

# A60 1969 Census of Irrigation, Single-Basin Organizations

Budget Bureau No. 41-S69068; Approval Expires July 1971

FORM 69-A60  
(9-22-69)

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS



## 1969 CENSUS OF IRRIGATION SINGLE-BASIN ORGANIZATIONS

**AN IRRIGATION ORGANIZATION . . .**  
refers to any irrigation facilities providing irrigation water for two or more farms or ranches whether owned or operated by individuals, a partnership, a company, a cooperative, or a district.

Response to this inquiry is required by law (Title 13, U.S. Code). By the same law your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Please mention the Census File Number (the six-digit number in the upper left corner of the address label) if you write to us about this report.  
(Please correct any error in name and address including ZIP code.)

PLEASE RETURN THIS COPY AND THE ENCLOSED MAP

**Section I - TYPE OF ORGANIZATION**

1. During 1969 did this organization (a) supply irrigation water to two or more users, (b) supply water to another irrigation organization, or (c) operate irrigation water storage facilities? (See page 2 in reference notes.)
  - Yes - Complete this report
  - No - Go to "Remarks" on last page, explain what connection if any, the organization has with irrigation water, sign in Section XIV, and return this report to the Bureau of the Census.
2. Type of organization - Mark with "X" the one box which best describes this organization
  - 1 Two or more neighbors or associates, a partnership, or unincorporated mutual or cooperative operating irrigation facilities
  - 2 Incorporated mutual or cooperative - a legally constituted corporation owned by the users, supplying water at cost
  - 3 District - irrigation, drainage, or other which provides irrigation service
  - 4 Commercial company which provides irrigation services
  - 5 Project operated by the U.S. Bureau of Reclamation, excluding projects turned over to users
  - 6 Project operated by the U.S. Bureau of Indian Affairs
  - 7 City or town municipal system
  - 8 Farmer or rancher supplying water to others for irrigation
  - 9 Other - Specify \_\_\_\_\_

**Section II - PURPOSE OF OPERATION IN 1969**

3. Purposes for which the facilities of this organization are operated - Mark with "X" all boxes which apply
  - 1 Irrigation
  - 2 Municipal or industrial water supply
  - 3 Flood control
  - 4 Artificial ground water recharge (spreading basins, injection, etc.)
  - 5 Mixing or blending water to improve quality
  - 6 Recreation - if recreational use intended
  - 7 Hydroelectric power generation
  - 8 Other - Specify \_\_\_\_\_

**Section III - SOURCE OF WATER IN 1969**

4. Direct source(s) of water received by this irrigation system in 1969. (See Section III in reference notes.) - Mark with "X" all boxes which apply.
  - Directly from a supplier:
    - 1 Another irrigation organization
    - 2 Municipal water system
    - 3 Other supplier
  - Directly from natural source:
    - 4 Natural stream - Give name(s) \_\_\_\_\_
    - 5 Natural lake or pond - Give name(s) \_\_\_\_\_
    - 6 Reservoir - Give name(s) \_\_\_\_\_
    - 7 Springs
    - 8 Flowing wells
    - 9 Pumped wells
    - 0 Drainage water (not drainage resulting from this organization's operation)

GO TO SECTION IV

**Section IV - EXCHANGE OF WATER WITH OTHER ORGANIZATIONS IN 1969**

5. Was any water purchased (or traded for) and received directly from a canal, pipeline, or reservoir operated by another organization? - Report only water received through facilities connected (or joined) with those of another organization.
  - Yes - Give the following information
  - No - Go to item 7

Name and address of organization supplying water	Acre-feet obtained
a. _____	100
b. _____	101
CENSUS USE ONLY	102

If more space is needed, continue in "Remarks" on page 4

6. How much water was purchased from organizations reported in item 5 above? - Exclude traded water.
  - 106 \_\_\_\_\_
  - x  None - Go to item 7

a. Quantity of water purchased . . . . . 107 \_\_\_\_\_ Acre-feet

b. Amount paid for purchased water . . . . . 108 \_\_\_\_\_ Dollars only

7. Was any water delivered by this organization directly into the system of another separately operated organization which assesses or collects water charges?
  - Yes - Give the following information
  - No - Go to Section V

Name and address of organization receiving water	Acre-feet delivered
a. _____	109
b. _____	110
CENSUS USE ONLY	111

If more space is needed, continue in "Remarks" on page 4

**IMPORTANT NOTE** Separate census reports will be obtained from the organizations listed in item 7 above. Therefore, nothing should be reported about the operation of these organizations in the remaining sections of this form (except the quantity of water delivered to them).

**Section V - WATER USERS AND ACRES SERVED BY THIS ORGANIZATION IN 1969 (Excluding those in Item 7)**

8. Water users served directly by this organization - Do not duplicate.
 

a. Farms and ranches receiving water for irrigation . . . . .	None	115
b. Residential and domestic users - Report users, including farms and ranches using water ONLY for household use, lawns and gardens, or for livestock water. . . . .	None	116
c. Other users - municipal water systems, recreational organizations, public installations, industrial plants, etc. . . . .	None	117
9. Land in farms and ranches (8a above) served directly by this organization
 

a. Acres developed for irrigation - Include land that could be irrigated with existing facilities if water were available. (See item 9a in reference notes.) . . . . .	None	118
b. Acres irrigated in 1969 . . . . .	None	119
10. Approximate amount of land taken out of production from this organization's service area since January 1960 due to -
 

a. Salinity or alkalinity . . . . .	None	120
b. Poor drainage . . . . .	None	121
c. Urbanization - residential, commercial, industrial, highway, rights-of-way, etc. . . . .	None	122
d. Other - Specify _____	None	123

CENSUS USE ONLY	124	125	126	127	128	129
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### Section V - WATER USERS AND ACRES SERVED BY THIS ORGANIZATION - Continued

11. Did any of the farms and ranches served by this organization obtain additional irrigation water from another organization or from their own well or ditch?  Yes - Estimate number \_\_\_\_\_  No - Go to item 12 130
12. Estimate the rate of application of irrigation water, from all sources, on land served by this organization. Report either a or b. 131
- a. Average quantity applied per acre - Report to nearest tenth acre-foot \_\_\_\_\_ / 10 Acre-feet
- b. Average depth applied in inches \_\_\_\_\_ Inches 132

### Section VI - IRRIGATION FACILITIES OF THIS ORGANIZATION IN 1969

13. Diversion dams operated - not storage reservoirs.  None \_\_\_\_\_ Number 133
14. Flowing, artesian wells which require no pumping.  None \_\_\_\_\_ Number 134
15. Other wells.  None \_\_\_\_\_ Number 135
- a. Average distance from ground surface to water in wells \_\_\_\_\_ Feet 136

16. Were any pumps used in this irrigation system?

- Yes - Complete this item
- No - Go to item 17

	Total number (1)	Total pumping capacity of all pumps Use either column (2) or (3)		Average vertical lift to discharge (all pumps) Feet (4)
		Gallons per minute (2)	Cubic feet per second (3)	
a. Pumps used on wells	137	138	139	140
b. Pumps on streams, reservoirs, lakes, or ponds (pumps used to divert water from surface source)	141	142	143	144
c. Other pumps (pumps used to relift water within system; pumps used for drainage)	145	146	147	148

17. Length of conveyance facilities:

- a. Unlined canals, laterals, or ditches  None
- b. Lined canals, laterals, or ditches, including flumes and siphons (Include concrete, asphalt, compacted earth, etc.)  None
- c. Pipelines  None
- d. Drains maintained  None
- e. Tunnels  None

	Length of all facilities		Length of larger facilities - 50 or more cubic feet per second (22,500 gallons per minute or more)	
	Miles	Tenths	Miles	Tenths
a.	149		150	
b.	151		152	
c.	153		154	
d.	155			
e.	156			

### Section VII - IRRIGATION WATER STORAGE RESERVOIRS OF THIS ORGANIZATION IN 1969

18. Did this organization have any water storage reservoirs in 1969, excluding dams solely for diversion?  Yes - Complete this section  No - Go to Section VIII 157
19. Reservoirs (on or off stream) with a capacity under 1,000 acre-feet
- (1) Number of reservoirs \_\_\_\_\_ Number 158
- (2) Total filled capacity of these reservoirs \_\_\_\_\_ Acre-feet 159
20. Did this organization have any off-stream reservoirs with a capacity of 1,000 acre-feet and over (reservoirs filled chiefly by water conveyed through canals or pipes)?  Yes - List each reservoir and fill columns (2) through (9) for each.  No - Go to item 21

Name of reservoir (1)	Total filled capacity Acre-feet (2)	Water diverted into each reservoir, in 1969 Acre-feet (3)	Water withdrawn (conveyed) from each reservoir in 1969 -				Amount of water in each reservoir as of -	
			Into distribution system Acre-feet (4)	For all other releases		Oct. 1, 1968 Acre-feet (8)	Oct. 1, 1969 Acre-feet (9)	
				None (5)	Quantity not known (7)			
a.	200	1	2	<input type="checkbox"/>	3	4	5	6
b.	201	1	2	<input type="checkbox"/>	3	4	5	6
c.	202	1	2	<input type="checkbox"/>	3	4	5	6

If more space is needed, use the "Remarks" space on page 4 or attach a separate sheet of paper.

21. Did this organization have any on-stream reservoirs with a capacity of 1,000 acre-feet and over (reservoirs filled chiefly by the stream across which the dam is built)? - Do not include simple diversion dams.  Yes - List each reservoir and fill columns (2) through (7) for each.  No - Go to Section VIII

Name of reservoir (1)	Name of stream intersected (2)	Total filled capacity Acre-feet (3)	Water withdrawn into irrigation system in 1969 Acre-feet (4)	Water released to stream channel for later irrigation diversion down-stream		
				None (5)	Acre-feet (6)	Quantity not known (7)
a.		300	1	<input type="checkbox"/>	2	3
b.		301	1	<input type="checkbox"/>	2	3
c.		302	1	<input type="checkbox"/>	2	3

If more space is needed, use the "Remarks" space on page 4 or attach a separate sheet of paper.

### Section VIII - MEASUREMENT OF WATER IN 1969

22. What types of flow measuring devices were used? (Mark with "X" all boxes which apply.) 400
- Weir  Parshall flume  Meter  Orifice  Other - Specify \_\_\_\_\_ x  None
23. What portion of water flowing at the following points was measured (approximate)? 401
- a. At entry into this system  None or Percent \_\_\_\_\_ %
- b. At delivery  None or Percent \_\_\_\_\_ % 402
- c. At release into natural channels  None or Percent \_\_\_\_\_ % 403

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### Section IX – SUPPLY AND DISPOSITION OF WATER IN 1969

NOTE: Quantities of water received and released by this organization should be reported on the basis of where it came under or left the control of this organization. If this organization has an off-stream reservoir, report as supply, water diverted into these reservoirs – not water taken from them:

24. Supply of water from:
- Another organization's canal, pipe, or reservoir (Total reported in item 5) . . . . .
  - Surface sources (streams, lakes, on-stream reservoirs, drainage ways) . . . . .
  - Ground sources (pumped wells, flowing wells, and springs) . . . . .
  - Total water supply received from all sources by this organization (Add acre feet for lines a + b + c.) →
25. Disposition or use of water through:
- Delivery directly to farms and ranches reported in item 8a for irrigating land – If you do not measure deliveries, deduct an estimate for conveyance loss. . . . .
  - Delivery directly to individual users solely for residential or domestic use (Water users reported in item 8b) . . . . .
  - Delivery directly to works of other irrigation organizations (Total of amounts reported in item 7) . . . . .
  - Delivery directly to other users for other uses (Water users reported in item 8c) . . . . .
  - Release from irrigation conveyance system for your own power production . . . . .
  - All other releases from the irrigation conveyance system, including spillage of excess . . . . .
  - Conveyance loss (estimated) due to evaporation and seepage If none, please explain in "Remarks." . . . . .
  - Total water delivered to users, released, or lost by this organization. (Add acre feet for lines a through g. This total should be the same as item 24d, except for certain situations explained in item 25h in reference notes.) →

	Quantity of water		
	Use this column if possible Acre-feet	Rate of flow	Duration of flow
404		Gallons per minute Cubic feet per second Miners inches	for _____ days
405		Gallons per minute Cubic feet per second Miners inches	for _____ days
406		Gallons per minute Cubic feet per second Miners inches	for _____ days
407			
408		Gallons per minute Cubic feet per second Miners inches	for _____ days
409		Gallons per minute Cubic feet per second Miners inches	for _____ days
410		Gallons per minute Cubic feet per second Miners inches	for _____ days
411		Gallons per minute Cubic feet per second Miners inches	for _____ days
412		Gallons per minute Cubic feet per second Miners inches	for _____ days
413		Gallons per minute Cubic feet per second Miners inches	for _____ days
414		If not known in acre-feet give percent loss. Percent _____ %	
415			

### Section X – NEW CAPITAL INVESTMENT, SOURCES OF FUNDS, AND INDEBTEDNESS – 1960–1969

**Improvements on existing facilities, buildings and equipment** – Report only the amount you spent during the last ten years over and above what it would cost to replace the original with similar facilities or equipment.

**New construction and added equipment** – Report only additional facilities, buildings, or equipment.

**Include** only those facilities chargeable to irrigation and only the cost to this organization of works built jointly with another organization.

For construction in progress, include only that part performed during calendar years 1960 through 1969.

**Exclude** cost of ordinary repairs and replacements; expenditures for land, rights-of-way, and water rights; payments to the Bureau of Reclamation or other organizations for facilities already constructed.

User operated projects should NOT report expenditures financed by the Bureau of Reclamation or Indian Affairs; these will be obtained directly from those agencies.

26. Were there any expenditures by this organization for construction of additional facilities, purchase of added equipment, or improvements to facilities or equipment for irrigation and drainage, between January 1, 1960 and December 31, 1969?
- Yes – Complete this item       No – Go to item 28

#### IMPROVEMENTS ON EXISTING FACILITIES, BUILDINGS, AND EQUIPMENT

a. Lining of existing canals . . . . .  None

b. Deepening wells (Report new wells in j below.) . . . . .  None

c. Other improvements to existing facilities, buildings, and equipment . . . . .  None

#### NEW CONSTRUCTION AND ADDED EQUIPMENT

d. Unlined canals, laterals, or ditches . . . . .  None

e. Lined canals, laterals, or ditches, including flumes and siphons . . . . .  None

f. Pipelines . . . . .  None

g. Drainage ways . . . . .  None

h. Tunnels . . . . .  None

i. New reservoirs . . . . .  None

j. Wells . . . . .  None

k. Pumps, all kinds . . . . .  None

l. Diversion dams . . . . .  None

m. Other (added equipment, facilities, buildings, etc.) . . . . .  None

n. Total cost of improvements and additions (Sum of lines a through m) →

	Number	Cost	
		Dollars	Cents
Miles 416	Tenths	417	
Number of wells 418		419	
		420	
Miles 421	Tenths	422	
Miles 423	Tenths	424	
Miles 425	Tenths	426	
Miles 427	Tenths	428	
Feet 429		430	
Number 431	Total capacity 432	433	
Number 434	Average distance from ground surface to water 435	436	
	Feet	437	
Number 437	Total rated capacity 438	439	
	g.p.m.	440	
Number 440		441	
		442	
		443	
		444	

**A60 1969 Census of Irrigation, Single-Basin Organizations—Continued**

**Section X – NEW CAPITAL INVESTMENT, SOURCES OF FUNDS, AND INDEBTEDNESS – Continued**

**27. Source of funds for improvements and new construction, 1960–1969 – Mark the box for each direct source of funds used to make the improvements and additions reported in item 26. Do NOT report the means of acquiring the funds for REPAYMENT of the debt.**

- a. Direct Federal Government appropriations**
- 1  Reimbursable (to be repaid)
- 2  Non-reimbursable (grants, cost-sharing, etc.)
- b. Other sources of funds**
- 3  Sale of bonds
- 4  Sale of stock
- 5  Special assessments (whether levied by the organization or through tax assessment)
- 6  Borrowing from any source other than sale of bonds
- 7  Other (reserves, sale of assets, State and local appropriations, gifts, etc.)
- Specify \_\_\_\_\_

**28. Total indebtedness**

	None	CENTS NOT REQUIRED	
		Dollars	Cents
a. Total indebtedness of this organization chargeable to irrigation and drainage as of December 31, 1969 – Include outstanding bonds, notes, repayment contracts, and construction obligations. Exclude current liabilities.	<input type="checkbox"/>	445 \$	
b. Amount obligated to the U.S. Bureau of Reclamation or Bureau of Indian Affairs (part of item 28a above).	<input type="checkbox"/>	446 \$	

**Section XI – COST OF OPERATION AND MAINTENANCE IN 1969**

**29. Amount spent by this organization in 1969 for the operation, maintenance, and repair of irrigation equipment and facilities (excluding water purchased). – Include fuel, power, maintenance, ordinary repairs and replacements, and hired labor. Exclude improvements, additions, and the value of labor and materials furnished by owners or operators**

	None	CENTS NOT REQUIRED	
		Dollars	Cents
	<input type="checkbox"/>	447 \$	

**Section XII – IRRIGATION REVENUE OF THIS ORGANIZATION IN 1969**

**30. Money received by this organization in 1969 from water users for the operation and maintenance of or for repayment of construction cost on the irrigation system (include collections made directly from users on the basis of charges or assessments per acre, per share, per acre-foot, or on the basis of assessed valuation):**

	None	CENTS NOT REQUIRED	
		Dollars	Cents
a. From farms and ranches (reported in item 8a)	<input type="checkbox"/>	448 \$	
b. From residential and domestic water users (reported in item 8b)	<input type="checkbox"/>	449 \$	
c. From other irrigation organizations (reported in item 7)	<input type="checkbox"/>	450 \$	
d. From other users	<input type="checkbox"/>	451 \$	
e. Total received from all users of water	<input type="checkbox"/>	452 \$	

**31. If the farms and ranches served by this organization made payments as individuals to some other irrigation organization in 1969, enter the name and mailing address of that organization.**

Name		
Address – Number and street		
City and State	ZIP code	

**Section XIII – LOCATION OF DIVERSION POINTS AND DELIVERY POINTS IN 1969**

- 32. Locate on the enclosed map the following features of your organization's operation. Please use the symbols indicated – red pencil preferred. BE SURE TO RETURN THE MAP WITH THIS QUESTIONNAIRE.**
- a. Diversion or pumping points from surface or ground sources or points where water from another organization enters works operated by this organization
- b. Points where water is delivered to works operated by other irrigation organizations
- c. Off-stream reservoirs (1,000 acre-feet or more capacity)
- d. On-stream reservoirs (1,000 acre-feet or more capacity)
- e. Land served directly by this organization

Symbols	CENSUS USE ONLY	
	State	Drainage Basin No.
Write name on map		
Write name on map		
Sketch in outline of area		

**33. Indicate by marking below whether water was transported across State lines, across drainage basin boundaries, or across county lines. (See item 33 in reference notes.) – Mark with "X" all boxes, which apply.**

1  Across State lines      2  Across basin boundaries      3  Across county lines

Remarks (Identify remarks by item number)

*(If more space is needed, attach a separate sheet of paper)*

**Section XIV – CERTIFICATION**

34. Person supplying information	Name	Title	Telephone	
	Mailing address – Number and street, city and State		Area code	Number
			ZIP code	