

Scheduling Overview 2007

The Providence Blacksmith Fork Irrigation Company has certain water rights granted over 100 years ago, which it maintains for the benefit of its shareholders. Specifically, the company is entitled to 56% of the water diverted into a canal shared by the company and by the Millville Blacksmith Fork Irrigation Company, who has rights to the other 44%. Based on the water flowing into that canal this season, the company shareholders should have between 11 and 12 cubic feet per minute at the head of the company's portion of the canal. In practice, there have been many times this year when there has been much less - as little as 3 cubic feet per second flow in the canal.

The water to which the Providence company has rights is made available for the beneficial use of its shareholders. The water use is currently divided into several categories:

1) Scheduled shares. In recent years, shares have been scheduled for about 300 residential users on the upper canal in Providence. The process for scheduling these shares is described later in this document. A limited number of streams, or sequences of users, can be flowing from the main canal at any given time. This year there are three such simultaneous streams. Some other years there have been four. The number of shares to be scheduled and the number of scheduled streams that can flow simultaneously determine how much time is allocated per share.

2) Unscheduled residential shares. The lower canal in Providence provides water for a relatively small number of users who have, in recent years, coordinated their own use and have essentially "pooled" their shares to provide more flexibility than would be available under a fixed schedule.

3) Field Streams. Shareholders who use their water to irrigate large fields of alfalfa, wheat, barley, corn, or other crops use water as individually scheduled by the watermaster. They usually have a large headgate and use water no more often than every two weeks, according to the crop stage and weather. The watermaster schedules such turns based on request and on availability, usually in the gap between the end of turns on one scheduled stream and the start of the next turns on the same stream.

4) Providence City Pump. Providence City owns about 25% of the shares of the company. These shares are not scheduled, but are used to replace water for the benefit of the Spring Creek Irrigation Company. The city's culinary water comes from Spring Creek, the same source as Spring Creek Irrigation Company's shares. By pumping water from the Blacksmith Fork ditch into the Spring Creek ditch, the City obtains the right to use part of the Spring Creek Irrigation Company's water rights for city culinary use. The city's pump operates at about 1.5 cubic feet per second, taken from a pump station south of 100 South, and just west of 200 East.

Current Procedure for Scheduling Using MS Excel

Start with:

Previous year's schedule in Excel

List of shareholders who have paid dues, headgate assignments, shareholder election to use or not, shareholder feedback, etc.

Board instructions regarding maximum number of simultaneous streams, policy changes, who is to be scheduled, etc.

Assemble the list of those to be scheduled

- 1) Start with a list of those who have paid dues.
- 2) Mark for scheduling those who have paid their dues for the current year, and are on the list of those scheduled last year.
- 3) Those who have indicated that they will not be using their shares this year are included in sequence in the schedule, but with zero time allocated. As long as those shares can be reallocated and put to legal beneficial use, this relieves the risk of someone claiming the shares were unused, and petitioning for forfeiture of the water rights associated with those shares. Note that the Company can refer interested parties to those willing to make their shares available, but does not take the responsibility for leasing or borrowing, or specify any amount due to the shareholder.
- 4) Among those who were not scheduled last year, check whether they are on field stream or an unscheduled ditch. If so, keep them in that category for the next year (unless there is a change for that ditch or group.)
- 5) For those not categorized, check whether they are new purchasers of shares, name change, etc.

Assign everyone to a "stream" or sequence of users

- 6) Sort the list of those to be scheduled according to the headgate that they use. When no headgate is listed, refer to the gates used before and after them in previous years.
- 7) Some headgates are used by a single user, others are shared by many users. All the turns associated with a single headgate need to be scheduled sequentially on a single stream or sequence.
- 8) In general, those using the southernmost headgates may be scheduled in one stream, then those using the next headgates to the south on the canal, and finally those using the northernmost headgates. However, since some headgates are used by a large number of shareholders, some "trading" of headgates may help even the usage on each stream.
- 9) When all shareholders are tentatively assigned to a stream, multiply the number of shares for each user by the time per share and check that one turn is over on each stream before the next begins. (Less than 7 days, 16 hours (184 hours) on each stream). If not, switch all users on a given headgate to another stream, or reduce the time per share, or create another stream, according to the decision of the Irrigation Company Board, and based on expected water conditions.

Check for past problems with sequences, number of shares, etc to make sure they have been corrected.

Create the Standard Schedules

- 10) Start Stream 1 on May 1 at Noon, Stream 2 on May 2 at Noon, etc.
- 11) Users Robert Thomas, Steve Guymon, David Olsen are scheduled starting at the time another stream finishes every two weeks (large headgates, scheduled field use.)
- 12) Lower Canal and Field Streams are not currently scheduled.
- 13) Schedule 20 weeks.
- 14) Use MS Word Merge with the Excel database just created to format the schedules, with any messages provided by the Board. Print at least two and make sure the address of a folded schedule appears within the window of a standard window envelope.
- 15) Visually check the entire schedule before printing to find formatting or other mistakes.
- 16) Print schedules
- 17) Fold and stuff all schedules in standard window envelopes. Schedules for users with multiple turns (who may own different properties) may be combined in one envelope.
- 18) Stamp and mail schedules.
- 19) Create an overview schedule that shows all streams, and when the water starts and ends for each stream for the Irrigation Company Web Site (PDF format).
- 20) Create a master schedule for the webmaster (all users, all turns).

Collect feedback for next year

- 21) Make a record of any returned schedules and make necessary address corrections.
- 22) Collect feedback by phone, email, or mail to implement next year.