US Army Corps of Engineers ®
Northwestern Division

Missouri River Basin
Water Management Division

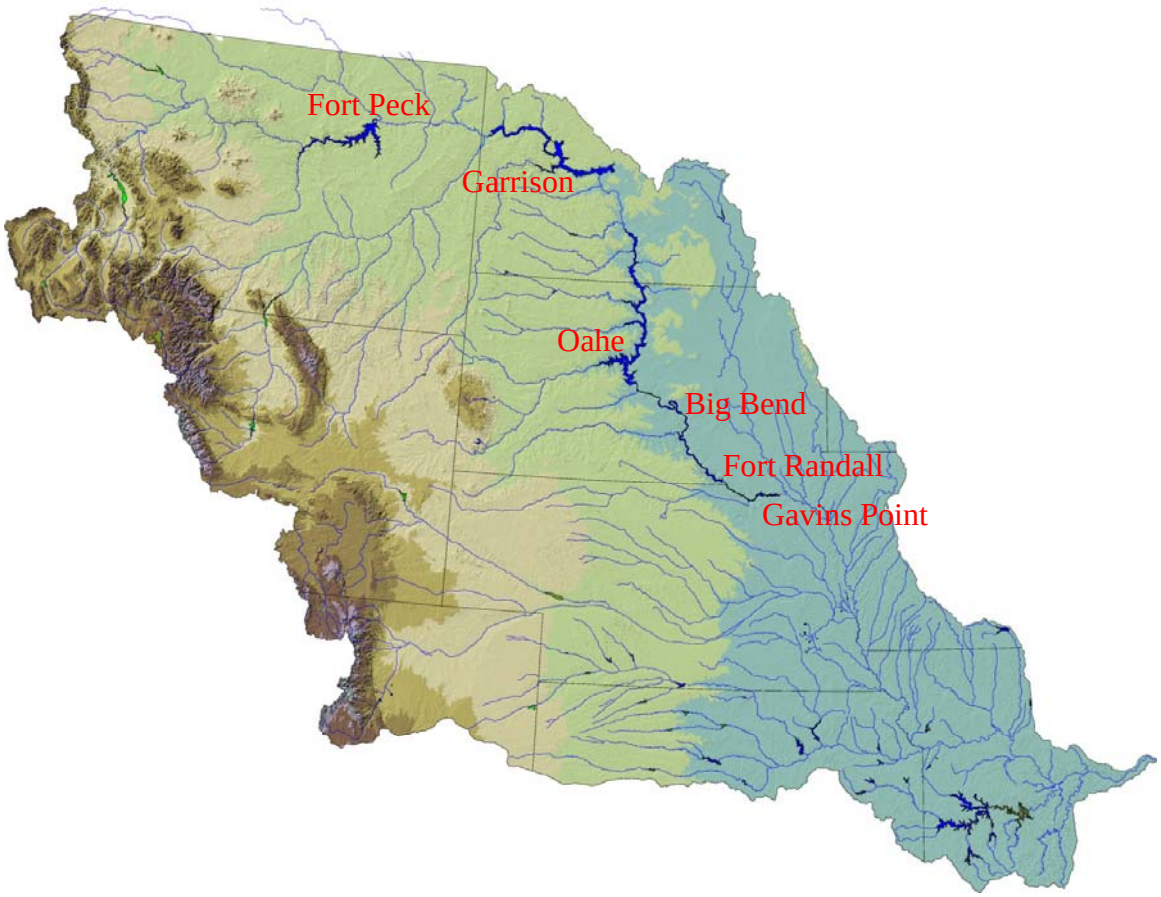
Final

AOP

2012-2013

Missouri River Mainstem System

2012-2013 Annual Operating Plan



Annual Operating Plan Process
60 Years Serving the Missouri River Basin

December 2012

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NORTHWESTERN DIVISION
PO BOX 2870
PORTLAND OR 97208-2870

14 DEC 2012

Dear Stakeholders and Concerned Citizens,

This Annual Operating Plan (AOP) presents the Corps of Engineers' regulation of the Missouri River Mainstem Reservoir System through December 2013. The information in this AOP is based upon water management guidelines designed to meet the reservoir regulation objectives of the 2006 Missouri River Master Water Control Manual (Master Manual). Management of the reservoir system is provided by my staff at the Missouri River Basin Water Management Division, Northwestern Division, U.S. Army Corps of Engineers, located in Omaha, Nebraska.

The AOP presents plans for the regulation of the reservoir system under widely varying water supply conditions. The AOP is not intended to be a forecast for the coming year; rather the guidelines included in the Master Manual are applied to computer simulations of the reservoir system regulation, assuming five statistically derived inflow scenarios based on an analysis of water supply records from 1898 to 2011. This approach provides a good range of water management simulation for dry, average, and wet conditions. The AOP provides a framework for the development of detailed monthly, weekly, and daily regulation schedules for the mainstem reservoir system's six individual dams during the upcoming year to serve its Congressionally-authorized project purposes.

A draft of this AOP was made available to the public in September 2012. Seven public meetings were held across the basin in late October and early November. As the 2013 runoff season unfolds, the Corps will continue to communicate more frequently and broadly. Monthly conference calls will be conducted beginning in January 2013 to continue coordination with Federal, state, county and local officials, Tribes, emergency management officials, independent experts and the press to discuss conditions on the ground and current Corps' reservoir release plans and forecasts.

Runoff into the Missouri River basin was below normal during 2012, decreasing water stored in the system of reservoirs. As a result, water conservation measures will be implemented to ensure service to all project purposes should drought conditions continue. We realize that the benefits provided by the reservoir system are vitally important to the Nation and the people who live and work in the Basin. We believe that the continued implementation of the Master Manual, and more specifically this AOP, will result in an appropriate balance of benefits provided to all of the people who rely on the reservoir system. Thank you for your interest in the regulation of the mainstem reservoir system.

Sincerely,

Anthony C. Funkhouser, P.E.
Colonel, Corps of Engineers
Division Commander

MISSOURI RIVER MAINSTEM RESERVOIR SYSTEM

Annual Operating Plan
2012 - 2013

TABLES

PLATES

ABBREVIATIONS

AOP	-	annual operating plan
ACHP	-	Advisory Council on Historic Preservation
AF	-	acre-feet
B	-	Billion
BiOp	-	Biological Opinion
BOR	-	Bureau of Reclamation
cfs	-	cubic feet per second
Corps	-	Corps of Engineers
CY	-	calendar year (January 1 to December 31)
elev	-	elevation
ESA	-	Endangered Species Act
ft	-	feet
FTT	-	Flow-to-Target
FY	-	fiscal year (October 1 to September 30)
GWh	-	gigawatt hour
ISAP	-	Independent Science Advisory Panel
KAF	-	1,000 acre-feet
kcfs	-	1,000 cubic feet per second
kW	-	kilowatt
kWh	-	kilowatt hour
MAF	-	million acre-feet
MRNRC	-	Missouri River Natural Resources Committee
msl	-	mean sea level
MW	-	megawatt
MWh	-	megawatt hour
NEPA	-	National Environmental Policy Act
plover	-	piping plover
PA	-	Programmatic Agreement
P-S MBP	-	Pick-Sloan Missouri Basin Program
RCC	-	Reservoir Control Center
RM	-	river mile
RPA	-	Reasonable and Prudent Alternative
SHPO	-	State Historic Preservation Officers
SR	-	Steady Release
System	-	Missouri River Mainstem System
tern	-	interior least tern
T&E	-	Threatened and Endangered
THPO	-	Tribal Historic Preservation Officers
USFWS	-	United States Fish and Wildlife Service
WY	-	water year
yr	-	year

DEFINITION OF TERMS

Acre-foot (AF, ac-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,850 gallons.

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute. The volume of water represented by a flow of 1 cubic foot per second for 24 hours is equivalent to 86,400 cubic feet, approximately 1.983 acre-feet, or 646,272 gallons.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded water.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Runoff in inches shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

MISSOURI RIVER MAINSTEM RESERVOIR SYSTEM

Annual Operating Plan
2012 – 2013

I. FOREWORD

This Annual Operating Plan (AOP) presents pertinent information and plans for regulating the Missouri River Mainstem Reservoir System (System) through December 2013 under widely varying water supply conditions. It provides a framework for the development of detailed monthly, weekly, and daily regulation schedules for the System's six individual dams during the coming year to serve the Congressionally authorized project purposes; to fulfill the Corps' responsibilities to Native American Tribes; and to comply with environmental laws, including the Endangered Species Act (ESA). Regulation of the System is directed by the Missouri River Basin Water Management Division, Northwestern Division, U. S. Army Corps of Engineers (Corps) located in Omaha, Nebraska. A map of the Missouri River basin is shown on ***Plate 1*** and the summary of engineering data for the six individual mainstem projects and System is shown on ***Plate 2***.

It is important to note that the AOP is not intended to be a forecast for the coming year; rather it examines a range of potential runoff scenarios which span 80 percent of the historic record. There is still a 10 percent chance that runoff will be higher than shown in the AOP and a 10 percent chance that it will be lower. The studies included in the AOP provide an array of reservoir levels and releases that may be expected under the various runoff scenarios. Actual real-time regulation of the System is done using the best information and tools available and is adjusted to respond to changing conditions on the ground. As the runoff season unfolds, there is a possibility that real-time regulation plans will indicate runoff volumes, reservoir levels and releases outside those anticipated in this report. Should that occur, the Corps will appreciably increase its communication and outreach efforts to convey that information to stakeholders throughout the basin so that other Federal, state and local agencies, Tribes, communities, and local residents can take appropriate actions.

This plan may require adjustments such as when substantial departures from expected runoff occur; to meet emergencies including short-term intrasystem adjustments to protect human health and safety, to maintain minimum river or reservoir levels to keep intakes operational during periods of extended drought, and to prevent loss of historic and cultural properties; or to meet the provisions of applicable laws, including the ESA. These adjustments would be made to the extent possible after evaluating impacts to all System uses, would generally be short term in nature and would continue only until the issue is resolved.

This document provides the plan for future regulation of the System. Other documents that may be of interest include the "System Description and Regulation" report dated November 2007 or the "Summary of Actual Calendar Year 2011 Regulation," dated July 2012. Both reports are currently available at the "Reports and Publications" link on our web site at: **www.nwd-mr.usace.army.mil/rcc**, or you may contact the Missouri River Basin Water Management Division at 1616 Capitol Avenue, Suite 365, Omaha, Nebraska 68102-4909, phone (402) 996-3841 for copies. The "Summary of Actual Calendar Year 2012 Regulation" will be available at the same site in late spring or early summer of 2013.

II. BACKGROUND AND AOP PROCESS

Beginning in 1953, projected System reservoir regulation for the year ahead was developed annually as a basis for advance coordination with the various interested Federal, State, and local agencies and private citizens. Also beginning in 1953, a coordinating committee was organized to make recommendations on each upcoming year's System regulation. The Coordinating Committee on Missouri River Mainstem Reservoir Operations held meetings semiannually until 1981 and provided recommendations to the Corps. In 1982, the Committee was dissolved because it did not conform to the provisions of the Federal Advisory Committee Act. Since 1982, to continue providing a forum for public participation, one or more open public meetings are held semiannually in the spring and fall. The fall public meetings are conducted to take public input on the Draft AOP, which typically is published in mid-September each year. The spring meetings are conducted to update the public on the current hydrologic conditions and projected System regulation for the remainder of the year as it relates to implementing the Final AOP.

Under the terms of Stipulation 18 of the March 2004 "Programmatic Agreement for the Operation and Management of the Missouri River Main Stem System for Compliance with the National Historic Preservation Act, as amended" (PA) the Corps has agreed to consult/meet with the affected Tribes and Tribal Historic Preservation Officers (THPO's), State Historic Preservation Officers (SHPO's), the Advisory Council on Historic Preservation (ACHP) and other parties on the Draft AOP. The purpose of this consultation/meeting is to determine whether operational changes are likely to cause changes to the nature, location or severity of adverse effects to historic properties or to the types of historic properties affected and whether amendments to the Corps Cultural Resources Management Plans and Five-Year Plan are warranted in order to better address such effects to historic properties. During 2006 the Corps worked with the affected Tribes to establish processes for consultation on AOPs under 36 CFR Part 800, the PA, and Executive Order 13175. The process consists of a series of informational meetings with the Tribes and/or government-to-government

consultation with Tribes, as requested. A letter, dated September 5, 2012, was sent to the Tribes offering consultation on the 2012-2013 AOP. Meeting times and locations of the six fall public meetings were also provided. Separate meetings will be scheduled for all Tribes requesting government-to-government consultation. All tribes, whether signatory to the PA or not, may request government-to-government consultation on this and all future AOPs. In addition, the Tribes have reserved water rights to the Missouri River and its major tributaries. In no way does this AOP attempt to define, regulate or quantify water rights or any other rights that the Tribes are entitled to by law or treaty.

The 2012 spring public meetings were held at the following locations and dates: April 16 at Fort Peck, Montana and Bismarck, North Dakota; April 17 at Pierre, South Dakota; April 18 at Omaha, Nebraska; April 19 at Jefferson City, Missouri and St. Joseph, Missouri; and April 20 at Sioux City, Iowa. The attendees were given an update regarding the outlook for 2012 runoff and projected System regulation for the remainder of 2012. Six fall public meetings were held on the Draft 2012-2013 AOP at the following locations: October 29 in Fort Peck, Montana; October 30 in Bismarck, North Dakota and Pierre, South Dakota; October 31 in Sioux City, Iowa; and November 1 in St. Joseph, Missouri and Columbia, Missouri. In the spring of 2013, public meetings will be held to discuss the basin's hydrologic conditions and the effects those conditions are expected to have on the implementation of the Final 2012-2013 AOP.

III. MAINSTEM MASTER MANUAL AND ESA CONSULTATIONS

The System is comprised of six dam and reservoir projects authorized by the Rivers and Harbors Act of 1935 and the Flood Control Act of 1944. Section 9 of the 1944 Flood Control Act authorized the System to be operated for the purposes of flood control, navigation, irrigation, hydropower, water supply, water quality control, recreation and fish and wildlife. In addition, operation of the System must also comply with other applicable Federal statutory and regulatory requirements, including the ESA. The System is regulated using guidelines published in the Master Manual. The Master Manual presents the water control plan and operational objectives for the integrated regulation of the System. Annual water management plans (Annual Operating Plans) are prepared each year, based on the water control criteria contained in the Master Manual, in order to describe potential reservoir regulation of the System for the current operating year under a variety of runoff conditions.

First published in 1960 and subsequently revised during the 1970s, the Master Manual was revised in March 2004 to include more stringent drought conservation measures. The 2003 Amendment to the 2000 Biological Opinion (2003 Amended BiOp), dated December 23, 2003, presented the USFWS' opinion that the regulation of the System would jeopardize the continued existence of the endangered pallid sturgeon. The USFWS provided a Reasonable and Prudent Alternative (RPA) to avoid jeopardy to

the pallid sturgeon that included a provision for the Corps to develop a plan to implement a bimodal spring pulse from Gavins Point Dam. Working with the USFWS, Tribes, states and basin stakeholders, the Corps developed technical criteria for the bimodal spring pulse releases. In March 2006 the Master Manual was revised to include technical criteria for a spring pulse. Neither the 2004 nor the 2006 revisions to the Master Manual changed the volume of storage in the system reserved for flood risk reduction or the manner in which it is regulated. The Corps does not store water in the reservoirs specifically for the endangered species and the Master Manual storage allocations were not altered to facilitate the spring pulses. In years when water is released for endangered species, reservoir storage levels are not adjusted.

Current regulation of the System in accordance with the Master Manual to serve authorized project purposes is dependent on successful implementation of the 2003 Amended BiOp. Implementation of the RPA elements is accomplished through the Missouri River Recovery Program (MRRP) which includes the following elements: habitat construction including emergent sandbar habitat and shallow water habitat, flow modifications, propagation/hatchery support, research, monitoring and evaluation, and adaptive management. Simply put, the Corps must comply with environmental laws including the ESA, and the MRRP is the vehicle used to accomplish this. This AOP identifies flow modifications at Garrison, Fort Randall and Gavins Point for the benefit of the interior least tern and the piping plover while maintaining flood control and navigation as primary authorized purposes.

On November 30, 2011 the Missouri River Recovery Program Independent Science Advisory Panel (ISAP) released its Final Report on Spring Pulses and Adaptive Management. This report, commissioned by the Missouri River Recovery Implementation Committee (MRRIC), evaluated the pulses that have been implemented to date in regards to the biological outcomes the USFWS sought in the 2003 Amended BiOp. The ISAP concluded that spring pulses as currently implemented are not accomplishing their intended outcomes and provided recommendations towards achieving a new management paradigm for the Missouri River.

Based on this report, the Corps and USFWS agree that aggressive pursuit of completing the recommendations laid out by the ISAP is the best path forward to continue ensuring we are using available scientific data to achieve the intent of the 2003 Amended BiOp and species recovery. Accordingly, while this is being pursued, the agencies believe it is prudent to forego a spring pulse during the 2013 Missouri River operating season and that this suspension is not likely to have an adverse effect on the listed species.

Additional information on other efforts undertaken through the Missouri River Recovery Program to meet the requirements of the 2003 Amended BiOp can be found in the Annual Report on the Biological Opinion which can be found on the "MRRP

Documents" page of the Recovery Program website at: www.moriverrecovery.org. The ISAP report is also available at this website.

IV. POST-2011 FLOOD STATUS

The historic flood of 2011 was unprecedented in both magnitude and duration and severely impacted many communities, homeowners, farmers and businesses in the Missouri River basin. Following the flood, the Corps committed to working with stakeholders throughout the region to best prepare the basin for the 2012 runoff season. As part of that commitment, the Corps maintained a flexible posture through the fall and winter of 2011-2012 and with favorable weather conditions was able to evacuate some additional water from the reservoir system. Still, the system was vulnerable going into the 2012 runoff season. Initial repairs on dams and levees were completed by 1 March; however, more extensive repairs were necessary to restore the system to pre-flood conditions. Additional levee repairs are on-going and are expected to be completed by April 2013. The completion date for the mainstem dam repairs is estimated to be March 2014.

The Corps communicated more broadly and frequently in 2012 holding twice monthly conference calls from January to June with Federal, state, county and local officials, Tribes, emergency management officials, independent experts and the media to discuss conditions on the ground and the current release plans and forecasts. Recordings of the conference calls were made available to the public through the Corps' website. Outreach calls will be re-initiated in January 2013 or as-needed if basin and/or weather conditions change dramatically.

As noted in the 2011-2012 AOP, the U.S. Army Corps of Engineers, Northwestern Division, enlisted the assistance of an independent panel of experts in meteorology, hydrology, streamflow forecasting and reservoir system operations to review, analyze and assess the Corps' operation of the six mainstem dams along the Missouri River leading up to, and during the flood of 2011. The panel's report entitled "Review of the Regulation of the Missouri River Mainstem Reservoir System During the Flood of 2011," dated December 2011, is available on the Corps' website. The report included recommendations for improvement, some of which have already been implemented or can be implemented in a short time-frame; others may require detailed analysis and implementation could require a formal stakeholder process.

In particular, using data through 2011, the Corps is updating a number of technical reports used in the regulation of the reservoir system. The "Missouri River Stage Trends" report has been completed and is posted on the Corps' website. Additional reports include runoff volumes for AOP studies, hydrologic statistics, long-term runoff forecasting, and incremental runoff below the system. As part of long-term runoff forecasting the Corps is also conducting an analysis to examine the relationship of

hydrologic factors as they relate to plains snowmelt. The Corps continues to collaborate with other Federal, state and local agencies and our field offices to improve runoff forecasts, particularly as it relates to plains snowpack. This will require a collaborative effort to improve both data collection (i.e. plains snowpack water equivalent, soil moisture and frost depth) and hydrologic modeling. A proposal for the Missouri River basin plains snow and basin condition network is being prepared by subject matter experts from various Federal and State agencies. This proposal will outline timelines, costs and agency responsibilities. The Water Management office continues to participate in a variety of regional and national climate change teams. The National Oceanic and Atmospheric Administration (NOAA) is also collaborating with the Corps and other agencies on a two-part study. The first part is a climate attribution effort focusing on the 2011 event. The second part is an assessment of the skill and reliability of predictions of seasonal climate and the ability to predict rapid transitions of cycles from wet to dry and dry to wet.

In April 2012 the Corps released a report entitled "Post 2011 Flood Event Analysis of Missouri River Mainstem Flood Control Storage". The analysis investigated whether additional flood control storage may improve flood risk reduction for storms equal to and greater than the 2011 flood event. The analysis included a limited investigation of the potential impacts to other authorized project purposes. The report showed that even if the reservoir system had an additional 4.6 MAF of flood control storage, significant flooding could not have been prevented. The report is available on the Corps' website.

V. FUTURE RUNOFF: AUGUST 2012 - DECEMBER 2013

Runoff into the six System reservoirs is typically low and relatively stable during the August-to-February period. The August 1 calendar year runoff forecast is used as input to the Basic reservoir regulation simulation in the AOP studies for the period August 2012 to February 2013. The August 1 runoff forecast for 2012 was 21.0 million acre-feet (MAF). Two other runoff scenarios based on the August 1 runoff forecast were developed for the same period. These are the Upper Basic and Lower Basic simulations, which are based on 120 percent and 80 percent of the September through February runoff forecast, respectively.

Simulations for the March 1, 2013 to February 28, 2014 time period use five statistically derived inflow scenarios based on an analysis of historic water supply. The inflow scenarios used in this Draft AOP were updated to include 5 additional years of inflow data that now extends from 1898 to 2011. The report detailing the development of these updated inflow scenarios, entitled "Runoff Volumes for Annual Operating Plan Studies," will be finalized early in 2013 and will be available on the Corps' website. The updated analysis incorporates the recent series of wet years including 2010, which was

the fourth wettest year on record, and 2011, which was the wettest year on record. The updated analysis will also add two runoff scenarios, one each at the upper and lower end, to span 96 percent of the historic record. Using statistically derived inflow scenarios for the AOP provides a good range of simulation for dry, average, and wet conditions, and eliminates the need to forecast future precipitation months in advance, which is very difficult. In contrast, real-time regulation of the System is based on all available and relevant hydrometerological information including, but not limited to observed runoff volumes, National Weather Service short and long-range outlooks, plains and mountain snowpack data, observed base flows, soil moisture and frost depths.

The five statistically derived inflows used in the AOP are identified as the Upper Decile, Upper Quartile, Median, Lower Quartile and Lower Decile runoff conditions. Upper Decile runoff (34.5 MAF) has a 1 in 10 chance of being exceeded, Upper Quartile (30.6 MAF) has a 1 in 4 chance of being exceeded, and Median (24.6 MAF) has a 1 in 2 chance of being exceeded. Lower Quartile runoff (19.3 MAF) has a 1 in 4 chance of the occurrence of less runoff, and Lower Decile (16.1 MAF) has a 1 in 10 chance of the occurrence of less runoff. There is still a 20 percent chance that a runoff condition may occur that has not been simulated; i.e., a 10 percent chance runoff could be lower than Lower Decile and a 10 percent chance runoff could be greater than Upper Decile.

Two additional runoff volumes which will be included in the updated "Runoff Volumes for Annual Operating Plan Studies" report are the 2 percent and 98 percent exceedance levels. Annual runoff at the 2 percent exceedance (40.1 MAF) has a 1 in 50 chance of being exceeded; the 98 percent exceedance (11.4 MAF) has a 1 in 50 chance of the occurrence of less runoff. Although these runoff volumes were not included as scenarios in this year's AOP, additional monthly studies could be performed based on these runoff volumes as the 2013 runoff season unfolds should the runoff forecast exceed the upper decile runoff scenario or be lower than the lower decile runoff.

The Upper Decile and Upper Quartile simulations extend from the end of the Upper Basic simulation through February 2014. Likewise, the Median simulation extends from the end of the Basic simulation, and the Lower Quartile and Lower Decile simulations extend from the end of the Lower Basic simulation through February 2014.

The estimated natural flow at Sioux City, the corresponding post-1949 water use effects, and the net flow available above Sioux City are shown in ***Table I,*** where water supply conditions are quantified for the period August 2012 through February 2014. The natural water supply for calendar year (CY) 2011 totaled 61.0 MAF.

TABLE I
NATURAL AND NET RUNOFF AT SIOUX CITY
(Volumes in 1,000 Acre-Feet)

	Natural 1/	Post-1949 Depletions	Net 2/
August 2012 through February 2013 (Basic Runoff Scenario)			
Basic	6,500	800	7,300
Upper Basic (120%)	7,800	800	8,600
Lower Basic (80%)	5,200	400	5,600
Runoff Year March 2013 through February 2014 (Statistical Analysis of Past Records)			
Upper Decile	34,500	-2,800	31,700
Upper Quartile	30,600	-2,800	27,800
Median	24,600	-2,700	21,900
Lower Quartile	19,300	-2,700	16,600
Lower Decile	16,100	-2,600	13,500

1/ The word "Natural" is used to designate runoff adjusted to the 1949 level of basin development, except that regulation and evaporation effects of the Fort Peck reservoir have also been eliminated during its period of regulation prior to 1949.

2/ The word "Net" represents the total runoff after deduction of the post-1949 irrigation, upstream storage, and other use effects.

VI. ANNUAL OPERATING PLAN FOR 2012-2013

A. General. The anticipated regulation described in this AOP is designed to meet the regulation objectives presented in the current Master Manual. While some aspects of System and individual project regulation are clearly defined by technical criteria in the Master Manual, for example navigation service level and season length, others such as minimum releases for irrigation and water supply in the reaches between the reservoirs are based on regulation experience and will be adjusted as needed to respond to changing conditions. Consideration has been given to all of the authorized project purposes, to historic and cultural resources and to the needs of threatened and endangered (T&E) species. The "System Description and Regulation" report provides a concise summary of the primary aspects of System regulation and should be referred to for further information. For ease of use, a summary of the frequently used technical criteria included in the Master Manual is presented on ***Plate 3.***

The plan relies on a wealth of regulation experience. Reservoir regulation experience available for preparation of the 2012-2013 AOP includes 13 years of regulation at Fort Peck (1940) as the sole Mainstem project, plus 59 years of System

experience as Fort Randall (1953), Garrison (1955), Gavins Point (1955), Oahe (1962), and Big Bend (1964) were brought progressively into System regulation. This regulation experience includes lessons learned during two major droughts of six and eight years (1987-1992 and 2000–2007) that have occurred since the System filled in 1967. It also includes the high runoff period from 1993 – 1999 during which five of the seven years experienced runoff greater than Upper Quartile including the previous record runoff of 49.0 MAF in 1997, and the record runoff of 61.0 MAF in 2011. In addition to the long period of actual System reservoir regulation experience, many background regulation studies for the completed System are available for reference.

B. 2012-2013 AOP Simulations. Reservoir simulations for the Upper Basic, Basic, and Lower Basic runoff scenarios, which span the period of August 2012 through February 2013, are shown in the final section of this AOP as studies 1 through 3. AOP simulations for the five statistically derived runoff scenarios, which span the period of March 2013 through February 2014, are shown in the final section of this AOP as studies 4 through 8. As previously stated, the simulations use five statistically derived runoff scenarios and reflect 80 percent of the historic annual runoff volumes (between Upper Decile and Lower Decile). The simulations provide information for planning purposes on a range of future reservoir levels and release rates, and are not meant to represent a particular forecast. The simulations shown use a monthly time-step, and thus do not provide the level of detail necessary to address specific flood control regulations. Detailed routing of specific flood flows is accomplished using forecast models which incorporate real-time information including observed and forecasted precipitation, and these situations are handled individually during real-time regulation.

The AOP studies, in summary, provide the following: the full flood control capacity of the reservoir system will be available at the start of the runoff season and use of the exclusive flood control zone is not anticipated under any of the five runoff scenarios covered in the AOP; full service flow support under Upper Quartile and Upper Decile runoff scenarios and reduced flow support for Median runoff and below; a full length navigation for all runoff scenarios except for Lower Decile; minimum or near minimum winter releases for Median and lower runoff, and above normal winter releases for Upper Decile and Upper Quartile runoff; a steady release-flow to target regulation during the tern and plover nesting season for Upper Quartile and below runoff and nearly steady releases for Upper Decile runoff though flood water evacuation is required; emphasis on Fort Peck and Oahe for a steady to rising reservoir level during the forage fish spawn; and reservoir releases and pool levels sufficient to keep all intakes operational under all runoff scenarios. Water conservation measures will be implemented if runoff conditions indicate that it would be appropriate including cycling releases from Gavins Point during the early part of the nesting season, only supporting flow targets in reaches being used by commercial navigation, and utilization of the Kansas River projects authorized for Missouri River navigation flow support. Additional details about the studies are provided in the following paragraphs. Results

of the simulations are shown in ***Plate 4*** and ***Plate 5*** for the System storage and the Fort Peck, Garrison and Oahe pool elevations.

Under all runoff scenarios modeled for the AOP, the full flood control capacity of the system is available at the start of the 2013 runoff season. In addition, due to the dry conditions in 2012 system storage will begin the runoff season below the base of the annual flood control zone. Although the March 1 and May 1 System storage is above the Gavins Point spring pulse precludes of 40.0 MAF, as discussed in Chapter III, spring pulses will not be conducted in 2013. The Corps will continue to work closely with the USFWS to ensure the AOP will meet the intent of the 2003 Amended BiOp and comply with the ESA.

The March 15 and July 1 System storage checks were used to determine the level of flow support for navigation and other downstream purposes as well as the navigation season length in 2013. Full service navigation flows or more are provided for Upper Quartile and Upper Decile runoff conditions throughout the navigation season. Median runoff starts the season slightly below full service and increases to full service based on the July 1 System storage check (see ***Plate 3***). Service levels for Lower Quartile begin the season at an intermediate service level, and remain near that level following the July 1 System storage check. Service levels for Lower Decile begin the season at an intermediate service level and drop to near minimum service based on the July 1 System storage check. Application of the July 1 system storage check indicated that a full length navigation season would be provided for Median and Lower Quartile runoff conditions. The upper two runoff scenarios provide a 10-day extension to the navigation season, while Lower Decile runoff contains a 2-day shortening to the navigation season. Upper Quartile and Upper Decile simulations reach the desired 56.8 MAF System storage level on March 1, 2014. Storage is below the base of the annual flood control zone for median and lower runoff conditions.

For modeling purposes in this AOP, the Steady Release – Flow-to-Target (SR-FTT) regulation scenario for Gavins Point Dam is shown during the 2013 tern and plover nesting season for Upper Quartile and lower runoff conditions. For these simulations, the monthly average May release used in the simulations was determined by using the long-term average release (see ***Plate 3***) based on the service level for the first third of the month, followed by cycling between the May and July table values for the remainder of the month to reflect an every third day peaking cycle from Gavins Point. The modeled June release was set equal to the long-term average release for July (see ***Plate 3***) based on the service level for the first half of the navigation season. The long-term average releases (see ***Plate 3***) were used for July and August to indicate flowing to target. The Upper Quartile and Upper Decile runoff simulations follow the Master Manual, with much above normal runoff requiring release increases early in the year to evacuate floodwater from the reservoirs. Although these modeled Gavins Point releases represent our best estimate of required releases during 2013, actual releases will

be based on hydrologic conditions and the availability of habitat at that time. To the extent reasonably possible, measures to minimize incidental take of the protected species will be utilized. These may include not meeting flow targets in reaches without commercial navigation and utilizing the Kansas River tributary reservoirs for navigation flow support when appropriate. It may also be necessary to cycle releases for flood control regulation during the T&E species' nesting season.

The long-term average Gavins Point releases to meet target flows were used in the AOP studies for navigation support during the spring and fall months with the exception of Upper Quartile and Upper Decile. Under those two runoff scenarios, releases were based on flood water evacuation. Based on the September 1 storage checks and flood evacuation criteria, modeled Gavins Point winter releases were 12,500 cfs during the 2012-2013 winter season and from 12,500 cfs to 20,000 cfs during the 2013-2014 winter season depending on the runoff scenario. Gavins Point releases will be increased to meet downstream water supply requirements in critical reaches, to the extent reasonably possible, if downstream incremental runoff is low.

The Gavins Point releases shown in this and previous AOPs are estimates based on historic averages and experience. Adjustments are made as necessary in real-time based on hydrologic conditions.

Intrasystem releases are adjusted to best serve the multiple purposes of the projects with special emphasis placed on regulation for non-listed fisheries starting in early April and for T&E bird species beginning in early May and continuing through August. As part of the overall plan to rotate emphasis among the upper three reservoirs during low runoff years, Fort Peck and Oahe are scheduled to be favored during the 2013 forage fish spawn while also attempting to maintain rising water levels at Garrison. This is a change from the draft AOP which showed favoring Garrison. The change in emphasis was recommended based on fisheries surveys indicating the greatest loss in forage base occurred at Oahe. The Median, Upper Quartile, and Upper Decile simulations show that it is possible to provide steady-to-rising pool levels in each of the three large upper reservoirs during the spring forage fish spawn period. Releases in the Lower Quartile and Lower Decile simulations are adjusted to maintain steady-to-rising pool levels at Fort Peck and Oahe. The Lower Quartile simulation shows the Garrison pool dropping during April and the Lower Decile simulation shows the Garrison pool dropping during April and May.

Two additional modified reservoir regulation plans, the Fort Peck "mini-test" and unbalancing the upper three reservoirs, have been discussed in previous AOPs, but have not been implemented in recent years. Following the 2000-2007 drought, the unbalancing of the three reservoirs to benefit reservoir fisheries and the endangered interior least tern and threatened piping plover was not implemented due to the large variability of reservoir levels. Additionally, experience has shown that storing water in

the annual flood control zone, particularly at Oahe, as the current criteria requires in order to implement unbalancing is undesirable due to flood control impacts. The Corps will continue to work with each of the appropriate state agencies if requested in 2013 to determine a modified version of unbalancing that may be implemented in future AOPs that does not adversely impact flood control. For the purposes of this AOP, the upper three reservoirs are shown in a balanced condition for all runoff scenarios. This balancing is computed based on the percent storage of the carryover multiple-use pool. With regard to the Fort Peck mini-test, a priority for pallid sturgeon recovery has been placed on the Lower Yellowstone Project at Intake, Montana. The Fort Peck mini-test and full test flows will be deferred until the efficacy of the Lower Yellowstone Project has been assessed. The groundbreaking for this project took place in August 2010. Additional information on the Lower Yellowstone Project can be found in the Annual Report on the Biological Opinion which can be found on the "MRRP Documents" page of the Recovery Program website at: www.moriverrecovery.org.

Actual System regulation from January 1 through August 31, 2012 and the simulated regulating plans for each project through CY 2013 using the five runoff scenarios described on Page 4 are presented on ***Plate 6*** through ***Plate 11***, inclusive. Big Bend regulation is omitted since storage at that project is relatively constant and average monthly releases are essentially the same as those at Oahe. These plates also show, on a condensed scale, actual regulation since 1953.

Plate 12 illustrates for Fort Peck, Garrison, Oahe, and Gavins Point the actual releases (Regulated Flow) as well as the Missouri River flows that would have resulted if the reservoirs were not in place (Unregulated Flow) during the period January 2011 through July 2012. ***Plate 13*** presents past and simulated gross average monthly power generation and gross peaking capability for the System.

C. Regulation Plan for the Balance of the 2012 Navigation Season and Fall of 2012. The regulation of the System for the period of August though November 2012 is presented in the following paragraphs.

Fort Peck Dam. Releases averaged 11,000 cfs during most of August before being lowered to 10,000 cfs near the end of the month in preparation for the five-day spillway flow test that was conducted the first week in September to help determine whether a subdrain system that relieves potential pressure beneath the spillway was functioning properly. During the five-day test, flows peaked as high as 30,000 cfs through the spillway. After completion of the spillway test, flows were held steady at 10,000 cfs through the end of October before increasing to 10,500 cfs for November. The Fort Peck pool continued to slowly recede through the fall and ended the month of November at 2228.3 ft msl or 7.6 feet below the August 1 elevation of 2235.9 ft msl.

Garrison Dam. Releases averaged 24,500 cfs in August. The threatened least terns and endangered piping plovers were fledged by August 16 on the reach downstream of Garrison and peaking restrictions were discontinued at that time. Releases were maintained at 24,500 cfs through mid-September before decreasing to 19,000 cfs. Flows were increased to 19,500 cfs for October and again in November to 22,000 cfs and held steady for the remainder of the month. The Garrison pool steadily dropped through the end of November, ending the month at 1830.4 or 6.8 feet below the August 1 elevation of 1837.2 ft msl.

Oahe Dam. The reservoir started the month of August at elevation 1604.0 ft msl. Releases averaged 38,100 cfs in August and 36,800 cfs in September in support of full service navigation. Releases were reduced in October and November to 27,200 and 26,100 cfs, respectively to accommodate the fall drawdown of the Fort Randall pool. The Oahe pool ended November at elevation 1593.3 feet msl or 10.9 feet below the August 1 elevation.

Big Bend Dam. Releases generally paralleled those from Oahe. Big Bend generally fluctuated between 1420.0 feet msl and 1421.0 feet msl for weekly cycling during high power load periods.

Fort Randall Dam. Releases averaged 36,500 cfs in August and 37,600 cfs in September to back up the releases from Gavins Point Dam. The fall pool draw down of Fort Randall started after Labor Day in early September and was completed near the end of November. Releases were reduced when the navigation season ended starting in late November to the level required to back up Gavins Point winter releases.

Gavins Point Dam. Releases were scheduled to support downstream full service flows in reaches with scheduled commercial navigation throughout the 2012 navigation season. A full length navigation season was provided in accordance with the technical criteria for the July 1 System storage check presented in the Master Manual. The last day of flow support for the commercial navigation season ranged from November 21 at Sioux City to November 30 at the mouth near St. Louis. Releases were reduced by approximately 3,000 cfs per day beginning in mid-November working toward a target winter release of 12,000 cfs. The final 3,000 to 5,000 cfs of release reductions were made in smaller increments to ensure water intakes along the lower river remained operational. The Gavins Point pool level will be raised 1.5 feet to elevation 1207.5 feet msl in September. The pool level will remain near that elevation during the fall and winter months.

D. Regulation Plan for Winter 2012-2013. The September 1 System storage check is used to determine the winter release rate from Gavins Point Dam. A winter release of 12,000 cfs is scheduled if System storage is less than 55 MAF on September 1; 17,000 cfs is scheduled when System storage is above 58 MAF; and the release is prorated for

System storages between 55 and 58 MAF. The planned winter System release for 2012-2013 is 12,000 cfs. The planned winter release rate may be less than is required for downstream water supply intakes without sufficient incremental tributary flows below the System, and therefore, releases may need to be set at levels higher than the winter release rate at times to ensure downstream water supply intakes are operable. Water supply is discussed in more detail in Chapter VII, Section B.

Fort Peck Dam. Releases are expected to average 11,000 cfs in December and 12,500 cfs in January and February to serve winter power loads and to help balance System storage. The Fort Peck pool level is expected to decline about 2.4 feet from elevation 2228.3 feet msl at the end of November to near elevation 2223.4 feet msl by March 1, 10.6 feet below the base of the annual flood control storage zone. The percent of carryover multiple purpose storage in the three large upper reservoirs will be slightly out of balance on March 1, 2013 with Fort Peck being about 0.7 foot higher than if the reservoirs were balanced.

Garrison Dam. Releases are scheduled to be 18,500 cfs in December increasing to 22,500 cfs for January and February to serve winter power loads and to better balance storage in the upper three reservoirs. Releases will be reduced, most likely in December, to prevent ice induced flooding at the time of freeze-in and then gradually increased as river conditions permit. These temporary reductions in the releases may be scheduled to prevent exceedance of a 13-foot stage at the Missouri River at Bismarck streamgaging station. The Bismarck flood stage is 14.5 feet. Water Management staff will coordinate closely with other Federal, state and local agencies during periods of freeze-in and ice-out to reduce flood risk and ensure communities and local residents are aware of the rapidly changing conditions and are prepared to take appropriate actions. The Garrison pool level is expected to decline about 2.6 feet from elevation 1830.3 feet msl at the end of November to near elevation 1827.7 feet msl by March 1, 9.8 feet below the base of the annual flood control storage zone. At the end of February, Garrison will be 0.4 foot lower than it would be if the upper three reservoirs were balanced.

Oahe Dam. Releases for the winter season will provide backup for the Fort Randall and Gavins Point releases plus refill the recapture space available in the Fort Randall reservoir consistent with anticipated winter power loads. Monthly average releases may vary substantially with fluctuations in power loads occasioned by weather conditions but, in general, are expected to average between 10,500 cfs and 16,600 cfs. Daily releases will vary widely to best meet power loads. Peak hourly releases, as well as daily energy generation, will be constrained to prevent urban flooding in the Pierre and Fort Pierre areas if severe ice conditions develop downstream of Oahe Dam. This potential reduction is coordinated with the Western Area Power Administration. The Oahe pool level is expected to slowly increase from 1593.3 feet msl at the end of November to 1597.8 feet msl at the end of February. Oahe will be about 0.1 foot below

what it would be if the storage of the upper three reservoirs were balanced. The Oahe pool will be 9.7 feet below the base of the annual flood control storage zone at the beginning of March.

Big Bend Dam. The Big Bend pool level will be maintained in the normal 1420.0 to 1421.0 feet msl range during the winter.

Fort Randall Dam. Releases will average about 11,000 cfs during the winter season to support Gavins Point winter releases. The Fort Randall pool level is expected to rise from its fall drawdown elevation of near 1337.5 feet msl at the end of November to near elevation 1350.0 feet msl, the seasonal base of flood control, by March 1. However, if the plains snowpack flood potential downstream of Oahe Dam is quite low, the Fort Randall pool level will be raised to near 1353.0 feet msl by March 1. It is likely that a pool level as high as 1355.0 feet msl could be reached by the end of the winter period on March 31 if spring runoff has commenced. The Fort Randall pool level above the White River delta near Chamberlain, South Dakota will remain at a higher elevation than the pool level below the delta from early October through December, due to the damming effect of this delta area.

Gavins Point Dam. Gavins Point winter releases are discussed in the first paragraph of this section. The Gavins Point pool level will be near elevation 1207.5 feet msl until late February when it will be lowered to elevation 1206.0 feet msl to create additional capacity to store spring runoff.

System storage for all runoff conditions will range between 48.4 and 49.4 million acre-feet by March 1, 2013, the beginning of next year's runoff season. System storage at the base of the annual flood control zone is 56.8 million acre-feet.

E. Regulation During the 2013 Navigation Season. All five runoff scenarios modeled for this year's AOP follow the technical criteria presented in the current Master Manual for downstream flow support. Beginning in mid-March, Gavins Point releases will be gradually increased to provide navigation flow support at the mouth of the Missouri near St. Louis, Missouri by April 1, 2013, the normal navigation season opening date. The corresponding dates at upstream locations are Sioux City, March 23; Omaha, March 25; Nebraska City, March 26; and Kansas City, March 28. However, if during the 2013 navigation season there is no commercial navigation scheduled to use the upper reaches of the navigation channel, we will consider eliminating navigation flow support in those reaches to conserve water in the System, reduce flood risk, and/or minimize incidental take of the protected species during the nesting season.

Navigation flow support for the 2013 season will be determined by actual System storage on March 15 and July 1. Runoff scenarios modeled indicate full service flow support at the start of the 2013 navigation season for Upper Decile and Upper Quartile

runoffs. Median runoff starts the season at 2,200 cfs below full service. Lower Quartile and Lower Decile runoffs would result in reductions below full service of 4,700 cfs and 4,700 cfs respectively. Following the July 1 System storage check, full service would continue to be provided for Upper Decile and Upper Quartile runoffs, with near full service support for Median runoff (100 cfs below service). Service levels would be 4,200 cfs below full service for Lower Quartile and would be further reduced to 5,400 cfs (near minimum service) for Lower Decile runoff. The normal 8-month navigation season is provided for Median and Lower Quartile runoff scenarios as shown in ***Table II***, with Lower Decile runoff indicating a 2-day shortening of the navigation season. A 10-day extension to the navigation season is provided for the upper two runoff scenarios.

TABLE II
NAVIGATION SERVICE SUPPORT
FOR THE 2013 SEASON

	Runoff Scenario (MAF)	**System Storage**		**Flow Level Above or Below Full Service (cfs)**		**Season Shortening (Days)**
		March 15 (MAF)	**July 1 (MAF)**	Spring	Summer/Fall	
U.D.	34.5	54.9	62.6	0	+13,000	0*
U.Q.	30.6	54.6	61.0	0	+5,000	0*
Med	24.6	52.5	56.9	-2,200	-100	0
L.Q.	19.3	50.2	52.4	-4,700	-4,200	0
L.D.	16.1	50.2	51.2	-4,700	-5,400	2

*Includes 10-day extension for Upper Quartile and Upper Decile

As previously stated, the modeled regulation for the 2013 nesting season below Gavins Point Dam is Steady Release – Flow-to-Target (SR-FTT). With the expectation of large quantities of high elevation nesting habitat being available, it's possible that the actual regulation will be Flow-to-Target. The nesting situation will be closely monitored and if nesting appears to be taking place at low elevations a SR-FTT release scenario may be implemented. If a SR-FTT release scenario is used, the initial steady release will be based on hydrologic conditions and the availability of habitat at that time. In the five years previous to 2011 the initial steady release ranged from 18,000 cfs to 27,000 cfs. Dry conditions in 2012 required the initial steady release to be set near 30,000 cfs. Model runs included in this AOP have a Gavins Point release peaking cycle of 2 days down and 1 day up during the last two-thirds of May to keep birds from nesting at low elevations. Gavins Point releases will be adjusted to meet downstream targets as tributary flows recede, but ideally the initial steady release will be sufficient to meet downstream targets until the majority of the birds have nested. The purpose of this regulation is to continue to meet the project purposes while minimizing the loss of

nesting T&E species and conserving water in the upper three reservoirs, if required. Gavins Point releases for the Upper Quartile and Upper Decile runoff simulations are much above normal to evacuate flood water from the reservoirs. Releases from Garrison and Fort Randall will follow repetitive daily patterns from early May, at the beginning of the T&E species' nesting season, to the end of the nesting in late August. In addition to the intra-day pattern, Fort Randall releases may also be cycled with 2 days of low releases and 1 day of higher releases during the early part of the nesting season to maintain release flexibility in that reach while minimizing the potential for take.

Gavins Point releases may be quite variable during the 2013 navigation season but are expected to range from 25,000 to 45,000 cfs under the five runoff scenarios modeled. Release reductions necessary to minimize downstream flooding are not reflected in the monthly averages shown in the simulations but will be implemented as conditions warrant. Reductions in System releases to integrate the use of downstream Missouri River flow support from the Kansas Reservoir System have not been included since they are based on downstream hydrologic conditions. However, this storage will be utilized to the extent possible as a water conservation measure, or to minimize incidental take of protected species during the nesting season, as was done in July 2012, if conditions indicate it is prudent to do so. Simulated storages and releases for the System and individual reservoirs within the System are shown on ***Plate 6*** through ***Plate 11.*** Due to the abnormally dry conditions during the summer of 2012, additional storage space exists in the System to control flood inflows under all scenarios simulated for this AOP. As experienced in 2011, runoff above or below simulated levels can occur and result in releases beyond those modeled for the AOP. As previously stated, should that occur, the Corps will increase its efforts to convey that information throughout the basin so that state and local agencies, communities, and local residents can take appropriate actions.

F. <u>Regulation Activities for T&E Species and Fish Propagation Enhancement.</u> The ability to provide steady to rising pool levels in the upper three reservoirs in low runoff years is very dependent on the volume, timing, and distribution of runoff. The reservoir regulation simulations presented in this AOP for the Upper Decile, Upper Quartile, and Median runoff scenarios show that steady to rising pool levels would occur during the spring fish spawn period for the upper three System reservoirs. As part of the overall plan to rotate emphasis among the upper three reservoirs during low runoff years, Fort Peck and Oahe are scheduled to be favored during the 2013 forage fish spawn if runoff is below median. The studies show that inflows are sufficient to maintain steady to rising pools at Fort Peck and Oahe from April through June for the Lower Quartile and Lower Decile runoff scenarios. This will be accomplished by setting releases at Fort Peck and Garrison at a level that would maintain a rising Fort Peck and Oahe pool, but no less than the minimum required for downstream water supply requirements including irrigation. These adjustments may be restricted when

the terns and plovers begin nesting in May. Garrison pool levels may fall during both lower runoff scenarios. If the current drought conditions continue, emphasis during the fish spawn will be rotated among the upper three reservoirs and may also be adjusted to be opportunistic in regard to runoff potential. The upper three reservoirs will be managed to benefit forage fish to the extent reasonably possible, while continuing to serve the other Congressionally authorized project purposes. State game and fish agencies performed fisheries population surveys in recent months. The results of those surveys indicated that Oahe had the greatest loss in forage base, and thus the favored reservoir was changed from Garrison to Oahe and Fort Peck for the final AOP.

As discussed in the previous section, the 2012-2013 AOP will not include provisions for unbalancing the Fort Peck, Garrison, and Oahe reservoirs to benefit the reservoir fishery and endangered species, but unbalancing may be considered within the carryover multiple use zone in future years.

Fort Peck Dam. The repetitive daily pattern of releases from Fort Peck Dam has not been implemented since the 2004 tern and plover nesting season. This adaptive management decision was made based on data collected during previous nesting seasons. In recent years, birds in this reach have nested on available high elevation habitat, and thus were not expected to be impacted by the potential range of releases from Fort Peck during the summer. Releases during the 2013 nesting season will not be restricted by the repetitive daily pattern unless habitat conditions or nesting patterns warrant a change.

If flood flows enter the Missouri River below the project during the nesting season, hourly releases will generally be lowered to no less than 3,000 cfs in order to keep traditional riverine fish rearing areas continuously inundated, while helping to lower river stages at downstream nesting sites. In rare instances releases below 3,000 cfs may be scheduled for flood damage reduction. April releases should be adequate for trout spawning below the project.

Maintaining a rising Fort Peck pool level will be dependent upon the daily inflow pattern to the reservoir, but appears possible under all the runoff scenarios. The Fort Peck "mini-test" will not be run pending an evaluation of the results of the Yellowstone River Intake Diversion fish passage structure.

Garrison Dam. As in previous years, releases from Garrison will follow a repetitive daily pattern during the T&E nesting season to limit peak stages below the project for nesting birds. Releases are scheduled to be 1,000 cfs lower in July and early August than the June releases to enhance conditions for the fledging of chicks. High elevation nesting habitat is expected to be abundant below Garrison Dam during the 2013 nesting season.

During 2013, cold-water habitat in Garrison should be adequate for all runoff scenarios. Cold-water habitat will continue to be monitored during the year and adjustments will be considered if conditions warrant.

A rising pool at Garrison during the fish spawn in April and May will be dependent upon the daily inflow pattern to the reservoir but appears possible for Median and above runoff simulations.

Oahe Dam. Releases in the spring and summer will back up those from Gavins Point Dam. The pool level should be steady to rising in the spring during the fish spawn for all runoff scenarios.

Fort Randall Dam. To the extent reasonably possible, Fort Randall will be regulated to provide for a pool elevation near 1355 feet msl during the fish spawn period, provided water can be supplied from other reservoirs for downstream uses. The pool will not be drawn down below elevation 1337.5 feet msl in the fall to ensure adequate supply for water intakes. As a measure to minimize take while maintaining the flexibility to increase releases during the nesting season, hourly releases from Fort Randall will follow a repetitive daily pattern to limit peak stages below the project for nesting birds. Daily average flows may be increased every third day to preserve the capability of increasing releases later in the summer with little or no incidental take if drier downstream conditions occur. If higher daily releases are required later in the nesting season, the daily peaking pattern may be adjusted, reduced or eliminated resulting in a steady release to avoid increased stages at downstream nesting sites. The need to utilize measures to minimize take may be lessened because of the large quantity of nesting habitat expected during the 2013 nesting season. Periods of zero release will be minimized to the extent reasonably possible during the nesting season given daily average releases, real-time hydrologic conditions, and System generating constraints as defined in coordination with Western Area Power Administration.

Gavins Point Dam. March and May spring pulses from Gavins Point Dam for the benefit of the endangered pallid sturgeon will not be implemented under any runoff scenarios in 2013.

It is anticipated that sufficient habitat to provide for successful nesting will be available above the planned release rates for all runoff conditions. This expectation is based on experience from the past record runoff in 1997 and from the high elevation habitat resulting from the record releases in 2011. Following the 1997 runoff, high elevation nesting habitat was readily available and used successfully by the birds. Flows from Gavins Point Dam may follow the flow-to-target (FTT) release scenario. This scenario limits releases from Gavins Point to those needed to meet downstream targets. The actual release scenario will be evaluated when birds begin nesting in early May. If nests are initiated at a lower elevation which would be inundated later in the summer, a steady release-flow to target release scenario may be instituted. A full description of these release scenarios can be found in the Master Manual. Actual releases will be based on hydrologic conditions and the availability of habitat at that time.

All reasonable measures to minimize the loss of nesting T&E bird species will be used. While not anticipated because of the large quantity of high elevation habitat available, these measures include, but are not limited to, such things as a relatively high initial steady release during the peak of nest initiation, the use of the Kansas River basin reservoirs, moving nests to higher ground when possible, and monitoring nest fledge dates to determine if delaying an increase a few days might allow threatened chicks to fledge. The location of navigation tows and river conditions at intakes would also be monitored to determine if an increase could be temporarily delayed without impact. Cycling releases every third day may be used to conserve water early in the nesting season if extremely dry conditions develop. In addition, cycling may be used during downstream flood control regulation.

The Gavins Point pool will be regulated near 1206.0 feet msl in the spring and early summer, with minor day-to-day variations due to inflows resulting from rainfall runoff. Several factors can limit the ability to protect nests from inundation in the upper end of the Gavins Point pool. First, because there are greater numbers of T&E bird species nesting below the Gavins Point project, regulation to minimize incidental take usually involves restricting Gavins Point releases, which means that the Gavins Point pool can fluctuate significantly due to increased runoff from rainfall events. Second, rainfall runoff between Fort Randall Dam and Gavins Point Dam can result in relatively rapid pool rises because the Gavins Point project has a smaller storage capacity than the other System reservoirs. And third, the regulation of Gavins Point for downstream flood control may necessitate immediate release reductions to reduce downstream damage. When combined, all these factors make it difficult and sometimes impossible to prevent inundation of nests in the upper end of the Gavins Point reservoir. However, because of the large quantity of habitat expected we do not anticipate nests being inundated. The pool will be increased to elevation 1207.5 feet msl late in August when it is determined that there are no terns or plovers nesting along the reservoir.

G. Regulation Activities for Historic and Cultural Properties. As acknowledged in the 2004 Programmatic Agreement (PA) for the Operation and Management of the Missouri River Main Stem System, wave action and fluctuation in the level of the reservoirs results in erosion along the banks of the reservoirs. The Corps will work with the Tribes utilizing 36 CFR Part 800 and the PA to address the exposure of historic and cultural sites. The objective of a programmatic agreement is to deal "…with the potential adverse effects of complex projects or multiple undertakings…" The PA objective was to collaboratively develop a preservation program that would avoid, minimize and/or mitigate adverse effects along the System reservoirs. All tribes, whether signatory to the PA or not, may request government-to-government consultation on the regulation of the System and the resulting effect on historic and cultural properties and other resources. As a result of the 2011 flood event, there were impacts to cultural resources. A gradual drawdown of reservoir levels was preferred to avoid or minimize further damage to cultural resource sites. To address impacts, the most effective and comprehensive strategy is a phased approach; site assessment/ Native American Graves Protection and Repatriation Act (NAGPRA) survey, increased law enforcement efforts, engineering design, rip rap repair, and new rip rap placement. Although condition assessments will be conducted for all sites affected by flooding, priority will be given to site assessments at occupation sites to determine impacts and check for any NAGPRA-related items. Increased law enforcement will be necessary to detect or prevent, and possibly prosecute individuals for Archeological Resources Protection Act (ARPA) violations. Engineers will need to collect data and prepare designs to repair existing rip rap and protection for any sites that were newly impacted.

In 2013 reservoir levels are expected to be more normal but will vary depending on runoff conditions, and continuing exposure of cultural sites along the shorelines is still possible. Actions to avoid, minimize or mitigate adverse impacts and expected results of the actions are covered under Chapter VII of this AOP. ***Plate 16*** shows the locations of the Tribal Reservations.

Fort Peck Dam. Depending on runoff in the Missouri River basin, System regulation during 2013 could result in a Fort Peck pool elevation variation from a high of 2240 feet msl to a low of 2215 feet msl. This is based on the Upper and Lower Decile runoff scenarios (see ***Plate 8*** and the studies included at the end of this report). Based on a review of existing information, approximately 14 known sites could be affected during this period.

Garrison Dam. Based on the Upper and Lower Decile runoff scenarios (see ***Plate 9*** and the studies included at the end of this report), Garrison pool elevations could range between 1845 and 1822 feet msl during 2013. Based on a review of existing information, approximately 76 known sites could be affected during this period.

Oahe Dam. At the Oahe reservoir, the System regulation under the Upper and Lower Decile runoff scenarios could result in pool elevations ranging from 1615 to 1590 feet msl (see ***Plate 10*** and the studies included at the end of this report). Based on a review of existing information, approximately 222 known sites could be affected during this period.

Big Bend Dam. System regulation will be adjusted to maintain the Big Bend pool level in the normal 1420 to 1421 feet msl range during 2013. Short-term increases above 1421 due to local rainfall may also occur. Based on a review of existing information, approximately four known sites could be affected during this period.

Fort Randall Dam. As part of the normal System regulation, the Fort Randall pool elevations will vary between 1350 and 1355 feet msl during the spring and summer of 2013. Short-term increases above 1355 feet msl due to local rainfall may occur. The annual fall drawdown of the reservoir to elevation 1337.5 feet msl will begin prior to the close of the navigation season and will be accomplished by early December. The reservoir will then be refilled during the winter to elevation 1350 feet msl. Based on a review of existing information, approximately 28 known sites could be affected during this period.

Gavins Point Dam. System regulation will be adjusted to maintain the Gavins Point pool level in the normal 1206 to 1207.5 feet msl range during 2013. Short-term increases above 1207.5 feet msl may occur due to local rainfall. Based on a review of existing information, no known sites are expected to be affected during this period.

VII. SUMMARY OF RESULTS EXPECTED IN 2013

With regulation of the System in accordance with the 2012-2013 AOP outlined in the preceding pages, the following results can be expected. ***Table III*** summarizes the critical decision points throughout the year for all runoff conditions.

Table III
Summary of 2012-2013 AOP Studies

Decision Points	2013-2014 Runoff Condition				
	Upper Decile	**Upper Quartile**	**Median**	**Lower Quartile**	**Lower Decile**
March 1 System Storage March 23-31 GP Release	53.4 MAF 26.7 kcfs	53.4 MAF 26.7 kcfs	51.7 MAF 24.5 kcfs	49.6 MAF 25.1 kcfs	49.6 MAF 25.1 kcfs
March 15 System Storage Spring Service Level	54.9 MAF full service	54.6 MAF full service	52.5 MAF 2.2 kcfs blw full service	50.2 MAF 4.7 kcfs blw full service	50.2 MAF 4.7 kcfs blw full service
May 1 System Storage May Cycling May GP Release	57.8 MAF 28.0/31.6 kcfs 28.7 kcfs	56.9 MAF 28.0/31.6 kcfs 28.7 kcfs	53.5 MAF 25.8/29.4 kcfs 26.5 kcfs	50.4 MAF 26.6/29.6 kcfs 27.2 kcfs	50.1 MAF 26.6/29.6 kcfs 27.2 kcfs
Fish Spawn Rise (Apr-Jun) FTPK Pool Elev Change GARR Pool Elev Change OAHE Pool Elev Change	 +8.3 feet +7.2 feet +7.9 feet	 +7.0 feet +7.7 feet +5.1 feet	 +5.4 feet +6.3 feet +3.0 feet	 +4.2 feet +3.4 feet +0.6 feet	 +2.1 feet +0.8 feet +0.5 feet
July 1 System Storage Sum-Fall Service Level (kcfs) Nav Season Length	62.6 MAF Full Service 10 Day extension	61.0 MAF Full Service 10 Day extension	56.9 MAF 0.1 kcfs blw Full Service 0 Days shortening	52.4 MAF 4.2 kcfs blw Full Service 0 Days shortening	51.2 MAF 5.4 kcfs blw Full Service 2 Days shortening
September 1 System Storage Winter 2013-14 GP Release	61.5 MAF 20.0 kcfs	60.8 MAF 20.0 kcfs	55.6 MAF 13.0 kcfs	50.4 MAF 12.5 kcfs	48.4 MAF 12.5 kcfs
February 28 System Storage End-Year Pool Balance Percent Pool	56.8 MAF Balanced 100%	56.8 MAF Balanced 100%	52.7 MAF Balanced 93%	46.7 MAF Balanced 82%	44.4 MAF Balanced 78%

A. Flood Control. Flood control is the only authorized project purpose that requires the availability of empty storage space rather than impounded water. Actual flood events are generally not predictable well in advance; therefore, detailed routing of specific major flood flows is accomplished when floods occur. There is a recurring pattern of high-risk flood periods during each year: a season when snowmelt, ice jams, and protracted heavy rains will almost surely occur with or without generating consequent floods; and a season when these situations are less likely and the flood threat is correspondingly low. The high-risk flood season begins about March 1 and extends through the summer. As a consequence, regulation of the System throughout the fall and winter months is predicated on the achievement of a March 1 System storage level at or below the base of the annual flood control zone. Drought conditions throughout the basin during 2012 have reduced runoff and necessitated higher releases to meet downstream targets. As a result, all runoff scenarios studied for this AOP indicate that the March 1, 2013 System storage will be below the desired 56.8 MAF base of the annual flood control zone. Therefore, additional flood control storage beyond the normal 16.3 MAF, (11.6 MAF in the annual flood control and multiple use zone and 4.7 MAF in exclusive flood control zone) will be available to store surplus runoff. The additional space available varies from 3.4 MAF in the Upper Decile runoff scenario to 7.2 MAF in Lower Decile runoff scenario.

To the extent practical, the System is regulated to prevent damaging flows in the river reaches between and below the Mainstem dams. In 2013, the full capacity of the System will be available to capture a significant volume of runoff originating from the upper basin and meter it out over an extended period of time at a rate that does not contribute to flooding in the river reaches between and below the reservoirs. Additionally, the reservoir system will have the capacity to reduce releases and hold back water during periods of high runoff below the System to reduce peak stages and discharges on the lower river. The ability to significantly reduce peak stages on the lower river diminishes as you move downstream due to the large uncontrolled drainage area and travel time from the dam.

The base of the exclusive flood control zone defines the maximum level of storage that will be accumulated for purposes other than flood control. When the exclusive flood control zone at a particular reservoir is encroached upon, the control of subsequent flood inflows becomes the dominant factor. During such periods, releases may substantially exceed the powerplant release capacity with the evacuation rate of any project dependent upon existing flood conditions, the potential for further inflows, and conditions of other reservoirs in the System. Maximum release rates at such times are based upon the Master Manual flood control criteria, the flood control status of the System, and the critical need to preserve the integrity of the dams. Detailed information regarding the adjustments of releases for flood control evacuation and downstream flood control constraints can be found in Chapter 7 of the Master Manual.

Due to release limitations imposed by the formation of downstream ice cover, a major portion of the required flood control space must be evacuated prior to the winter season. Higher releases may be made on occasions when the downstream channel conditions permit. If plains and/or mountain snowpack accumulations are much above normal during the winter of 2012-2013, and studies indicate that available storage in the carryover and multiple use zone as well as the annual flood control and multiple use zone will be fully utilized, releases may be adjusted to the extent reasonably possible to evacuate water from the reservoir system early in the runoff season. High releases during the late winter and early spring periods may exacerbate localized flooding if coincident with plains snowmelt or spring rains, and may also contribute to significant ice jam flooding. Therefore, if higher than normal releases are indicated, local conditions will need to be closely monitored. In addition, all 2013 runoff that is stored in the flood control zones will be evacuated prior to the start of the 2014 runoff season.

B. <u>Water Supply and Water Quality Control</u>. Water supply problems at intakes located in the river reaches both between and below the Mainstem dams and in the reservoirs are related primarily to intake elevations or river access rather than inadequate water supply. In emergency situations, short-term adjustments to protect human health and safety would be considered to keep intakes operational.

Low reservoir levels during the 2000-2007 drought contributed to both intake access and water quality problems for intakes on Garrison and Oahe reservoirs, including several Tribal intakes. A return to higher reservoir elevations has eliminated concern over many of these intakes. If the drought conditions continue, reservoir pool levels and releases may decline renewing the potential for intake access and water quality problems at both river and reservoir intakes. Under the Lower Decile runoff scenario, minimum reservoir levels in 2013 would be at least 16 feet higher than the record lows set in the 2000-2007 drought. Although not below the critical shut-down elevations for any intake, return to lower levels would require extra monitoring to ensure the continued operation of the intakes.

Winter releases are determined based on the September 1, System storage check. The winter season extends from December through February and flows are provided during this time to support the Congressionally authorized project purposes of hydropower production and downstream water supply and water quality. Per the Master Manual, if September 1 System storage is 55.0 MAF or less, the winter release from Gavins Point will be 12,000 cfs. Planned winter release rates of 12,000 cfs may be less than required for downstream water supply intakes without sufficient incremental tributary flows below the System. Should that occur, releases may need to be set higher to ensure that downstream water supply intakes are operable. However, we believe the minimum winter release of 12,000 cfs presented in the Master Manual represents a reasonable long-term goal for water intake operability and for owners to strive for as they make improvements to their facilities. It may be necessary at times to increase

Gavins Point releases to provide adequate downstream flows during periods when excessive river ice formation is forecast or if ice jams or blockages form which temporarily restrict flow. Based on past experiences, these events are expected to occur infrequently and be of short duration.

System storage was below 55.0 MAF on September 1, 2012, therefore monthly average releases of 12,500 cfs are shown on the simulations in the winter of 2012-2013. The additional 500 cfs reflects how the Corps, when conditions warrant, temporarily increases Gavins Point releases during extreme cold periods to inhibit the formation of ice jams in the lower river reach. As shown in ***Table III***, 2013-2014 winter releases of 20,000 cfs would be made for Upper Decile and Upper Quartile runoff scenarios, 13,000 cfs under Median and 12,500 cfs under Lower Quartile and Lower Decile runoff scenarios.

During non-navigation periods in the spring and fall from 2004 through 2007, System releases were scheduled as low as 9,000 cfs provided that enough downstream tributary flow existed to allow for continued operation of downstream water intakes. If a non-navigation year would occur in the future, summer releases (May thru August) could average around 18,000 cfs from the System. However, it should be noted that System releases will be set at levels that meet the operational requirements of water intakes to the extent reasonably possible. Problems have occurred at several downstream intakes in the past, however in all cases the problems have been associated with access to the river or reservoir rather than insufficient water supply. In addition, the low summer release rate would likely result in higher water temperatures in the river, which could impact a power plant's ability to meet their thermal discharge permits. Again, it should be noted that System releases will be set at levels that allow the downstream power plant to meet their thermal discharge permit requirements to the extent reasonably possible. This may mean that actual System releases in the hottest part of the summer period may be set well above the 18,000 cfs level. The Corps continues to encourage intake operators between and below the mainstem dams to make necessary modifications to their intakes to allow efficient operation over the widest possible range of hydrologic conditions. While the current level of System storage should allow adequate access for all intakes during the coming year, intake operators that have experienced difficulty with access during the past drought years should continue to make adjustments to improve access and flexibility when drought returns to the basin.

C. <u>Irrigation</u>. Scheduled releases from the System reservoirs will be sufficient to meet the volumes of flow required for irrigation diversions from the Missouri River. Some access problems may be experienced, however, if Lower Quartile or Lower Decile runoff conditions return. Below Fort Peck, localized dredging may once again be required in the vicinity of irrigation intakes in order to maintain access to the water if

releases are low next summer. Tributary irrigation water usage is fully accounted for in the estimates of water supply.

D. Navigation. The anticipated service level and season length for all runoff conditions simulated are shown in ***Table III***. Service to navigation in 2013 will be at full service flow support from the beginning of the navigation season through the July 1 storage check for Upper Decile and Upper Quartile runoff scenarios. For the Median, Lower Quartile and Lower Decile runoff scenarios, the navigation service level will be at 2.2, 4.7 and 4.7 kcfs below full service, respectively. In addition, the Upper Decile and Upper Quartile runoff scenarios indicate a 10-day extension to the navigation season based on the July 1 storage check. The Median and Lower Quartile runoff scenarios indicate a full season while the Lower Decile runoff scenario indicates a 2-day shortening of the navigation season. Although the AOP simulations provide a comparison of typical flow support under varying runoff conditions, the actual rate of flow support for the 2013 navigation season will be based on actual System storage on March 15 and July 1, 2013.

E. Power. ***Table IV and Table V*** indicate the estimated monthly System load requirements and hydropower supply of the Eastern Division, Pick-Sloan Missouri Basin Program (P-S MBP), from August 2012 through December 2013. Estimates of monthly peak demands and energy include customer requirements for firm, short-term firm, summer firm, peaking, and various other types of power sales, System losses, and the effects of diversity. Also included in the estimated requirements are deliveries of power to the Western Division, P-S MBP, to help meet its firm power commitments. Under median runoff, annual generation in 2013 is estimated to be 8.9 million MWh, 106 percent of the 1967-2011 average.

F. Recreation, Fish and Wildlife. The regulation of the System will continue to provide recreation and fish and wildlife opportunities in the project areas and along the Missouri River as well as other benefits of a managed system. Recreation access is expected to be at slightly below normal levels in 2013. If Lower Quartile or Lower Decile runoff were to occur in 2013, boat ramps that were lowered and low water ramps that were constructed during the two recent drought periods will provide adequate reservoir access. Special regulation adjustments incorporating specific objectives for these purposes will be made to the extent reasonably possible. Overall conditions should be favorable for the many visitors who enjoy the camping, boating, fishing, hunting, swimming, picnicking, and other recreational activities associated with the System reservoirs.

The effects of the simulated System regulation during 2013 on fish and wildlife are included in Chapter VI, Section F, entitled, "Regulation Activities for T&E Species and Fish Propagation Enhancement."

TABLE IV
PEAKING CAPABILITY AND SALES
(1,000 kW at plant)

2012	Estimated Committed Sales*	Expected C of E Capability					Expected Bureau Capability**					Expected Total System Capability				
		120%	Basic	80%			120%	Basic	80%			120%	Basic	80%		
Aug	2197	2277	2273	2269			154	154	154			2431	2427	2423		
Sep	2007	2270	2262	2254			146	146	145			2416	2408	2399		
Oct	1877	2256	2245	2231			142	141	139			2398	2386	2370		
Nov	1986	2223	2209	2191			141	140	138			2364	2349	2329		
Dec	2117	2236	2218	2199			137	138	136			2373	2356	2335		
2013																
Jan	2130	2265	2245	2223			134	135	134			2399	2380	2357		
Feb	2114	2281	2259	2233			131	134	133			2412	2393	2366		
		U.D.	U.Q.	Med	L.Q.	L.D.	U.D.	U.Q.	Med	L.Q.	L.D.	U.D.	U.Q.	Med	L.Q.	L.D.
Mar	2046	2299	2295	2270	2239	2236	134	134	133	132	132	2433	2429	2403	2371	2368
Apr	1916	2323	2313	2277	2237	2232	131	131	136	135	136	2454	2444	2413	2372	2368
May	1876	2346	2330	2286	2238	2231	138	138	146	147	149	2484	2468	2432	2385	2380
Jun	2081	2385	2369	2314	2254	2241	156	156	158	153	155	2541	2525	2472	2407	2396
Jul	2194	2390	2373	2310	2247	2227	160	160	160	153	156	2550	2533	2470	2400	2383
Aug	2197	2377	2366	2292	2227	2205	158	158	159	154	156	2535	2524	2451	2381	2361
Sep	2006	2356	2360	2282	2215	2190	150	150	150	148	150	2506	2510	2432	2363	2340
Oct	1876	2332	2333	2263	2196	2171	144	144	144	142	144	2476	2477	2407	2338	2315
Nov	1983	2288	2293	2226	2159	2135	143	143	143	141	142	2431	2436	2369	2300	2277
Dec	2115	2250	2254	2194	2124	2098	140	140	140	139	140	2390	2394	2334	2263	2238

* Estimated sales, including system reserves. Power in addition to hydro production needed for these load requirements will be obtained from other power systems by interchange or purchase.
** Total output of Canyon Ferry and 1/2 of the output of Yellowtail powerplant.

TABLE V
ENERGY GENERATION AND SALES
(Million kWh at plant)

2012	Estimated Committed Sales*	Expected C of E Generation					Expected Bureau Generation **					Expected Total System Generation				
		120%	Basic	80%			120%	Basic	80%			120%	Basic	80%		
Aug	859	1127	1137	1146			42	42	42			1169	1179	1188		
Sep	736	891	928	929			33	33	34			924	961	963		
Oct	737	756	762	772			18	19	19			774	781	791		
Nov	803	661	668	654			28	21	18			689	689	672		
Dec	913	544	527	542			28	21	18			572	548	560		
2013																
Jan	927	624	624	612			28	21	18			652	645	630		
Feb	902	545	546	539			24	18	16			569	564	555		
		U.D.	U.Q.	Med	L.Q.	L.D.	U.D.	U.Q.	Med	L.Q.	L.D.	U.D.	U.Q.	Med	L.Q.	L.D.
Mar	812	564	562	545	575	570	28	28	21	18	18	592	590	566	593	588
Apr	767	699	716	686	681	692	66	66	38	31	28	765	782	724	712	720
May	712	878	841	816	816	803	111	111	69	42	39	989	952	885	858	842
Jun	777	1081	939	905	844	836	114	114	74	43	39	1195	1053	979	887	875
Jul	863	1282	1010	977	923	887	117	117	58	46	43	1399	1127	1035	969	930
Aug	858	1317	1058	1012	920	884	80	77	65	43	40	1397	1135	1077	963	924
Sep	735	1199	1023	877	812	774	60	56	52	32	29	1259	1079	929	844	803
Oct	735	1056	891	719	672	634	40	38	37	23	21	1096	929	756	695	655
Nov	802	1032	879	626	570	521	40	40	38	27	22	1072	919	664	597	543
Dec	912	813	761	545	522	516	41	41	39	28	23	854	802	584	550	539
CY TOT		11090	9849	8878	8486	8268	750	741	530	366	336	11840	10590	9408	8852	8604

* Estimated sales including system reserves and losses. Power in addition to hydro production needed for these load requirements will be obtained from other systems by interchange or purchase.
** Total output Canyon Ferry and 1/2 output of Yellowtail powerplant.

G. Historic and Cultural Properties. As mentioned in Chapter VI of this AOP, the regulation of the System during 2012 and 2013 will expose cultural sites due to erosion from the normal fluctuation of pool elevations. The Corps will work with the Tribes utilizing 36 CFR Part 800 and the PA to address the exposure of these sites. The objective of a programmatic agreement is to deal "…with the potential adverse effects of complex projects or multiple undertakings…" The PA objective was to collaboratively develop a preservation program that would avoid, minimize and/or mitigate the adverse affects of the System operation. All tribes, whether signatory to the PA or not, may request government-to-government consultation on the regulation of the System and the resulting effect on historic and cultural properties and other resources.

The planned preservation program for this AOP is outlined by multiple stipulations in the PA. One of the stipulations, or program components, is the Five-Year Plan. This plan outlines how the Corps will accomplish its responsibilities under the PA and the National Historic Preservation Act. The "Draft Five Year Plan, dated July 2012" (see http://www.nwo.usace.army.mil/CR/) is currently being implemented. The plan includes inventory, testing and evaluation, mitigation and other specific activities that will allow the Corps to avoid, minimize and/or mitigate the adverse effects to cultural sites on Corps lands within the System. Many of the actions listed in the plan are within the elevation ranges that will occur with the implementation of the Master Manual criteria in 2012 and 2013. Two critical components of the Five-Year Plan that are applicable to this AOP are monitoring and mitigation, which will be briefly discussed in the following paragraphs.

First, a collaboratively developed plan, entitled "Draft Monitoring and Enforcement Plan, dated April 2005" (see http://www.nwo.usace.army.mil/CR/) is in place. This monitoring plan outlines the sites that require monitoring and specifies a frequency for monitoring. The Corps is strategically monitoring sites, including those sites within the potential operating pool elevations, to document the effects of the implementation of the 2012-2013 AOP. Specific sites are identified in the draft Monitoring and Enforcement Plan for the monitoring team, comprised of Corps rangers and Tribal monitors, to visit and document impacts. This focused monitoring is resulting in more accurate data on the current impacts to sites along the river plus it is assisting with the identification of sites for mitigation. The most recent training for the monitoring teams was held in May 2012.

Second, mitigation or protection of sites that are being adversely impacted continues. During the reporting period for the 2011 Annual Report by the Corps on the implementation of the Programmatic Agreement 18 sites were either completed, started, or in the design phase. The annual report is available at http://www.nwo.usace.army.mil/CR/. In addition the Corps completed a contract to develop an erosion model that will compare modeling data against actual erosion data,

collected by the monitoring team, to assist in the prioritization of sites for protection. Work on the erosion model was completed in June 2011.

Results expected from the proposed monitoring and mitigation actions include more accurate horizontal and vertical data on existing cultural sites, detailed impact data, proactive protection and preservation of sites. The effects of the simulated System regulation during 2012-2013 on cultural sites are included in the Chapter VI, section G., entitled, "Regulation Activities for Historic and Cultural Properties."

H. System Storage. If the August 1, 2012 Basic runoff forecast verifies, System storage will decline to 51.1 MAF by the close of CY 2012. This would be 17.2 MAF higher than the all-time record low storage of 33.9 MAF set on February 9, 2007 and 5.7 MAF lower than the 2011 end-of-year storage of 56.8 MAF. This end-of-year storage is 1.6 MAF less than the 1967 to 2011 average. The lowest storage during the 1988-1992 drought was 40.8 MAF in January 1991, and the record low storage was set during the 2000-2007 drought at 33.9 MAF in February 2007. The end-of-year System storages have ranged from a maximum of 60.9 MAF in 1975, to the 2006 minimum of 34.4 MAF. Forecasted System storage on December 31, 2013 is presented in ***Table VI*** for the runoff scenarios simulated.

I. Summary of Water Use by Functions. Anticipated water use in CY 2012, under the regulation plan with the Basic forecast of water supply is shown in ***Table VII***. Under the reservoir regulation simulations in this AOP, estimated water use in CY 2013 also is shown in ***Table VII.*** Actual water use data for CY 2011 are included for information and comparison.

TABLE VI
ANTICIPATED DECEMBER 31, 2013 SYSTEM STORAGE

Water Supply Condition	Total (12/31/13)	Carryover Storage Remaining 1/	Unfilled Carryover Storage 2/	Total Change CY 2013
	(Volumes in 1,000 Acre-Feet)			
Upper Decile	56,900	38,900	0	4,300
Upper Quartile	57,100	38,900	0	4,600
Median	52,400	34,500	4,400	1,200
Lower Quartile	46,700	28,800	10,100	-2,800
Lower Decile	44,600	26,700	12,200	-4,900

1/ Net usable storage above 17.9 MAF System minimum pool level established for power, recreation, irrigation diversions, and other purposes.

2/ System base of annual flood control zone containing 56.8 MAF.

TABLE VII
MISSOURI RIVER MAINSTEM SYSTEM
WATER USE FOR CALENDAR YEARS 2011, 2012, AND 2013 ABOVE SIOUX CITY, IOWA
in Million Acre-Feet (MAF)

		CY 2011 Actual	CY 2012 Basic Simulation	Simulations for Calendar Year 2013 Upper Decile	Upper Quartile	Median	Lower Quartile	Lower Decile
Upstream Depletions	(1)							
Irrigation, Tributary Reservoir Evaporation & Other Uses		2.4	2.6					
Tributary Reservoir Storage Change		0.1	0.1					
Total Upstream Depletions		2.5	2.7	2.8	2.8	2.8	2.7	2.5
System Reservoir Evaporation	(2)	3.3	2.4	1.3	1.2	1.7	1.9	1.9
Sioux City Flows								
Navigation Season								
Unregulated Flood Inflows Between Gavins Point & Sioux City	(3)	0.7	0.0					
Navigation Service Requirement	(4)	15.2	16.1	16.4	16.2	15.5	14.2	13.4
Supplementary Releases								
T&E Species	(5)	0.0	0.7	0.3	0.3	0.4	0.3	0.2
Flood Evacuation	(6)	34.2	0.0	5.7	2.1	0.0	0.0	0.0
Non-navigation Season								
Flows		3.7	3.8	3.1	3.1	3.1	3.1	3.0
Flood Evacuation Releases	(7)	1.1	0.9	0.5	0.3	0.0	0.0	0.0
System Storage Change		-0.3	-5.6	4.4	4.6	1.1	-2.9	-4.9
Total		61.0	21.0	34.5	30.6	24.6	19.3	16.1
Project Releases								
Fort Peck		13.4	6.9	7.5	6.9	6.3	6.2	6.2
Garrison		36.9	16.0	18.8	16.8	15.0	14.3	13.7
Oahe		41.8	18.5	19.7	16.9	15.7	15.6	15.3
Big Bend		40.6	17.7	19.6	16.8	15.6	15.5	15.2
Fort Randall		44.9	18.6	21.0	17.9	16.4	15.7	15.4
Gavins Point		46.8	20.1	23.1	19.8	17.8	16.9	16.4

(1) Tributary uses above the 1949 level of development including agricultural depletions and tributary storage effects.
(2) Net evaporation is shown for 2013.
(3) Incremental inflows to reach which exceed those usable in support of navigation at the target level, even if Gavins Point releases were held to as low as 6,000 cfs.
(4) Estimated requirement for downstream water supply and water quality is approximately 6.0 MAF.
(5) Increased releases required for endangered species regulation.
(6) Includes flood control releases for flood control storage evacuation and releases used to extend the navigation season beyond the normal December 1 closing date at the mouth of the Missouri River.
(7) Releases for flood control storage evacuation in excess of a 17,000 cfs Gavins Point release.

VIII. TENTATIVE PROJECTION OF REGULATION THROUGH FEBRUARY 2019

The 5-year extensions to the AOP (March 2014 to March 2019) have been prepared to serve as a guide for the Western Area Power Administration's marketing activities and to provide data to allow basin interests to conduct long-term planning. Three runoff conditions are modeled in the extension studies: Median, Lower Quartile, and Lower Decile.

The full 16.3 MAF of flood control capacity or more was available at the start of each runoff season. The navigation service level and season length criteria described in ***Plate 3*** were applied to the extensions. The March 15 and July 1 System storage checks shown in ***Plate 3*** were used to determine the flow support for navigation and other downstream uses and the navigation season length. A steady release – flow to target (SR-FTT) regulation with cycling in May was modeled during the T&E bird species' nesting season. The Gavins Point releases to meet navigation target flows, as shown in ***Plate 3*** and as computed by the March 15 and July 1 System storage checks, were used prior to and following the nesting season. The September 1 System storage check was used to determine the winter System release. Navigation service support and season length, March 1 reservoir unbalancing, end of year System storage, and the winter release rate for the extensions are shown on ***Table VII***. The March and May spring pulses are currently on hold pending their review as discussed in Chapter III and were not included in the extension studies. The criteria considered as each year of the extensions was modeled are listed, along with the results, in ***Tables VIII through X*** for the Median, Lower Quartile, and Lower Decile extension studies, respectively.

A. Median Runoff. Studies 9 through 13 present the results of simulating Median runoff (24.6 MAF) from March 2014 through February 2019. The March 1, 2014 System storage would be 52.7 MAF and would increase to 53.4 MAF by March 1, 2019, 3.4 MAF below the desired March 1 storage of 56.8 MAF, the base of the annual flood control and multiple use pool. The navigation service level would range from full service to 1,100 cfs below full service for the study period of 2014 to 2018. There would be full navigation seasons for the study period of 2014 through 2018. Winter releases would range from 14,200 cfs in the winter of 2014-2015 to 14,700 cfs in winter 2017-2018. For the entire study period, the carryover multiple use storage in Fort Peck, Garrison, and Oahe was balanced on March 1 each year.

TABLE VIII
NAVIGATION SERVICE SUPPORT, SPRING PULSES, UNBALANCING
AOP EXTENSION STUDIES

	2014	2015	2016	2017	2018
MEDIAN					
Annual Runoff Volume (MAF)	24.6	24.6	24.6	24.6	24.6
Spring Pulse					
March (kcfs)	N/A	N/A	N/A	N/A	N/A
May (kcfs)	N/A	N/A	N/A	N/A	N/A
Flow Level Below Full Service					
Spring (kcfs)	Full-1.1	Full-0.7	Full-0.4	Full-0.3	Full-0.3
Summer/Fall (kcfs)	Full	Full	Full	Full	Full
Season Length	8 months	8 months	8 months	8 months	8 months
Reservoir Unbalancing (ft)					
Fort Peck	0	0	0	0	0
Garrison	0	0	0	0	0
Oahe	0	0	0	0	0
Dec 31 Storage (MAF)	52.9	53.2	53.3	53.3	53.2
Winter Release (kcfs)	14.2	14.5	14.5	14.7	14.5
Special Information					
LOWER QUARTILE					
Annual Runoff Volume (MAF)	19.9	20.2	21.8	22.8	24.4
Spring Pulse					
March (kcfs)	N/A	N/A	N/A	N/A	N/A
May (kcfs)	N/A	N/A	N/A	N/A	N/A
Flow Level Below Full Service					
Spring (kcfs)	Full-6.0**	Full-6.0	Full-6.0	Full-6.0	Full-6.0
Summer/Fall (kcfs)	Full-6.0	Full-6.0	Full-6.0	Full-6.0	Full-5.0
Season Length	8 mnths-11days	8 mnths-20days	8 mnths-19days	8 mnths-12days	8 mnths
Reservoir Unbalancing (ft)					
Fort Peck	0	0	0	0	0
Garrison	0	0	0	0	0
Oahe	0	0	0	0	0
Dec 31 Storage (MAF)	45.1	44.3	44.8	45.8	47.4
Winter Release (kcfs)	12.5	12.5	12.5	12.5	12.5
LOWER DECILE					
Annual Runoff Volume (MAF)	17.1	17.5	18.5	19.3	19.5
Spring Pulse					
March (kcfs)	N/A	N/A	N/A	N/A	N/A
May (kcfs)	N/A	N/A	N/A	N/A	N/A
Flow Level Below Full Service					
Spring (kcfs)	Full-6.0	Full-6.0	Full-6.0	Full-6.0	Full-6.0
Summer/Fall (kcfs)	Full-6.0	Full-6.0	Full-6.0	Full-6.0	Full-6.0
Season Length	8 mnths-30days	8 mnths-30days	8 mnths-30days	8 mnths-38 days	8 mnths-42days
Reservoir Unbalancing (ft)					
Fort Peck	0	0	0	0	0
Garrison	0	0	0	0	0
Oahe	0	0	0	0	0
Dec 31 Storage (MAF)	41.2	38.4	36.6	35.8	35.4
Winter Release (kcfs)	12.5	12.5	12.5	12.5	12.5

* Limited by Downstream Flood-Control Limits

** Minimum service is the equivalent of Full -6.0

N/A – The March and May Spring Pulses are currently on hold. See Chapter III for more information.

Table IX							
Median Extension Studies - Criteria Considered in the Modeling Process							
Study Number			**9**	**10**	**11**	**12**	**13**
	Units	**Criteria**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**2018-2019**
March 1 Storage	*MAF*	*40*	52.7	53.1	53.3	53.4	53.4
- March Spring Pulse?	*N/A*		N/A	N/A	N/A	N/A	N/A
March 15 Storage	*MAF*	*31/49/54.5*	53.5	53.9	54.1	54.2	54.2
- Service Level	*N/A or kcfs*	*No Sea/Min/Full Thresholds*	Full - 1.1	Full - 0.7	Full - 0.4	Full - 0.3	Full - 0.3
- 3rd Period March GP Q	*kcfs*		25.6	26.0	26.3	26.4	26.4
- April Gavins Point Q	*kcfs*		25.6	26.0	26.3	26.4	26.4
May 1 Storage	*MAF*	*40*	54.5	54.9	55.0	55.1	55.1
- May Spring Pulse?	*N/A*		N/A	N/A	N/A	N/A	N/A
*- Pulse Magnitude**	*kcfs*		N/A	N/A	N/A	N/A	N/A
- Gavins Point Cycling Qs	*kcfs*		26.5/30.5	27.3/30.9	27.6/31.2	27.7/31.3	27.7/31.3
- May Gavins Point Q	*kcfs*		27.6	28.0	28.3	28.4	28.4
- June Gavins Point Q	*kcfs*		30.5	30.9	31.2	31.3	31.3
July 1 Storage	*MAF*	*50.5/57*	57.7	58.0	58.1	58.1	58.1
- Service Level	*N/A*	*Min/Full Thresholds*	Full	Full	Full	Full	Full
- July Gavins Point Q	*kcfs*		31.6	31.6	31.6	31.6	31.6
- Aug Gavins Point Q	*kcfs*		33.2	33.2	33.2	33.2	33.2
- Sept Gavins Point Q	*kcfs*		32.6	32.6	32.6	32.6	32.6
July 1 Storage	*MAF*	*36.5/41&46.8/51.5*	57.7	58.0	58.1	58.1	58.1
- Season Length Shortening	*days*	*61/31&31/0 Thresholds*	0	0	0	0	0
- Oct Gavins Point Q	*kcfs*		32.0	32.0	32.0	32.0	32.0
- Nov Gavins Point Q	*kcfs*		27.9	28.0	28.0	28.0	28.0
September 1 Storage	*MAF*	*55/58*	56.3	56.5	56.5	56.6	56.5
- Winter Gavins Point Q	*kcfs*	*12/17 Thresholds*	14.2	14.5	14.5	14.7	14.5
End-of-Year Reservoir Storage (12/31)	*MAF*		52.9	53.2	53.3	53.3	53.2
- Percent Full	*N/A*		93%	94%	94%	94%	94%
Balance/Unbalance	*N/A*	*Bal <2227/1827/1600 ft msl*	Balanced	Balanced	Balanced	Balanced	Balanced
Peck Rise 3/31-5/31	*N/A*		Yes	Yes	Yes	Yes	Yes
Garr Rise 3/31-5/31	*N/A*		Yes	Yes	Yes	Yes	Yes
Oahe Rise 3/31-5/31	*N/A*		Yes	Yes	Yes	Yes	Yes
Favored Reservoir - Fish Spawn	*N/A*		GA	FP/OA	GA	FP/OA	GA
** Pulse magnitudes are the calculated magnitude per technical criteria and simulated magnitude due to the downstream flow limits*							
N/A - The March and May Spring Pulses are currently on hold. See Chapter III for more information.							

Table X							
Lower Quartile Extension Studies - Criteria Considered in the Modeling Process							
Study Number			**14**	**15**	**16**	**17**	**18**
	Units	Criteria	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**2018-2019**
March 1 Storage	*MAF*	*40*	46.7	45.2	44.5	45.0	46.2
- March Spring Pulse?	*N/A*		N/A	N/A	N/A	N/A	N/A
March 15 Storage	*MAF*	*31/49/54.5*	47.3	45.9	45.3	45.9	47.1
- Service Level	*N/A or kcfs*	*No Sea/Min/Full Thresholds*	Min Service	Min Service	Min Service	Min Service	Min Service
- 3rd Period March GP Q	*kcfs*		23.8	23.8	23.8	23.8	23.8
- April Gavins Point Q	*kcfs*		23.8	23.8	23.8	23.8	23.8
May 1 Storage	*MAF*	*40*	47.7	46.5	46.1	46.9	48.4
- May Spring Pulse?	*N/A*		N/A	N/A	N/A	N/A	N/A
*- Pulse Magnitude**	*kcfs*		N/A	N/A	N/A	N/A	N/A
- Gavins Point Cycling Qs	*kcfs*		25.3/28.3	25.3/28.3	25.3/28.3	25.3/28.3	25.3/28.3
- May Gavins Point Q	*kcfs*		25.9	25.9	25.9	25.9	25.9
- June Gavins Point Q	*kcfs*		28.3	28.3	28.3	28.3	28.3
July 1 Storage	*MAF*	*50.5/57*	49.7	48.4	48.5	49.6	51.6
- Service Level	*N/A*	*Min/Full Thresholds*	Min Service	Min Service	Min Service	Min Service	Full - 5.0
- July Gavins Point Q	*kcfs*		28.3	28.3	28.3	28.3	29.3
- Aug Gavins Point Q	*kcfs*		28.0	28.0	28.0	28.0	29.0
- Sept Gavins Point Q	*kcfs*		27.5	27.5	27.5	27.5	28.5
July 1 Storage	*MAF*	*36.5/41&46.8/51.5*	49.7	48.4	48.5	49.6	51.6
- Season Length Shortening	*days*	*61/31&31/0 Thresholds*	11	20	19	12	0
- Oct Gavins Point Q	*kcfs*		27.1	27.1	27.1	27.1	28.1
- Nov Gavins Point Q	*kcfs*		16.1	11.3	11.8	15.6	23.3
September 1 Storage	*MAF*	*55/58*	47.8	46.7	46.9	48.1	50.2
- Winter Gavins Point Q	*kcfs*	*12/17 Thresholds*	12.5	12.5	12.5	12.5	12.5
End-of-Year Reservoir Storage (12/31)	*MAF*		45.1	44.3	44.8	45.8	47.4
- Percent Full	*N/A*		79%	78%	79%	81%	83%
Balance/Unbalance	*N/A*	*Bal <2227/1827/1600 ft msl*	Balance	Balance	Balance	Balance	Balance
Peck Rise 3/31-5/31	*N/A*		No	Yes	Yes	Yes	Yes
Garr Rise 3/31-5/31	*N/A*		Yes	Yes	Yes	Yes	Yes
Oahe Rise 3/31-5/31	*N/A*		No	Yes	Yes	Yes	Yes
Favored Reservoir - Fish Spawn	*N/A*		GA	FP/OA	GA	FP/OA	GA
** Pulse magnitudes are the calculated magnitude per technical criteria and simulated magnitude due to the downstream flow limits*							
N/A - The March and May Spring Pulses are currently on hold. See Chapter III for more information.							

Table XI							
Lower Decile Extension Studies - Criteria Considered in the Modeling Process							
Study Number			**19**	**20**	**21**	**22**	**23**
	Units	**Criteria**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**	**2018-2019**
March 1 Storage	*MAF*	*40*	44.4	41.2	38.5	36.8	36.1
- March Spring Pulse?	*N/A*		N/A	N/A	N/A	N/A	N/A
March 15 Storage	*MAF*	*31/49/54.5*	45.0	41.8	39.2	37.6	36.8
- Service Level	*N/A or kcfs*	*No Sea/Min/Full Thresholds*	Min Service	Min Service	Min Service	Min Service	Min Service
- 3rd Period March GP Q	*kcfs*		23.8	23.8	23.8	23.8	23.8
- April Gavins Point Q	*kcfs*		23.8	23.8	23.8	23.8	23.8
May 1 Storage	*MAF*	*40*	45.2	42.1	39.7	38.2	37.4
- May Spring Pulse?	*N/A*		N/A	N/A	N/A	N/A	N/A
- Pulse Magnitude	*kcfs*		N/A	N/A	N/A	N/A	N/A
- Gavins Point Cycling Qs	*kcfs*		25.3/28.3	25.3/28.3	25.3/28.3	25.3/28.3	25.3/28.3
- May Gavins Point Q	*kcfs*		25.9	25.9	25.9	25.9	25.9
- June Gavins Point Q	*kcfs*		28.3	28.3	28.3	28.3	28.3
July 1 Storage	*MAF*	*50.5/57*	46.6	43.4	41.3	39.9	39.3
- Service Level	*N/A*	*Min/Full Thresholds*	Min Service	Min Service	Min Service	Min Service	Min Service
- July Gavins Point Q	*kcfs*		28.3	28.3	28.3	28.3	28.3
- Aug Gavins Point Q	*kcfs*		28.0	28.0	28.0	28.0	28.0
- Sept Gavins Point Q	*kcfs*		27.5	27.5	27.5	27.5	27.5
July 1 Storage	*MAF*	*36.5/41&46.8/51.5*	46.6	43.4	41.3	39.9	39.3
- Season Length Shortening	*days*	*61/31&31/0 Thresholds*	30	30	30	38	42
- Oct Gavins Point Q	*kcfs*		23.9	23.9	23.9	19.2	16.9
- Nov Gavins Point Q	*kcfs*		9.0	9.0	9.0	9.0	9.0
September 1 Storage	*MAF*	*55/58*	43.6	40.6	38.6	37.4	36.7
- Winter Gavins Point Q	*kcfs*	*12/17 Thresholds*	12.5	12.5	12.5	12.5	12.5
End-of-Year Reservoir Storage (12/31)	*MAF*		41.2	38.4	36.6	35.8	35.4
- Percent Full	*N/A*		73%	68%	64%	63%	62%
Balance/Unbalance	*N/A*	*Bal <2227/1827/1600 ft msl*	Balance	Balance	Balance	Balance	Balance
Peck Rise 3/31-5/31	*N/A*		No	Yes	Yes	Yes	Yes
Garr Rise 3/31-5/31	*N/A*		Yes	No	Yes	Yes	Yes
Oahe Rise 3/31-5/31	*N/A*		No	Yes	Yes	Yes	Yes
Favored Reservoir - Fish Spawn	*N/A*		GA	FP/OA	GA	FP/OA	GA
** Pulse magnitudes are the calculated magnitude per technical criteria and simulated magnitude due to the downstream flow limits*							
N/A - The March and May Spring Pulses are currently on hold. See Chapter III for more information.							

B. Lower Quartile Runoff. Studies 14 through 18 show the results of Lower Quartile runoff extensions. System storage on March 1, 2014 would be 46.7 MAF and fall to 46.2 MAF by March 1, 2019. Navigation service levels would range between 5,000 cfs below full service to minimum service for the simulation period 2014 to 2018. The navigation season is shortened 11 days in 2014, 20 days in 2015, 19 days in 2016, 12 days in 2017, and no shortening in 2018. A 12,500-cfs average winter release is shown for the entire study period. Under Lower Quartile runoff, the carryover multiple use storage in the upper three reservoirs would be balanced each March 1.

C. Lower Decile Runoff. Studies 19 through 23 show the results of Lower Decile runoff extensions. System storage would be 44.4 MAF on March 1, 2014 and gradually decrease to 36.1 MAF on March 1, 2019. Navigation service levels would be at minimum navigation service levels throughout the season for all extension years. The navigation season would be shortened 30 days in 2014 through 2016, 38 days in 2017, and 42 days in 2018. The intrasystem storage is balanced each March 1 for the entire study period.

Plate 14 presents System storage, Gavins Point releases, and System peaking capability for Median, Lower Quartile, and Lower Decile runoff for the period 2014 through February 2019. Peak power, or peaking capability, is the amount of power available when all powerplants are operating at maximum.

Plate 15 presents reservoir pool elevations for Fort Peck, Garrison, Oahe, and Fort Randall for Median, Lower Quartile, and Lower Decile runoff for the period 2014 through February 2019.

USACE Mainstem Project

USACE Tributary Project

USBR SECTION 7 PROJECT

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-------- District Boundary

Missouri River Basin

U.S. ARMY ENGINEERS, NORTHWESTERN DIVISION
CORPS OF ENGINEERS, OMAHA, NEBRASKA
AUGUST 2011

PLATE 1. Missouri River Basin Map.

Summary of Engineering Data -- Missouri River Mainstem System

Item No.	Subject	Fort Peck Dam - Fort Peck Lake	Garrison Dam - Lake Sakakawea	Oahe Dam - Lake Oahe
1	Location of Dam	Near Glasgow, Montana	Near Garrison, ND	Near Pierre, SD
2	River Mile - 1960 Mileage	Mile 1771.5	Mile 1389.9	Mile 1072.3
3	Total & incremental drainage areas in square miles	57,500	181,400 (2) 123,900	243,490 (1) 62,090
4	Approximate length of full reservoir (in valley miles)	134, ending near Zortman, MT	178, ending near Trenton, ND	231, ending near Bismarck, ND
5	Shoreline in miles (3)	1520 (elevation 2234)	1340 (elevation 1837.5)	2250 (elevation 1607.5)
6	Average total & incremental inflow in cfs	10,200	25,600 15,400	28,900 3,300
7	Max. discharge of record near damsite in cfs	137,000 (June 1953)	348,000 (April 1952)	440,000 (April 1952)
8	Construction started - calendar yr.	1933	1946	1948
9	In operation (4) calendar yr.	1940	1955	1962
	Dam and Embankment			
10	Top of dam, elevation in feet msl	2280.5	1875	1660
11	Length of dam in feet	21,026 (excluding spillway)	11,300 (including spillway)	9,300 (excluding spillway)
12	Damming height in feet (5)	220	180	200
13	Maximum height in feet (5)	250.5	210	245
14	Max. base width, total & w/o berms in feet	3500, 2700	3400, 2050	3500, 1500
15	Abutment formations (under dam & embankment)	Bearpaw shale and glacial fill	Fort Union clay shale	Pierre shale
16	Type of fill	Hydraulic & rolled earth fill	Rolled earth filled	Rolled earth fill & shale berms
17	Fill quantity, cubic yards	125,628,000	66,500,000	55,000,000 & 37,000,000
18	Volume of concrete, cubic yards	1,200,000	1,500,000	1,045,000
19	Date of closure	24 June 1937	15 April 1953	3 August 1958
	Spillway Data			
20	Location	Right bank - remote	Left bank - adjacent	Right bank - remote
21	Crest elevation in feet msl	2225	1825	1596.5
22	Width (including piers) in feet	820 gated	1336 gated	456 gated
23	No., size and type of gates	16 - 40' x 25' vertical lift gates	28 - 40' x 29' Tainter	8 - 50' x 23.5' Tainter
24	Design discharge capacity, cfs	275,000 at elev 2253.3	827,000 at elev 1858.5	304,000 at elev 1644.4
25	Discharge capacity at maximum operating pool in cfs	230,000	660,000	80,000
	Reservoir Data (6)			
26	Max. operating pool elev. & area	2250 msl 241,000 acres	1854 msl 380,000 acres	1620 msl 374,000 acres
27	Max. normal op. pool elev. & area	2246 msl 234,000 acres	1850 msl 364,000 acres	1617 msl 360,000 acres
28	Base flood control elev & area	2234 msl 210,000 acres	1837.5 msl 307,000 acres	1607.5 msl 312,000 acres
29	Min. operating pool elev. & area	2160 msl 89,000 acres	1775 msl 128,000 acres	1540 msl 117,000 acres
	Storage allocation & capacity			
30	Exclusive flood control	2250-2246 971,000 a.f.	1854-1850 1,489,000 a.f.	1620-1617 1,102,000 a.f.
31	Flood control & multiple use	2246-2234 2,704,000 a.f.	1850-1837.5 4,222,000 a.f.	1617-1607.5 3,201,000 a.f.
32	Carryover multiple use	2234-2160 10,700,000 a.f.	1837.5-1775 13,130,000 a.f.	1607.5-1540 13,461,000 a.f.
33	Permanent	2160-2030 4,088,000 a.f.	1775-1673 4,980,000 a.f.	1540-1415 5,373,000 a.f.
34	Gross	2250-2030 18,463,000 a.f.	1854-1673 23,821,000 a.f.	1620-1415 23,137,000 a.f.
35	Reservoir filling initiated	November 1937	December 1953	August 1958
36	Initially reached min. operating pool	27 May 1942	7 August 1955	3 April 1962
37	Estimated annual sediment inflow	17,700 a.f. 1030 yrs.	25,900 a.f. 920 yrs.	19,800 a.f. 1170 yrs.
	Outlet Works Data			
38	Location	Right bank	Right Bank	Right Bank
39	Number and size of conduits	2 - 24' 8" diameter (nos. 3 & 4)	1 - 26' dia. and 2 - 22' dia.	6 - 19.75' dia. upstream, 18.25' dia. downstream
40	Length of conduits in feet (8)	No. 3 - 6,615, No. 4 - 7,240	1529	3496 to 3659
41	No., size, and type of service gates	1 - 28' dia. cylindrical gate 6 ports, 7.6' x 8.5' high (net opening) in each control shaft	1 - 18' x 24.5' Tainter gate per conduit for fine regulation	1 - 13' x 22' per conduit, vertical lift, 4 cable suspension and 2 hydraulic suspension (fine regulation)
42	Entrance invert elevation (msl)	2095	1672	1425
43	Avg. discharge capacity per conduit & total	Elev. 2250 22,500 cfs - 45,000 cfs	Elev. 1854 30,400 cfs - 98,000 cfs	Elev. 1620 18,500 cfs - 111,000 cfs
44	Present tailwater elevation (ft msl)	2032-2036 5,000 - 35,000 cfs	1670-1680 15,000- 60,000 cfs	1423-1428 20,000-55,000 cfs
	Power Facilities and Data			
45	Avg. gross head available in feet (14)	194	161	174
46	Number and size of conduits	No. 1-24'8" dia., No. 2-22'4" dia.	5 - 29' dia., 25' penstocks	7 - 24' dia., imbedded penstocks
47	Length of conduits in feet (8)	No. 1 - 5,653, No. 2 - 6,355	1829	From 3,280 to 4,005
48	Surge tanks	PH#1: 3-40' dia., PH#2: 2-65' dia.	65' dia. - 2 per penstock	70' dia., 2 per penstock
49	No., type and speed of turbines	5 Francis, PH#1-2: 128.5 rpm, 1-164 rpm , PH#2-2: 128.6 rpm	5 Francis, 90 rpm	7 Francis, 100 rpm
50	Discharge cap. at rated head in cfs	PH#1, units 1&3 170', 2-140' 8,800 cfs, PH#2-4&5 170'-7,200 cfs	150' 41,000 cfs	185' 54,000 cfs
51	Generator nameplate rating in kW	1&3: 43,500; 2: 18,250; 4&5: 40,000	3 - 121,600, 2 - 109,250	112,290
52	Plant capacity in kW	185,250	583,300	786,030
53	Dependable capacity in kW (9)	181,000	388,000	534,000
54	Avg. annual energy, million kWh (12)	1,048	2,253	2,635
55	Initial generation, first and last unit	July 1943 - June 1961	January 1956 - October 1960	April 1962 - June 1963
56	Estimated cost September 1999 completed project (13)	$158,428,000	$305,274,000	$346,521,000

Summary of Engineering Data -- Missouri River Mainstem System

Big Bend Dam - Lake Sharpe	Fort Randall Dam - Lake Francis Case	Gavins Point Dam - Lewis & Clark Lake	Total	Item No.	Remarks
21 miles upstream Chamberlain, SD	Near Lake Andes, SD	Near Yankton, SD		1	(1) Includes 4,280 square miles of non-contributing areas.
Mile 987.4	Mile 880.0	Mile 811.1		2	
249,330 (1) 5,840	263,480 (1) 14,150	279,480 (1) 16,000		3	(2) Includes 1,350 square miles of non-contributing areas.
80, ending near Pierre, SD	107, ending at Big Bend Dam	25, ending near Niobrara, NE	755 miles	4	
200 (elevation 1420)	540 (elevation 1350)	90 (elevation 1204.5)	5,940 miles	5	(3) With pool at base of flood control.
28,900	30,000 1,100	32,000 2,000		6	
440,000 (April 1952)	447,000 (April 1952)	480,000 (April 1952)		7	(4) Storage first available for regulation of flows.
1959	1946	1952		8	(5) Damming height is height from low water to maximum operating pool. Maximum height is from average streambed to top of dam.
1964	1953	1955		9	
1440	1395	1234		10	
10,570 (including spillway)	10,700 (including spillway)	8,700 (including spillway)	71,596	11	(6) Based on latest available storage data.
78	140	45	863 feet	12	
95	165	74		13	(7) River regulation is attained by flows over low-crested spillway and through turbines.
1200, 700	4300, 1250	850, 450		14	
Pierre shale & Niobrara chalk	Niobrara chalk	Niobrara chalk & Carlile shale		15	(8) Length from upstream face of outlet or to spiral case.
Rolled earth, shale, chalk fill	Rolled earth fill & chalk berms	Rolled earth & chalk fill		16	
17,000,000	28,000,000 & 22,000,000	7,000,000	358,128,000 cu. yds	17	(9) Based on 8th year (1961) of drought drawdown (From study 8-83-1985).
540,000	961,000	308,000	5,554,000 cu. yds.	18	
24 July 1963	20 July 1952	31 July 1955		19	
Left bank - adjacent	Left bank - adjacent	Right bank - adjacent		20	(10) Affected by level of Lake Francis case. Applicable to pool at elevation 1350.
1385	1346	1180		21	
376 gated	1000 gated	664 gated		22	(11) Spillway crest.
8 - 40' x 38' Tainter	21 - 40' x 29' Tainter	14 - 40' x 30' Tainter		23	(12) 1967-2011 Average
390,000 at elev 1433.6	633,000 at elev 1379.8	584,000 at elev 1221.4		24	(13) Source: Annual Report on Civil Works Activities of the Corps of Engineers. Extract Report Fiscal Year 1999.
270,000	508,000	345,000		25	
1423 msl 61,000 acres	1375 msl 102,000 acres	1210 msl 30,000 acres	1,188,000 acres	26	(14) Based on Study 8-83-1985
1422 msl 60,000 acres	1365 msl 95,000 acres	1208 msl 27,000 acres	1,140,000 acres	27	
1420 msl 57,000 acres	1350 msl 77,000 acres	1204.5 msl 23,000 acres	986,000 acres	28	
1415 msl 51,000 acres	1320 msl 38,000 acres	1204.5 msl 23,000 acres	446,000 acres	29	
1423-1422 60,000 a.f.	1375-1365 985,000 a.f.	1210-1208 57,000 a.f.	4,664,000 a.f.	30	
1422-1420 117,000 a.f.	1365-1350 1,309,000 a.f.	1208-1204.5 86,000 a.f.	11,639,000 a.f.	31	
	1350-1320 1,607,000 a.f.		38,898,000 a.f.	32	
1420-1345 1,621,000 a.f.	1320-1240 1,517,000 a.f.	1204.5-1160 307,000 a.f.	17,886,000 a.f.	33	
1423-1345 1,798,000 a.f.	1375-1240 5,418,000 a.f.	1210-1160 450,000 a.f.	73,087,000 a.f.	34	
November 1963	January 1953	August 1955		35	
25 March 1964	24 November 1953	22 December 1955		36	
5,300 a.f. 430 yrs.	18,400 a.f. 250 yrs.	2,600 a.f. 180 yrs.	89,700 a.f.	37	
	Left Bank			38	
None (7)	4 - 22' diameter	None (7)		39	
	1013			40	
	2 - 11' x 23' per conduit, vertical lift, cable suspension			41	
1385 (11)	1229	1180 (11)		42	
	Elev 1375			43	
	32,000 cfs - 128,000 cfs				
1351-1355(10) 25,000-100,000 cfs	1228-1239 5,000-60,000 cfs	1155-1163 15,000-60,000 cfs		44	
70	117	48	764 feet	45	
None: direct intake	8 - 28' dia., 22' penstocks	None: direct intake		46	
	1,074		55,083	47	
None	59' dia, 2 per alternate penstock	None		48	
8 Fixed blade, 81.8 rpm	8 Francis, 85.7 rpm	3 Kaplan, 75 rpm	36 units	49	
67' 103,000 cfs	112' 44,500 cfs	48' 36,000 cfs		50	
3 - 67,276, 5 - 58,500	40,000	44,100		51	
494,320	320,000	132,300	2,501,200 kw	52	
497,000	293,000	74,000	1,967,000 kw	53	Corps of Engineers, U.S. Army
983	1,728	726	9,372 million kWh	54	Compiled by
October 1964 - July 1966	March 1954 - January 1956	September 1956 - January 1957	July 1943 - July 1966	55	Northwestern Division
				56	Missouri River Region
$107,498,000	$199,066,000	$49,617,000	$1,166,404,000		August 2012

Plate 2

Plate 3
Summary of Master Manual Technical Criteria

NAVIGATION TARGET FLOWS

Location	Minimum Service (kcfs)	Full Service (kcfs)
Sioux City	25	31
Omaha	25	31
Nebraska City	31	37
Kansas City	35	41

RELATION OF SYSTEM STORAGE TO NAVIGATION SERVICE LEVEL

Date	System Storage (MAF)	Navigation Service Level
March 15	54.5 or more	35,000 cfs (full-service)
March 15	49.0 to 31	29,000 cfs (minimum-service)
March 15	31.0 or less	No navigation service
July 1	57.0 or more	35,000 cfs (full-service)
July 1	50.5 or less	29,000 cfs (minimum-service)

RELATION OF SYSTEM STORAGE TO NAVIGATION SEASON LENGTH

Date	System Storage (MAF)	Final Day of Navigation Support at Mouth of the Missouri River
July 1	51.5 or more	November 30 (8-month season)
July 1	46.8 through 41.0	October 31 (7-month season)
July 1	36.5 or less	September 30 (6-month season)

RELATION OF SYSTEM WINTER RELEASE TO SYSTEM STORAGE

September 1 System Storage (MAF)	Average Winter Release for Gavins Point
58.0 or more	17,000 cfs
55.0 or less	12,000 cfs

GAVINS POINT RELEASES NEEDED TO MEET TARGET FLOWS

1950 to 1996 Data (kcfs)

Median, Upper Quartile, Upper Decile Runoff

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Full Service	26.7	28.0	27.9	31.6	33.2	32.6	32.0	31.1
Minimum Service	20.7	22.0	21.9	25.6	27.2	26.6	26.0	25.1

Lower Quartile, Lower Decile Runoff

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Full Service	29.8	31.3	31.2	34.3	34.0	33.5	33.1	31.2
Minimum Service	23.8	25.3	25.2	28.3	28.0	27.5	27.1	25.2

RESERVOIR UNBALANCING SCHEDULE

	Fort Peck		Garrison		Oahe	
Year	*March 1*	*Rest of Year*	*March 1*	*Rest of Year*	*March 1*	*Rest of Year*
1	High	Float	Low	Hold Peak	Raise & hold during spawn	Float
2	Raise & hold during spawn	Float	High	Float	Low	Hold peak
3	Low	Hold peak	Raise & hold during spawn	Float	High	Float

Notes: **Float year:** Normal regulation, then unbalance 1 foot during low pool years or 3 feet when System storage is near 57.0 MAF on March 1.

Low year: Begin low, then hold peak the remainder of the year.

High year: Begin high, raise and hold pool during spawn, then float.

MRNRC RECOMMENDED RESERVOIR ELEVATION GUIDELINES FOR UNBALANCING

	Fort Peck	Garrison	Oahe
Implement unbalancing if March 1 pool is above this level.	2234 feet msl	1837.5 feet msl	1607.5 feet msl
Implement unbalancing if March 1 pool level is in this range **and** the pool is expected to raise more than 3 feet after March 1.	2227-2234 feet msl	1827-1837.5 feet msl	1600-1607.5 feet msl
Scheduling Criteria	Avoid pool level decline during spawn period which ranges from April 15 – May 30	Schedule after spawn period of April 20 – May 20	Schedule after spawn period of April 8 – May 15

Plate 3 (cont'd)
Summary of Master Manual Technical Criteria

TECHNICAL CRITERIA FOR SPRING PULSES FROM GAVINS POINT DAM

Criteria Applicable to Both the March and May Spring Pulses

Flood Control Constraints	No change from current levels

Criteria Applicable to the March Spring Pulse

Drought Preclude	40.0 MAF or below measured on March 1.
Drought Proration of Pulse Magnitude*	None, 5 kcfs added to navigation releases, but no greater than 35 kcfs.
Initiation of Pulse	Extend the stepped System release increases that precede the beginning of the navigation season.
Rate of Rise before Peak	Approximately 5 kcfs for 1 day.
Duration of Peak	Two days.
Rate of Fall after Peak	Drop over 5 days to navigation target release.

Criteria Applicable to Time Period Between the Bimodal Pulses

Release	Existing Master Manual Criteria

Criteria Applicable to the May Spring Pulse

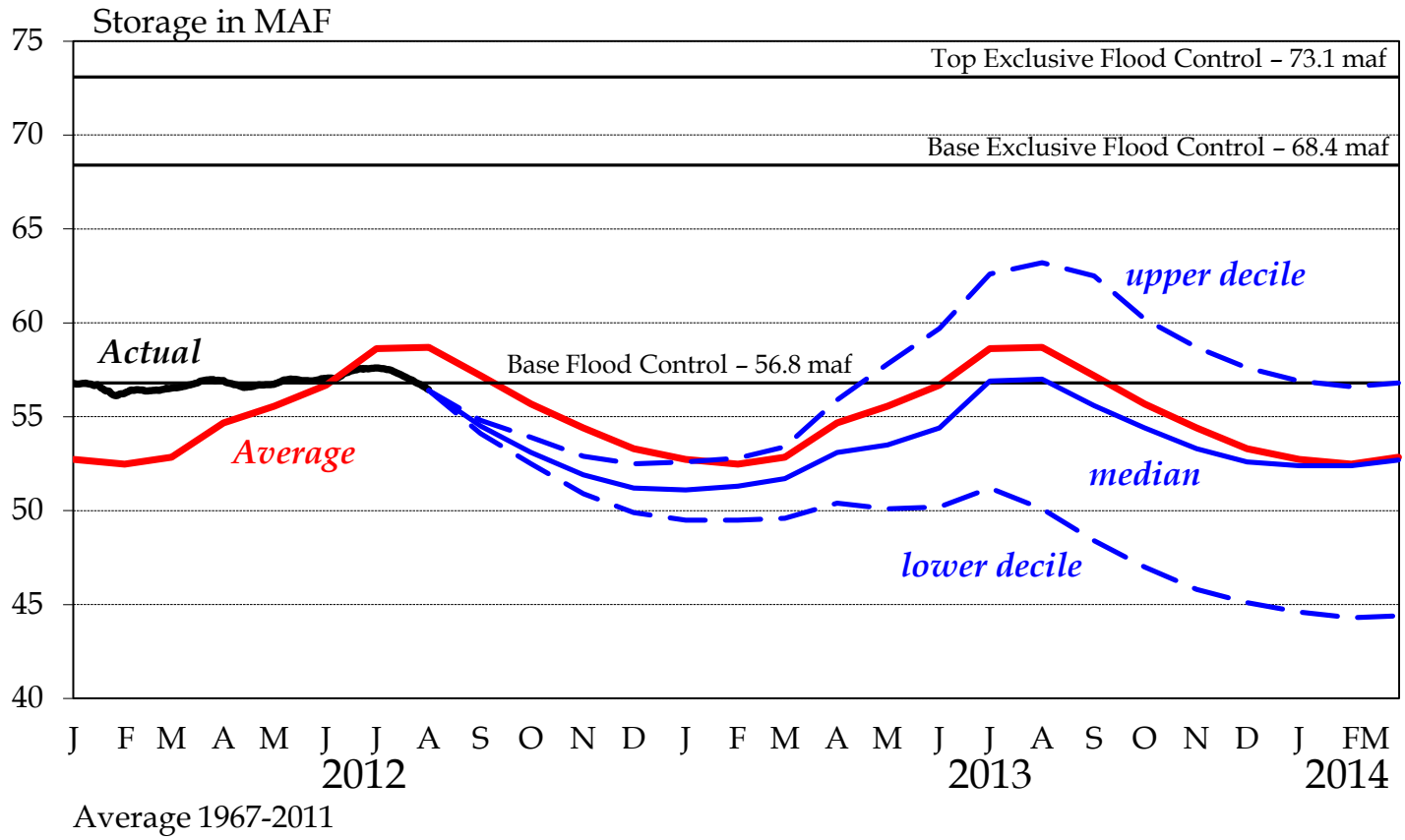
Drought Preclude	40.0 MAF or below measured on May 1.
Proration of Pulse Magnitude Based On System Storage*	Prorated from 16 kcfs based on a May 1 System Storage check; 100% at 54.5 MAF; straight line interpolation to 75% at 40.0 MAF.
Proration of Pulse Magnitude Based On Projected Runoff*	After the proration of the spring pulse magnitude for System Storage, the resultant magnitude would be further adjusted either up or down based on the May CY runoff forecast; 100% for Median; straight-line interpolation to 125% at Upper Quartile runoff; 125% for runoff above Upper Quartile; straight-line interpolation to 75% at Lower Quartile runoff; 75% for runoff below Lower Quartile.
Initiation of Pulse	Between May 1 to May 19, depending on Missouri River water temperature immediately below Gavins Point Dam. If possible, pulse will be initiated after the second daily occurrence of a 16 degree Celsius water temperature; however, the decision will be informed by the potential for 'take' of Threatened and Endangered bird species.
Rate of Rise before Peak	Approximately 6 kcfs per day.
Duration of Peak	Two days.
Rate of Fall after Peak	Approximately 30% drop over 2 days followed by a proportional reduction in releases back to the existing Master Manual criteria over an 8-day period.

Spring Pulse Downstream Flow Limits

Omaha	41,000 cfs
Nebraska City	47,000 cfs
Kansas City	71,000 cfs

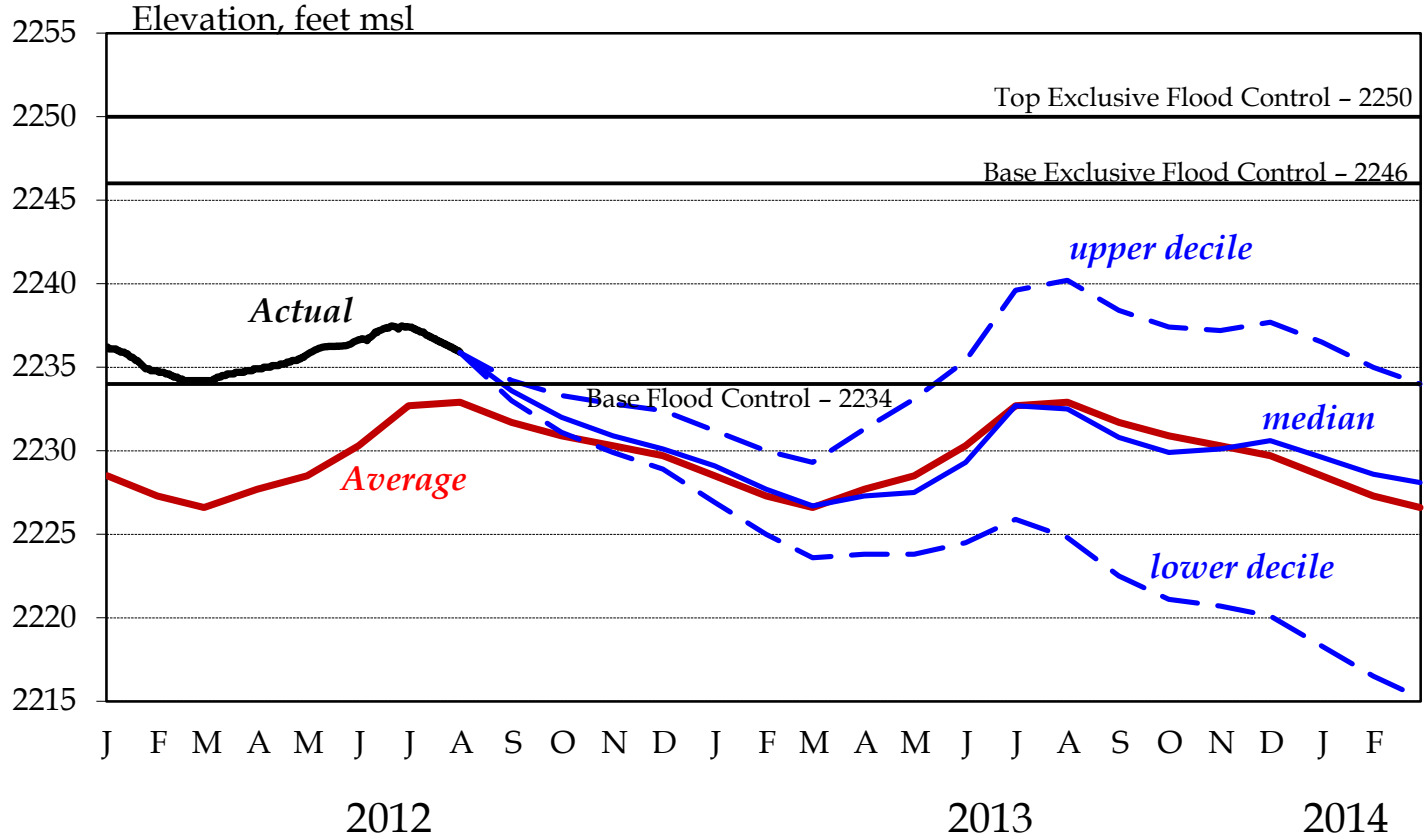
* Spring pulse magnitudes will be determined by taking the difference between pre-pulse Gavins Point releases and the peak pulse Missouri River flows measured just downstream of the mouth of the James River.

System Storage
2012-2013 AOP



Average 1967-2011

Fort Peck
2012-2013 AOP

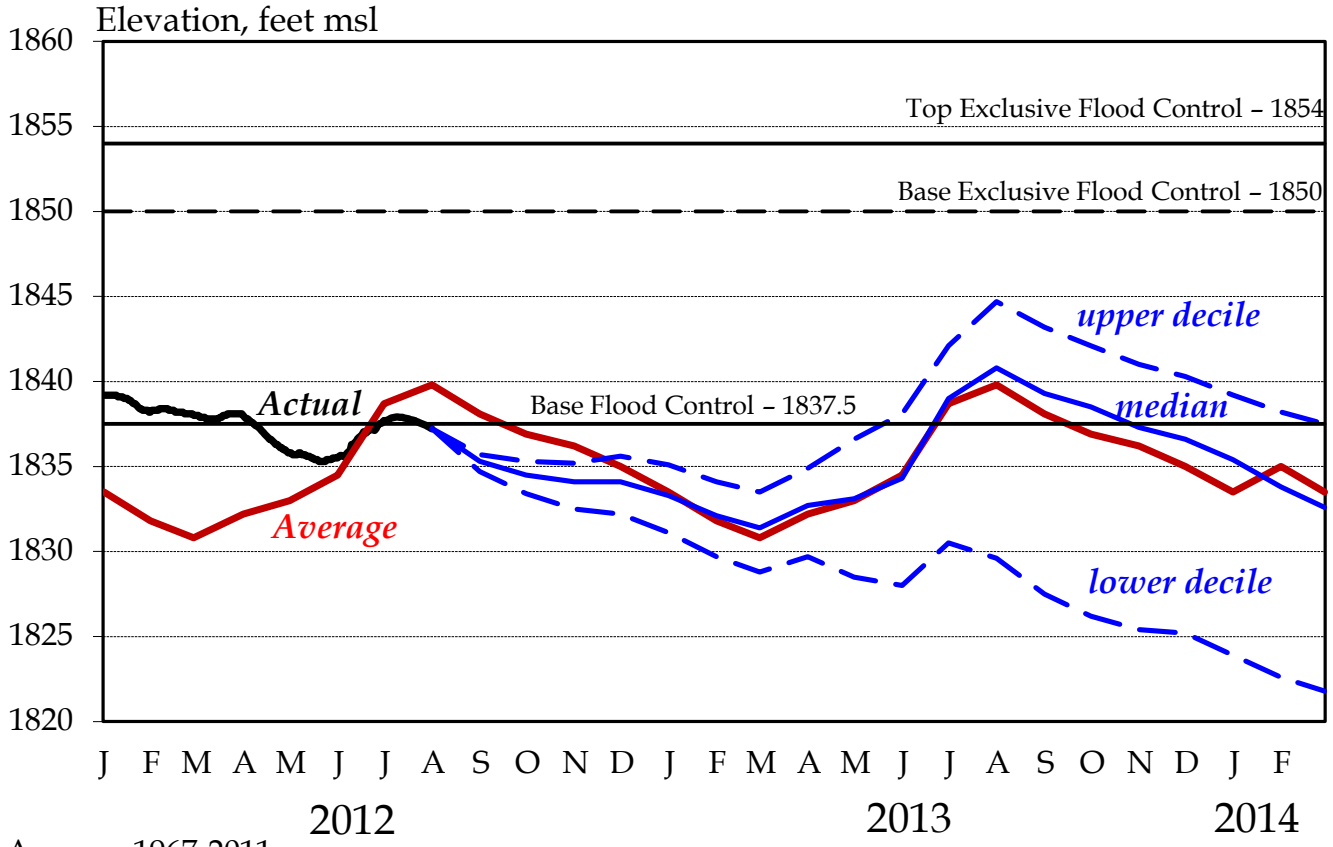


Average 1967-2011

Plate 4

Garrison

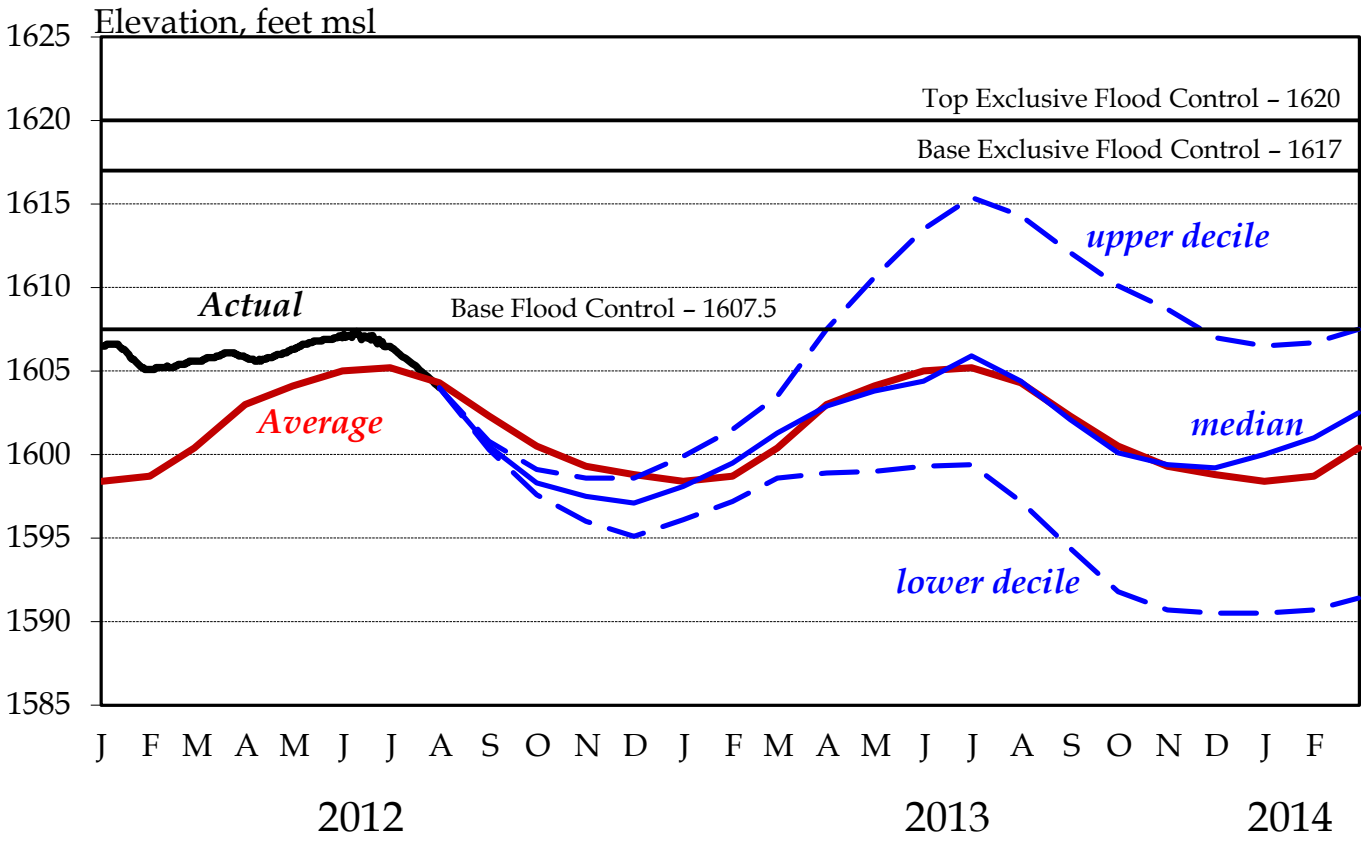
2012-2013 AOP



Average 1967-2011

Oahe

2012-2013 AOP



Average 1967-2011

Plate 5

System Storage

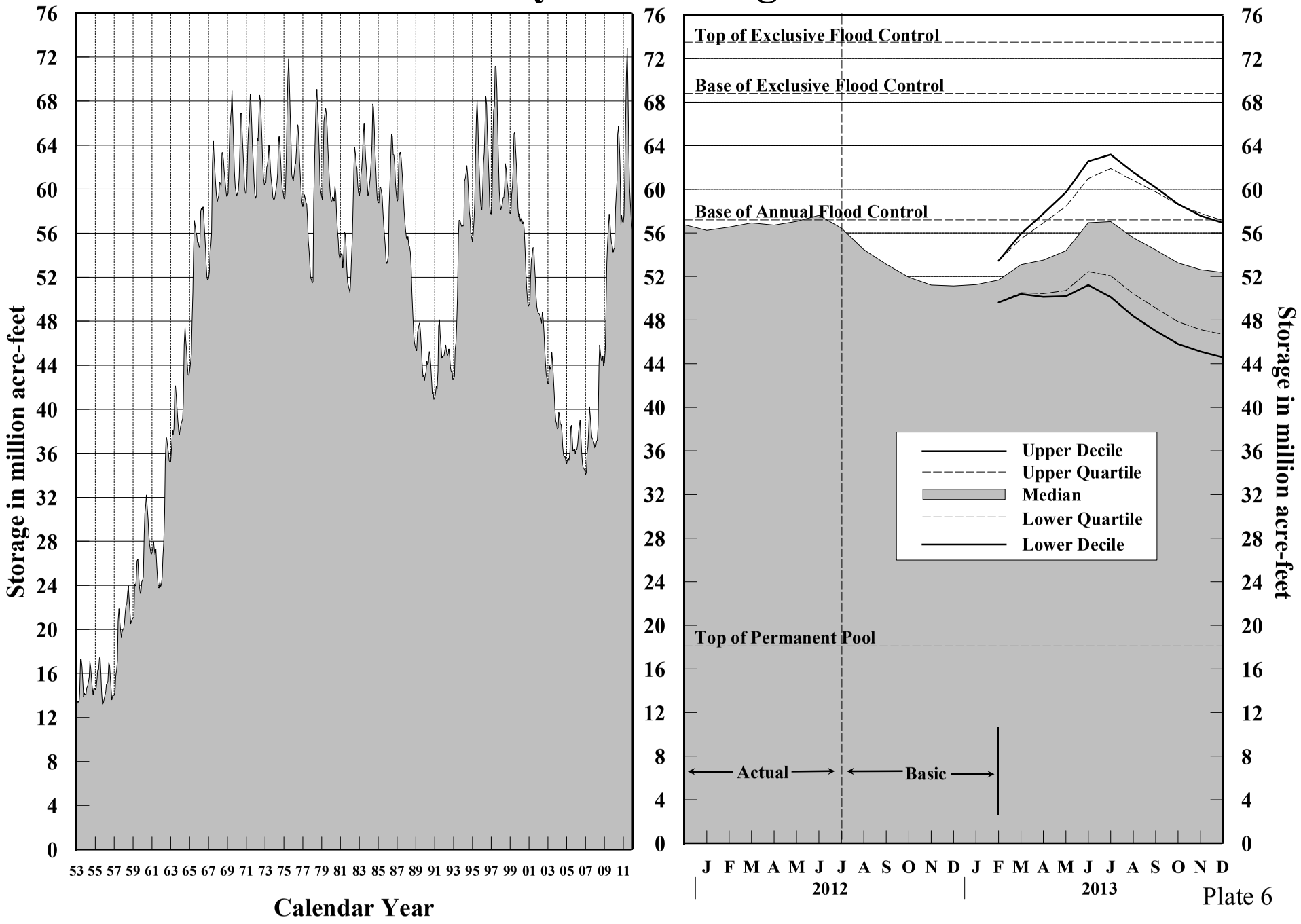


Plate 6

Gavins Point Releases

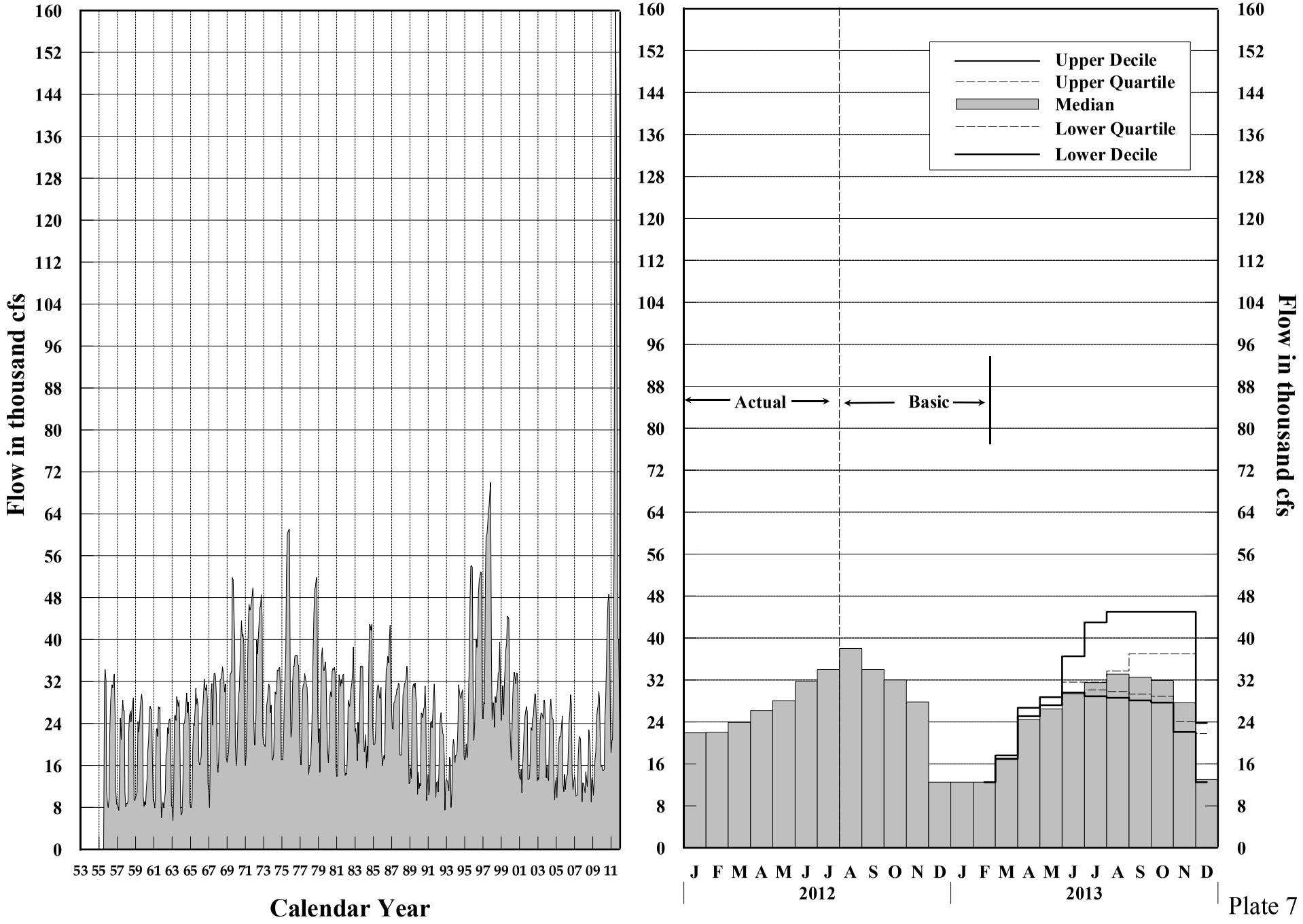
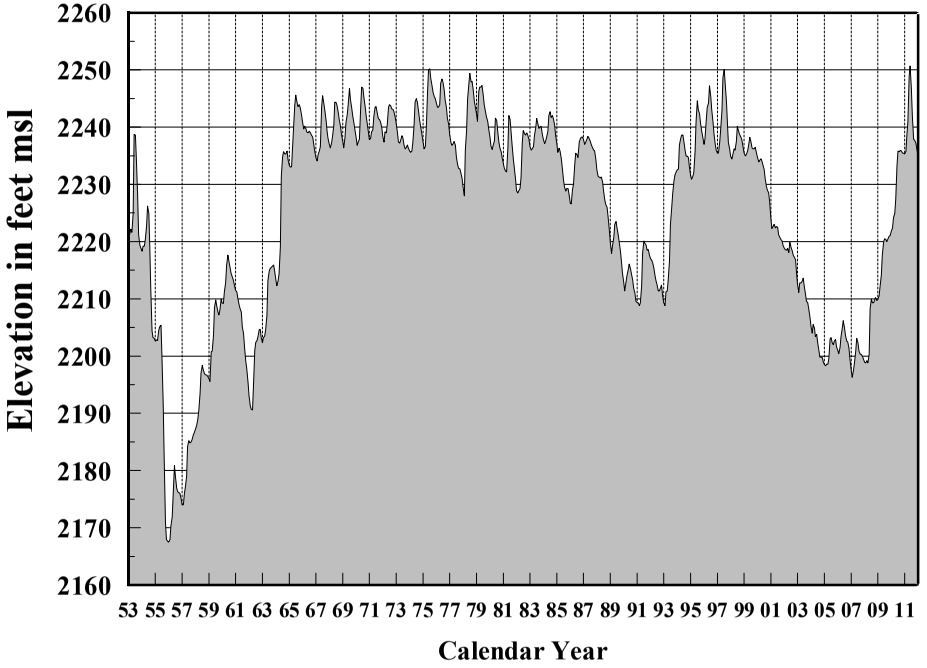
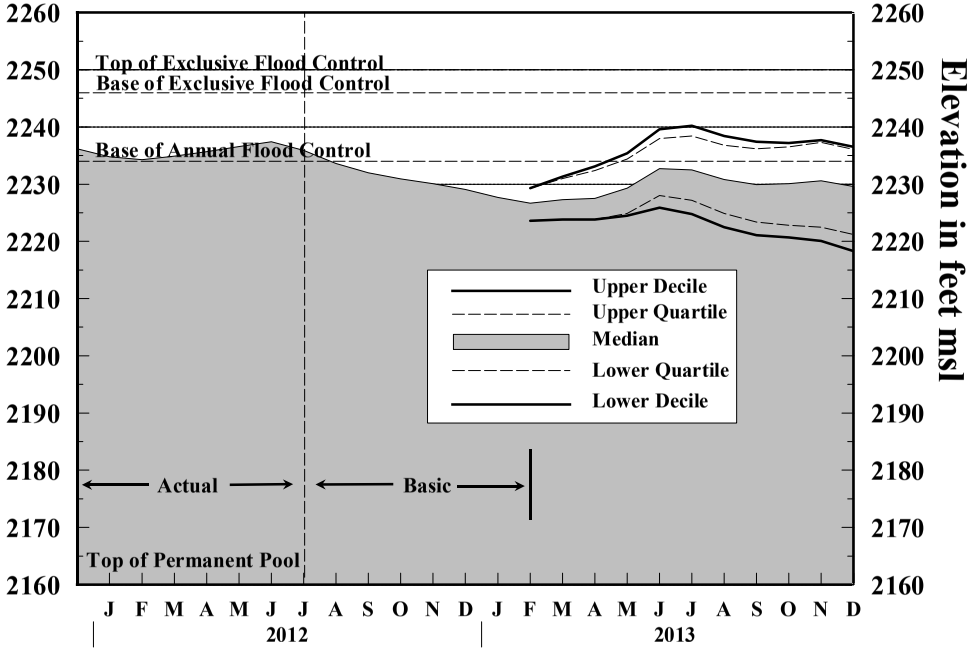
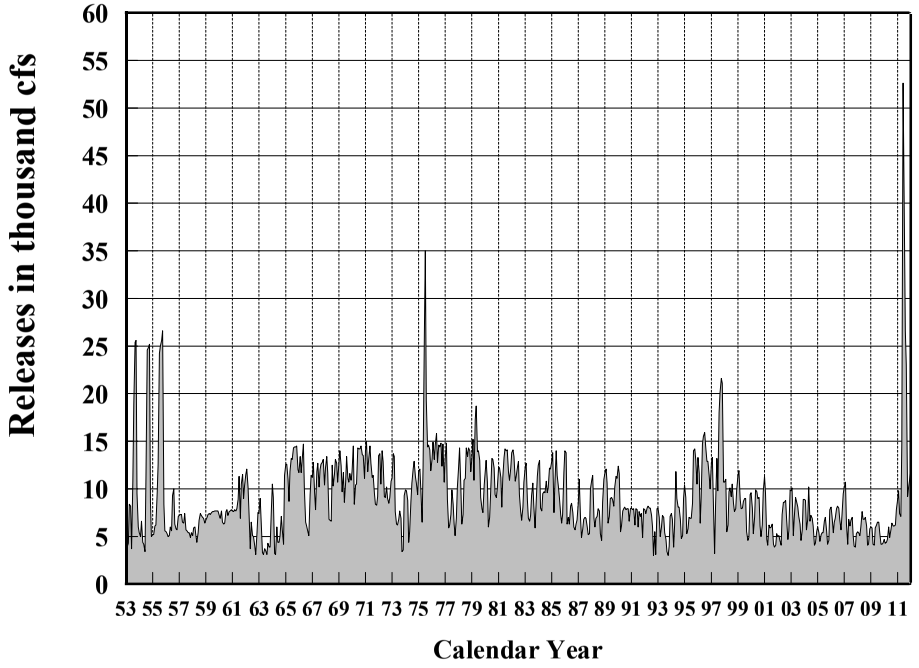


Plate 7

Fort Peck
Elevations and Releases







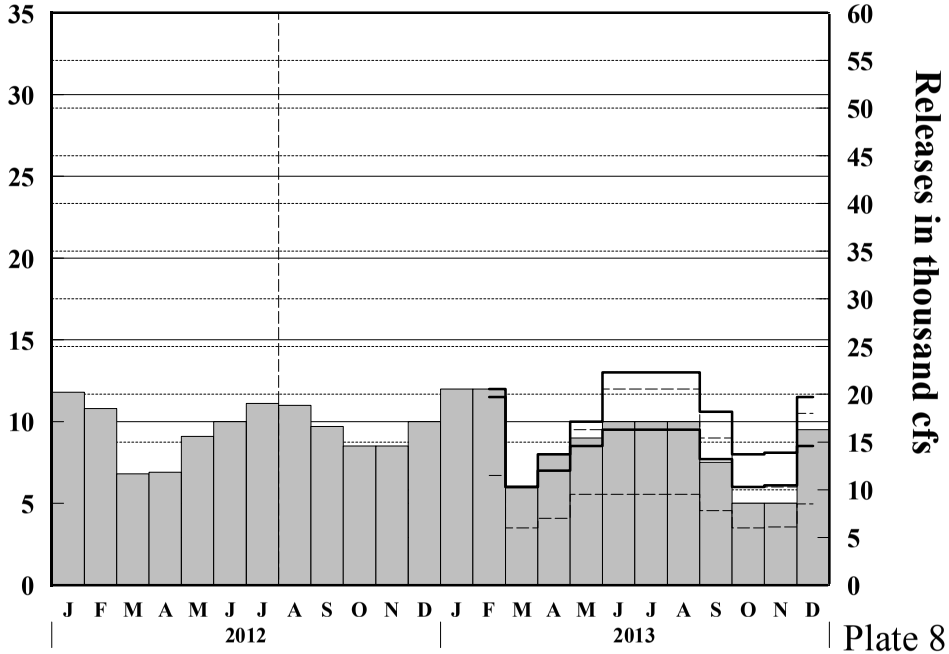
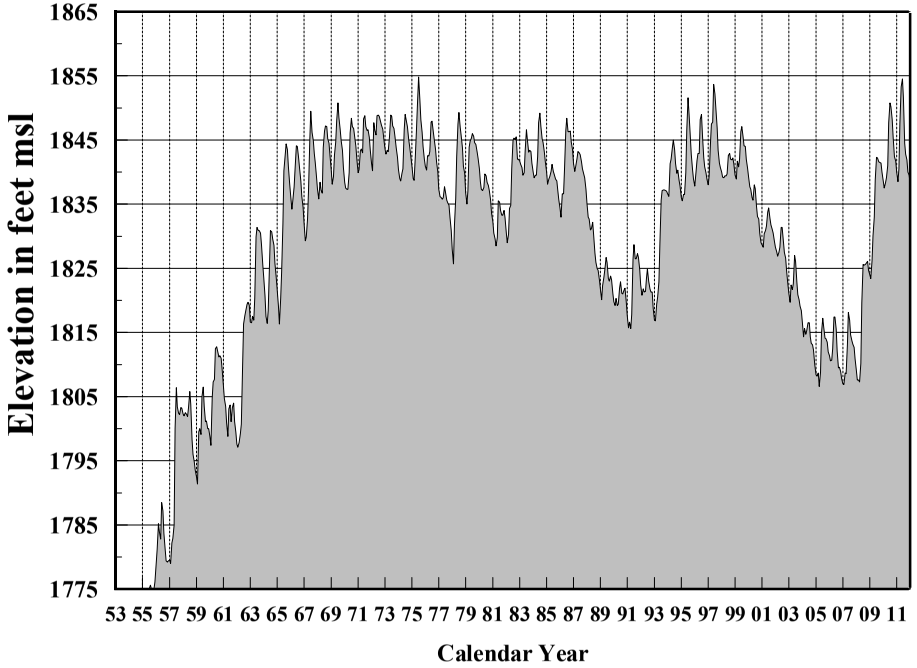
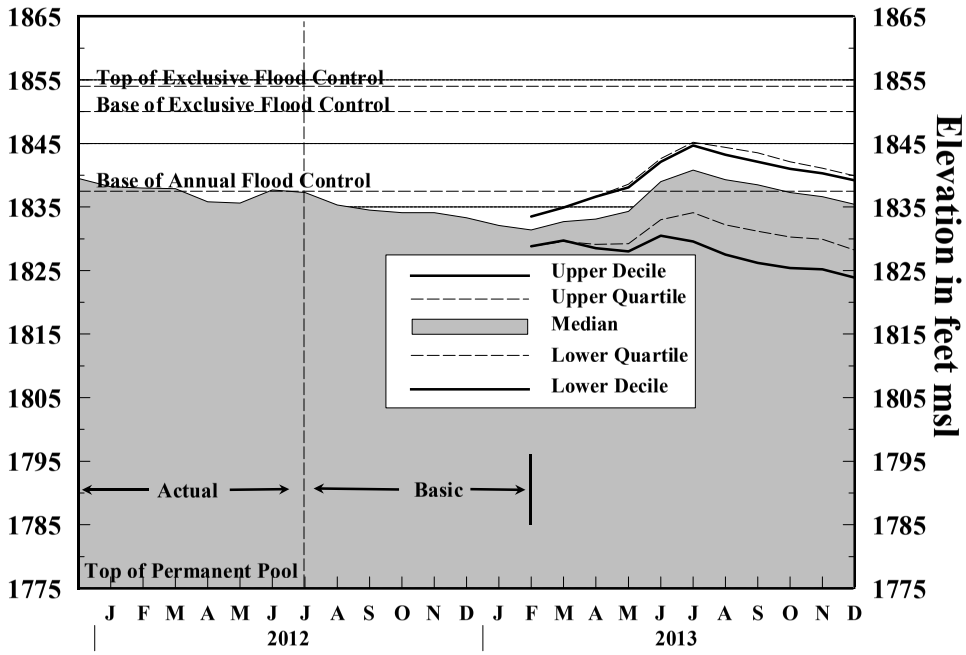
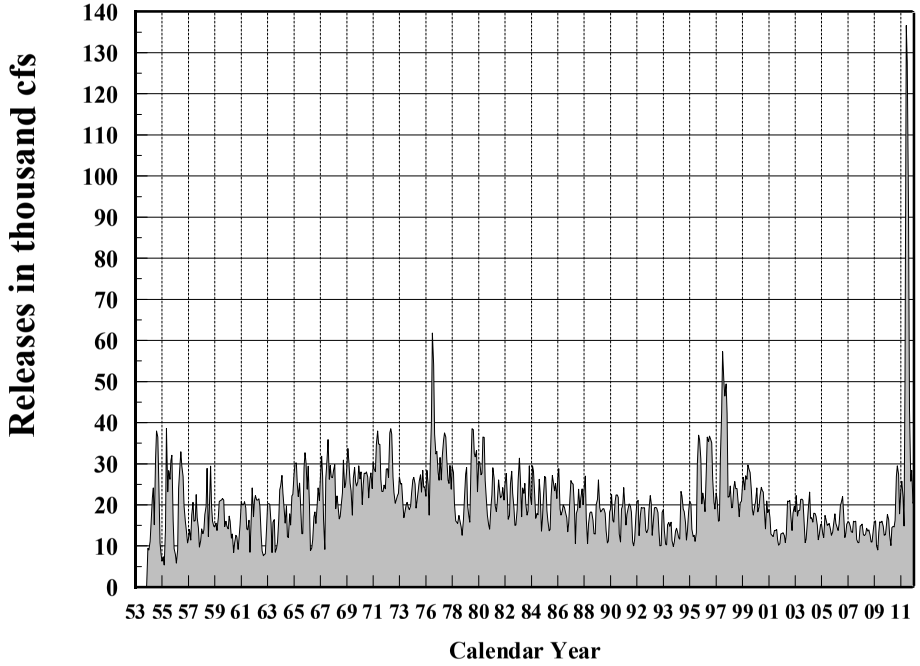


Plate 8

Garrison
Elevations and Releases







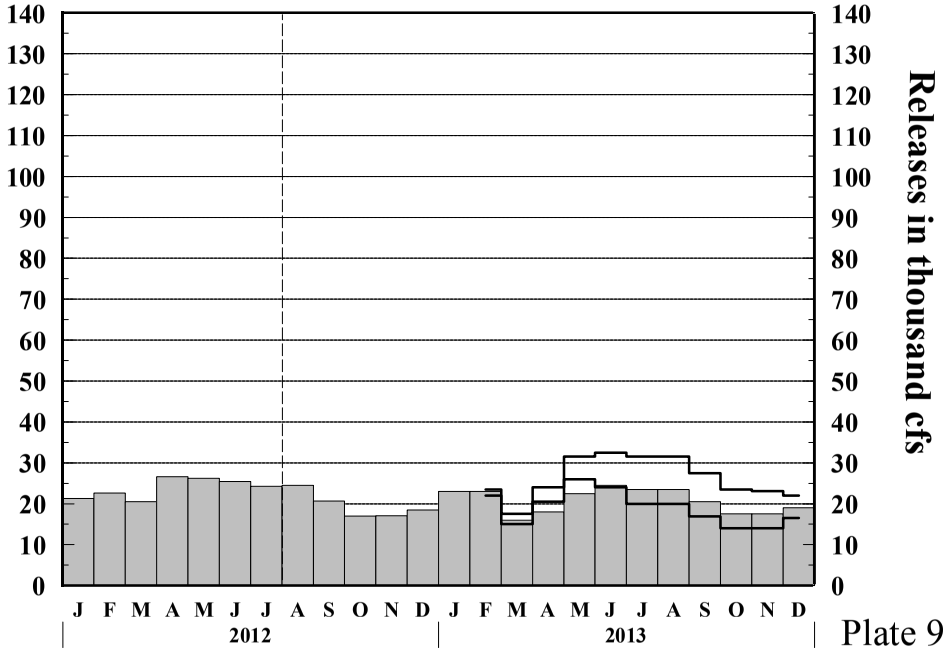
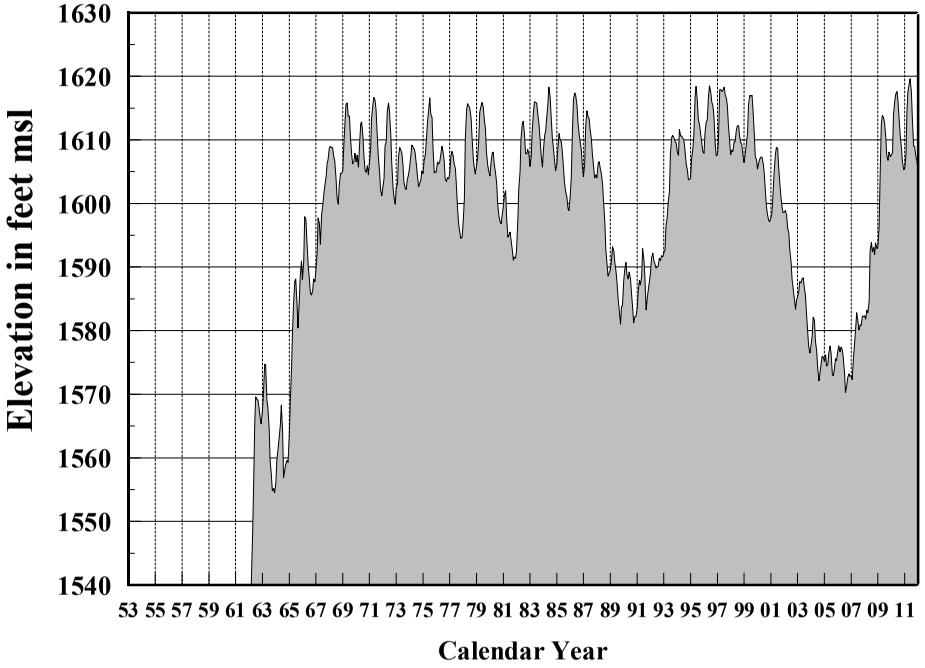
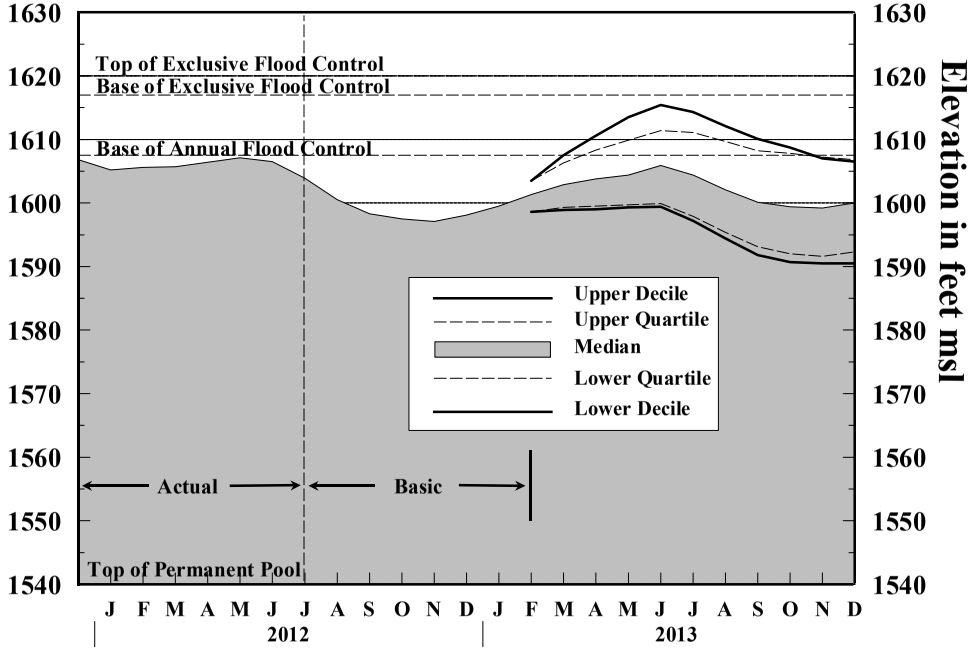
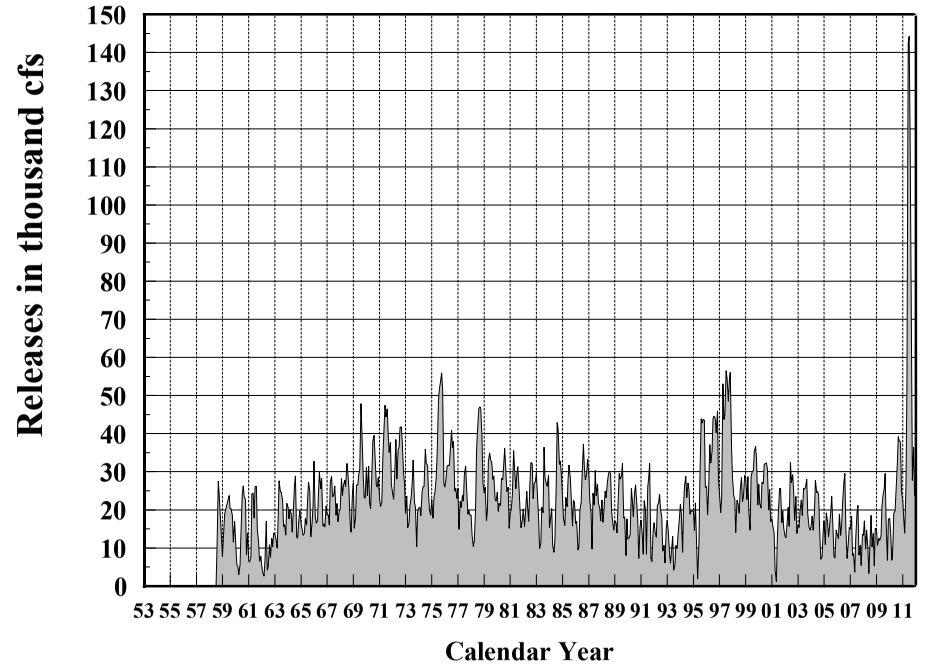


Plate 9

Oahe
Elevations and Releases







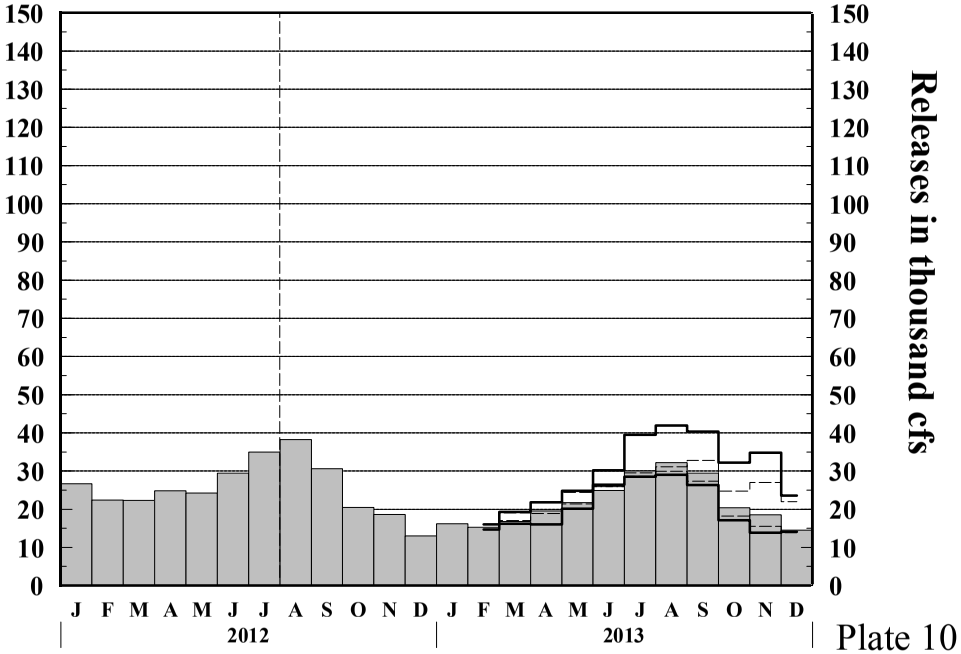
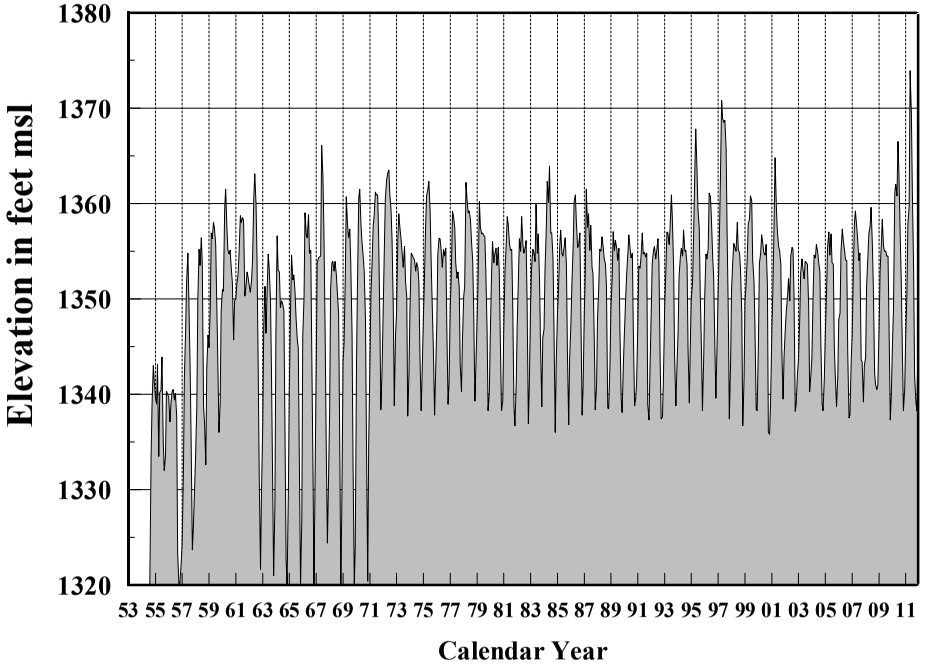
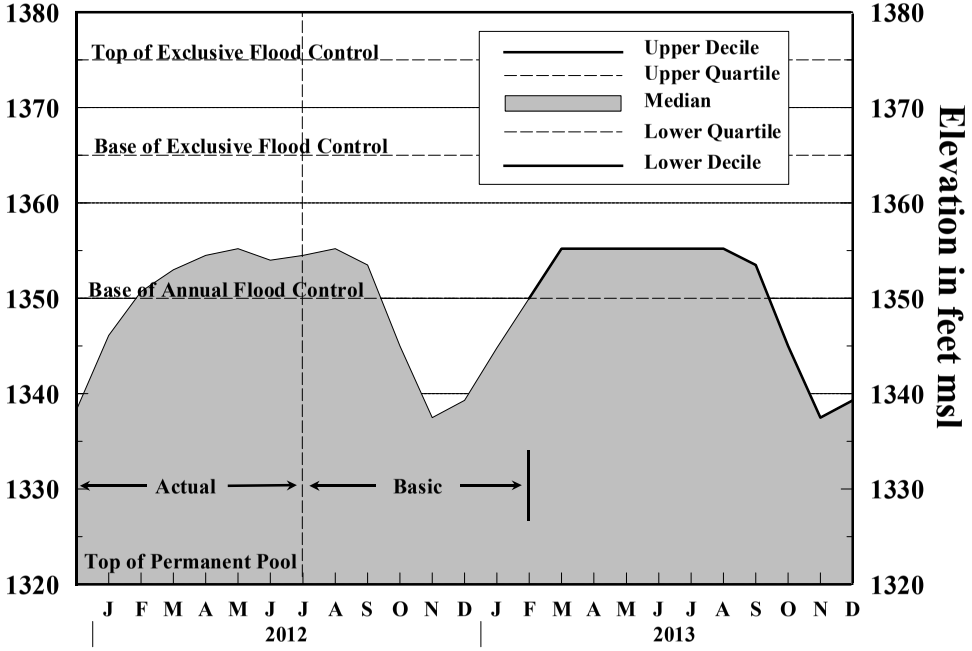
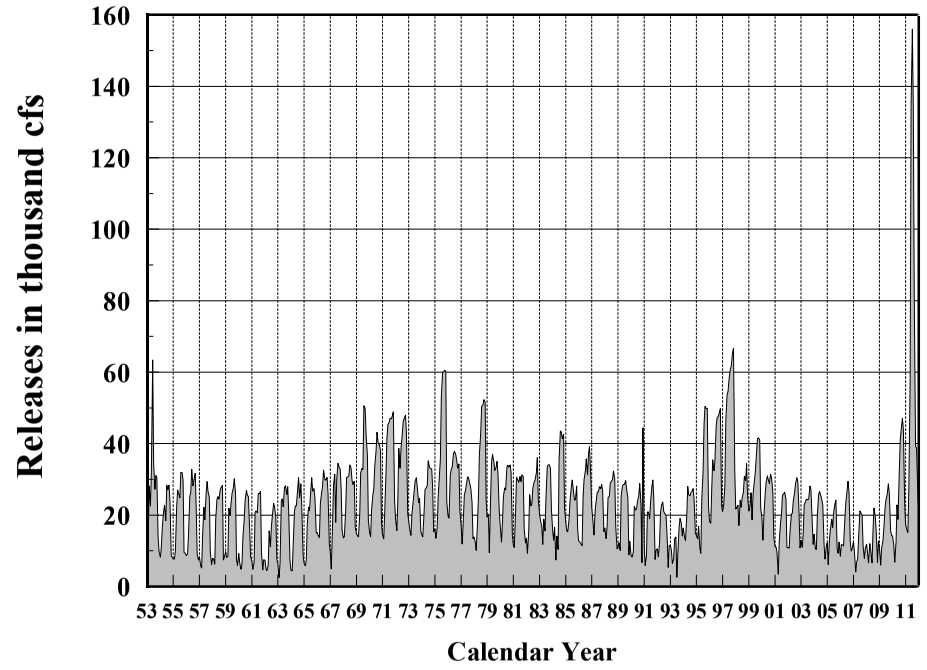


Plate 10

Fort Randall
Elevations and Releases







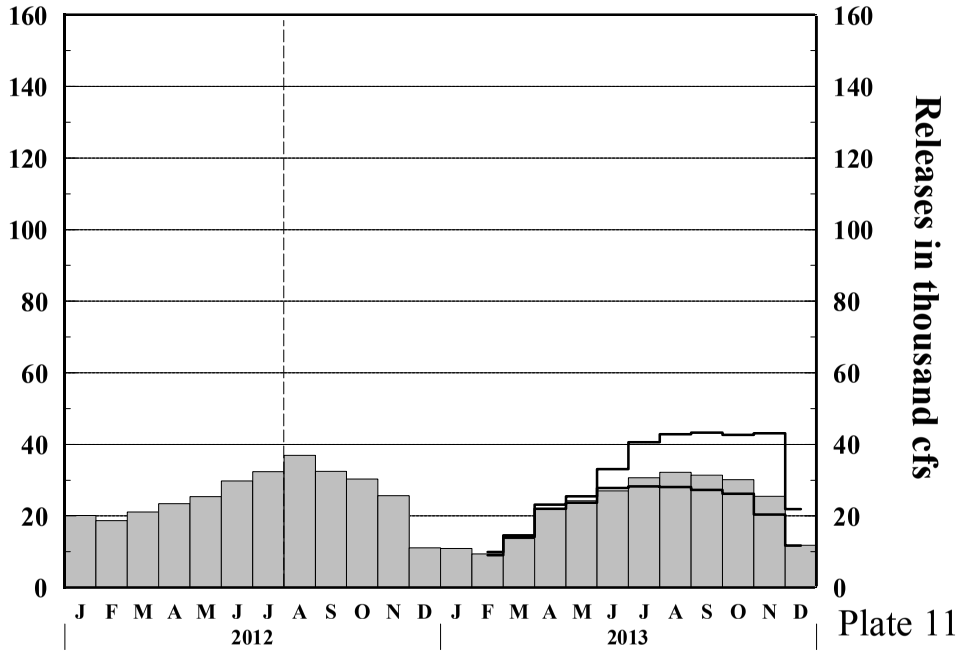
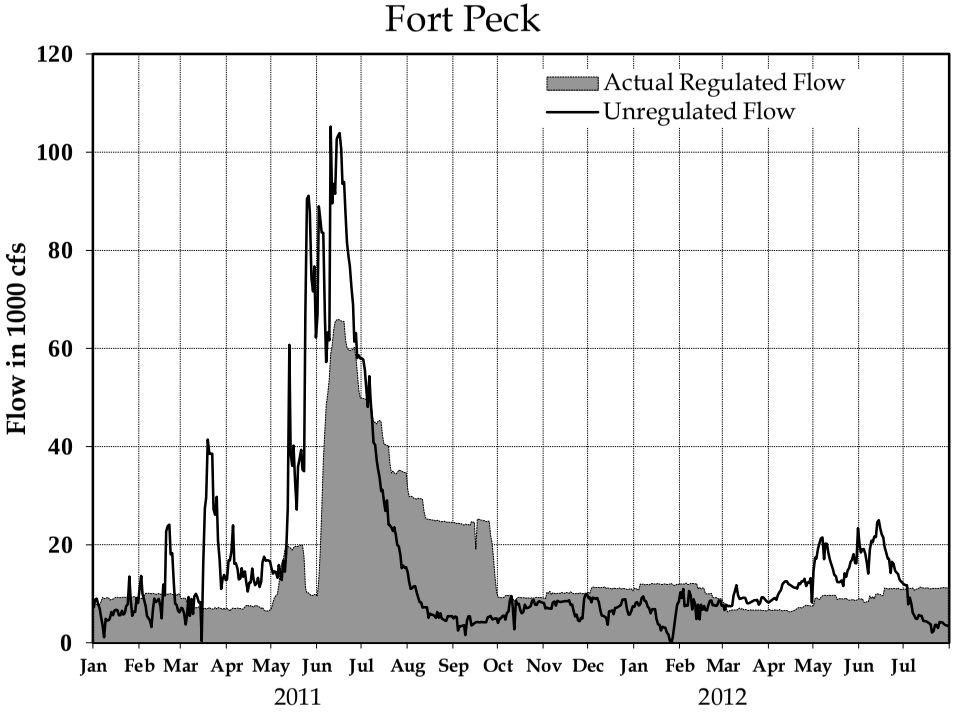
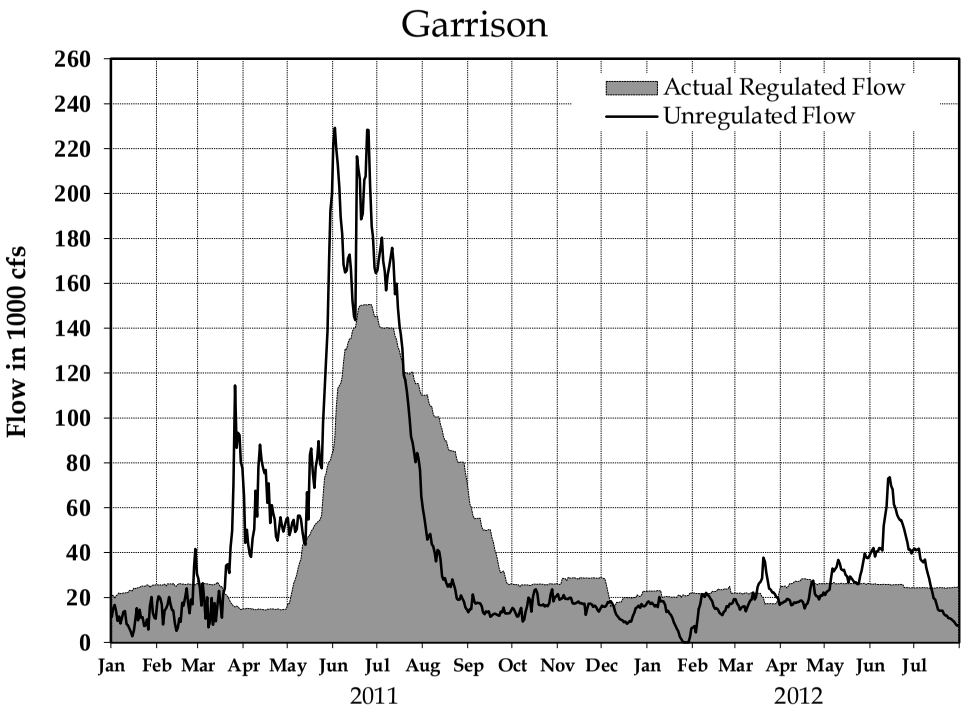
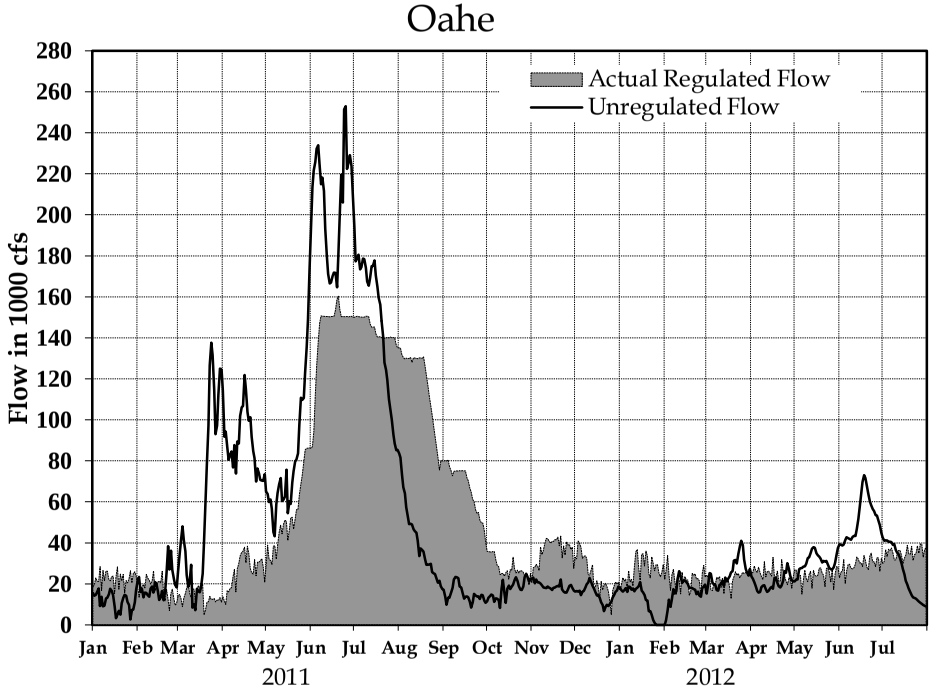


Plate 11

Reservoir Release and Unregulated Flow







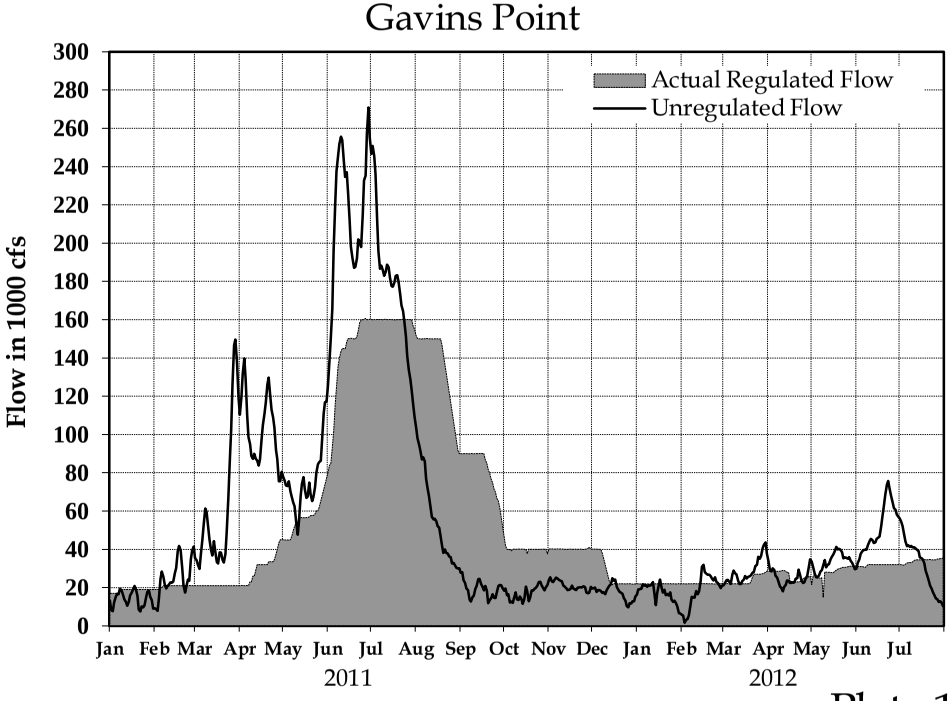


Plate 12

System Gross Capability and Average Monthly Generation

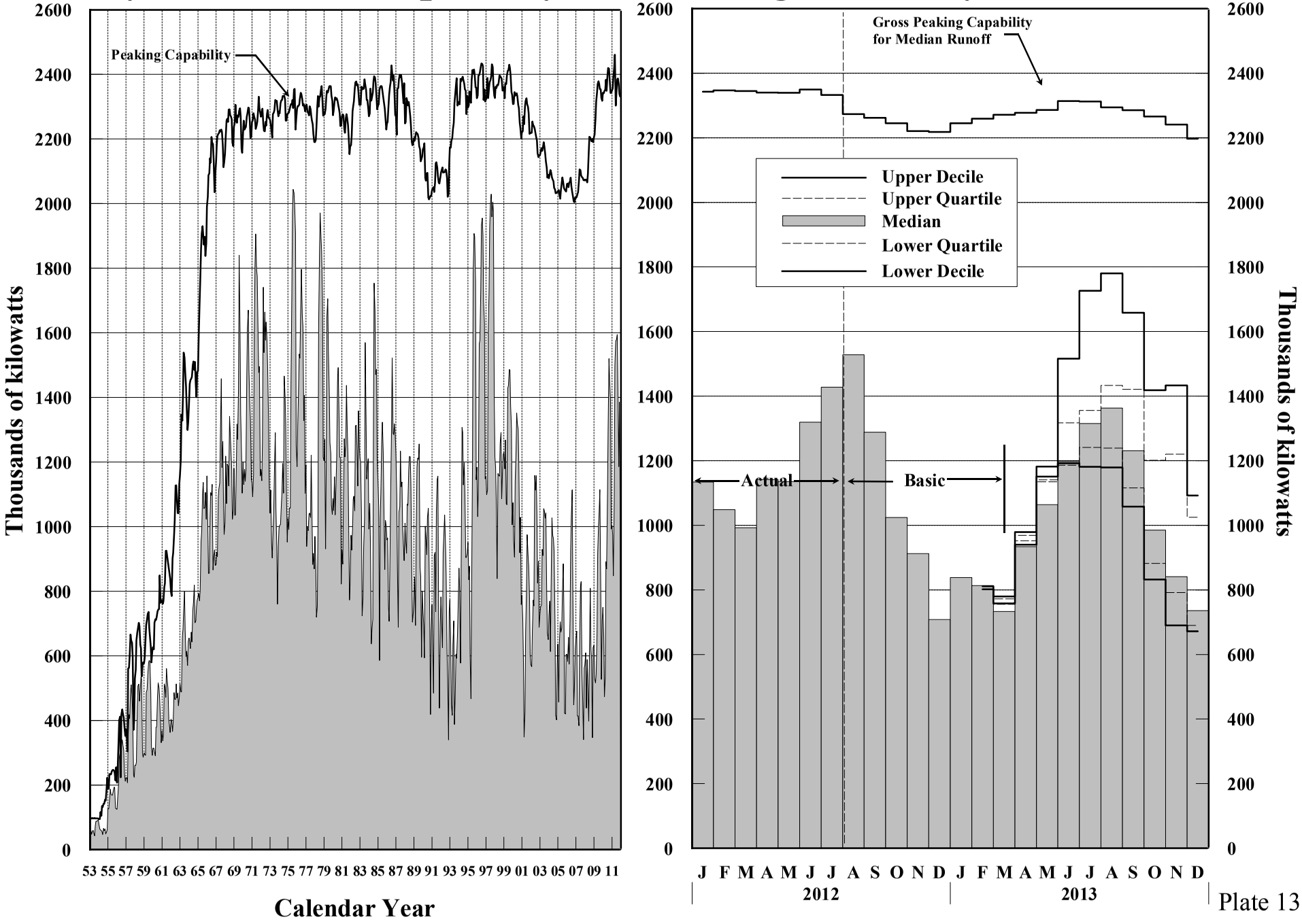


Plate 13

Tentative Five Year Extensions of 2012-2013 AOP

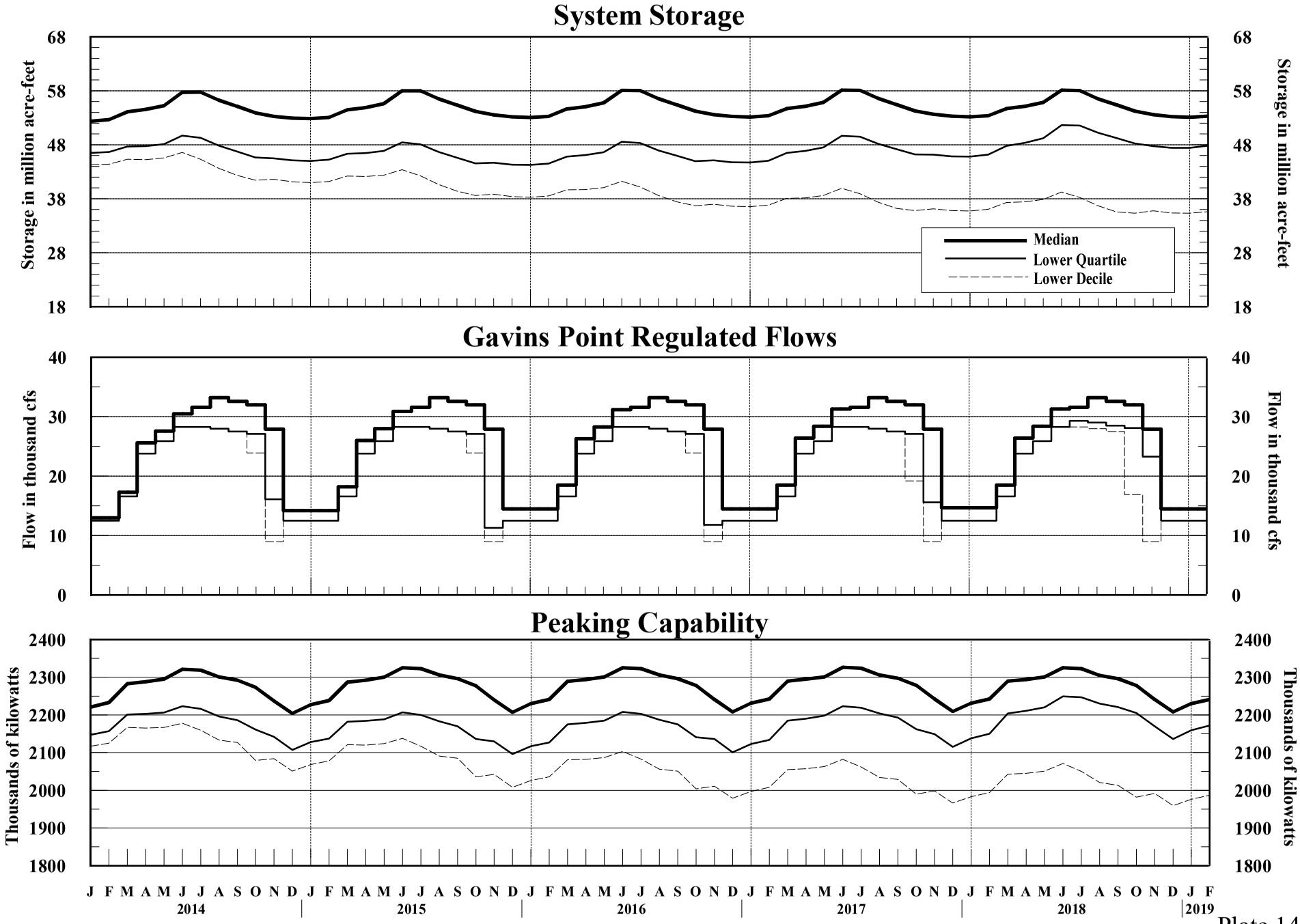


Plate 14

Tentative Five Year Extensions of 2012-2013 AOP

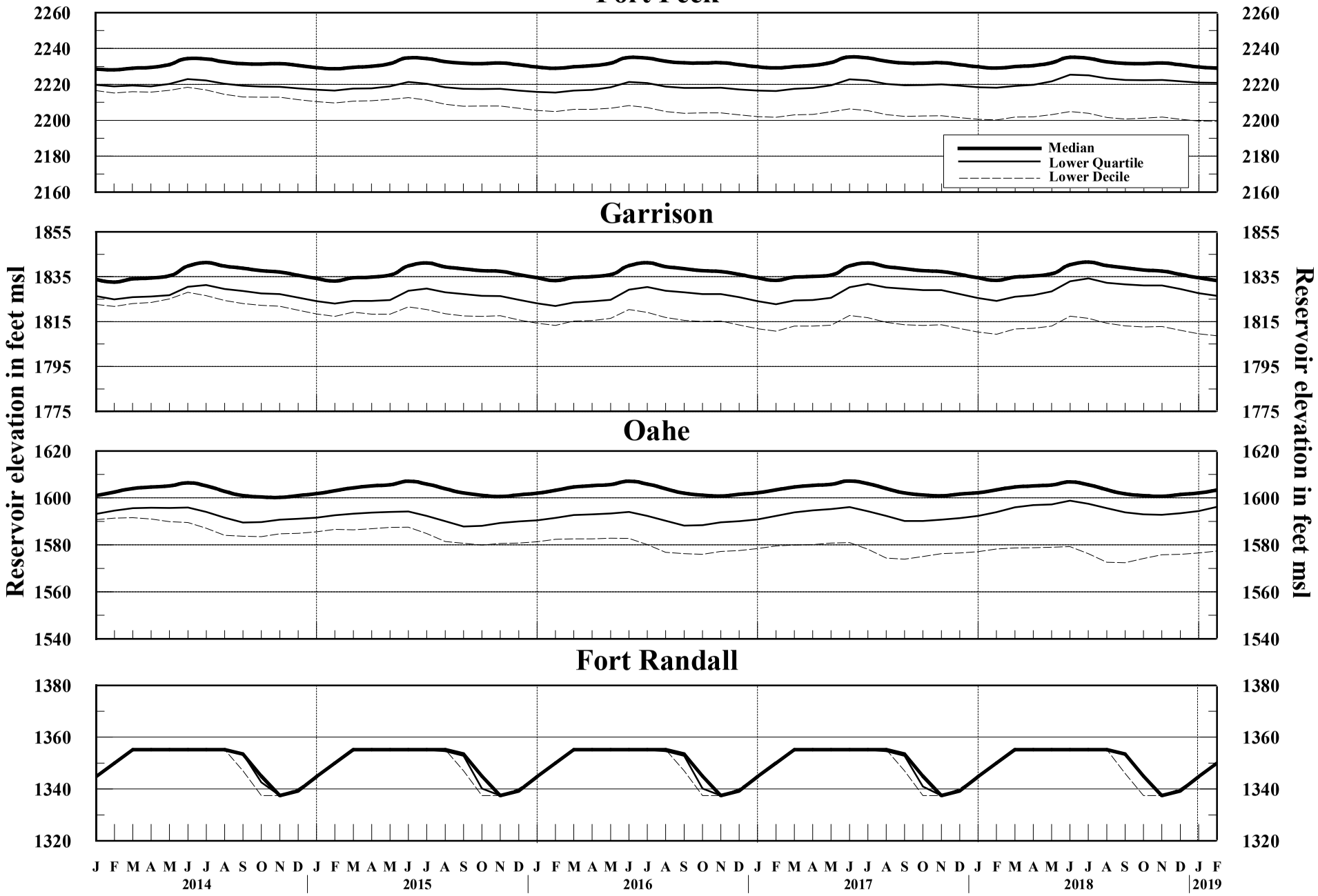
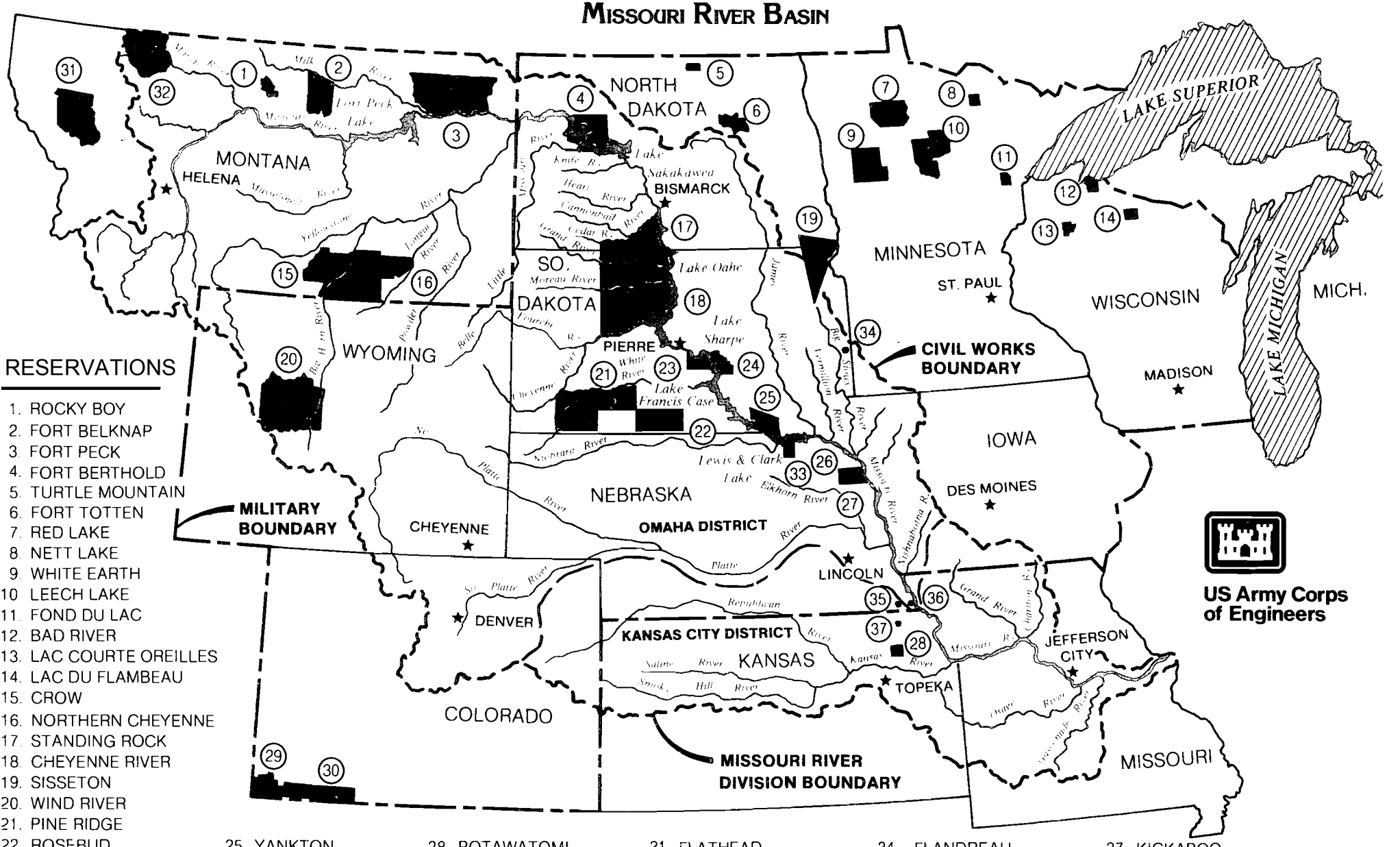


Plate 15

AMERICAN INDIAN RESERVATIONS

MISSOURI RIVER BASIN



RESERVATIONS

1. ROCKY BOY
2. FORT BELKNAP
3. FORT PECK
4. FORT BERTHOLD
5. TURTLE MOUNTAIN
6. FORT TOTTEN
7. RED LAKE
8. NETT LAKE
9. WHITE EARTH
10. LEECH LAKE
11. FOND DU LAC
12. BAD RIVER
13. LAC COURTE OREILLES
14. LAC DU FLAMBEAU
15. CROW
16. NORTHERN CHEYENNE
17. STANDING ROCK
18. CHEYENNE RIVER
19. SISSETON
20. WIND RIVER
21. PINE RIDGE
22. ROSEBUD
23. LOWER BRULE
24. CROW CREEK
25. YANKTON
26. WINNEBAGO
27. OMAHA
28. POTAWATOMI
29. UTE MOUNTAIN
30. SOUTHERN UTE
31. FLATHEAD
32. BLACKFEET
33. SANTEE
34. FLANDREAU
35. IOWA
36. SAC AND FOX
37. KICKAPOO

For illustrative purposes. No legal boundaries are implied.

VALUES IN 1000 AF EXCEPT AS INDICATED

31JUL12		2012						2013	
	INI-SUM	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--										
NAT INFLOW	2242	280	280	350	175	82	93	310	312	360
DEPLETION	-596	8	-69	-48	-43	-20	-23	-136	-157	-109
EVAPORATION	412	86	106	92	41	19	22	47		
MOD INFLOW	2426	186	243	306	176	82	94	399	469	469
RELEASE	4304	676	580	523	253	118	135	615	738	666
STOR CHANGE	-1878	-490	-337	-216	-76	-36	-41	-216	-269	-197
STORAGE	15191	14701	14363	14147	14071	14035	13995	13779	13510	13313
ELEV FTMSL	2235.9	2233.6	2232.0	2230.9	2230.5	2230.3	2230.1	2229.1	2227.7	2226.7
DISCH KCFS	11.1	11.0	9.7	8.5	8.5	8.5	8.5	10.0	12.0	12.0
POWER										
AVE POWER MW		148	132	115	115	115	114	134	155	154
PEAK POW MW		162	161	160	160	160	159	159	158	157
ENERGY GWH	691.4	110.1	95.2	85.5	41.3	19.2	22.0	99.7	115.0	103.3
--GARRISON--										
NAT INFLOW	2507	460	380	460	180	84	96	230	261	356
DEPLETION	-563	97	-127	-28	-125	-58	-66	-117	-88	-51
CHAN STOR	-9	1	13	13	0			-15	-20	
EVAPORATION	449	93	115	100	45	21	24	52		
REG INFLOW	6915	948	985	923	512	239	273	895	1067	1073
RELEASE	8634	1506	1233	1045	506	236	278	1138	1414	1277
STOR CHANGE	-1718	-559	-249	-122	7	3	-4	-243	-348	-204
STORAGE	18018	17459	17210	17088	17095	17098	17094	16851	16503	16300
ELEV FTMSL	1837.2	1835.3	1834.5	1834.1	1834.1	1834.1	1834.1	1833.3	1832.1	1831.4
DISCH KCFS	24.3	24.5	20.7	17.0	17.0	17.0	17.5	18.5	23.0	23.0
POWER										
AVE POWER MW		301	253	207	207	207	213	224	277	275
PEAK POW MW		460	457	456	456	456	456	453	448	446
ENERGY GWH	1268.4	224.1	182.3	154.2	74.5	34.8	40.9	167.0	205.8	184.7
--OAHE--										
NAT INFLOW	377	55	95	60	33	15	17		12	90
DEPLETION	198	119	29	-11	1	0	1	13	18	28
CHAN STOR	5	-1	16	16	0		-2	-4	-20	
EVAPORATION	423	90	109	93	42	19	22	48		
REG INFLOW	8395	1352	1207	1040	496	231	270	1072	1389	1339
RELEASE	9183	2351	1821	1264	574	302	226	796	997	852
STOR CHANGE	-788	-999	-614	-224	-79	-71	44	275	391	488
STORAGE	17766	16767	16153	15929	15850	15779	15823	16098	16490	16978
ELEV FTMSL	1604.0	1600.5	1598.3	1597.5	1597.2	1596.9	1597.1	1598.1	1599.5	1601.3
DISCH KCFS	35.0	38.2	30.6	20.5	19.3	21.8	14.3	13.0	16.2	15.3
POWER										
AVE POWER MW		477	377	252	236	265	174	159	200	191
PEAK POW MW		671	660	656	654	653	654	659	666	675
ENERGY GWH	1371.9	355.0	271.3	187.3	84.9	44.6	33.5	118.2	148.9	128.3
--BIG BEND--										
EVAPORATION	97	20	25	22	10	5	5	11		
REG INFLOW	9086	2332	1796	1242	564	297	221	785	997	852
RELEASE	9094	2340	1796	1242	564	297	221	785	997	852
STORAGE	1629	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.1	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	31.9	38.1	30.2	20.2	19.0	21.4	13.9	12.8	16.2	15.3
POWER										
AVE POWER MW		178	143	99	95	107	70	64	80	74
PEAK POW MW		509	517	538	538	538	538	538	538	529
ENERGY GWH	531.9	132.6	103.0	73.7	34.3	18.1	13.5	48.0	59.3	49.4
--FORT RANDALL--										
NAT INFLOW	153	30	30	4	3	1	1	10	25	49
DEPLETION	34	15	7	1	1	0	1	3	3	3
EVAPORATION	109	25	31	25	9	4	4	10		
REG INFLOW	9105	2330	1787	1220	556	294	218	782	1019	898
RELEASE	9467	2267	1933	1863	877	410	244	680	669	524
STOR CHANGE	-362	63	-146	-643	-321	-116	-26	103	350	374
STORAGE	3486	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1354.5	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	32.4	36.9	32.5	30.3	29.5	29.5	15.4	11.1	10.9	9.4
POWER										
AVE POWER MW		308	271	243	223	216	112	81	83	75
PEAK POW MW		356	350	319	296	287	285	293	319	339
ENERGY GWH	916.2	229.4	195.3	180.5	80.1	36.3	21.6	60.6	61.7	50.7
--GAVINS POINT--										
NAT INFLOW	755	100	110	110	55	26	29	95	100	130
DEPLETION	28	10	-5	2	5	2	3	10	1	
CHAN STOR	42	-8	8	4	2	0	26	8	0	3
EVAPORATION	34	7	9	8	3	2	2	4		
REG INFLOW	10203	2342	2048	1968	925	432	295	769	769	656
RELEASE	10211	2337	2023	1968	925	432	295	769	769	694
STOR CHANGE	-8	5	25							-38
STORAGE	350	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.3	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	34.0	38.0	34.0	32.0	31.1	31.1	18.6	12.5	12.5	12.5
POWER										
AVE POWER MW		115	112	108	106	106	66	44	44	44
PEAK POW MW		115	117	117	117	117	117	117	117	114
ENERGY GWH	411.1	85.4	80.5	80.6	38.3	17.9	12.6	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--										
NAT INFLOW	442	60	65	65	35	16	19	50	40	92
DEPLETION	126	37	24	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY										
KAF	10527	2360	2064	2022	954	445	311	806	795	771
KCFS		38.4	34.7	32.9	32.1	32.1	19.6	13.1	12.9	13.9
--TOTAL--										
NAT INFLOW	6476	985	960	1049	480	224	256	695	750	1077
DEPLETION	-773	286	-141	-73	-154	-72	-82	-214	-209	-114
CHAN STOR	39	-8	37	33	1	0	25	-11	-40	3
EVAPORATION	1525	320	395	338	150	70	79	172		
STORAGE	56440	54451	53130	51925	51456	51237	51209	51129	51254	51676
SYSTEM POWER										
AVE POWER MW		1528	1288	1024	982	1017	750	708	838	813
PEAK POW MW		2273	2262	2245	2221	2210	2209	2218	2245	2259
ENERGY GWH	5190.7	1136.5	927.6	761.9	353.5	170.8	144.1	526.6	623.8	546.0
DAILY GWH		36.7	30.9	24.6	23.6	24.4	18.0	17.0	20.1	19.5

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31JUL12		2012						2013	
	INI-SUM	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--										
NAT INFLOW	2690	336	336	420	210	98	112	372	374	432
DEPLETION	-634	-55	-118	-80	-25	-12	-13	-113	-135	-83
EVAPORATION	285	65	81	70	17	8	9	36		
MOD INFLOW	3039	326	373	430	218	102	116	449	509	515
RELEASE	4410	676	578	523	253	118	151	707	738	666
STOR CHANGE	-1371	-350	-205	-93	-35	-16	-34	-258	-229	-151
STORAGE	15191	14841	14636	14543	14509	14493	14458	14200	13971	13820
ELEV FTMSL	2235.9	2234.2	2233.3	2232.8	2232.7	2232.6	2232.4	2231.2	2230.0	2229.3
DISCH KCFS	11.1	11.0	9.7	8.5	8.5	8.5	9.5	11.5	12.0	12.0
POWER										
AVE POWER MW		148	132	115	115	115	129	152	156	156
PEAK POW MW		162	162	161	161	161	161	160	159	159
ENERGY GWH	710.6	110.2	95.2	85.9	41.5	19.4	24.7	112.9	116.2	104.5
--GARRISON--										
NAT INFLOW	3008	552	456	552	216	101	115	276	313	427
DEPLETION	-536	93	-129	-1	-120	-56	-64	-114	-93	-53
CHAN STOR	-9	1	13	12	0		-10	-20	-5	
EVAPORATION	310	70	87	76	18	8	10	40		
REG INFLOW	7636	1066	1089	1012	570	266	310	1037	1139	1146
RELEASE	8732	1506	1219	1045	506	236	270	1199	1445	1305
STOR CHANGE	-1096	-440	-131	-34	64	30	40	-162	-306	-159
STORAGE	18018	17578	17447	17414	17478	17508	17548	17386	17080	16922
ELEV FTMSL	1837.2	1835.7	1835.3	1835.2	1835.4	1835.5	1835.6	1835.1	1834.1	1833.5
DISCH KCFS	24.3	24.5	20.5	17.0	17.0	17.0	17.0	19.5	23.5	23.5
POWER										
AVE POWER MW		302	251	209	209	209	209	239	286	285
PEAK POW MW		462	460	460	460	461	461	459	456	454
ENERGY GWH	1292.6	224.4	180.9	155.1	75.1	35.1	40.1	177.8	212.8	191.2
--OAHE--										
NAT INFLOW	452	66	114	72	39	18	21		14	108
DEPLETION	198	119	29	-11	1	0	1	13	18	28
CHAN STOR	3	-1	17	15	0			-11	-17	0
EVAPORATION	293	68	83	71	17	8	9	38		
REG INFLOW	8696	1385	1239	1072	527	246	281	1138	1424	1385
RELEASE	8846	2312	1703	1229	549	291	213	769	964	816
STOR CHANGE	-149	-927	-464	-157	-22	-45	68	368	460	570
STORAGE	17766	16839	16375	16218	16196	16151	16219	16587	17047	17617
ELEV FTMSL	1604.0	1600.8	1599.1	1598.6	1598.5	1598.3	1598.6	1599.9	1601.5	1603.5
DISCH KCFS	35.0	37.6	28.6	20.0	18.4	20.9	13.4	12.5	15.7	14.7
POWER										
AVE POWER MW		470	354	246	227	257	166	155	195	185
PEAK POW MW		672	664	661	660	660	661	668	676	687
ENERGY GWH	1329.0	349.3	254.6	183.3	81.7	43.2	31.8	115.2	145.4	124.3
--BIG BEND--										
EVAPORATION	66	15	19	16	4	2	2	9		
REG INFLOW	8780	2297	1684	1213	545	289	211	761	964	816
RELEASE	8788	2305	1684	1213	545	289	211	761	964	816
STORAGE	1629	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.1	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	31.9	37.5	28.3	19.7	18.3	20.8	13.3	12.4	15.7	14.7
POWER										
AVE POWER MW		176	134	97	92	104	67	63	77	70
PEAK POW MW		509	517	538	538	538	538	538	538	529
ENERGY GWH	514.1	130.6	96.6	72.0	33.2	17.5	12.9	46.5	57.4	47.4
--FORT RANDALL--										
NAT INFLOW	184	36	36	5	3	1	2	12	30	59
DEPLETION	34	15	7	1	1	0	1	3	3	3
EVAPORATION	75	19	24	18	4	2	2	7		
REG INFLOW	8863	2307	1690	1199	543	288	211	763	991	872
RELEASE	9225	2244	1836	1842	864	404	237	660	641	498
STOR CHANGE	-362	63	-146	-643	-321	-116	-26	103	350	374
STORAGE	3486	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1354.5	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	32.4	36.5	30.8	30.0	29.0	29.1	14.9	10.7	10.4	9.0
POWER										
AVE POWER MW		305	258	240	219	213	109	79	79	72
PEAK POW MW		356	350	319	296	287	285	293	319	339
ENERGY GWH	893.0	227.1	185.6	178.5	79.0	35.8	21.0	58.9	59.1	48.2
--GAVINS POINT--										
NAT INFLOW	902	120	120	132	66	31	35	114	128	156
DEPLETION	28	10	-5	2	5	2	3	10	1	
CHAN STOR	43	-8	11	2	2	0	26	8	1	3
EVAPORATION	23	5	6	6	1	1	1	3		
REG INFLOW	10120	2342	1965	1968	925	432	295	769	769	656
RELEASE	10128	2337	1940	1968	925	432	295	769	769	694
STOR CHANGE	-8	5	25							-38
STORAGE	350	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.3	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	34.0	38.0	32.6	32.0	31.1	31.1	18.6	12.5	12.5	12.5
POWER										
AVE POWER MW		115	109	108	106	106	66	44	44	44
PEAK POW MW		115	117	117	117	117	117	117	117	114
ENERGY GWH	408.9	85.4	78.3	80.6	38.3	17.9	12.6	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--										
NAT INFLOW	530	72	78	78	42	20	22	60	48	110
DEPLETION	126	37	24	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY										
KAF	10532	2372	1994	2035	961	449	314	816	803	789
KCFS		38.6	33.5	33.1	32.3	32.3	19.8	13.3	13.1	14.2
--TOTAL--										
NAT INFLOW	7766	1182	1140	1259	576	269	307	834	907	1292
DEPLETION	-784	219	-192	-78	-132	-61	-70	-188	-192	-90
CHAN STOR	38	-8	41	29	1	0	17	-23	-22	3
EVAPORATION	1052	241	299	258	61	28	32	132		
STORAGE	56440	54783	53862	52935	52622	52476	52524	52575	52849	53445
SYSTEM POWER										
AVE POWER MW		1515	1238	1015	969	1005	746	732	839	811
PEAK POW MW		2277	2270	2256	2233	2224	2223	2236	2265	2281
ENERGY GWH	5148.2	1127.1	891.3	755.5	348.7	168.8	143.1	544.4	624.0	545.2
DAILY GWH		36.4	29.7	24.4	23.2	24.1	17.9	17.6	20.1	19.5

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31JUL12		2012						2013	
INI-SUM	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--									
NAT INFLOW 1794	224	224	280	140	65	75	248	250	288
DEPLETION -410	43	-65	-44	-32	-15	-17	-102	-105	-73
EVAPORATION 510	107	132	113	51	23	27	57		
MOD INFLOW 1694	74	157	211	121	57	65	293	355	361
RELEASE 4162	676	548	461	223	104	127	676	707	639
STOR CHANGE -2467	-602	-390	-250	-102	-47	-62	-384	-352	-278
STORAGE 15191	14589	14198	13948	13846	13799	13737	13353	13001	12724
ELEV FTMSL 2235.9	2233.0	2231.1	2229.9	2229.4	2229.2	2228.9	2226.9	2225.0	2223.6
DISCH KCFS 11.1	11.0	9.2	7.5	7.5	7.5	8.0	11.0	11.5	11.5
POWER									
AVE POWER MW	148	125	101	101	101	107	144	148	147
PEAK POW MW	162	160	159	159	159	158	157	156	154
ENERGY GWH 664.7	110.0	89.7	75.3	36.3	16.9	20.6	107.2	110.1	98.6
--GARRISON--									
NAT INFLOW 2006	368	304	368	144	67	77	184	209	285
DEPLETION -340	161	-89	10	-115	-53	-61	-93	-62	-38
CHAN STOR -4	1	18	17			-5	-30	-5	
EVAPORATION 559	116	143	124	56	26	30	64		
REG INFLOW 5945	768	815	713	426	199	230	859	973	962
RELEASE 8384	1506	1199	984	476	222	254	1168	1353	1222
STOR CHANGE -2439	-739	-383	-271	-50	-23	-24	-309	-380	-260
STORAGE 18018	17279	16896	16625	16575	16552	16528	16219	15839	15579
ELEV FTMSL 1837.2	1834.7	1833.4	1832.5	1832.3	1832.2	1832.2	1831.1	1829.7	1828.8
DISCH KCFS 24.3	24.5	20.1	16.0	16.0	16.0	16.0	19.0	22.0	22.0
POWER									
AVE POWER MW	301	245	194	193	193	193	227	261	259
PEAK POW MW	458	453	450	449	449	449	445	440	436
ENERGY GWH 1220.0	223.7	176.3	144.0	69.4	32.4	37.0	169.2	194.1	174.0
--OAHE--									
NAT INFLOW 302	44	76	48	26	12	14		10	72
DEPLETION 198	119	29	-11	1	0	1	13	18	28
CHAN STOR 9	-1	19	18				-14	-13	0
EVAPORATION 525	113	136	115	51	24	27	59		
REG INFLOW 7972	1318	1128	946	450	210	240	1083	1331	1266
RELEASE 9500	2391	1873	1369	593	311	228	824	1022	888
STOR CHANGE -1527	-1073	-745	-423	-143	-101	12	258	309	378
STORAGE 17766	16693	15949	15525	15383	15281	15293	15552	15861	16239
ELEV FTMSL 1604.0	1600.3	1597.6	1596.0	1595.4	1595.1	1595.1	1596.1	1597.2	1598.6
DISCH KCFS 35.0	38.9	31.5	22.3	19.9	22.4	14.4	13.4	16.6	16.0
POWER									
AVE POWER MW	485	386	271	241	271	174	163	203	196
PEAK POW MW	670	656	648	645	644	644	649	654	661
ENERGY GWH 1409.7	360.6	278.2	201.6	86.8	45.5	33.3	121.0	150.7	131.9
--BIG BEND--									
EVAPORATION 121	25	31	27	12	6	7	14		
REG INFLOW 9379	2366	1842	1342	580	306	221	810	1022	888
RELEASE 9387	2374	1842	1342	580	306	221	810	1022	888
STORAGE 1629	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL 1420.1	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS 31.9	38.6	31.0	21.8	19.5	22.0	14.0	13.2	16.6	16.0
POWER									
AVE POWER MW	181	147	107	98	110	70	67	82	77
PEAK POW MW	509	517	538	538	538	538	538	538	529
ENERGY GWH 549.0	134.5	105.6	79.6	35.3	18.6	13.5	49.5	60.8	51.5
--FORT RANDALL--									
NAT INFLOW 122	24	24	3	2	1	1	8	20	39
DEPLETION 34	15	7	1	1	0	1	3	3	3
EVAPORATION 136	31	39	31	12	5	5	12		
REG INFLOW 9339	2352	1820	1314	569	301	217	803	1039	924
RELEASE 9701	2289	1966	1957	890	417	243	700	689	550
STOR CHANGE -362	63	-146	-643	-321	-116	-26	103	350	374
STORAGE 3486	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL 1354.5	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS 32.4	37.2	33.0	31.8	29.9	30.1	15.3	11.4	11.2	9.9
POWER									
AVE POWER MW	311	276	255	226	220	112	84	85	79
PEAK POW MW	356	350	319	296	287	285	293	319	339
ENERGY GWH 938.3	231.6	198.5	189.4	81.3	36.9	21.5	62.4	63.5	53.2
--GAVINS POINT--									
NAT INFLOW 596	80	80	88	44	21	23	76	80	104
DEPLETION 28	10	-5	2	5	2	3	10	1	
CHAN STOR 42	-9	8	2	4	0	27	7	0	2
EVAPORATION 42	8	11	10	4	2	2	5		
REG INFLOW 10269	2342	2048	2035	928	433	289	769	769	656
RELEASE 10277	2337	2023	2035	928	433	289	769	769	694
STOR CHANGE -8	5	25							-38
STORAGE 350	355	380	380	380	380	380	380	380	342
ELEV FTMSL 1206.3	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS 34.0	38.0	34.0	33.1	31.2	31.2	18.2	12.5	12.5	12.5
POWER									
AVE POWER MW	115	112	111	107	107	64	44	44	44
PEAK POW MW	115	117	117	117	117	117	117	117	114
ENERGY GWH 412.8	85.4	80.5	82.5	38.3	17.9	12.3	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--									
NAT INFLOW 354	48	52	52	28	13	15	40	32	74
DEPLETION 126	37	24	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY									
KAF 10505	2348	2051	2076	950	443	301	796	787	753
KCFS	38.2	34.5	33.8	31.9	31.9	18.9	12.9	12.8	13.6
--TOTAL--									
NAT INFLOW 5174	788	760	839	384	179	205	556	601	862
DEPLETION -364	385	-99	-31	-134	-62	-71	-156	-131	-65
CHAN STOR 47	-9	45	38	3	0	23	-37	-18	2
EVAPORATION 1892	400	492	419	186	86	98	212		
STORAGE 56440	54086	52447	50859	50244	49955	49856	49524	49451	49628
SYSTEM POWER									
AVE POWER MW	1540	1290	1038	965	1001	720	729	823	802
PEAK POW MW	2269	2254	2231	2205	2193	2191	2199	2223	2233
ENERGY GWH 5194.4	1145.8	928.9	772.4	347.5	168.1	138.3	542.3	612.3	538.8
DAILY GWH	37.0	31.0	24.9	23.2	24.0	17.3	17.5	19.8	19.2

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28FEB13		2013										2014				
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	9450	341	159	205	825	1400	2355	1205	440	385	480	288	134	153	350	310	420
DEPLETION	491	-35	-16	-21	-20	286	677	238	-15	-106	-45	-32	-15	-17	-134	-156	-98
EVAPORATION	320							22	68	84	73	17	8	9	38		
MOD INFLOW	8639	376	175	226	845	1114	1678	945	387	407	452	302	141	161	446	466	518
RELEASE	7667	179	83	107	476	615	774	799	799	631	492	238	111	135	707	799	722
STOR CHANGE	971	198	92	118	369	499	904	146	-412	-224	-40	64	30	26	-261	-333	-204
STORAGE	13820	14017	14109	14228	14597	15096	16000	16146	15734	15510	15470	15534	15564	15590	15328	14995	14791
ELEV FTMSL	2229.3	2230.3	2230.7	2231.3	2233.1	2235.4	2239.6	2240.2	2238.4	2237.4	2237.2	2237.5	2237.6	2237.7	2236.5	2235.0	2234.0
DISCH KCFS	12.0	6.0	6.0	6.0	8.0	10.0	13.0	13.0	13.0	10.6	8.0	8.0	8.0	8.5	11.5	13.0	13.0
POWER																	
AVE POWER MW		81	81	81	108	136	165	166	166	145	110	110	110	117	155	163	163
PEAK POW MW		159	160	160	162	163	166	167	165	165	165	165	165	165	164	163	162
ENERGY GWH	1218.7	29.1	13.6	17.5	78.1	101.2	118.6	123.9	123.5	104.3	81.9	39.6	18.5	22.5	115.5	121.6	109.2
--GARRISON--																	
NAT INFLOW	14000	530	247	318	1355	1840	3460	2715	835	570	645	248	116	132	260	315	415
DEPLETION	1115	18	9	11	-108	30	977	692	105	-129	6	-119	-55	-63	-112	-94	-53
CHAN STOR	-10	61			-20	-20	-30			23	25			-5	-29	-15	
EVAPORATION	368							25	79	98	84	20	9	11	43		
REG INFLOW	20175	751	322	414	1919	2405	3227	2798	1451	1255	1072	584	273	315	1007	1194	1190
RELEASE	18983	521	243	312	1428	1937	1934	1937	1937	1637	1445	699	326	349	1353	1537	1388
STOR CHANGE	1191	230	79	102	491	468	1293	861	-486	-382	-373	-115	-54	-34	-346	-344	-198
STORAGE	16922	17152	17231	17332	17823	18291	19584	20445	19958	19577	19204	19089	19035	19001	18655	18311	18113
ELEV FTMSL	1833.5	1834.3	1834.6	1834.9	1836.6	1838.1	1842.1	1844.7	1843.2	1842.1	1841.0	1840.6	1840.4	1840.3	1839.2	1838.2	1837.5
DISCH KCFS	23.5	17.5	17.5	17.5	24.0	31.5	32.5	31.5	31.5	27.5	23.5	23.5	23.5	22.0	22.0	25.0	25.0
POWER																	
AVE POWER MW		213	214	214	294	389	406	401	402	349	297	297	297	278	277	312	310
PEAK POW MW		456	457	459	465	470	489	499	498	486	480	479	479	479	475	471	468
ENERGY GWH	2879.2	76.6	35.9	46.2	211.8	289.1	292.6	298.4	299.2	251.6	221.2	106.9	49.8	53.3	205.9	232.1	208.5
--OAHE--																	
NAT INFLOW	3900	569	265	341	510	390	710	310	125	185	145	118	55	63	15	10	90
DEPLETION	709	24	11	15	50	73	151	182	122	30	-11	1	0	1	13	18	29
CHAN STOR	-5	25			-26	-29	-4	4		15	15		0	6		-12	
EVAPORATION	368							26	80	98	83	20	9	10	42		
REG INFLOW	21802	1090	497	639	1862	2225	2489	2043	1860	1709	1533	796	372	407	1313	1517	1449
RELEASE	20581	402	258	340	874	1236	1826	2442	2613	2378	1976	969	485	662	1452	1472	1195
STOR CHANGE	1220	688	238	299	989	989	663	-400	-753	-669	-443	-172	-114	-255	-139	45	254
STORAGE	17617	18304	18543	18842	19830	20820	21483	21083	20330	19661	19218	19045	18932	18677	18538	18583	18837
ELEV FTMSL	1603.5	1605.8	1606.6	1607.5	1610.6	1613.5	1615.4	1614.3	1612.1	1610.1	1608.7	1608.2	1607.8	1607.0	1606.5	1606.7	1607.5
DISCH KCFS	14.7	13.5	18.6	19.1	14.7	20.1	30.7	39.7	42.5	40.0	32.1	32.6	34.9	41.7	23.6	23.9	21.5
POWER																	
AVE POWER MW		172	239	246	192	266	409	529	561	523	418	421	450	535	304	307	277
PEAK POW MW		699	703	708	724	739	749	743	732	722	714	711	709	705	703	704	708
ENERGY GWH	3254.6	62.1	40.1	53.1	137.9	197.8	294.7	393.8	417.5	376.2	310.8	151.5	75.7	102.6	225.8	228.7	186.4
--BIG BEND--																	
EVAPORATION	71							5	15	19	16	4	2	2	9		
REG INFLOW	20511	402	258	340	874	1236	1826	2438	2598	2359	1960	965	483	660	1444	1472	1195
RELEASE	20511	402	258	340	874	1236	1826	2438	2598	2359	1960	965	483	660	1444	1472	1195
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	14.7	13.5	18.6	19.1	14.7	20.1	30.7	39.6	42.3	39.7	31.9	32.4	34.8	41.6	23.5	23.9	21.5
POWER																	
AVE POWER MW		64	87	89	69	94	144	185	198	188	155	161	173	206	118	117	103
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	1186.5	23.1	14.6	19.3	49.5	70.0	103.4	138.0	147.0	135.1	115.7	58.1	29.1	39.5	87.5	87.2	69.3
--FORT RANDALL--																	
NAT INFLOW	1500	150	70	90	440	230	155	80	70	100	40				15		60
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	81							6	19	24	18	4	2	2	7		
REG INFLOW	21851	551	328	429	1310	1457	1969	2494	2634	2429	1981	960	481	657	1450	1469	1252
RELEASE	21851	260	194	429	1310	1457	1969	2494	2634	2575	2624	1281	597	683	1347	1119	878
STOR CHANGE	0	291	134				0	0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.0	8.7	14.0	24.0	22.0	23.7	33.1	40.6	42.8	43.3	42.7	43.1	43.0	43.0	21.9	18.2	15.8
POWER																	
AVE POWER MW		72	118	203	186	200	278	330	340	339	321	300	287	282	160	138	126
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	294	319	339
ENERGY GWH	2071.2	26.1	19.8	43.9	134.0	149.0	200.2	245.8	252.8	244.0	239.1	107.9	48.2	54.2	119.2	102.6	84.6
--GAVINS POINT--																	
NAT INFLOW	2250	111	52	67	280	330	245	205	165	130	150	65	30	35	90	105	190
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-15	0	-10	-19	4	-3	-18	-14	-4	-1	1	-1	0	0	39	7	4
EVAPORATION	24							2	5	6	6	1	1	1	3		
REG INFLOW	23947	372	236	477	1589	1765	2172	2644	2780	2703	2767	1339	625	714	1463	1230	1073
RELEASE	23947	372	236	477	1589	1765	2172	2644	2767	2678	2767	1339	625	714	1463	1230	1111
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	17.0	26.7	26.7	28.7	36.5	43.0	45.0	45.0	45.0	45.0	45.0	45.0	23.8	20.0	20.0
POWER																	
AVE POWER MW		44	59	91	91	98	114	113	114	115	116	116	116	116	79	70	69
PEAK POW MW		114	114	114	114	114	114	113	114	116	116	116	116	116	78	78	76
ENERGY GWH	844.5	15.8	9.9	19.7	65.6	72.6	82.3	84.3	84.6	82.9	86.2	41.7	19.5	22.3	58.7	52.0	46.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	3400	189	88	113	470	890	550	290	225	165	85	50	23	27	60	35	140
DEPLETION	270	7	3	4	23	36	31	39	37	25	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY																	
KAF	27077	554	321	586	2036	2619	2691	2895	2955	2818	2841	1383	645	738	1510	1251	1236
KCFS		18.6	23.1	32.8	34.2	42.6	45.2	47.1	48.1	47.4	46.2	46.5	46.5	46.5	24.6	20.3	22.3
--TOTAL--																	
NAT INFLOW	34500	1890	882	1133	3880	5080	7475	4805	1860	1535	1545	768	358	409	790	775	1315
DEPLETION	2779	15	7	9	-46	453	1872	1208	274	-178	-36	-138	-64	-73	-207	-214	-104
CHAN STOR	-28	86	-10	-19	-42	-52	-51	-11	-4	37	42	-1	0	0	12	-20	4
EVAPORATION	1232							84	265	329	281	66	30	35	142		
STORAGE	53445	54851	55395	55914	57762	59718	62579	63186	61548	60152	58652	58108	57855	57566	56922	56640	56828
SYSTEM POWER																	
AVE POWER MW		646	797	924	940	1182	1516	1726	1780	1658	1418	1405	1433	1533	1092	1108	1049
PEAK POW MW		2297	2300	2306	2330	2353	2384	2388	2375	2356	2332	2306	2295	2288	2251	2272	2282
ENERGY GWH	11454.8	232.7	134.0	199.6	676.9	879.6	1091.8	1284.1	1324.7	1194.1	1054.9	505.8	240.7	294.4	812.6	824.3	704.6
DAILY GWH		15.5	19.1	22.2	22.6	28.4	36.4	41.4	42.7	39.8	34.0	33.7	34.4	36.8	26.2	26.6	25.2
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

28FEB13		2013										2014				
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	8650	310	144	186	755	1285	2155	1105	405	350	440	263	123	140	320	285	385
DEPLETION	493	-35	-16	-21	-20	286	677	238	-49	-115	-74	-22	-10	-12	-107	-135	-91
EVAPORATION	316							21	67	83	73	17	8	9	38		
MOD INFLOW	7841	345	161	207	775	999	1478	846	387	382	441	267	125	142	389	420	476
RELEASE	6870	179	83	107	476	584	714	738	738	534	369	179	83	95	646	707	639
STOR CHANGE	971	167	78	100	299	415	764	108	-350	-152	73	89	41	47	-257	-287	-163
STORAGE	13820	13986	14064	14164	14463	14878	15641	15749	15399	15247	15320	15409	15450	15497	15240	14953	14791
ELEV FTMSL	2229.3	2230.1	2230.5	2231.0	2232.4	2234.4	2238.0	2238.4	2236.8	2236.2	2236.5	2236.9	2237.1	2237.3	2236.1	2234.8	2234.0
DISCH KCFS	12.0	6.0	6.0	6.0	8.0	9.5	12.0	12.0	12.0	9.0	6.0	6.0	6.0	6.0	10.5	11.5	11.5
POWER																	
AVE POWER MW		81	81	81	108	129	160	162	161	123	82	83	83	83	143	154	153
PEAK POW MW		159	160	160	161	163	165	165	164	164	164	164	164	165	164	163	162
ENERGY GWH	1123.9	29.1	13.6	17.5	78.0	96.1	115.5	120.4	120.1	88.6	61.3	29.7	13.9	15.9	106.5	114.7	103.1
--GARRISON--																	
NAT INFLOW	12750	482	225	289	1230	1675	3200	2475	760	520	555	215	100	115	235	295	380
DEPLETION	1091	18	9	11	-108	30	992	698	98	-131	-6	-125	-58	-66	-119	-96	-56
CHAN STOR	5	61			-20	-15	-25			29	29				-44	-10	
EVAPORATION	373							25	80	99	86	20	9	11	43		
REG INFLOW	18161	702	299	385	1794	2214	2897	2490	1320	1114	873	498	232	266	912	1088	1075
RELEASE	16970	476	222	286	1279	1599	1607	1599	1599	1425	1353	655	305	349	1291	1537	1388
STOR CHANGE	1191	226	77	99	515	616	1291	891	-279	-311	-480	-157	-73	-83	-379	-449	-314
STORAGE	16922	17148	17225	17324	17839	18454	19745	20637	20358	20047	19567	19411	19338	19254	18875	18426	18113
ELEV FTMSL	1833.5	1834.3	1834.6	1834.9	1836.6	1838.6	1842.6	1845.2	1844.4	1843.5	1842.1	1841.6	1841.4	1841.1	1839.9	1838.5	1837.5
DISCH KCFS	23.5	16.0	16.0	16.0	21.5	26.0	27.0	26.0	26.0	23.9	22.0	22.0	22.0	22.0	21.0	25.0	25.0
POWER																	
AVE POWER MW		195	195	196	264	322	340	333	334	307	280	279	278	278	265	313	311
PEAK POW MW		456	457	459	465	472	495	500	499	498	486	483	482	481	477	472	468
ENERGY GWH	2585.4	70.1	32.8	42.3	190.0	239.7	245.1	247.5	248.7	220.9	208.6	100.4	46.8	53.4	197.4	232.9	208.8
--OAHE--																	
NAT INFLOW	3200	457	213	274	430	310	640	250	95	150	120	95	44	51	-10		80
DEPLETION	709	24	11	15	50	73	151	182	122	30	-11	1	0	1	13	18	29
CHAN STOR	-5	31			-22	-18	-4	4		8	8		0	0	4	-16	
EVAPORATION	358							25	77	95	81	19	9	10	42		
REG INFLOW	19098	940	424	545	1637	1818	2092	1646	1495	1458	1410	729	340	389	1230	1503	1439
RELEASE	17878	434	273	359	1005	1321	1575	1759	1944	1948	1529	738	378	539	1356	1491	1231
STOR CHANGE	1220	506	151	186	633	497	517	-113	-448	-490	-119	-9	-37	-150	-126	13	209
STORAGE	17617	18123	18274	18460	19093	19590	20107	19995	19546	19056	18937	18928	18891	18741	18615	18628	18837
ELEV FTMSL	1603.5	1605.2	1605.7	1606.3	1608.3	1609.9	1611.4	1611.1	1609.7	1608.2	1607.8	1607.8	1607.7	1607.2	1606.8	1606.8	1607.5
DISCH KCFS	14.7	14.6	19.7	20.1	16.9	21.5	26.5	28.6	31.6	32.7	24.9	24.8	27.2	34.0	22.1	24.2	22.2
POWER																	
AVE POWER MW		186	251	258	218	280	347	376	413	424	322	320	351	436	284	312	286
PEAK POW MW		696	698	701	712	721	729	727	720	712	710	709	709	706	704	704	708
ENERGY GWH	2804.4	66.8	42.2	55.7	157.1	208.1	249.6	279.5	307.2	305.6	239.3	115.4	59.0	83.8	211.3	231.8	191.9
--BIG BEND--																	
EVAPORATION	71							5	15	19	16	4	2	2	9		
REG INFLOW	17807	434	273	359	1005	1321	1575	1754	1929	1930	1513	734	376	537	1348	1491	1231
RELEASE	17807	434	273	359	1005	1321	1575	1754	1929	1930	1513	734	376	537	1348	1491	1231
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	14.7	14.6	19.7	20.1	16.9	21.5	26.5	28.5	31.4	32.4	24.6	24.7	27.1	33.8	21.9	24.2	22.2
POWER																	
AVE POWER MW		69	92	94	79	101	124	134	147	154	120	123	135	168	110	119	106
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	1031.3	24.9	15.5	20.3	56.9	74.8	89.2	99.3	109.2	110.6	89.6	44.5	22.7	32.3	81.8	88.3	71.4
--FORT RANDALL--																	
NAT INFLOW	1200	123	58	74	350	185	140	75	65	75	10	-3	-1	-1	5	-5	50
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	81							6	19	24	18	4	2	2	7		
REG INFLOW	18847	556	330	432	1351	1497	1703	1805	1960	1974	1504	727	373	533	1344	1483	1278
RELEASE	18847	265	196	432	1351	1497	1703	1805	1960	2120	2147	1048	489	559	1241	1133	904
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.0	8.9	14.1	24.2	22.7	24.3	28.6	29.4	31.9	35.6	34.9	35.2	35.2	35.2	20.2	18.4	16.3
POWER																	
AVE POWER MW		74	119	205	192	206	241	247	268	297	279	265	257	254	148	140	129
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	294	319	339
ENERGY GWH	1848.0	26.6	20.0	44.2	138.2	153.0	173.6	183.9	199.4	213.8	207.4	95.4	43.1	48.7	109.9	103.8	87.0
--GAVINS POINT--																	
NAT INFLOW	2000	106	50	64	240	290	210	180	145	115	135	60	28	32	85	95	165
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-15	0	-10	-19	3	-3	-8	-1	-5	-7	1	-1	0	0	28	3	4
EVAPORATION	24							2	5	6	6	1	1	1	3		
REG INFLOW	20693	372	236	477	1589	1765	1880	1943	2085	2227	2275	1101	514	587	1340	1230	1073
RELEASE	20693	372	236	477	1589	1765	1880	1943	2072	2202	2275	1101	514	587	1340	1230	1111
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	17.0	26.7	26.7	28.7	31.6	31.6	33.7	37.0	37.0	37.0	37.0	37.0	21.8	20.0	20.0
POWER																	
AVE POWER MW		44	59	91	91	98	105	105	110	116	117	117	117	117	74	70	69
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	827.0	15.8	9.9	19.7	65.6	72.6	75.3	77.8	81.7	83.5	86.9	42.1	19.6	22.4	55.4	52.0	46.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	2800	165	77	99	390	730	435	240	180	135	70	43	20	23	50	30	115
DEPLETION	270	7	3	4	23	36	31	39	37	25	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY																	
KAF	23223	530	309	572	1956	2459	2284	2144	2215	2312	2334	1137	531	607	1377	1246	1211
KCFS		17.8	22.3	32.0	32.9	40.0	38.4	34.9	36.0	38.8	38.0	38.2	38.2	38.2	22.4	20.3	21.8
--TOTAL--																	
NAT INFLOW	30600	1643	766	985	3395	4475	6780	4325	1650	1345	1330	673	314	359	685	700	1175
DEPLETION	2757	15	7	9	-46	453	1887	1214	233	-189	-77	-134	-62	-71	-187	-195	-100
CHAN STOR	-15	92	-10	-19	-39	-36	-37	2	-5	30	38	-1	0	-1	-11	-23	4
EVAPORATION	1223							83	261	326	280	66	30	35	142		
STORAGE	53445	54635	55075	55460	56907	58434	61006	61893	60828	59755	58585	58188	58003	57791	57132	56759	56827
SYSTEM POWER																	
AVE POWER MW		648	798	924	952	1135	1317	1356	1433	1421	1201	1187	1221	1336	1025	1107	1055
PEAK POW MW		2293	2295	2300	2318	2335	2368	2372	2364	2358	2334	2307	2297	2292	2254	2274	2282
ENERGY GWH	10220.0	233.3	134.1	199.7	685.7	844.3	948.3	1008.5	1066.4	1023.1	893.2	427.4	205.1	256.5	762.3	823.5	708.8
DAILY GWH		15.6	19.2	22.2	22.9	27.2	31.6	32.5	34.4	34.1	28.8	28.5	29.3	32.1	24.6	26.6	25.3
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

28FEB13		2013										2014				
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	7200	227	106	136	560	1145	1830	840	365	290	385	205	96	109	295	260	350
DEPLETION	456	-7	-3	-4	36	250	528	242	14	-68	-48	-43	-20	-23	-135	-156	-108
EVAPORATION	432							27	83	103	90	41	19	22	47		
MOD INFLOW	6312	234	109	140	524	895	1302	571	268	255	343	207	96	110	383	416	458
RELEASE	6029	179	83	107	476	553	595	615	615	447	307	149	69	79	584	615	555
STOR CHANGE	283	56	26	33	48	342	707	-43	-347	-192	36	58	27	31	-201	-199	-97
STORAGE	13313	13368	13394	13428	13476	13817	14524	14481	14134	13942	13978	14036	14063	14093	13892	13693	13596
ELEV FTMSL	2226.7	2227.0	2227.1	2227.3	2227.5	2229.3	2232.7	2232.5	2230.8	2229.9	2230.1	2230.3	2230.5	2230.6	2229.6	2228.6	2228.1
DISCH KCFS	12.0	6.0	6.0	6.0	8.0	9.0	10.0	10.0	10.0	7.5	5.0	5.0	5.0	5.0	9.5	10.0	10.0
POWER																	
AVE POWER MW		80	80	80	107	120	135	135	135	101	67	67	68	68	128	134	134
PEAK POW MW		157	157	157	157	159	161	161	160	159	159	160	160	160	159	158	158
ENERGY GWH	980.3	28.8	13.5	17.3	76.9	89.6	97.0	100.7	100.4	72.9	50.2	24.3	11.3	13.0	95.1	99.6	89.7
--GARRISON--																	
NAT INFLOW	10900	479	223	287	780	1300	3120	2100	580	480	445	180	84	96	180	255	310
DEPLETION	1111	21	10	13	45	136	811	660	123	-150	-33	-130	-60	-69	-121	-91	-54
CHAN STOR	20	61			-20	-10	-10			25	25			0	-45	-5	
EVAPORATION	505							31	99	123	105	47	22	25	54		
REG INFLOW	15333	698	297	382	1191	1707	2894	2024	973	979	705	411	192	219	787	956	919
RELEASE	14986	476	222	286	1071	1383	1458	1445	1445	1222	1076	521	243	278	1168	1414	1277
STOR CHANGE	347	221	75	96	120	324	1436	579	-472	-244	-371	-109	-51	-58	-381	-458	-358
STORAGE	16300	16521	16596	16692	16811	17135	18571	19150	18678	18435	18063	17954	17903	17845	17463	17005	16647
ELEV FTMSL	1831.4	1832.1	1832.4	1832.7	1833.1	1834.3	1839.0	1840.8	1839.3	1838.5	1837.3	1837.0	1836.8	1836.6	1835.4	1833.8	1832.6
DISCH KCFS	23.0	16.0	16.0	16.0	18.0	22.5	24.5	23.5	23.5	20.5	17.5	17.5	17.5	17.5	19.0	23.0	23.0
POWER																	
AVE POWER MW		192	193	193	217	272	302	296	296	257	218	217	217	217	234	280	278
PEAK POW MW		448	449	451	452	456	474	480	475	472	468	466	466	465	460	455	450
ENERGY GWH	2232.3	69.1	32.4	41.7	156.6	202.7	217.4	219.9	220.1	185.2	162.3	78.2	36.4	41.6	174.0	208.3	186.5
--OAHE--																	
NAT INFLOW	2300	259	121	155	405	220	625	170	70	95	45	45	21	24	-15	-10	70
DEPLETION	709	24	11	15	50	73	151	182	122	30	-11	1	0	1	13	18	29
CHAN STOR	0	30			-8	-19	-8	4		12	13				-7	-17	
EVAPORATION	463							29	91	111	96	43	20	23	50		
REG INFLOW	16114	740	332	426	1418	1512	1924	1408	1302	1188	1049	522	243	278	1084	1369	1318
RELEASE	15756	441	260	322	1162	1331	1481	1847	1978	1748	1253	576	303	229	854	1078	893
STOR CHANGE	357	300	71	105	256	181	443	-440	-675	-560	-204	-55	-60	49	230	291	425
STORAGE	16978	17277	17348	17453	17709	17889	18332	17893	17217	16658	16454	16399	16340	16389	16619	16910	17335
ELEV FTMSL	1601.3	1602.3	1602.6	1602.9	1603.8	1604.4	1605.9	1604.4	1602.1	1600.1	1599.4	1599.2	1599.0	1599.2	1600.0	1601.0	1602.5
DISCH KCFS	15.3	14.8	18.8	18.0	19.5	21.7	24.9	30.0	32.2	29.4	20.4	19.4	21.8	14.5	13.9	17.5	16.1
POWER																	
AVE POWER MW		186	236	227	247	274	317	382	404	365	252	239	269	179	172	218	202
PEAK POW MW		680	682	684	688	691	699	691	679	669	665	664	663	664	668	674	681
ENERGY GWH	2393.0	66.9	39.6	49.1	177.6	204.2	228.1	284.1	300.8	263.1	187.8	86.2	45.2	34.3	128.1	162.4	135.5
--BIG BEND--																	
EVAPORATION	103							6	20	25	22	10	5	5	11		
REG INFLOW	15653	441	260	322	1162	1331	1481	1841	1958	1723	1231	567	298	224	842	1078	893
RELEASE	15653	441	260	322	1162	1331	1481	1841	1958	1723	1231	567	298	224	842	1078	893
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.3	14.8	18.8	18.0	19.5	21.7	24.9	29.9	31.8	29.0	20.0	19.0	21.5	14.1	13.7	17.5	16.1
POWER																	
AVE POWER MW		70	88	84	91	101	116	140	149	137	98	96	108	71	69	86	77
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	904.1	25.3	14.8	18.2	65.8	75.4	83.9	104.3	110.9	98.8	73.1	34.4	18.1	13.7	51.4	64.1	51.9
--FORT RANDALL--																	
NAT INFLOW	900	121	56	73	160	165	135	70	60	35		-5	-2	-3		-10	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	117							8	25	31	25	9	4	4	10		
REG INFLOW	16357	560	316	394	1318	1487	1604	1885	1978	1720	1206	551	292	217	830	1065	935
RELEASE	16357	269	182	394	1318	1487	1604	1885	1978	1866	1849	872	408	243	727	715	561
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.4	9.0	13.1	22.0	22.1	24.2	27.0	30.7	32.2	31.4	30.1	29.3	29.4	15.3	11.8	11.6	10.1
POWER																	
AVE POWER MW		75	111	186	187	204	227	258	270	262	241	221	215	112	87	89	81
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1619.5	27.0	18.6	40.3	134.9	152.0	163.6	191.9	201.2	188.6	179.1	79.7	36.1	21.5	64.8	65.9	54.3
--GAVINS POINT--																	
NAT INFLOW	1500	102	47	61	145	165	175	100	90	95	120	58	27	31	80	85	120
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-3	1	-8	-17	0	-4	-5	-7	-3	2	2	1	0	26	6	0	3
EVAPORATION	36							2	6	9	8	3	2	2	4		
REG INFLOW	17704	372	222	438	1458	1629	1749	1937	2048	1959	1961	922	430	295	799	799	684
RELEASE	17704	372	222	438	1458	1629	1749	1937	2035	1934	1961	922	430	295	799	799	722
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	24.5	24.5	26.5	29.4	31.5	33.1	32.5	31.9	31.0	31.0	18.6	13.0	13.0	13.0
POWER																	
AVE POWER MW		44	56	84	84	90	99	104	108	109	108	106	106	66	46	46	46
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	727.6	15.8	9.3	18.1	60.4	67.3	71.6	77.7	80.7	78.2	80.5	38.2	17.8	12.6	34.3	34.4	30.8
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1800	162	76	97	280	345	190	165	130	110	60	30	14	16	25	25	75
DEPLETION	270	7	3	4	23	36	31	39	37	25	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY																	
KAF	19234	527	295	531	1715	1938	1908	2063	2128	2019	2010	946	442	308	811	810	782
KCFS		17.7	21.2	29.7	28.8	31.5	32.1	33.5	34.6	33.9	32.7	31.8	31.8	19.4	13.2	13.2	14.1
--TOTAL--																	
NAT INFLOW	24600	1350	630	810	2330	3340	6075	3445	1295	1105	1055	513	239	273	565	605	970
DEPLETION	2740	46	22	28	163	523	1557	1180	321	-161	-78	-159	-74	-85	-217	-211	-115
CHAN STOR	18	92	-8	-17	-29	-33	-24	-3	-3	39	40	1	0	27	-45	-22	3
EVAPORATION	1656							103	324	402	345	154	71	81	176		
STORAGE	51676	52545	52850	53084	53508	54354	56940	57036	55554	54438	53256	52828	52629	52625	52375	52359	52664
SYSTEM POWER																	
AVE POWER MW		647	763	855	934	1064	1197	1315	1363	1231	985	947	982	712	736	853	816
PEAK POW MW		2268	2268	2271	2277	2286	2314	2312	2294	2285	2266	2241	2231	2229	2197	2221	2233
ENERGY GWH	8856.7	232.9	128.2	184.7	672.1	791.3	861.6	978.5	1014.1	886.7	732.9	340.9	165.0	136.6	547.8	634.6	548.7
DAILY GWH		15.5	18.3	20.5	22.4	25.5	28.7	31.6	32.7	29.6	23.6	22.7	23.6	17.1	17.7	20.5	19.6

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB13	2013												2014			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	5950	201	94	120	460	945	1510	645	290	240	320	168	78	89	240	240	310
DEPLETION	366	-2	-1	-1	46	163	348	187	48	-65	-46	-28	-13	-15	-93	-96	-65
EVAPORATION	498							31	97	120	103	47	22	25	54		
MOD INFLOW	5086	203	95	122	414	782	1162	427	145	185	263	149	69	79	279	336	375
RELEASE	5930	179	83	107	417	584	565	584	584	459	369	179	83	103	523	584	528
STOR CHANGE	-844	25	12	15	-3	198	597	-157	-439	-273	-106	-30	-14	-24	-243	-248	-153
STORAGE	12724	12748	12760	12775	12772	12970	13567	13409	12971	12697	12591	12561	12547	12524	12281	12032	11880
ELEV FTMSL	2223.6	2223.7	2223.8	2223.8	2223.8	2224.9	2228.0	2227.2	2224.9	2223.4	2222.8	2222.7	2222.6	2222.5	2221.2	2219.8	2218.9
DISCH KCFS	11.5	6.0	6.0	6.0	7.0	9.5	9.5	9.5	9.5	7.7	6.0	6.0	6.0	6.5	8.5	9.5	9.5
POWER																	
AVE POWER MW		79	79	79	92	125	126	127	126	102	79	79	79	85	111	123	123
PEAK POW MW		154	154	154	154	155	158	157	155	154	153	153	153	153	152	150	149
ENERGY GWH	944.7	28.5	13.3	17.1	66.5	93.3	91.0	94.4	93.9	73.3	58.8	28.4	13.2	16.4	82.6	91.7	82.4
--GARRISON--																	
NAT INFLOW	9150	404	189	242	640	1150	2600	1700	475	395	395	160	75	85	150	210	280
DEPLETION	1142	25	12	15	49	156	650	563	166	-91	5	-115	-54	-61	-88	-57	-33
CHAN STOR	20	57			-10	-26				18	17			-5	-21	-10	
EVAPORATION	580							36	112	140	121	55	25	29	62		
REG INFLOW	13379	614	260	334	997	1552	2515	1686	781	823	655	399	186	216	678	841	841
RELEASE	14420	476	222	286	1131	1537	1428	1353	1353	1101	922	446	215	238	1138	1353	1222
STOR CHANGE	-1042	138	38	49	-133	15	1087	333	-572	-278	-267	-47	-29	-22	-460	-512	-381
STORAGE	15579	15717	15755	15803	15670	15685	16772	17105	16533	16255	15988	15941	15912	15890	15430	14918	14537
ELEV FTMSL	1828.8	1829.3	1829.4	1829.6	1829.1	1829.2	1833.0	1834.1	1832.2	1831.2	1830.3	1830.1	1830.0	1829.9	1828.2	1826.4	1824.9
DISCH KCFS	22.0	16.0	16.0	16.0	19.0	25.0	24.0	22.0	22.0	18.5	15.0	15.0	15.5	15.0	18.5	22.0	22.0
POWER																	
AVE POWER MW		189	189	189	224	294	286	266	266	222	179	178	184	178	218	256	253
PEAK POW MW		438	439	439	437	438	452	456	449	445	442	441	441	440	434	427	422
ENERGY GWH	2065.7	67.9	31.8	40.9	161.4	218.4	205.6	198.1	197.6	159.6	133.2	64.2	30.9	34.2	162.1	190.1	169.8
--OAHE--																	
NAT INFLOW	1350	177	82	106	285	130	315	110	50	55	15	13	6	7	-35	-15	50
DEPLETION	709	24	11	15	50	73	151	182	122	30	-11	1	0	1	13	18	29
CHAN STOR	-1	26			-13	-26	4	9		16	16		-2	2	-16	-16	0
EVAPORATION	528							34	104	127	109	49	23	26	57		
REG INFLOW	14533	655	293	377	1353	1568	1596	1255	1177	1015	856	409	196	221	1017	1304	1243
RELEASE	15602	494	285	366	1297	1500	1542	1812	1839	1624	1117	471	255	199	848	1067	886
STOR CHANGE	-1069	161	8	11	55	69	55	-556	-662	-609	-262	-62	-59	21	169	236	357
STORAGE	16239	16399	16407	16419	16474	16542	16597	16041	15379	14770	14508	14446	14386	14407	14576	14813	15170
ELEV FTMSL	1598.6	1599.2	1599.2	1599.3	1599.5	1599.7	1599.9	1597.9	1595.4	1593.1	1592.0	1591.8	1591.5	1591.6	1592.3	1593.2	1594.6
DISCH KCFS	16.0	16.6	20.6	20.5	21.8	24.4	25.9	29.5	29.9	27.3	18.2	15.8	18.4	12.6	13.8	17.4	15.9
POWER																	
AVE POWER MW		205	254	253	269	301	320	362	363	327	216	188	217	149	164	207	191
PEAK POW MW		664	664	664	666	667	668	658	645	634	629	627	626	627	630	635	642
ENERGY GWH	2292.8	73.7	42.6	54.6	193.9	224.2	230.6	269.3	269.9	235.4	161.0	67.7	36.5	28.6	121.9	154.0	128.7
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	15473	494	285	366	1297	1500	1542	1804	1815	1593	1090	459	249	193	834	1067	886
RELEASE	15473	494	285	366	1297	1500	1542	1804	1815	1593	1090	459	249	193	834	1067	886
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	16.0	16.6	20.6	20.5	21.8	24.4	25.9	29.3	29.5	26.8	17.7	15.4	17.9	12.1	13.6	17.4	15.9
POWER																	
AVE POWER MW		79	96	96	102	114	121	137	138	127	87	78	90	61	68	85	77
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	892.8	28.3	16.2	20.7	73.5	84.9	87.3	102.2	102.8	91.4	64.8	28.0	15.2	11.8	50.9	63.5	51.4
--FORT RANDALL--																	
NAT INFLOW	450	77	36	46	80	65	110	35	25		-20	-8	-4	-4	-10	-20	40
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	146							10	32	39	31	12	5	5	12		
REG INFLOW	15697	570	321	411	1373	1556	1640	1811	1793	1547	1039	438	240	183	808	1044	923
RELEASE	15697	278	187	411	1373	1556	1640	1811	1793	1693	1682	759	356	209	705	694	549
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.9	9.4	13.5	23.0	23.1	25.3	27.6	29.5	29.2	28.4	27.3	25.5	25.7	13.2	11.5	11.3	9.9
POWER																	
AVE POWER MW		78	114	195	195	214	232	248	246	238	219	193	188	96	85	86	79
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1557.2	28.0	19.1	42.1	140.5	158.9	167.3	184.5	182.7	171.4	163.2	69.5	31.6	18.5	62.9	64.0	53.1
--GAVINS POINT--																	
NAT INFLOW	1300	92	43	55	125	140	150	85	70	80	105	50	23	27	75	75	105
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-18	0	-4	-4	-4	1	1	2	3	0	23	3	0	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	16837	372	222	448	1493	1673	1761	1851	1845	1768	1777	803	375	254	769	769	656
RELEASE	16837	372	222	448	1493	1673	1761	1851	1832	1743	1777	803	375	254	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	25.1	25.1	27.2	29.6	30.1	29.8	29.3	28.9	27.0	27.0	16.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	86	86	93	100	101	101	101	101	95	95	57	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	701.1	15.8	9.3	18.6	61.8	69.0	72.0	75.2	75.1	72.8	75.1	34.1	15.9	10.9	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1100	121	56	73	145	185	115	100	80	65	35	23	11	12	10	20	50
DEPLETION	270	7	3	4	23	36	31	39	37	25	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY																	
KAF	17667	486	275	517	1615	1822	1845	1912	1875	1783	1801	820	383	263	766	775	729
KCFS		16.3	19.8	29.0	27.1	29.6	31.0	31.1	30.5	30.0	29.3	27.6	27.6	16.6	12.5	12.6	13.1
--TOTAL--																	
NAT INFLOW	19300	1072	500	643	1735	2615	4800	2675	990	835	850	405	189	216	430	510	835
DEPLETION	2681	55	26	33	177	456	1216	1028	398	-99	-38	-130	-61	-69	-142	-117	-51
CHAN STOR	18	84	-8	-18	-23	-56	0	5	1	35	36	3	-3	21	-34	-26	3
EVAPORATION	1925							121	377	467	401	178	83	94	204		
STORAGE	49628	50243	50434	50509	50428	50710	52448	52068	50408	49126	47848	47388	47169	47119	46688	46514	46673
SYSTEM POWER																	
AVE POWER MW		673	788	898	969	1141	1186	1241	1239	1116	882	811	853	627	690	802	766
PEAK POW MW		2238	2237	2237	2237	2239	2257	2250	2230	2217	2197	2173	2162	2160	2125	2147	2157
ENERGY GWH	8454.3	242.2	132.3	194.0	697.5	848.7	853.7	923.7	921.9	803.8	656.0	291.9	143.3	120.4	513.5	596.4	515.1
DAILY GWH		16.1	18.9	21.6	23.3	27.4	28.5	29.8	29.7	26.8	21.2	19.5	20.5	15.0	16.6	19.2	18.4

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB13	2013												2014			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	5300	194	90	116	440	850	1180	595	260	230	310	145	68	77	220	230	295
DEPLETION	371	-2	-1	-1	46	163	348	195	17	-99	-83	-21	-10	-11	-71	-60	-38
EVAPORATION	487							30	94	117	102	46	21	24	52		
MOD INFLOW	4442	196	91	118	394	687	832	370	149	212	291	120	56	64	239	290	333
RELEASE	5941	179	83	107	387	553	565	584	584	457	369	179	83	87	553	615	555
STOR CHANGE	-1499	18	8	10	7	134	267	-214	-435	-245	-78	-58	-27	-23	-315	-325	-222
STORAGE	12724	12741	12749	12760	12767	12901	13167	12953	12518	12273	12195	12137	12110	12087	11772	11447	11224
ELEV FTMSL	2223.6	2223.7	2223.7	2223.8	2223.8	2224.5	2225.9	2224.8	2222.5	2221.1	2220.7	2220.4	2220.2	2220.1	2218.3	2216.5	2215.2
DISCH KCFS	11.5	6.0	6.0	6.0	6.5	9.0	9.5	9.5	9.5	7.7	6.0	6.0	6.0	5.5	9.0	10.0	10.0
POWER																	
AVE POWER MW		79	79	79	86	119	126	126	125	100	78	78	78	71	116	127	126
PEAK POW MW		154	154	154	154	155	156	155	153	151	151	151	151	150	149	146	145
ENERGY GWH	937.5	28.5	13.3	17.1	61.8	88.3	90.6	93.7	93.0	72.2	58.2	28.1	13.1	13.7	86.4	94.7	84.8
--GARRISON--																	
NAT INFLOW	7400	382	178	229	580	1100	2165	935	325	215	385	150	70	80	140	195	270
DEPLETION	1083	25	12	15	64	172	584	522	148	-95	-3	-109	-51	-58	-74	-42	-26
CHAN STOR	15	57			-5	-26	-5			19	17			5	-37	-11	
EVAPORATION	549							34	107	132	114	51	24	27	59		
REG INFLOW	11724	593	250	322	898	1456	2141	963	654	654	660	386	180	203	672	841	851
RELEASE	13567	446	208	268	1220	1599	1428	1230	1230	1006	861	417	194	222	1015	1168	1055
STOR CHANGE	-1842	147	42	54	-322	-143	713	-267	-576	-352	-201	-30	-14	-19	-343	-327	-204
STORAGE	15579	15725	15767	15821	15499	15356	16069	15802	15226	14874	14673	14643	14629	14610	14267	13940	13736
ELEV FTMSL	1828.8	1829.3	1829.5	1829.7	1828.5	1828.0	1830.5	1829.6	1827.5	1826.2	1825.4	1825.3	1825.3	1825.2	1823.9	1822.6	1821.8
DISCH KCFS	22.0	15.0	15.0	15.0	20.5	26.0	24.0	20.0	20.0	16.9	14.0	14.0	14.0	14.0	16.5	19.0	19.0
POWER																	
AVE POWER MW		177	177	178	241	303	282	237	234	196	162	161	161	161	189	215	214
PEAK POW MW		438	439	439	435	433	443	439	431	427	424	423	423	423	418	414	411
ENERGY GWH	1907.1	63.7	29.8	38.4	173.6	225.6	203.1	176.2	174.5	141.4	120.4	58.1	27.1	31.0	140.5	160.1	143.6
--OAHE--																	
NAT INFLOW	1150	169	79	102	200	110	305	105	40	45	5	8	4	4	-45	-20	40
DEPLETION	709	24	11	15	50	73	151	182	122	30	-11	1	0	1	13	18	29
CHAN STOR	13	31		0	-24	-24	9	17		14	14			0	-12	-12	
EVAPORATION	520							34	103	125	107	48	22	26	56		
REG INFLOW	13500	622	276	355	1346	1612	1591	1136	1045	910	783	375	175	200	889	1118	1066
RELEASE	15388	516	295	379	1297	1525	1572	1750	1785	1562	1054	441	220	150	869	1077	896
STOR CHANGE	-1888	106	-19	-24	49	87	19	-614	-740	-652	-270	-66	-45	50	20	41	171
STORAGE	16239	16344	16325	16301	16350	16437	16456	15842	15102	14449	14179	14113	14069	14119	14138	14180	14350
ELEV FTMSL	1598.6	1599.0	1598.9	1598.9	1599.0	1599.3	1599.4	1597.2	1594.4	1591.8	1590.7	1590.4	1590.3	1590.5	1590.5	1590.7	1591.4
DISCH KCFS	16.0	17.4	21.3	21.2	21.8	24.8	26.4	28.5	29.0	26.3	17.1	14.8	15.8	9.5	14.1	17.5	16.1
POWER																	
AVE POWER MW		214	262	261	268	306	326	349	351	313	203	175	186	112	167	206	191
PEAK POW MW		663	663	662	663	665	665	654	640	627	622	621	620	621	621	622	626
ENERGY GWH	2250.0	77.1	44.1	56.5	193.3	227.4	234.5	259.3	260.8	225.1	150.8	62.9	31.3	21.4	124.0	153.5	128.1
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	15260	516	295	379	1297	1525	1572	1742	1761	1532	1027	428	214	144	855	1077	896
RELEASE	15260	516	295	379	1297	1525	1572	1742	1761	1532	1027	428	214	144	855	1077	896
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	16.0	17.4	21.3	21.2	21.8	24.8	26.4	28.3	28.6	25.7	16.7	14.4	15.4	9.0	13.9	17.5	16.1
POWER																	
AVE POWER MW		82	100	99	102	116	124	133	134	122	82	73	78	46	70	86	77
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	880.2	29.6	16.7	21.5	73.5	86.4	89.0	98.7	99.7	87.8	61.0	26.1	13.0	8.8	52.2	64.1	52.0
--FORT RANDALL--																	
NAT INFLOW	350	68	32	41	85	50	95	25	15	-5	-25	-10	-5	-5	-20	-25	35
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	146							10	32	39	31	12	5	5	12		
REG INFLOW	15383	583	326	419	1378	1566	1655	1739	1729	1480	970	405	204	133	820	1049	928
RELEASE	15383	291	192	419	1378	1566	1655	1739	1729	1626	1613	726	320	159	717	699	554
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.9	9.8	13.9	23.4	23.2	25.5	27.8	28.3	28.1	27.3	26.2	24.4	23.0	10.0	11.7	11.4	10.0
POWER																	
AVE POWER MW		81	117	198	196	215	234	238	237	229	211	185	169	73	86	87	80
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1527.3	29.2	19.7	42.8	140.9	159.9	168.8	177.4	176.3	164.7	156.6	66.5	28.4	14.1	63.9	64.4	53.5
--GAVINS POINT--																	
NAT INFLOW	1200	80	37	48	120	130	135	80	60	75	100	48	22	25	70	70	100
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	0	-8	-18	1	-4	-4	-1	0	2	2	3	3	24	-3	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	16423	372	222	448	1493	1673	1761	1777	1772	1697	1703	768	340	203	769	769	656
RELEASE	16423	372	222	448	1493	1673	1761	1777	1759	1672	1703	768	340	203	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	25.1	25.1	27.2	29.6	28.9	28.6	28.1	27.7	25.8	24.5	12.8	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	86	86	93	100	98	98	97	97	90	86	45	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	686.0	15.8	9.3	18.6	61.8	69.0	72.0	73.1	72.7	70.2	72.2	32.6	14.5	8.7	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	700	87	41	52	90	120	65	70	40	30	30	18	8	9	5	15	20
DEPLETION	270	7	3	4	23	36	31	39	37	25	11	6	3	3	13	14	15
REGULATED FLOW AT SIOUX CITY																	
KAF	16853	452	260	497	1560	1757	1795	1808	1762	1677	1722	779	346	209	761	770	699
KCFS		15.2	18.7	27.8	26.2	28.6	30.2	29.4	28.6	28.2	28.0	26.2	24.9	13.2	12.4	12.5	12.6
--TOTAL--																	
NAT INFLOW	16100	980	457	588	1515	2360	3945	1810	740	590	805	358	167	191	370	465	760
DEPLETION	2627	54	25	33	192	472	1150	995	349	-137	-83	-117	-55	-62	-106	-66	-17
CHAN STOR	26	87	-8	-18	-28	-54	-1	16	0	34	33	3	3	30	-52	-22	3
EVAPORATION	1876							119	368	455	390	174	80	92	198		
STORAGE	49627	50188	50353	50393	50127	50205	51204	50108	48370	46999	45808	45333	45131	45113	44578	44318	44398
SYSTEM POWER																	
AVE POWER MW		677	791	902	979	1151	1192	1181	1179	1058	832	762	758	509	672	766	732
PEAK POW MW		2237	2235	2235	2232	2233	2244	2228	2205	2190	2171	2146	2136	2134	2098	2117	2125
ENERGY GWH	8188.3	243.9	132.9	194.8	704.9	856.6	858.0	878.3	877.1	761.5	619.2	274.3	127.4	97.7	500.1	569.9	491.6
DAILY GWH		16.3	19.0	21.6	23.5	27.6	28.6	28.3	28.3	25.4	20.0	18.3	18.2	12.2	16.1	18.4	17.6

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB14	2014												2015			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	7200	227	106	136	560	1145	1830	840	365	290	385	205	96	109	295	260	350
DEPLETION	483	-29	-14	-17	28	335	522	247	8	-83	-47	-44	-21	-23	-136	-148	-95
EVAPORATION	439							27	85	105	91	41	19	22	48		
MOD INFLOW	6278	257	120	154	532	810	1308	566	272	268	341	208	97	111	383	408	445
RELEASE	6163	179	83	107	417	523	595	615	615	483	369	179	83	103	584	646	583
STOR CHANGE	115	78	36	47	115	287	713	-49	-343	-216	-28	29	14	8	-201	-238	-138
STORAGE	13596	13674	13710	13757	13872	14160	14873	14824	14481	14266	14237	14266	14280	14287	14086	13849	13711
ELEV FTMSL	2228.1	2228.5	2228.7	2229.0	2229.5	2231.0	2234.4	2234.2	2232.5	2231.5	2231.3	2231.5	2231.5	2231.6	2230.6	2229.4	2228.7
DISCH KCFS	10.0	6.0	6.0	6.0	7.0	8.5	10.0	10.0	10.0	8.1	6.0	6.0	6.0	6.5	9.5	10.5	10.5
POWER																	
AVE POWER MW		80	81	81	94	114	135	136	136	110	81	81	81	88	128	140	139
PEAK POW MW		158	158	159	159	160	163	162	161	160	160	160	160	160	160	159	158
ENERGY GWH	1004.9	29.0	13.5	17.4	67.7	85.2	97.5	101.2	100.9	79.2	60.4	29.2	13.7	16.9	95.4	104.0	93.6
--GARRISON--																	
NAT INFLOW	10900	479	223	287	780	1300	3120	2100	580	480	445	180	84	96	180	255	310
DEPLETION	1126				-8	107	888	700	110	-120	-23	-130	-60	-69	-119	-92	-58
CHAN STOR	-5	41			-10	-15	-15			18	21			-5	-30	-10	
EVAPORATION	509							31	100	123	106	47	22	25	54		
REG INFLOW	15423	698	307	394	1194	1701	2812	1983	985	978	752	441	206	238	800	983	951
RELEASE	15280	476	222	286	1071	1414	1488	1476	1476	1264	1107	536	250	294	1230	1414	1277
STOR CHANGE	144	222	85	109	123	286	1324	508	-490	-286	-355	-95	-44	-55	-430	-432	-326
STORAGE	16647	16869	16954	17063	17186	17472	18797	19304	18814	18528	18173	18078	18034	17979	17549	17117	16791
ELEV FTMSL	1832.6	1833.3	1833.6	1834.0	1834.4	1835.4	1839.7	1841.3	1839.7	1838.8	1837.7	1837.4	1837.2	1837.1	1835.6	1834.2	1833.1
DISCH KCFS	23.0	16.0	16.0	16.0	18.0	23.0	25.0	24.0	24.0	21.2	18.0	18.0	18.0	18.5	20.0	23.0	23.0
POWER																	
AVE POWER MW		194	194	195	219	281	310	303	303	266	225	224	224	229	247	281	278
PEAK POW MW		453	454	455	457	460	476	482	476	473	469	468	467	467	461	456	452
ENERGY GWH	2285.2	69.7	32.6	42.0	157.8	208.7	223.0	225.3	225.4	191.9	167.2	80.6	37.6	44.1	183.5	208.8	187.0
--OAHE--																	
NAT INFLOW	2300	259	121	155	405	220	625	170	70	95	45	45	21	24	-15	-10	70
DEPLETION	724	25	12	15	51	75	154	187	125	30	-12	1	0	1	13	19	29
CHAN STOR	0	29			-8	-20	-8	4		11	14			-2	-6	-13	
EVAPORATION	469							30	92	113	97	44	20	23	51		
REG INFLOW	16387	740	331	426	1417	1539	1950	1433	1329	1228	1081	536	250	292	1145	1372	1318
RELEASE	16241	455	259	344	1227	1399	1546	1851	1984	1754	1259	579	304	238	929	1152	960
STOR CHANGE	146	284	72	82	190	140	404	-418	-655	-526	-179	-43	-54	54	216	221	359
STORAGE	17335	17619	17691	17773	17963	18103	18507	18089	17434	16908	16730	16686	16632	16685	16901	17122	17481
ELEV FTMSL	1602.5	1603.5	1603.7	1604.0	1604.6	1605.1	1606.4	1605.1	1602.8	1601.0	1600.4	1600.2	1600.0	1600.2	1601.0	1601.8	1603.0
DISCH KCFS	16.1	15.3	18.7	19.3	20.6	22.8	26.0	30.1	32.3	29.5	20.5	19.5	21.9	15.0	15.1	18.7	17.3
POWER																	
AVE POWER MW		193	236	244	262	290	332	384	407	368	255	242	272	187	188	234	217
PEAK POW MW		687	688	689	693	695	702	695	683	674	670	669	669	669	673	678	684
ENERGY GWH	2477.3	69.6	39.7	52.7	188.5	215.4	239.0	285.7	302.9	265.1	189.7	87.1	45.7	35.8	140.1	174.2	146.1
--BIG BEND--																	
EVAPORATION	103							6	20	25	22	10	5	5	11		
REG INFLOW	16138	455	259	344	1227	1399	1546	1845	1964	1729	1238	570	300	233	917	1152	960
RELEASE	16138	455	259	344	1227	1399	1546	1845	1964	1729	1238	570	300	233	917	1152	960
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	16.1	15.3	18.7	19.3	20.6	22.8	26.0	30.0	31.9	29.1	20.1	19.1	21.6	14.7	14.9	18.7	17.3
POWER																	
AVE POWER MW		73	87	90	97	107	122	140	149	138	99	96	108	74	75	92	83
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	932.1	26.1	14.7	19.5	69.5	79.2	87.6	104.5	111.2	99.2	73.5	34.6	18.2	14.2	56.0	68.5	55.7
--FORT RANDALL--																	
NAT INFLOW	900	121	56	73	160	165	135	70	60	35		-5	-2	-3		-10	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	117							8	25	31	25	9	4	4	10		
REG INFLOW	16842	575	315	416	1383	1555	1669	1889	1984	1726	1212	554	293	226	905	1139	1002
RELEASE	16842	284	181	416	1383	1555	1669	1889	1984	1872	1855	875	409	252	802	789	628
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	10.1	9.5	13.1	23.3	23.2	25.3	28.1	30.7	32.3	31.5	30.2	29.4	29.5	15.9	13.0	12.8	11.3
POWER																	
AVE POWER MW		79	110	197	196	213	236	259	271	263	242	222	215	116	96	98	90
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1666.1	28.5	18.5	42.5	141.4	158.8	170.2	192.4	201.8	189.2	179.7	79.9	36.2	22.2	71.4	72.6	60.7
--GAVINS POINT--																	
NAT INFLOW	1500	102	47	61	145	165	175	100	90	95	120	58	27	31	80	85	120
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-4	1	-7	-20	0	-4	-5	-5	-3	2	2	1	0	25	5	0	3
EVAPORATION	36							2	6	9	8	3	2	2	4		
REG INFLOW	18188	387	222	457	1523	1697	1815	1943	2054	1965	1968	925	432	303	873	873	751
RELEASE	18188	387	222	457	1523	1697	1815	1943	2041	1940	1968	925	432	303	873	873	789
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	13.0	13.0	16.0	25.6	25.6	27.6	30.5	31.6	33.2	32.6	32.0	31.1	31.1	19.1	14.2	14.2	14.2
POWER																	
AVE POWER MW		45	56	88	87	94	102	105	109	109	108	106	106	67	50	50	50
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	746.3	16.4	9.3	18.9	63.0	69.9	73.5	77.8	80.9	78.3	80.6	38.3	17.9	12.9	37.5	37.5	33.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1800	162	76	97	280	345	190	165	130	110	60	30	14	16	25	25	75
DEPLETION	276	7	3	4	23	36	32	39	38	25	11	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	19712	542	294	550	1780	2006	1973	2069	2133	2025	2017	949	443	316	884	883	849
KCFS		18.2	21.2	30.8	29.9	32.6	33.2	33.6	34.7	34.0	32.8	31.9	31.9	19.9	14.4	14.4	15.3
--TOTAL--																	
NAT INFLOW	24600	1350	630	810	2330	3340	6075	3445	1295	1105	1055	513	239	273	565	605	970
DEPLETION	2803	4	2	2	103	581	1632	1230	306	-146	-68	-160	-75	-85	-215	-202	-106
CHAN STOR	-8	71	-7	-20	-18	-39	-28	-1	-3	31	37	1	0	19	-31	-22	3
EVAPORATION	1673							104	327	406	349	155	72	82	177		
STORAGE	52664	53540	53867	54105	54534	55247	57689	57729	56254	55106	53901	53471	53270	53250	52937	52839	53069
SYSTEM POWER																	
AVE POWER MW		664	765	894	956	1099	1237	1327	1375	1254	1010	972	1007	761	785	895	858
PEAK POW MW		2280	2280	2283	2288	2295	2321	2319	2301	2292	2273	2249	2238	2237	2204	2227	2238
ENERGY GWH	9112.0	239.1	128.5	193.1	688.0	817.4	890.8	986.9	1023.1	902.9	751.1	349.7	169.1	146.2	583.8	665.5	576.7
DAILY GWH		15.9	18.4	21.5	22.9	26.4	29.7	31.8	33.0	30.1	24.2	23.3	24.2	18.3	18.8	21.5	20.6

VALUES IN 1000 AF EXCEPT AS INDICATED

28FEB15		2015											2016			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	29FEB
--FORT PECK--																	
NAT INFLOW	7200	227	106	136	560	1145	1830	840	365	290	385	205	96	109	295	260	350
DEPLETION	496	-25	-12	-15	15	306	565	263	22	-101	-46	-44	-21	-23	-135	-147	-106
EVAPORATION	441							27	85	106	92	42	19	22	48		
MOD INFLOW	6263	253	118	152	545	839	1265	550	258	285	339	207	97	111	382	407	456
RELEASE	6208	179	83	107	417	553	595	615	615	484	369	179	83	95	584	646	604
STOR CHANGE	56	74	35	44	128	286	670	-65	-357	-199	-30	29	13	15	-202	-239	-148
STORAGE	13711	13785	13819	13864	13992	14278	14948	14883	14526	14327	14297	14326	14340	14355	14153	13914	13766
ELEV FTMSL	2228.7	2229.1	2229.3	2229.5	2230.1	2231.5	2234.8	2234.4	2232.7	2231.8	2231.6	2231.8	2231.8	2231.9	2230.9	2229.7	2229.0
DISCH KCFS	10.5	6.0	6.0	6.0	7.0	9.0	10.0	10.0	10.0	8.1	6.0	6.0	6.0	6.0	9.5	10.5	10.5
POWER																	
AVE POWER MW		81	81	81	94	121	136	136	136	110	81	81	81	81	128	140	139
PEAK POW MW		159	159	159	159	160	163	163	161	161	160	161	161	161	160	159	159
ENERGY GWH	1013.4	29.0	13.6	17.4	67.9	90.3	97.6	101.3	101.0	79.5	60.5	29.3	13.7	15.6	95.5	104.1	97.1
--GARRISON--																	
NAT INFLOW	10900	479	223	287	780	1300	3120	2100	580	480	445	180	84	96	180	255	310
DEPLETION	1102	2	1	1	-22	80	900	717	115	-123	-28	-133	-62	-71	-120	-92	-64
CHAN STOR	0	46			-10	-20	-10			18	21				-35	-10	
EVAPORATION	507							31	99	123	106	47	22	25	54		
REG INFLOW	15499	701	306	393	1208	1753	2805	1966	981	983	757	444	207	237	795	983	978
RELEASE	15431	476	222	286	1131	1476	1547	1537	1537	1256	1015	491	229	262	1230	1414	1323
STOR CHANGE	68	225	84	108	78	278	1258	429	-556	-273	-257	-47	-22	-25	-434	-432	-345
STORAGE	16791	17016	17100	17207	17285	17563	18821	19250	18694	18421	18164	18116	18094	18069	17635	17203	16858
ELEV FTMSL	1833.1	1833.8	1834.1	1834.5	1834.8	1835.7	1839.8	1841.1	1839.4	1838.5	1837.7	1837.5	1837.4	1837.4	1835.9	1834.5	1833.3
DISCH KCFS	23.0	16.0	16.0	16.0	19.0	24.0	26.0	25.0	25.0	21.1	16.5	16.5	16.5	16.5	20.0	23.0	23.0
POWER																	
AVE POWER MW		194	195	195	232	293	322	315	315	264	206	205	205	205	247	281	279
PEAK POW MW		455	456	457	458	462	477	481	475	472	469	468	468	468	462	457	453
ENERGY GWH	2309.1	69.9	32.7	42.2	166.9	218.2	232.1	234.5	234.2	190.2	153.3	73.9	34.5	39.4	183.8	209.2	194.0
--OAHE--																	
NAT INFLOW	2300	259	121	155	405	220	625	170	70	95	45	45	21	24	-15	-10	70
DEPLETION	736	25	12	15	51	76	157	191	128	31	-12	1	0	1	13	19	29
CHAN STOR	0	29			-12	-20	-8	4		16	19				-15	-13	
EVAPORATION	474							30	93	114	98	44	20	23	51		
REG INFLOW	16521	739	331	426	1472	1599	2007	1490	1386	1222	993	491	229	262	1136	1373	1364
RELEASE	16451	488	273	350	1251	1424	1570	1851	1984	1754	1259	579	304	242	947	1170	1005
STOR CHANGE	70	252	58	76	221	176	437	-360	-597	-532	-266	-88	-75	20	189	202	359
STORAGE	17481	17732	17791	17867	18088	18264	18701	18340	17743	17211	16944	16856	16781	16801	16989	17192	17550
ELEV FTMSL	1603.0	1603.9	1604.1	1604.3	1605.1	1605.6	1607.1	1605.9	1603.9	1602.1	1601.1	1600.8	1600.6	1600.6	1601.3	1602.0	1603.2
DISCH KCFS	17.3	16.4	19.7	19.6	21.0	23.2	26.4	30.1	32.3	29.5	20.5	19.5	21.9	15.2	15.4	19.0	17.5
POWER																	
AVE POWER MW		207	249	249	267	295	338	385	409	370	256	243	273	190	192	238	220
PEAK POW MW		689	690	691	695	698	706	699	689	679	674	673	671	672	675	679	685
ENERGY GWH	2517.8	74.7	41.9	53.7	192.5	219.7	243.4	286.7	304.5	266.7	190.6	87.4	45.8	36.5	143.1	177.3	153.2
--BIG BEND--																	
EVAPORATION	103							6	20	25	22	10	5	5	11		
REG INFLOW	16348	488	273	350	1251	1424	1570	1844	1964	1729	1238	570	300	236	936	1170	1005
RELEASE	16348	488	273	350	1251	1424	1570	1844	1964	1729	1238	570	300	236	936	1170	1005
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	17.3	16.4	19.7	19.6	21.0	23.2	26.4	30.0	31.9	29.1	20.1	19.1	21.6	14.9	15.2	19.0	17.5
POWER																	
AVE POWER MW		78	92	92	98	108	123	140	149	138	99	96	108	75	77	93	84
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	944.2	28.0	15.5	19.8	70.9	80.6	88.9	104.4	111.2	99.2	73.5	34.6	18.2	14.4	57.1	69.5	58.4
--FORT RANDALL--																	
NAT INFLOW	900	121	56	73	160	165	135	70	60	35		-5	-2	-3		-10	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	117							8	25	31	25	9	4	4	10		
REG INFLOW	17052	607	329	422	1407	1580	1693	1888	1984	1726	1212	554	293	230	923	1157	1047
RELEASE	17052	316	195	422	1407	1580	1693	1888	1984	1872	1855	875	409	255	820	807	673
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	11.3	10.6	14.0	23.6	23.6	25.7	28.5	30.7	32.3	31.5	30.2	29.4	29.5	16.1	13.3	13.1	11.7
POWER																	
AVE POWER MW		88	119	200	200	217	240	258	271	263	242	222	215	117	98	100	93
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1686.6	31.7	19.9	43.1	143.8	161.3	172.6	192.3	201.8	189.2	179.7	79.9	36.2	22.6	73.0	74.3	65.0
--GAVINS POINT--																	
NAT INFLOW	1500	102	47	61	145	165	175	100	90	95	120	58	27	31	80	85	120
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-2	1	-7	-18	0	-4	-5	-4	-3	2	2	1	0	25	5	0	3
EVAPORATION	36							2	6	9	8	3	2	2	4		
REG INFLOW	18400	419	236	464	1547	1722	1839	1943	2054	1965	1968	925	432	306	892	892	796
RELEASE	18400	419	236	464	1547	1722	1839	1943	2041	1940	1968	925	432	306	892	892	834
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	14.2	14.1	17.0	26.0	26.0	28.0	30.9	31.6	33.2	32.6	32.0	31.1	31.1	19.3	14.5	14.5	14.5
POWER																	
AVE POWER MW		49	59	89	89	95	103	105	109	109	108	106	106	68	51	51	51
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	754.7	17.7	9.9	19.2	63.9	70.9	74.2	77.8	80.9	78.3	80.6	38.3	17.9	13.1	38.3	38.3	35.5
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1800	162	76	97	280	345	190	165	130	110	60	30	14	16	25	25	75
DEPLETION	277	7	3	4	23	36	32	40	38	25	11	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	19923	574	308	557	1804	2031	1997	2068	2133	2025	2017	949	443	319	903	902	894
KCFS		19.3	22.2	31.2	30.3	33.0	33.6	33.6	34.7	34.0	32.8	31.9	31.9	20.1	14.7	14.7	15.5
--TOTAL--																	
NAT INFLOW	24600	1350	630	810	2330	3340	6075	3445	1295	1105	1055	513	239	273	565	605	970
DEPLETION	2805	10	5	6	76	526	1690	1268	328	-166	-72	-163	-76	-87	-215	-201	-123
CHAN STOR	-2	76	-7	-18	-22	-44	-23	0	-3	36	43	1	0	25	-45	-22	3
EVAPORATION	1678							105	328	407	350	156	72	82	178		
STORAGE	53069	53911	54222	54450	54878	55616	57981	57985	56487	55362	54166	53738	53538	53523	53178	53060	53261
SYSTEM POWER																	
AVE POWER MW		697	795	905	981	1131	1262	1340	1389	1254	992	954	989	737	794	904	867
PEAK POW MW		2284	2284	2287	2292	2300	2325	2323	2306	2296	2277	2253	2242	2240	2207	2230	2241
ENERGY GWH	9225.7	251.0	133.5	195.4	706.0	841.1	908.8	997.1	1033.6	903.1	738.2	343.5	166.2	141.5	590.8	672.6	603.2
DAILY GWH		16.7	19.1	21.7	23.5	27.1	30.3	32.2	33.3	30.1	23.8	22.9	23.7	17.7	19.1	21.7	20.8

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 29FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB16	2016												2017			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	7200	227	106	136	560	1145	1830	840	365	290	385	205	96	109	295	260	350
DEPLETION	512	-24	-11	-15	15	307	569	270	25	-102	-51	-45	-21	-24	-137	-148	-96
EVAPORATION	442							27	85	106	92	42	19	22	48		
MOD INFLOW	6246	252	117	151	545	838	1261	543	255	286	344	208	97	111	384	408	446
RELEASE	6215	179	83	107	417	553	595	615	615	474	369	179	83	103	615	646	583
STOR CHANGE	31	73	34	44	128	285	666	-72	-360	-188	-25	30	14	8	-231	-238	-137
STORAGE	13766	13839	13874	13917	14046	14330	14996	14924	14564	14376	14351	14381	14395	14403	14172	13934	13797
ELEV FTMSL	2229.0	2229.4	2229.5	2229.8	2230.4	2231.8	2235.0	2234.6	2232.9	2232.0	2231.9	2232.0	2232.1	2232.1	2231.0	2229.8	2229.2
DISCH KCFS	10.5	6.0	6.0	6.0	7.0	9.0	10.0	10.0	10.0	8.0	6.0	6.0	6.0	6.5	10.0	10.5	10.5
POWER																	
AVE POWER MW		81	81	81	94	122	136	136	136	108	81	81	81	88	135	140	140
PEAK POW MW		159	159	159	160	161	163	163	161	161	161	161	161	161	160	159	159
ENERGY GWH	1015.1	29.0	13.6	17.4	67.9	90.4	97.7	101.4	101.1	77.8	60.5	29.3	13.7	16.9	100.4	104.2	93.8
--GARRISON--																	
NAT INFLOW	10900	479	223	287	780	1300	3120	2100	580	480	445	180	84	96	180	255	310
DEPLETION	1125	3	1	2	-21	82	911	733	121	-126	-32	-137	-64	-73	-123	-94	-59
CHAN STOR	0	45			-10	-20	-10			20	19			-5	-35	-5	
EVAPORATION	508							31	99	123	106	47	22	25	54		
REG INFLOW	15483	700	305	393	1207	1751	2794	1950	975	977	760	448	209	242	829	990	952
RELEASE	15450	491	229	295	1101	1476	1547	1537	1537	1251	1045	506	236	278	1230	1414	1277
STOR CHANGE	33	209	76	98	107	276	1247	413	-563	-273	-286	-58	-27	-36	-401	-425	-325
STORAGE	16858	17068	17144	17242	17349	17624	18871	19285	18722	18448	18163	18105	18077	18042	17641	17216	16891
ELEV FTMSL	1833.3	1834.0	1834.3	1834.6	1835.0	1835.9	1839.9	1841.2	1839.5	1838.6	1837.7	1837.5	1837.4	1837.3	1836.0	1834.5	1833.4
DISCH KCFS	23.0	16.5	16.5	16.5	18.5	24.0	26.0	25.0	25.0	21.0	17.0	17.0	17.0	17.5	20.0	23.0	23.0
POWER																	
AVE POWER MW		200	201	201	226	294	323	316	315	263	212	212	211	217	247	281	279
PEAK POW MW		455	456	458	459	462	477	482	475	472	469	468	468	467	462	457	453
ENERGY GWH	2313.4	72.2	33.8	43.5	162.8	218.4	232.4	234.7	234.4	189.6	157.9	76.2	35.5	41.7	183.8	209.2	187.4
--OAHE--																	
NAT INFLOW	2300	259	121	155	405	220	625	170	70	95	45	45	21	24	-15	-10	70
DEPLETION	752	25	12	15	52	77	160	195	132	32	-12	1	0	1	13	19	30
CHAN STOR	0	27			-8	-22	-8	4		16	17	0		-2	-11	-13	
EVAPORATION	474							30	93	114	98	44	21	23	51		
REG INFLOW	16524	752	338	435	1446	1596	2004	1486	1382	1216	1021	506	236	276	1140	1373	1317
RELEASE	16490	500	272	356	1269	1442	1588	1850	1984	1754	1259	579	304	238	948	1170	976
STOR CHANGE	34	252	66	79	177	154	416	-364	-601	-538	-238	-74	-68	37	192	202	341
STORAGE	17550	17802	17868	17947	18124	18278	18694	18330	17729	17191	16953	16879	16811	16849	17041	17243	17584
ELEV FTMSL	1603.2	1604.1	1604.3	1604.6	1605.2	1605.7	1607.1	1605.9	1603.9	1602.0	1601.2	1600.9	1600.7	1600.8	1601.5	1602.2	1603.4
DISCH KCFS	17.5	16.8	19.6	19.9	21.3	23.5	26.7	30.1	32.3	29.5	20.5	19.5	21.9	15.0	15.4	19.0	17.6
POWER																	
AVE POWER MW		213	249	253	271	299	342	385	409	370	256	243	273	187	193	238	222
PEAK POW MW		690	691	692	696	698	706	699	689	679	674	673	672	672	676	680	686
ENERGY GWH	2524.6	76.6	41.8	54.7	195.5	222.7	246.2	286.6	304.4	266.6	190.6	87.4	45.8	35.9	143.3	177.4	148.9
--BIG BEND--																	
EVAPORATION	103							6	20	25	22	10	5	5	11		
REG INFLOW	16387	500	272	356	1269	1442	1588	1844	1964	1729	1238	570	300	233	936	1170	976
RELEASE	16387	500	272	356	1269	1442	1588	1844	1964	1729	1238	570	300	233	936	1170	976
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	17.5	16.8	19.6	19.9	21.3	23.5	26.7	30.0	31.9	29.1	20.1	19.1	21.6	14.7	15.2	19.0	17.6
POWER																	
AVE POWER MW		80	92	93	100	110	125	140	149	138	99	96	108	74	77	93	84
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	946.3	28.7	15.4	20.2	71.9	81.7	89.9	104.4	111.2	99.2	73.5	34.6	18.2	14.2	57.1	69.5	56.7
--FORT RANDALL--																	
NAT INFLOW	900	121	56	73	160	165	135	70	60	35		-5	-2	-3		-10	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	117							8	25	31	25	9	4	4	10		
REG INFLOW	17090	619	328	428	1425	1598	1711	1888	1984	1726	1212	554	293	226	924	1157	1018
RELEASE	17090	328	194	428	1425	1598	1711	1888	1984	1872	1855	875	409	252	821	807	644
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	11.7	11.0	14.0	24.0	23.9	26.0	28.8	30.7	32.3	31.5	30.2	29.4	29.5	15.9	13.4	13.1	11.6
POWER																	
AVE POWER MW		91	118	202	202	219	242	258	271	263	242	222	215	116	98	100	93
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1690.6	32.9	19.8	43.7	145.6	163.2	174.4	192.2	201.8	189.2	179.7	79.9	36.2	22.2	73.1	74.3	62.3
--GAVINS POINT--																	
NAT INFLOW	1500	102	47	61	145	165	175	100	90	95	120	58	27	31	80	85	120
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-6	-19	0	-4	-5	-4	-3	2	2	1	0	25	5	0	3
EVAPORATION	36							2	6	9	8	3	2	2	4		
REG INFLOW	18439	431	236	470	1565	1740	1857	1943	2054	1965	1968	925	432	303	892	892	767
RELEASE	18439	431	236	470	1565	1740	1857	1943	2041	1940	1968	925	432	303	892	892	805
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	14.5	14.5	17.0	26.3	26.3	28.3	31.2	31.6	33.2	32.6	32.0	31.1	31.1	19.1	14.5	14.5	14.5
POWER																	
AVE POWER MW		51	59	90	90	96	104	105	109	109	108	106	106	67	51	51	51
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	756.0	18.2	9.9	19.4	64.6	71.6	74.7	77.8	80.9	78.3	80.6	38.3	17.9	12.9	38.3	38.3	34.3
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1800	162	76	97	280	345	190	165	130	110	60	30	14	16	25	25	75
DEPLETION	280	7	3	4	24	37	32	40	38	25	12	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	19959	586	308	563	1821	2048	2015	2068	2133	2025	2016	949	443	316	903	902	865
KCFS		19.7	22.2	31.5	30.6	33.3	33.9	33.6	34.7	34.0	32.8	31.9	31.9	19.9	14.7	14.7	15.6
--TOTAL--																	
NAT INFLOW	24600	1350	630	810	2330	3340	6075	3445	1295	1105	1055	513	239	273	565	605	970
DEPLETION	2863	12	6	7	79	531	1708	1295	341	-169	-80	-168	-78	-90	-220	-204	-107
CHAN STOR	-1	74	-6	-19	-18	-46	-23	0	-3	38	39	1	0	19	-41	-17	3
EVAPORATION	1680							105	329	407	350	156	72	82	178		
STORAGE	53261	54087	54397	54618	55030	55745	58074	58051	56540	55420	54228	53805	53607	53591	53254	53145	53359
SYSTEM POWER																	
AVE POWER MW		715	800	921	984	1140	1271	1340	1389	1251	998	960	996	750	801	904	868
PEAK POW MW		2286	2286	2289	2294	2301	2325	2323	2306	2296	2278	2253	2243	2241	2208	2231	2242
ENERGY GWH	9246.0	257.6	134.3	199.0	708.3	848.0	915.2	997.2	1033.8	900.7	742.8	345.7	167.3	144.0	595.9	672.9	583.3
DAILY GWH		17.2	19.2	22.1	23.6	27.4	30.5	32.2	33.3	30.0	24.0	23.0	23.9	18.0	19.2	21.7	20.8
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB17	2017												2018			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	7200	227	106	136	560	1145	1830	840	365	290	385	205	96	109	295	260	350
DEPLETION	519	-25	-12	-15	15	308	573	277	29	-103	-53	-46	-21	-25	-138	-149	-96
EVAPORATION	441							27	85	106	92	42	19	22	48		
MOD INFLOW	6240	253	118	152	545	837	1257	536	251	287	346	209	98	112	385	409	446
RELEASE	6243	179	83	107	417	492	625	646	646	487	369	179	83	87	615	646	583
STOR CHANGE	-3	74	35	44	128	345	632	-110	-395	-200	-23	31	14	24	-230	-237	-137
STORAGE	13797	13871	13906	13950	14079	14424	15056	14946	14551	14351	14328	14359	14373	14398	14168	13931	13794
ELEV FTMSL	2229.2	2229.5	2229.7	2229.9	2230.6	2232.2	2235.3	2234.7	2232.9	2231.9	2231.8	2231.9	2232.0	2232.1	2231.0	2229.8	2229.1
DISCH KCFS	10.5	6.0	6.0	6.0	7.0	8.0	10.5	10.5	10.5	8.2	6.0	6.0	6.0	5.5	10.0	10.5	10.5
POWER																	
AVE POWER MW		81	81	81	94	108	142	142	142	111	81	81	81	75	135	140	140
PEAK POW MW		159	159	159	160	161	163	163	161	161	161	161	161	161	160	159	159
ENERGY GWH	1017.9	29.1	13.6	17.5	67.9	80.5	102.0	105.9	105.4	80.0	60.5	29.3	13.7	14.3	100.4	104.2	93.8
--GARRISON--																	
NAT INFLOW	10900	479	223	287	780	1300	3120	2100	580	480	445	180	84	96	180	255	310
DEPLETION	1146	3	1	2	-21	81	920	749	126	-129	-37	-139	-65	-74	-122	-92	-57
CHAN STOR	0	45			-10	-10	-25			23	22			5	-45	-5	
EVAPORATION	508							31	99	123	106	47	22	25	54		
REG INFLOW	15489	700	305	393	1207	1701	2800	1965	1000	996	767	450	210	237	818	988	950
RELEASE	15488	476	222	286	1131	1506	1547	1537	1537	1252	1045	506	243	278	1230	1414	1277
STOR CHANGE	1	224	83	107	77	194	1253	428	-537	-256	-279	-56	-33	-41	-412	-427	-327
STORAGE	16891	17115	17199	17306	17383	17577	18830	19258	18721	18465	18187	18131	18098	18058	17646	17219	16892
ELEV FTMSL	1833.4	1834.2	1834.5	1834.8	1835.1	1835.7	1839.8	1841.1	1839.5	1838.6	1837.7	1837.6	1837.5	1837.3	1836.0	1834.5	1833.4
DISCH KCFS	23.0	16.0	16.0	16.0	19.0	24.5	26.0	25.0	25.0	21.0	17.0	17.0	17.5	17.5	20.0	23.0	23.0
POWER																	
AVE POWER MW		195	195	196	232	300	322	315	315	264	212	212	218	218	247	281	279
PEAK POW MW		456	457	458	459	462	477	481	475	472	469	468	468	468	463	457	453
ENERGY GWH	2319.1	70.1	32.8	42.3	167.3	222.9	232.2	234.6	234.3	189.8	158.0	76.2	36.6	41.8	183.8	209.2	187.4
--OAHE--																	
NAT INFLOW	2300	259	121	155	405	220	625	170	70	95	45	45	21	24	-15	-10	70
DEPLETION	765	25	12	15	52	78	163	200	135	32	-13	1	0	1	14	20	30
CHAN STOR	0	29			-12	-22	-6	4		16	17	0	-2		-11	-13	
EVAPORATION	475							30	93	114	98	44	21	23	51		
REG INFLOW	16548	739	331	426	1471	1626	2003	1481	1379	1217	1022	506	241	278	1139	1372	1317
RELEASE	16546	500	272	358	1275	1448	1594	1850	1984	1754	1259	579	304	238	960	1182	988
STOR CHANGE	2	239	59	68	197	178	409	-369	-605	-537	-237	-74	-64	40	179	189	330
STORAGE	17584	17823	17882	17950	18147	18324	18734	18365	17760	17223	16986	16913	16849	16889	17067	17256	17586
ELEV FTMSL	1603.4	1604.2	1604.4	1604.6	1605.3	1605.8	1607.2	1606.0	1604.0	1602.1	1601.3	1601.0	1600.8	1600.9	1601.6	1602.2	1603.4
DISCH KCFS	17.6	16.8	19.6	20.0	21.4	23.6	26.8	30.1	32.3	29.5	20.5	19.5	21.9	15.0	15.6	19.2	17.8
POWER																	
AVE POWER MW		213	249	255	273	301	343	385	409	371	256	243	273	187	195	241	224
PEAK POW MW		690	691	692	696	699	706	700	689	679	675	674	673	673	677	680	686
ENERGY GWH	2534.5	76.7	41.8	55.0	196.4	223.7	247.3	286.7	304.6	266.8	190.7	87.5	45.9	36.0	145.3	179.4	150.6
--BIG BEND--																	
EVAPORATION	103							6	20	25	22	10	5	5	11		
REG INFLOW	16443	500	272	358	1275	1448	1594	1844	1964	1729	1238	570	300	233	949	1182	988
RELEASE	16443	500	272	358	1275	1448	1594	1844	1964	1729	1238	570	300	233	949	1182	988
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	17.6	16.8	19.6	20.0	21.4	23.6	26.8	30.0	31.9	29.1	20.1	19.1	21.6	14.7	15.4	19.2	17.8
POWER																	
AVE POWER MW		80	92	94	100	110	125	140	149	138	99	96	108	74	78	94	85
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	949.6	28.7	15.4	20.3	72.2	82.0	90.3	104.4	111.2	99.2	73.5	34.6	18.2	14.2	57.9	70.3	57.3
--FORT RANDALL--																	
NAT INFLOW	900	121	56	73	160	165	135	70	60	35		-5	-2	-3		-10	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	117							8	25	31	25	9	4	4	10		
REG INFLOW	17146	620	328	430	1431	1604	1717	1888	1984	1726	1212	554	293	226	936	1169	1030
RELEASE	17146	328	194	430	1431	1604	1717	1888	1984	1872	1855	875	409	252	834	819	656
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	11.6	11.0	14.0	24.1	24.0	26.1	28.9	30.7	32.3	31.5	30.2	29.4	29.5	15.9	13.6	13.3	11.8
POWER																	
AVE POWER MW		91	118	203	203	220	243	258	271	263	242	222	215	116	100	101	94
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1695.9	32.9	19.8	43.9	146.2	163.8	175.0	192.2	201.8	189.2	179.7	79.9	36.2	22.2	74.2	75.4	63.3
--GAVINS POINT--																	
NAT INFLOW	1500	102	47	61	145	165	175	100	90	95	120	58	27	31	80	85	120
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-2	1	-6	-19	0	-4	-5	-4	-3	2	2	1	0	25	4	0	3
EVAPORATION	36							2	6	9	8	3	2	2	4		
REG INFLOW	18495	431	236	471	1571	1746	1863	1943	2054	1965	1968	925	432	303	904	904	778
RELEASE	18495	431	236	471	1571	1746	1863	1943	2041	1940	1968	925	432	303	904	904	816
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	14.5	14.5	17.0	26.4	26.4	28.4	31.3	31.6	33.2	32.6	32.0	31.1	31.1	19.1	14.7	14.7	14.7
POWER																	
AVE POWER MW		51	59	90	90	97	104	105	109	109	108	106	106	67	52	52	52
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	758.2	18.2	9.9	19.5	64.9	71.9	74.8	77.8	80.9	78.3	80.6	38.3	17.9	12.9	38.8	38.8	34.8
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1800	162	76	97	280	345	190	165	130	110	60	30	14	16	25	25	75
DEPLETION	283	7	3	4	24	37	32	40	39	26	12	7	3	3	14	15	16
REGULATED FLOW AT SIOUX CITY																	
KAF	20012	586	308	564	1827	2054	2021	2068	2132	2024	2016	949	443	316	915	914	875
KCFS		19.7	22.2	31.6	30.7	33.4	34.0	33.6	34.7	34.0	32.8	31.9	31.9	19.9	14.9	14.9	15.8
--TOTAL--																	
NAT INFLOW	24600	1350	630	810	2330	3340	6075	3445	1295	1105	1055	513	239	273	565	605	970
DEPLETION	2907	11	5	7	79	532	1724	1323	354	-172	-88	-172	-80	-91	-219	-202	-104
CHAN STOR	-1	76	-6	-19	-22	-36	-36	0	-3	41	41	1	-2	31	-51	-17	3
EVAPORATION	1680							105	329	408	350	156	72	82	178		
STORAGE	53359	54188	54498	54718	55120	55837	58131	58081	56558	55444	54262	53842	53644	53642	53282	53158	53359
SYSTEM POWER																	
AVE POWER MW		710	794	919	993	1136	1280	1346	1395	1254	999	961	1002	737	807	910	874
PEAK POW MW		2287	2287	2290	2295	2301	2326	2324	2306	2297	2279	2254	2244	2242	2209	2231	2242
ENERGY GWH	9275.1	255.6	133.4	198.4	715.0	844.8	921.5	1001.6	1038.2	903.2	743.0	345.8	168.4	141.5	600.4	677.2	587.2
DAILY GWH		17.0	19.1	22.0	23.8	27.3	30.7	32.3	33.5	30.1	24.0	23.1	24.1	17.7	19.4	21.8	21.0

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB18	2018												2019			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	7200	227	106	136	560	1145	1830	840	365	290	385	205	96	109	295	260	350
DEPLETION	531	-25	-12	-15	14	309	577	284	33	-103	-54	-47	-22	-25	-139	-149	-96
EVAPORATION	440							27	85	105	92	42	19	22	48		
MOD INFLOW	6229	253	118	152	546	836	1253	529	247	288	347	210	98	112	386	409	446
RELEASE	6248	179	83	107	417	523	625	646	646	485	369	179	83	95	584	646	583
STOR CHANGE	-20	74	35	44	129	313	628	-117	-399	-198	-22	31	15	17	-198	-237	-137
STORAGE	13794	13868	13903	13947	14077	14390	15018	14901	14503	14305	14283	14315	14330	14346	14148	13912	13774
ELEV FTMSL	2229.1	2229.5	2229.7	2229.9	2230.5	2232.1	2235.1	2234.5	2232.6	2231.7	2231.6	2231.7	2231.8	2231.9	2230.9	2229.7	2229.0
DISCH KCFS	10.5	6.0	6.0	6.0	7.0	8.5	10.5	10.5	10.5	8.2	6.0	6.0	6.0	6.0	9.5	10.5	10.5
POWER																	
AVE POWER MW		81	81	81	94	115	142	142	142	111	81	81	81	81	128	140	139
PEAK POW MW		159	159	159	160	161	163	163	161	161	160	161	161	161	160	159	159
ENERGY GWH	1018.5	29.1	13.6	17.5	67.9	85.5	101.9	105.8	105.3	79.6	60.5	29.3	13.7	15.6	95.5	104.1	93.7
--GARRISON--																	
NAT INFLOW	10900	479	223	287	780	1300	3120	2100	580	480	445	180	84	96	180	255	310
DEPLETION	1226	4	2	3	-33	81	930	765	132	-132	-42	-134	-62	-71	-104	-73	-40
CHAN STOR	0	45			-10	-15	-20			23	21				-35	-10	
EVAPORATION	511							32	100	124	106	48	22	25	54		
REG INFLOW	15412	699	305	392	1219	1727	2795	1949	994	997	771	444	207	237	779	964	933
RELEASE	15436	476	222	286	1071	1445	1547	1537	1537	1268	1076	521	243	286	1230	1414	1277
STOR CHANGE	-25	223	83	106	148	282	1248	412	-543	-271	-305	-76	-36	-48	-450	-451	-344
STORAGE	16892	17115	17197	17304	17452	17734	18981	19393	18850	18578	18273	18197	18161	18113	17662	17212	16868
ELEV FTMSL	1833.4	1834.2	1834.5	1834.8	1835.3	1836.3	1840.3	1841.5	1839.9	1839.0	1838.0	1837.8	1837.7	1837.5	1836.0	1834.5	1833.3
DISCH KCFS	23.0	16.0	16.0	16.0	18.0	23.5	26.0	25.0	25.0	21.3	17.5	17.5	17.5	18.0	20.0	23.0	23.0
POWER																	
AVE POWER MW		195	195	196	220	288	323	316	316	268	219	218	218	224	247	281	279
PEAK POW MW		456	457	458	460	464	478	483	477	474	470	469	469	468	463	457	453
ENERGY GWH	2315.3	70.1	32.8	42.3	158.7	214.4	232.9	235.1	234.9	192.6	162.9	78.5	36.6	43.0	183.9	209.2	187.4
--OAHE--																	
NAT INFLOW	2300	259	121	155	405	220	625	170	70	95	45	45	21	24	-15	-10	70
DEPLETION	780	26	12	15	53	79	166	204	138	33	-13	1	0	1	14	20	31
CHAN STOR	0	29			-8	-22	-10	4		15	16			-2	-9	-13	
EVAPORATION	473							30	92	114	98	44	20	23	51		
REG INFLOW	16484	738	331	426	1415	1564	1996	1477	1377	1232	1052	521	243	284	1141	1372	1316
RELEASE	16509	500	272	358	1275	1448	1594	1850	1984	1754	1259	579	304	238	948	1170	976
STOR CHANGE	-26	239	59	68	140	115	402	-372	-607	-522	-207	-59	-61	45	194	201	340
STORAGE	17586	17825	17884	17951	18091	18207	18609	18237	17630	17107	16900	16842	16780	16826	17019	17221	17560
ELEV FTMSL	1603.4	1604.2	1604.4	1604.6	1605.1	1605.5	1606.8	1605.6	1603.5	1601.7	1601.0	1600.8	1600.6	1600.7	1601.4	1602.1	1603.3
DISCH KCFS	17.8	16.8	19.6	20.0	21.4	23.6	26.8	30.1	32.3	29.5	20.5	19.5	21.9	15.0	15.4	19.0	17.6
POWER																	
AVE POWER MW		213	249	255	273	300	343	385	408	370	256	243	273	187	193	238	221
PEAK POW MW		690	691	693	695	697	704	698	687	677	673	672	671	672	676	679	686
ENERGY GWH	2525.0	76.6	41.8	55.0	196.3	223.4	246.7	286.1	303.9	266.1	190.3	87.4	45.8	35.9	143.3	177.4	148.8
--BIG BEND--																	
EVAPORATION	103							6	20	25	22	10	5	5	11		
REG INFLOW	16406	500	272	358	1275	1448	1594	1844	1964	1729	1238	570	300	233	936	1170	976
RELEASE	16406	500	272	358	1275	1448	1594	1844	1964	1729	1238	570	300	233	936	1170	976
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	17.8	16.8	19.6	20.0	21.4	23.6	26.8	30.0	31.9	29.1	20.1	19.1	21.6	14.7	15.2	19.0	17.6
POWER																	
AVE POWER MW		80	92	94	100	110	125	140	149	138	99	96	108	74	77	93	84
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	947.4	28.6	15.4	20.3	72.2	82.0	90.3	104.4	111.2	99.2	73.5	34.6	18.2	14.2	57.1	69.5	56.7
--FORT RANDALL--																	
NAT INFLOW	900	121	56	73	160	165	135	70	60	35		-5	-2	-3		-10	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	117							8	25	31	25	9	4	4	10		
REG INFLOW	17110	619	328	430	1431	1604	1717	1888	1984	1726	1212	554	293	226	924	1157	1018
RELEASE	17110	328	194	430	1431	1604	1717	1888	1984	1872	1855	875	409	252	821	807	644
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-116	-26	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2323	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1338.0	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	11.8	11.0	14.0	24.1	24.0	26.1	28.9	30.7	32.3	31.5	30.2	29.4	29.5	15.9	13.4	13.1	11.6
POWER																	
AVE POWER MW		91	118	203	203	220	243	258	271	263	242	222	215	116	98	100	93
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	287	285	293	319	339
ENERGY GWH	1692.6	32.9	19.8	43.9	146.2	163.8	175.0	192.2	201.8	189.2	179.7	79.9	36.2	22.2	73.1	74.3	62.3
--GAVINS POINT--																	
NAT INFLOW	1500	102	47	61	145	165	175	100	90	95	120	58	27	31	80	85	120
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	2	-6	-19	0	-4	-5	-4	-3	2	2	1	0	25	5	0	3
EVAPORATION	36							2	6	9	8	3	2	2	4		
REG INFLOW	18459	431	236	471	1571	1746	1863	1943	2054	1965	1968	925	432	303	892	892	767
RELEASE	18459	431	236	471	1571	1746	1863	1943	2041	1940	1968	925	432	303	892	892	805
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	14.7	14.5	17.0	26.4	26.4	28.4	31.3	31.6	33.2	32.6	32.0	31.1	31.1	19.1	14.5	14.5	14.5
POWER																	
AVE POWER MW		51	59	90	90	97	104	105	109	109	108	106	106	67	51	51	51
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	756.7	18.2	9.9	19.5	64.9	71.9	74.8	77.8	80.9	78.3	80.6	38.3	17.9	12.9	38.3	38.3	34.3
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1800	162	76	97	280	345	190	165	130	110	60	30	14	16	25	25	75
DEPLETION	284	7	3	4	24	37	32	41	39	26	12	7	3	3	14	15	16
REGULATED FLOW AT SIOUX CITY																	
KAF	19975	586	308	564	1827	2054	2021	2067	2132	2024	2016	949	443	316	903	902	864
KCFS		19.7	22.2	31.6	30.7	33.4	34.0	33.6	34.7	34.0	32.8	31.9	31.9	19.9	14.7	14.7	15.6
--TOTAL--																	
NAT INFLOW	24600	1350	630	810	2330	3340	6075	3445	1295	1105	1055	513	239	273	565	605	970
DEPLETION	3015	13	6	8	67	534	1741	1351	367	-174	-94	-167	-78	-89	-202	-183	-86
CHAN STOR	0	76	-6	-19	-18	-41	-35	0	-3	40	40	1	0	24	-39	-22	3
EVAPORATION	1680							105	329	407	350	156	72	82	178		
STORAGE	53359	54186	54496	54714	55132	55843	58121	58043	56507	55395	54218	53793	53595	53583	53230	53095	53289
SYSTEM POWER																	
AVE POWER MW		710	794	919	981	1130	1280	1346	1395	1257	1005	967	1002	750	795	904	868
PEAK POW MW		2287	2287	2290	2294	2301	2325	2323	2305	2296	2278	2253	2243	2241	2208	2230	2241
ENERGY GWH	9255.5	255.4	133.4	198.4	706.3	841.0	921.6	1001.4	1038.1	905.0	747.5	348.0	168.3	143.9	591.2	672.8	583.2
DAILY GWH		17.0	19.1	22.0	23.5	27.1	30.7	32.3	33.5	30.2	24.1	23.2	24.0	18.0	19.1	21.7	20.8
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB14	2014												2015			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	6100	206	96	123	472	969	1548	661	297	246	329	172	80	91	246	246	318
DEPLETION	556	-13	-6	-8	55	288	538	261	21	-101	-56	-40	-19	-21	-121	-133	-90
EVAPORATION	479							29	92	115	100	45	21	24	52		
MOD INFLOW	5065	218	102	131	417	681	1010	371	184	232	285	166	78	89	315	379	408
RELEASE	5478	179	83	107	506	430	506	523	523	432	369	179	83	103	461	523	472
STOR CHANGE	-413	40	19	24	-89	251	504	-152	-339	-200	-84	-12	-6	-14	-146	-144	-64
STORAGE	11880	11920	11938	11962	11873	12124	12628	12476	12137	11937	11853	11841	11835	11821	11675	11531	11467
ELEV FTMSL	2218.9	2219.2	2219.3	2219.4	2218.9	2220.3	2223.0	2222.2	2220.4	2219.3	2218.8	2218.7	2218.7	2218.6	2217.8	2217.0	2216.6
DISCH KCFS	9.5	6.0	6.0	6.0	8.5	7.0	8.5	8.5	8.5	7.3	6.0	6.0	6.0	6.5	7.5	8.5	8.5
POWER																	
AVE POWER MW		78	78	78	110	91	111	111	111	94	78	77	77	84	96	109	109
PEAK POW MW		149	150	150	149	151	153	153	151	150	149	149	149	149	148	147	147
ENERGY GWH	857.5	27.9	13.0	16.8	79.0	67.4	79.9	82.9	82.4	67.7	57.7	27.9	13.0	16.1	71.8	81.0	72.9
--GARRISON--																	
NAT INFLOW	9365	414	193	248	655	1177	2661	1740	486	403	404	164	77	87	154	215	287
DEPLETION	1167	14	6	8	35	116	826	687	120	-113	-23	-129	-60	-69	-113	-84	-55
CHAN STOR	10	37			-26	16	-16	0		13	13			-5	-10	-10	0
EVAPORATION	563							35	109	136	118	53	25	28	60		
REG INFLOW	13123	615	270	347	1100	1507	2325	1541	779	825	691	418	195	226	657	811	814
RELEASE	13625	476	222	286	1012	1353	1309	1291	1291	1086	953	461	215	254	1076	1230	1111
STOR CHANGE	-502	139	48	62	88	154	1016	250	-512	-261	-262	-43	-20	-28	-419	-419	-297
STORAGE	14537	14676	14724	14786	14874	15028	16044	16294	15782	15521	15260	15217	15197	15169	14750	14331	14035
ELEV FTMSL	1824.9	1825.4	1825.6	1825.9	1826.2	1826.8	1830.5	1831.3	1829.5	1828.6	1827.6	1827.5	1827.4	1827.3	1825.7	1824.1	1823.0
DISCH KCFS	22.0	16.0	16.0	16.0	17.0	22.0	22.0	21.0	21.0	18.2	15.5	15.5	15.5	16.0	17.5	20.0	20.0
POWER																	
AVE POWER MW		184	184	185	196	254	258	250	249	215	182	181	181	187	203	229	227
PEAK POW MW		424	425	425	427	429	442	446	439	435	432	431	431	431	425	419	415
ENERGY GWH	1919.4	66.2	31.0	39.9	141.4	189.1	185.6	185.9	185.4	154.7	135.2	65.2	30.4	35.8	150.9	170.3	152.4
--OAHE--																	
NAT INFLOW	1445	189	88	113	305	139	337	118	54	58	15	14	6	7	-37	-16	54
DEPLETION	724	25	12	15	51	75	154	187	125	30	-12	1	0	1	13	19	29
CHAN STOR	10	27			-4	-22		4		13	13			-2	-7	-12	
EVAPORATION	508							32	99	121	105	48	22	26	56		
REG INFLOW	13847	668	299	384	1261	1394	1492	1195	1122	1005	888	426	199	233	963	1183	1136
RELEASE	14361	484	281	334	1209	1411	1450	1695	1725	1516	847	371	93	141	858	1067	880
STOR CHANGE	-514	184	18	50	52	-16	42	-500	-604	-511	41	56	106	91	105	116	256
STORAGE	15170	15354	15372	15422	15474	15457	15499	14999	14395	13884	13926	13981	14087	14178	14284	14400	14656
ELEV FTMSL	1594.6	1595.3	1595.4	1595.6	1595.8	1595.7	1595.9	1594.0	1591.6	1589.5	1589.7	1589.9	1590.3	1590.7	1591.1	1591.6	1592.6
DISCH KCFS	15.9	16.3	20.2	18.7	20.3	22.9	24.4	27.6	28.1	25.5	13.8	12.5	6.7	8.9	13.9	17.4	15.8
POWER																	
AVE POWER MW		196	244	226	246	278	295	331	333	299	162	146	79	105	165	205	188
PEAK POW MW		645	645	646	647	647	648	638	626	616	617	618	620	622	624	627	632
ENERGY GWH	2074.9	70.7	41.1	48.9	177.2	206.5	212.3	246.6	248.0	215.4	120.2	52.7	13.3	20.2	122.6	152.7	126.5
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	14233	484	281	334	1209	1411	1450	1687	1701	1485	820	358	87	135	843	1067	880
RELEASE	14233	484	281	334	1209	1411	1450	1687	1701	1485	820	358	87	135	843	1067	880
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.9	16.3	20.2	18.7	20.3	22.9	24.4	27.4	27.7	25.0	13.3	12.0	6.3	8.5	13.7	17.4	15.8
POWER																	
AVE POWER MW		77	95	88	95	107	114	128	129	118	66	61	32	43	69	85	76
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	821.2	27.7	15.9	18.9	68.5	79.9	82.1	95.6	96.3	85.2	49.4	21.9	5.4	8.3	51.5	63.5	51.1
--FORT RANDALL--																	
NAT INFLOW	494	85	40	51	88	71	121	38	27		-22	-8	-4	-4	-11	-22	44
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	144							10	32	39	30	11	5	5	12		
REG INFLOW	14502	568	320	384	1293	1473	1559	1697	1681	1439	767	338	79	124	817	1042	921
RELEASE	14502	276	186	384	1293	1473	1559	1697	1681	1585	1570	641	79	124	714	692	547
STOR CHANGE	0	291	134					0	0	-146	-803	-303	0	0	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2600	2297	2297	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1342.6	1337.5	1337.5	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.9	9.3	13.4	21.5	21.7	24.0	26.2	27.6	27.3	26.6	25.5	21.6	5.7	7.8	11.6	11.3	9.8
POWER																	
AVE POWER MW		77	113	182	184	202	221	233	231	223	203	160	42	58	86	86	79
PEAK POW MW		351	356	356	356	356	356	356	356	350	308	285	285	285	293	319	339
ENERGY GWH	1440.4	27.8	19.0	39.3	132.4	150.5	159.2	173.1	171.5	160.6	151.0	57.6	7.0	11.0	63.6	63.8	52.9
--GAVINS POINT--																	
NAT INFLOW	1326	94	44	56	128	143	153	87	71	81	106	51	24	27	77	77	107
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	0	-4	-4	-3	1	1	2	7	29	-4	-7	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15668	372	222	425	1416	1593	1684	1740	1735	1661	1666	690	128	143	769	769	656
RELEASE	15668	372	222	425	1416	1593	1684	1740	1722	1636	1666	690	128	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	27.1	23.2	9.2	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	95	82	33	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	655.7	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	70.6	29.4	5.5	6.2	33.1	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1170	129	60	77	154	197	122	106	85	70	37	24	11	13	11	21	53
DEPLETION	276	7	3	4	23	36	32	39	38	25	11	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	16562	493	279	498	1547	1754	1774	1807	1769	1681	1692	708	136	152	766	775	732
KCFS		16.6	20.1	27.9	26.0	28.5	29.8	29.4	28.8	28.3	27.5	23.8	9.8	9.6	12.5	12.6	13.2
--TOTAL--																	
NAT INFLOW	19900	1117	521	670	1802	2696	4942	2750	1020	858	869	416	194	222	440	521	863
DEPLETION	2917	34	16	20	173	543	1586	1231	329	-157	-77	-155	-72	-83	-194	-179	-98
CHAN STOR	19	65	-8	-16	-31	-11	-20	2	1	27	28	7	30	-12	-25	-22	3
EVAPORATION	1868							116	364	453	389	173	80	92	199		
STORAGE	46673	47328	47546	47682	47733	48121	49683	49280	47839	46746	45639	45336	45416	45465	45109	45013	45244
SYSTEM POWER																	
AVE POWER MW		656	770	840	913	1021	1095	1150	1149	1045	785	707	444	508	663	759	722
PEAK POW MW		2200	2199	2201	2203	2206	2223	2216	2196	2186	2161	2138	2140	2142	2107	2128	2137
ENERGY GWH	7769.1	236.1	129.4	181.4	657.2	759.4	788.4	855.8	854.9	752.3	584.1	254.6	74.6	97.6	493.5	564.3	485.5
DAILY GWH		15.7	18.5	20.2	21.9	24.5	26.3	27.6	27.6	25.1	18.8	17.0	10.7	12.2	15.9	18.2	17.3

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB15	2015												2016			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	29FEB
--FORT PECK--																	
NAT INFLOW	6174	209	97	125	477	981	1567	669	301	249	331	174	81	93	249	249	322
DEPLETION	517	-25	-12	-15	27	298	584	256	12	-114	-59	-41	-19	-22	-121	-133	-100
EVAPORATION	472							29	91	113	98	45	21	24	51		
MOD INFLOW	5185	234	109	140	450	683	983	384	198	250	292	170	79	91	319	382	422
RELEASE	5401	149	69	89	417	492	536	553	553	418	307	149	69	95	492	523	489
STOR CHANGE	-216	85	40	51	33	191	447	-169	-355	-168	-16	21	10	-5	-173	-141	-67
STORAGE	11467	11552	11591	11642	11676	11867	12314	12145	11790	11621	11605	11627	11637	11632	11459	11318	11251
ELEV FTMSL	2216.6	2217.1	2217.3	2217.6	2217.8	2218.9	2221.3	2220.4	2218.4	2217.5	2217.4	2217.5	2217.6	2217.5	2216.6	2215.8	2215.4
DISCH KCFS	8.5	5.0	5.0	5.0	7.0	8.0	9.0	9.0	9.0	7.0	5.0	5.0	5.0	6.0	8.0	8.5	8.5
POWER																	
AVE POWER MW		64	64	64	90	103	117	117	116	90	64	64	64	77	102	108	108
PEAK POW MW		147	147	148	148	149	152	151	149	148	148	148	148	148	147	146	145
ENERGY GWH	839.9	23.1	10.8	13.9	64.7	76.6	84.0	87.1	86.5	65.1	47.8	23.1	10.8	14.8	76.1	80.5	75.1
--GARRISON--																	
NAT INFLOW	9470	418	195	251	662	1190	2691	1760	492	409	409	166	77	88	155	217	290
DEPLETION	1050	4	2	3	16	107	824	688	125	-123	-35	-137	-64	-73	-124	-94	-70
CHAN STOR	0	37			-21	-11	-10			20	21			-10	-21	-5	0
EVAPORATION	554							34	107	134	116	52	24	28	60		
REG INFLOW	13267	600	262	337	1042	1564	2392	1591	813	837	657	399	186	218	691	828	849
RELEASE	13531	431	201	259	1041	1445	1309	1291	1291	1042	861	417	194	230	1138	1230	1150
STOR CHANGE	-265	168	61	79	0	119	1083	300	-478	-205	-204	-18	-8	-12	-447	-401	-301
STORAGE	14035	14203	14264	14343	14343	14462	15545	15845	15367	15162	14958	14940	14932	14920	14473	14072	13770
ELEV FTMSL	1823.0	1823.6	1823.9	1824.2	1824.2	1824.6	1828.7	1829.7	1828.0	1827.3	1826.5	1826.4	1826.4	1826.4	1824.7	1823.1	1822.0
DISCH KCFS	20.0	14.5	14.5	14.5	17.5	23.5	22.0	21.0	21.0	17.5	14.0	14.0	14.0	14.5	18.5	20.0	20.0
POWER																	
AVE POWER MW		165	165	166	200	268	254	247	247	204	163	163	163	168	213	227	225
PEAK POW MW		417	418	419	419	421	436	440	433	431	428	428	427	427	421	415	411
ENERGY GWH	1887.1	59.3	27.8	35.8	143.7	199.1	183.2	183.9	183.5	147.2	121.3	58.5	27.3	32.3	158.3	169.1	156.8
--OAHE--																	
NAT INFLOW	1494	196	91	117	315	144	349	122	55	61	17	14	7	7	-39	-17	55
DEPLETION	736	25	12	15	51	76	157	191	128	31	-12	1	0	1	13	19	29
CHAN STOR	1	25		0	-14	-27	7	5		17	17			-2	-19	-7	
EVAPORATION	499							31	97	119	103	47	22	25	55		
REG INFLOW	13791	628	281	361	1292	1486	1508	1195	1121	970	804	383	178	209	1011	1187	1176
RELEASE	14062	479	279	331	1204	1406	1444	1692	1673	1510	749	216	112	139	858	1068	902
STOR CHANGE	-271	149	2	30	87	80	64	-497	-552	-541	55	167	66	71	154	119	275
STORAGE	14656	14804	14807	14837	14924	15004	15068	14571	14019	13478	13534	13701	13767	13838	13991	14110	14385
ELEV FTMSL	1592.6	1593.2	1593.2	1593.3	1593.7	1594.0	1594.2	1592.3	1590.1	1587.8	1588.1	1588.8	1589.0	1589.3	1590.0	1590.4	1591.5
DISCH KCFS	15.8	16.1	20.1	18.5	20.2	22.9	24.3	27.5	27.2	25.4	12.2	7.2	8.1	8.7	14.0	17.4	15.7
POWER																	
AVE POWER MW		192	240	222	242	274	291	328	320	295	142	85	95	102	164	204	185
PEAK POW MW		634	635	635	637	638	640	630	619	608	609	612	614	615	618	621	626
ENERGY GWH	2013.7	69.2	40.3	47.9	174.3	203.6	209.4	243.9	238.4	212.7	105.4	30.5	15.9	19.7	121.8	151.9	128.9
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13933	479	279	331	1204	1406	1444	1684	1649	1480	722	203	107	132	844	1068	902
RELEASE	13933	479	279	331	1204	1406	1444	1684	1649	1480	722	203	107	132	844	1068	902
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.8	16.1	20.1	18.5	20.2	22.9	24.3	27.4	26.8	24.9	11.7	6.8	7.7	8.3	13.7	17.4	15.7
POWER																	
AVE POWER MW		76	94	87	95	107	114	128	126	118	59	35	39	42	69	85	75
PEAK POW MW		517	509	509	509	509	509	509	512	519	538	538	538	538	538	538	529
ENERGY GWH	804.1	27.5	15.8	18.8	68.2	79.6	81.8	95.4	93.8	84.6	44.1	12.5	6.5	8.1	51.5	63.5	52.3
--FORT RANDALL--																	
NAT INFLOW	517	89	42	53	92	75	126	40	29		-24	-9	-4	-5	-11	-23	46
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	142							10	31	39	29	11	5	5	12		
REG INFLOW	14227	567	319	384	1292	1472	1558	1696	1631	1434	668	183	97	121	817	1042	945
RELEASE	14227	275	185	384	1292	1472	1558	1696	1680	1584	1568	336	97	122	714	692	571
STOR CHANGE	0	291	134					0	-49	-150	-900	-153	0	0	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3500	3350	2450	2297	2297	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1354.6	1352.8	1340.2	1337.5	1337.5	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.8	9.3	13.4	21.5	21.7	23.9	26.2	27.6	27.3	26.6	25.5	11.3	7.0	7.7	11.6	11.3	9.9
POWER																	
AVE POWER MW		77	113	182	184	202	221	233	230	222	200	84	51	56	86	86	79
PEAK POW MW		351	356	356	356	356	356	356	354	348	296	285	285	285	293	319	339
ENERGY GWH	1412.4	27.7	19.0	39.3	132.3	150.4	159.1	173.0	171.0	159.7	148.8	30.1	8.6	10.8	63.7	63.8	55.2
--GAVINS POINT--																	
NAT INFLOW	1338	95	44	57	129	144	154	88	72	82	108	52	24	27	77	77	108
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	0	-4	-4	-3	1	1	2	26	8	-1	-7	1	2
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15405	372	222	425	1416	1593	1684	1740	1735	1661	1666	405	125	143	769	769	681
RELEASE	15405	372	222	425	1416	1593	1684	1740	1722	1636	1666	405	125	143	769	769	719
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	27.1	13.6	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	95	48	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	644.6	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	70.6	17.4	5.4	6.2	33.0	33.0	30.7
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1207	133	62	80	159	203	126	110	88	71	39	25	11	13	11	22	55
DEPLETION	277	7	3	4	23	36	32	40	38	25	11	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	16335	497	281	500	1552	1760	1778	1810	1772	1682	1694	423	133	152	766	776	759
KCFS		16.7	20.2	28.0	26.1	28.6	29.9	29.4	28.8	28.3	27.6	14.2	9.6	9.6	12.5	12.6	13.2
--TOTAL--																	
NAT INFLOW	20200	1139	531	683	1834	2737	5013	2789	1037	872	880	421	196	225	442	525	876
DEPLETION	2774	12	6	7	126	545	1633	1232	328	-179	-92	-164	-76	-87	-205	-189	-123
CHAN STOR	-2	63	-8	-16	-35	-42	-8	2	1	38	40	26	8	-14	-48	-12	2
EVAPORATION	1841							115	359	446	383	171	80	91	197		
STORAGE	45244	45937	46174	46334	46455	46845	48439	48073	46652	45613	44548	44566	44633	44688	44324	44251	44493
SYSTEM POWER																	
AVE POWER MW		618	732	802	892	1042	1093	1149	1135	1025	723	478	444	478	678	755	717
PEAK POW MW		2181	2180	2182	2184	2188	2207	2200	2183	2170	2136	2128	2129	2130	2096	2117	2127
ENERGY GWH	7601.8	222.5	122.9	173.2	642.0	775.2	786.8	854.9	844.5	738.0	538.0	172.1	74.6	91.8	504.5	561.9	499.0
DAILY GWH		14.8	17.6	19.2	21.4	25.0	26.2	27.6	27.2	24.6	17.4	11.5	10.7	11.5	16.3	18.1	17.2

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 29FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB16	2016												2017			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	6560	222	103	133	507	1042	1665	711	320	264	353	184	86	98	265	265	342
DEPLETION	510	-25	-12	-15	21	293	581	262	16	-114	-61	-42	-20	-22	-124	-136	-92
EVAPORATION	474							29	91	113	99	45	21	24	52		
MOD INFLOW	5576	247	115	148	486	749	1084	420	213	265	315	181	85	97	337	401	434
RELEASE	5420	149	69	89	417	492	536	553	553	416	307	149	69	103	523	523	472
STOR CHANGE	156	98	46	59	69	257	548	-133	-340	-151	8	32	15	-7	-185	-122	-38
STORAGE	11251	11349	11395	11454	11523	11780	12329	12195	11855	11703	11711	11744	11759	11752	11567	11445	11407
ELEV FTMSL	2215.4	2215.9	2216.2	2216.5	2216.9	2218.4	2221.4	2220.7	2218.8	2218.0	2218.0	2218.2	2218.3	2218.2	2217.2	2216.5	2216.3
DISCH KCFS	8.5	5.0	5.0	5.0	7.0	8.0	9.0	9.0	9.0	7.0	5.0	5.0	5.0	6.5	8.5	8.5	8.5
POWER																	
AVE POWER MW		64	64	64	89	103	117	117	116	90	64	64	64	84	109	109	108
PEAK POW MW		146	146	147	147	149	152	151	149	148	148	148	149	148	147	146	146
ENERGY GWH	843.3	22.9	10.7	13.8	64.4	76.3	83.9	87.1	86.6	64.8	47.9	23.2	10.8	16.1	81.1	80.8	72.8
--GARRISON--																	
NAT INFLOW	10016	442	206	265	701	1259	2846	1861	520	432	432	175	82	93	164	230	307
DEPLETION	1123	0	0	0	21	134	849	720	130	-126	-39	-141	-66	-75	-126	-95	-65
CHAN STOR	0	37			-21	-11	-10			21	21			-16	-21		0
EVAPORATION	560							34	108	135	117	53	25	28	60		
REG INFLOW	13754	628	276	354	1075	1606	2522	1660	835	860	682	412	192	228	732	848	844
RELEASE	13562	417	194	250	952	1414	1309	1322	1322	1057	861	417	194	230	1107	1322	1194
STOR CHANGE	192	211	81	104	123	192	1213	338	-487	-197	-179	-5	-2	-2	-375	-474	-350
STORAGE	13770	13981	14062	14167	14290	14482	15695	16033	15547	15350	15171	15166	15164	15162	14786	14312	13962
ELEV FTMSL	1822.0	1822.8	1823.1	1823.5	1824.0	1824.7	1829.2	1830.4	1828.7	1828.0	1827.3	1827.3	1827.3	1827.3	1825.9	1824.1	1822.7
DISCH KCFS	20.0	14.0	14.0	14.0	16.0	23.0	22.0	21.5	21.5	17.8	14.0	14.0	14.0	14.5	18.0	21.5	21.5
POWER																	
AVE POWER MW		158	159	159	182	262	255	254	254	208	164	163	163	169	209	246	243
PEAK POW MW		414	415	417	419	421	438	442	436	433	431	431	431	431	425	419	414
ENERGY GWH	1897.4	56.9	26.7	34.4	131.2	194.8	183.6	189.0	188.6	149.9	121.9	58.8	27.5	32.5	155.2	183.0	163.5
--OAHE--																	
NAT INFLOW	1767	231	108	139	373	170	412	144	65	72	21	17	8	9	-46	-20	65
DEPLETION	752	25	12	15	52	77	160	195	132	32	-12	1	0	1	13	19	30
CHAN STOR	-6	28			-9	-32	5	2		18	18			-2	-17	-17	
EVAPORATION	500							31	97	119	103	47	22	25	55		
REG INFLOW	14070	651	291	374	1264	1475	1566	1242	1158	995	809	385	180	211	976	1266	1229
RELEASE	13873	452	266	315	1176	1381	1404	1678	1662	1506	749	247	110	139	857	1070	861
STOR CHANGE	197	198	24	58	88	94	161	-436	-504	-511	60	138	70	72	119	196	369
STORAGE	14385	14583	14608	14666	14754	14848	15010	14573	14069	13558	13618	13756	13826	13898	14017	14214	14582
ELEV FTMSL	1591.5	1592.3	1592.4	1592.7	1593.0	1593.4	1594.0	1592.3	1590.3	1588.2	1588.4	1589.0	1589.3	1589.6	1590.1	1590.8	1592.3
DISCH KCFS	15.7	15.2	19.2	17.7	19.8	22.5	23.6	27.3	27.0	25.3	12.2	8.3	7.9	8.7	13.9	17.4	15.5
POWER																	
AVE POWER MW		181	228	210	235	268	282	325	319	295	142	97	93	103	164	205	184
PEAK POW MW		630	631	632	634	635	638	630	620	609	611	614	615	617	619	623	630
ENERGY GWH	1985.4	65.0	38.3	45.4	169.5	199.3	203.2	241.8	237.0	212.4	105.6	34.9	15.6	19.7	121.8	152.4	123.4
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13744	452	266	315	1176	1381	1404	1670	1638	1476	722	235	104	132	843	1070	861
RELEASE	13744	452	266	315	1176	1381	1404	1670	1638	1476	722	235	104	132	843	1070	861
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.7	15.2	19.2	17.7	19.8	22.5	23.6	27.2	26.6	24.8	11.7	7.9	7.5	8.3	13.7	17.4	15.5
POWER																	
AVE POWER MW		72	90	83	92	105	110	127	125	117	59	40	38	42	69	86	74
PEAK POW MW		517	509	509	509	509	509	509	512	519	538	538	538	538	538	538	529
ENERGY GWH	793.4	25.9	15.1	17.9	66.6	78.2	79.5	94.6	93.1	84.4	44.1	14.4	6.4	8.1	51.5	63.6	50.0
--FORT RANDALL--																	
NAT INFLOW	645	111	52	66	115	93	158	50	36		-29	-11	-5	-6	-14	-29	57
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	142							10	31	39	29	11	5	5	12		
REG INFLOW	14166	562	317	381	1287	1465	1550	1692	1627	1430	663	212	94	120	813	1038	915
RELEASE	14166	271	183	381	1287	1465	1550	1692	1676	1580	1563	365	94	121	710	688	541
STOR CHANGE	0	291	134				0	0	-49	-150	-900	-153	0	0	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3500	3350	2450	2297	2297	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1354.6	1352.8	1340.2	1337.5	1337.5	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.9	9.1	13.2	21.3	21.6	23.8	26.1	27.5	27.3	26.5	25.4	12.3	6.8	7.6	11.5	11.2	9.7
POWER																	
AVE POWER MW		76	112	181	183	201	220	232	229	221	199	91	50	56	85	85	78
PEAK POW MW		351	356	356	356	356	356	356	354	348	296	285	285	285	293	319	339
ENERGY GWH	1406.3	27.2	18.8	39.0	131.7	149.7	158.3	172.6	170.6	159.3	148.3	32.7	8.3	10.7	63.3	63.4	52.3
--GAVINS POINT--																	
NAT INFLOW	1403	99	46	60	135	151	162	92	76	86	113	54	25	29	81	81	113
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	2	-8	-16	-1	-4	-4	-3	1	1	2	24	10	-2	-7	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15410	372	222	425	1416	1593	1684	1740	1735	1661	1666	434	125	143	769	769	656
RELEASE	15410	372	222	425	1416	1593	1684	1740	1722	1636	1666	434	125	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	27.1	14.6	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	95	52	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	644.8	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	70.6	18.6	5.4	6.2	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1409	155	72	93	186	237	147	128	102	83	45	29	14	15	13	26	64
DEPLETION	280	7	3	4	24	37	32	40	38	25	12	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	16539	520	291	514	1578	1793	1799	1828	1786	1694	1699	457	135	155	768	780	743
KCFS		17.5	21.0	28.8	26.5	29.2	30.2	29.7	29.0	28.5	27.6	15.4	9.8	9.8	12.5	12.7	13.4
--TOTAL--																	
NAT INFLOW	21800	1260	588	756	2017	2952	5390	2986	1119	937	935	448	209	239	463	553	948
DEPLETION	2859	9	4	5	127	569	1658	1274	341	-181	-97	-169	-79	-90	-210	-193	-109
CHAN STOR	-8	67	-8	-16	-31	-47	-10	-1	1	40	41	24	10	-20	-45	-16	3
EVAPORATION	1849							115	360	448	385	172	80	91	198		
STORAGE	44493	45292	45577	45798	46079	46623	48546	48314	46947	45962	44951	44964	45046	45110	44771	44722	45038
SYSTEM POWER																	
AVE POWER MW		594	708	778	864	1027	1080	1152	1139	1027	724	507	440	485	680	775	732
PEAK POW MW		2172	2172	2175	2179	2185	2208	2203	2187	2175	2141	2133	2134	2136	2101	2123	2134
ENERGY GWH	7570.7	213.8	118.9	168.1	622.1	764.2	777.8	856.8	847.3	739.6	538.4	182.7	74.0	93.2	505.8	576.2	491.6
DAILY GWH		14.3	17.0	18.7	20.7	24.7	25.9	27.6	27.3	24.7	17.4	12.2	10.6	11.7	16.3	18.6	17.6

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	29FEB17	2017												2018			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	6794	229	107	138	525	1079	1724	736	331	275	365	192	89	102	274	274	354
DEPLETION	522	-26	-12	-16	21	294	585	269	21	-114	-62	-43	-20	-23	-125	-136	-92
EVAPORATION	482							29	92	115	101	46	21	24	53		
MOD INFLOW	5790	256	119	153	504	785	1139	438	218	274	326	188	88	100	346	410	446
RELEASE	5466	149	69	89	417	523	536	553	553	419	307	149	69	87	492	553	500
STOR CHANGE	325	107	50	64	87	262	603	-116	-336	-145	19	40	18	13	-146	-143	-54
STORAGE	11407	11514	11564	11628	11715	11978	12581	12465	12130	11984	12003	12043	12061	12075	11929	11786	11732
ELEV FTMSL	2216.3	2216.9	2217.2	2217.5	2218.0	2219.5	2222.8	2222.2	2220.3	2219.5	2219.6	2219.8	2220.0	2220.0	2219.2	2218.4	2218.1
DISCH KCFS	8.5	5.0	5.0	5.0	7.0	8.5	9.0	9.0	9.0	7.0	5.0	5.0	5.0	5.5	8.0	9.0	9.0
POWER																	
AVE POWER MW		64	64	64	90	110	117	118	117	91	65	65	65	71	104	116	116
PEAK POW MW		147	147	148	148	150	153	153	151	150	150	150	150	150	150	149	148
ENERGY GWH	856.2	23.0	10.8	13.9	64.7	81.5	84.4	87.7	87.2	65.7	48.2	23.4	10.9	13.7	77.0	86.3	77.7
--GARRISON--																	
NAT INFLOW	10343	457	213	274	723	1300	2939	1922	537	447	446	181	84	97	170	237	316
DEPLETION	1136	0	0	0	21	134	859	736	136	-129	-44	-144	-67	-77	-128	-96	-66
CHAN STOR	-5	37			-21	-16	-5			20	21			-5	-26	-10	
EVAPORATION	570							35	110	137	119	54	25	29	62		
REG INFLOW	14097	642	282	363	1098	1673	2610	1705	845	878	699	420	196	227	703	876	882
RELEASE	13706	417	194	250	1041	1414	1309	1291	1291	1045	861	417	194	238	1168	1353	1222
STOR CHANGE	392	226	88	113	56	259	1301	413	-447	-167	-162	3	2	-11	-466	-477	-340
STORAGE	13962	14188	14276	14389	14445	14704	16005	16418	15972	15804	15642	15646	15647	15636	15170	14694	14354
ELEV FTMSL	1822.7	1823.6	1823.9	1824.4	1824.6	1825.6	1830.3	1831.8	1830.2	1829.6	1829.0	1829.0	1829.0	1829.0	1827.3	1825.5	1824.2
DISCH KCFS	21.5	14.0	14.0	14.0	17.5	23.0	22.0	21.0	21.0	17.6	14.0	14.0	14.0	15.0	19.0	22.0	22.0
POWER																	
AVE POWER MW		159	160	160	200	263	257	250	250	208	166	165	165	177	222	254	251
PEAK POW MW		417	418	420	421	424	442	447	441	439	437	437	437	437	431	424	419
ENERGY GWH	1933.0	57.2	26.8	34.6	144.0	195.7	184.8	186.1	186.0	149.8	123.2	59.5	27.8	34.0	165.4	189.0	169.0
--OAHE--																	
NAT INFLOW	1949	255	119	153	412	188	455	159	72	79	22	18	8	10	-51	-22	72
DEPLETION	765	25	12	15	52	78	163	200	135	32	-13	1	0	1	14	20	30
CHAN STOR	-2	35			-16	-25	5	4		16	17			-5	-19	-14	0
EVAPORATION	511							32	99	122	106	48	22	26	56		
REG INFLOW	14377	681	302	388	1385	1499	1606	1223	1129	986	807	386	180	217	1029	1297	1264
RELEASE	13976	435	258	305	1158	1364	1379	1669	1655	1504	799	438	92	141	857	1072	849
STOR CHANGE	401	246	43	83	228	136	226	-447	-526	-519	8	-52	88	76	172	225	414
STORAGE	14582	14828	14871	14954	15182	15318	15544	15097	14571	14052	14060	14008	14096	14172	14344	14568	14983
ELEV FTMSL	1592.3	1593.3	1593.5	1593.8	1594.7	1595.2	1596.1	1594.3	1592.3	1590.2	1590.2	1590.0	1590.4	1590.7	1591.4	1592.3	1593.9
DISCH KCFS	15.5	14.6	18.6	17.1	19.5	22.2	23.2	27.1	26.9	25.3	13.0	14.7	6.6	8.9	13.9	17.4	15.3
POWER																	
AVE POWER MW		175	222	205	234	267	280	327	321	298	153	173	78	105	165	207	183
PEAK POW MW		635	636	637	642	644	649	640	630	620	620	619	620	622	625	630	638
ENERGY GWH	2018.7	62.9	37.4	44.2	168.3	198.8	201.8	243.3	238.7	214.6	113.8	62.3	13.1	20.2	122.6	153.9	122.9
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13847	435	258	305	1158	1364	1379	1662	1631	1474	772	426	86	135	843	1072	849
RELEASE	13847	435	258	305	1158	1364	1379	1662	1631	1474	772	426	86	135	843	1072	849
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.5	14.6	18.6	17.1	19.5	22.2	23.2	27.0	26.5	24.8	12.6	14.3	6.2	8.5	13.7	17.4	15.3
POWER																	
AVE POWER MW		69	87	80	91	104	109	126	125	117	63	72	31	43	69	86	73
PEAK POW MW		517	509	509	509	509	509	509	512	519	538	538	538	538	538	538	529
ENERGY GWH	799.9	25.0	14.6	17.3	65.6	77.3	78.1	94.1	92.7	84.3	47.0	26.0	5.3	8.3	51.5	63.7	49.3
--FORT RANDALL--																	
NAT INFLOW	731	126	59	75	130	106	179	57	41	-1	-33	-12	-6	-6	-16	-33	65
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	143							10	31	39	29	11	5	5	12		
REG INFLOW	14356	560	316	380	1284	1461	1546	1691	1625	1427	709	402	76	122	811	1036	911
RELEASE	14356	268	182	380	1284	1461	1546	1691	1674	1577	1559	605	76	122	708	686	537
STOR CHANGE	0	291	134					0	-49	-150	-850	-203	0	0	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3500	3350	2500	2297	2297	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1354.6	1352.8	1341.0	1337.5	1337.5	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.7	9.0	13.1	21.3	21.6	23.8	26.0	27.5	27.2	26.5	25.4	20.3	5.5	7.7	11.5	11.2	9.7
POWER																	
AVE POWER MW		75	111	180	182	201	219	232	229	221	200	150	40	56	85	85	77
PEAK POW MW		351	356	356	356	356	356	356	354	348	300	285	285	285	293	319	339
ENERGY GWH	1423.3	27.0	18.6	38.9	131.4	149.3	157.9	172.4	170.4	159.0	148.5	54.0	6.8	10.8	63.1	63.2	52.0
--GAVINS POINT--																	
NAT INFLOW	1440	102	47	61	138	155	166	94	78	89	117	56	26	30	83	83	116
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	-1	-4	-4	-3	1	1	2	9	28	-4	-7	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15636	372	222	425	1416	1593	1684	1740	1735	1661	1666	661	125	143	769	769	656
RELEASE	15636	372	222	425	1416	1593	1684	1740	1722	1636	1666	661	125	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	27.1	22.2	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	95	78	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	654.3	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	70.6	28.1	5.4	6.2	33.1	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1543	170	79	102	203	260	161	140	112	91	50	32	15	17	14	28	70
DEPLETION	283	7	3	4	24	37	32	40	39	26	12	7	3	3	14	15	16
REGULATED FLOW AT SIOUX CITY																	
KAF	16896	535	298	523	1595	1816	1813	1840	1795	1701	1704	686	137	156	769	782	748
KCFS		18.0	21.5	29.3	26.8	29.5	30.5	29.9	29.2	28.6	27.7	23.0	9.8	9.8	12.5	12.7	13.5
--TOTAL--																	
NAT INFLOW	22800	1339	624	803	2131	3088	5624	3108	1171	980	967	466	217	248	474	567	993
DEPLETION	2900	8	4	5	127	571	1675	1302	356	-183	-104	-173	-81	-92	-212	-193	-109
CHAN STOR	-8	73	-8	-16	-38	-45	-5	2	1	37	40	9	28	-14	-52	-24	3
EVAPORATION	1879							116	365	456	392	175	81	93	202		
STORAGE	45038	45908	46223	46483	46854	47511	49642	49493	48148	47192	46207	45994	46103	46180	45844	45798	46155
SYSTEM POWER																	
AVE POWER MW		586	700	770	879	1033	1078	1150	1138	1031	741	704	412	485	689	792	745
PEAK POW MW		2181	2181	2185	2190	2198	2223	2219	2204	2193	2162	2146	2148	2149	2115	2138	2150
ENERGY GWH	7685.4	210.8	117.6	166.4	632.7	768.4	776.2	855.3	846.4	742.2	551.4	253.3	69.2	93.1	512.6	589.2	500.5
DAILY GWH		14.1	16.8	18.5	21.1	24.8	25.9	27.6	27.3	24.7	17.8	16.9	9.9	11.6	16.5	19.0	17.9

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB18	2018												2019			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	7156	242	113	145	553	1137	1816	776	349	289	384	201	94	107	289	289	373
DEPLETION	531	-27	-12	-16	21	294	589	276	25	-115	-64	-43	-20	-23	-125	-137	-92
EVAPORATION	492							30	95	118	103	46	22	25	54		
MOD INFLOW	6133	268	125	161	532	843	1227	470	229	286	345	198	92	105	360	426	465
RELEASE	5651	179	83	107	417	492	536	553	553	446	369	179	90	103	492	553	500
STOR CHANGE	482	90	42	54	115	351	691	-84	-324	-160	-24	19	2	2	-132	-127	-35
STORAGE	11732	11821	11863	11917	12032	12383	13075	12991	12667	12507	12484	12503	12505	12507	12376	12248	12213
ELEV FTMSL	2218.1	2218.6	2218.8	2219.1	2219.8	2221.7	2225.4	2225.0	2223.3	2222.4	2222.3	2222.4	2222.4	2222.4	2221.7	2221.0	2220.8
DISCH KCFS	9.0	6.0	6.0	6.0	7.0	8.0	9.0	9.0	9.0	7.5	6.0	6.0	6.5	6.5	8.0	9.0	9.0
POWER																	
AVE POWER MW		77	77	78	91	104	118	119	119	98	79	79	85	85	105	117	117
PEAK POW MW		149	149	149	150	152	156	155	154	153	153	153	153	153	152	151	151
ENERGY GWH	894.7	27.8	13.0	16.8	65.2	77.4	85.3	88.7	88.3	70.8	58.6	28.3	14.3	16.4	77.8	87.2	78.6
--GARRISON--																	
NAT INFLOW	10840	479	223	287	758	1362	3080	2014	563	468	468	190	88	101	178	249	332
DEPLETION	1176	0	0	0	21	134	869	752	141	-132	-49	-128	-60	-68	-134	-101	-71
CHAN STOR	0	32			-10	-10	-10			15	15		-5		-15	-10	
EVAPORATION	583							36	112	140	122	55	26	29	63		
REG INFLOW	14733	688	306	394	1143	1710	2736	1780	863	921	779	441	207	243	725	893	903
RELEASE	14140	431	201	259	952	1291	1428	1414	1414	1132	922	446	208	238	1168	1383	1250
STOR CHANGE	593	257	105	135	191	418	1308	366	-551	-211	-143	-6	-1	5	-443	-490	-347
STORAGE	14354	14610	14715	14851	15042	15460	16768	17133	16582	16371	16228	16222	16222	16226	15784	15293	14946
ELEV FTMSL	1824.2	1825.2	1825.6	1826.1	1826.8	1828.4	1833.0	1834.2	1832.3	1831.6	1831.1	1831.1	1831.1	1831.1	1829.5	1827.7	1826.5
DISCH KCFS	22.0	14.5	14.5	14.5	16.0	21.0	24.0	23.0	23.0	19.0	15.0	15.0	15.0	15.0	19.0	22.5	22.5
POWER																	
AVE POWER MW		166	167	168	186	245	285	278	278	228	180	179	179	179	226	264	261
PEAK POW MW		423	425	426	429	435	452	456	449	447	445	445	445	445	439	432	428
ENERGY GWH	2024.8	59.9	28.1	36.2	133.6	181.9	205.0	207.0	206.6	164.3	133.7	64.6	30.1	34.4	167.8	196.1	175.4
--OAHE--																	
NAT INFLOW	2260	296	138	177	477	218	527	184	84	92	25	21	10	11	-59	-25	84
DEPLETION	780	26	12	15	53	79	166	204	138	33	-13	1	0	1	14	20	31
CHAN STOR	-2	34		0	-7	-22	-13	4		18	18				-18	-16	
EVAPORATION	531							34	104	128	110	49	23	26	57		
REG INFLOW	15087	736	327	421	1369	1408	1776	1365	1256	1081	869	417	195	222	1019	1322	1303
RELEASE	14480	405	245	287	1125	1337	1337	1718	1756	1564	1071	447	210	223	848	1075	831
STOR CHANGE	607	330	83	134	245	71	439	-353	-499	-483	-202	-30	-16	-1	172	247	471
STORAGE	14983	15313	15396	15529	15774	15845	16284	15931	15432	14949	14746	14716	14700	14699	14871	15118	15590
ELEV FTMSL	1593.9	1595.2	1595.5	1596.0	1596.9	1597.2	1598.8	1597.5	1595.6	1593.8	1593.0	1592.9	1592.8	1592.8	1593.5	1594.4	1596.2
DISCH KCFS	15.3	13.6	17.6	16.1	18.9	21.7	22.5	27.9	28.6	26.3	17.4	15.0	15.2	14.1	13.8	17.5	15.0
POWER																	
AVE POWER MW		164	213	195	230	265	275	342	346	316	208	179	181	168	165	210	181
PEAK POW MW		644	646	648	653	654	662	656	646	637	633	633	632	632	636	641	649
ENERGY GWH	2120.5	59.2	35.8	42.1	165.5	197.2	198.2	254.4	257.7	227.4	155.1	64.6	30.4	32.3	122.7	156.2	121.8
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	14351	405	245	287	1125	1337	1337	1710	1731	1533	1044	435	205	217	834	1075	831
RELEASE	14351	405	245	287	1125	1337	1337	1710	1731	1533	1044	435	205	217	834	1075	831
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.3	13.6	17.6	16.1	18.9	21.7	22.5	27.8	28.2	25.8	17.0	14.6	14.7	13.7	13.6	17.5	15.0
POWER																	
AVE POWER MW		65	82	75	88	102	105	130	132	122	83	74	74	69	68	86	72
PEAK POW MW		517	509	509	509	509	509	509	509	517	538	538	538	538	538	538	529
ENERGY GWH	828.9	23.3	13.9	16.3	63.7	75.7	75.8	96.8	98.1	87.9	62.1	26.5	12.5	13.2	50.9	63.9	48.3
--FORT RANDALL--																	
NAT INFLOW	880	151	71	91	157	127	215	68	49		-39	-15	-7	-8	-20	-39	78
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	146							10	32	39	31	12	5	5	12		
REG INFLOW	15005	556	315	377	1278	1455	1540	1750	1734	1487	973	407	193	203	799	1033	906
RELEASE	15005	264	181	377	1278	1455	1540	1750	1734	1633	1616	728	342	196	696	683	532
STOR CHANGE	0	291	134					0	0	-146	-643	-321	-149	7	103	350	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	3403	2760	2439	2290	2297	2400	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1353.5	1345.0	1340.0	1337.4	1337.5	1339.3	1344.8	1350.0
DISCH KCFS	9.7	8.9	13.0	21.1	21.5	23.7	25.9	28.5	28.2	27.4	26.3	24.5	24.6	12.4	11.3	11.1	9.6
POWER																	
AVE POWER MW		74	110	179	182	200	218	240	238	230	211	185	180	90	83	85	77
PEAK POW MW		351	356	356	356	356	356	356	356	350	319	296	284	285	293	319	339
ENERGY GWH	1488.8	26.6	18.5	38.6	130.8	148.7	157.3	178.4	176.8	165.4	157.0	66.7	30.2	17.3	62.0	63.0	51.5
--GAVINS POINT--																	
NAT INFLOW	1494	106	49	63	144	161	172	98	80	92	121	58	27	31	86	86	121
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	2	-8	-16	-1	-4	-4	-5	1	1	2	3	0	23	2	0	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	16339	372	222	425	1416	1593	1684	1802	1796	1721	1728	780	364	244	769	769	656
RELEASE	16339	372	222	425	1416	1593	1684	1802	1783	1696	1728	780	364	244	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	29.3	29.0	28.5	28.1	26.2	26.2	15.4	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	99	99	99	98	92	92	55	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	683.1	15.8	9.3	17.6	58.7	65.8	69.3	73.8	73.6	71.1	73.2	33.1	15.4	10.5	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1770	195	91	117	233	298	185	161	129	105	57	36	17	19	16	32	80
DEPLETION	284	7	3	4	24	37	32	41	39	26	12	7	3	3	14	15	16
REGULATED FLOW AT SIOUX CITY																	
KAF	17825	559	309	537	1625	1854	1837	1922	1873	1775	1773	809	378	260	771	786	758
KCFS		18.8	22.3	30.1	27.3	30.1	30.9	31.3	30.5	29.8	28.8	27.2	27.2	16.4	12.5	12.8	13.7
--TOTAL--																	
NAT INFLOW	24400	1467	684	880	2322	3303	5995	3301	1254	1046	1016	491	229	262	490	592	1068
DEPLETION	2965	8	4	5	128	572	1692	1330	368	-186	-111	-157	-73	-84	-218	-199	-113
CHAN STOR	-3	67	-8	-16	-18	-37	-28	-1	1	35	36	3	-5	23	-32	-26	3
EVAPORATION	1925							120	375	467	402	179	83	95	205		
STORAGE	46155	47123	47486	47809	48360	49201	51639	51568	50206	49231	48219	47882	47718	47731	47431	47411	47836
SYSTEM POWER																	
AVE POWER MW		590	706	776	858	1004	1098	1209	1211	1093	860	788	792	646	691	806	752
PEAK POW MW		2198	2199	2204	2211	2220	2249	2247	2230	2221	2205	2181	2169	2170	2136	2159	2172
ENERGY GWH	8040.8	212.5	118.5	167.6	617.6	746.8	790.9	899.2	901.1	787.1	639.5	283.8	133.0	124.1	514.4	599.5	505.2
DAILY GWH		14.2	16.9	18.6	20.6	24.1	26.4	29.0	29.1	26.2	20.6	18.9	19.0	15.5	16.6	19.3	18.0
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB14	2014												2015			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	5518	202	94	121	458	885	1228	619	271	240	323	151	70	81	229	239	307
DEPLETION	575	-4	-2	-2	71	216	391	307	74	-53	-44	-34	-16	-18	-107	-120	-85
EVAPORATION	452							28	87	108	94	43	20	23	49		
MOD INFLOW	4491	206	96	123	387	669	837	284	110	185	273	142	66	76	287	359	392
RELEASE	5415	149	69	89	417	492	536	553	553	406	307	149	69	79	492	553	500
STOR CHANGE	-924	57	27	34	-30	177	301	-270	-444	-222	-35	-7	-3	-4	-205	-194	-108
STORAGE	11224	11281	11308	11342	11312	11490	11791	11521	11078	10856	10821	10815	10811	10808	10603	10409	10301
ELEV FTMSL	2215.2	2215.5	2215.7	2215.9	2215.7	2216.7	2218.4	2216.9	2214.4	2213.0	2212.8	2212.8	2212.8	2212.8	2211.5	2210.4	2209.7
DISCH KCFS	10.0	5.0	5.0	5.0	7.0	8.0	9.0	9.0	9.0	6.8	5.0	5.0	5.0	5.0	8.0	9.0	9.0
POWER																	
AVE POWER MW		64	64	64	89	102	115	115	114	86	63	63	63	63	100	112	111
PEAK POW MW		145	146	146	146	147	149	147	144	143	142	142	142	142	141	140	139
ENERGY GWH	827.3	22.9	10.7	13.8	64.1	75.8	83.0	85.8	85.0	61.9	46.8	22.6	10.6	12.1	74.3	83.1	74.7
--GARRISON--																	
NAT INFLOW	7937	410	191	246	622	1180	2322	1003	349	230	413	161	75	86	150	209	290
DEPLETION	1207	18	9	11	16	100	792	685	163	-117	-26	-122	-57	-65	-95	-65	-41
CHAN STOR	11	53			-21	-11	-10			23	19			0	-32	-11	
EVAPORATION	529							33	103	127	110	49	23	26	57		
REG INFLOW	11627	593	252	324	1001	1561	2055	838	637	649	656	382	178	204	648	817	831
RELEASE	12758	417	194	250	893	1138	1250	1230	1230	1009	861	417	194	230	1107	1230	1111
STOR CHANGE	-1132	177	58	74	109	424	805	-392	-593	-360	-205	-35	-16	-26	-458	-413	-280
STORAGE	13736	13913	13971	14045	14154	14578	15383	14992	14398	14038	13833	13799	13783	13756	13298	12885	12605
ELEV FTMSL	1821.8	1822.5	1822.7	1823.0	1823.5	1825.1	1828.1	1826.6	1824.4	1823.0	1822.2	1822.1	1822.0	1821.9	1820.1	1818.4	1817.3
DISCH KCFS	19.0	14.0	14.0	14.0	15.0	18.5	21.0	20.0	20.0	17.0	14.0	14.0	14.0	14.5	18.0	20.0	20.0
POWER																	
AVE POWER MW		158	158	159	170	211	243	233	230	193	158	158	158	163	201	220	218
PEAK POW MW		413	414	415	417	423	434	428	420	415	412	412	411	411	404	398	394
ENERGY GWH	1747.5	56.8	26.6	34.3	122.6	157.0	174.9	173.1	171.0	138.9	117.8	56.8	26.5	31.3	149.4	163.8	146.5
--OAHE--																	
NAT INFLOW	1213	179	83	107	211	116	322	111	42	47	5	8	4	4	-47	-21	42
DEPLETION	724	25	12	15	51	75	154	187	125	30	-12	1	0	1	13	19	29
CHAN STOR	-5	23			-5	-16	-12	5		15	15			-2	-17	-10	
EVAPORATION	467							29	90	111	97	44	21	24	52		
REG INFLOW	12776	594	266	342	1048	1162	1406	1129	1057	930	796	380	177	208	978	1180	1124
RELEASE	13936	508	292	348	1209	1437	1482	1711	1746	1021	847	233	124	140	924	1027	890
STOR CHANGE	-1161	86	-25	-6	-161	-275	-77	-582	-689	-91	-51	147	53	68	54	153	234
STORAGE	14350	14436	14411	14405	14244	13970	13893	13311	12622	12531	12481	12628	12680	12748	12803	12956	13190
ELEV FTMSL	1591.4	1591.7	1591.6	1591.6	1591.0	1589.9	1589.5	1587.1	1584.1	1583.7	1583.5	1584.2	1584.4	1584.7	1584.9	1585.6	1586.6
DISCH KCFS	16.1	17.1	21.0	19.5	20.3	23.4	24.9	27.8	28.4	17.2	13.8	7.8	9.0	8.8	15.0	16.7	16.0
POWER																	
AVE POWER MW		202	249	231	240	274	291	322	324	195	156	89	102	100	171	191	184
PEAK POW MW		627	627	627	623	618	616	604	588	586	585	588	590	591	592	596	601
ENERGY GWH	1949.2	72.8	41.8	49.8	172.8	204.2	209.7	239.8	240.8	140.0	116.1	32.0	17.1	19.3	127.4	142.0	123.6
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13807	508	292	348	1209	1437	1482	1703	1721	990	820	220	119	133	909	1027	890
RELEASE	13807	508	292	348	1209	1437	1482	1703	1721	990	820	220	119	133	909	1027	890
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	16.1	17.1	21.0	19.5	20.3	23.4	24.9	27.7	28.0	16.6	13.3	7.4	8.5	8.4	14.8	16.7	16.0
POWER																	
AVE POWER MW		81	98	91	95	109	117	130	131	81	67	38	43	42	75	82	77
PEAK POW MW		517	509	509	509	509	509	509	509	538	538	538	538	538	538	538	529
ENERGY GWH	798.7	29.1	16.5	19.7	68.5	81.4	84.0	96.4	97.5	58.4	50.1	13.5	7.3	8.2	55.4	61.1	51.6
--FORT RANDALL--																	
NAT INFLOW	380	74	34	44	92	54	103	27	16	-5	-27	-11	-5	-6	-22	-27	38
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	137							10	32	37	26	10	5	5	12		
REG INFLOW	13970	580	325	391	1297	1482	1573	1702	1690	942	765	199	108	121	872	997	925
RELEASE	13970	289	191	391	1297	1482	1573	1702	1690	1589	1370	199	108	121	719	697	551
STOR CHANGE	0	291	134					0	0	-647	-605	0	0	0	153	300	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	2902	2297	2297	2297	2297	2450	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1347.0	1337.5	1337.5	1337.5	1337.5	1340.2	1344.8	1350.0
DISCH KCFS	10.0	9.7	13.8	21.9	21.8	24.1	26.4	27.7	27.5	26.7	22.3	6.7	7.8	7.7	11.7	11.3	9.9
POWER																	
AVE POWER MW		80	116	185	184	204	223	233	232	218	169	49	57	56	86	87	79
PEAK POW MW		351	356	356	356	356	356	356	356	328	284	285	285	285	297	319	339
ENERGY GWH	1381.8	29.0	19.6	40.0	132.7	151.5	160.6	173.6	172.4	156.7	125.5	17.7	9.6	10.8	64.4	64.5	53.3
--GAVINS POINT--																	
NAT INFLOW	1236	82	38	49	124	134	139	82	62	77	103	49	23	26	72	72	103
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	0	-4	-4	-2	0	2	8	29	-2	0	-7	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15046	372	222	425	1416	1593	1684	1740	1735	1661	1470	268	125	143	769	769	656
RELEASE	15046	372	222	425	1416	1593	1684	1740	1722	1636	1470	268	125	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	23.9	9.0	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	84	32	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	629.6	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	62.5	11.6	5.4	6.2	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	816	102	47	61	105	140	76	82	46	35	35	21	10	11	6	17	23
DEPLETION	276	7	3	4	23	36	32	39	38	25	11	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	15586	466	266	482	1498	1697	1728	1783	1730	1646	1494	282	131	150	761	771	702
KCFS		15.7	19.2	27.0	25.2	27.6	29.0	29.0	28.1	27.7	24.3	9.5	9.5	9.5	12.4	12.5	12.6
--TOTAL--																	
NAT INFLOW	17100	1048	489	628	1612	2509	4190	1924	786	624	852	379	177	202	388	489	803
DEPLETION	2976	47	22	28	170	455	1405	1275	425	-113	-68	-142	-66	-75	-162	-147	-79
CHAN STOR	4	77	-8	-16	-26	-31	-27	2	0	39	41	30	-2	-2	-57	-20	3
EVAPORATION	1758							111	345	425	363	163	76	87	189		
STORAGE	44398	45009	45202	45304	45223	45549	46579	45336	43623	42329	41433	41539	41572	41610	41154	41000	41182
SYSTEM POWER																	
AVE POWER MW		629	741	811	860	989	1085	1130	1126	868	697	428	455	457	678	736	713
PEAK POW MW		2168	2166	2167	2165	2167	2178	2159	2133	2127	2079	2082	2083	2084	2051	2068	2078
ENERGY GWH	7334.1	226.4	124.5	175.3	619.5	735.7	781.5	840.4	837.9	624.7	518.7	154.3	76.5	87.8	504.1	547.5	479.4
DAILY GWH		15.1	17.8	19.5	20.6	23.7	26.0	27.1	27.0	20.8	16.7	10.3	10.9	11.0	16.3	17.7	17.1
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB15	2015												2016			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	29FEB
--FORT PECK--																	
NAT INFLOW	5601	205	95	123	465	898	1247	629	275	243	328	153	71	82	232	243	312
DEPLETION	531	-25	-12	-15	43	295	546	268	33	-96	-82	-38	-18	-20	-117	-129	-103
EVAPORATION	428							27	83	102	89	40	19	22	46		
MOD INFLOW	4642	229	107	138	422	603	701	334	159	237	321	151	70	80	303	372	415
RELEASE	5408	149	69	89	387	492	536	553	553	411	307	149	69	79	492	553	518
STOR CHANGE	-766	81	38	48	35	111	165	-219	-394	-175	13	2	1	1	-189	-181	-103
STORAGE	10301	10381	10419	10467	10503	10614	10779	10560	10166	9992	10005	10007	10008	10009	9819	9638	9535
ELEV FTMSL	2209.7	2210.2	2210.4	2210.7	2210.9	2211.6	2212.6	2211.3	2208.9	2207.8	2207.9	2207.9	2207.9	2207.9	2206.7	2205.5	2204.9
DISCH KCFS	9.0	5.0	5.0	5.0	6.5	8.0	9.0	9.0	9.0	6.9	5.0	5.0	5.0	5.0	8.0	9.0	9.0
POWER																	
AVE POWER MW		62	62	62	81	99	112	112	111	85	61	61	61	61	98	109	109
PEAK POW MW		139	140	140	140	141	142	141	138	137	137	137	137	137	135	134	133
ENERGY GWH	805.4	22.3	10.4	13.4	58.2	74.0	80.9	83.5	82.7	61.0	45.6	22.1	10.3	11.8	72.6	81.1	75.5
--GARRISON--																	
NAT INFLOW	8154	422	197	253	639	1212	2386	1030	358	236	424	166	77	88	154	215	298
DEPLETION	1091	11	5	7	27	148	788	676	128	-125	-36	-135	-63	-72	-117	-86	-65
CHAN STOR	0	43			-16	-16	-11			22	21			0	-32	-11	
EVAPORATION	499							31	96	119	104	47	22	25	54		
REG INFLOW	11972	602	261	335	983	1540	2123	876	687	675	684	402	188	214	676	844	881
RELEASE	12913	357	167	214	1190	1537	1309	1168	1168	922	738	357	167	190	1107	1199	1122
STOR CHANGE	-941	245	94	121	-207	3	814	-292	-481	-247	-54	45	21	24	-430	-356	-241
STORAGE	12605	12850	12944	13066	12858	12861	13674	13383	12901	12654	12601	12646	12667	12691	12261	11905	11664
ELEV FTMSL	1817.3	1818.3	1818.7	1819.2	1818.3	1818.3	1821.6	1820.4	1818.5	1817.5	1817.3	1817.4	1817.5	1817.6	1815.8	1814.3	1813.3
DISCH KCFS	20.0	12.0	12.0	12.0	20.0	25.0	22.0	19.0	19.0	15.5	12.0	12.0	12.0	12.0	18.0	19.5	19.5
POWER																	
AVE POWER MW		131	132	133	219	273	243	212	210	170	131	131	131	131	195	209	207
PEAK POW MW		398	399	401	398	398	410	406	398	395	394	395	395	395	389	383	379
ENERGY GWH	1705.8	47.3	22.2	28.6	158.0	202.9	175.1	157.6	156.0	122.2	97.5	47.2	22.0	25.2	145.1	155.1	143.8
--OAHE--																	
NAT INFLOW	1239	182	85	109	215	118	329	113	44	49	5	8	4	4	-48	-22	43
DEPLETION	736	25	12	15	51	76	157	191	128	31	-12	1	0	1	13	19	29
CHAN STOR	2	39			-39	-24	15	15		18	18				-31	-8	0
EVAPORATION	446							29	87	107	92	42	19	22	49		
REG INFLOW	12971	554	240	309	1315	1555	1496	1076	997	852	681	322	150	172	966	1150	1136
RELEASE	13935	504	290	346	1205	1434	1476	1709	1745	1021	847	233	124	140	923	1027	913
STOR CHANGE	-964	50	-50	-37	110	121	19	-633	-747	-169	-166	90	26	32	44	123	223
STORAGE	13190	13239	13190	13153	13263	13384	13403	12770	12023	11854	11688	11778	11804	11836	11880	12003	12226
ELEV FTMSL	1586.6	1586.8	1586.6	1586.4	1586.9	1587.4	1587.5	1584.8	1581.4	1580.7	1579.9	1580.3	1580.4	1580.6	1580.8	1581.3	1582.4
DISCH KCFS	16.0	16.9	20.9	19.4	20.3	23.3	24.8	27.8	28.4	17.2	13.8	7.8	9.0	8.8	15.0	16.7	15.9
POWER																	
AVE POWER MW		195	240	223	233	269	286	318	319	191	153	87	100	98	167	186	178
PEAK POW MW		602	601	600	603	606	606	592	574	570	566	568	569	570	571	574	579
ENERGY GWH	1910.8	70.3	40.4	48.1	167.8	200.0	206.2	236.5	237.1	137.6	113.8	31.3	16.7	18.8	124.2	138.5	123.7
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13806	504	290	346	1205	1434	1476	1701	1720	990	820	220	119	133	908	1027	913
RELEASE	13806	504	290	346	1205	1434	1476	1701	1720	990	820	220	119	133	908	1027	913
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	16.0	16.9	20.9	19.4	20.3	23.3	24.8	27.7	28.0	16.6	13.3	7.4	8.5	8.4	14.8	16.7	15.9
POWER																	
AVE POWER MW		80	98	91	95	109	116	129	131	81	67	38	43	42	74	82	76
PEAK POW MW		517	509	509	509	509	509	509	509	538	538	538	538	538	538	538	529
ENERGY GWH	798.7	28.9	16.4	19.6	68.3	81.2	83.6	96.3	97.4	58.4	50.1	13.5	7.3	8.2	55.4	61.1	53.0
--FORT RANDALL--																	
NAT INFLOW	393	76	35	46	95	56	107	28	17	-6	-28	-11	-5	-6	-22	-28	39
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	137							10	32	37	26	10	5	5	12		
REG INFLOW	13982	579	325	390	1296	1481	1571	1701	1690	940	764	199	108	121	871	996	949
RELEASE	13982	288	191	390	1296	1481	1571	1701	1690	1588	1369	199	108	121	718	696	575
STOR CHANGE	0	291	134					0	0	-647	-605	0	0	0	153	300	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	2902	2297	2297	2297	2297	2450	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1347.0	1337.5	1337.5	1337.5	1337.5	1340.2	1344.8	1350.0
DISCH KCFS	9.9	9.7	13.8	21.9	21.8	24.1	26.4	27.7	27.5	26.7	22.3	6.7	7.8	7.6	11.7	11.3	10.0
POWER																	
AVE POWER MW		80	116	185	184	203	223	233	232	218	169	49	57	56	86	87	80
PEAK POW MW		351	356	356	356	356	356	356	356	328	284	285	285	285	297	319	339
ENERGY GWH	1382.9	28.9	19.5	39.9	132.6	151.4	160.4	173.5	172.4	156.6	125.4	17.7	9.6	10.8	64.3	64.4	55.6
--GAVINS POINT--																	
NAT INFLOW	1249	83	39	50	125	135	141	83	62	78	104	50	23	26	73	73	104
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	0	-8	-16	0	-4	-4	-2	0	2	8	29	-2	0	-7	1	2
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15071	372	222	425	1416	1593	1684	1740	1735	1661	1470	268	125	143	769	769	681
RELEASE	15071	372	222	425	1416	1593	1684	1740	1722	1636	1470	268	125	143	769	769	719
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	23.9	9.0	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	84	32	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	630.7	15.8	9.4	17.6	58.8	65.8	69.3	71.6	71.3	68.8	62.5	11.6	5.4	6.2	33.0	33.0	30.7
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	864	107	50	64	111	148	80	86	49	38	37	22	10	11	6	19	25
DEPLETION	277	7	3	4	23	36	32	40	38	25	11	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	15658	472	269	485	1504	1705	1732	1786	1733	1649	1496	283	132	151	761	773	729
KCFS		15.9	19.4	27.2	25.3	27.7	29.1	29.0	28.2	27.7	24.3	9.5	9.5	9.5	12.4	12.6	12.7
--TOTAL--																	
NAT INFLOW	17500	1075	502	645	1650	2567	4290	1969	805	638	870	387	180	206	395	500	821
DEPLETION	2829	19	9	12	153	583	1559	1232	352	-163	-116	-160	-74	-85	-194	-177	-121
CHAN STOR	0	83	-8	-16	-55	-45	-1	12	0	42	46	30	-2	0	-71	-18	2
EVAPORATION	1683							106	330	407	348	156	73	83	180		
STORAGE	41182	41849	42065	42198	42135	42370	43368	42225	40616	39402	38591	38728	38776	38834	38411	38297	38513
SYSTEM POWER																	
AVE POWER MW		593	704	774	894	1042	1077	1101	1098	840	665	398	425	421	665	717	693
PEAK POW MW		2121	2119	2121	2120	2124	2138	2117	2091	2085	2036	2039	2040	2042	2008	2026	2036
ENERGY GWH	7234.4	213.5	118.3	167.3	643.6	775.3	775.4	819.1	816.9	604.6	494.8	143.3	71.4	80.9	494.5	533.3	482.2
DAILY GWH		14.2	16.9	18.6	21.5	25.0	25.8	26.4	26.4	20.2	16.0	9.6	10.2	10.1	16.0	17.2	16.6

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 29FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB16	2016												2017			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	5800	212	99	127	482	930	1291	651	285	251	339	159	74	85	241	252	323
DEPLETION	512	-29	-13	-17	34	284	546	275	37	-96	-84	-40	-19	-21	-119	-131	-95
EVAPORATION	410							25	79	98	85	39	18	21	45		
MOD INFLOW	4878	241	112	144	448	646	745	351	169	249	338	160	75	85	315	383	418
RELEASE	5365	149	69	89	446	553	506	523	523	399	307	149	69	95	492	523	472
STOR CHANGE	-487	92	43	55	2	93	239	-172	-354	-150	30	11	5	-10	-176	-140	-54
STORAGE	9535	9627	9670	9725	9727	9819	10058	9886	9533	9383	9413	9424	9429	9419	9242	9103	9049
ELEV FTMSL	2204.9	2205.5	2205.7	2206.1	2206.1	2206.7	2208.2	2207.1	2204.9	2203.9	2204.1	2204.1	2204.2	2204.1	2203.0	2202.0	2201.7
DISCH KCFS	9.0	5.0	5.0	5.0	7.5	9.0	8.5	8.5	8.5	6.7	5.0	5.0	5.0	6.0	8.0	8.5	8.5
POWER																	
AVE POWER MW		60	61	61	91	109	104	104	103	81	60	60	60	72	96	101	101
PEAK POW MW		134	134	135	135	135	137	136	133	132	132	132	133	132	131	130	130
ENERGY GWH	782.8	21.8	10.2	13.1	65.5	81.2	74.7	77.2	76.6	58.1	44.7	21.7	10.1	13.9	71.2	75.2	67.7
--GARRISON--																	
NAT INFLOW	8704	450	210	270	682	1294	2546	1100	382	253	453	177	82	94	165	229	318
DEPLETION	1074	2	1	1	29	163	816	692	134	-136	-49	-143	-67	-76	-128	-96	-69
CHAN STOR	6	44			-27	-16	5	0		19	19			-11	-22	-5	0
EVAPORATION	488							31	95	117	102	46	21	24	53		
REG INFLOW	12512	640	278	358	1072	1668	2241	900	676	690	726	422	197	230	711	842	859
RELEASE	13109	387	180	232	1041	1445	1250	1230	1230	994	830	402	187	222	1138	1230	1111
STOR CHANGE	-597	254	98	126	31	223	992	-330	-554	-304	-104	21	10	8	-427	-388	-252
STORAGE	11664	11918	12016	12141	12172	12395	13387	13057	12503	12199	12095	12116	12126	12134	11707	11319	11068
ELEV FTMSL	1813.3	1814.4	1814.8	1815.3	1815.5	1816.4	1820.4	1819.1	1816.8	1815.6	1815.1	1815.2	1815.3	1815.3	1813.5	1811.8	1810.7
DISCH KCFS	19.5	13.0	13.0	13.0	17.5	23.5	21.0	20.0	20.0	16.7	13.5	13.5	13.5	14.0	18.5	20.0	20.0
POWER																	
AVE POWER MW		138	139	140	188	252	230	221	218	180	145	145	145	151	197	210	208
PEAK POW MW		384	385	387	387	391	406	401	392	388	386	387	387	387	380	374	370
ENERGY GWH	1704.5	49.8	23.4	30.2	135.2	187.7	165.4	164.4	162.4	130.0	108.1	52.2	24.4	28.9	146.6	156.3	139.6
--OAHE--																	
NAT INFLOW	1301	192	89	115	226	124	345	119	45	52	6	9	4	5	-51	-23	45
DEPLETION	752	25	12	15	52	77	160	195	132	32	-12	1	0	1	13	19	30
CHAN STOR	-2	33			-23	-30	13	5		18	17			-3	-24	-8	
EVAPORATION	418							27	81	99	86	39	18	21	46		
REG INFLOW	13237	586	258	332	1193	1462	1447	1132	1062	933	779	370	173	202	1004	1180	1126
RELEASE	13849	496	286	341	1194	1425	1465	1705	1742	1020	847	233	125	140	923	1027	882
STOR CHANGE	-612	91	-28	-9	-1	37	-18	-573	-680	-87	-68	137	48	63	81	153	244
STORAGE	12226	12317	12289	12280	12278	12315	12297	11724	11044	10957	10889	11026	11074	11137	11218	11371	11615
ELEV FTMSL	1582.4	1582.8	1582.7	1582.6	1582.6	1582.8	1582.7	1580.1	1576.8	1576.3	1576.0	1576.7	1576.9	1577.2	1577.6	1578.4	1579.5
DISCH KCFS	15.9	16.7	20.6	19.1	20.1	23.2	24.6	27.7	28.3	17.1	13.8	7.8	9.0	8.8	15.0	16.7	15.9
POWER																	
AVE POWER MW		187	232	215	225	260	276	308	309	186	149	85	98	96	164	183	175
PEAK POW MW		581	580	580	580	581	581	567	550	547	546	549	550	552	554	558	564
ENERGY GWH	1851.9	67.4	38.9	46.4	162.2	193.5	199.0	229.3	230.0	133.7	110.9	30.6	16.4	18.5	121.7	135.9	117.4
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13720	496	286	341	1194	1425	1465	1697	1717	989	820	221	119	133	908	1027	882
RELEASE	13720	496	286	341	1194	1425	1465	1697	1717	989	820	221	119	133	908	1027	882
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.9	16.7	20.6	19.1	20.1	23.2	24.6	27.6	27.9	16.6	13.3	7.4	8.6	8.4	14.8	16.7	15.9
POWER																	
AVE POWER MW		79	97	89	94	108	115	129	131	81	67	38	43	43	74	82	76
PEAK POW MW		517	509	509	509	509	509	509	509	538	538	538	538	538	538	538	529
ENERGY GWH	793.8	28.4	16.2	19.3	67.6	80.7	83.0	96.1	97.2	58.3	50.1	13.6	7.3	8.2	55.4	61.1	51.2
--FORT RANDALL--																	
NAT INFLOW	424	82	38	49	103	61	115	30	18	-7	-30	-12	-6	-6	-24	-30	42
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	137							10	32	37	26	10	5	5	12		
REG INFLOW	13927	577	324	389	1293	1477	1568	1699	1688	938	762	198	108	121	869	994	921
RELEASE	13927	285	190	389	1293	1477	1568	1699	1688	1586	1367	198	108	121	716	694	547
STOR CHANGE	0	291	134					0	0	-647	-605	0	0	0	153	300	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	2902	2297	2297	2297	2297	2450	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1347.0	1337.5	1337.5	1337.5	1337.5	1340.2	1344.8	1350.0
DISCH KCFS	10.0	9.6	13.7	21.8	21.7	24.0	26.4	27.6	27.5	26.6	22.2	6.7	7.8	7.6	11.6	11.3	9.8
POWER																	
AVE POWER MW		80	116	184	184	203	222	233	232	217	168	49	57	56	86	86	79
PEAK POW MW		351	356	356	356	356	356	356	356	328	284	285	285	285	297	319	339
ENERGY GWH	1377.6	28.7	19.4	39.9	132.3	151.0	160.1	173.3	172.2	156.4	125.2	17.6	9.6	10.7	64.1	64.2	52.9
--GAVINS POINT--																	
NAT INFLOW	1279	85	40	51	128	139	144	85	64	80	106	50	23	27	75	75	107
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	0	-4	-4	-2	0	2	8	29	-2	0	-7	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	15046	372	222	425	1416	1593	1684	1740	1735	1661	1470	268	125	143	769	769	656
RELEASE	15046	372	222	425	1416	1593	1684	1740	1722	1636	1470	268	125	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	23.9	9.0	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	84	32	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	629.6	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	62.5	11.6	5.4	6.2	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	992	123	58	74	128	170	92	99	57	42	43	25	12	13	7	21	28
DEPLETION	280	7	3	4	24	37	32	40	38	25	12	7	3	3	14	15	15
REGULATED FLOW AT SIOUX CITY																	
KAF	15758	488	276	495	1520	1726	1744	1799	1741	1653	1501	286	134	153	762	775	707
KCFS		16.4	19.9	27.7	25.5	28.1	29.3	29.3	28.3	27.8	24.4	9.6	9.6	9.6	12.4	12.6	12.7
--TOTAL--																	
NAT INFLOW	18500	1144	534	686	1749	2718	4533	2084	851	671	917	407	190	217	413	524	863
DEPLETION	2812	7	3	4	148	589	1590	1259	366	-173	-130	-170	-79	-90	-207	-189	-116
CHAN STOR	2	78	-8	-16	-50	-51	14	3	0	38	43	29	-2	-13	-53	-13	3
EVAPORATION	1626							103	319	393	336	150	70	80	175		
STORAGE	38513	39240	39486	39658	39689	40041	41254	40179	38605	37442	36695	36864	36927	36987	36618	36544	36818
SYSTEM POWER																	
AVE POWER MW		589	699	771	863	1021	1044	1091	1088	841	674	409	436	449	661	707	682
PEAK POW MW		2081	2079	2081	2082	2087	2103	2083	2056	2051	2004	2008	2010	2011	1979	1997	2008
ENERGY GWH	7140.1	211.9	117.5	166.4	621.7	759.9	751.5	812.0	809.7	605.3	501.5	147.3	73.2	86.3	492.0	525.7	458.4
DAILY GWH		14.1	16.8	18.5	20.7	24.5	25.0	26.2	26.1	20.2	16.2	9.8	10.5	10.8	15.9	17.0	16.4

INI-SUM 15MAR 22MAR 31MAR 30APR 31MAY 30JUN 31JUL 31AUG 30SEP 31OCT 15NOV 22NOV 30NOV 31DEC 31JAN 28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB17	2017												2018			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	5950	217	101	130	494	954	1325	668	292	258	348	163	76	87	247	258	331
DEPLETION	517	-30	-14	-18	32	286	550	283	42	-97	-86	-41	-19	-22	-122	-132	-96
EVAPORATION	403							25	77	96	84	38	18	20	44		
MOD INFLOW	5030	247	115	148	462	668	775	360	173	259	350	165	77	88	325	390	427
RELEASE	5249	149	69	89	417	461	506	523	523	399	307	149	76	95	492	523	472
STOR CHANGE	-219	99	46	59	45	207	269	-163	-350	-140	43	17	1	-7	-167	-133	-45
STORAGE	9049	9147	9193	9252	9298	9505	9774	9611	9261	9121	9164	9180	9181	9174	9007	8875	8830
ELEV FTMSL	2201.7	2202.3	2202.6	2203.0	2203.3	2204.7	2206.4	2205.4	2203.1	2202.2	2202.4	2202.5	2202.5	2202.5	2201.4	2200.5	2200.2
DISCH KCFS	8.5	5.0	5.0	5.0	7.0	7.5	8.5	8.5	8.5	6.7	5.0	5.0	5.5	6.0	8.0	8.5	8.5
POWER																	
AVE POWER MW		60	60	60	84	90	103	103	102	80	60	60	66	72	95	100	100
PEAK POW MW		130	131	131	132	133	135	134	131	130	131	131	131	131	129	128	128
ENERGY GWH	758.4	21.4	10.0	12.9	60.2	66.9	73.9	76.5	75.9	57.5	44.3	21.5	11.0	13.7	70.6	74.6	67.2
--GARRISON--																	
NAT INFLOW	9150	473	221	284	717	1360	2677	1156	402	266	476	186	87	99	173	241	334
DEPLETION	1137	-2	-1	-1	35	188	850	711	140	-139	-53	-147	-69	-78	-130	-97	-69
CHAN STOR	0	39			-22	-5	-11	0		20	19		-5	-5	-22	-6	0
EVAPORATION	476							30	92	114	99	45	21	24	51		
REG INFLOW	12787	663	291	374	1077	1628	2322	938	692	709	756	437	205	243	722	855	875
RELEASE	13057	387	180	232	1071	1537	1309	1168	1168	965	830	402	187	230	1107	1199	1083
STOR CHANGE	-270	276	111	142	5	90	1013	-230	-476	-256	-74	35	18	13	-385	-344	-208
STORAGE	11068	11344	11454	11597	11602	11693	12705	12475	11999	11743	11669	11704	11721	11734	11349	11005	10798
ELEV FTMSL	1810.7	1811.9	1812.4	1813.0	1813.0	1813.4	1817.7	1816.7	1814.7	1813.6	1813.3	1813.5	1813.5	1813.6	1811.9	1810.4	1809.4
DISCH KCFS	20.0	13.0	13.0	13.0	18.0	25.0	22.0	19.0	19.0	16.2	13.5	13.5	13.5	14.5	18.0	19.5	19.5
POWER																	
AVE POWER MW		136	137	137	190	263	236	206	204	173	143	143	143	154	189	203	201
PEAK POW MW		374	376	378	379	380	396	392	385	381	380	380	380	381	374	369	365
ENERGY GWH	1671.6	48.9	23.0	29.7	136.7	195.6	169.7	153.5	151.9	124.4	106.6	51.6	24.1	29.6	141.0	150.7	134.8
--OAHE--																	
NAT INFLOW	1350	199	93	119	235	129	358	123	47	52	6	9	4	5	-53	-23	47
DEPLETION	765	25	12	15	52	78	163	200	135	32	-13	1	0	1	14	20	30
CHAN STOR	3	36			-26	-36	15	15		15	15			-5	-19	-8	
EVAPORATION	407							26	78	96	84	39	18	21	45		
REG INFLOW	13238	597	262	336	1228	1552	1520	1081	1002	905	780	371	173	208	976	1148	1100
RELEASE	13515	490	283	337	1186	1420	1456	1701	1740	1018	549	243	124	140	924	1028	878
STOR CHANGE	-277	107	-22	-1	42	132	63	-620	-738	-113	231	128	49	69	52	120	222
STORAGE	11615	11722	11700	11699	11742	11874	11937	11317	10579	10466	10696	10825	10874	10943	10995	11115	11338
ELEV FTMSL	1579.5	1580.1	1579.9	1579.9	1580.1	1580.8	1581.0	1578.1	1574.4	1573.9	1575.0	1575.7	1575.9	1576.3	1576.5	1577.1	1578.2
DISCH KCFS	15.9	16.5	20.4	18.9	19.9	23.1	24.5	27.7	28.3	17.1	8.9	8.2	8.9	8.8	15.0	16.7	15.8
POWER																	
AVE POWER MW		182	226	209	220	256	272	304	305	183	96	88	96	95	163	182	173
PEAK POW MW		567	566	566	567	571	572	556	537	534	540	544	545	547	548	552	557
ENERGY GWH	1787.0	65.5	37.9	45.1	158.7	190.3	195.6	226.3	226.7	131.5	71.3	31.7	16.2	18.3	121.1	135.0	115.9
--BIG BEND--																	
EVAPORATION	129							8	24	31	27	12	6	7	14		
REG INFLOW	13386	490	283	337	1186	1420	1456	1693	1715	987	522	230	118	133	909	1028	878
RELEASE	13386	490	283	337	1186	1420	1456	1693	1715	987	522	230	118	133	909	1028	878
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.9	16.5	20.4	18.9	19.9	23.1	24.5	27.5	27.9	16.6	8.5	7.7	8.5	8.4	14.8	16.7	15.8
POWER																	
AVE POWER MW		78	96	88	93	108	115	129	131	81	43	39	43	43	75	82	76
PEAK POW MW		517	509	509	509	509	509	509	509	538	538	538	538	538	538	538	529
ENERGY GWH	773.7	28.1	16.1	19.1	67.2	80.4	82.5	95.9	97.1	58.2	32.0	14.1	7.2	8.2	55.4	61.2	50.9
--FORT RANDALL--																	
NAT INFLOW	450	87	41	52	109	64	122	32	19	-6	-31	-13	-6	-7	-26	-32	45
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	137							10	32	37	26	10	5	5	12		
REG INFLOW	13617	575	323	389	1291	1475	1566	1697	1687	937	462	206	107	120	868	993	920
RELEASE	13617	284	189	389	1291	1475	1566	1697	1687	1585	1067	206	107	120	715	693	546
STOR CHANGE	0	291	134					0	0	-647	-605	0	0	0	153	300	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	2902	2297	2297	2297	2297	2450	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1347.0	1337.5	1337.5	1337.5	1337.5	1340.2	1344.8	1350.0
DISCH KCFS	9.8	9.6	13.6	21.8	21.7	24.0	26.3	27.6	27.4	26.6	17.4	6.9	7.7	7.6	11.6	11.3	9.8
POWER																	
AVE POWER MW		79	115	184	183	203	222	233	231	217	132	51	56	56	86	86	79
PEAK POW MW		351	356	356	356	356	356	356	356	328	284	285	285	285	297	319	339
ENERGY GWH	1349.4	28.5	19.4	39.8	132.1	150.8	159.9	173.1	172.1	156.3	98.0	18.3	9.5	10.7	64.0	64.1	52.8
--GAVINS POINT--																	
NAT INFLOW	1300	87	40	52	130	141	146	87	65	81	108	52	24	27	76	76	108
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	0	-4	-4	-2	0	2	17	19	-1	0	-8	1	3
EVAPORATION	45							3	8	11	10	4	2	2	5		
REG INFLOW	14757	372	222	425	1416	1593	1684	1740	1735	1661	1181	268	125	143	769	769	656
RELEASE	14757	372	222	425	1416	1593	1684	1740	1722	1636	1181	268	125	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	19.2	9.0	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	68	32	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	617.5	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	50.4	11.6	5.4	6.2	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1100	137	64	82	141	189	102	110	63	55	39	28	13	15	8	24	31
DEPLETION	283	7	3	4	24	37	32	40	39	26	12	7	3	3	14	15	16
REGULATED FLOW AT SIOUX CITY																	
KAF	15574	502	283	503	1533	1745	1754	1810	1746	1665	1208	289	135	154	763	778	709
KCFS		16.9	20.4	28.2	25.8	28.4	29.5	29.4	28.4	28.0	19.6	9.7	9.7	9.7	12.4	12.6	12.8
--TOTAL--																	
NAT INFLOW	19300	1200	560	720	1826	2837	4730	2176	888	706	946	424	198	226	425	544	896
DEPLETION	2896	1	0	1	152	617	1631	1291	381	-176	-137	-174	-81	-93	-211	-190	-116
CHAN STOR	0	76	-8	-16	-48	-46	0	13	0	36	48	19	-7	-11	-48	-13	3
EVAPORATION	1596							101	312	385	330	148	69	79	172		
STORAGE	36818	37591	37860	38060	38154	38583	39928	38915	37364	36233	35827	36007	36075	36149	35802	35746	36051
SYSTEM POWER																	
AVE POWER MW		578	688	760	852	1008	1043	1071	1069	829	541	413	437	451	652	697	671
PEAK POW MW		2054	2053	2055	2057	2063	2082	2062	2034	2029	1990	1995	1996	1998	1966	1983	1994
ENERGY GWH	6957.7	208.2	115.6	164.2	613.6	749.8	750.9	797.0	795.0	596.7	402.8	148.8	73.4	86.6	485.2	518.7	451.2
DAILY GWH		13.9	16.5	18.2	20.5	24.2	25.0	25.7	25.6	19.9	13.0	9.9	10.5	10.8	15.7	16.7	16.1
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB

VALUES IN 1000 AF EXCEPT AS INDICATED

	28FEB18	2018												2019			
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB
--FORT PECK--																	
NAT INFLOW	6000	219	102	131	498	962	1336	674	294	260	352	164	77	87	249	260	334
DEPLETION	532	-30	-14	-18	32	287	555	290	46	-97	-87	-41	-19	-22	-123	-132	-96
EVAPORATION	370							25	76	95	83	24	11	13	44		
MOD INFLOW	5098	249	116	149	466	675	781	359	172	262	356	181	85	97	328	392	430
RELEASE	5223	134	62	80	446	492	506	523	523	387	277	134	62	79	523	523	472
STOR CHANGE	-125	115	54	69	20	183	275	-163	-351	-125	79	47	22	17	-194	-131	-42
STORAGE	8830	8944	8998	9067	9087	9270	9545	9382	9031	8905	8985	9032	9054	9071	8877	8747	8704
ELEV FTMSL	2200.2	2201.0	2201.3	2201.8	2201.9	2203.1	2204.9	2203.9	2201.5	2200.7	2201.2	2201.6	2201.7	2201.8	2200.5	2199.6	2199.3
DISCH KCFS	8.5	4.5	4.5	4.5	7.5	8.0	8.5	8.5	8.5	6.5	4.5	4.5	4.5	5.0	8.5	8.5	8.5
POWER																	
AVE POWER MW		53	53	53	89	95	102	102	101	77	53	53	53	59	100	100	100
PEAK POW MW		129	129	130	130	131	133	132	130	129	129	130	130	130	128	127	127
ENERGY GWH	749.8	19.1	9.0	11.5	64.1	70.8	73.4	76.0	75.3	55.5	39.7	19.2	9.0	11.4	74.7	74.3	66.9
--GARRISON--																	
NAT INFLOW	9222	477	222	286	723	1371	2698	1165	405	268	480	187	87	100	174	243	336
DEPLETION	1223	-2	-1	-1	33	186	852	740	145	-142	-58	-142	-66	-75	-113	-79	-53
CHAN STOR	0	45			-33	-6	-5	0		22	22			-6	-39		0
EVAPORATION	440							30	92	114	98	28	13	15	51		
REG INFLOW	12783	658	286	368	1103	1671	2346	918	691	706	739	434	203	234	720	845	861
RELEASE	12937	387	180	232	1041	1445	1309	1168	1168	981	861	417	194	222	1107	1168	1055
STOR CHANGE	-154	271	105	136	62	226	1037	-250	-477	-276	-122	18	8	12	-386	-324	-194
STORAGE	10798	11068	11174	11309	11371	11598	12635	12385	11907	11632	11509	11527	11536	11548	11161	10838	10643
ELEV FTMSL	1809.4	1810.7	1811.1	1811.7	1812.0	1813.0	1817.4	1816.4	1814.3	1813.1	1812.6	1812.7	1812.7	1812.8	1811.1	1809.6	1808.7
DISCH KCFS	19.5	13.0	13.0	13.0	17.5	23.5	22.0	19.0	19.0	16.5	14.0	14.0	14.0	14.0	18.0	19.0	19.0
POWER																	
AVE POWER MW		135	135	136	183	246	235	206	204	175	148	148	148	148	188	196	194
PEAK POW MW		370	372	374	375	379	395	391	383	379	377	377	377	378	371	366	363
ENERGY GWH	1648.5	48.4	22.8	29.4	131.8	183.1	169.3	153.2	151.5	126.0	110.1	53.2	24.8	28.4	140.1	145.9	130.6
--OAHE--																	
NAT INFLOW	1381	203	95	122	240	132	366	126	48	55	6	9	4	5	-54	-24	48
DEPLETION	780	26	12	15	53	79	166	204	138	33	-13	1	0	1	14	20	31
CHAN STOR	3	34			-24	-31	8	16		14	14			0	-21	-5	
EVAPORATION	371							25	76	93	83	24	11	13	45		
REG INFLOW	13170	599	263	339	1205	1467	1517	1081	1002	924	811	400	187	213	972	1119	1072
RELEASE	13329	486	282	335	1181	1417	1451	1700	1739	946	474	237	118	134	925	1029	876
STOR CHANGE	-159	112	-18	3	24	50	65	-619	-736	-22	337	163	68	79	47	90	197
STORAGE	11338	11450	11431	11435	11459	11508	11574	10955	10218	10196	10533	10697	10765	10844	10892	10982	11178
ELEV FTMSL	1578.2	1578.7	1578.7	1578.7	1578.8	1579.0	1579.3	1576.3	1572.6	1572.4	1574.2	1575.0	1575.4	1575.8	1576.0	1576.5	1577.4
DISCH KCFS	15.8	16.3	20.3	18.8	19.8	23.0	24.4	27.6	28.3	15.9	7.7	8.0	8.5	8.5	15.0	16.7	15.8
POWER																	
AVE POWER MW		179	223	206	218	253	268	301	301	168	82	86	92	91	162	181	171
PEAK POW MW		560	559	560	560	561	563	547	527	527	536	540	542	544	546	548	553
ENERGY GWH	1748.3	64.5	37.4	44.5	156.8	188.1	192.9	223.7	223.9	120.9	61.1	30.8	15.5	17.5	120.9	134.7	115.1
--BIG BEND--																	
EVAPORATION	120							8	24	31	27	8	4	4	14		
REG INFLOW	13209	486	282	335	1181	1417	1451	1692	1714	915	447	229	115	130	911	1029	876
RELEASE	13209	486	282	335	1181	1417	1451	1692	1714	915	447	229	115	130	911	1029	876
STORAGE	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621	1621
ELEV FTMSL	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0	1420.0
DISCH KCFS	15.8	16.3	20.3	18.8	19.8	23.0	24.4	27.5	27.9	15.4	7.3	7.7	8.3	8.2	14.8	16.7	15.8
POWER																	
AVE POWER MW		77	95	88	93	108	114	129	130	75	37	39	42	42	75	82	76
PEAK POW MW		517	509	509	509	509	509	509	509	538	538	538	538	538	538	538	529
ENERGY GWH	763.4	27.9	16.0	19.0	66.9	80.3	82.2	95.8	97.1	54.2	27.4	14.1	7.0	8.0	55.5	61.2	50.8
--FORT RANDALL--																	
NAT INFLOW	465	90	42	54	113	66	126	33	20	-6	-32	-14	-6	-7	-27	-33	46
DEPLETION	80	1	1	1	4	9	12	18	15	7	1	1	0	1	3	3	3
EVAPORATION	128							10	32	36	25	6	3	3	12		
REG INFLOW	13464	575	323	388	1290	1474	1565	1697	1687	865	386	208	105	119	868	993	919
RELEASE	13464	284	189	388	1290	1474	1565	1697	1687	1583	920	208	105	119	715	693	545
STOR CHANGE	0	291	134					0	0	-718	-534	0	0	0	153	300	374
STORAGE	3124	3415	3549	3549	3549	3549	3549	3549	3549	2831	2297	2297	2297	2297	2450	2750	3124
ELEV FTMSL	1350.0	1353.6	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1355.2	1346.0	1337.5	1337.5	1337.5	1337.5	1337.5	1340.2	1344.8	1350.0
DISCH KCFS	9.8	9.5	13.6	21.7	21.7	24.0	26.3	27.6	27.4	26.6	15.0	7.0	7.6	7.5	11.6	11.3	9.8
POWER																	
AVE POWER MW		79	115	184	183	203	222	233	231	216	113	51	56	55	86	86	78
PEAK POW MW		351	356	356	356	356	356	356	356	324	284	285	285	285	297	319	339
ENERGY GWH	1334.4	28.5	19.3	39.7	132.0	150.7	159.8	173.1	172.1	155.6	84.3	18.5	9.3	10.5	64.0	64.1	52.7
--GAVINS POINT--																	
NAT INFLOW	1309	87	41	52	131	142	147	87	65	82	109	53	25	28	76	76	109
DEPLETION	114	0	0	0	5	19	24	39	10	-5	2	5	2	3	10	1	
CHAN STOR	-1	1	-8	-16	0	-4	-4	-2	0	2	22	15	-1	0	-8	1	3
EVAPORATION	41							3	8	11	10	3	1	1	5		
REG INFLOW	14616	372	222	425	1416	1593	1684	1740	1735	1661	1039	268	125	143	769	769	656
RELEASE	14616	372	222	425	1416	1593	1684	1740	1722	1636	1039	268	125	143	769	769	694
STOR CHANGE									13	25							-38
STORAGE	342	342	342	342	342	342	342	342	355	380	380	380	380	380	380	380	342
ELEV FTMSL	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.0	1206.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1207.5	1206.0
DISCH KCFS	12.5	12.5	16.0	23.8	23.8	25.9	28.3	28.3	28.0	27.5	16.9	9.0	9.0	9.0	12.5	12.5	12.5
POWER																	
AVE POWER MW		44	56	82	82	88	96	96	96	96	60	32	32	32	44	44	44
PEAK POW MW		114	114	114	114	114	114	114	115	117	117	117	117	117	78	78	76
ENERGY GWH	611.6	15.8	9.3	17.6	58.7	65.8	69.3	71.6	71.3	68.8	44.5	11.6	5.4	6.2	33.0	33.0	29.6
--GAVINS POINT - SIOUX CITY--																	
NAT INFLOW	1123	140	65	84	144	193	104	112	64	49	48	28	13	15	8	24	32
DEPLETION	284	7	3	4	24	37	32	41	39	26	12	7	3	3	14	15	16
REGULATED FLOW AT SIOUX CITY																	
KAF	15455	505	284	505	1536	1749	1756	1811	1747	1659	1075	289	135	154	763	778	710
KCFS		17.0	20.4	28.3	25.8	28.4	29.5	29.5	28.4	27.9	17.5	9.7	9.7	9.7	12.4	12.6	12.8
--TOTAL--																	
NAT INFLOW	19500	1216	567	729	1849	2866	4777	2197	896	708	963	427	199	228	426	546	905
DEPLETION	3013	2	1	1	151	617	1641	1332	393	-178	-143	-169	-79	-90	-195	-172	-99
CHAN STOR	0	79	-8	-16	-57	-41	-2	13	0	37	55	15	-1	-5	-68	-5	3
EVAPORATION	1471							100	309	380	326	93	43	50	171		
STORAGE	36051	36841	37115	37323	37429	37888	39266	38233	36681	35565	35325	35554	35652	35761	35381	35317	35613
SYSTEM POWER																	
AVE POWER MW		567	677	749	848	993	1037	1066	1063	807	493	409	423	427	656	690	663
PEAK POW MW		2041	2040	2043	2045	2051	2071	2050	2021	2013	1982	1987	1989	1992	1959	1976	1987
ENERGY GWH	6856.0	204.3	113.7	161.8	610.3	738.8	746.9	793.4	791.2	580.9	367.1	147.3	71.0	82.0	488.3	513.3	445.7
DAILY GWH		13.6	16.2	18.0	20.3	23.8	24.9	25.6	25.5	19.4	11.8	9.8	10.1	10.3	15.8	16.6	15.9
	INI-SUM	15MAR	22MAR	31MAR	30APR	31MAY	30JUN	31JUL	31AUG	30SEP	31OCT	15NOV	22NOV	30NOV	31DEC	31JAN	28FEB