DRAFT OPERATION MANUAL
JIM WELLS ?
DATE ? [PRE-6/2008]

THE MILLCREEK WATER DISTRIBUTION SYSTEM

INTRODUCTION

1) WATER RIGHTS BASICS

   a) BENEFICIAL USE

   b) DOCTRINE OF PRIOR APPROPRIATION

   c) EVIDENCE OF A WATER RIGHT

   d) CHANGE APPLICATIONS

   e) TYPES OF WATER RIGHTS IN THE SYSTEM

2) WATER COMMISSIONER

   a) DUTIES

   b) AUTHORITY

   c) DAILY ACTIVITIES

   d) RECORD KEEPING

      i) ANNUAL REPORT CONTENTS

   e) RELATIONSHIP TO S.E. & WATER USERS

BACKGROUND

   1) BASIC HYDROLOGY

APPENDIX

   1) PHYSICAL SETTING

      a. MAPS

      b. OVERVIEW SCHEMATIC

      c. NORTH DITCH METERS AND VALVES

      d. MOAB IRRIGATION CO. LAYOUT

PRIORITY SCHEDULE

MILLCREEK WATER DISTRIBUTION SYSTEM

INTRODUCTION

WATER RIGHTS BASICS

In Utah, and most of the arid West, the ownership of the land forming both of the banks and the bed of a stream does not, in itself, convey any ownership of the water in that stream.
Additionally, if this land had not been irrigated from the stream before, the owner may not be able to irrigate until all other land previously irrigated from this stream has "had its fill".
These statements illustrate the two dominant principles of Utah Water Law – Beneficial use and the Doctrine of Prior Appropriation

BENEFICIAL USE

-All water within the State of Utah is declared to be the property of the public.
-No one can procure rights to more water than they can make beneficial use of.
-A legal right for use of water must be established by placing the water to a beneficial use recognized by the State Engineer.
-Three of the most common beneficial uses are: irrigation, stock watering, and domestic use by a household.
-"Beneficial use is the basis, measure, and limit of all rights to use water." Title 73-1-3 Utah Code.
So water rights are dependent upon beneficial use of the water, not on ownership of the land along the watercourse.

DOCTRINE OF PRIOR APPROPRIATION

"First in time, first in right", or the doctrine of prior appropriation, evolved from early disputes over water in the West. By the time Utah became a state in 1896 it was well established that the earliest rights established on a system must be fully satisfied before a water user with a later priority date right can expect their flows to be fully satisfied. The Doctrine of Prior Appropriation

significantly influences the water available to a water user during times when flows are not adequate to satisfy all water rights on a system.

EVIDENCE OF A WATER RIGHT

Utah enacted its water right statutes on March 12, 1903. Prior to this date, a valid right to the use of surface waters (streams, springs, lakes, etc.) could be established simply through putting the water to a beneficial use and being able to demonstrate that use. After 1903, all rights to the use of surface water had to be gained through application or claim to the State Engineer (Director of the Division of Water Rights).
Evidence of a water right can take several forms; a decree entered by a court, a certificate of appropriation issued by the State Engineer, a diligence claim to the use of surface or underground water with documentation adequate to be approved by the State Engineer, a water user's claim filed with the State Engineer in general determination proceedings, or State Engineer approvals of applications to: appropriate, permanently change, or exchange water.

CHANGE APPLICATIONS

Through application to the Division of Water Rights a water right may be changed with respect to the point of diversion, and place or nature of use. Over the course of years many water rights within the Millcreek Distribution System have applied for and had change applications approved by the State Engineer. These may affect the manner in which the River commissioner manages the system, requiring different water quantities to be made available at different locations.

TYPES OF WATER RIGHTS IN THE SYSTEM

The term "Direct flow rights" is used to describe the traditional diversion of water directly from a river's natural flow. These usually make up the oldest, or highest priority rights on a river system.

"Storage water" is water that Grand Water and Sewer Service Agency stores in Kens Lake. The associated water rights are typically the youngest (lowest priority) on a system.

WATER COMMISSIONER
DUTIES

A "River commissioner" determines the flow of the river.

Commissioners are recommended by the water users and appointed by the State Engineer for a term of four years. Each Commissioner is responsible for distributing water within the system boundaries established by the State Engineer.
The Commissioner is responsible for delivering water to the diversions as set forth in water right filings with the State Engineer and pertinent court decrees and orders.
Specifically, the Commissioner will:
-Measure the water involved in the distribution: to determine the quantity available for distribution; to assure the water is being divided properly; and to provide a basis for his report.
-Distribute water according to instructions from the State Engineer.
-Inspect control structures and measuring devices, to assure they are operational and accurate.
-Assist the State Engineer in enforcement actions.
-Prepare a report documenting the distribution of water

WATER COMMISSIONER AUTHORITY

The State Engineer in accordance with Section 73-5-1 of the Utah, Code Annotated, appoints river commissioners 1953, as amended. Sections 73-1-14 and 73-5-3 of the code set forth the duties and authority of the commissioner. They state in part:
The river commissioner "shall divide, or cause to be divided, the water ... among the several appropriators entitled thereto in accordance with the right of each respectively, and shall regulate and control, or cause to be controlled, the use of such water by closing or partial closing of the head gates, ... or other controlling works of any ditch, canal, ... or other means of diversion as will prevent the waste of water or its use in excess of the quantity to which any appropriator is lawfully entitled"

The river commissioner "may attach to such controlling works a Distribution Order for water regulation, properly dated and signed, setting forth that such controlling works have been properly regulated under direction of the State Engineer, and such notice shall be a legal notice as to the facts therein contained to all parties interested in the division and distribution of the water"

As stated in the statute quoted above, the commissioner is responsible to divide the water among the water users according to the water rights of record. In fulfilling this responsibility, he is authorized to change and set head gates or instruct water users to change and set head gates to assure an equitable distribution of water. If necessary, he may place a tag on or near the diversion dams or head gates that he has set indicating they are being regulated under the direction of the State Engineer. Anyone who tampers with, or removes the tag, or changes diversion dams or head gates, which are under regulation, becomes liable for prosecution under state statutes 73-2-25 and 73-3-26 of the Utah Code.

MILLCREEK WATER DISTRIBUTION SYSTEM
RIVER COMMISSIONER

SUMMARY OF DUTIES

The Commissioner regulates and distributes water and consults with the State Engineer and Distribution System Chairmen to exchange information and receive direction. The Commissioner assures all water distribution is in agreement with applicable water rights, the priority schedule and State Engineer distribution orders.

The Commissioner measures and makes records of the measurements of the water delivered to each headgate.

TYPICAL DAILY ACTIVITIES

Reviews the flows at the two USGS gauges (1st @ Sheley tunnel and 2nd 600' below Sheley tunnel). This information is posted by the USGS on the Internet.

Weekly, or when the readings on the mountain diversions need to be measured or adjusted, the Commissioner travels to the North Mesa measuring flume near the top of the system, where readings are taken and recorded. If flow adjustments are needed, he travels to the diversion head

gate located at the top of the North Mesa ditch (water from this ditch flows through Warner Lake).
The Commissioner continues this process down through the system, taking readings and making necessary flow adjustments at the:
South Mesa ditch head gate and flume (located up the Lake Oowah road).
Horse creek head gate and flume.
Ken's Lake diversion (Sheley tunnel outlet meter).

The rest of the week, the Commissioner makes daily recordings of flows at measuring devices and makes adjustments at diversion head gates in the lower portions of Millcreek Canyon and in the valley areas.
Lower Millcreek Canyon locations are accessed by Powerhouse road. These include several diversions and measuring devices owned by both Moab Irrigation Co. and private users.
The valley areas involve recording measurements at several meters on both surface diversions and wells.
As needed, the Commissioner visits Ken's lake to confirm flow and elevation readings supplied by the Grand County Water and Sewer.

RECORD KEEPING
The Commissioner posts flow measurements on the State Engineer's (Utah Division of Water Rights) distribution web pages on a regular basis.
The Commissioner makes a written Distribution System Annual Report which includes these flow measurements. This report is delivered each year at the Annual Meeting to the State Engineer and the Distribution System Committee.
The Commissioner provides the State Engineer an accounting of the water delivered to each water user as required for the calculation of Distribution Assessments.
The Commissioner completes and submits all necessary forms provided by the State Engineer for documentation of the expenses of the Distribution System.

THE STATE ENGINEER'S RELATIONSHIP TO THE COMMISSIONER, THE WATER USERS OR WATER USER COMMITTEE, AND THE COURT.

The State Engineer supervises the commissioner and gives direction and instruction concerning the regulation of water according to water rights.

The State Engineer provides the commissioner technical and administrative assistance as needed.
The commissioner submits a report concerning water distribution to the State Engineer
The commissioner is backed up by full authority of the State Engineer's office and is defended if need be by the Attorney General's Office in matters related to the distribution of water.

The State Engineer consults with water users on administrative issues concerning the distribution system
The State Engineer coordinates with water users on the implementation of procedures or policy relating to the regulation of water if necessary.

The State Engineer abides by and bases water regulation and distribution on water rights of record and pertinent court decisions.
At times, the State Engineer will petition the court for assistance in the enforcement of a State Engineer order.

ANNUAL REPORT

Millcreek Distribution System Annual Report

TABLE OF CONTENTS (example) PAGE

LIST OF MILLCREEK DAILY DIVERSIONS

Station Name

C. YOUNG
CEMETARY WELL
CEMETARY WELL (ANNUAL RECORDS)
DELOY LANCE WELL
EMMA WALKER
H. NATION
HORSE CREEK DITCH
HOWARD LANCE WELL
J. BICKING
KEN`S LAKE
KEN`S LAKE (MONTHLY RECORDS)
MOAB IRR CO DITCH 1
MOAB IRR CO DITCH 2
MOAB IRR CO DITCH 5
MOAB IRR CO DIV 1 PIPELINE 3
MOAB IRR CO DIV 1 PIPELINE 4
MOAB IRR CO DIV 2 PIPELINE 2
MOAB IRR CO DIV 5 PIPELINE 5
MORRIS DIVERSION
POWER DAM
RAY ALGER
SCHUMAKER WELL #1
SCHUMAKER WELL #1 (ANNUAL RECORDS)
SCHUMAKER WELL #1 (MONTHLY RECORDS)
SCHUMAKER WELL #3
SCHUMAKER WELL #3 (ANNUAL RECORDS)
SHELEY TUNNEL
SHELEY TUNNEL (ANNUAL RECORDS)
SHELEY TUNNEL (MONTHLY RECORDS)
SOUTH MESA
WILSON MESA

APPENDIX
INCLUDE GRAPHS, CHARTS, TABLES, ETC.

BACKGROUND

HYDROLOGICAL SETTING

Millcreek drains the La Sal Mountains and flows through the city of Moab. Elevations range from the 12,720-foot summit of Mt. Peale to approximately 4300 feet at its confluence with the Colorado River. Average annual precipitation varies from 6-10 inches near Moab to approximately 31 inches at the SNOTEL station located at 9400 feet elevation in the La Sal Mountains. The majority of the precipitation occurs as snow in the upper elevations with occasional intense rain closer to the valley areas. These rains can lead to flash flood impacts to the city of Moab. Summer temperatures in the Spanish Valley can exceed 100 degrees F. causing increases in water demands after snowmelt run off has ceased. Ken's Lake (with a storage capacity of 2820 Ac. Ft.) reservoir located at the south end of Spanish Valley, together with several wells located in Moab are critical to maintaining system water supplies during low flow periods on Millcreek.