

to existing rights of use; and that water may be appropriated only by complying with the statutory procedure, under which an application for an appropriation must be made to the State engineer and under which a certificate is issued upon completion of the appropriation. The State engineer may initiate suits to determine water rights, and, upon the filing of any adjudication suit, the State engineer is notified by the clerk of the court, and is required to make a hydrographic survey and a proposed determination, which is filed in court as the basis of hearings and final adjudication. The State engineer has general administrative supervision over the waters of the State, and may appoint water commissioners for any river system or water source, after consultation with the water users.

Underground sources.—All ground waters are subject to appropriation under the statute as amended in 1935. Even prior to this amendment, the supreme court had applied the appropriation doctrine to the waters of artesian basins (*Wrathall v. Johnson*, 86 Utah 50, 40 Pac. (2d) 755 (1935); *Justesen v. Olsen*, 86 Utah 158, 40 Pac. (2d) 802 (1935)). The procedure for acquiring appropriative rights out of surface streams applies to ground waters as well. Existing claimants to the use of ground waters are required to file notice of their claims with the State engineer. The State engineer may define ground-water areas, and at any time on his own motion, or on petition of not less than one-third of the ground-water users in such an area, he may hold hearings to determine whether the supply is adequate for existing claims, and may apportion the supply if found inadequate. Water commissioners may be appointed for such areas.

Washington

Surface sources.—Both the appropriation and the riparian doctrines are in force in Washington. The water code declares that subject to existing rights, all waters belong to the public, and that rights may be acquired only by appropriation in the manner provided by statute; existing riparian or appropriative rights are not to be affected. An appropriation is initiated by applying to the State Supervisor of Hydraulics for a permit, and upon completion of the appropriation the claimant is entitled to a certificate. The supervisor of hydraulics may take the first step in determining rights, when in his judgment it is necessary, by preparing a statement and plan or map of the locality, and filing the same in court, and is required to do so upon petition of one or more claimants of water rights. In such suit the court refers the proceedings to the supervisor for the taking of testimony as referee, on completion of which a report is filed for further action of the court. The supervisor is in charge of the administration of water rights, in which connection he may designate water districts and appoint watermasters and stream patrolmen, when necessary, upon application of interested parties.

The riparian doctrine is important in the water law, but is of secondary importance in the irrigation economy of the

State. Riparian rights do not attach to navigable waters (*State ex rel. Ham, Yearsley and Rylie v. Superior Court*, 70 Wash. 442, 126 Pac. 945 (1912)), and the waters of nonnavigable streams to which the riparian doctrine applies are those that can be beneficially used on or in connection with riparian land, either directly or prospectively within a reasonable time, the excess being subject to appropriation (*Brown v. Chase*, 125 Wash. 542, 217 Pac. 23 (1923)). To secure protection, a riparian owner must show that either at present, or in the near future, he will make beneficial use of the water (*State v. American Fruit Growers*, 135 Wash. 156, 237 Pac. 498 (1925)).

Underground sources.—The waters of a defined underground stream are subject to the rules that apply to surface streams (*Meyer v. Tacoma Light & Water Co.*, 8 Wash. 144, 35 Pac. 601 (1894)). Percolating waters may be used by the owner of overlying land to a reasonable extent, and in a manner consistent with the reasonable use of his land (*Patrick v. Smith*, 75 Wash. 407, 134 Pac. 1076 (1913); *Evans v. Seattle*, 182 Wash. 450, 47 Pac. (2d) 984 (1935)).

Wyoming

Surface sources.—Rights to the use of surface streams in Wyoming are governed solely by the appropriation doctrine. The riparian doctrine was repudiated in a fairly early case as inapplicable to conditions within the State (*Moyer v. Preston*, 6 Wyo. 308, 44 Pac. 845 (1896)), and has never been acknowledged (*Wyoming v. Colorado*, 259 U. S. 419 (1922)). The constitution declares that the waters of all natural streams, springs, lakes, or other collections of still water are the property of the State, subject to prior appropriation, and that no appropriation shall be denied, except when such denial is demanded by the public interests (art. VIII, secs. 1 and 3). The constitution also provides for a board of control, composed of the State engineer as president, and the superintendents of the 4 water divisions, and vests the board with supervision of the waters of the State (art. VIII, secs. 2, 4 and 5).

To appropriate water, application must be made to the State engineer for a permit. When an appropriation has been perfected and the right has been adjudicated by the board of control, a certificate of appropriation is issued by the board. Adjudications of rights of streams are made by the board of control, in each case after the State engineer has made a hydraulic survey and the superintendent of the water division has taken testimony. A determination or adjudication so made is final unless appealed to the courts. Distribution of water according to priorities is made by the organization of water superintendents and district water commissioners, under the general direction of the State engineer.

Underground sources.—Percolating waters developed artificially belong to the owner of the land upon which they are developed (*Hunt v. Laramie*, 26 Wyo. 160, 181 Pac. 137 (1919)).

TABLE 19.—PROPORTION (PERCENT) OF TOTAL OF AREAS IRRIGATED, BY TYPE OF WATER RIGHTS, BY STATES: 1939, 1929, AND 1919

STATE	APPROPRIATION ¹			RIPARIAN			APPROPRIATION AND RIPARIAN			UNDERGROUND			APPROPRIATION AND UNDERGROUND			RIPARIAN AND UNDERGROUND			ADJUDICATED BY COURT			OTHER, MIXED, AND NOT REPORTED		
	1939 ²	1929	1919	1939 ²	1929	1919	1939 ²	1929	1919	1939 ²	1929	1919	1939 ²	1929	1919	1939 ²	1929	1919	1939 ²	1929	1919	1939 ²	1929	1919
Total (17 States) ³	50.1	41.6	45.9	3.0	2.8	1.9	4.6	—	—	10.6	9.3	5.7	4.5	—	—	0.6	—	—	25.2	41.6	38.5	1.4	4.8	7.9
Arizona	25.7	22.4	69.3	—	—	—	—	—	—	21.3	16.3	8.9	49.7	—	—	—	—	—	0.9	58.2	18.2	2.4	3.1	3.6
California	24.3	38.2	50.5	8.4	7.5	5.7	15.4	—	—	29.1	30.6	20.5	9.4	—	—	2.1	—	—	9.8	16.4	23.3	1.5	7.3	20.0
Colorado	40.7	10.4	9.7	—	—	—	—	—	—	2.0	0.5	0.4	0.2	—	—	—	—	—	55.8	88.4	67.2	1.3	0.7	2.7
Idaho	40.8	45.4	48.1	—	—	—	—	—	—	0.3	0.2	0.1	3.6	—	—	—	—	—	53.5	53.2	44.4	1.8	3.1	7.4
Kansas	15.4	56.9	64.8	2.7	0.1	0.1	1.9	—	—	44.8	16.3	28.5	0.4	—	—	0.2	—	—	28.1	17.7	0.9	6.5	9.0	5.7
Montana	75.6	43.7	53.6	—	—	—	—	—	—	0.1	0.1	(*)	(*)	—	—	—	—	—	23.0	50.5	41.7	1.3	5.7	4.7
Nebraska	85.3	72.4	93.0	0.7	—	—	0.1	—	—	13.3	4.4	0.1	0.3	—	—	0.3	—	—	1.5	22.3	2.1	0.5	0.9	4.7
Nevada	77.9	53.7	65.2	(5)	(5)	(5)	—	—	—	0.7	0.5	0.2	1.5	—	—	—	—	—	16.6	53.3	528.7	3.3	12.5	5.9
New Mexico	81.3	72.6	61.5	—	—	—	—	—	—	6.4	8.5	9.7	0.2	—	—	—	—	—	10.7	17.5	17.1	1.4	1.4	11.7
North Dakota	94.5	82.7	96.2	4.0	—	—	—	—	—	0.2	—	—	—	—	—	—	—	—	—	10.2	—	1.3	7.1	3.8
Oklahoma	55.1	47.1	18.8	18.4	1.1	2.7	—	—	—	13.9	5.0	4.1	—	—	—	2.1	—	—	6.4	—	74.1	4.1	46.6	0.3
Oregon	56.7	39.6	65.7	4.5	10.3	1.5	6.6	—	—	0.7	0.4	0.3	0.8	—	—	0.3	—	—	28.9	44.4	29.8	1.5	5.3	2.7
South Dakota	75.2	71.0	89.3	6.1	5.0	1.6	4.9	—	—	1.1	0.8	0.1	—	—	—	0.3	—	—	7.0	17.4	7.6	5.4	5.8	1.4
Texas	56.5	73.7	70.9	6.3	6.0	12.4	7.2	—	—	25.7	7.7	7.6	0.2	—	—	1.0	—	—	2.5	6.2	0.5	0.6	6.4	8.6
Utah	46.3	41.8	55.7	—	—	—	—	—	—	0.8	1.5	0.6	0.2	—	—	—	—	—	52.3	49.2	42.4	0.4	7.5	1.3
Washington	81.6	68.9	80.0	8.3	5.9	3.2	1.5	—	—	2.7	3.5	3.9	(*)	—	—	—	—	—	4.2	15.0	10.6	1.5	6.7	2.3
Wyoming	96.7	79.2	83.6	—	—	—	—	—	—	0.2	(*)	(*)	(*)	—	—	—	—	—	2.4	17.6	13.4	0.7	3.2	3.0

¹"Appropriation" includes water rights published in the 1930 and 1920 Census reports as "Appropriation and use," "Notice filed and posted," "Permit from State," "Certificate or license from State," also includes "Riparian" rights for Montana and New Mexico in 1919.
²Water rights for supplemental enterprises not included (see State table 16 for each State in the separate State Reports).
³Water rights have not been established in Arkansas, Louisiana, or Florida.
⁴Less than one-tenth of 1 percent.
⁵Riparian rights are not recognized in Nevada, except those adjudicated by courts prior to 1885. The proportion reported as "Riparian," owing to misapprehension as to its legal status, is included with that reported as "Adjudicated by Court."