## 2007 Kirch WMA Water Management Plan Summary Period January 1<sup>st</sup>-December 31<sup>st</sup>

The objectives of the 2007 WMP are to continue to enhance and maintain wildlife and fisheries habitat within the various water management units pursuant to the policies and procedures outlined in the CMP. The WMP delineates these wildlife and fisheries management objectives by reservoir unit so that public users may be informed of the recreational opportunities available.

Water levels at the **Flagg Springs** will be managed in order to protect and enhance the native fish populations and to provide water to downstream water management units. The South Flagg Pipeline Project was completed in the fall of 2002. The earthen diversion ditch running south of the headquarters for stock water purposes was replaced with a pipeline. The old diversion point was replaced with a prefabricated concrete and screen intake structure. The project also included installation of demand wildlife drinkers, lined stock water troughs and closeable risers for flood irrigation use. The project reduced the amount of water diverted by up to 90 percent, minimizing water lost to evaporation and ground loss. The water use will be limited to periods when livestock are watering, wildlife use on drinkers and flood irrigation of approximately 40 acres for restoration and food plots on adjacent KWMA lands.

**The Hot Creek Springs Unit** will be managed in order to protect and to enhance native fish populations and to provide water to downstream water management units. Removal of an unsafe old water diversion structure was completed in the spring of 2006.

The WMP for Dacey Slough, Dacey, Old Place, Adams McGill and Tule Reservoirs will emphasize the production of sago pondweed, alkali bulrush and irrigated food plots such as Japanese millet and other desirable food plants for waterfowl and wildlife. This will maximize waterfowl production on these units and aid in the control of undesirable vegetation. This will be accomplished with intensive water management practices being applied to these units.

**Old Place Reservoir and Slough** is part of a rest rotational grazing plan and was rested in 2006. For 2007, this unit will be drained and grazed with livestock and then flooded to provide resting and feeding for waterfowl and other wildlife the remainder of the water year.

## (The following is a brief synopsis of the projects and events affecting water management at Adams Mcgill Reservoir during the last four consecutive water years.)

Adams McGill Reservoir was drained in the spring and summer of 2002. The schedule of projects in 2003 for this unit included a prescribed burn in order to eliminate the dense stands of hardstem bulrush, cattail and peat layer, surveying for nest island locations, construction of nest islands. Also, in cooperation with the US Bureau of Reclamation, excavation of the channels and areas of undesirable emergent vegetation was completed during the fall of 2003. Refilling of the reservoir began by the middle of March 2004.

Refilling was delayed due to the project start date being postponed because of equipment availability and equipment breakdowns. Excavation of Adams McGill created 2.5 miles of channels and pockets 6-8 feet deep throughout the reservoir. This eliminated undesirable emergent vegetation in these areas as well as greatly improving the fishery. The reintroduction of hatchery- raised rainbow trout was done during the fall of 2003. The increased channel depth greatly improved habitat conditions for a cold-water fishery. RBT stocking was completed in the fall of 2003 after water was allowed to fill the main channel and stocking is scheduled to continue on an annual basis both spring and fall. The upper portion of the reservoir will continue to be closed to trespass from February 15th through August 15th to maximize waterfowl production. This Unit is also part of a grazing and prescribed burning rotation plan and will be included into the rotation and was grazed with goats and cattle in 2005 and will be rested in 2006. The reservoir water elevation was monitored weekly with photo documentation during the refilling process in order to determine what elevation was needed to expose the majority of the mud flats on the west side and allow lower Dacey Slough to completely empty and dry. On March 15<sup>th</sup> 2004 this elevation was determined to be 5152.6 Traditionally Adams McGill Reservoir was manually drawn down using different variations over the years in regards to time of year and water level in order to expose the mud flats to promote alkali bulrush production and improve light penetration to maximize native aquatic plant production for waterfowl food. After seedlings appeared, the water level would be raised to coincide with the growth of the plant. As a result of trying to promote the alkali bulrush, the previous years management of manual lowering and refilling resulted in extensive undesirable emergent vegetation growth and expansion of these plants throughout the reservoir. The undesirable emergents, hardstem bulrush and cattail progressively dominated much of the reservoir prior to the 2003 Adams McGill Project. An ideal wetland environment in regards to emergent vegetation should be 50-70% open water and 30-50% emergent vegetation. Over the years Adams was leaning towards the opposite with 70% undesirable emergent vegetation and 30% open water. One of the goals after completion of the 2003 AM Project is to maintain this ideal balance through water management practices and herbicide use to control undesirable emergent vegetation. The refilling process in recent years has been delayed due to drought conditions causing the alkali bulrush to be stressed or stunted due to the lack of water at crucial times. In June of 2004 with the reservoir at near maximum elevation of 5153.9 a gradual manual draw down to 5153.0 was initiated in order to empty lower Dacey Slough and partially expose the mud flats on the west shore. By July 2004 in the midst of the ongoing drought evaporation levels kicked in and further lowered the reservoir to 5152.6 where it remained until mid October. Refilling objectives were not accomplished in a beneficial time frame due to the ongoing drought conditions the Area was experiencing. Despite these conditions, the unit experienced moderate alkali bulrush production. In the 2005 water year Kirch WMA received almost three times its normal amount of annual precipitation. Between the months of October 2004 and May 2005, 14" of precipitation fell along with a high amount of spring run off in the form of the White River added to the already saturated WMA. As a result of above normal precipitation and White River flows, the gradual draw down of Adams McGill scheduled to begin on March 15<sup>th</sup> was delayed until June, the 5153.0 prescribed level was not reached until late July. As the mud flats became exposed, Area personnel hand broadcast alkali bulrush

seed. Water levels were gradually raised after seedlings began to appear. Refilling efforts were hampered by the late season draw down and very little precipitation falling during the critical late summer early fall time frame. The maximum prescribed level of 5154.0 was not achieved until mid December.

The following objectives are necessary to achieve the long-term goal desired for Adams McGill Reservoir the goal being; maximizing wetland acres and maintaining a healthy, productive and balanced wetland environment sustaining a broad range of wildlife and fishes particularly waterfowl and shore birds.

- 1.) Maintain maximum productive wetland habitat for waterfowl nesting, resting and feeding and other wildlife by maintaining a healthy balance of 50-70% open water and 30-50% emergent vegetation.
- 2.) Controlling and managing undesirable emergent and aquatic vegetation such as hardstem bulrush, cattail, algae and Eurasia milfoil through appropriate water level management and herbicide spraying.
- 3.) Initiate food plots and forage strips where conditions and locations are appropriate as to maximize forage available for waterfowl and wildlife and only establish those that require minimal initiation and maintenance.
- 4.) Allow efficient draining of Dacey Slough for the purpose of vegetation management.
- 5.) Protect both waterfowl and bass nesting efforts through the current annual closure of the upper portion of the unit.
- 6.) Maximize waterfowl hunting and sport fishing opportunities for the public.

Beginning on March 15<sup>th</sup> 2007 Adams McGill Reservoir will be gradually lowered to an elevation of 5153.0 by May 1<sup>st</sup> and maintained at that elevation until alkali bulrush seedlings appear then gradually raised until reaching a maximum level of 5154.0 by early fall of 2007. As always-climatic conditions and events dictate the final outcome of the WMP despite our best efforts to accomplish the goals stated in the plan. Water levels will be adjusted accordingly to help reduce the negative impacts to Adams McGill Reservoir and its wildlife and fisheries.

The upper end of Adams McGill reservoir will be closed to trespass from February 15 through August 15 for the waterfowl-nesting season.

**Dacey Reservoir** will be maintained at a maximum high water level of 5163.0 with a maximum surface area of 220 acres in order to maximize waterfowl nesting, resting and feeding wetland acres and to provide water for Dacey Slough when needed. Natural lowering of Dacey will continue to occur throughout the hot season as water demands increase downstream at Haymeadow, Cold Springs and Adams McGill Reservoirs, as a result of this the fishery in Dacey will continue to be subordinate to downstream water level management needs. Maintaining Dacey Reservoir at a maximum elevation of 5163.0 is directed to meet the following objectives.

- 1.) Maintain maximum wetland habitat for nesting, resting and feeding waterfowl and other wildlife.
- 2.) Insure water availability for Dacey Slough so that water management goals may be met and maximum wetland potential for waterfowl forage production can be reached.
- 3.) Maximize waterfowl hunting and sport fishing opportunities for the public.

**Note:** In the fall of 2006, the Fisheries Bureau stocked 5000 hatchery-raised rainbow trout in Dacey Reservoir. Close monitoring since then up until the present has not produced any evidence of a RBT die off. Most fisherman utilizing Dacey Reservoir during the 2006 season were focused on and fishing for bass. Trout fishing pressure on Dacey was relatively minor because of access problems after the unit opened on August 15<sup>th</sup>. These access problems were mainly due to lower water levels and high concentrations of aquatic vegetation typical for that time of year. Dacey Reservoir does not currently have a creel census box. Fishing creel reports were done at random and showed that trout fisherman on Dacey were experiencing similar fish size caught and success as on the other reservoirs. Fisheries will continue to evaluate future RBT stockings for Dacey Reservoir in 2007.

This unit will be closed to trespass from February 15 through August 15 for the waterfowl-nesting season.

**Dacey Slough** was rested in 2006. In 2007 Dacey Slough will be lowered to coincide with the Adams McGill Reservoir draw down. In August of 2007, portions of the 70-acre unit will be treated with Rodeo to control persistent hardstem bulrush and cattail. A prescribed burn will be conducted in the fall to remove all dead plant material. Following the burn the water will be raised back up to maximum levels and maintained until April 15, 2008. Manual seeding will be done when necessary to enhance desirable vegetation production in this unit. Grazing, spraying and chopping of hardstem bulrush and cattail will be done as needed to control undesirable vegetation and to increase available forage for waterfowl.

This Unit will be closed to trespass from February 15 through August 15 for the waterfowl-nesting season.

**Cold Springs and Haymeadow Reservoirs** will be managed at high water levels 5142.0 and 5123.5 respectively to maximize the trout and the bass fisheries while still providing an area for use by waterfowl. Both of these units are also part of a grazing and prescribed burning rotation plan. The upper end of Cold Springs and Haymeadow reservoirs will be closed to trespass from February 15 through August 15 for the waterfowl-nesting season. Upper Cold Springs Meadows was grazed in 2006 and is scheduled to be rested in 2007.

**Tule Reservoir Unit** will be maintained at a lower priority than Dacey Reservoir in order to maintain prescribed water levels at up stream reservoirs during periods of limited water availability and downstream water obligations. Water flows to Tule Reservoir in recent years usually cease by mid July as water demands to maintain upstream reservoirs

increase. The reservoir will be raised as water becomes available by September 1<sup>st</sup> to 5108.5 feet if lower or dry at this time in preparation for required water release to Murphy Meadows beginning October 1<sup>st</sup> After flows to Murphy Meadows are stabilized Tule will be refilled to 5109.0 feet as rapidly as possible and maintained throughout the waterfowl season. As water becomes available in late fall / winter the reservoir will be refilled to its maximum capacity of 5110.5 and maintained as long as possible. The fishery will be subordinate to prescribed water level management and to available water. The Murphy Meadows downstream irrigation and stock water release requirement of 2223 acre feet per year will be met during the period of October 1<sup>st</sup> through June 1<sup>st</sup>. During normal water years excess flows occur from December through April. The water level in Tule must be at its minimum pool of 5108.5 feet or above by September 15<sup>th</sup> making Tule a priority to receive water in September if its below the prescribed minimum pool. This is necessary to provide flows crossing from the southern boundary of Kirch WMA onto Murphy Meadows by October 1<sup>st</sup> and maintained through June 1<sup>st</sup> to meet these obligations. The Tule Unit is part of a grazing and prescribed burn rotation plan. This Unit was grazed with livestock in 2006 and is scheduled to be rested in 2007.

This Unit will be closed to trespass from February 15 through August 15 for the waterfowl-nesting season.

The feasibility of achieving water management goals on any Unit may be hampered during years of high spring runoff or drought. During such events the prescribed water levels may be delayed or adjusted to accomplish the stated objectives.