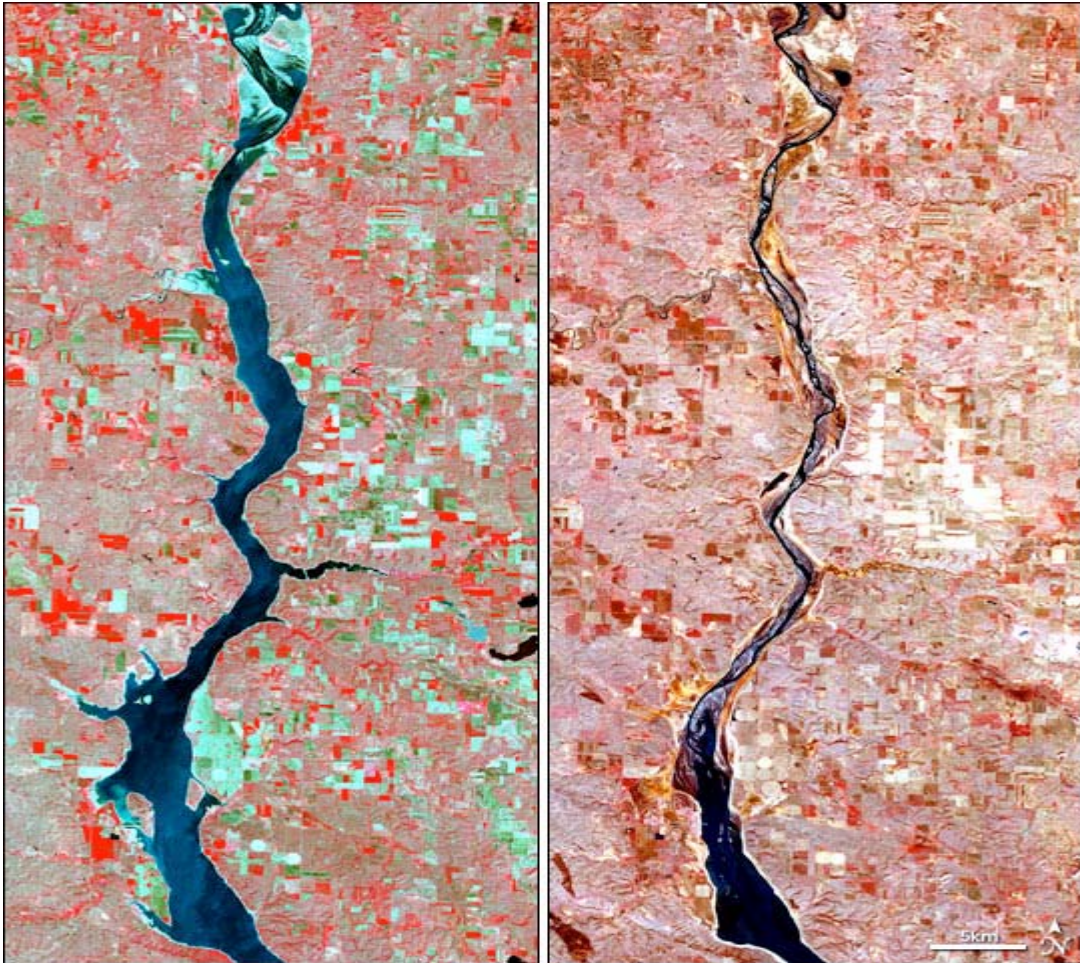


**U.S. Army Corps of Engineers
Omaha District
Monthly Drought Report
November 2005**



**US Army Corps
of Engineers
Omaha District**

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Note: Cover image courtesy of Nasa.gov. Image depicts northern Lake Oahe in the area of Ft. Yates, ND. The image on the left was taken during May 2000 and the image on the right was taken during April 2005. The images were taken using ASTER technology.

CURRENT CONDITIONS

The current Omaha District drought has impacted parts of the Missouri River Basin including the entire Upper Missouri River Basin in Montana and Wyoming since 2000. Long term (72-month) precipitation departures range from 5 to 10 inches below normal in Montana to 15 to 20 inches below normal in parts of Nebraska; while during the present 12-month period, precipitation is less than three inches below normal. Water year 2005 snow pack was severely limited as in years past. Despite rain storms in the latter part of September, drought conditions persist over much of the upper basin with only 78 percent of normal runoff recorded so far this year. Current drought indicators including the Palmer Drought Severity Index and the Drought Monitor reflect short-term water deficits and long-term drought impacts.

Precipitation Departures

Precipitation accumulations in the Western U.S. have largely affected the severity and extent of the drought since 2000. Precipitation departures from normal during the last 72-months for the United States are shown in Figure 1. Precipitation departures or deficits in the Western U.S. have shown significant improvement due to Spring and Summer moisture. In much of western and southwestern Montana, accumulated precipitation during the last 72 months had been 15 to 20 inches below normal, compared to the current departure of 5 to 10 inches below normal. The majority of Wyoming's accumulated precipitation remains 10 to 15 inches below normal for the observation period. Southeast Nebraska and southwest Iowa have received from near normal to 10 inches less than normal precipitation. The Dakotas have largely received a surplus (10 to 15 inches) of precipitation in the central and eastern regions, while western regions are normal to 5 inches below normal. The South Platte River Basin in Colorado shows precipitation deficits of 10 to 15 inches during a majority of the 72-month period.

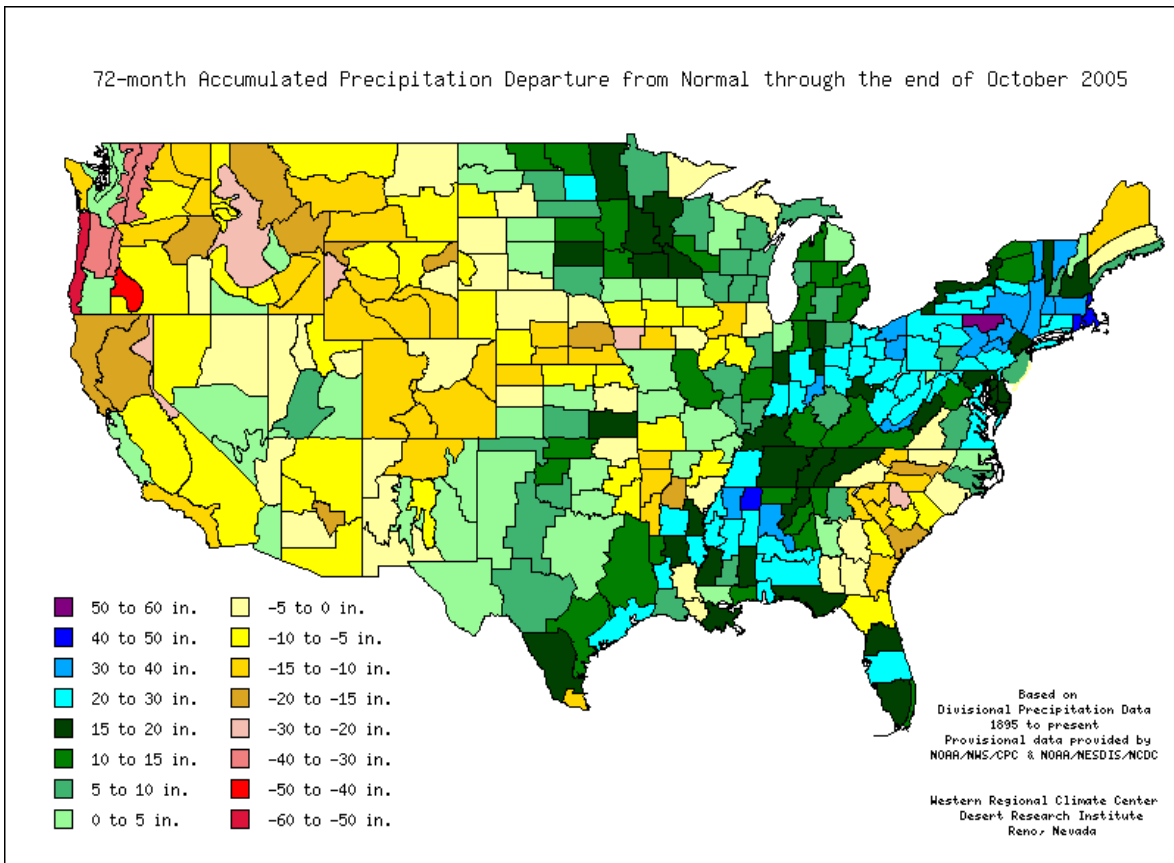


Figure 1 – 72 month Precipitation Departure From Normal

<http://www.wrcc.dri.edu/cgi-bin/spiFmap.pl?dep72>

The 12-month precipitation accumulation in Figure 2 indicates that precipitation throughout much of the western and northwestern District is three-inches above or below normal.

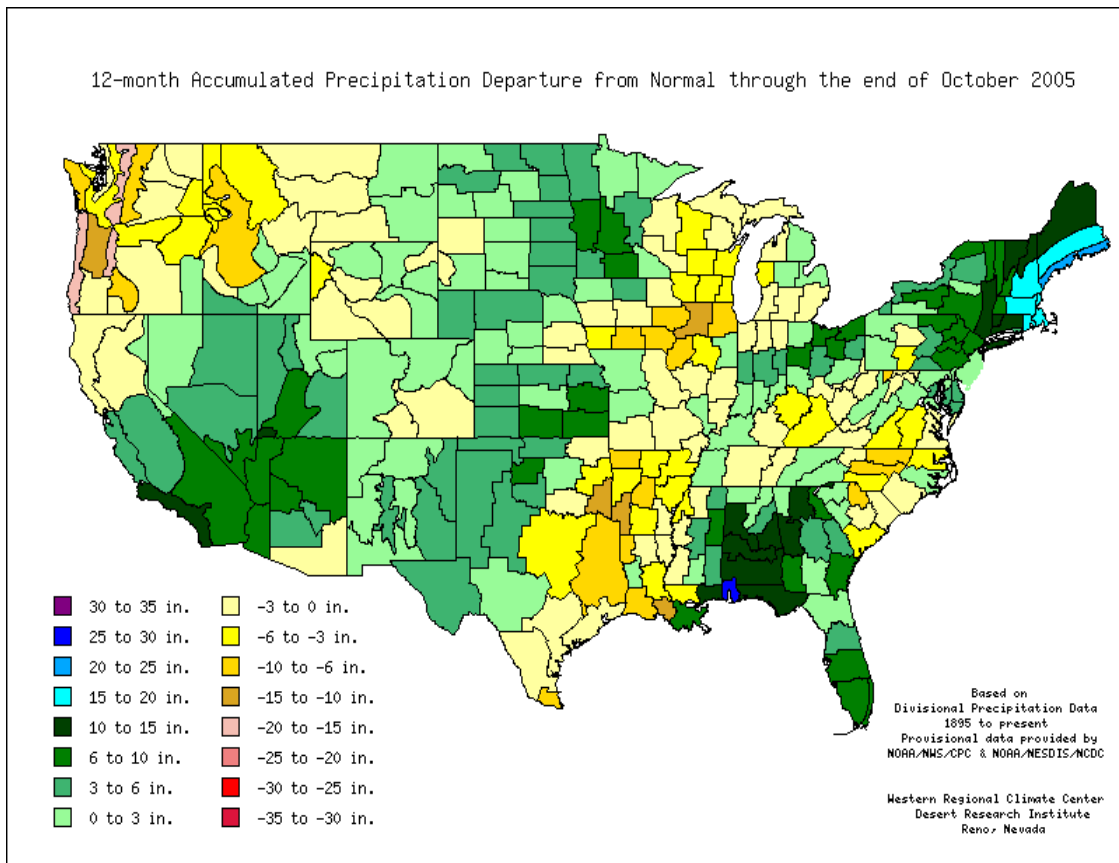


Figure 2 – 12 month Precipitation Departure From Normal

<http://www.wrcc.dri.edu/cgi-bin/spiFmap.pl?dep12>

The three-month period (Figure 3) shows precipitation ranges from near normal in Montana to near normal to two-inch surplus in the Dakotas. Elsewhere in the District precipitation accumulations reflect from a four-inch deficit to near normal precipitation for the three-month period.

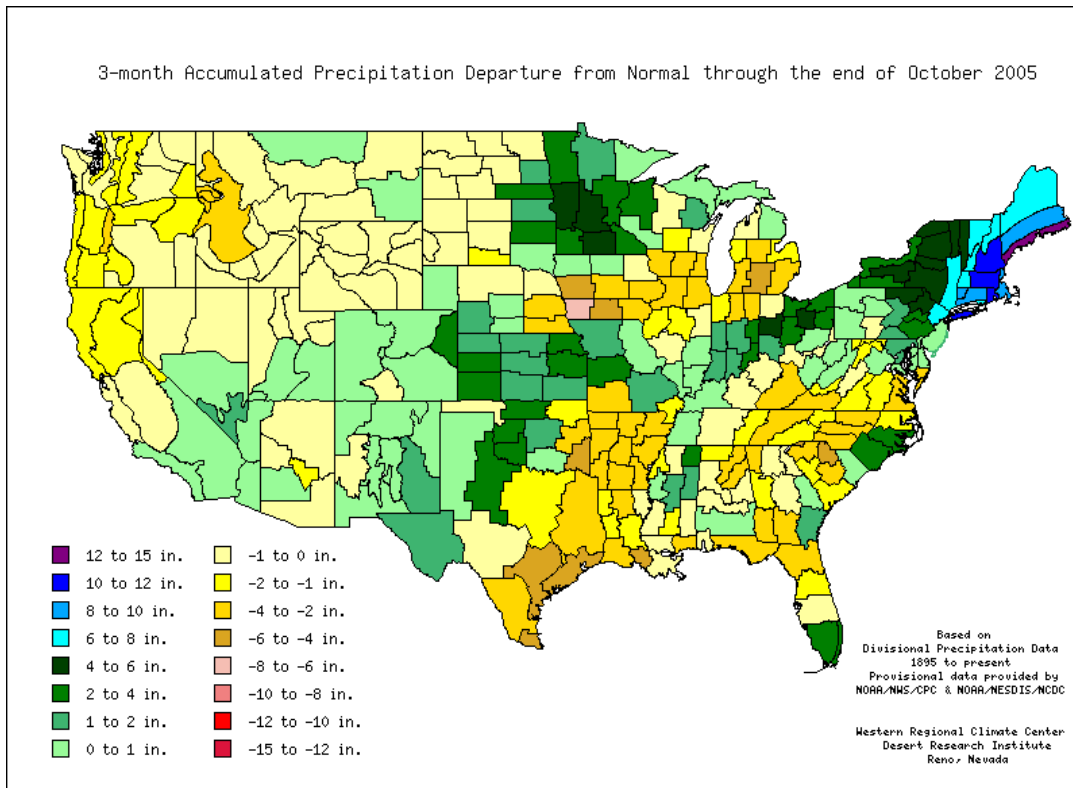


Figure 3 – 3 month Precipitation Departure From Normal
<http://www.wrcc.dri.edu/cgi-bin/spiFmap.pl?dep03>

During October, the majority of the basin received normal to one-inch rainfall deficits (Figure 4).

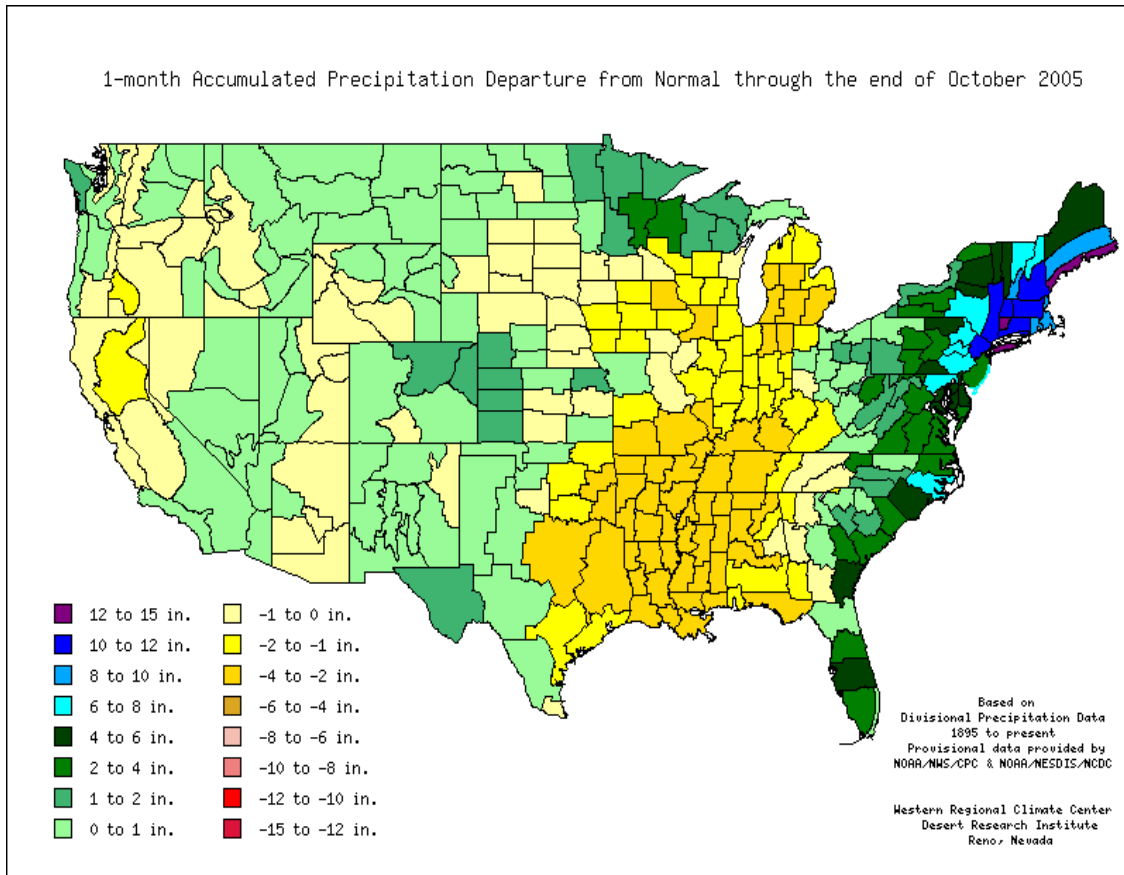


Figure 4 – 1 month Precipitation Departure From Normal
<http://www.wrcc.dri.edu/cgi-bin/spiFmap.pl?dep01>

Water Year 2005 Mountain Snow

The depth and snow water equivalent (SWE) of mountain tributary basin snow pack in Water Year 2005 was poor over most of the Missouri River basin mountain basins as a result of a mild and wavering El Nino phenomenon. At the same time conditions were not favorable to develop winter storms with normal mountain snowfall in the Central and Northern Rockies.

Areas most severely impacted include the Northern Rockies of Montana and Wyoming. As of April 1, 2005, Missouri River headwaters in Montana and Yellowstone River headwaters in Wyoming contained 50 to 69 % of normal SWE in the poorest areas, and 70 to 89 % of normal SWE in most other areas. Additionally northwest portions of Missouri River basin tributary headwaters in Montana and the Belle Fourche River basin in northeastern Wyoming and west-central South Dakota held, at best, 50 % of normal SWE. Both the North and South Platte River basins contained between 70 and 89% of normal SWE with some sub basins slightly better or worse.

Drought Indicators

The Palmer Drought Severity Index and the Drought Monitor are two commonly used drought-indicator products that convey both short-term and long-term drought conditions and impacts. Both the Palmer Index and Drought Monitor depict some regions exhibiting varying degrees of drought in Nebraska, South Dakota, Wyoming, and Montana, which have been suffering from drought since 2000.

Palmer Drought Severity Index

The Palmer Drought Severity Index (PDSI) is a meteorological drought index that monitors the hydrologic water balance including the basic terms such as precipitation, evapotranspiration, soil recharge, runoff, and moisture loss. The purpose of this index is to provide standardized measurements of the moisture balance in a region without taking into account streamflow, lake and reservoir levels, and other hydrologic impacts. PDSI is a multi-month drought index; therefore, it responds well and is more suitable for short-term droughts.

Changes to the PDSI are more immediate in response to heavy precipitation over short periods. The PDSI shown in Figure 5 reflects near normal to moist spells in the majority of the Omaha District with only small portions of Nebraska, South Dakota, and Montana exhibiting moderate to severe drought conditions.

Drought Severity Index by Division

Weekly Value for Period Ending 12 NOV 2005

Long Term Palmer

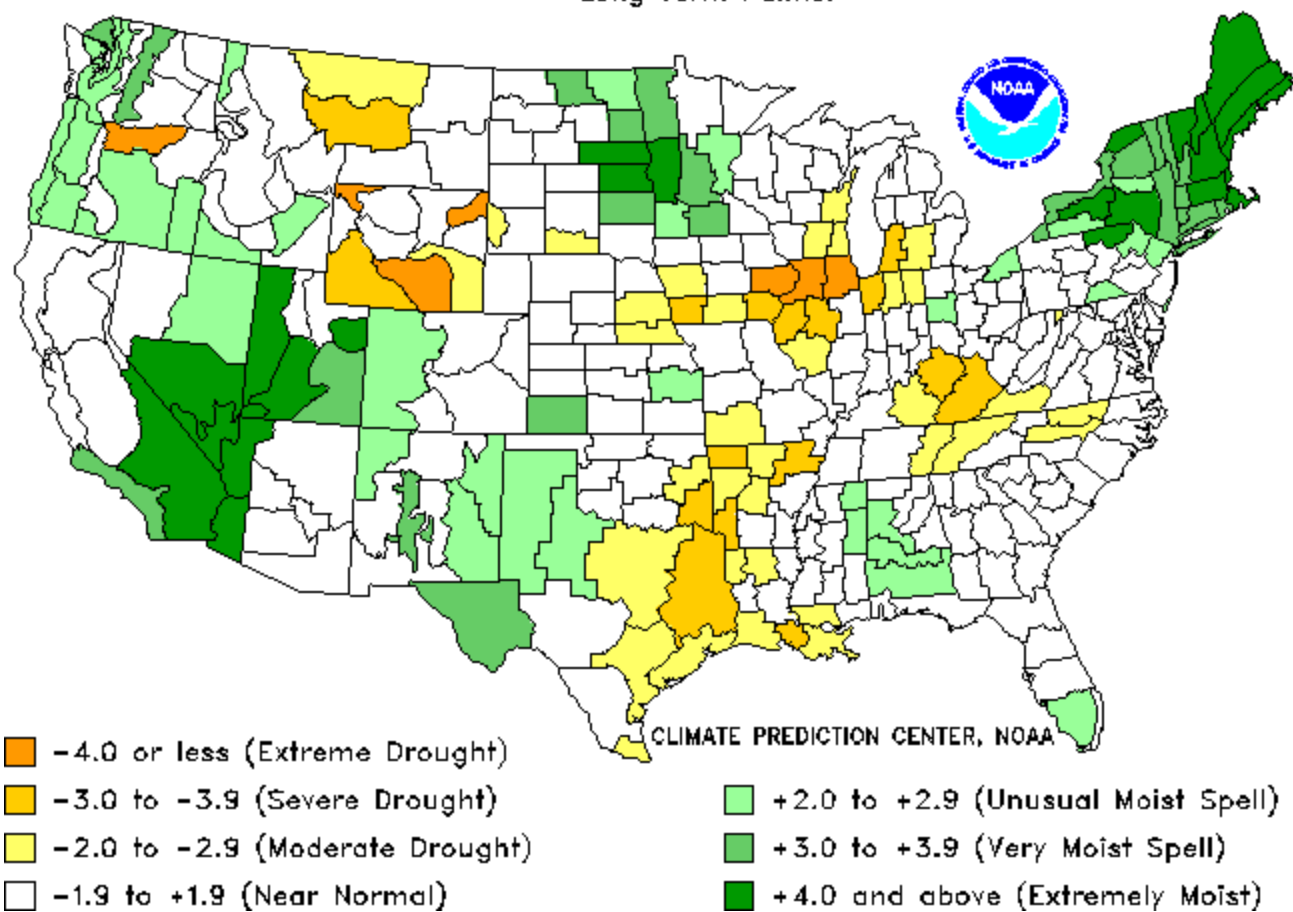


Figure 5 – Long-Term Palmer Drought Indicator Ending 12 NOV 2005

http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/palmer.gif

Drought Monitor

The Drought Monitor is a multi-agency comprehensive drought classification scheme updated weekly by the National Drought Mitigation Center. The Drought Monitor combines information from the Palmer Drought Index, the Climate Prediction Center's soil moisture model, USGS weekly streamflow percentiles, the standard precipitation index, the crop moisture index, and during the snow season basin snow water content, basin average precipitation, and the surface water supply index. Since this product considers streamflow conditions and reservoir water supply, and it allows manual adjustment; it is a good depiction of long-term drought impacts to the affected areas. The Drought Monitor uses four levels of drought classification (moderate, severe, extreme, and exceptional), and it notes the type of impact caused by the drought (agricultural and hydrologic).

Omaha District drought has steadily improved throughout the spring and summer. Above-normal rainfall and increased pool levels in Oahe Reservoir, Lake Sakakawea, and Ft. Peck reservoir have helped reduce the drought impacts. Portions of Nebraska, South Dakota, Montana and Wyoming are currently classified as Severe (D2). However, the vast majority of North and South Dakota currently exhibit Abnormally Dry (D0) or normal conditions.

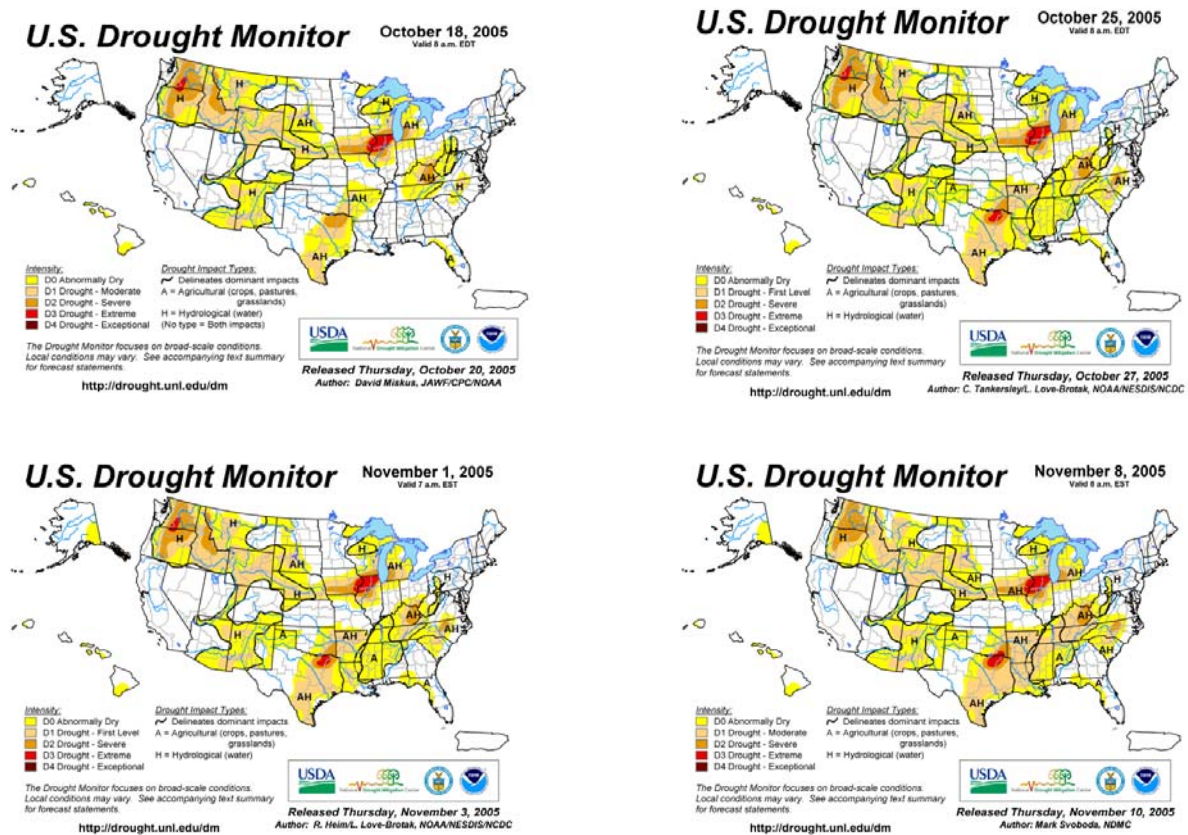


Figure 6 – U.S. Drought Monitor – October 18, 2005 Through November 8 2005
<http://drought.unl.edu/dm/monitor.html>

DROUGHT OUTLOOK

The basin drought outlook uses several expert products that indicate precipitation needs necessary to reduce the Palmer Drought to normal conditions, a one- and three-month climate outlook, and the impacts that future climate predictions could have on the current drought situation. The three-month Drought Outlook (Figure 7) indicates that the majority of the basin is returning to normal moisture conditions with the exception south-central and western Nebraska, western Montana, and the majority of Wyoming.

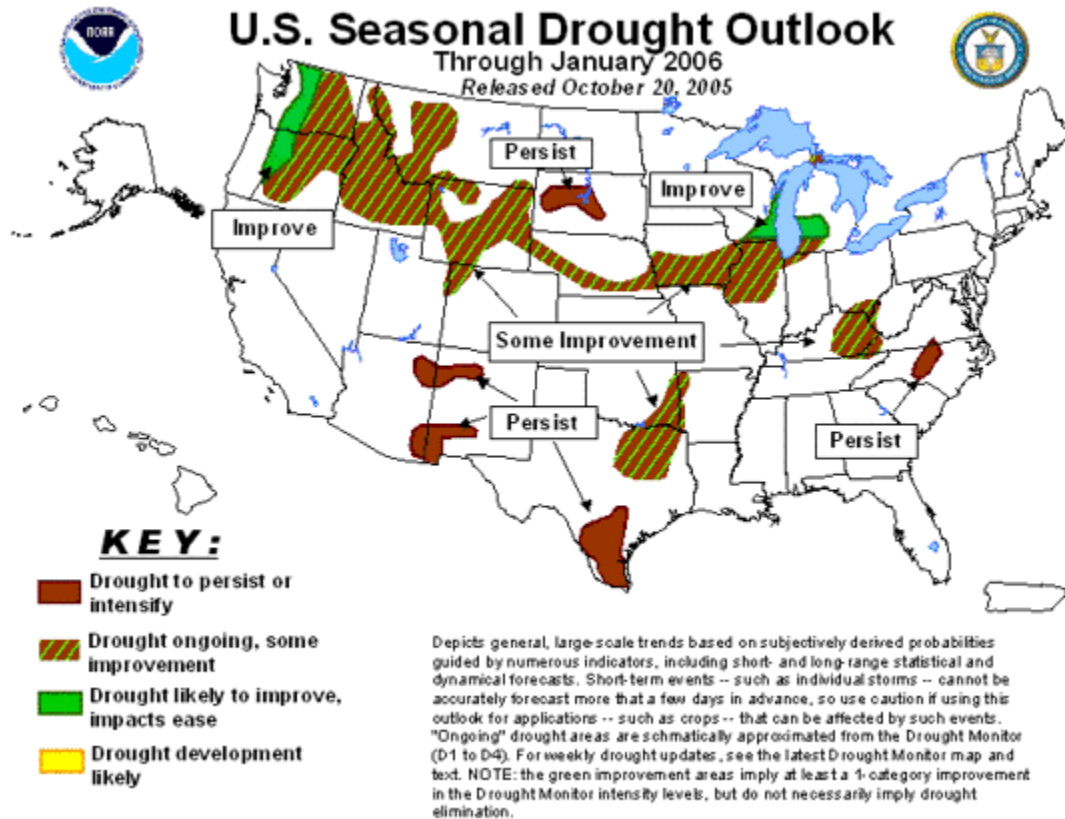


Figure 7 – Three-Month Seasonal Drought Outlook Through January 2006

http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html

Weekly Precipitation Need

Figure 8 is the weekly precipitation needed to reduce the current Palmer Drought Severity Index value to -0.5 or near normal conditions. According to the PDSI (Figure 5) drought currently is affecting portions of Montana, Wyoming, eastern South Dakota, eastern North Dakota, and portions of Nebraska.

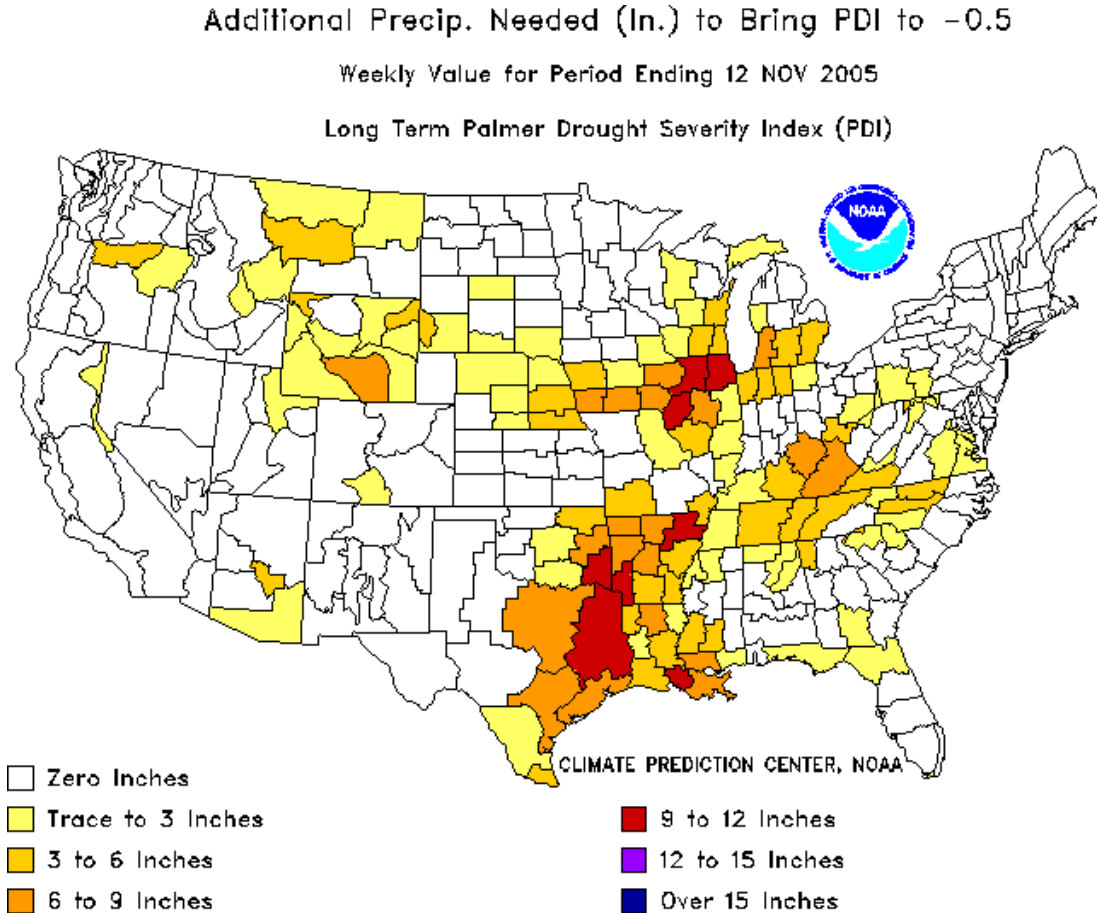


Figure 8 – Weekly Precipitation Need to Bring PDI to -0.5

http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/addpcp.gif

In order to reach near normal Palmer Drought conditions, Montana would need approximately 3 inches of precipitation across the northern portion of the state, the North Platte River basin in Wyoming would require 3 to 9 inches of precipitation and the western portion of South Dakota would require approximately 3 inches in a week. Water supply deficits in large reservoirs, groundwater reserves, and possibly subsoil moisture reserves would receive limited benefit from the weekly Palmer precipitation needs. Mitigation of a multi-year drought would likely require multiple years of normal and above-normal water inflow conditions.

Mainstem Reservoir Information

Runoff and water conservation measures helped to sustain the current reservoir elevations on Ft. Peck, Garrison, and Oahe to just slightly below their elevations at this time last year. The water intakes on the reservoirs still appear to be safe this year and access to the reservoirs remains better than anticipated at the beginning of the season.

Recent above-average temperatures coupled with very windy conditions has begun to deplete the soil moisture gained with the June/July runoff. Based on the current U.S. Drought Monitor, Nebraska, South Dakota, North Dakota, and Montana all have areas classified as “Abnormally Dry” with some areas exhibiting conditions of “Drought-Moderate” to “Drought-Severe”. Overall, however, the basin is generally considered to be in better condition than anticipated at the beginning of Spring of 2005.

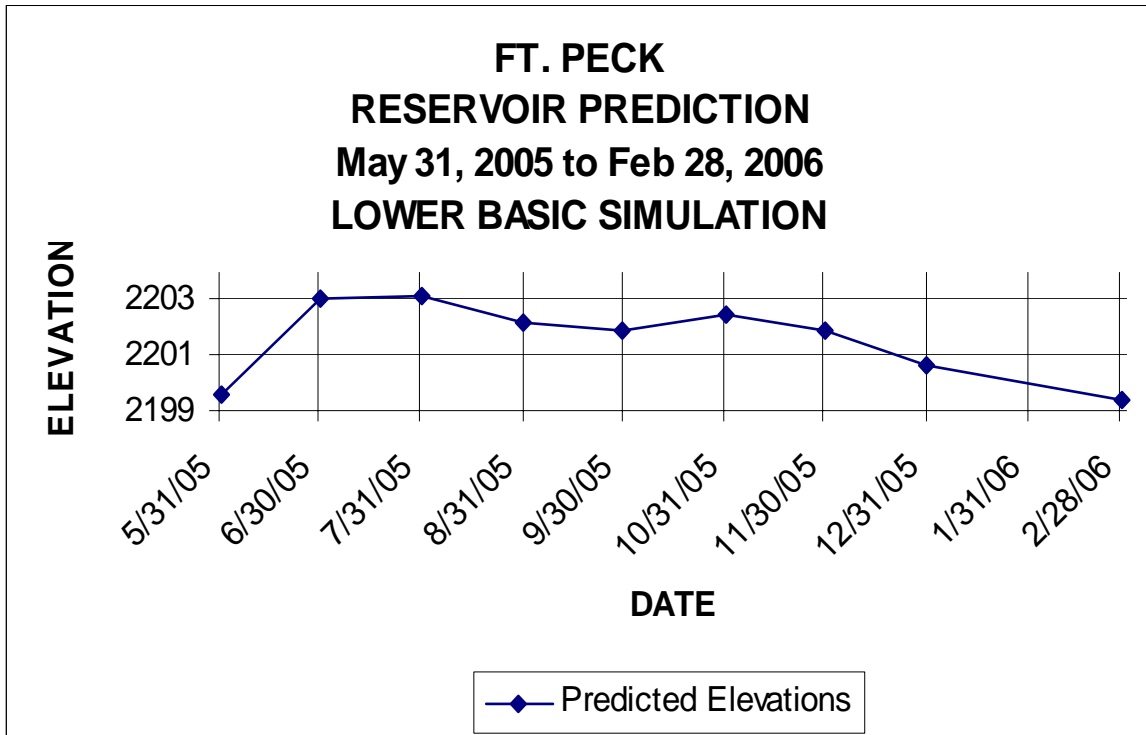
Fort Peck, Montana

Reservoir Elevation Overview

| Lake Elevation 7/01/2005 (ft. msl) | Current Lake Elevation 10/31/2005 (ft. msl) | 30-Day Projected Elevation* (11/30/2005) (ft. msl) | 60-Day Projected Elevation* (12/31/2005) (ft. msl) | 120-Day** Projected Elevation* (2/28/2006) (ft. msl) |
|--|--|--|--|--|
| 2203.0 | 2202.5 | 2201.9 | 2200.6 | 2199.4 |

Comments:

1. Current reservoir elevation is 31.5-feet below the top of conservation pool (elevation 2234.0 ft. msl).
2. *Projections provided are based upon the Lower Basic Simulation prepared by the Reservoir Control Center.
3. Current elevation is 2.7-ft. higher than elevation on 10/31/2004 (2199.8).
4. **120-day projection used in lieu of 180-day due to 2/28/06 being the end of the water year.



Water Intake Overview

| Intake | Comments |
|-----------------------|--|
| Hell Creek State Park | No issues. Well completed 22 NOV 2004 |

Access Overview

1. 7 ramps usable (Corps and State); 4 ramps unusable. No permanent ramps operational.
2. Remaining concessionaires marginal.

Noxious Weeds Overview

1. As the reservoir elevation dropped, the noxious weeds spread along the shoreline.
2. Main concern is Saltcedar, which thrives along the shoreline as the reservoir elevation declines.
3. Noxious weed control will again be addressed Spring 2006.

Cultural Resources Overview

1. No issues to date.

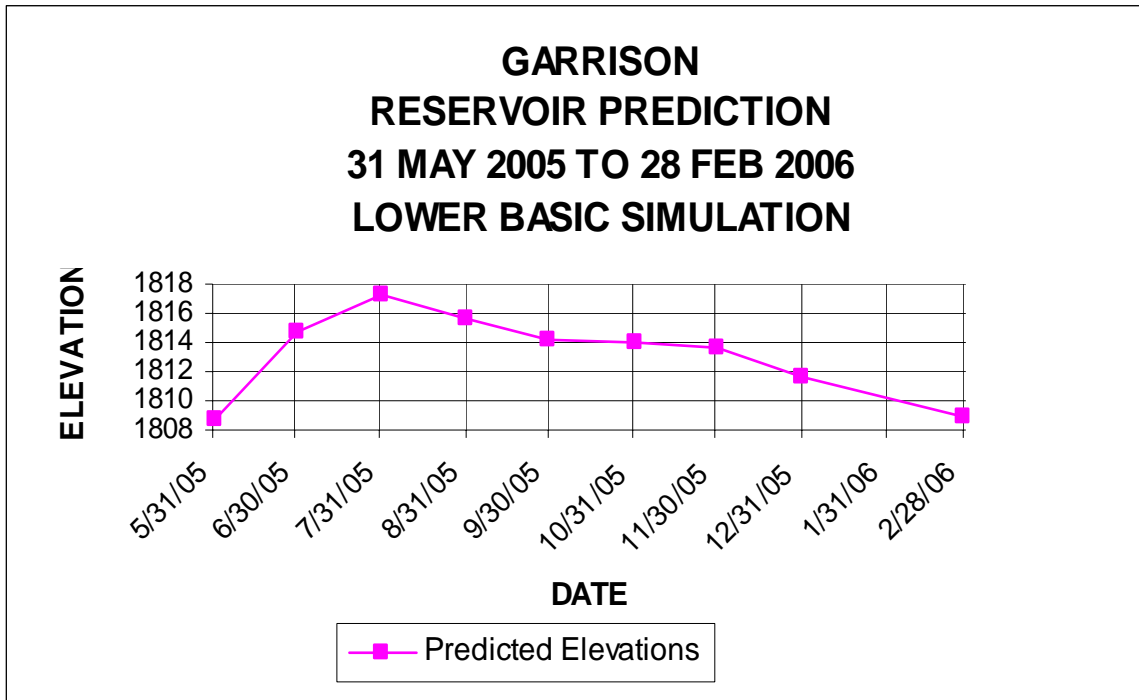
Garrison, North Dakota

Reservoir Elevation Overview

| Lake Elevation 5/31/2005 (ft. msl) | Current Lake Elevation (10/31/2005) (ft. msl) | 30-Day Projected Elevation* (11/30/2005) (ft. msl) | 60-Day Projected Elevation* (12/31/2005) (ft. msl) | 120-Day** Projected Elevation* (2/28/2006) (ft. msl) |
|--|--|--|--|--|
| 1808.8 | 1814.0 | 1812.4 | 1811.9 | 1809.0 |

Comments:

1. Current reservoir elevation is 23.5-feet below the top of conservation pool (elevation 1837.5 ft. msl).
2. *Projections provided are based upon the Lower Basic Simulation prepared by the Reservoir Control Center.
3. Current reservoir elevation is 1.1 ft. higher than elevation on 10/31/04.
4. **120-day projection used in lieu of 180-day due to 2/28/06 being the end of the water year.



Water Intake Overview

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|-------------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Whiteshield | Operational | 1814.0 | 1787 | 1805 | 1787 | 1792 | 720 | N | TAT/BOR |

Comments:

1. System uses two pumps. One pump is currently inoperable due to a failure at the phase converter.

Future Plans:

1. Ft. Berthold Rural Water System secured \$1.0 million funding through USDA Emergency Community Water Assistance Grant Program for improvements in 2006. Currently, FBRW is working on the appropriate paperwork and the design of the system improvements. The improvements are planned to include:
 - a. Extending approximately 400 to 500 feet from the current intake screen with 8" to 12" casing pipe. The new intake screen elevation would be approximately 1780 (or lower).
 - b. Estimated cost: \$1.16 million.
 - c. Estimated time of completion: Late 2006.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|-------------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Twin Buttes | Operational | 1814.0 | 1782.0 | 1805 | 1788 | 1790 | 425 | N | TAT/BOR |

Comments:

1. In August, Ft. Berthold Rural Water System cleaned the “short tube” side of the existing intake structure and lowered the pump to a new elevation of approximately 1800. Both the “long tube” and “short tube” pumps should be at nearly equal elevations.
2. Erosion due to low reservoir levels have caused increased sediment in the intake piping. This has increased maintenance cost to remove the sediment and increased the cost of treating the water.

Future Plans:

1. Ft. Berthold Rural Water System has secured funding through the Indian Health Services, the Bureau of Reclamation, and the USDA Emergency Community Water Assistance Grant Program to improve the system in 2006. The FBRW is currently completing the necessary paperwork and working on the design for the improvements. The current plans are to:
 - a. Install a new casing approximately 450-feet into the lake.
 - b. Install a new 10” to 12” supply line, approximately 300- to 400-feet beyond the current location to approximate elevation 1780.0.
 - c. Provide bank stabilization and erosion control over the new line.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|----------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Mandaree | Operational | 1814.0 | 1786.0 | 1789.0 | 1789.0 | 1794.0 | 780 | N | TAT/BOR |

Comments:

1. Final Inspection for the work completed on this intake was done 2 November 2005.
2. The new intake screen is at elevation 1786.
3. Grant monies for the project were secured from USDA Emergency Community Water Assistance Grant Program and Indian Health Services.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|------------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Four Bears | Operational | 1814.0 | 1789.0 | 1800.0 | 1792 | 1794 | 900 | N | TAT/BOR |

Comments:

1. The screen has been checked by divers and it was confirmed that approximately 20-feet of water is over the intake.
2. Erosion due to low reservoir levels have caused increased sediment in the intake piping. This has increased maintenance cost to remove the sediment and increased the cost of treating the water.

Future Plans:

1. Ft. Berthold Rural Water System has secured funding through USDA Emergency Community Water Assistance Grant Program to improve the intake in 2006. FBRW is currently completing paperwork and working on the design for the following:
 - a. Exploration and mapping of the intake area.
 - b. Replacement/extension approximately 200- to 250-feet from the current intake screen with 8" to 12" casing pipe. The new intake screen would be at approximate elevation 1780 (or lower).
 - c. Estimated cost: \$942,500
 - d. Estimated time of completion: 2006.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|----------|----------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Parshall | Operable | 1814.0 | 1803.6 | 1806.6 | 1797.5 | 1801.5 | 1000 | N | Parshall |

*Currently using the City well. Turbidity is currently causing problems/issues with the intake.

Comments:

1. The City had a telescoping riser attached to the intake by 30 July 2005. The riser extended the intake to within 3- to 4-feet of the water's surface.
2. Require at least 3 feet of water over the intake for proper operation.
3. Water quality at current level is good following water treatment.

Future Plans:

1. Discussions have been held between Parshall and New Town regarding future water supply. No formal decisions have been reached.

call Al Christianson, 701-862-3385 for an update on status-----

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|-----------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Pick City | Operational | 1814.0 | 1795 | 1800 | 1796 | 1796 | | | Pick City |

Comments:

1. At least 5-feet of water is necessary to operate this intake. If continued usage is planned, the intake will have to be lowered.

Future Plans:

1. Rural water is available to the City, however, they have chosen to continue using their intake until the water no longer meets State Health Standards or work is required on their intake.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|----------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Garrison | Operational | 1814.0 | 1787.2 | 1805 | 1792 | 1792 | 1830 | N | Garrison |

Comments:

1. The City plans to extend the existing intake during the Fall of 2005.
2. The existing line has been exposed as water levels have dropped. A portion of the line was covered with soil and the pumps cycled last December (2004) to prevent freezing. Continuation of this practice is not a feasible alternative.
3. Directional boring will be used to extend the water line.

Access Overview

1. Project personnel would like to establish a plan for continuing boat ramp extensions, including expected costs for FY 06 budget considerations.
2. Lake Sakakawea State Park/Kit's Marina has been modified for low water operation by the vendor. The marina will be usable to approximate elevation 1802.
3. Ft. Stevenson State Park Marina design to be completed prior to Spring 2006.
4. A \$900,000 Congressional add for boat ramp extensions was proposed by Senator Dorgan for FY 06. The add is for non-Corps owned facilities, but will be administered through the project office. The current status of the add is uncertain at this time.

Updated 11/16/2005

Reservoir Elevation 10/31/05 – 1814.0

| Location | Type | Top Elevation | Bottom Elevation | Comments | Managing Agency | Contact Person | Phone |
|---------------------------------------|-------------------------|---------------|------------------|----------|-------------------------|-----------------|----------|
| Beaver Bay (low-water-COE) | poured concrete | 1829 | 1808 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |
| Beulah Bay | poured concrete | 1852.4 | 1799 | Usable | Beulah Park Board | Greg Logan | 870-5852 |
| Charging Eagle Bay (2nd low water) | poured concrete, planks | 1816 | 1806 | Unusable | Three Affiliated Tribes | Jim Mossett | 880-1203 |
| Charging Eagle Bay (1st low water) | poured concrete | 1835 | 1810.6 | Usable | Three Affiliated Tribes | Jim Mossett | 880-1203 |
| Dakota Waters Resort (low-water) | poured concrete, planks | 1853.1 | 1797 | Usable | Beulah Park Board | Kelvin Heinsen | 873-5800 |
| Deepwater Creek (2nd low water) | poured concrete, planks | 1818 | 1802 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |
| Deepwater Creek (1st low water) | poured concrete | 1838 | 1809 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |
| Douglas Creek (low water) | poured concrete, planks | 1828 | 1801 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |
| Fort Stevenson State Park (low water) | poured concrete | 1851 | 1797 | Usable | ND Parks & Rec | Dick Messerly | 337-5576 |
| Four Bears Park (south low water) | concrete planks | 1824 | 1803 | Usable | Three Affiliated Tribes | Alan Chase | 627-4018 |
| Garrison Creek Cabin Site | poured concrete | 1849.2 | 1802 | Usable | Garrison Cabin Assc. | | |
| Government Bay (low water) | slide-in metal sections | 1812 | 1803 | Unusable | Corps of Engineers | Linda Phelps | 654-7411 |
| Government Bay (main ramp) | poured concrete | 1857 | 1810 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |
| Hazen Bay (2nd low water) | poured concrete | 1829 | 1810 | Usable | Hazen Park Board | Hazen City Hall | 748-2550 |
| Indian Hills (3rd low water) | slide-in metal sections | 1810 | 1801 | Unusable | Parks & Rec/Tribes | Kelly Sorge | 743-4122 |
| Indian Hills (2nd low water) | concrete planks | 1818.3 | 1807 | Usable | Parks & Rec/Tribes | Kelly Sorge | 743-4122 |
| Indian Hills (1st low water) | concrete planks | 1826.4 | 1811.8 | Usable | Parks & Rec/Tribes | Kelly Sorge | 743-4122 |
| McKenzie Bay (east ramp) | poured concrete | 1855 | 1796 | Usable | McKenzie Marine Club | Rhonda Logan | 579-3366 |

| Location | Type | Top Elevation | Bottom Elevation | Comments | Managing Agency | Contact Person | Phone |
|---|-----------------------------|----------------------|-------------------------|-----------------|-----------------------------|-----------------------|--------------|
| Parshall Bay (3rd low-water) | slide-in metal sections | 1818.4 | 1808.5 | Usable | Mountrail County Park Board | | 628-2145 |
| Pouch Point (3rd low-water) | slide-in metal sections | 1820 | 1809 | Usable | Three Affiliated Tribes | Royce Wolf | 627-3553 |
| Pouch Point (2nd low-water) | poured concrete | 1829 | 1813 | Usable | Three Affiliated Tribes | Royce Wolf | 627-3553 |
| Reunion Bay (2nd low water) | concrete planks | 1825.8 | 1808 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |
| Sakakawea State Park (main) | poured concrete | 1850 | 1800 | Usable | ND Parks & Rec | John Tunge | 487-3315 |
| Sanish Bay (Aftem) (low water) | poured concrete | 1831.1 | 1807.4 | Usable | Aftem Lake Development | Gerald Aftem | 852-2779 |
| Skunk Creek Recreation Area (main) | poured concrete | 1850 | 1806.5 | Usable | Three Affiliated Tribes | Ken Danks | 290-2841 |
| Sportsmen's Centennial Park | poured concrete | 1831.2 | 1808.5 | Usable | McLean County | Marlin Hvinden | 462-8541 |
| Van Hook (Gull Island south low-water) | metal bridge deck sections | 1823 | 1805 | Usable | Mountrail County Park Board | Clarence Weltz | 627-3377 |
| Van Hook (Gull Island north low-water) | metal bridge deck sections | 1823.1 | 1805 | Usable | Mountrail County Park Board | Clarence Weltz | 627-3377 |
| Van Hook (1st low water) | poured concrete | 1822 | 1807 | Usable | Mountrail County Park Board | Clarence Weltz | 627-3377 |
| White Earth Bay (low-water) | concrete plank & PSP | 1833 | 1801 | Usable | Mountrail County Park Board | Greg Gunderson | 755-3277 |
| Wolf Creek Recreation Area (2nd low water) | concrete planks & metal sec | 1830 | 1802.5 | Usable | Corps of Engineers | Linda Phelps | 654-7411 |

Noxious Weeds Overview

1. Funding for Noxious Weed Control included in FY 06 O&M budget. Project personnel will continue efforts beginning in the Spring of 2006.

Cultural Resources Overview

1. Project personnel continue to monitor the shoreline for the protection of cultural resources. As the reservoir elevation falls, more opportunities are uncovered for looters, which collect artifacts and sell them on the open market.

Other Areas of Interest/Concern

1. Garrison National Fish Hatchery – Three issues exist and are of concern to the State of North Dakota and the U.S. Fish and Wildlife Service.
 - a. Addition of a fifth boiler and necessary power for operation.
 - b. Ability to fill 40 rearing ponds.
 - c. Adequacy of the existing 20-inch water supply line from the penstocks.
2. Fact sheets for the hatchery issues exist. OP-TM is investigating a design for additional power requirements to the hatchery. An MOU may need to be set up to address future operating needs and requirements.
 - a. Garrison Cold Water Fishery – The modification to the trashracks of intakes 2 and 3, was completed 22 July 2005. The modified units are operating as predicted. It is planned to leave the modifications in place throughout the winter period, as the cost to remove and replace is comparable to lost power generation costs. The plates will be inspected in the spring to ensure structural adequacy.

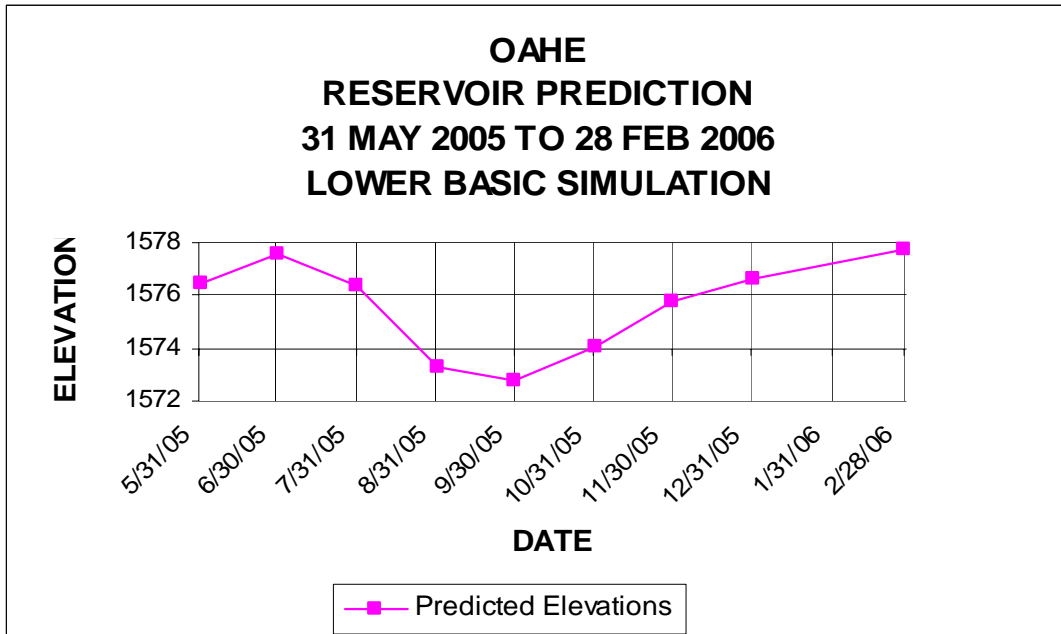
Oahe, South Dakota

Reservoir Elevation Overview

| Lake Elevation 5/31/2005 (ft. msl) | Current Lake Elevation (10/31/2005) (ft. msl) | 30-Day Projected Elevation* (11/30/2005) (ft. msl) | 60-Day Projected Elevation* (12/31/2005) (ft. msl) | 120-Day** Projected Elevation* (2/28/2006) (ft. msl) |
|--|--|--|--|--|
| 1576.5 | 1574.1 | 1575.8 | 1576.6 | 1577.7 |

Comments:

1. Current reservoir elevation is 33.4-feet below the top of conservation pool (elevation 1607.5 ft. msl).
2. *Projections provided are based upon the Lower Basic Simulation prepared by the Reservoir Control Center.
3. Current reservoir elevation is 0.4-ft. below the elevation 10/31/2004.
4. The Oahe project office has received a request from the Standing Rock Sioux Tribe for the Corps of Engineers to participate in the construction of lake access at the Walker Bottom Recreation Area Marina. The marina is currently dry and the area is in riverine conditions. A preliminary design for constructing a channel from the river to the boat ramp has been completed by an engineering consultant. Project personnel have committed to reviewing the design for the SRST and providing comments/recommendations. No commitment has been made or discussed for performing construction or cost sharing in the construction costs.
5. **120-day projection used in lieu of 180-day due to 2/28/06 being the end of the water year.



Water Intake Overview

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|-----------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Ft. Yates | Operational | 1574.1 | 1571.2 | 1573 | 1572.2 | 1575.2 | 3,400 | Y | SRST/BOR |

Comments:

1. A backup well has been drilled and tested.
2. A Contingency Action Plan has been completed by the Corps.
3. A Table Top Exercise for the Contingency Action Plan, coordinated by the State of North Dakota, was held on 31 August 2005. The exercise went well, positive comments were received by the participants. Minor updates to the plan will be incorporated, as discussed during the exercise.

Future Plans:

1. Connection of new well to existing water distribution system. The intake at Fort Yates remains in a river condition and may continue to have sedimentation problems as long as Oahe remains below elevation 1580. Sediment levels in the sump are measured weekly and the river channel is monitored. A backup well was drilled, and pump tested at 800gpm. The backup pump will be plumbed into the existing distribution lines to supply water if the river intake would fail. Contingency plans are in place and have been exercised.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|---------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Wakpala | Operational | 1572.8 | 1561 | 1563 | 1561 | 1564 | >500 | N | SRST/BOR |

Comments:

1. With the Corps of Engineers July reservoir projections for Oahe, the Wakpala intake will remain operational through the winter of 2005 with all reservoir projections over 1570. The existing intake screen is being replaced with a lower profile screen to increase the operational range of the intake. Contingency plans are being drafted to respond to an intake failure. Initial response to an intake failure at Wakpala would be hauling water from the city of Mobridge to the treatment plant to be distributed using the existing transmission lines.

| Intake | Status | Current Reservoir Elev. | Top of Screen Elev. | Operational Concern Elev. | Shutdown Elev. | | Population Supported | Contingency Plan? (Y/N) | Resp. Agency |
|-----------|-------------|-------------------------|---------------------|---------------------------|----------------|--------|----------------------|-------------------------|--------------|
| | | | | | Summer | Winter | | | |
| Mni Wasté | Operational | 1572.8 | 1555.4 | 1580 | 1561.9 | 1560.4 | 14,000 | Y(DRAFT) | CRST |

Comments:

1. “Option 2”, Phase 1 – Design, moving forward.
2. Trigger Points for the implementation of construction are being closely monitored.
3. Work is to begin soon on construction of hard surface road, and routing of power to the selected site.
 - a. Current schedule uses August, 2006 as having the new system “on-line” and works backwards to determine design and construction schedule.
4. Approval of funding to proceed with construction received from HQUSACE 8 AUG 05.
5. CRST is continuing effort to acquire grant money to cover funding gap between Corps’ assistance and project budget.
6. A cooperative agreement between the Corps and the CRST has been sent to the tribe for review.

Access Overview

1. The State of South Dakota is responsible for maintaining recreational areas and access to the reservoir.

Noxious Weeds Overview

1. Project personnel will noxious weed treatment in Spring 2006.

Cultural Resources Overview

1. Project personnel continue to monitor the shoreline for the protection of cultural resources. As the reservoir elevation falls, more opportunities are uncovered for looters, which collect artifacts and sell them on the open market.

Mainstem Reservoir Information Monthly Comparison

| 3 October 2005 | | Project Information | | Reservoir Elevation | | | Reservoir Storage | | |
|------------------|--------------------------|--------------------------|-----------------------------|------------------------------|--------|------------------------------------|-------------------------------------|-----------------|--|
| Project | Multi-Purpose Pool Elev. | Flood Control Pool Elev. | Current Elevation (10/3/05) | Previous Elevation (9/26/05) | Change | Current Storage (MAC-FT) (10/3/05) | Previous Storage (MAC-FT) (9/26/05) | Change (MAC-FT) | |
| Ft. Peck, MT | 2160 - 2246 | 2246 – 2250 | 2202.0 | 2201.8 | 0.2 | 9.293 | 9.271 | 0.022 | |
| Garrison, ND | 1775 – 1850 | 1850 – 1854 | 1814.1 | 1814.4 | -0.3 | 11.838 | 11.939 | -0.101 | |
| Oahe, SD | 1540 - 1617 | 1617 – 1620 | 1573.2 | 1573.3 | -0.1 | 10.266 | 10.372 | 0.106 | |
| Big Bend, SD | 1415 – 1422 | 1422 – 1423 | 1421.1 | 1420.3 | 0.8 | 1.680 | 1.639 | -0.041 | |
| Ft. Randall, SD | 1320 – 1365 | 1365 – 1375 | 1344.3 | 1345.5 | -1.2 | 2.705 | 2.788 | -0.083 | |
| Gavins Point, SD | 1204.5 - 1208 | 1208 - 1210 | 1207.2 | 1207.8 | -0.6 | 0.390 | 0.409 | -0.019 | |

| 10 October 2005 | | Project Information | | Reservoir Elevation | | | Reservoir Storage | | |
|------------------|--------------------------|--------------------------|------------------------------|------------------------------|--------|-------------------------------------|-------------------------------------|-----------------|--|
| Project | Multi-Purpose Pool Elev. | Flood Control Pool Elev. | Current Elevation (10/10/05) | Previous Elevation (10/3/05) | Change | Current Storage (MAC-FT) (10/10/05) | Previous Storage (MAC-FT) (10/3/05) | Change (MAC-FT) | |
| Ft. Peck, MT | 2160 - 2246 | 2246 – 2250 | 2202.1 | 2202.0 | 0.1 | 9.312 | 9.293 | 0.019 | |
| Garrison, ND | 1775 – 1850 | 1850 – 1854 | 1814.2 | 1814.1 | 0.1 | 11.850 | 11.838 | 0.012 | |
| Oahe, SD | 1540 - 1617 | 1617 – 1620 | 1573.1 | 1573.2 | -0.1 | 10.309 | 10.266 | 0.043 | |
| Big Bend, SD | 1415 – 1422 | 1422 – 1423 | 1420.8 | 1421.1 | -0.3 | 1.666 | 1.680 | -0.014 | |
| Ft. Randall, SD | 1320 – 1365 | 1365 – 1375 | 1342.3 | 1344.3 | -2.0 | 2.584 | 2.705 | -0.121 | |
| Gavins Point, SD | 1204.5 - 1208 | 1208 - 1210 | 1207.5 | 1207.2 | 0.3 | 0.398 | 0.390 | -0.008 | |

| 17 October 2005 | | Project Information | | Reservoir Elevation | | | Reservoir Storage | | |
|------------------|--------------------------|--------------------------|------------------------------|-------------------------------|--------|-------------------------------------|--------------------------------------|-----------------|--|
| Project | Multi-Purpose Pool Elev. | Flood Control Pool Elev. | Current Elevation (10/17/05) | Previous Elevation (10/10/05) | Change | Current Storage (MAC-FT) (10/17/05) | Previous Storage (MAC-FT) (10/10/05) | Change (MAC-FT) | |
| Ft. Peck, MT | 2160 - 2246 | 2246 – 2250 | 2202.2 | 2202.1 | 0.1 | 9.326 | 9.312 | 0.014 | |
| Garrison, ND | 1775 – 1850 | 1850 – 1854 | 1814.3 | 1814.2 | 0.1 | 11.871 | 11.850 | 0.021 | |
| Oahe, SD | 1540 - 1617 | 1617 – 1620 | 1573.3 | 1573.1 | 0.2 | 10.376 | 10.309 | 0.067 | |
| Big Bend, SD | 1415 – 1422 | 1422 – 1423 | 1420.9 | 1420.8 | 0.1 | 1.672 | 1.666 | 0.006 | |
| Ft. Randall, SD | 1320 – 1365 | 1365 – 1375 | 1342.1 | 1342.3 | -0.2 | 2.566 | 2.584 | -0.018 | |
| Gavins Point, SD | 1204.5 - 1208 | 1208 - 1210 | 1207.5 | 1207.5 | 0 | 0.396 | 0.398 | -0.002 | |

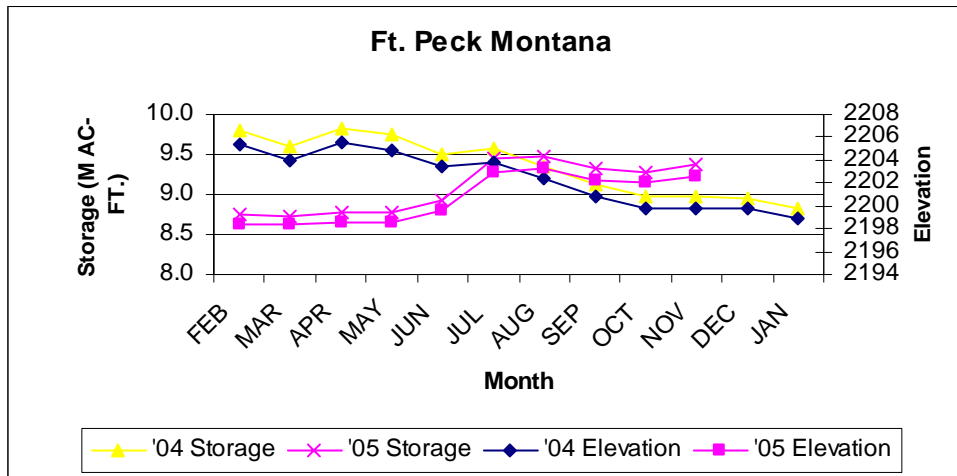
| 24 October 2005 | | Project Information | | Reservoir Elevation | | | Reservoir Storage | | |
|------------------|--------------------------|--------------------------|------------------------------|-------------------------------|--------|-------------------------------------|--------------------------------------|-----------------|--|
| Project | Multi-Purpose Pool Elev. | Flood Control Pool Elev. | Current Elevation (10/24/05) | Previous Elevation (10/17/05) | Change | Current Storage (MAC-FT) (10/24/05) | Previous Storage (MAC-FT) (10/17/05) | Change (MAC-FT) | |
| Ft. Peck, MT | 2160 - 2246 | 2246 – 2250 | 2202.3 | 2202.2 | 0.1 | 9.343 | 9.326 | 0.017 | |
| Garrison, ND | 1775 – 1850 | 1850 – 1854 | 1814.1 | 1814.3 | -0.2 | 11.864 | 11.871 | -0.007 | |
| Oahe, SD | 1540 - 1617 | 1617 – 1620 | 1573.7 | 1573.3 | 0.4 | 10.440 | 10.376 | 0.064 | |
| Big Bend, SD | 1415 – 1422 | 1422 – 1423 | 1420.8 | 1420.9 | -0.1 | 1.675 | 1.672 | 0.003 | |
| Ft. Randall, SD | 1320 – 1365 | 1365 – 1375 | 1341.8 | 1342.1 | -0.3 | 2.547 | 2.566 | -0.019 | |
| Gavins Point, SD | 1204.5 - 1208 | 1208 - 1210 | 1207.6 | 1207.5 | 0.1 | 0.399 | 0.396 | 0.003 | |

| 31 October 2005 | Project Information | | Reservoir Elevation | | | Reservoir Storage | | |
|------------------|--------------------------|--------------------------|------------------------------|-------------------------------|--------|-------------------------------------|--------------------------------------|-----------------|
| Project | Multi-Purpose Pool Elev. | Flood Control Pool Elev. | Current Elevation (10/31/05) | Previous Elevation (10/24/05) | Change | Current Storage (MAC-FT) (10/31/05) | Previous Storage (MAC-FT) (10/24/05) | Change (MAC-FT) |
| Ft. Peck, MT | 2160 - 2246 | 2246 – 2250 | 2202.4 | 2202.3 | 0.1 | 9.366 | 9.343 | 0.023 |
| Garrison, ND | 1775 – 1850 | 1850 – 1854 | 1814.1 | 1814.1 | 0 | 11.839 | 11.864 | -0.025 |
| Oahe, SD | 1540 - 1617 | 1617 – 1620 | 1574.0 | 1573.7 | 0.3 | 10.496 | 10.440 | 0.056 |
| Big Bend, SD | 1415 – 1422 | 1422 – 1423 | 1420.8 | 1420.8 | 0 | 1.670 | 1.675 | -0.005 |
| Ft. Randall, SD | 1320 – 1365 | 1365 – 1375 | 1341.5 | 1341.8 | -0.3 | 2.532 | 2.547 | -0.015 |
| Gavins Point, SD | 1204.5 - 1208 | 1208 - 1210 | 1207.6 | 1207.6 | 0 | 0.401 | 0.399 | 0.002 |

Mainstem Reservoir Storage Comparison – Water Year 2004 vs. Water Year 2005

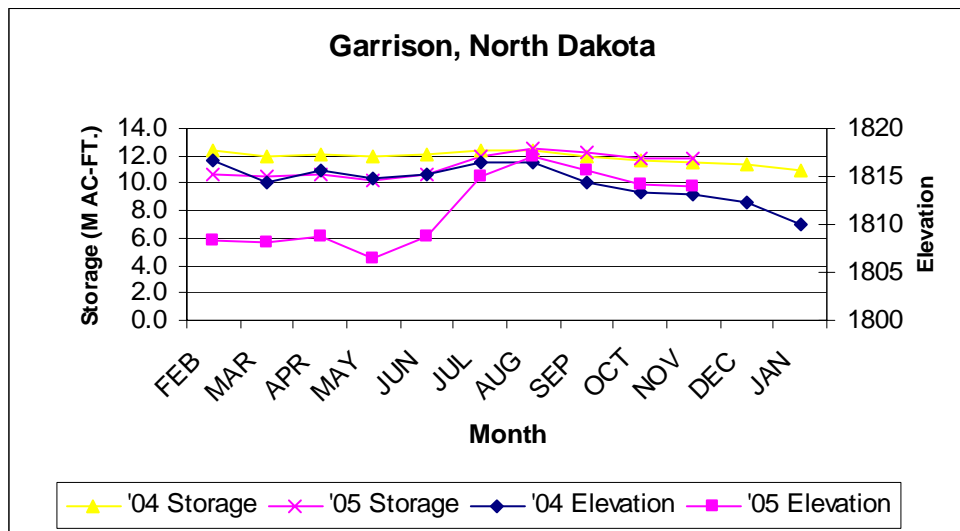
Fort Peck, Montana

| Water Year 2004 (FEB 2004 - JAN 2005) | | | Water Year 2005 (FEB 2005 - JAN 2006) | | |
|--|-----------|----------------------|--|-----------|----------------------|
| Date | Elevation | Storage (MAC-Ft.) | Date | Elevation | Storage (MAC-Ft.) |
| FEB | 2205.3 | 9.806 | 2/1/2005 | 2198.4 | 8.749 |
| MAR | 2204 | 9.603 | 3/1/2005 | 2198.3 | 8.732 |
| APR | 2205.5 | 9.837 | 4/1/2005 | 2198.5 | 8.773 |
| MAY | 2204.9 | 9.740 | 5/1/2005 | 2198.5 | 8.773 |
| JUN | 2203.4 | 9.507 | 6/1/2005 | 2199.6 | 8.935 |
| JUL | 2203.8 | 9.565 | 7/1/2005 | 2203.0 | 9.448 |
| AUG | 2202.4 | 9.357 | 8/1/2005 | 2203.2 | 9.472 |
| SEP | 2200.9 | 9.121 | 9/1/2005 | 2202.2 | 9.325 |
| OCT | 2199.8 | 8.969 | 10/1/2005 | 2202.0 | 9.286 |
| NOV | 2199.8 | 8.963 | 11/1/2005 | 2202.6 | 9.371 |
| DEC | 2199.8 | 8.961 | 12/1/2005 | | |
| JAN | 2198.9 | 8.829 | 1/1/2006 | | |



Garrison, ND

| Water Year 2004 (FEB 2004 - JAN 2005) | | | 2005 (FEB 2005 - JAN 2006) | | |
|--|-----------|----------------------|-------------------------------|-----------|----------------------|
| Date | Elevation | Storage (MAC-Ft.) | Date | Elevation | Storage (MAC-Ft.) |
| FEB | 1816.7 | 12.446 | 2/1/2005 | 1808.4 | 10.574 |
| MAR | 1814.3 | 11.891 | 3/1/2005 | 1808.2 | 10.537 |
| APR | 1815.6 | 12.110 | 4/1/2005 | 1808.65 | 10.632 |
| MAY | 1814.7 | 11.989 | 5/1/2005 | 1806.47 | 10.189 |
| JUN | 1815.3 | 12.121 | 6/1/2005 | 1808.8 | 10.665 |
| JUL | 1816.5 | 12.426 | 7/1/2005 | 1814.9 | 12.026 |
| AUG | 1816.5 | 12.401 | 8/1/2005 | 1817.17 | 12.591 |
| SEP | 1814.3 | 11.914 | 9/1/2005 | 1815.56 | 12.216 |
| OCT | 1813.3 | 11.645 | 10/1/2005 | 1814.11 | 11.861 |
| NOV | 1813.1 | 11.589 | 11/1/2005 | 1814.00 | 11.837 |
| DEC | 1812.3 | 11.422 | 12/1/2005 | | |
| JAN | 1810 | 10.936 | 1/1/2006 | | |



Oahe, SD

| Water Year 2004 (FEB 2004 - JAN 2005) | | | 2005 (FEB 2005 - JAN 2006) | | |
|--|-----------|----------------------|-------------------------------|-----------|----------------------|
| Date | Elevation | Storage (MAC-Ft.) | Date | Elevation | Storage (MAC-Ft.) |
| FEB | 1577.6 | 11.204 | 2/1/2005 | 1575.2 | 10.715 |
| MAR | 1579.2 | 11.504 | 3/1/2005 | 1576.2 | 10.924 |
| APR | 1582.1 | 12.110 | 4/1/2005 | 1574.29 | 10.568 |
| MAY | 1581.6 | 12.056 | 5/1/2005 | 1574.82 | 10.608 |
| JUN | 1578.4 | 11.338 | 6/1/2005 | 1576.47 | 10.980 |
| JUL | 1576.8 | 11.045 | 7/1/2005 | 1577.6 | 11.214 |
| AUG | 1574.3 | 10.540 | 8/1/2005 | 1576.38 | 10.958 |
| SEP | 1572.1 | 10.112 | 9/1/2005 | 1572.64 | 10.363 |
| OCT | 1573.2 | 10.316 | 10/1/2005 | 1572.63 | 10.267 |
| NOV | 1574.8 | 10.608 | 11/1/2005 | 1573.9 | 10.501 |
| DEC | 1576 | 10.866 | 12/1/2005 | | |
| JAN | 1575.8 | 10.824 | 1/1/2006 | | |

