



USER HANDBOOK

District Regulations and Operating Procedures



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ARNOLD IRRIGATION DISTRICT | 2012

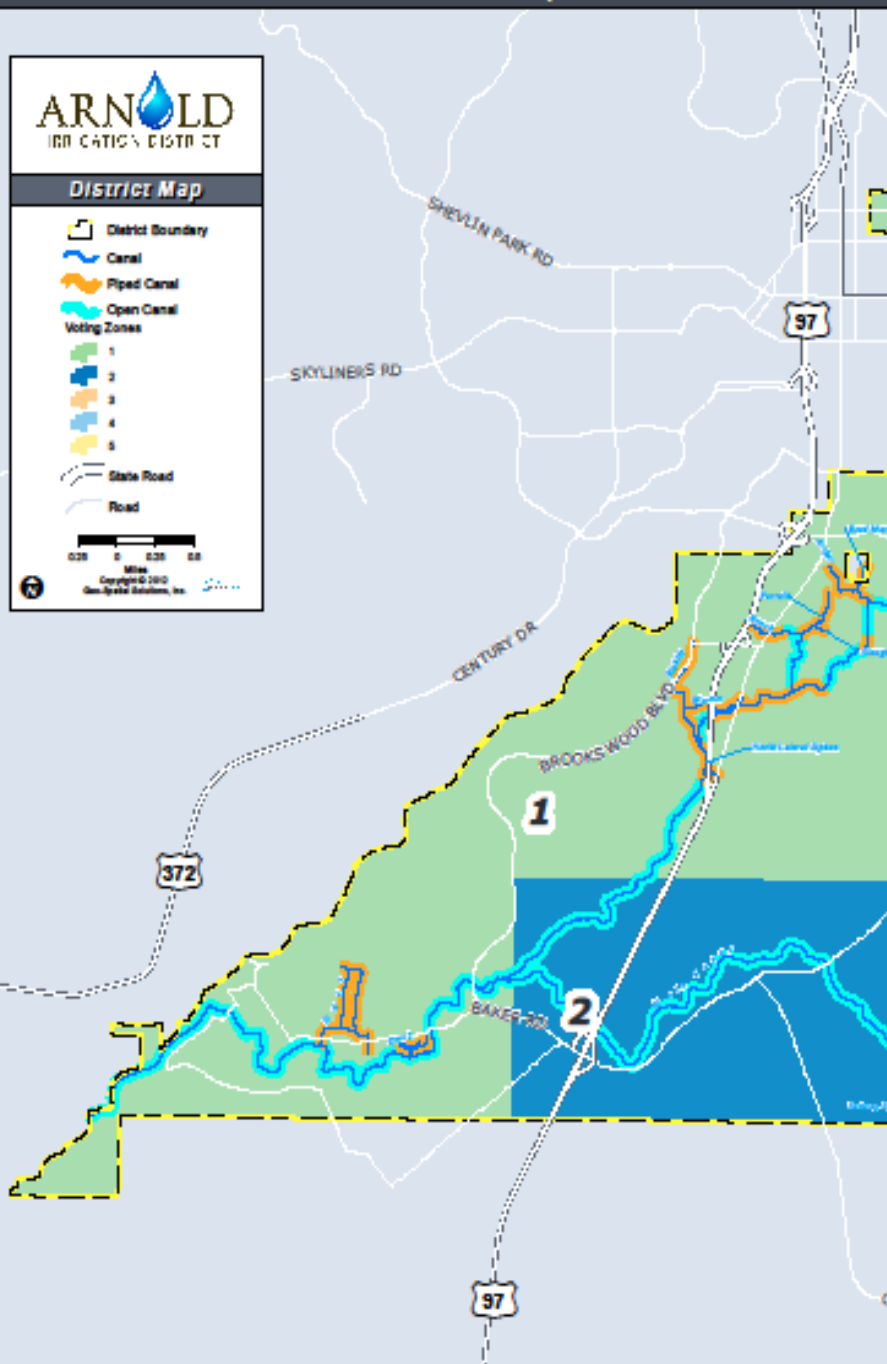


District Map

- District Boundary
- Canal
- Riped Canal
- Open Canal
- Voting Zones**
- 1
- 2
- 3
- 4
- 5
- State Road
- Road

0.25 0 0.25 0.5
Miles

Map
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DISCLAIMER

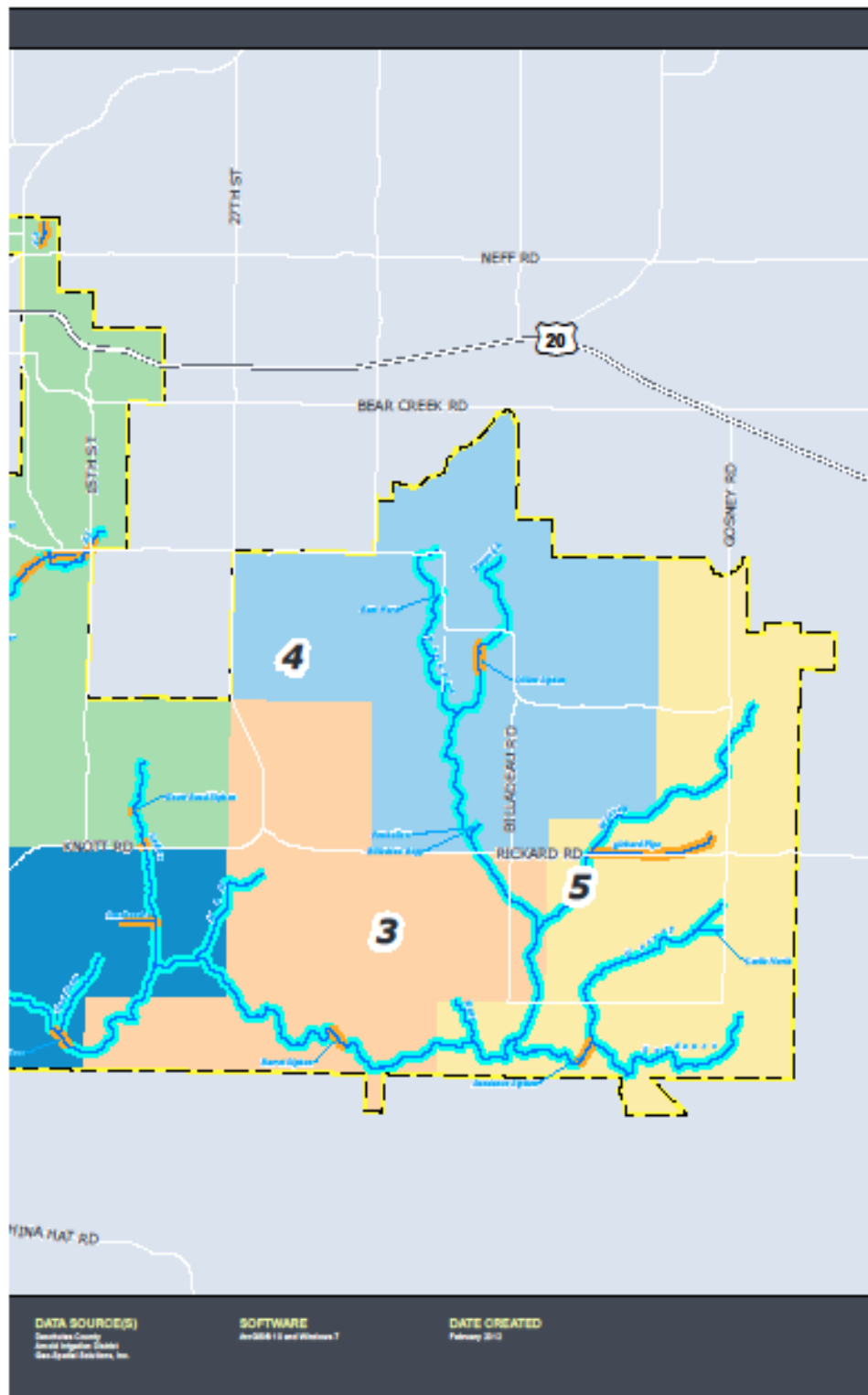
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INTRODUCTION

This booklet is intended to inform patrons in Arnold Irrigation District of the District's regulations and operation procedures. We have included some general information which we hope will be useful. It is not the District's intention to answer every question in this small booklet. When clarifications are needed, water users may contact the District Office at 541-382-7664.

PUBLISHER'S STATEMENT:

This booklet is published under the authority of the Board of Directors of Arnold Irrigation District, a quasi-municipality in the State of Oregon. This booklet is for information purposes only and does not constitute a contract or warranty of services.

WATER USER'S HANDBOOK
(rev: August 2012)

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ARNOLD IRRIGATION DISTRICT

Arnold Irrigation District is a quasi-municipality in the State of Oregon organized under Oregon Statutes (ORS) Chapter 545. The District is a political sub-division empowered to levy taxes and assessments in order to provide for construction of works for irrigation or to provide for reconstruction, betterment, extension, purchase, operation or maintenance of works already constructed. An irrigation district is a cooperative organization, and every water right holder is a member of the organization. The district makes no profit and is operated for the sole benefit of the lands and people within its boundaries. The benefits they can derive from it will be measured by the extent to which the people within the district cooperate to make it a success.

The District operates approximately 65 miles of canals, ditches and pipes in an area of approximately 29 square miles, running primarily from west to east in the southerly area of Bend providing approximately 4,380 acres of water. Water for Arnold Irrigation District is diverted from the Deschutes River.

HISTORY

Arnold Irrigation District was first organized as a private company under the name Arnold Irrigation Company on December 27, 1904 by W. Arnold, T.O. Harshman and J.J. Reed and became official on January 9, 1905, when P.I. Dunbar, Secretary of State of the State of Oregon at that time, certified that said Articles of Incorporation had been filed and recorded, that the name assumed by said corporation was Arnold Irrigation Company, the duration perpetual, the business: to acquire, buy, own, sell or improve any real estate or water rights; to construct flumes and canals for irrigation purposes and do a general irrigation business.

In 1936, elections were held to re-organize the Arnold Irrigation Company into the Arnold Irrigation District, a quasi-public entity under the laws of the State of Oregon.

The amount of capital stock was \$5,000 and location of its principal office was in the town of Lytle, in Crook County.

Three other small irrigation companies, the Pine Forest Ditch Company, the Bend Company and the North Irrigation Company, all later absorbed by the Arnold Company, took delivery of water via the main canal of the Arnold Irrigation Company. Water was diverted from the Deschutes River a few miles south of Bend and carried through the Arnold canal for the lands to be irrigated south and east of that city. Shares of stock in the company were

sold to land owners on a commission basis.

The North Irrigation Company was incorporated December 12, 1908 by John W. White, Edward Brosterhous and Fred A. Hunnel. The Pine Forest Irrigation Company was organized November 2, 1908 and articles of incorporation were signed by W.J. McGillvary, C.D. Rowe and Cora A. Ferguson. No record could be found of when the companies merged and became one under the Arnold Irrigation Company.

The Arnold Irrigation Company filed on the natural flow rights in the Deschutes River on February 1, April 15, and April 25, 1905. Filings of the Arnold Irrigation Company were 23rd and 24th in numerical order on the Deschutes River. Important prior filings were made by the Deschutes Reclamation (Swalley Ditch), the Central Oregon Irrigation Company (Crescent Lake) and by the Cline Falls Company for irrigation and power.

On September 22, 1906, the Arnold Irrigation Company by a majority vote of the stockholders, increased its capital stock from \$5,000 to \$6,000. On October 5, 1912, supplementary articles of incorporation were filed by W.J. McGillvary, Ed Brosterhous, Chas. Sipchen, W.F. McNaught and L.D. Wiest, duly elected, qualified and acting directors of the Arnold Irrigation Company and adopted by 3/4 vote at a meeting of the stockholders held at the company office in Bend. The Capital stock was \$10,000 the number of shares was 100, each having a par value of \$100.00.

Construction of the company's canal was begun on or about April 1, 1905 and continued through 1910. The engineering features on the company's canal consisted of a wood flume about 1 1/2 miles long, 12 feet wide and 3 feet deep, the same being of sufficient size to convey water for 12,000 acres of land. The total cost to that date, including the 2 subsidiary companies, was upwards of \$90,000. Water for irrigation purposes from the Arnold system was first furnished on or about June 1, 1911 and continued thereafter, weather permitting.

The exact acreage or area included in the original organization was not definitely learned. In the 1934-35 Bureau of Reclamation report on Deschutes investigations by C.C. Fisher, the following statement concerning the Arnold Irrigation Company is found: "According to the Deschutes Board Report of 1922 the irrigation area of the project was then 16,500 acres of which rights had been sold to approximately 8,500 acres with 3,000 to 4,000 acres in crops". In the Deschutes River Decree of February 10, 1928 by the Circuit Court of Deschutes County, and modified by the Oregon Supreme Court, the Arnold Irrigation Co. was allotted a diversion right of 150 second-feet from the Deschutes River for the irrigation of 9,232 acres.

In about 1920, water supply for the Arnold during the summer was limited, especially after prior rights were supplied. In 1922, the North Canal Company constructed a log crib dam on the Crane Prairie site to test storage possibilities. The reservoir created thereby was partially

filled in 1923 and '24, however leakage through the dam was excessive and in 1930 the Arnold Irrigation Company assisted in the repairs of the dam and in 1932 shared in the water stored. The water stored in the reservoir was obtained through a temporary agreement with the Pacific Power & Light Company, which had prior rights to the non-irrigation season flow at Bend. Leakage through the dam was still excessive and in 1939 the Bureau of Reclamation signed a contract with the Central Oregon Irrigation District agreeing to reconstruct Crane Prairie with a reservoir capacity of 50,000 acres-feet.

The work on Crane Prairie Dam was complete in 1940 and water was stored in the reservoir that year. The Central Oregon Irrigation District in turn entered into an agreement with the Arnold Irrigation District and others, whereby the Arnold Irrigation District was to receive the second 10,500 acre-feet stored in Crane Prairie reservoir plus 1/5 of the storage above 35,000 acre-feet. For this the Arnold Irrigation District agreed to pay 27% of the construction cost.

In 1959 the Arnold directors approved the final payment to the Central Oregon Irrigation District for the 27% share of the construction cost of Crane Prairie Dam in the Amount of \$3,337.16. There was no further work done on the Crane Prairie Reservoir construction and the obligation was declared repaid in full in 1960.

By 1947 the main flume, constructed of untreated lumber, was in imminent danger of complete failure. An emergency

program of rehabilitation was authorized by the Interior Department Appropriations Act, 1948. Robert W. Sawyer, owner of The Bend Bulletin, was instrumental in securing this emergency appropriation for the Arnold Irrigation District.

In 1948 the District entered into a repayment contract with the Bureau of Reclamation in the amount of \$210,000, to be paid in 35 annual installments for the construction of the main canal flume and reconstruction of the diversion dam and canal work. The Bureau of Reclamation replaced the old structure with a semicircular steel flume on creosoted timber supports and concrete foundations. The work started in October 1947 and was complete in May 1951. In 1953 a modified repayment contract was executed reducing the obligation by \$8,996 paid by the North Unit Irrigation District, toward the cost of repairs on the Arnold diversion dam, based for the reason that increased flow in the river released from Wickiup caused partial destruction of the rock fill in the dam resulting in decreased efficiency of the diversion structure.

The main Arnold canal, originally 17 miles in length, has been reduced to a present length of 14 miles. In the 14 miles of main canal there were 6 wood flumes varying in length from 250 feet to 876 feet. Some of the names have changed and over time have been converted to siphons, cuts or eliminated altogether. They were/are the Huntington (name changed to the Blakely/Powers, along Powers Rd; no longer in use), Suttong (converted to a siphon and still in use), Fry(converted to a rock cut; still in

use), Slack (name changed to the Ladera/Knott siphon; still in use), Stennick (name changed to the Barrett Siphon; still in use), and Billadeau (name changed to the Dillon Siphon; still in use).

Prior to 1953, approximately 27 miles of laterals served the Arnold Irrigation District of 4,292 acres and there were 10 wood flumes, varying in length from 72 feet to 1,903 feet. They were designated by the following names: Gilliland, O'Donnell, Pilot Butte, Trotter, Roberts, Mills, Northwest Blakely, Southwest Blakely, Conway and Nelson. Some of these flumes were old and need replacing. The cost estimate was \$151,000. The District, rather than going into more debt, decided to proceed with the work, using their own funds. Under the capable supervision of Kenneth Slack, Manager of the District during these years, many of the flumes were replaced with landfills and concrete pipes. In 1959, however, it was necessary to secure a loan from the Bureau of Reclamation to replace the Suttong and a portion of the O'Donnell flume. The sum of \$38,000 was made available to the District for the work on these two flumes. The construction payment to the Bureau was based on a normal and percentage plan, with the base set at \$1.15 per acre.

BOARD OF DIRECTORS

The members of the Board of the District are elected by the water right holders to represent the interests of the District. The District is divided into five voting zones and one board member is elected from each voting zone. Board members are elected for a term of three years. When a board seat opens unexpectedly through early resignation or other reasons, the Board appoints a temporary member until the vacant seat can be filled at the next regularly scheduled election date. Elections, when necessary, must be held on the second Tuesday of November in accordance with the election laws of the State of Oregon.

Voting Zones

As stated above, the District is divided into five zones. The map at the front of this manual shows the different zones. You may call the office to find out what zone you are in or you can also find it at the top of your assessment, on any email that the District sends you. If you would like to see a more expanded version of our District map, please visit our website at www.arnoldirrigationdistrict.com.

Board Meetings

The Board of Directors of Arnold Irrigation District meets at 19604 Buck Canyon Rd. at 3:00 pm. on the second Tuesday of each month, except when required by Oregon

State law to meet on any other specified day, to conduct the business of the District. Such meetings are open to the public. The District is subject to Oregon's Public Meeting Law. Subject to some exceptions, the District Board of Directors will allow public testimony or comment on an action item after receiving a specific request in writing submitted prior to the closing of the agenda for that meeting. Any person desiring to present business before the Board of Directors is requested to submit the request in writing to the District offices no later than noon on the Thursday before the coming board meeting.

MANAGEMENT OF DISTRICT

District Office

The office of Arnold Irrigation District is located at 19604 Buck Canyon Rd., and is open between the hours of 7:30 a.m. and 4:00 p.m., Monday through Friday.

District personnel may be contacted at the office telephone number 541-382-7664 during the hours listed above. After hours, during water runs and during the irrigation season, District personnel can be reached FOR EMERGENCIES ONLY by calling our main number 541-382-7664 and retrieving the emergency phone number from the message or by calling 541-728-3313. An emergency is defined as **“immediate threat to life or property”**. Users who abuse the emergency phone system may be billed for the cost of non-emergency calls at the discretion of the Board of Directors. We encourage both new and long-time customers to review the guidelines in pages 20-33, where measurement, delivery and flooding back are explained in more detail.

Directions to Office

From the East on Knott Rd and also heading South on Hwy 97 out of Bend

Take the Baker/Knott Rd exit. Take Baker Rd into Deschutes River Woods. Proceed West on Baker Rd over

the railroad tracks and continue on about ½ mile. Turn Right onto Brookwood Blvd. Proceed another ½ mile and turn Right onto Buck Canyon Rd. Turn immediately Left onto a paved driveway. The driveway will lead you past a small cream colored house to the office which is located within the tan colored chain link fenced area at the rear of the property. Proceed into the gated area. At the “Y”, follow the driveway to the Left to park in front of the main entrance to the office.

From downtown Bend heading South on Brookwood Blvd.

At the Reed Market Rd round-about at the Old Mill, head South on Brookwood Blvd. Proceed South for 3 ½ miles to our office. On the way you will pass the Elk Meadow Elementary School on the Left and a small shopping center on the right. About 1/8 mile past the shopping center, turn Left on Buck Canyon Rd. Turn immediately Left onto a paved driveway. The driveway will lead you past a small cream colored house to the office which is located within the tan colored chain link fence at the rear of the property. Proceed into the gated area. At the “Y”, follow the driveway to the Left to park in front of the main entrance to the office.

Management

The management staff of the District acts under the charge of the Board of Directors to maintain and operate the

District.

District operations are centralized and field personnel are not empowered to act outside District regulations or the instructions of management. This includes, but is not limited to head gate adjustments, measurement standards, local ditch repairs and/or District policies regarding exceptions that may be made or procedures that are followed to enforce District regulations. Field personnel are instructed to refer all such questions to the District office. In the event that management is unable to answer questions or provide acceptable solutions, the water user may submit a written petition to the Board of Directors for a hearing of the issue(s) during the regular monthly Board Meeting.

All employees of the District are instructed to aid the water user in every manner possible and to courteously and respectfully consider all criticism and suggestions. Likewise, all water users are requested to cooperate with District officials in every manner so the District may operate with a minimum of problems and expense.

Ditch Riders

The “ditch rider” is the field worker who removes debris or obstructions from the canals and makes adjustments to flow control and measuring devices as needed and requested with the District. You may contact the ditch rider through the District office.

The ditch rider cannot always fix your problems. If they cannot provide assistance, they can contact the supervisor, who will help you. Sometimes it must wait until the next day. We ask that you do not contact the ditchrider directly. Instead, call the office number and tell the staff your needs. Your message or request will be relayed by the office staff to the ditchrider.

NOTE: The ditch rider is not a police officer; do not ask him to be one. They cannot arrest, threaten or in some cases even go on another person's property. If you are having problems with another customer, call the office during normal business hours. In most cases, it will require a supervisor to take care of this situation.

Right to Enter on Lands

Any officer, employee, ditch rider, or other authorized personnel of the District may enter upon the land of a water user of the District for inspection, maintenance, and regulation of ditches, pipelines, gates, pumps or other water works.

IRRIGATION WATER **NOT** FOR DRINKING

The EPA and State Health Department have informed Arnold Irrigation District that irrigation water is unsafe for human consumption and should not be used for drinking or other domestic purposes such as bathing, showering, dishwashing, cooking or maintaining oral hygiene. If you would like to receive the more detailed health notice, please contact the office.

The Oregon Department of Health has determined that full-house filtration systems are adequate, if they meet Federal standards. If your household has not yet complied with the Safe Drinking Water Act requirements, please contact the office. We have information on filtration systems and inspectors. The District considers these to be a short-term solution.

AID is not a domestic water provider. The District maintains it is in the best interest of the user to find an alternate source of domestic water, such as the City of Bend, Avion Water Company, Roats Water Systems, Agate Water Systems or a well.

NOTE: Arnold Irrigation District irrigation water does not meet Safe Drinking Water Act standards for domestic use.

WATER RIGHTS

Under Oregon law, all water is publicly owned. A water right is a type of property right granted under specific use requirements by the State and it gives the user permission and an obligation to beneficially irrigate a very specific area (measured in acres). Please see the end of this section for a definition of “**beneficial use**”.

While it is the responsibility of the water right holder to use the water as required by the State, it is the responsibility of the irrigation district to create, maintain and administer the works by which water may be transported to the place of use; to verify, govern and oversee such use and to create, promote and enforce such policies as are necessary for the efficiency and betterment of the lands within the irrigation district.

The District and the State keep very detailed records of what lands can be irrigated. Arnold Irrigation District water rights have priority dates of 1905. In addition, there is a supplemental right to a portion of the stored water from Crane Prairie Reservoir. Your water right also has a “duty of water” which is the maximum volume of water you can receive during the irrigation season. The duty is measured in “acre feet” and is stipulated by Oregon court decree. The duty is not guaranteed and the actual amount of water received during the irrigation season may vary from year to year depending on snow pack and natural stream flow. This water can only be applied to lands with a water right.

Your water right also has a “rate” which is the amount of water that flows to your land, measured in gallons per minute, during the irrigation season. The water right stipulates this rate and varies during the irrigation season between four to six and one half gallons per minute per acres of water right. All Arnold Irrigation District water rights have the same rate and duty. Duty of water is the volume of water you will receive during the irrigation season. The duty is measured in “acre feet” and varies from year to year depending on snowpack and stream flow. To receive a higher duty of rate of water is a violation of the water right, and can lead to forfeiture.

A water right remains valid as long as an irrigator beneficially uses the water at least one year out of every five years. Failure to beneficially use your water right may force the District to confiscate the water right or it will be forfeited to the State and lost from the District. Converting land to another use (road, parking lot, building, etc.) can also result in the forfeiture of a water right. Prior to converting land to another use, please see the Water Transfer section (page 47).

Definition of “Beneficial Use”

The “beneficial use” of water for irrigation involves the artificial application of water to nurture crops, grass or landscape areas. This means that the irrigation must be used on land that has been designated for this purpose - irrigable land. Rock piles, driveways, roadways and

structures are not to be considered irrigable.

If you have any questions regarding your water rights, please contact our office at 541-382-7664.

Non-Liability of District

Most of the water furnished by the District flows through many miles of open ditches and is subject to pollution, shortages, fluctuation in flow, and interruption of service. The District will not make any agreement which binds the District to serve an uninterrupted or constant supply of water.

All water furnished will be (with certain Board approved exceptions) for irrigation purposes. Any water user putting the water to other uses does so at his own risk and by doing so assumes all liability and agrees to hold the District, its officers and employees free and harmless from any liability and damage that may occur.

IRRIGATION PRACTICES

The individual user has to manage the water that is being delivered. How large, for example, is your pond? What is your percentage of loss? What is the gallon per minute rate on your pump? How large are your sprinkler heads and how many do you have? What kind of loss do you have servicing those heads? According to OSU Extension, vegetables need about one inch of water a week and lawn requires one inch per week in the Spring and Fall and two inches when temperatures are consistently in the 80's and humidity is low. Irrigators need to manage their water on a daily basis. Depending on soil conditions over-watering can cause problems. Over-watering leaches necessary minerals and can promote the growth of mosses and weeds, insects, pests and plant diseases.

Finally, irrigators need to adjust their usage rate to realistically reflect their replacement rate on a daily basis. With smaller acreages or large demand systems, irrigators may need to adjust usage 2 or 3 times a day.

Ponds

The normal delivery rate is 5.5 gpm/wa (gallons per minute/water acre). See page 35 for definition of "water acre". This rate of delivery is roughly the same from a single (new) 11/64" nozzle at 50 psi pressure. This works out to 7920 gallons of water per acre of right in a 24 hour period. In general, the District recommends that a storage

pond be sized to hold a minimum of 24 hours of irrigation flow at 100%. For five acres, the irrigation flow would work out to 39600 gallons in 24 hours (5wa x 5.5 gpm x 60 min x 24 hrs).

Using the example of 5wa, 39600 gallons would require a pond that is approximately 35 feet wide, 50 feet long and about 5 feet deep. Normal side slopes are about 2 (width) to 1 (height), but may vary depending upon the sealing material used. For irrigation purposes, our 5wa example would typically employ a 1 1/2 hp centrifugal pump. Typical line pressure would be about 40 psi with a total flow capacity of about 40 gallons per minute. Based on the inflow of 39600 gallons per day, this would allow about 16 hours or 2-8 hour sets of sprinkler time every 24 hours.

Sprinklers

The chart on the following page will allow you to calculate the gallons per minute your system uses. If you know your system's pump pressure, and the diameter each head needs to irrigate, you can balance the water you receive to your system's output by changing nozzle size and number of sprinklers in use. Note: This chart is based on a non-leaking system and new nozzles; old nozzles become enlarged and use more water.

	3/32"	1/8"	9/64"	5/32"	11/64"	3/16"	13/64"	7/32"
PSI	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM
20	1.17	2.09	2.65	3.26	3.92	4.69	5.51	6.37
25	1.31	2.34	2.96	3.64	4.38	5.25	6.16	7.13
30	1.44	2.56	3.26	4.01	4.83	5.75	6.80	7.86
35	1.55	2.77	3.50	4.31	5.18	6.21	7.30	8.43
40	1.66	2.96	3.74	4.61	5.54	6.64	7.80	9.02
45	1.76	3.13	3.99	4.91	5.91	7.03	8.30	9.60
50	1.85	3.30	4.18	5.15	6.19	7.41	8.71	10.10
55	1.94	3.46	4.37	5.39	6.48	7.77	9.12	10.50
60	2.03	3.62	4.50	5.65	6.80	8.12	9.56	11.05
65	2.11	3.77	4.76	5.87	7.06	8.45	9.92	11.45
70	2.19	3.91	4.96	6.10	7.34	8.78	10.32	11.95
75	2.27	4.05	5.12	6.30	7.58	9.08	10.66	12.32
80	2.35	4.18	5.29	6.52	7.84	9.39	11.02	12.74
85	2.42	4.31	5.45	6.71	8.07	9.67	11.35	13.11
90	2.49	4.43	5.61	6.91	8.31	9.95	11.69	13.51
95	2.56	4.56	5.76	7.09	8.53	10.2	11.99	13.86
100	2.63	4.67	5.91	7.29	8.76	10.5	12.32	14.23

Management and Measurement of Water

Measurement Internally - - how much water and where it is going inside the system. The Board of Directors requires standardized measuring devices on all deliveries. Such measuring devices allow the District to determine how much water is being delivered and how that amount compares to the right(s).

Calculating Losses Internally - - how much water is being lost within the various sub-laterals of the system to deliver water rights. By placing measuring devices at the confluences or the “intersections” of the system, the District can measure how much water it takes to service a given section. By mapping the losses between measuring points, the District is able to establish construction and maintenance priorities based on the greatest savings in water for each dollar spent.

Conserving Storage Water/No Flood Back

The District provides 24 hour continuous delivery. The Board resolved to mandate a **NO FLOOD BACK** policy (see definition on the following page) for a number of reasons. One of the most important and least understood reasons is that of internal measurement. If the District’s field personnel know, on a daily basis, how much water is needed to maintain the system at a predetermined level, then that is the amount they will divert from the river. If measurements are off as a result of **FLOOD BACK**

fluctuations, then more water may be entering the system than is necessary to achieve the standard.

No Flood Back Policy

Flooding Back is defined as anything that prevents the continuous free flow of irrigation water through weir boxes or other District delivery devices by means of pipe caps, valves, rags, boards or any other device. Additionally, flooding back includes failure to maintain pond or storage device levels so as to allow the continuous free flow of irrigation water through weir boxes or other delivery devices. Flooding back will result in closure of head gate and confiscation of the blocking device. Civil fines may be levied in cases of repeated intentional flooding back. The District agrees to deliver water to Water User under the terms and conditions below:

- 1) That District delivery point installations, including but not limited to weir boxes, head gates, meters and ditches and pipes before measuring devices, are the property of the District and may not be altered or added to in any way without the permission of the Board of Directors.
- 2) Each patron must take their water at all times. If at any time you would like to have your water turned off, on, or adjusted up or down, you must **not** under any circumstances block, plug or shut off the delivery of your water. Shutting off by blocking your delivery or attempting to reduce your flow, without District

personnel making the adjustment first, could cause more water than expected in the ditch or canal, which in turn could cause the flooding of someone else's property. You would be responsible for any damages which may occur from an unauthorized shut-off. Please schedule your changes ahead of time by calling the AID office and the necessary adjustments will be made when you need them. **If your delivery is found to be flooding back or not taking water, your water will be turned off. It will be 48 hours after you call the office before your water will be turned back on again.**

- 3) Water User is required, at his own expense, to maintain and update his irrigation equipment and installations including ponds, storage devices, pipes, pumps and all irrigation devices as is necessary to prevent flooding back as required by District.
- 4) In the event of damage to any property as a result of failure to prevent Flooding Back, the offending water user will be liable for all costs.

Exemptions to the No Flood Back Policy

- 1) If you are on a private system (see page 28, Private Systems), you may be exempt. Private systems will always be held collectively accountable for flood back at the District point of delivery (SEE Arrowhead & Somerset Subdivisions, page 42). See #4 above as those rules also apply to private system point of

deliveries as well. A private system involves one main head gate at the AID lateral and a shared delivery system that may include several individual private head gates. If one of the parties on the delivery does not want their water or would like less water they need to call the office to inform the ditchrider to take the correct amount of water out of the main delivery. The customer must then find a way to block his own delivery to take only the amount of water they want and then communicate the change to his neighbors.

If the main delivery is found to be flooding back or overflowing, it will be shut off. Once all users in the private system determine that they do want their water and call the office with that request, the water will be turned on 48 hours after the request. If only one neighbor calls, that neighbor's water will be delivered at the main head gate and no one else's. Therefore, that neighbor would be the only person able to take water until other neighbors call. Neighbors not taking their water should be shut off at their private head gate until they request their water with a call to AID.

- 2) If you are on the Deschutes Water Company Pipe, you are exempt (Deschutes Water Company, page 25).

The Deschutes Water Company

The Deschutes Water Company is not a private delivery system. It is maintained and policed by District personnel; but it is unique in Arnold Irrigation District and comes under

a separate set of administrative rules. Water users in DWC will be notified of irrigation regulations prior to the beginning of each water season. DWC is exempt from District No Flood Back Policy.

Private Systems

Private systems, generally, serve sub-divisions in which each (or many) of the individual home sites have water rights, but to which the District has no obligation to deliver water or maintain systems. In all cases, the District does have a responsibility to deliver water to the “top” of private systems at the original delivery point. Beyond the original delivery point, the District has no obligation for distribution of water. By law, the water users in a private system are required to administer their own deliveries and maintenance programs.

In All Cases:

- 1)** The District **will not** construct or maintain private delivery systems.
- 2)** The District will not be responsible for defects in privately maintained facilities.
- 3)** When more than one water user is on a private lateral each water user shall provide his own diversion facilities at his high point and provide his own distribution system.
- 4)** Water users must not build earth or rock dams in the private laterals.
- 5)** It shall be the duty of each user of a private lateral to

patrol said lateral from his point of diversion from the private lateral to the District lateral as frequently as necessary to remove obstructions and stop leakage.

- 6)** Oregon Revised Statute 540.420 provides that in all cases where ditches are owned by two or more persons and one or more of such persons fails or neglects to do his proportionate share of the maintenance necessary for the proper operation of the ditch, the owner desiring the maintenance may, after having given 10 days written notice to the other owner who has failed to perform his proportionate share of the work, perform such share and recover from the person in default the reasonable expense of the work.

The Numbers Game - - using only as much as we need. There are two kinds of water in the Deschutes River, natural flow and storage. Predicting natural flow is much like predicting the weather, and about as reliable. Maintaining a balance between natural flow and storage is the numbers game. We know on a given date what our storage situation is and can project that out over a period of time. Natural flow, of course, is harder to project. We study predictions and trends in surveys from the federal government, and we calculate trends based on state Water Master figures on a daily basis. Finally, we must be prepared to “bounce” (up or down) when the river bounces - - whether from rains or from releases at Wickiup requested by other districts. Finding the balance between natural flow and storage is a lot like trying to thread a moving needle. We need to be able to react quickly. By running our system to the lean side, as a general practice, we conserve more of our storage for critical periods of the irrigation season.

Tail Water and Waste

You should only use the water that you need. If you irrigate to the point that water “runs off” of your land onto a neighbor’s parcel, that is called tail water. By Oregon statute, tail water is the responsibility of the person whose land it runs off, and is not necessarily welcomed by the receiving parcel owner. Tail water may also be considered waste of water and may subject your water right to examination by the District, or by Oregon Water Resource

Department.

The District is becoming more developed and the parcel sizes are becoming smaller. This creates situations where a neighbor may not desire tail water as in years past. Please be aware of your responsibilities with managing your water rights properly.

Measurement and Delivery

- 1) Unit of flow will be gallons per minute (gpm). **One hundred percent of delivery** is held to be a **mean** of 5.5 gallons per minute per water acre (gpm/wa) over or through a measuring device. 5.5 gpm/wa is the equivalent of 4.3 acre feet per season. During water shortage periods the District may elect to deliver less than one hundred percent.
- 2) District personnel will make all delivery adjustments, changes and shut-offs. Each delivery will be measured and checked at least weekly. The system is balanced and policed seven days a week during the irrigation season, but delivery changes and shut-offs will be made Monday through Friday only. If a request is made on Friday, it will not be handled until the following Monday, or in the case of a holiday, the call will be handled on the next work day following a holiday.
- 3) Without exception, all requests for changes in flow, shut offs or turn ons must be called into the office. No

action will be taken by the ditchrider until above said call is made. Without exception, all changes will occur between 24 and 36 hours from the time of the request to our office. When an adjustment is made to one delivery the entire system is affected. Therefore, the time it takes to make these adjustments must be considered. If you are leaving town, please plan accordingly and call to allow for a 24 - 36 hour window before we shut off your water. We will not be taking change requests in advance of one week's time.

If the office phone is not answered by one of the District personnel, leave a message on the answering machine and your call will be handled within 24 – 36 hours after you've left your message or on the next work day following a weekend or a holiday.

Please note: District staff do not return calls to give you verification of receipt of your call. Your request will be placed in the queue and completed in the amount of time specified above.

- 4) In emergency situations only, should the on-call emergency line be called (541-728-3313).

WHAT IS AN EMERGENCY? An emergency is **not** a shortage of water, your pond overflowing into your yard or field or you are about to leave town. An **emergency is defined as immediate threat to life or property.** If the emergency line is called for non-emergency calls, your account will be charged \$45.00

for each occurrence.

- 5) All head gates will be locked and operated only by the district personnel.
- 6) Equitable allotments of water will be made to each eligible acre in the district, but deliveries will only be made to the land on which assessments have been paid in advance or late payment plans have been approved by the Board of Directors. (See page 41 for more information on payment plans).
- 7) The District reserves the right to shut down or withhold deliveries in order to perform maintenance necessary for the safety or efficient operation of the system.

Water Quantity Conversions

- ◆ 1 cubic foot (cu.ft.) per second (cfs) is a rate of water flow which will supply one cubic foot of water in one second. Arnold Irrigation District measures its diversion rate from the Deschutes River in cubic feet per second.
- ◆ 1 cubic foot per second (cfs) = 448.8 gallons per minute (gpm)
= 1.9835 AF in 24 hours
= 646,315 gallons per day (gpd) and fills a space of one cubic foot (cu.ft.) in one second
- ◆ 1 cubic foot (cu.ft.) = 7.48 gallons
= 62.4 lbs. of water
- ◆ 1 water acre (wa) is the amount of water it takes to irrigate one acre of land.

Water rights are measured in water acres (wa) and water acres are delivered to users at the rate of gallons per minute. Your delivered number of gallons of water per minute is calculated by multiplying your number of water acres by the number of gallons per minute that the District is delivering (usually 5.5 gpm).

- ◆ 1 acre-foot (AF) is the volume of water which will cover one acre of land to a depth of one foot and is = 325,850 gallons.

- ◆ 1 acre-foot/day is 0.504 cfs for 24 hours and is = 226 gpm

During the course of the irrigation season, Arnold Irrigation District delivers approximately 4.3 acre-feet per water acre or an average of 1,425,598.1 gallons per water acre (5.5 gpm x 60 mins. X 24 hrs. x 30 days x 6 mos./325,851 =4.375 acre-feet).

- ◆ 1 gallon per minute (gpm) is = 1,440 gallons per day (gpd)

- ◆ 1 gallon of water is = 8.34 lbs

- ◆ 1 pound per square inch (psi) is equivalent to 2.31 feet of head

- ◆ 1 foot of head is equivalent to 0.433 psi

- ◆ 1 acre is equivalent to 43,560 square feet

- ◆ 1 square mile is equivalent to 640 acres

Water Measuring and Control Devices

Water measuring and control devices are required on all Arnold Irrigation District deliveries. No water will be withdrawn from a District ditch, pipeline, flume or other conveyance system before the withdrawal rate is measured via a weir or meter. Water may not be pumped directly from your delivery or weir box - - this includes pumping from a pipe or other sealed conveyance that exits from the delivery and measuring device.

Pumping

Water must free fall from delivery and measuring devices into a storage device, pond, ditch, or other catchment before it may be pumped. Pumping is conducted at the water user's risk and the District assumes no liability for damages to pumping equipment or other damages as a result of turbulent water, fluctuation in flow, or other causes. The District recommends the installation of pump equipment that includes loss of prime sensors, low water floats or other shut-off systems.

Head Gates & Weirs - - Policy

All water deliveries made from Arnold Irrigation District Canals, laterals, ditches, pipelines, etc., must be equipped with head gates and weirs. All deliveries presently without head gates and weirs will (where at all feasible) have head gates and weirs installed at the expense of the water rights

holder by the District as soon as it is possible until all water is delivered through head gates and is measured using weirs or other devices. The installation of all head gates and weirs will be completed only by District personnel using approved devices (head gates, weir boxes, weir plates, dividers, etc.). Head gates and weirs may not be altered in any way without the permission of the Board of Directors. This is meant to include placing lids or covers on weir boxes.

District head gates are required to be locked. This is for the protection of all water users. Any person tampering with the District's distribution system is subject to prosecution under the laws of Oregon.

It is the patron's responsibility to clean their own head gate. If you believe there is a decrease in your flow and you are not getting your allotted amount of water, you must check your head gate first to be sure it is clear of any debris before calling the office to have the ditch riders check your delivery. If upon arrival at your delivery, the ditch riders find that your head gate is plugged with debris, the ditch riders will clean out the head gate, measure the water and the patron will receive a phone call from the office informing them of their plugged head gate. A record of these calls will be kept in our database. If we received 3 calls from the same customer for the same reason as stated above, you will be assessed a service charge of \$45.00 for each time the ditchrider is requested to make an adjustment when the head gate was plugged.

Theft of Services and Tampering with District Property; Unlawful Acts

District delivery point installations including but not limited to weir boxes, head gates, meters and ditches and pipes before measuring devices are the property of the District. Oregon Revised Statute 540.710 prohibits any person from maliciously, wantonly or willfully cutting, breaking down, injuring, destroying, or removing any ditch, canal, flume, drain pipe, or reservoir, or any other facility used for conveying, receiving, or holding water used or designated to be used for irrigation or any dam, reservoir, gate, flume, flashboard, or other appurtenance used or designed for any of said purposes or shall maliciously or without color of right obstruct, draw off, pump or use any portion of the water flowing through or contained in such ditch, canal, trench, pipe, dam reservoir, or other receptacle used for containing such water.

In accordance with ORS 540.730 it is prohibited to obstruct and interfere with use of works or access thereto.

Whenever any appropriator of water has the lawful right of way for the storage, diversion, or carriage of water, no person shall place or maintain any obstruction that shall interfere with the use of the works, or prevent convenient access thereto.

Anyone destroying, tampering with, vandalizing, or in any way changing head gates, weirs, risers, or any other district water conveyance or measuring system **will be**

prosecuted under Oregon law Chapter 540 (criminal remedy for theft of utility services) and Chapter 670 (civil remedy for theft of utility services); and other remedies, both civil and criminal provided by Oregon law.

If anyone is found to be in violation of the above mentioned, the **penalties** for violation of ORS 540.730 is punishable, upon conviction, by a fine of not less than \$10 nor more than \$250, or by imprisonment in the county jail for not more than six months, or both.

Under ORS 540.710 “The possession or use of water when same shall have been lawfully denied [by the District] shall be *prima facie* evidence of the guilt of the person using it.” This means that you are presumed guilty until you can prove your innocence if you use water when the District properly advised you not to use it.

The District may bring a civil action for damages against any person who knowingly and willingly commits the unauthorized use of water. Pursuant to ORS 30.184, the District may recover from the defendant the amount of actual damages incurred plus punitive damages. The District shall also recover the cost of the suit, reasonable attorney fees and expert witness fees.

ASSESSMENTS

Assessments are set by the Board of Directors at each December board meeting for the following year.

Assessments are not based on the quantity of water delivered and on the costs to operate and maintain the delivery system and the District for the period of January 1st to December 31st. The annual assessment is mailed out to each patron after the board meeting in December. Payment terms are as follows:

The assessments are due in full by March 31st. If payment isn't made in full by this date, interest at 16%, calculated from January 1st, will be added to your account for the unpaid balance until your account is paid in full. Each month interest is accrued on the unpaid assessment balance. On April 1st, your head gate will be shut off and you will not receive water until your account is paid in full. Once you have paid your account in full, you must notify the office if you would like to have your water turned on. We will not turn your water on without your consent.

For accounts not paid in full, when statements are sent out at the beginning of June, a notice will also be attached stating that a \$150.00 late/administrative fee will be added to your account if your account has not been paid in full by June 30th.

Interest will continue to accrue each month on any unpaid balances. For accounts with unpaid balances, when

statements are sent out at the beginning of September, a notice will be included stating that the District's attorney will be instructed to file liens on any unpaid assessments on October 1st. If your account is overdue for more than one year, the District's attorney will be instructed to begin foreclosure procedures on your property on October 1st.

Delinquencies in Payments

The District may withhold delivery of water from any tract of land until the charges and assessments are paid, whether such charges and assessments are for operation and maintenance, delinquent payment, repairs, construction, or other purposes. Interest shall be charged and collected on the assessment or unpaid charges at the rate of one and one-third percent per month. In case of inability to meet this requirement, landowners shall present their case to the Board of Directors.

Payment Plans

In the past, the District has allowed an extension payment plan if it was requested prior to the first board meeting of the year (2nd Tuesday in January). However, the economy has had adverse effects on everyone and the Board recognizes this. The Board has agreed to allow all patrons to sign an agreement for an extension plan up until March 15th. There is a fee associated with signing up for the extension payment plan and this fee along with the signed agreement must be in the office by March 15th.

When you sign an agreement for an extension plan, you agree to make 4 payments (your total assessment divided into four months). Your first payment is due on March 31st, your 2nd on April 30th, your 3rd on May 31st and your final payment on June 30th. During this time, you will not be charged interest and your water will remain on. If, for any reason you default on this agreement, interest will automatically be added on the unpaid balance, calculated from January 1st, your water will be shut off and a late/administrative fee will be added to your account. Your water will not be turned back on until your account has been paid in full.

You may also make payments throughout the year. Once you have paid your assessment for the current year, you may start making monthly payments for the following year based on what you could afford or by looking at your current or previous assessments, divided into twelve months and make equal monthly payments.

Arrowhead and Somerset Subdivisions

Water right deliveries in Arrowhead and Somerset subdivisions are the responsibility of Avion Water Company. District assessments are sent directly to Avion Water Company which then re-bills water users. All questions concerning water delivery regulations or billings should be addressed to Avion Water Company, 382-5342.

IRRIGATION SEASON

The irrigation season as determined by the Deschutes River Decree¹ extends from April 1 to November 1 each year. Typically, the dates are April 15th to October 15th. The Board of Directors may shorten or lengthen the irrigation season within the decreed dates based on seasonal weather conditions and availability of water supply.

The District's water right diversion rates² from the Deschutes River are:

April 1 - April 30 - - 86.5 cfs³
May 1- May 15 - - 113 cfs
May 15 - September 15 - - 150 cfs
September 15 - September 30 - - 113 cfs
October 1 - October 31 - - 86.5 cfs

¹The District holds a 1905 water right for a maximum of 150 cfs diversion of natural flow from the Deschutes River. The District has a February 29, 1913 supplemental water right of 13,500 acre feet stored in Crane Prairie Reservoir.

²Based on the supplemental decree of February 14, 1933.

³Cubic feet per second. For definition and conversion of this and other measurements see **Water Quantity Conversions** on page 34.

Delivery of 6.5 gpm (Gallons Per Minute) Per Acre

Each year the District can forecast there will be a projected increase in the natural flow of the river and ample storage. If there is to be an increase, District patrons will have the opportunity to receive 6.5 gpm per acre instead of the usual 5.5 gpm per acre.

This change will not be made to anyone's delivery unless a **call is made to the office** to specifically **request 6.5 gpm** for your delivery. If you are part of a private delivery, it is the responsibility of all patrons on that delivery to agree upon the delivery rate they desire or a representative must be appointed to make the necessary arrangements with the office.

This offer will be valid for all of our patrons as long as there is adequate water for the District to do so and as long as each patron is able to keep the water on their own lands without causing problems for other patrons with flooding issues, etc. If we find that your delivery is flooding back, your delivery will be shut off and when it is turned back on, it will be turned on at 5.5 gpm per acre and will remain at that rate for the remainder of the season.

In the years the 6.5 gpm option is offered, it may also be cancelled at any time without notice.

Winter Water Stock Runs

Arnold Irrigation District water rights carry a specific right to receive water from the Deschutes River during the winter season for livestock only. There is a fixed quantity of water, per the District's water right certificate, allowed to be diverted during this season and no more. During winter stock runs the District will maintain ditch levels at approximately forty percent of **capacity**. Capacity reflects only the volume of water in the delivery system. Capacity is not a reference to percent of delivery.

Winter water stock runs are not to be used for irrigating land or any other use except livestock. Winter water runs for stock ponds will be **attempted** approximately three times during winter months when weather permits. The proposed dates of stock runs will be noted in the fall FLOW Newsletter which is mailed to all AID water users and will also be listed on our website. These are the dates that the Water Master has approved in advance. Along with these dates are two disclaimers:

- a) that water runs can be started and stopped without any prior notice
- b) that there will be no water runs during extreme cold.

Because the distribution system is so large and open, we are severely impacted by weather conditions. It is common for a water run to be postponed or cancelled due to severe cold. This is due to the increased risk that

comes with the potential for ice to develop in the canals that block water from flowing freely through the system and cause flooding of homes and barns.

IMPORTANT NOTE: If you request that your head gate be closed or adjusted before the end of irrigation season and you would like to receive water during the winter stock runs, you must call to request your water at the beginning of the stock run. **ALSO NOTE THAT EVEN THOUGH YOU DO REQUEST YOUR HEAD GATE TO BE OPEN, IT WILL **NOT** BE OPEN OR ADJUSTED UNTIL WEDNESDAY OR THURSDAY OF THE WATER RUN** (which generally begins on Sunday).

If you do not want winter stock runs, you must call the office at the end of irrigation season and request that we shut your head gate.

In the spring you will need to call the office and request your head gate be opened if you had requested for it to be closed over the winter. The District staff does not automatically open head gates at the beginning of the season.

TRANSFER OF WATER RIGHTS

If you wish to sell a water right, a portion of a water right, or if you wish to purchase a water right, please contact the District office. A transfer requires an application to the State of Oregon's Water Resource Department (OWRD), and must be filed in conjunction with the District. A fee is required to process the transfer.

If you are purchasing a water right, you will be required to have your land prepared to receive the water at the time transfer is processed. Oregon State law requires that lands with a new water right be irrigated in the specific areas mapped within the first year of the transfer, and at least one year out of every five years thereafter. If your water right is mapped, you can only use the water on the specified areas.

Building On a Water Right

The District monitors construction or building activities near mapped water right areas. If the District sees that buildings have been erected or pavements constructed within a water right, the patron will be notified by letter that a transfer process will need to be initiated and completed by the patron. If there are areas on the same property where the displaced water can be transferred, the transfer process must be completed within the same year of notification. If there aren't any areas remaining on the land to which to transfer the water right, the displaced water

right must be sold. In either case, a water transfer must take place and all fees and mapping costs associated with the transfer must be paid by the land owner. Please call the District office for a current map of your water rights.

Cancellation of Water Rights

Water rights can be cancelled by the Oregon Water Resources Department (OWRD) if not beneficially applied (see definition, page 15) for 5 years or more. A process is available for the District to confiscate unused water rights before they are cancelled by the OWRD. The District is making every attempt to monitor all water rights on its certificate and confiscate when appropriate to avoid cancellation. Cancellation of a water right reduces the acres on the District's certificate and the total number of acres the District can assess on each year.

Water Right Exit Policy

Water rights can be removed from Arnold Irrigation District's certificate for a number of reasons, including permanent instream transfer for mitigation of groundwater uses, permanent instream transfer for restoration and cancellation of water rights for non-use.

New non-exempt groundwater permits require mitigation of the potential effects on surface water flows in the Deschutes River. Mitigation can include permanent transfer of surface water rights to groundwater rights with a

portion of the transferred water rights going to supplement in-stream flows. Restoration can involve permanent transfers of surface water rights to supplement in-stream flows.

The District will collect an exit fee for water rights exiting the District. This will help offset the reduction of the annual assessment base resulting from the removal.

ENCROACHMENTS ON DISTRICT EASEMENTS

The Board of Directors of Arnold Irrigation District views with concern any encroachment on the District's easements. Such easements are necessary for the operations of the District and are guaranteed by State and Federal laws. The District's easements are federal easements conveyed by the U.S. Government under the terms of several acts of Congress at the time of the District's formation. The easements are private and exclusive for the operations and maintenance of the district's distribution system. Joint use by the landowner is by agreement of the Board of Directors only. Easements may not be blocked and no encroachments, crossings or other uses will be allowed that will interfere with the District's operation and use. This includes fences, gates, trees, or bridges or any structures or obstructions. If you have a specific need, you must contact the District office.

The construction or placement of roads, pipelines, transmission lines, telephone lines, bridges, flumes, fences, gates, pumps, or any other structures on the District right-of-way will be allowed on terms and conditions that are deemed to be adequate to protect the interests of the District. Construction may not take place until written approval has been received from the District office. You may download a copy of a Field Inspection Application from our website to start the approval process.

The District will not be liable for any damages resulting directly or indirectly from anyone trespassing or using District property or facilities. This pertains as well to any private ditch or water flowing into a private ditch. The District's responsibility ends where the water is delivered at the head gate.

Right of Way Obstructions

No trees, fences, gates or obstructions of any kind are permitted with the District's easements. If you are planning any type of work close to our systems, please contact us to ensure the work is not within our rights of way or easements. **If gates are approved, they must be automatic opening and closing gates** which have a code that can be used with the openers that we currently own.

Damage

It shall be the duty of every landowner to use due care to avoid damage to District canals or other facilities. The landowner shall be liable for any damage, intentional or negligent, including damage from livestock under his possession or control. If such damages do occur, the District may assess damages against the offending District patron.

Wading or Swimming in Canals

No person shall wade, swim, or bathe in the canals, laterals, pipelines, or works of the District and all members of the district are asked to notify the District's office if they observe any person wading, swimming, or bathing in the District facilities.

Dumping Debris into Canals and Ditches Prohibited

Oregon Revised Statute 164.785 prohibits any person from dumping sewage, rubbish, swill, garbage, or other refuse, including all containers both empty and full, and specifically those that hold or did hold any chemical or any other material that will contaminate water, or animal matter into any ditch or canal of the District or upon District property. No tree or vine prunings, brush, weeds, grass, manure, rubbish, garbage, swill, dead animal or other material or substance that will be or become offensive to the sense or injurious to health or injuriously affect the quality of water, obstruct the flow of water or result in the scattering of seeds or noxious weeds, plants or grasses, shall be placed or dumped in any District canal, ditch, conduit, or reservoir or be placed or left so as to roll, slide, flow or be washed or blown into any such canal, ditch, conduit or reservoir. All employees of the District shall promptly report any violation of this rule, and the people of the District are especially urged to cooperate in its enforcement.

Pasturing Livestock

No livestock pasturing will be allowed on right-of-ways. No domestic animals may be allowed direct access to any irrigation canals ORS 164.785. Fences must be put in place obstructing animals access to the District's right-of-ways.

ODA's (Oregon Department of Agriculture) OAR (Oregon Administrative Rules) (603-095-0010(53)) states that you cannot discharge wastes into the water system. **Wastes** include **manure**, commercial fertilizers, soil amendments, composts, vegetative materials, or any other substances that will or may cause water pollution.

Waste discharge means the discharge of waste, either directly or **indirectly**, into waters of the state (ODA's OAR 603-095-0010(54)).

Waters of the State include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, marshes, inlets, **canals**, and all other bodies of surface or underground waters, natural or artificial, public or private (except those private waters which do not connect to natural surface or underground waters) within Oregon (from State Statute for Water Quality: ORS 468B.005 (8)).

LAND USE AND DEVELOPMENTS

There has been considerable development in recent years throughout the District. If you are contemplating construction on your property, there are many factors potentially involving the District, your water rights, and/or adjacent water users that may need to be addressed.

Developing properties with water rights or water deliveries requires District approval. Below you will find many of the issues that will require coordination with our office and staff involving development on such properties:

Water Rights

If there are water rights on a subject property, that is to be subdivided, the rights must be transferred off or apportioned appropriately. Contact the office regarding your water right during the planning stages.

District Deliveries and Easements

The District was granted and has maintained exclusive federally authorized easements within the Deschutes Basin for over a hundred years. It is in the District's best interest to maintain these easements clear and unobstructed. These easements may include, but are not limited to, water ditches, piped water, and access roads that vary in width throughout the District.

Facilities that meander through proposed land divisions may need to be piped or fenced on the outskirts of the easement with an indemnification agreement signed and recorded. When piping through development, the District has standard easement reduction specifications.

Crossings

A crossing permit is required for any underground, surface, or overhead crossing of a Arnold Irrigation District facility. Contact with the District shall be made to acquire a crossing permit prior to any work being done. Information required for crossings may be obtained by contacting the District office.

Review Process and Fees

The District is notified of all land use applications submitted to the county or city that are within its boundaries. Therefore, the District will comment on all land use applications and must provide approval signatures on subject plats. Fees for review and signature, piping agreements, etc. are charged prior to signing related plans or plats.

GLOSSARY

- 1) **Acre:** A measurement of land about 43,560 square feet or 208' x 208'.
- 2) **Acre Foot:** Volume of water. Amount of water to cover an acre of land one foot deep. This equals 0.504 cfs (cubic feet per second) for 24 hours.
- 3) **Appurtenant:** Belong to. Water rights can be appurtenant to a specific piece of land. The District is required to keep records of appurtenant water rights.
- 4) **Water Rights:** The requirement of a water user to have an area of irrigation equivalent to the size of his/her water rights. For example, 1.5 acres of water right = 1.5 acres of area being irrigated.
- 5) **Head gate:** A valve comprised of a plate, which slides over an opening and controls the amount of water being diverted. Head gates can be adjusted and locked. Head gates come in several different styles.
- 6) **Summer Irrigation Flows:** This is the average irrigation flow between May 15th and September 15th. At present, the District is delivering 5.5 gallons per minute per acre of water right. This may change (more or less) in the future.
- 7) **Weir:** There are many types of weirs. They may be a

blade across a canal or river or a slot through which water flows but they all measure water.

- 8) **Stock Water Run:** The District will run the canals every five or six weeks in the winter to fill stock ponds, contingent on weather and maintenance schedules.

DISTRICT FEES

The District charges fees for such items as transfers, instream leases, changes made to the canal and road system, pumping of water from District canals for industrial use, crossings, etc. Anytime a patron contemplates any of these situations, they should contact our office for proper procedures and breakdown of fees. **Please see our website at www.arnoldirrigationdistrict.com or call the district office at 541-382-7664 for current rates.**

1. Inspection Fees

This fee applies to all inspections required by the District. A fee will be required each time an inspection is requested.

2. Signing and Review Fees

These fees apply only if there is water or a ditch on the Property: Sub-division, Land Partition and Lot Line Adjustment Reviews

3. Main Canal Crossing - (any type...(vehicular or non-vehicular)

4. Other Canal Crossing

- a. Ditch Piping
- b. Vehicular (bridges, culverts, etc.)
- c. Non-vehicular (bridges, culverts, power/ phone/gas,etc)

- 5. Easement Agreements**
- 6. Recording Fees for Construction and Easement Agreements**
- 7. Right-Of-Way Crossing Permit**
 - a. Cattle Guards and Gates
 - b. Power/Phone Lines & Poles
- 8. Title Searches**
- 9. Owner Title Transfers**
- 10. Easement Encroachment**
- 11. Easement Abandonment**
- 12. Maps**
- 13. Instream Water Leasing**
- 14. Limited Water Use License**
- 15. Exit Policy**
- 16. New Delivery Installation**
 - a. Head Gate/Weir Inspection
 - b. Head Gate, Weir & Weir Box Installation
- 17. Water Transfers**
 - a. District and State Fees

- b. Preliminary Title Report and Bargain & Sale Deeds
- c. Mapping

18. Inclusion

These fees are related to the inclusion of a property within the district boundaries that are not currently in the boundaries.

19. Water Transfer Extension

20. Research

Arnold Irrigation maintains extensive archives relating to water rights within the Arnold District. This information is open to the public and is free of any charge for personal research. There, are, however, charges for the research/reporting process done by staff.

Fees are per hour or part of an hour for each District employee plus material costs.

21. District Fines and Penalties

- a. Tampering w/ District Property
- b. Theft of Services
- c. Easement Encroachment
- d. Flooding Back
- e. Head gate Cleaning
- f. Bad Check

PUBLIC INFORMATION

The District is subject to Oregon's Public Records Law. The District will respond to all written requests for records. Subject to any exemption that may apply under the law, the District will provide copies of the requested records. The requester shall pay for the cost of District personnel to locate, assemble, review, supervise the inspection of, make copies of and provide reports on the records.

**Please refer to our website
www.arnoldirrigationdistrict.com or call the office at
541-382-7664 for our current fee schedule.**

RESOURCES

City of Bend

www.ci.bend.or.us/

710 NW Wall St., Bend, OR 97701

541-388-5505

Deschutes County

www.deschutes.org

1300 NW Wall St., 2nd Floor, Bend, OR 97701

Phone: 541-388-6570 Fax: 541-385-3202

Deschutes County Extension Service

541-548-6088

or

Deschutes County Weed/Vegetation

541-322-7135

www.deschutes.org

Deschutes Soil and Water Conservation

www.deschuteswcd.org

625 SE Salmon Ave., Suite 7, Redmond, OR 97756

541-923-2204

Oregon Department of Agriculture

http://or.gov/ODA/NRD/water_quality_front.shtml

2146 NE 4th St., Bend, OR, 97701

541-617-0017

Oregon Water Resources Congress

www.owrc.org

437 Union Street NE, Salem, OR 97301

Phone: 503-363-0121 Fax: 503-371-4926

Oregon Water Resources Department

www.oregon.gov/OWRD

725 Summer Street NE, Suite A, Salem, OR 97301

Phone: 503-986-0900 Fax: 503-371-0904

NRCS SNOTEL Sites – Snow Pack

www.wcc.nrcs.usda.gov/snow

Reclamation Daily Water Readings

www.usbr.gov/main/water

USBR Realtime Data Deschutes River Basin

www.usbr.gov/pn/hydromet/realtime.html