, Canada.

-
1. Source: Corps of Engineers, North Central Division, Chicago District, Illinois.
 2. Schedule: Regularly, daily, 1896-1958.
 3. Scope: Limited geographically to Fox River, Wisconsin.
 4. Program: Data are collected by an established collection system--Rapids Croche Dam--as needed for specific projects.
 5. Availability: Published reports:
Annual USGS Water Supply Papers.
Other:
Available in the Chicago District Office, Corps of Engineers.
 6. Miscellaneous: Data are reported as use by individual user. Units are cubic feet per second.

-
1. Source: Corps of Engineers, South Atlantic Division, Jacksonville District, Florida.
 2. Schedule: Regularly, daily, 1934-1958, Oklawaha River; 1936-1958, Caloosahatchee River; 1941-1958, St. Lucie Canal.
 3. Scope: Limited geographically to Okeechobee Waterway and Oklawaha River.
 4. Program: Data are collected by established collection systems (St. Lucie Canal at lock near Stuart, Caloosahatchee River at Moorehaven and Ortona, and Oklawaha River at Moss Bluff), as a routine part of a regular program having other than data collection objectives.
 5. Availability: Log files maintained in the district office.
 6. Miscellaneous: Data are reported as use by individual user in category. Number of lockages and stages in feet are reported.

Department of the Army (continued)

1. Source: Corps of Engineers, North Central Division, Lake Survey District, Detroit, Michigan.
2. Schedule: Regularly, monthly:
1893-1958 (see 5.a) 1954-1958 (see 5.c)
1860-1958 (see 5.b) 1918-1958 (see 5.d)
3. Scope: Limited geographically to Great Lakes region.
4. Program: Data are collected by established collection systems, as part of a basic data program and for a specific project--regulation of lake levels.
5. Availability: Published reports:
 - a. "Noble and Woodards Report on Lake Superior Regulations", lockages at Soo Locks.
 - b. "Monthly Report of Flow Over Niagara Falls and Diversions From Niagara River and Welland Canal", International Niagara Committee.
 - c. "Monthly Diversions Through Cornwall Canal", Water Resources Branch, Canada.
 - d. "New York State Barge Canal", International Niagara Committee.
6. Miscellaneous:

Data are reported as use by individual users.
Units are cubic feet per second.
Source of supply is reported.

-
1. Source: Corps of Engineers, South Atlantic Division, Mobile District, Alabama.
 2. Schedule: Regularly, daily, 1957-1958.
 3. Scope: Limited to Jim Woodruff Dam.
 4. Program: Data are collected by an established collection system at Jim Woodruff Dam, as a routine part of dam operation.
 5. Availability: Copies of daily reports prepared by powerhouse superintendent.
 6. Miscellaneous:

Data are reported as water use for navigation.
Units are day-second-feet.

-
1. Source: Corps of Engineers, Lower Mississippi Valley Division, New Orleans District, Louisiana.
 2. Schedule: Regularly, daily, weekly, and semiweekly, 1939-1958.
 3. Scope: Limited to requirements for planning construction and operation of navigation projects.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives--planning construction and operation of navigation projects.

Corps of Engineers, New Orleans District (continued)

5. Availability:

Unpublished records in district office.

6. Miscellaneous:

Data are reported as gross use by navigation.

Units are flows in cubic feet per second or stage in feet.

Source of supply is reported.

1. Source: Corps of Engineers, Missouri River Division, Omaha District, Nebraska.

2. Schedule: Regularly, hourly, 1953-1958, Ft. Randall Dam; 1956-1958, Gavins Point Dam.

3. Scope: Limited to specific phase of agency's activity--reservoir regulation.

4. Program: Data are collected by established collection systems, as needed for specific projects.

5. Availability:

Operation reports at dam sites, Omaha District Office, Missouri Division Office, and Office, Chief of Engineers.

6. Miscellaneous:

Data are reported as gross use by all users in category.

Units are cubic feet per second.

1. Source: Corps of Engineers, Ohio River Division, Pittsburgh District, Pennsylvania.

2. Schedule: Regularly, 1938-1958.

3. Scope: Limited geographically to Tygart Reservoir in West Virginia.
Limited to water used for navigation.

4. Program: Data are collected by established collection systems, as a routine part of reservoir regulation computations.

5. Availability:

Computation files for Tygart Reservoir in district office.

6. Miscellaneous:

Data are computed as gross increase or decrease in stream flow.

Units are cubic feet per second, mean daily values.

1. Source: Corps of Engineers, North Pacific Division, Portland District, Oregon.

2. Schedule: Regularly, daily during low water season, 1953-1957.

3. Scope: Limited to specific project--Corps of Engineers multi-purpose dams and reservoirs in Willamette Basin and Lower Columbia River.

4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives--reservoir operation.

5. Availability:

Unpublished records in district office.

Corps of Engineers, Portland District (continued)

6. Miscellaneous:

Data are reported as water releases from reservoirs for multi-purpose use, including navigation.
Units are cubic feet per second.
Data obtained in cooperation with other Federal agencies.

1. Source: Corps of Engineers, North Central Division, Rock Island District, Illinois.

2. Schedule: Regularly, daily, 1878-1958.

3. Scope: Limited geographically to Clinton and Keokuk, Iowa.

4. Program: Data are collected by an established collection system--Corps of Engineers, Rock Island District--as part of a basic data collection program.

5. Availability:

Published reports:
"Surface Water Supply of the U. S.", Part 5, USGS.

6. Miscellaneous:

Data are reported as daily Mississippi River discharge.
Units are cubic feet per second for daily average, maximum daily, minimum daily, and maximum monthly flows; also, mean monthly in cubic feet per second per mile and total monthly runoff in inches over the watershed.
Source of supply is reported.
Data are gathered in cooperation with USGS.

1. Source: Corps of Engineers, South Atlantic Division, Savannah District, Georgia.

2. Schedule: Regularly:

Recording gauge and twice a day, 1925-1933.
Recording gauge, 1933-1953
Hourly, 1953-1958.

3. Scope: Limited geographically to the Savannah River at Augusta, Georgia.

4. Program: Data are collected by established collection systems--5th Street and 13th Street Gauges at Augusta and the new Savannah Bluff Lock and Dam below Augusta (all on the Savannah River)--as a routine part of a regular program having other than data collection objectives.

5. Availability:

Published reports:
January 1925-June 1933, published in House Document 64 on the Savannah River, Georgia, South Carolina, and North Carolina, dated January 1935.
"Surface Water Supply of the U. S.", 1938-1958, USGS.

Other:
1933-1938, office of the District Engineer, Savannah, Georgia.

6. Miscellaneous:

Data are reported as gross use by all users in category.
Units are cubic feet per second.

Department of the Army (continued)

1. Source: Corps of Engineers, North Pacific Division, Seattle District, Washington.
 2. Schedule: Regularly, daily, 1916-1958.
 3. Scope: Limited to lockages at Hiram M. Chittenden Locks.
 4. Program: Data are collected by established collection systems, as needed for specific projects--water requirements at the locks.
 5. Availability: Unpublished records in district office.
 6. Miscellaneous:
Data are reported as use by locks.
Units are acre-feet.
-

1. Source: Corps of Engineers, North Pacific Division, Walla Walla District, Washington.
2. Schedule: Regularly, hourly, 1954-1958.
3. Scope: Limited to specific phases of agency's activities--water requirements for navigation on Columbia River below McNary Project.
4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability: Log sheets at McNary Project and at Walla Walla District Office.
6. Miscellaneous:
Data are reported as gross use.
Units are cubic feet per second.
Not all water measured is actually used for navigation.

TENNESSEE VALLEY AUTHORITY

1. Source: Division of Water Control Planning, Hydraulic Data Branch, Knoxville, Tennessee.
2. Schedule: Regularly, daily, 1947-1958.
3. Scope: Limited geographically to Tennessee River Basin.
4. Program: Data are collected by established collection systems at nine Tennessee River dams, as a routine part of a regular program having other than data collection objectives.
5. Availability: Published reports:
"Operation of TVA Reservoirs", annually, 1947-1957.
"TVA Reservoir Elevations and Storage Volumes", water years 1936-1946.
6. Miscellaneous:
Data are reported as gross use.
Units are cubic feet per second per day.
Source of supply is reported.

H. POLLUTION ABATEMENT

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, Ohio River Division, Pittsburgh District, Pennsylvania.
 2. Schedule: Regularly, mean daily values:
1943-1958, Berlin Reservoir.
1944-1958, Mosquito Reservoir.
1944-1958, Youghiogheny Reservoir.
1952-1958, East Branch Clarion Reservoir.
 3. Scope: Limited to specific reservoirs listed under 2, above.
Limited to water used for pollution abatement and low flow control.
 4. Program: Data are collected by established collection systems, as a routine part of reservoir regulation computations.
 5. Availability: Computation files of the district office for respective reservoirs.
 6. Miscellaneous: Data are computed as gross increase or decrease in natural stream flow.
Units are cubic feet per second per day.
-
1. Source: Corps of Engineers, North Pacific Division, Portland District, Oregon.
 2. Schedule: Regularly, daily during low water season, 1941-1957.
 3. Scope: Limited to Corps of Engineers multi-purpose dams in Willamette River Basin.
 4. Program: Data are collected by established collection systems (Corps of Engineers field offices, U. S. Weather Bureau stream gauging stations, and USGS stream gauging stations), as a routine part of a regular program having other than data collection objectives--reservoir operation.
 5. Availability: Unpublished records in district office.
 6. Miscellaneous: Data are reported as water releases from reservoirs for multi-purpose use, including pollution abatement.
Units are cubic feet per second.
Source of supply is reported.
Data obtained in cooperation with other Federal agencies.
-
1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
 2. Schedule: Once only, 1940-1945.
 3. Scope: Limited geographically to Red River of the North Watershed.
Limited to specific phase of agency's activity.
Water supply studies for flood control surveys.
Water use survey for International Joint Commission.

Corps of Engineers, St. Paul District (continued)

4. Program: Data are collected by field studies and surveys, as needed for specific projects.
5. Availability:
Published reports:
House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.
6. Miscellaneous:
Data are reported as aggregate and individual use.
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

-
1. Source: Corps of Engineers, Southwestern Division, Tulsa District, Oklahoma.
 2. Schedule: Regularly, daily, 1950-1958.
 3. Scope: Limited to specific projects--Corps of Engineers reservoirs with a pollution abatement function.
 4. Program: Data are collected by established collection systems at Fall River, Kansas, and Hullah, Oklahoma, as part of a basic-data-gathering program.
 5. Availability:
Published reports:
"Surface Water Supply of the U. S.", Part 7, USGS.
 6. Miscellaneous:
Data are reported as gross use.
Units are cubic feet per day.
Source of supply is reported.
Discharge records and gate logs of dams must be analyzed to determine amount of water released for pollution abatement and supplemental water supply purposes.
Data are published by USGS.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

1. Source: Public Health Service, Division of Water Supply and Pollution Control, Washington, D. C.
2. Schedule: a. Irregularly
b. When required.
3. Scope: Nationwide (see 2.a and 5.a.(1), (2), and (3)).
Special studies limited geographically to specific areas (see 2.b and 5.b.(1)).
4. Program: Data are collected by established collection systems and by field studies and surveys, as a part of a basic-data-gathering program.
5. Availability:
a. Published reports:
(1) "Inventory of Water and Sewage Facilities in the U. S.", 1945.
(2) "Inventory of Municipal and Industrial Waste Facilities", 1953-1956 and listed by States.
(3) "Inventory of Municipal and Industrial Waste Facilities", 1957.

5. Availability (continued)

b. Unpublished reports:

- (1) Special study data are available in files.

6. Miscellaneous:

Type of waste treatment and volume of waste discharge is reported (see 5.a.(1), (2), and (3)).

Volume of water required for pollution abatement is reported in special studies (see 5.b.(1)).

I. RECREATION, FISH AND WILDLIFE

DEPARTMENT OF THE ARMY

1. Source: Corps of Engineers, Missouri River Division, Omaha District, Nebraska.
2. Schedule: Regularly, daily, 1953-1958.
3. Scope: Limited to specific phase of agency's activity--reservoir regulation.
4. Program: Data are collected by established collection systems, as needed for a specific project--Coldbrook Reservoir.
5. Availability: Reservoir regulation reports, Omaha District.
6. Miscellaneous: Data are reported as outflow from Coldbrook Reservoir. Units are cubic feet per second.

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1. Source: Corps of Engineers, North Pacific Division, Portland District, Oregon.
 2. Schedule: Regularly, daily, 1941-1957.
 3. Scope: Limited to Corps of Engineers dams in Willamette River Basin.
 4. Program: Data are collected by established collection systems (Corps of Engineers field offices, U. S. Weather Bureau stream gauging stations, and USGS stream gauging stations), as a routine part of a regular program having other than data collection objectives--reservoir operation.
 5. Availability: Office records at Corps of Engineers, U. S. Weather Bureau, and USGS.
 6. Miscellaneous: Data are reported as water released in the interest of the preservation of fish life and recreation. Units are cubic feet per second. Source of supply is reported. Data are obtained in cooperation with State and Federal agencies.

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1. Source: Corps of Engineers, North Central Division, St. Paul District, Minnesota.
 2. Schedule: Once only, 1940-1945.
 3. Scope: Limited geographically to Red River of the North Watershed. Limited to specific phase of agency's activity. Water supply studies for flood control surveys. Water use survey for International Joint Commission.
 4. Program: Data are collected by field studies and surveys, as needed for specific projects.

Corps of Engineers, St. Paul District (continued)

5. Availability:

Published reports:

House Document 185, 81st Congress, 1st Session, Appendix M.
Water Use Survey, International Souris--Red River Engineer
Committee, Red River Watershed.

6. Miscellaneous:

Data are reported as aggregate and individual use:
Units are partly gallons per day, partly acre-feet per year;
ultimately converted to cubic feet per second.
Net use, water treatment, waste treatment or lack thereof, quality
requirements, re-use, and source of supply are reported.

1. Source: Corps of Engineers, North Pacific Division, Seattle District, Washington.

2. Schedule: Regularly, daily, 1916-1958.

3. Scope: Limited to specific activity--operation of fish ladder at Hiram M.
Chittenden Locks in Washington.

4. Program: Data are collected by established collection systems, as needed for
specific projects--water requirements at the locks.

5. Availability:

Unpublished records in district office.

6. Miscellaneous:

Data are reported as use at locks.
Units are acre-feet.

1. Source: Corps of Engineers, North Pacific Division, Walla Walla District,
Washington.

2. Schedule: Regularly, hourly, 1954-1958.

3. Scope: Limited to specific activity--water supply needed for fish migration
and preservation.

4. Program: Data are collected by field studies and surveys, as needed for
specific projects.

5. Availability:

At McNary Project Office.

6. Miscellaneous:

Data are reported as use by individual user.
Units are cubic feet per second.
Net use, re-use, and source of supply are reported.

J. FEDERAL INSTALLATIONS (WATER SUPPLIES)

DEPARTMENT OF THE AIR FORCE

1. Source: Deputy Chief of Staff for Operations, Division of Civil Engineering,
Washington, D. C.

2. Schedule: Regularly, monthly reports of daily data, 1942-1958.
Irregularly, private contractors operating Department of the Air
Force plants do not report regularly.
Once only, fiscal year 1955.

3. Scope: Nationwide and overseas.

Deputy Chief of Staff for Operations, Division of Civil Engineering (continued)

4. Program: Data are collected by established collection systems--monthly operational logs at each installation--as a routine part of a regular program having other than basic-data-gathering objectives.
5. Availability:
 - Published reports:
 - "Water Supply Data of the Military Installations in the U. S. and Territories for Fiscal Year 1955".
 - Other:
 - Data not available by other means.
6. Miscellaneous:
 - Data are reported as water use by each individual installation water supply.
 - Units are thousand gallons.
 - Water treatment by user, waste treatment or lack thereof, and source of supply are reported.

DEPARTMENT OF THE ARMY

1. Source: Office of the Chief of Engineers, Assistant for Military Construction Repairs and Utilities Division, Washington, D. C.
2. Schedule: Regularly, monthly reports of daily and quarterly data (see 5.b), 1942-1958.
Once only, fiscal year 1955 (see 5.a).
3. Scope: Nationwide and overseas.
Department of the Army manufacturing plants operated by private contractors do not report regularly.
4. Program: Data are collected by established collection systems, viz, major Army commanders and heads of the Army Department staff agencies (see 5.b), as a routine part of a regular program having other than data collection objectives.
Questionnaires were sent to all installations including Department of the Army owned plants operated by private contractors (see 5.a).
5. Availability:
 - a. Published reports:
 - "Water Supply Data of the Military Installations in the U. S. and Territories for the Fiscal Year 1955".
 - b. Other:
 - Requests through proper channels for specific information.
6. Miscellaneous:
 - Data are reported as water use by individual installation water supply system.
 - Units are gallons per average day, maximum day, and maximum month.
 - Water treatment, quality requirements, and source of supply are reported.
 - Waste treatment is available from similar reports of sewage treatment data.

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1. Source: Corps of Engineers, Missouri River Division, Omaha District, Nebraska.
 2. Schedule: Regularly, daily, 1948-1958.

Corps of Engineers, Omaha District (continued)

3. Scope: Limited geographically to Pickstown, South Dakota.
4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
5. Availability: Original records at Pickstown, South Dakota Area Office of Omaha District.
6. Miscellaneous:
 - Data are reported as total use.
 - Units are MGD.
 - Source of supply is reported.

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1. Source: Corps of Engineers, North Atlantic Division, Washington, D. C. District.
 2. Schedule: Regularly, daily, 1940-1958.
 3. Scope: Limited to Washington, D. C. area.
 4. Program: Data are collected by established collection systems, as a routine part of a regular program having other than data collection objectives.
 5. Availability: Manuscript tabulations filed in district office.
 6. Miscellaneous:
 - Data are reported as use by individual installation water supply system.
 - Units are MGD.
 - Water quality requirements and source of supply are reported.

DEPARTMENT OF THE NAVY

1. Source: Bureau of Yards and Docks, Utilities Division, Sanitary Engineering Branch, Washington, D. C.
2. Schedule: Regularly, monthly (see 5.b), 1942-1958.
Once only, fiscal year 1955 (see 5.a).
3. Scope: Nationwide and overseas.
4. Program: Data are collected by an established collection system by district and area public works officers on monthly operating logs (see 5.b), as a routine part of a regular program having other than data collection objectives.
Data were collected by questionnaire for 5.a.
5. Availability:
 - a. Published reports:
 - "Water Supply Data of the Military Installations of the U. S. and Territories for the Fiscal Year 1955".
 - b. Other:
 - Data not available by other means, but data on specific installations can be obtained on request through channels.

Bureau of Yards and Docks, Utilities Division (continued)

6. Miscellaneous:

Data are reported as use by individual installation water supply systems.

Units are gallons and gallons per capita per day.

Source of supply is reported.

Type of waste treatment, or lack thereof, is reported on separate forms.

DEPARTMENT OF THE INTERIOR

1. Source: Geological Survey, Water Resources Division, Washington, D. C.

2. Schedule: Once only by individual studies beginning in 1949.

3. Scope: Limited to industrial areas surrounding selected cities.

4. Program: Data are collected by field studies and surveys, as part of a basic-data-gathering program.

5. Availability:

Published reports:

List filed in agency office (see 1).

6. Miscellaneous:

Data are reported as intake by all users.

Units are MGD.

Source of supply is reported.