1911 1951

ANNUAL REPORT

. . . by the . . .

PRESIDENT OF THE BOARD OF DIRECTORS

IMPERIAL IRRIGATION DISTRICT

JANUARY 1, 1952

B. A. WEISS

1951

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DIRECTORS

Evan T. Hewes, President of the Board

Charles Morrow — Martin L. McFarland

Jack Bryant — Ollie Stewart

ASSESSOR-COLLECTOR

H. J. Ford

SECRETARY

[illegible]

TREASURER

[illegible]

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SECRETARY

Mahlon I. Mathis

TREASURER

Anna T. McManus

El Centro, California
January 1, 1952

To the
Board of Directors of
Imperial Irrigation District
and to All the People We Serve

I am pleased to submit herewith a review of District operations for the year ended December 31, 1951.

During the period covered by this report, the District has made substantial progress in improving its irrigation and drainage system facilities to meet expanding requirements throughout the Valley, and its electric power system to meet the growing demands for service in Imperial County and the part of Coachella Valley served with electric power by the District. We have planned and constructed facilities so that future expansion of business enterprise can be taken care of without delay. Without this assurance of service, expansion of business and industry could not continue.

Under the District's financial policy, current operation and maintenance costs, and all improvements and betterments to the irrigation and drainage systems, are on a cash basis paid for from current revenue from assessments and water service charges. The Power Division operates on a cash basis for operation and maintenance, and for all minor additions and betterments, with revenue from the sale of electric energy. The major phases of expansion of the power system are financed with money derived from the sale of Electric Revenue Bonds, and the interest on and principal of the bonds are paid from revenue from the sale of electric energy.

During the past decade as the cost of materials and labor has risen, the cost of delivery of water has also risen. Since the quantity delivered does not increase materially from year to year, it has been necessary to adjust the rate for delivery of water accordingly in order to provide revenues for operation and maintenance and for additions and improvements to the irrigation and drainage systems. However, sale of electric energy has increased as business and industry expanded to the extent that the additional revenue has been sufficient to meet operation and maintenance costs and to provide for some expansion without an increase in rates.

The accomplishments during the year 1951 as recorded in this report would not have been possible without the co-operation of the officers and employees of the District and the loyal support of the people of the Valley. To all of you I respectfully dedicate this report.

Evan T. Hewes

EVAN T. HEWES, President
Board of Directors

East Highline Canal and No. 1 Side Main
Turnouts from All-American Canal

The District . . .

Organization and Functions:

Imperial Irrigation District is a public corporation organized in 1911, under the California Irrigation District Act, as supplemented and from time to time amended (now codified as Division 11 of the Water Code of California), and since that date it has been continuously in operation. The governing body is a Board of five Directors, each elected from a separate geographical division of the District for a term of four years by the qualified electors residing therein. The other elective positions are the Treasurer and Assessor-Collector.

The District performs three chief functions, (a) diversion and delivery of Colorado River water for irrigation and domestic purposes; (b) operation and maintenance of drainage canals and facilities; and (c) generation and distribution of electricity.

Location and Area:

The District is located entirely in Imperial County, California, approximately 100 miles east of San Diego, and includes all of the cultivated lands in Imperial Valley. The District formerly had a gross area of 612,658 acres, of which about 450,000 acres were irrigated in 1951 out of a total of 530,000 acres considered as irrigable. In 1942, the District annexed (but did not assess) approximately a quarter of a million acres of undeveloped public lands in the East, West, and Pilot Knob Mesas. These lands are to be irrigated in the future from the All-American Canal.

The District is the largest irrigation district in the United States, with a present gross area of 893,545 acres. Under full development, it is estimated that about 770,000 acres within the District will be irrigated.

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FOREWARD

At the biennial reorganization of the District Board following the election in February, Martin L. McFarland was officially seated as director of the Second Division, Imperial area, replacing Mack Trentham. All other directors, officers, and department heads remained unchanged.

In connection with the provisions of Public Law 786, which was passed on September 13, 1950, by the 81st Congress, the American Commissioner of the International Boundary and Water Commission continued the survey to determine the value of the District's Andrade properties to be acquired by the United States.

During the course of the year, several meetings were held with the Secretary of the Interior and officials of the Bureau of Reclamation in an attempt to resolve certain questions in connection with carrying out the provisions of the 1932 contract between the Secretary of the Interior and Imperial Irrigation District. One of the provisions of this contract was that when the All-American Canal was completed it was to be turned over to the Imperial Irrigation District to operate and maintain. As a result of these meetings agreement was reached on all the provisions of the contract except one, namely; who was to operate the head gates of the canal. It appears now that an early agreement on this one provision will be reached and Imperial Irrigation District will be allowed to operate the diversion gates for the All-American Canal as well as operate and maintain the canal, as provided by this contract.

Construction of a new check structure in the East Highline Canal about 800 feet from the turnout from the All-American Canal was completed during the year at a cost of $157,476. The second phase of this project requiring rearrangement of irrigation and drainage facilities to permit the new check to be fully operative, was nearing completion, at the close of the year and is expected to cost $200,000. The third phase of this project, while not presently scheduled for construction, calls for a combination hydro plant and turnout structure from the All-American Canal to the East Highline Canal.

Satisfactory progress was made on construction of Unit No. 2 of the El Centro Steam Station, one of the features of the 1949 Power Development Project. This unit which will have a generating capacity of 30,000 kw will go into operation about 1952. Other phases of the project are proceeding according to schedule.

Top credit rating of Imperial Irrigation District was reflected in the sale of the District's Second Division of Tenth Issue Electric Revenue Bonds in the amount of $6,500,000 to Blyth and Company, Inc., and twenty associated nationally known bond underwriting firms on September 11, 1951. Proceeds from the sale of these bonds will be used to complete financing of the District's 1949 Power Development Project which provides for urgently needed additions and betterments to the District's power system.

East Highline No. 1 Check

FINANCIAL

(a) Bonded Indebtedness:

Changes in the District's long-term indebtedness for the calendar year ended December 31, 1951, are reflected in the following tabulation prepared by Treasurer, Anna T. McManus:

	Total Indebtedness Dec.31, 1950	Tenth Issue Second Division Bonds Issued	Bonds Retired	Total Indebtedness Dec.31, 1951
Gen. Obligation Bonds	$13 027 000		$412 000	$12 615 000
Power Revenue Bonds	19 390 000	$6 500 000	397 000	25 493 000
Total	$32 417 000	$6 500 000	$809 000	$38 108 000

Note: $75,500 First Refunding Bonds, and $2,446.51 Refinanced Warrants not included above. These bonds and warrants were called for retirement July 1, 1943, and funds set aside for their retirement.

(b) 1951 Operations at a Glance:

1. Irrigation Division (Not Including Irrigation Division in Mexico)

The District's Irrigation Division Earned -		$4 012 597
From Assessments, Penalties and Costs	$1 319 650	
From Sales of Land Formerly Held under Assessment Deeds	49 367	
From Interest on Redemption of Delinquent Assessments	6 603	
From Water Sales, Gate and Pipe Service Charges	2 444 932	
From Interest on Reserves	44 368	
From Rental of Buildings and Equipment	48 738	
From Sales of Rock, Andrade	4 433	
From Other Sources	94 506	
This is How It Was Used or Set Aside -		
For Operating Expenses	$2 257 964	
For Depreciation of Buildings and Equipment	78 456	
For Losses on Sales and Retirements of Assets	22 053	
For Interest on Bonds	432 721	
For Amortization of Debt Discount	7 048	
For Taxes	532	
Which Accounts for Operating Expenses and Income Deductions of	$2 798 774	
Which Leaves a Net Income of	$1 213 823	
Which Was Used as Follows:		
For Bonds Retired	$ 412 000	
For Additions to Canal System	343 654	
For Additions to Drainage System	458 169	
	$1 213 823	
Which Accounts for		$4 012 597

(b) 1951 Operations at a Glance: (Continued)

2. Power Division

The District's Power Division Earned -		$4 720 193
From Power Sales	$4 649 514	
From Interest on Reserves	60 549	
From Rental of Electric Property	6 361	
From Other Sources	3 769	
This is How It Was Used or Set Aside -		
For Operating Expenses	$2 277 503	
For Depreciation of Plant	612 409	
For Interest on Bonds	362 176	
For Amortization of Plant Costs	35 967	
For Taxes	10 620	
Which Accounts for Operating Expenses and Income Deductions of	$3 298 675	
Which Leaves a Net Income of	$1 421 518	
Which Was Used as Follows:		
For Bonds Retired	$ 397 000	
For Payments into Bond Reserves	46 150	
For Additions to Plant	512 447	
For Deposit with U. S. on All-American Canal Costs	85 190	
Retained in Operating Funds	380 731	
Which Accounts for		$4 720 193

(c) Consolidated Statement of Assets and Liabilities and Net Worth, December 31, 1951 (Inter-Divisional Accounts Eliminated):

ASSETS:		
Funds for: Operation and Maintenance		$ 5 283 361
Payment of Bond Principal and Interest		2 951 174
New Construction		6 478 330
Other Special Funds		1 433 038
Total Funds, Including $6,554,300 Invested in U. S. Bonds and Treasury Certificates		$16 145 903
Accounts Receivable		1 150 533
Materials and Supplies		1 215 772
Delinquent Assessments and Tax Deed Land		103 073
Deferred Charges		1 402 917
Properties (Irrigation and Power Systems)		46 317 516
Total Assets		$66 335 714
LESS LIABILITIES:		
Current Liabilities	$ 1 756 218	
Outstanding Bonds	38 183 500	
Unpaid Warrants	2 447	
Deferred Contract Installments	60 000	
Reserves	165 610	
Deferred Credits	1 687 806	41 855 581
NET WORTH - From Operations	$21 915 538	
Contributed	2 564 595	$24 480 133

The Net Worth is 37% of Total Assets.

(d) Comparative Income and Expense Statement:

1. Irrigation Division (Accounts of Subsidiary Company in Mexico Not Included):

		1951	Over 1950	Under 1950
1.	Operating Revenue	$ 3 968 229		$338 604
2.	Operating Deductions	2 359 005		17 130
3.	Operating Income	$ 1 609 224		321 474
4.	Other Income	44 368	$ 8 198	
5.	Gross Income	$ 1 653 592		313 276
6.	Income Deductions	439 769		13 370
7.	Net Income, or Current Earned Surplus	$ 1 213 823		299 906
1a.	Current Assets	$ 3 769 181		3 540
2a.	Investment and Fund Accounts	1 958 954	5 249	
3a.	Fixed Assets	18 873 162	830 736	
4a.	Other Assets and Deferred Charges	662 043	126 234	
5a.	Investment in Subsidiary Mexican Company	7 945 399		
	Total Assets	$33 208 739	958 679	
6a.	Current Liabilities	$ 874 892	321 381	
7a.	Long-Term Liabilities	12 505 000		582 000
8a.	Deferred Credits and Reserves	1 535 013	9 712	
9a.	Surplus	18 293 834	1 209 586	
	Total Liabilities and Surplus	$33 208 739	958 679	

2. Power Division:

		1951	Over 1950
1.	Operating Revenue	$ 4 659 644	$ 326 879
2.	Operating Deductions	2 936 499	279 753
3.	Operating Income	$ 1 723 145	47 126
4.	Other Income	60 549	14 516
5.	Gross Income	$ 1 783 694	61 642
6.	Income Deductions	362 176	1 608
7.	Net Income, or Current Earned Surplus	$ 1 421 518	60 034
1a.	Current Assets	$ 4 205 220	1 189 572
2a.	Investment and Fund Accounts	8 911 087	2 341 908
3a.	Fixed Assets	24 794 557	4 705 185
4a.	Other Assets and Deferred Charges	639 303	85 190
	Total Assets	$38 550 167	8 321 855
5a.	Current Liabilities	$ 1 530 558	788 443
6a.	Long-Term Liabilities	25 085 000	6 092 000
7a.	Deferred Credits and Reserves	318 199	10 803
8a.	Surplus	11 616 410	1 430 609
	Total Liabilities and Surplus	$38 550 167	8 321 855

(e) Fund Balances - December 31, 1951, and December 31, 1950:

	December 31 1951	December 31 1950	Increase or Decrease*
IRRIGATION OPERATING FUNDS:			
Assessments Collected for Following Year	$ 259 507	$ 224 233	$ 35 274
Other Cash Balances	2 017 448	1 934 484	82 964
Total Fund Balances	$ 2 276 955	$ 2 158 717	$ 118 238
COMPANIA OPERATING FUNDS:(1)			
Compania General Fund - Fund Balance	$ 28 199	$ 16 241	$ 11 958
IRRIGATION BOND AND WARRANT FUNDS:			
Assessments Collected for Following Year	$ 516 865	$ 483 367	$ 33 498
Other Cash Balances	723 251	789 496	66 245*
Total Cash Balances	$ 1 240 116	$ 1 272 863	$ 32 747*
Less Unpaid Matured Principal and Int.	(119 361)	(127 006)	(7 645)*
Less Int. Maturing Next January 1	(214 521)	(221 722)	(7 201)*
Less Bonds Called for Redempt. Next Jan.1	(160 000)	(200 000)	(40 000)*
Total Fund Balances	$ 746 234	$ 724 135	$ 22 099
DRAINAGE FUND:			
Assessments Collected for Following Year	$ 119 408	$ 111 666	$ 7 742
Other Cash Balances	386	27 840	27 454*
Total Fund Balances	$ 119 794	$ 139 506	$ 19 712*
MISCELLANEOUS IRRIGATION FUNDS:			
Total Fund Balances	$ 599 042	$ 541 335	$ 57 707
POWER OPERATING REVENUE FUNDS:			
Cash Balances	$ 2 978 208	$ 1 910 564	$1 067 644
Due from Power Construction Fund	42 515	114 789	72 274*
Fund Balances	$ 3 020 723	$ 2 025 353	$ 995 370
POWER BOND FUNDS:			
Cash Balances	$ 1 711 057	$ 1 592 263	$ 118 794
Less Unpaid Matured Bond Interest	(6 061)	(4 814)	(1 247)
Less Interest Maturing Next January 1	(315 054)	(273 293)	(41 761)
Less Bonds Maturing Next January 1	(408 000)	(213 000)	(195 000)
Fund Balances	$ 981 942	$ 1 101 156	$ 119 214*
POWER CONSTRUCTION FUNDS:			
Cash Balances	$ 6 260 313	$ 4 057 602	$2 202 711
Due Power Revenue Fund	(42 515)	(114 789)	(72 274)*
Fund Balances	$ 6 217 798	$ 3 942 813	$2 274 985
MISCELLANEOUS POWER FUNDS:			
Fund Balances	$ 932 219	$ 911 226	$ 20 993
ALL FUNDS:			
Assessments Collected for Following Year	$ 895 780	$ 819 266	$ 76 514
Other Cash Funds	15 250 123	11 781 051	3 469 072
Total Cash Balances	$16 145 903	$12 600 317	$3 545 586
Less Bond Principal and Int. Due Jan. 1	(1 222 997)	(1 039 835)	(183 162)
TOTAL FUND BALANCES	$14 922 906	$11 560 482	$3 362 424

()Deduction
*Decrease
(1)Funds of Subsidiary Company in Lower California, Mexico

(f) Consolidated Revenue and Expense Statement - January 1 to December 31, 1951 (I.I.D. and Compania de Terrenos y Aguas de la Baja California, S. A.):

	Consolidated	Imperial Irrig.District Power Div.	Imperial Irrig.District Irrig. U.S.	Compania de T. y A. Irrig.Mex.
REVENUE				
OPERATING REVENUES:				
Realized Revenue from:				
Current Year Assessments	$1 259 520		$1 259 520	
Penalties and Costs	4 844		4 844	
Redemption of Delinquent Assessments	55 286		55 286	
Interest Collected on Redemptions	6 603		6 603	
Total Collected by Assessor-Collector	$1 326 253		$1 326 253	
Sales of Land Held Under Assessment Deeds	38 979		38 979	
Equivalent of Current Assessments on Tax Deed Land	8 577		8 577	
Rental of Land Held under Assessment Deeds	3 961		3 961	
Interest on Land Sales Contracts	1 811		1 811	
Total Revenues Derived from Assessments	$1 379 581		$1 379 581	
Water Sales	2 535 727		2 360 093	$175 634
Gate Service Charges	59 345		59 345	
Pipe Service Charges	25 494		25 494	
Rental of Buildings	42 180	$ 6 361	35 819	
Rental and Sales of Operative Land	23 150		23 150	
Rental of Equipment	12 919		12 919	
Sales of Rock from Andrade Quarry	4 433		4 433	
Landowners' Share of Construction Costs	49 131		49 131	
Contributions for Oper. and Maint. of All-American Canal	17 046		17 046	
POWER SALES:				
Residential or Domestic Sales		1 672 077		
Rural Sales - Agricultural Power		432 815		
Commercial and Industrial Sales		1 982 168		
Public Street and Highway Lighting		25 414		
Other Sales to Public Authorities		53 639		
Sales to Other Electric Utilities		444 411		
Interdepartmental Sales		38 990		
Total Power Sales	4 649 514	$4 649 514		
Miscellaneous Revenue	5 273	3 769	1 218	286
TOTAL OPERATING REVENUES	$8 803 793	$4 659 644	$3 968 229	$175 920

	Consolidated	Imperial Irrig.District Power Div.	Imperial Irrig.District Irrig. U.S.	Compania de T. y A. Irrig.Mex.
Total Operating Revenue - Brt. Fwd.	$8 803 793	$4 659 644	$3 968 229	$175 920
OPERATING REVENUE DEDUCTIONS:				
Operating Expenses:				
Oper. & Maint. of Irrig. System	$2 252 305		$2 137 631	$114 674
Oper. & Maint. of Power System:				
Production Expenses		$ 653 067		
Power Purchased		506 762		
Transmission Expenses		113 461		
Distribution Expenses		424 034		
Accounting & Collecting Expenses		185 787		
Sales Promotion Expenses		48 605		
Administrative and Gen. Expenses		339 787		
Total Power Oper. & Maint.	2 271 503	$2 271 503		
Expense of Tax Deed Land Sales and Rentals	14 033		14 033	
Uncollectible Accounts	6 227	6 000	227	
Employees' Group Insurance and Pension Expense	102 975		102 975	
Miscellaneous Expenses	5 717		3 098	2 619
Total Operating Expenses	$4 652 760	$2 277 503	$2 257 964	$117 293
Depreciation of:				
Equipment and Facilities	58 551		57 595	956
Buildings	20 861		20 861	
Power System	612 409	612 409		
Amort. of Canal System and Defense Works, Mexico	145 556			145 556
Amort. of Plant Acquisition Adjustment	35 967	35 967		
Losses on Sales and Retirements of Assets	22 053		22 053	
Taxes	17 004	10 620	532	5 852
Total Operating Revenue Deductions	$5 565 161	$2 936 499	$2 359 005	$269 657
Net Operating Revenue	$3 238 632	$1 723 145	$1 609 224	$ 93 737*
OTHER INCOME:				
Int. on U. S. Bonds and Treasury Certs. and Notes	$ 73 574	$ 39 662	$ 33 912	
Int. on Bank Deposits & Misc. Int.	31 343	20 887	10 456	
Total Other Income	$ 104 917	$ 60 549	$ 44 368	
Gross Income	$3 343 549	$1 783 694	$1 653 592	$ 93 737*
INCOME DEDUCTIONS:				
Interest on District Bonds	$ 794 897	$ 362 176	$ 432 721	
Amortization of Debt Discount	7 048		7 048	
Total Income Deductions	$ 801 945	$ 362 176	$ 439 769	
NET INCOME - EARNED SURPLUS CURRENT YEAR	$2 541 604	$1 421 518	$1 213 823	$ 93 737*

*Deficit

(g) 1950-51 Assessment:

The Board of Directors of Imperial Irrigation District on August 21, 1951, fixed the annual assessment levy for the 1951-52 assessment year at $3 per $100 of assessed valuation. The aggregate assessed value of the land within Imperial Irrigation District, as equalized, is the sum of $44,183,929, according to the assessment rolls for the year 1951. The deduction from the aggregate assessed value of lands in the District of 15 per cent for anticipated delinquencies, as provided by Section 25801 of the California Water Code, leaves the net equalized assessed valuation of the lands $37,556,339.

Classification for the total amount to be raised by assessment for the 1951-1952 assessment year, is as follows:

Redemption Fund: 17.31 mills on the dollar to raise $650,000 to pay interest on irrigation and drainage bonds and to provide for their retirement.

Drainage Fund: 4.00 mills on the dollar to raise $150,000 for necessary improvements and extensions to the drainage system of the District.

Operation and Maintenance: 8.69 mills on the dollar to raise $326,364.59. This amount plus other revenues of the District, including revenue received from water tolls, will provide funds for the estimated current expenses of the District.

(h) Assessor-Collector's Office:

Total assessed valuation for the year 1951 was $964,824 greater than for 1950. The total amount of the assessment levy was $30,556 greater than for 1950.

Collections for the 1950-51 assessment year were better than the previous year, with the percentage of delinquency at date of sale being 2.79%, as compared to 4.28% for the previous year. The percentage of delinquency of first installment on the last Monday in December was 6.31%, as compared to 8.48% for the previous year. The percentage of second installment unpaid on the last Monday in December was 58.70%, as compared with 65.05% for the previous year, and the percentage of total assessment unpaid on the last Monday in December was 32.47%, as compared to 36.77% for the 1949-50 assessment year.

(i) Treasurer's Office:

In addition to the general office work of the Treasurer's office, the following business was handled during the year 1951:

65,277 bonds and coupons were paid, for which 893 checks were issued and involving an expenditure of	$ 1 807 503 08
Cashier, Payroll, Compania Payroll and Expense checks amounting to 39,147 checks and involving an expenditure of	10 898 788 14
Total Expenditures	$12 706 291 22

INVESTMENTS

Total U. S. Securities - December 31, 1950	$3 682 300 00
U. S. Securities Purchased - 1951	5 672 000 00
Total U. S. Securities	$9 354 300 00
Less U. S. Securities Cashed - 1951	2 800 000 00
Total U. S. Securities - December 31, 1951	$6 554 300 00

INTEREST EARNED

Interest earned on U. S. Securities - year 1951	$ 96 620 26
Interest earned on bank deposits - year 1951	52 292 10
Total interest earned - year 1951	$ 148 912 36

INCINERATION CERTIFICATE

Cremated Securities: April 26, 1951
Covering Period: January 1, 1950 - December 31, 1950
Securities Cremated: 746 Bonds and 90,298 Coupons

(j) Auditors' Report - 1950:

The Auditors' report covering 1950 operations was received on May 20, 1951.

The report which covers all operations of the District lists consolidated net revenue for the year ended December 31, 1950, as $2,609,517.06. This total includes net revenue of $1,480,317.07 for the Irrigation Division and $1,360,599.07 for the Power Division, less a net loss of $231,399.08 for the Compania de Terrenos y Aguas.

Consolidated gross revenue for the District's three divisions totaled $8,708,523.33 and total expenses amounted to $6,099,006.27.

The audit report classifies the total consolidated expense for operation of the District for the year 1950 as follows: operation and maintenance, $3,585,809.40; administrative and overhead, $1,699,489.49; financial costs, $813,707.38. Financial costs include interest on obligations and amortization of bond discounts.

Revenues of the Irrigation Division of the District were listed as follows in the report: assessment revenues (current) $1,224,593.41; assessment revenues (delinquent) $93,804.57; water sales, $2,606,174.92; rentals of property and equipment, $58,897.24; interest, discounts and miscellaneous sales, $115,693.70; interdivisional water sales, $209,059.35.

Operating and maintenance expenditures of the Irrigation Division in 1950 are listed as follows: canal system, $1,238,378.01; drainage costs, $343,475.65; maintenance of structures, $171,301.68; diversion costs, $25,994.72; sundry property costs, $266,753.07.

Administrative and overhead costs for the Irrigation Division for 1950 included: executive and administrative salaries, and expenses, $198,383.98;

depreciation and amortization of facilities, $58,585.65; provision for doubtful accounts, $476.44; miscellaneous expense retirements and losses, $71,417.52.

Financial costs for the Irrigation Division of the District in 1950 were classified as follows: interest on obligations, $446,091.00 and amortization of bond discounts, $7,048.40.

Revenues for the Power Division of the District in 1950 are listed in the audit as follows: power sales, $4,320,310.56; and interest, discounts and miscellaneous sales, $54,970.72.

Operating and maintenance expenses of the Power Division for 1950 included: power generation and purchases, $960,943.84; and power transmission and distribution, $512,489.31.

Administrative and overhead for the Power Division in 1950 are listed as follows: executive and administrative salaries and expenses, $512,264.90; depreciation and amortization of facilities, $598,066.27; provision for doubtful accounts, $9,832.44; miscellaneous expenses, retirements and losses, $60,527.47.

Financial costs for the Power Division of the District in 1950 are set forth in the audit report as one item, interest on obligations, $360,567.98.

Assets and Liabilities of the District, as recorded by the auditors in 1950, are given in the following tabulation, which also gives, for comparison, the 1949 figures:

		Irrigation	Power	Compania
Assets	- 1950	$32 287 062	$30 310 560	$3 013 446
	- 1949	31 179 010	29 345 102	3 331 646
Liabilities	- 1950	15 202 394	20 174 120	8 349 820
	- 1949	15 611 032	20 596 192	8 436 620
Surplus	- 1950	17 084 668	10 136 440	5 336 374*
	- 1949	15 567 978	8 748 910	5 104 975*

*Deficit

WATER DISTRIBUTION SYSTEM

(a) Operation and Maintenance:

1. General Comments:

The expenditure for the operation and maintenance of the canals of the irrigation system and the drainage system was $1,567,039, compared to $1,553,113 for the year 1950. Of this expenditure the total payroll for 1951 was $984,142, compared to $950,412 for the year 1950.

The payroll for the eight operating divisions was $855,288, compared to $822,141 for the year 1950.

There were 1,893,872 acre-feet of water delivered in 237,620 runs, compared to 1,789,567 acre-feet delivered and 215,832 runs for the year 1950, and 36,940 heads of stock water were delivered, compared to 25,386 for the year 1950.

No difficulty occurred on the system during the year of sufficient importance to require a major water cutout. The August 27 storm damage to the canal and drain systems required the reduction of flow in the West Side Main Canal below No. 8 Heading for a period of twelve days, to make temporary emergency repairs.

The heavy rain within the storm area eliminated the necessity of irrigation during the period required for emergency work to restore partial service to the area affected by the storm.

The August 27 storm runoff in the Calipatria area was not of sufficient intensity to require major cutout on the East Highline Canal system.

The erosion on canal channels, by the adjustment of hydraulic slopes to clear water conditions, continued to require construction of control drops on channels within the area of the steeper slopes to avoid sloughing of the banks and undercutting of the existing structures.

Brush and weed control work was continued by the use of aromatic oil, chemical and burning operations, the major portion of the work being confined to growth on channels.

On the maintenance of lateral canal and lateral drain system, 435 miles were cleaned by bucket-line machines and 249 miles by dragline machines. On grading operations, 3,013 miles of banks were graded in connection with work on channels and operational roads. In addition to grading operations, a new machine, the sloper, was put into operation, sloping 1,745 miles of banks.

On the maintenance of lateral canal structures, minor repairs were made on 1,241 delivery gates, 561 checks, 45 bridges, 5 siphons, 12 spillways, and 11 special structures.

Storm Damage Check Gate 8
Thistle Lateral No. 8

Major repairs were made on 209 delivery gates, 75 checks, 22 bridges, 1 siphon, 1 metal flume, 6 spillways, 6 drops, and 4 special structures, making a total of 2,199 structures on which various degrees of repair work were required.

Fifty new field waste pipes were installed and 60 replaced, requiring 4,702 lineal feet of standard 12-inch diameter R.C.S. concrete pipe, in addition to which, 253 new and 101 pipe installations were replaced, requiring 10,070 lineal feet of R.C.S. concrete pipe.

Nine miles of fence were moved in connection with additional right of way on canals and drains to provide for maintenance operations.

On the Alamo and New River channels, maintenance work required 218 man-hours and 7 machine-hours by division crews.

There were 17,215 cubic yards of rock required on riprap to control erosion around structures and bank-protection work.

Rodent control work on 2,299 miles required 160,180 gas bombs and 3,633 man-hours, compared to 2,446 miles, 115,425 gas bombs and 5,925 man-hours for the year 1950.

Work performed for the water users in connection with irrigation and drainage facilities on advance deposits in the amount of estimated costs were $77,139, compared to $40,569 for the year 1950.

<u>All-American Canal:</u>

Expenditures on the operation and maintenance of the All-American Canal were $287,056, compared to $233,666 for the year 1950.

Maintenance work on the All-American Canal required 630 operating hours with 38-B dragline and 1,248 operating hours with angledozer grading and shaping.

Maintenance crews continued operation on reconditioning of gates on control structures and installation of cathodic protection for metal parts coming in contact with the water.

The installation of cathodic protection on the east barrel of the New River siphon during 1950 having shown favorable results, a comparable type of cathodic protection was installed at Drops 1, 2, 3, 4, East Highline Turnout, Allison Check, Drop 5, Central Main Turnout, and the west barrel of the New River siphon.

To control sloughing of the north bank, seepage control work below Drop 5 and north of Briar Canal required the installation of 913 feet of 8-inch tile paralleling the canal and outlet structure with pipe under Briar Canal into the All-American Canal to intercept movement of ground water from the adjoining land to the canal channel, requiring an expenditure of $7,880. For bank protection and control of seepage on the south bank, east of Alamo River, 4,600 lineal feet of 8-inch tile were installed, with outlet into the Alamo River, requiring an expenditure of $23,738.

Seepage control work below Pilot Knob consisted of excavation and placing of clay for erosion protection, requiring an expenditure of $12,016.

The placing of rock riprap between the East Highline Turnout and Central Main Turnout required an expenditure of $29,039.

Maintenance work on the operational road on the south bank of the canal from Drop 1 to Drop 2, a distance of 5.50 miles, required grading and the application of oil mix to stabilize the road bed, requiring an expenditure of $6,091.

Main Canals:

East Highline Canal:

The expenditures on the operation and maintenance of the East Highline Canal were $58,769, compared to $65,182, for the year 1950.

The October 30 storm-runoff damage on the East Highline Canal and lateral canal and drain systems within the Calipatria area required an expenditure of $3,357.

Central Main Canal:

The expenditures on the operation and maintenance of the Central Main Canal were $34,589, compared to $33,543 for the year 1950.

West Side Main Canal:

The expenditures on the operation and maintenance of the West Side Main Canal were $40,844, compared to $47,375 for the year 1950.

From February 14 to 17, inclusive, the water was cut out of the West Side Main Canal system for general inspection and repair of structures, being the first general cutout on the system since 1947.

The August 27 storm-damage repairs required an expenditure of $61,959.

Vail Canal:

The expenditures on the operation and maintenance of the Vail Canal system were $15,089, compared to $17,844 for the year 1950.

Weed Burner in Operation

2. Brush and Weed Control:

The total expenditure on brush and weed control work on the irrigation and drainage system was $245,456, compared to $323,292 for the year 1950; $360,074 for the year 1949; and $395,517 for the year 1948.

The expenditure on chemical spray work was $52,407, aromatic oil $114,777, burning $49,997, clearing $12,840, and removal of debris, $15,435.

Of the total expenditures on brush and weed control $176,974 was expended on lateral canals, lateral drains, and main canals, compared to $236,857 for the year 1950.

The expenditure on aromatic oil was $112,440, requiring 9,078 man-hours on 3,811 miles, and 481,365 gallons of oil.

The expenditure on chemicals was $32,046, requiring 37,250 pounds of chemical and 4,160 man-hours on 1,595 miles of channels.

The expenditure on burning operation was $11,811, requiring 60,704 gallons of oil on 653 miles, and 1,669 man-hours.

The expenditure on clearing was $7,456 and removal of debris $13,221.

3. Seepage Control:

The expenditure for seepage-control work was $16,904, compared to $13,573 for the year 1950. There were 9 locations consisting of 6,425 lineal feet oiled, requiring 16,800 gallons of oil, and 44 locations consisting of 51,274 lineal feet cored and compacted.

4. Moss Control:

The expenditure for moss control in the eight operating divisions was $33,616, compared to $37,642 for the year 1950, and $32,937 for the year 1949.

On chemical control 249 miles were treated, requiring 15,845 gallons of chemical and 897 man-hours.

On hand-control work 8,408 man-hours were required.

Burning-control work required 2,170 gallons of oil on 25 miles and 78 man-hours.

Aromatic oil spray control work required 37,460 gallons of oil on 281 miles, and 652 man-hours.

5. Emergency Operations:

The August 27 general rain storm occurred over the Valley, with the heaviest precipitation on the west side of the Valley in the Westmorland area and on the East Mesa in the Calipatria area from Flowing Wells to Niland Lateral 2 Canal.

Storm Damage Below Gate 10
Thistle Lateral No. 8

The runoff from the West Mesa caused severe damage to the Thistle, Trifolium and Trifolium Extension Lateral Canals and drain system, also the West Side Main Canal and main drains. The damage to the system required reduction in the flow of water in the West Side Main Canal below No. 8 Heading for a period of 12 days during emergency partial repair of structures and channels to supply domestic water to the area.

The storm-repair work required the reconstruction of 1.20 miles of the West Side Main Canal channel, 1.50 miles of lateral canal channels, and repair work on structures and channels of 51.50 miles on lateral canals and drains.

The replacement of structures on lateral canals required the replacement of 10 checks, 5 maintenance drops, 5 delivery gates, and 1 bridge.

Repair work was required on 9 checks, 4 drop structures, 6 delivery gates, 1 spillway, 2 metal flumes, and 13 lateral-drain siphons.

Repair work on the main drains consisted of reconstruction of 2.00 miles of drain channels and cleaning of 10.50 miles of channels, repairing of 1.00 mile of levee on New River Outlet and reconstruction of 3 flumes over Trifolium Drain No. 1.

The runoff from the East Mesa overflowed approximately 3.50 miles of East Highline Canal banks between Flowing Wells and Niland Lateral 2 Canal. The runoff was of short duration and no complete breaks through the canal occurred.

The principal repair work consisted of building up and reinforcing of the west bank of the canal.

No serious damage occurred to lateral canal and drain system. Repair work consisted of repairing washes around structures and small washes into channels.

(b) Construction:

1. Main Canals:

Additions and betterments to irrigation facilities on the canal system required an expenditure of $445,822, compared to $615,054 for the year 1950. Of the total expenditure, $41,781 was required on administration; $5,006 on telephone facilities; $137,209 on main canals; $10,000 on main drains; $215,638 on lateral canals; and $36,188 on co-operative agreement with the County of Imperial on the replacement of county road crossings over District's canals and drains.

The location of the major structures constructed were:

East Highline Canal:

Major portion of East Highline No. 1 Check and the construction of East Highline No. 1 Side Main Canal.

Applying Asphalt-Membrane Lining
East Highline Side Main

The construction of a reinforced concrete check in the East Highline Canal 800 feet downstream from the turnout from the All-American Canal was completed, requiring an expenditure of $149,000.

The construction of this structure replaces the old East Highline No. 1 Check, located 1.65 miles downstream from the turnout from All-American Canal and permits lowering of water surface in the section of canal above the old East Highline No. 1 Check 6 feet.

The relocation of this structure required:

Abandonment of All-American Drain No. 6 crossing under the East Highline Canal and installation of pump station to serve as outlet for the drain.

Construction of standard reinforced concrete turnout from the All-American Canal to supply the new East Highline No. 1 Side Main Canal from the All-American Canal to the old East Highline No. 1 Side Main Heading.

Abandonment of Mesa Lateral 4 Canal and construction of new East Highline No. 1 Side Main Canal from All-American Canal to the old East Highline No. 1 Side Main Canal Heading to serve the area formerly served by Mesa Lateral 4 and East Highline No. 1 Side Main Canal.

Relocation of .25 of a mile and the abandonment of 1.25 miles of Verde Drain No. 4 and the installation of tile drains to replace abandoned section of drain.

The construction of facilities in connection with the drains and construction of East Highline No. 1 Side Main Canal required an expenditure of $200,000.

Location of lateral turnouts from the East Highline Canal with concrete intakes, reinforced concrete conduits, and concrete headwalls:

Orange Lateral Turnout
Palmetto Lateral Turnout
"C" Lateral Turnout
East Highline Lateral 14 Turnout
East Highline Lateral Heading
Concrete weir-type drop in "Z" Waste

Direct delivery gates Nos. 38, 46-B, 47 and 47-A were replaced with concrete construction.

Central Main Canal:

No construction work was required on the Central Main Canal.

Pumping Station
All-American Canal Drain No. 2

West Side Main Canal:

Construction work on the enlargement of Trifolium Extension Canal Turnout and installation of an additional 48" diameter reinforced concrete-pipe conduit crossing over Highway 99.

Replacement of Trifolium Lateral No. 8 Heading with concrete structure.

Replacement of direct delivery gates Nos. 11 and 3 with concrete structures and reinforced concrete-pipe conduit.

Preliminary preparation for the installation of weir-type reinforced concrete control drop structure one mile below turnout from All-American Canal, West Side Main Drop No. 1. Engineering, acquirement of right of way, and procurement of material.

Vail Canal:

The construction work on the Vail Canal consisted of the replacement of wood check at Gate No. 23 with 2-bay concrete check.

County Road Structures:

There were 131 county road structures constructed under co-operative agreement with Imperial County Road Department on the replacement and construction of structures crossing District's facilities.

2. Divisions:

The program on the replacement of existing lateral canal wood structures with concrete construction by use of special designed steel forms was continued to meet the requirements for necessary replacement.

Type of Structure	Wood	Concrete	Rubble	Total
Delivery Gates				
New	-	48	1	49
Replaced	5	228	2	235
Checks				
New	-	22	-	22
Replaced	7	163	-	170
Bridges				
New	1	-	-	1
Replaced	4	-	2	6
Siphons				
New	-	-	-	-
Replaced	-	3	-	3
Drops				
New	1	19	-	20
Replaced	3	2	-	5
Spillways				
New	-	2	-	2
Replaced	1	4	-	5
Totals	22	491	5	518

DRAINAGE SYSTEM

Orange Drain Crossing Under
East Highline Road

(a) Operation and Maintenance of Main Drains:

The expenditure for the operation and maintenance of the main drains and drain outlets was $195,126, compared to $220,042 for the year 1950.

Of the total expenditure for brush and weed control on the irrigation and drainage system the expenditure on the main drain system was $41,993, compared to $54,282 for the year 1950.

Burning operations on 1,501 miles required an expenditure of $26,347, 3,919 man-hours and 163,288 gallons of oil, compared to an expenditure of $48,699 on 2,351 miles and 7,159 man-hours for 1950.

The expenditure for aromatic oil work was $61, for chemical $16,166, removing debris $1,945, and $3,474 for hand labor on channel work.

The expenditures for moss control work was $14,695, compared to $21,274 for the year 1950. Chemical control work on 195 miles required expenditure of $12,452, 1,449 man-hours and 35,105 gallons of chemical, compared to expenditure of $17,764, 1,995 man-hours, 46,090 gallons of chemical for the year 1950, in addition to which hand labor required 1,516 man-hours, compared to 2,239 man-hours for the year 1950.

On the maintenance of drain structures 22 flumes were repaired, 10 bridges repaired, 5 replaced and 1 salvaged, 24 siphons were repaired, 1 salvaged, and 5 waste pipes repaired. The total man-hours required on structure maintenance being 4,420.

There were 101 miles of dragline machine cleaning required, 132 miles of grading, and 11,818 man-hours on channel training.

On drainage construction and reconstruction work, 73 siphons were installed, requiring 4,044 lineal feet of pipe.

On construction, reconstruction, and deepening of drains, there were installed 185 field waste pipes, requiring 8,202 lineal feet. Waste pipes under maintenance, replacements and B/C jobs were 53 pipes, requiring 3,053 lineal feet of pipe.

One hundred and thirty-six miles of right of way were graded and 14 outlet pipes installed, requiring 1,046 lineal feet of pipe. Four railroad crossings, requiring 392 lineal feet of jacking pipe, were installed and 2 crossings installed by open cut, using 144 lineal feet of pipe, and 6 State highway crossings, requiring 578 lineal feet of jacking pipe, with one State highway crossing installed by open-cut method, using 80 lineal feet of pipe.

The total lineal feet of pipe installed by drainage maintenance and construction is as follows:

Transite pipe installed	876 lineal feet
Reinforced concrete	25,590 lineal feet
Corrugated metal	463 lineal feet
Miscellaneous	80 lineal feet
Total lineal feet installed by Drainage Construction Department	27,009

The replacement and relocation of the Rockwood bridge over the New River channel required the relocation of a section of the channel, and an expenditure of $4,213.

(b) Construction:

The construction of District-maintained drains was continued on the cooperative plan as in former years, the landowners supplying the right of way and contributing $800 per mile toward construction cost, plus the material required for standard field outlets into District drains, the District bearing all remaining cost to complete construction and installation of field outlet pipes. The expenditure for Special Drainage Construction was $447,204, compared to $435,604 for the year 1950.

On new construction, 5.99 miles of main drains and 7.95 miles of lateral drains were constructed. On reconstruction work, 1.37 miles of main drains and 15.27 miles of lateral drains were reconstructed, making a total of 30.58 miles of construction and reconstruction work by the District.

In addition to the work performed by the District, private contractors constructed for landowners, at their expense, 2.34 miles of new farm drains and cleaned 39.02 miles of existing farm drains.

Private contractors also installed 603.10 miles of farm tile drains for the landowner, at his expense. In co-operation with the landowner, the District participated in this work by taking care of engineering and inspection of tile installations.

Total miles of open drains and tile drains constructed or maintained by the District and private contractors, for the year 1951, were as follows:

Miles of new open drains constructed by District	13.94
Miles of existing open drains reconstructed by District	65.92
Miles of new open drains constructed by contractors	2.34
Miles of existing open drains cleaned by contractors	39.02
Miles of farm tile drains installed by contractors	603.10

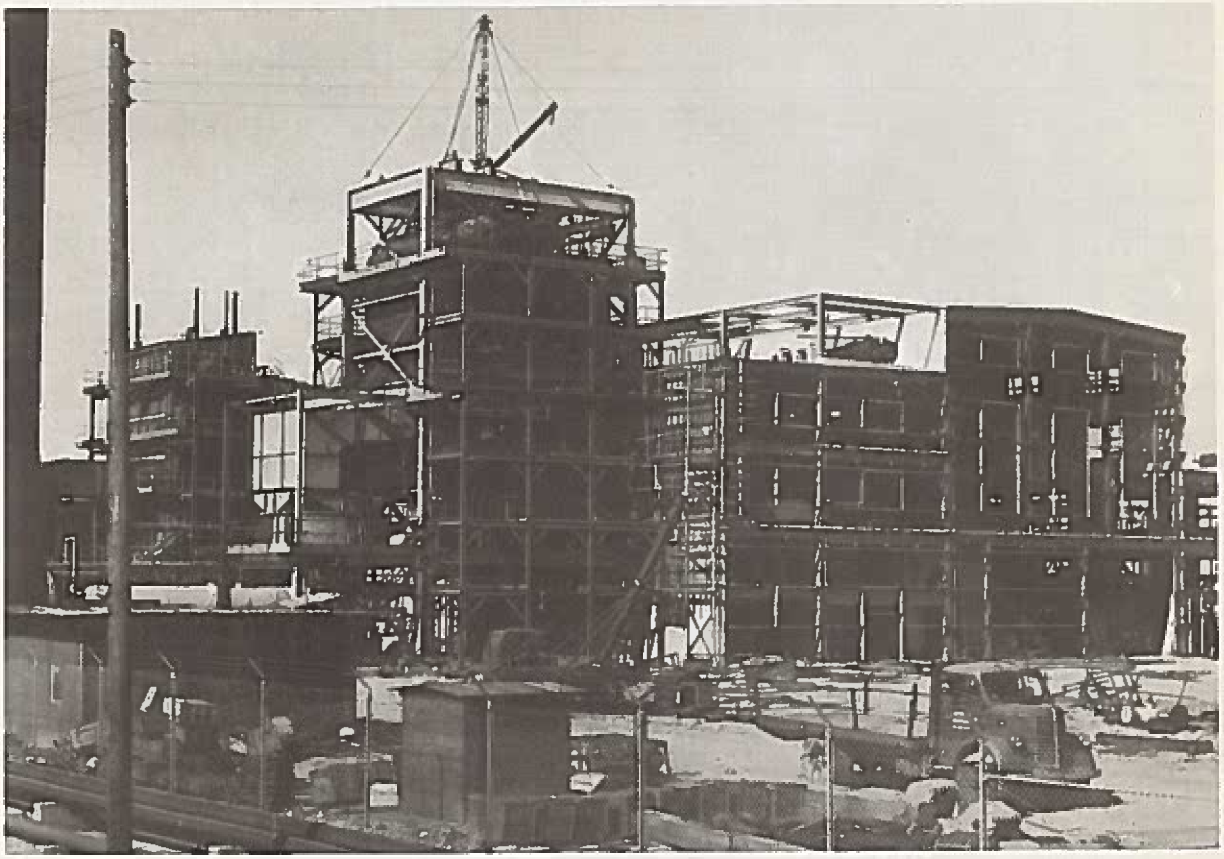
making a total of 724.32 miles of drain channels constructed, improved and tiled during the year.

The record on the total mileage of District-maintained drains and privately maintained farm tile drains in the District, as of December 31, 1951, is as follows:

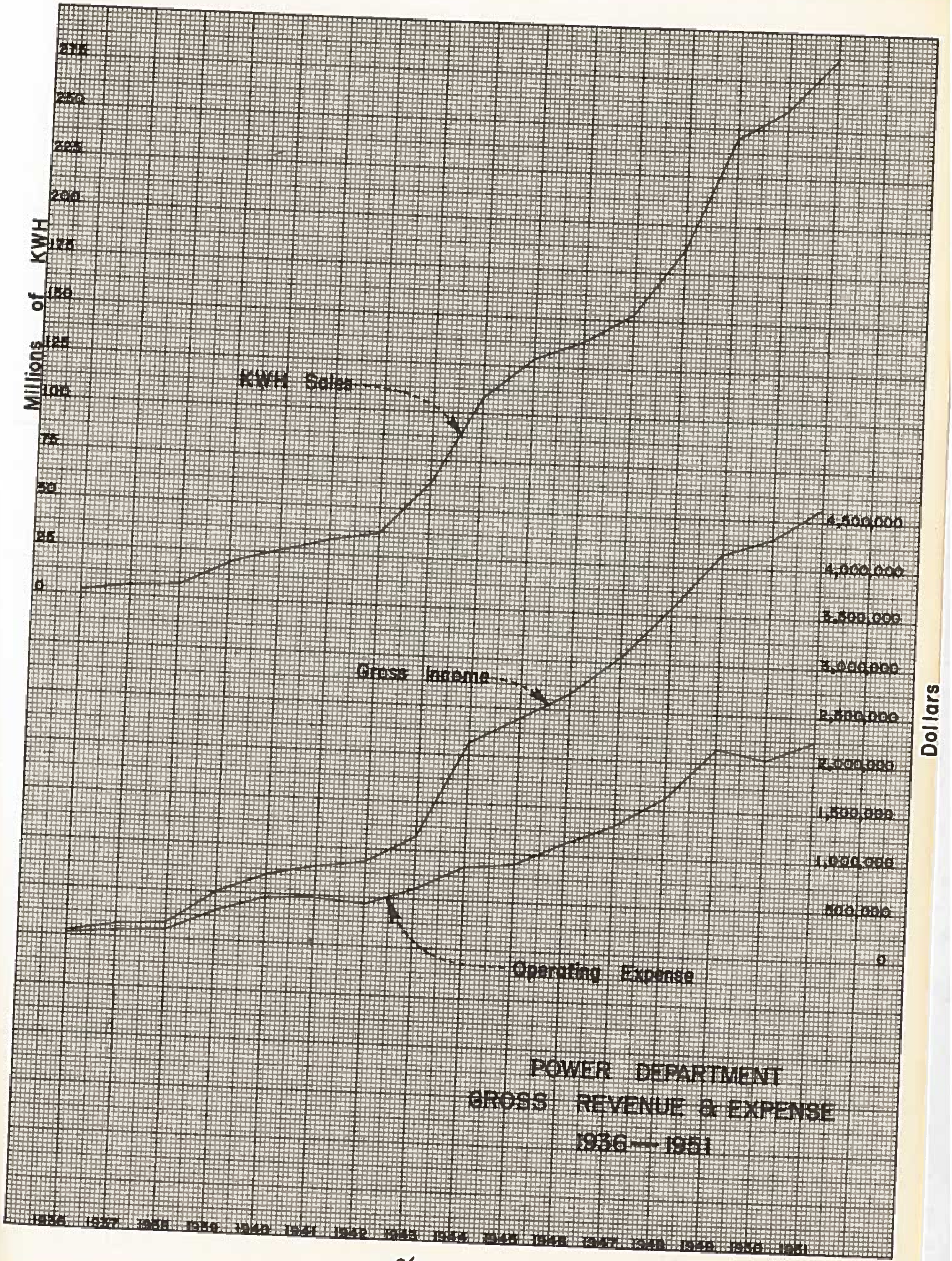
Miles of District main drains	547.00
Miles of District lateral drains	815.00
Total miles of District drains	1,362.00
Total miles of farm tile drains	3,019.85
Total miles of drain channels in District	4,381.85*

*Does not include privately maintained open-ranch drains or Alamo and New River channels.

POWER DIVISION



El Centro Steam Plant Unit No. 2
Under Construction
Unit No. 1 in Background



POWER DEPARTMENT
GROSS REVENUE & EXPENSE
1936 — 1951

(a) General Comments:

Demands on the District's power system for new services during the year 1951 and also for additional power to established businesses leave no doubt as to the continual growth in Imperial and Coachella Valleys. This expansion requires continued expansion of the District's generation, transmission, and distribution facilities and was anticipated and planned for in 1949 when the 1949 Power Development Project was presented to the voters on June 15, 1949.

(b) Operation and Maintenance:

Total expenses for operation and maintenance of the District's electrical system for the year 1951 amounted to $2,271,503, an increase of $132,907 over the year 1950. In comparing operating expenses for the two years, it is noted that cost of generation at the El Centro Steam Station and at the Brawley Diesel Plant were less than for the year 1950. Expenses at the hydro plants were greater due to the fact that maintenance work on Unit No. 2 of the Drop No. 4 Hydro Plant had been delayed for some time, pending installation of Unit No. 1. Cost of power purchased, distribution expense, customers' accounting and collecting, and administrative expenses also increased in 1951. Transmission expenses were lower than in 1950.

Operation and maintenance work for the year was carried on by District forces and was paid for from revenue from sales of electric energy.

(c) Construction and Improvements:

1. 1949 Power Development Project:

Approved by the voters on June 15, 1949, the 1949 Power Development Project was designed to provide for construction of additional generation, transmission, and distribution facilities.

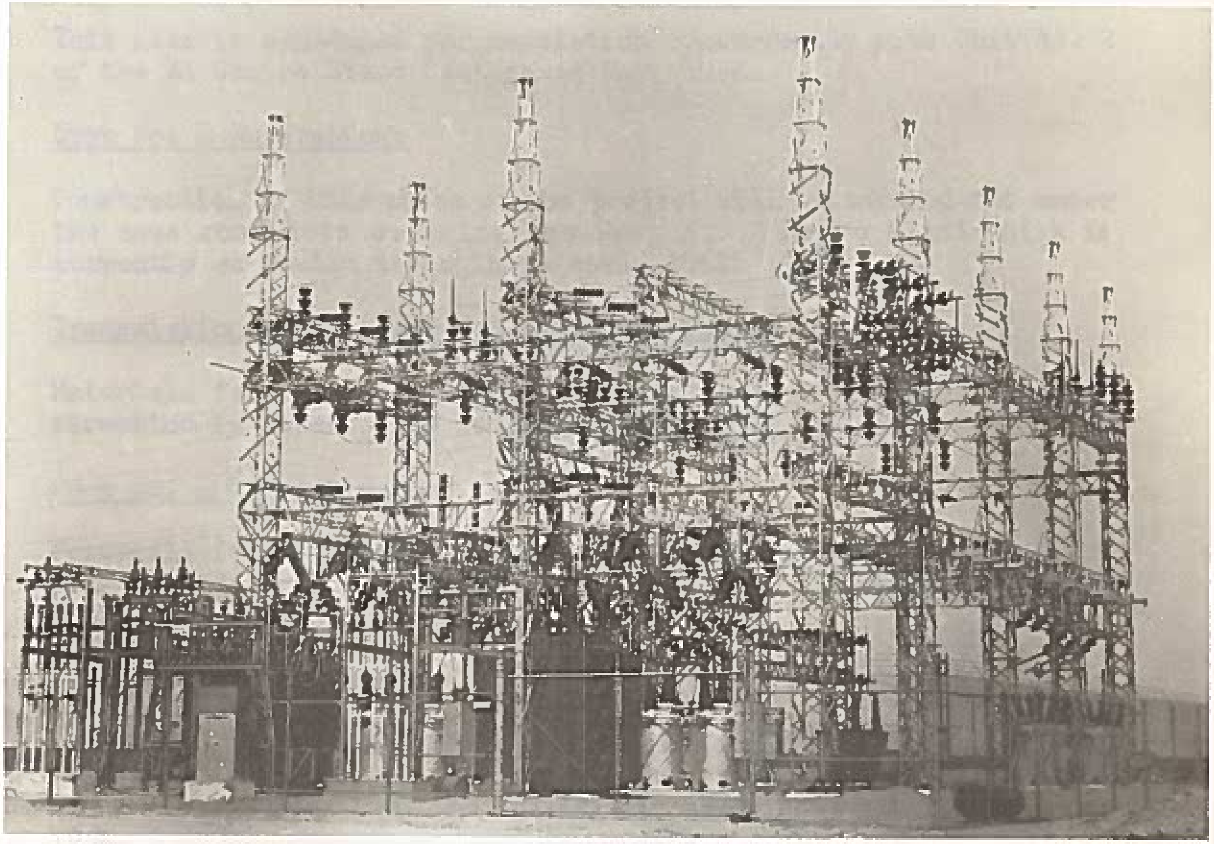
During 1951, work on various phases of this project proceeded according to schedule, although, some difficulty in obtaining materials and equipment was experienced. The status of the project at the end of the year is as follows:

El Centro Steam Station, Unit No. 2:

Work was nearing completion on this phase of the project and it was scheduled to be in operation by May, 1952. All material and equipment with the exception of some of the control equipment was on hand and installation was proceeding satisfactorily.

Drop No. 2 Hydro Plant:

The major portion of the equipment was on hand and stored at Imperial Headquarters Yard. Some of the larger items are due in January and February and it is expected that actual construction will begin early in 1952.



Drop No. 4 Switching Station

El Centro Switching Station Addition:

This phase of the project was complete, except for a few items that are due to be received in January, 1952.

Transmission Line - Drop No. 4 to El Centro:

This phase of the project was complete, but could not be put into operation until the items necessary to complete the El Centro Switching Station Addition were received.

Steam Station Substation:

This item is scheduled for completion concurrently with Unit No. 2 of the El Centro Steam Station in May, 1952.

Drop No. 2 Substation:

Construction of this phase of the project will be carried out under the same contracts covering the Drop No. 2 Hydro Plant which is currently scheduled to begin in early 1952.

Transmission Line - Drop No. 2 to Drop No. 4:

Materials for this phase of the project are all on hand and construction is expected to be completed by July 1, 1952.

Drop No. 4 Substation:

Materials for this phase of the project are on hand. Installation will be made by the District forces and will be completed early in 1952.

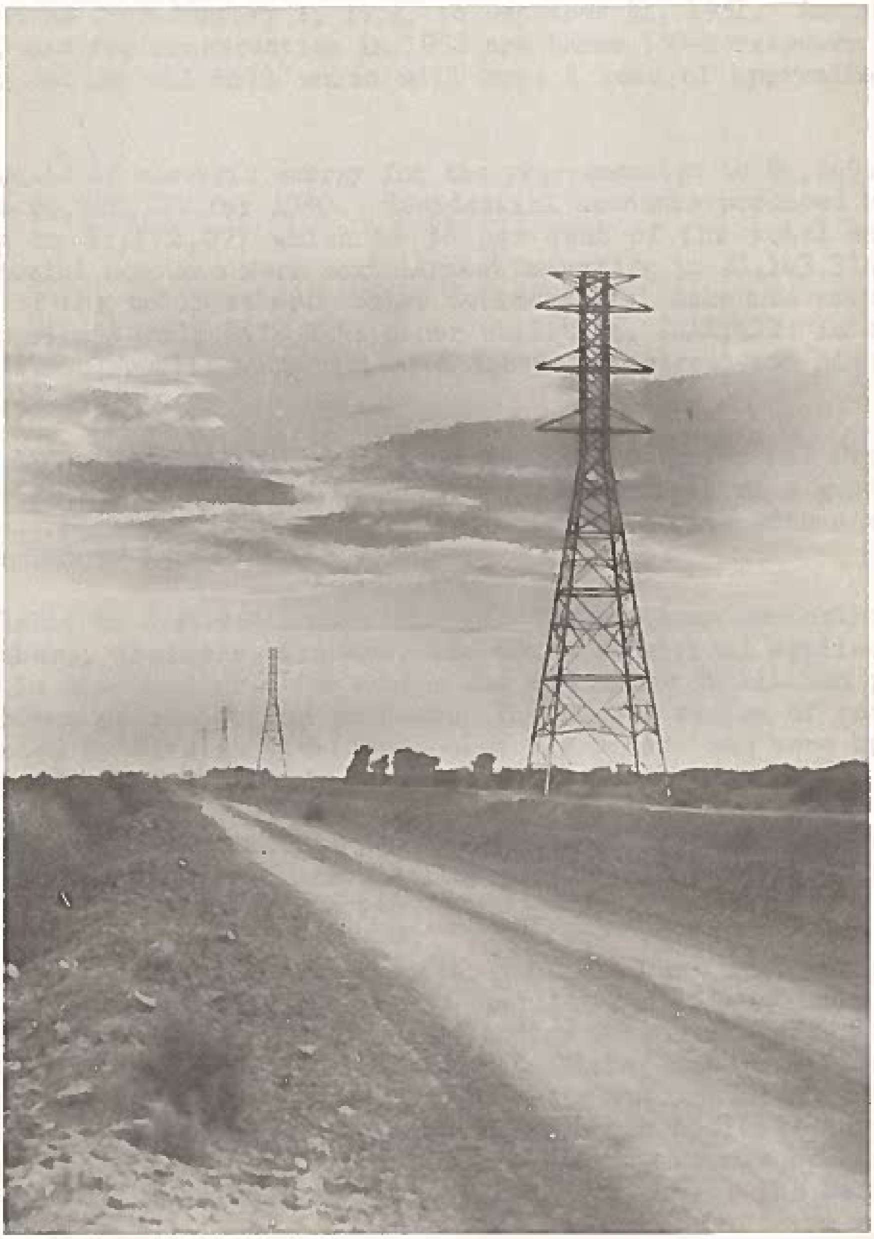
Distribution Facilities:

Materials for additions to distribution facilities, including substations, transformers, regulators, etc., were received during 1951 and contracts were executed calling for additional materials during 1952.

2. Additions and Betterments from Revenue Funds:

In addition to construction financed from bond issue funds, additions and betterments to Electric Plant paid for from electric revenue funds during 1951 amounted to $571,394. This work was carried out by District forces and was distributed as follows: generating facilities, $13,719; transmission facilities, $45,574; distribution facilities, $366,963; general plant, $6,056; Electric Plant held for future use, $109,184; engineering and superintendence on all items amounted to $29,897.

Retirements from electric plant in 1951 amounted to $72,904, of which, materials in the amount of $37,794 were returned to stock to be reused, and $8,727 was received from sale of salvage material.



Transmission Line
Drop No. 4 to El Centro

(d) Power Sales:

The continuing development of Imperial Valley and Coachella Valley is shown by the number of new power users connected to District lines during the year. There were 1,122 new power users, including all classes of service, connected from January 1, 1951, to December 31, 1951. Among the projects scheduled for construction in 1952 are three 350-horsepower cotton gins and a cotton oil mill which will have a load of approximately 1,500 kva.

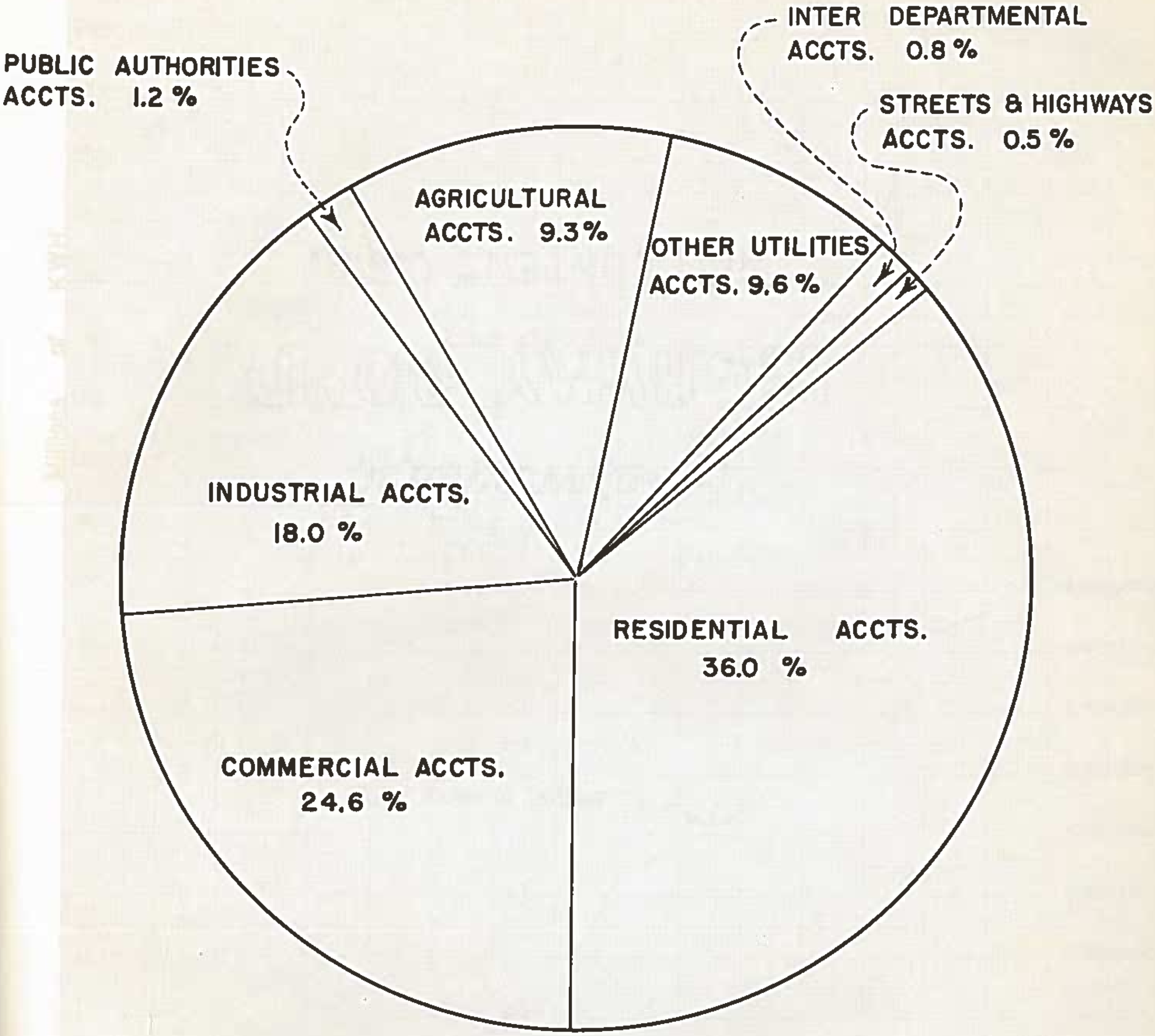
Revenue from sales of electric energy for the year amounted to $4,649,514, as compared to $4,320,311 for 1950. Residential accounts produced revenues amounting to $1,672,077 which is 36 per cent of the total sales. Sales to commercial accounts were next largest amounting to $1,143,314, or 24.6 per cent of the total sales. Sales to industrial accounts amounted to $838,854; agricultural, $432,815; other utilities, $444,411; interdepartmental, $38,990; public authorities, $53,639; and street and highways accounts, $25,414.

On October 1, 1951, Miss Charlotte Vandiver joined the Commercial Department staff, bringing to District homemakers the services of a graduate home economist. Miss Vandiver is a graduate home economist with a well-rounded background of home-service work.

Services available to District homemakers will include home demonstration of ranges, washers, freezers, ironers, and other electrical appliances. Miss Vandiver is also available for advice and assistance in kitchen planning for new homes or remodeling project. The annual series of cooking schools conducted by Miss Vandiver drew capacity crowds and were by far the most successful ever conducted.

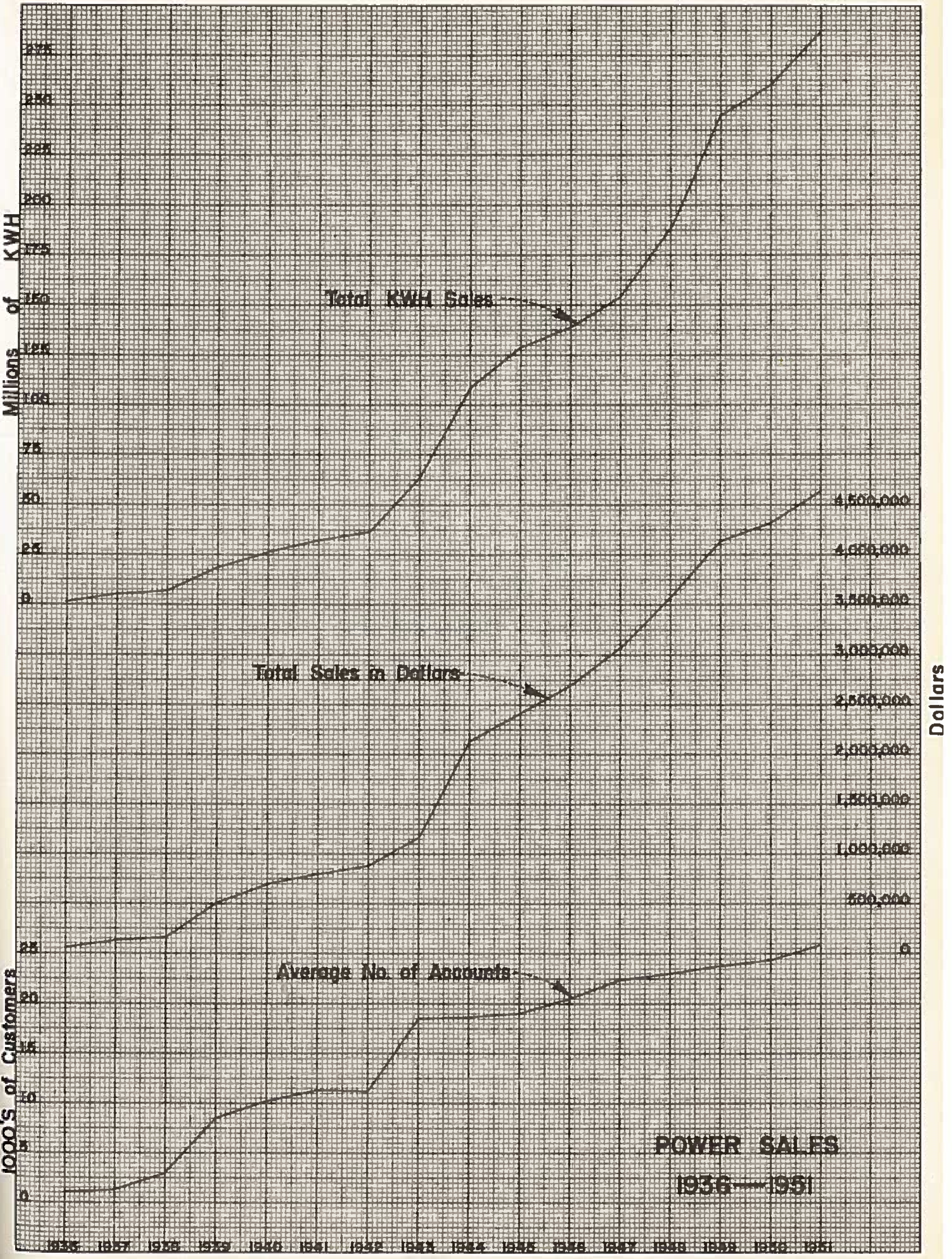
Through the Commercial Department, the District participated in several programs designed to better acquaint Valley people with electrical appliances and proper usage of electricity.

The 4-H Club Farm and Home Electric Project, a national project, was sponsored in the Valley by the District in co-operation with the County Farm Advisor, and training classes for 4-H Club leaders were conducted. An organization known as the Imperial Valley Adequate Wiring Bureau was formed, comprising representatives of the District, the electrical contractors, and distributors, and a license was secured from the National Adequate Wiring Bureau to issue Certificates of Adequate Wiring to homes constructed in Imperial Valley whose wiring meets the requirements of the National Bureau.



SALES OF ELECTRIC ENERGY 1951

RESIDENTIAL ACCTS.	$ 1,672,077	36.0 %
COMMERCIAL ACCTS.	1,143,314	24.6 %
INDUSTRIAL ACCTS.	838,854	18.0 %
AGRICULTURAL ACCTS.	432,815	9.3 %
OTHER UTILITIES ACCTS.	444,411	9.6 %
INTER DEPARTMENTAL ACCTS.	38,990	0.8 %
PUBLIC AUTHORITIES ACCTS.	53,639	1.2 %
STREETS & HIGHWAYS ACCTS.	25,414	0.5 %
TOTAL	$ 4,649,514	100.0 %



Millions of KWH
275
250
225
200
175
150
125
100
75
50
25
0
Total KWH Sales
Total Sales in Dollars
Average No. of Accounts
4,500,000
4,000,000
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
Dollars
1000's of Customers
25
20
15
10
5
0
POWER SALES
1936—1951

LEGAL DEPARTMENT

(a) General Comments:

The Legal Department has continued to take an active part in litigation pending in various counties of the California Central Valley involving the fundamental rights of water users in the Central Valley. The principles which will be established by judicial decision in this litigation will affect all water users in California, including Imperial Irrigation District. The Ivanhoe Irrigation District case was tried and extensive written arguments were presented to the court. Final oral arguments are scheduled for the Spring of 1952. We have also appeared in a case involving Madera Irrigation District now scheduled for trial in the Spring of 1952 and in a number of other cases involving the same basis principles.

The Legal Department has continued the practice of quieting title to various parcels of land within Imperial Irrigation District to which tax deeds have been taken. During 1951, fourteen new quiet title actions were commenced in the Superior Court of Imperial County, fifteen such actions were brought to a successful conclusion by final judgment, and as of December 31, 1951, twelve such actions were pending and in the process of completion.

During the year 1951, a total of thirty-four legal actions was handled, involving the collection of delinquent power accounts both in Imperial County and in the Coachella Valley, seven of which were finally completed and collected in full and twenty-seven of which were pending as of December 31, 1951. In a number of the pending actions, partial collection has been made.

During 1951, it was necessary to commence only two actions in eminent domain for the purpose of acquiring necessary right of ways over privately owned lands, both of which were successfully concluded without the necessity of trial.

IRRIGATION DIVISION FEDERAL CONTRACTS

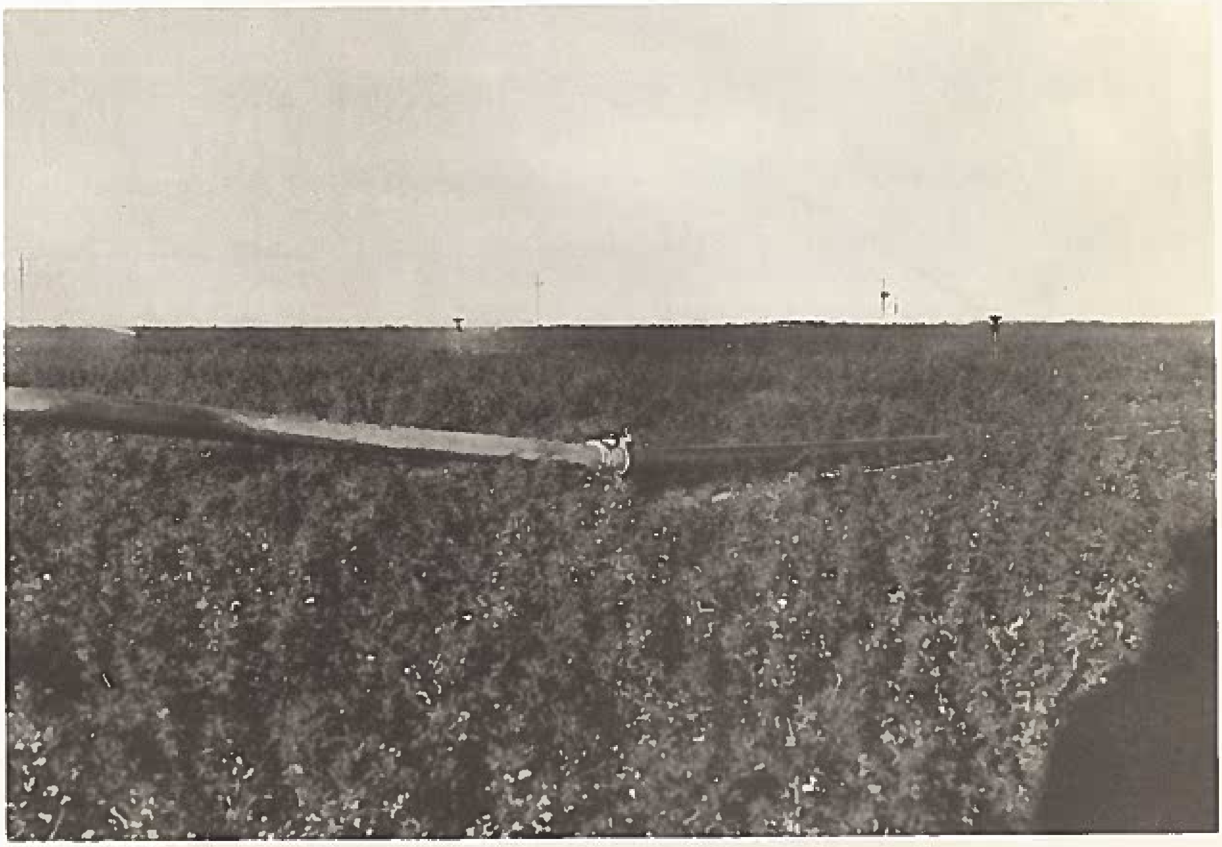
(a) Public Law 750 - 81st Congress:

In co-operation with the American Commissioner of the International Water and Boundary Commission who was delegated to conduct an investigation to determine the total credit due Imperial Irrigation District under Public Law 750 for costs incurred for construction, operation, and maintenance of flood protective works along or adjacent to the Colorado River in Arizona, California, and Lower California, the District prepared from its records and furnished the Commissioner a detailed report of all costs paid or incurred for flood protection works on the Colorado River.

At this time there is no indication as to when a decision on the amount of credit to be allowed will be made. The amount, when determined, will be applied as a credit against the next succeeding annual payments on the All-American Canal as they become due and payable from Imperial Irrigation District to the United States.

(b) Gila Project:

A decision as to the refund due Imperial Irrigation District, Coachella Valley County Water District, and the City of San Diego, in connection with the Gila Project's bearing its proportionate share of the cost of Laguna Dam, had not been made at the end of the year. Several discussions and considerable correspondence with members of the staff of the Commissioner of the Bureau of Reclamation failed to bring about an agreement on this matter.



Alfalfa Irrigated by Overhead Irrigation
Experimental Farm No. 2
Unit No. 6

EAST MESA

(a) Farm No. 1:

Farm No. 1 is now being handled by Field and Trout, of San Luis Obispo, California. The entire farm with the exception of 160 acres which is subleased to Joe Maggio is in alfalfa. During the summer, hay was cut and baled and stacked in the field. During the year, 518 tons of hay were sold and 92 tons were fed to cattle that were pastured during the latter part of the year. Approximately, 50 tons of hay were on hand at the end of the year.

It has been proved during the operation of this farm that the practice of pasturing the land will result in more humus being added to the soil, causing the soil to hold water better, thereby, reducing the amount of irrigation water required. During 1948, an average of 23 acre-feet of water per acre were required, while in 1951 only 14 acre-feet of water per acre were used. In both cases the entire farm was in alfalfa.

In July, 1951, 160 acres were leased to Joe Maggio. This acreage was planted partly to barley and partly to cantaloupes in the fall so at this time there is no indication as to the yield. Previous planting of barley resulted in good yields, but this is the first experiment with cantaloupes.

(b) Farm No. 2:

The District continued to operate Farm No. 2 during the year 1951 with 480 acres being in alfalfa and 80 acres as yet not developed. The farm is divided into units of 80 acres each, two units of which are irrigated by sprinkler and the remainder by flood irrigation. During the year, the average use of water on the two units irrigated by the sprinkler system was 8.2 acre-feet of water per acre and the cost of pumping averaged $20 per acre.

As many as 500 cattle at a time were being pastured on the farm during the entire year with the exception of the months of September and October. After being pastured in August, the yield of hay harvested in September from one of the fields was three-fourths of a ton per acre. It is believed that the humus added to the soil through continued pasturing will result in greater crop yields and use of less water for irrigation purposes.

From our experiments to date it appears that overhead irrigation has a good future. One of the big advantages is the savings in the cost of development of new land, as the land does not have to be stake leveled. Labor costs are somewhat higher than for flood irrigation, but this is offset by the savings in water duty which is materially reduced as compared to flood irrigation. Use of a sprinkler system allows equal distribution of water, and evaporation during summer months is held to a minimum. During the Summer of 1951, there was no evidence of scalding on the alfalfa irrigated by sprinkler.

During the year, many civic and legislative groups visited the farm in the course of inspection tours of the Valley and all were very favorably impressed with the progress shown.

NORTH END IMPROVEMENT PLAN

(a) General Comments:

Construction of the East Highline Check No. 1, which was begun in 1950, was completed at a cost of $157,476, and the rearrangement of irrigation and drainage facilities necessary to permit the new check to be fully operative was nearing completion at the end of the year. Additional capacity in the upper section of the East Highline Canal is now available as a result of the construction of a new side main heading from the All-American Canal and a side main canal from the new turnout to the existing side main canal. The increased capacity, provided by the larger structure and the rearrangement of other irrigation facilities, completes another phase of the program designed to supply irrigation water for the Vail system directly from the All-American Canal.

COLORADO RIVER BOARD

COLORADO RIVER BOARD OF CALIFORNIA - SUMMARY OF ACTIVITIES IN 1951

During 1951, the Colorado River Board continued its effort to protect and preserve the rights and interests of California to the use of the waters of the Colorado River by approval of a program on January 3, 1951, at the start of the First Session of the 82nd Congress.

The Board maintained its position of opposition to the Central Arizona Project; it approved consultation with California members of Congress regarding introduction of a litigation resolution; it continued to oppose unsound legislation to amend Reclamation Law; it advocated support of the principles set up by the State in its comments to the President's Water Resources Policy Commission; and it endorsed every effort to prevent infringement of water rights under California Law.

Of most immediate concern were the Central Arizona Project authorization bills, S. 75, introduced January 8 by Arizona's Senators, and H. R. 1500 and H. R. 1501, introduced on January 15 by Arizona Representatives. The Board staff collaborated with members of Congress; gathered economic, engineering, and legal data on aspects of the Project; secured and analyzed departmental reports on the Project; and engaged in a national informational campaign.

The Senate Interior Committee reported S. 75 on January 30, without amendments. The Board worked with Senators Knowland and Nixon in preparing amendments and material for use in opposing the bill on the floor. After extensive Senate debates in May and June, S. 75 was passed on June 5 with amendments and was referred to the House.

Hearings were held on H. R. 1500 before the House Interior Committee in March and April. The Board worked with the co-operation of the entire California delegation and especially with Congressmen Engle, Poulson, and Yorty, who were members of the Committee. Largely due to Board's efforts, on April 18 the Committee voted 16 to 8 to postpone further consideration of H. R. 1500, until use of the water in the Lower Colorado River Basin is either adjudicated or binding mutual agreement, as to the use of the water, is reached by the Lower Basin States. The House Committee again considered S. 75 in October and on October 10, by vote of 17 to 8, decided to defer consideration until February 1, 1952, or sometime thereafter, to give proponents of the measure an opportunity to have decided the justiciable issue before the courts, or draft new legislation that will create a justiciable issue, without authorizing a project of undetermined feasibility.

The Board consulted California senators and representatives with respect to the advisability of introducing a litigation resolution. As a result, a litigation resolution was jointly introduced January 25 by the California and Nevada senators, and California congressmen introduced 19 resolutions between January 3 and February 14. There were no hearings on these resolutions by either House during 1951.

The Board reviewed and submitted comments on the Colorado River Storage Project Report June 20, and on Initial Development Gunnison-Arkansas Project August 21.

A discussion of the potential Feather River Project was presented to the Board on June 6 by the State Engineer.

At its July and October meetings, the Board authorized that communications be sent to California congressmen with respect to the Collbran and Paonia Projects, Colorado, pointing out objectionable features and requesting opposition to use of the interest component from power revenues to pay irrigation costs.

The Board's engineering staff, working with the supervision of the Chief Engineer, maintained a research program on water supply and requirements and general economics of the Colorado River Basin, in addition to analyzing project reports and compiling data with respect to ground water, synthetic fuels, water-loving plants, hydroelectric energy, etc.

The Board studied and analyzed the report of the President's Water Resources Policy Commission; it requested the Secretary of the Interior to correct erroneous statements in Bulletin I, Part I, of the Boulder Canyon Project Final Reports; and co-operated with the State Engineer in preparation of Appendix E of State Water Resources Board Bulletin I, in regard to Colorado River water supply.

The Board conducted an educational and informational program to acquaint members of Congress, Federal and State administrators, and the general public with California's Colorado River water rights and problems. Members and Board representatives addressed meetings and conventions, testified at hearings, and wrote articles which were widely published in newspapers, magazines, and professional journals and given national distribution. In addition, approximately 100,000 copies of the brochure, "California's Sta~~t~~ke in the Colorado River," were distributed upon request to schools, libraries, businesses, and individuals.

Members of the Board, the Chief Engineer, Counsel, Staff members, and Board representatives participated in a wide variety of meetings of Federal and State agencies, water users' organizations, educational, civic, and commercial groups, and held official positions of prominence in many of these bodies, including membership on the President's Water Resources Policy Commission.

CONCLUSION

During the year 1951, restrictions on the purchase and use of equipment and materials were imposed by our Government, and expansion of industry to produce military supplies and equipment created many problems.

Through the co-operation of the people of the Valley and the loyal support of the officers and employees of the District, we have met these problems and have gone ahead to make the year 1951 one of the best in the history of Imperial Irrigation District.

I sincerely appreciate your co-operation and support.

Evan T. Hewes
EVAN T. HEWES, President
Board of Directors