



Water Supply Bank

2017 Report for the Board's Water Supply Bank

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Introduction & Background

The Water Supply Bank is a water exchange market operated by the Idaho Water Resource Board (IWRB; Board), through the Director of the Idaho Department of Water Resources (IDWR), in association with water districts with IWRB-appointed local rental committees, to facilitate the acquisition and voluntary exchange of water rights, for new and supplemental water uses.

The Bank is operated pursuant to Sections 42-1761 through 42-1766 Idaho Code, and Idaho Administrative Code IDAPA 37.02.03 (Water Supply Bank Rules). IDWR staff process the lease and rental of water rights, while IWRB-appointed local committees facilitate the lease and rental of water through regional rental pools. This report summarizes calendar year 2017 lease and rental transactions processed by IDWR staff.

2017 Activity Summary

Demand to lease water rights into the Bank declined for second consecutive year, as evidenced by a drop in 2017 of the total number of water right leases proposed and processed. However, demand for water right rentals remained strong and the total number and associated volumes of water rented from the Bank was approximately equivalent to 2016 rental amounts. More than five hundred thousand dollars was paid out to water right holders whose water rights were rented from the Bank during 2017.

Continued advances in early-season application processing enabled the Board's Bank to process more lease and rental applications earlier in the year, which also enabled earlier payout of rental compensation to water right lessors. Additionally, familiarity with recently developed Water Supply Bank software, and the addition of a new full-time Water Supply Bank specialist to the Water Supply Bank administrative team, will enable further efficiency gains to be realized in 2018.

2017 Accomplishments

Key accomplishments of the Water Supply Bank during the past year include:

- **Improved staff efficiencies:** staff time dedicated to processing Water Supply Bank transactions declined to 5400 hours (equivalent to 2.6 FTEs, based on a 2080 hour work year), from 5885 hours allocated in 2016 (equal to 2.8 FTEs) and 6451 hours allocated in 2015 (equivalent to 3.1 FTEs);
- **Improved technology resources:** Incremental improvements have been implemented to WSB technology resources, specifically our WSB software system and a new web-based water right lease search tool, which has contributed to improved efficiencies of IDWR staff time allocated to the WSB.

2017 Activity Summary

As evidenced by the graph below, demand to deposit water rights into the Bank declined after 2015, though requests to rent water rights remained consistent.

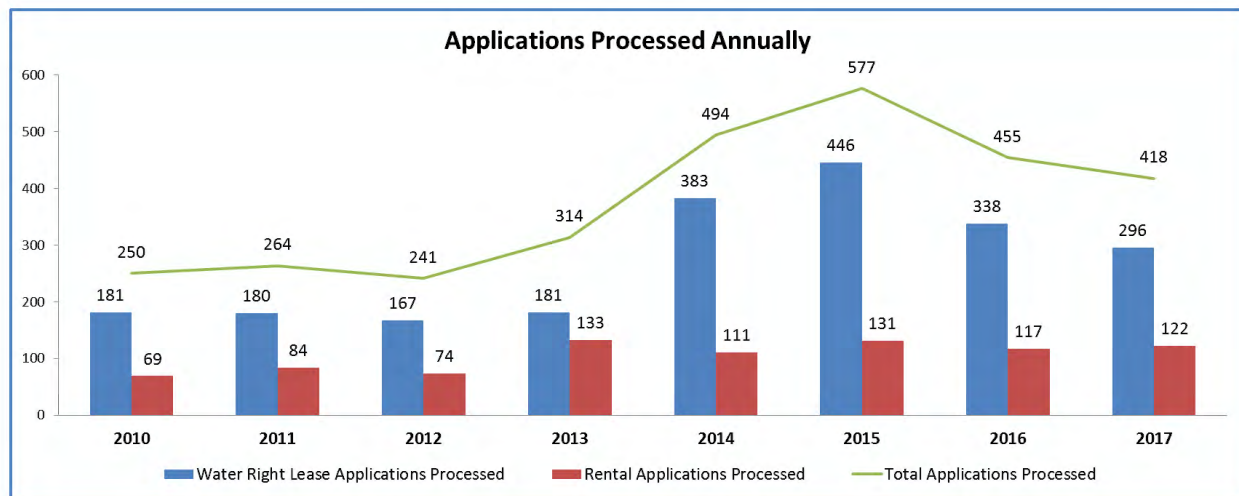


Chart 1. Total applications processed, 2010 - 2017

The Water Supply Bank requires one lease application per water right and one rental application per requested beneficial use. The cost to submit a lease application is \$250. Where multiple water rights are stacked together, the Bank caps the lease application filing fee at a maximum of \$500. There is no cost to submit a rental application.

The 296 water rights proposed for deposit into the Bank during 2017 represented a real year-over-year decline of 42 water rights (or -12%). Interestingly, the 12% decline in water right leases did not contribute to a decline in revenue generated from the processing of lease applications; lease application filing fees received actually increased by \$8,250.00 during 2017, which is a departure from the outcome of the lease application decline from 2015 to 2016, which contributed to a real revenue decline of \$29,000. The increased revenue generated from fewer leases processed is likely attributable to a decrease in the number of stacked water rights proposed for lease to the Bank during 2017.

Commensurate with the decline in the total number of water rights leased into the Bank during 2017, the total number of water rights transferred through the Bank to authorize companion rental applications also declined during 2017.

Companion Applications

As Chart 2 shows below, 97 of 296 water rights proposed for lease into the Bank during 2017—approximately one of every three water rights leased—were leased for the purposes of authorizing a specific companion rental application.

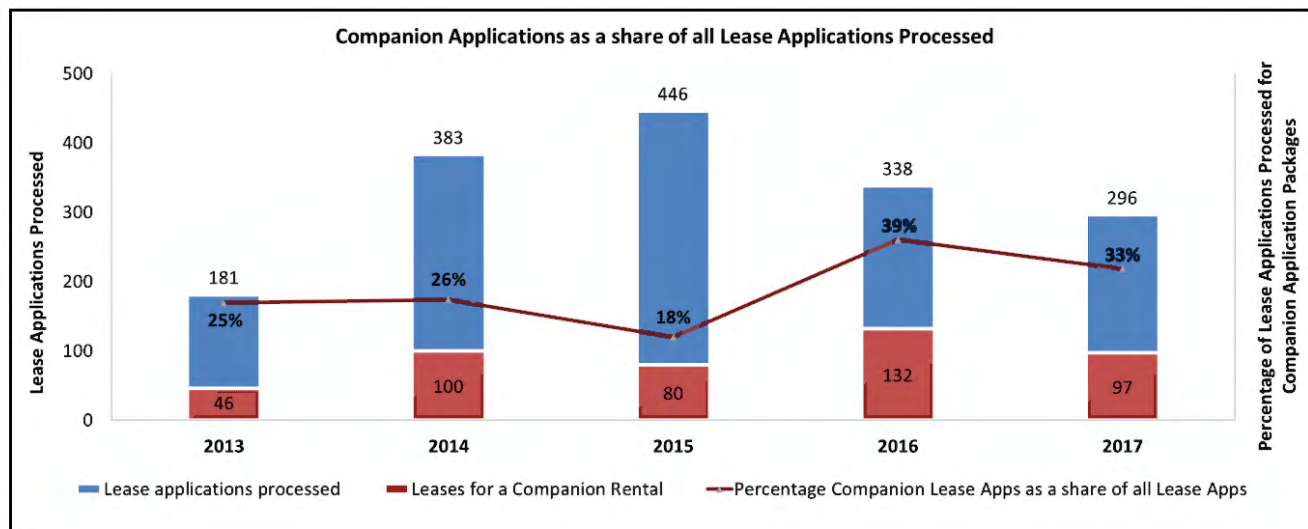


Chart 2. Companion applications as a percentage of lease applications, 2013-2017

Corresponding to the decrease in the proportion of leases submitted to accommodate companion rentals, the total number of pre-established, companion lease-rental packages processed in 2017 also declined, down from 181 in 2016 to 140 in 2017, an annual real decrease of 23%. However, companion lease-rental transactions still accounted for one third of all rentals processed during 2017.

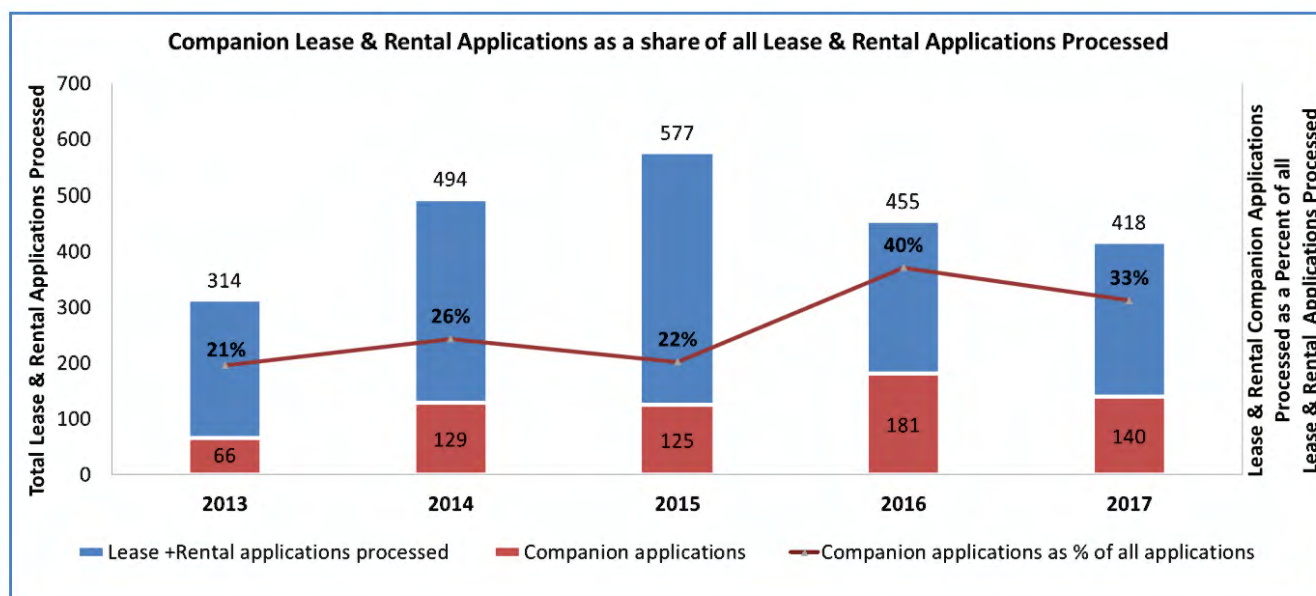


Chart 3. Companion applications as a percentage of all Bank applications, 2013- 2017

Application Processing Times

Staying consistent with efforts begun in 2014, the Bank continued to process as many rentals as early as possible. Whereas prior to 2014, the Bank processed a majority of rentals in April, May, June and July, the most active months for the executing rental requests during 2017 was January, February and March.

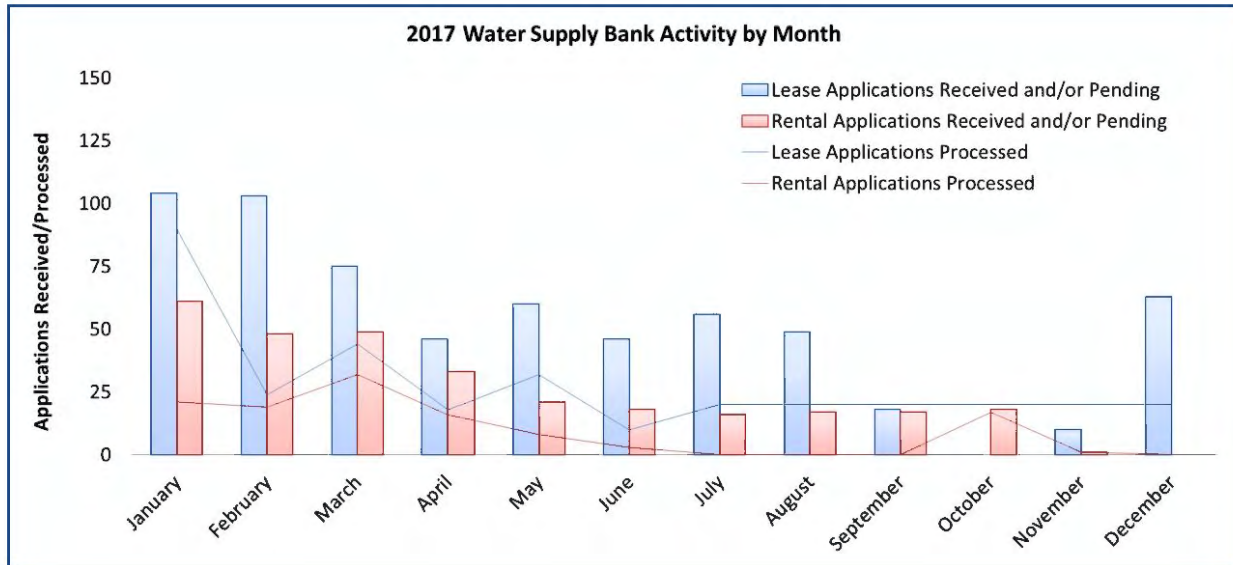


Chart 4. Lease and Rental Application Processing, by month, during 2017

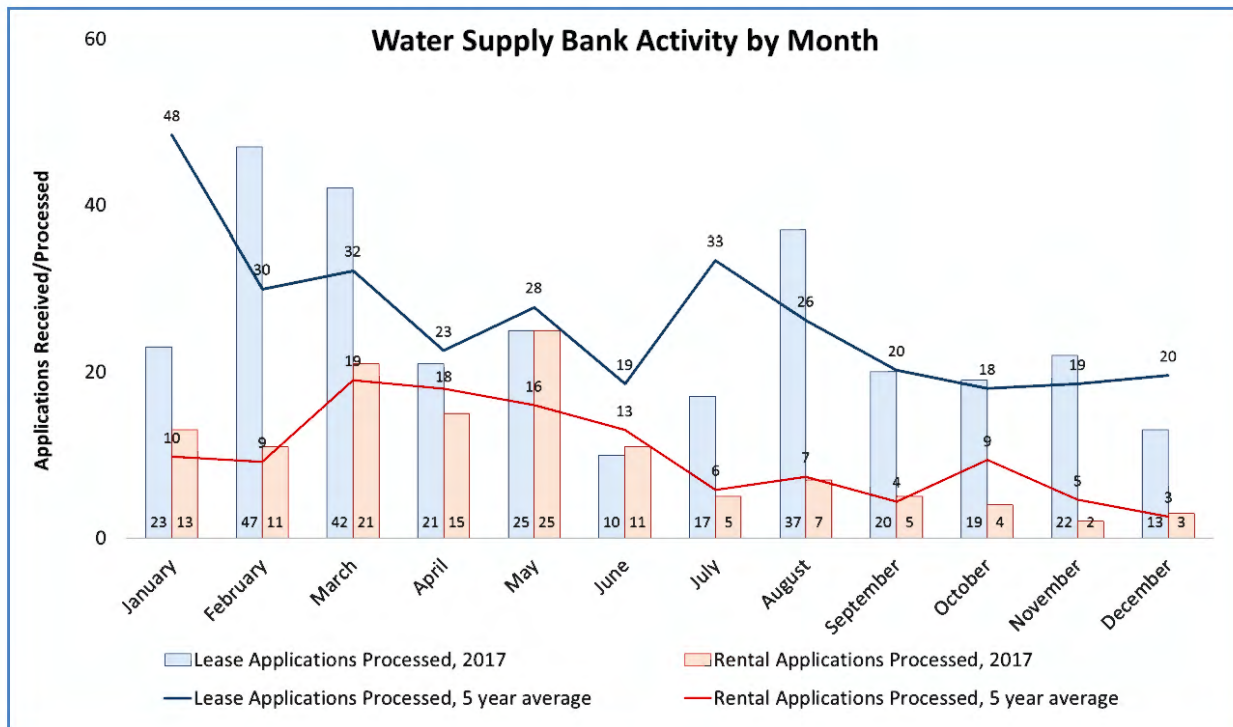


Chart 5. 2017 Application Processing & Processing Averages, 2013-2017

As evidenced in Chart 5 on the preceding page, where a monthly red bar is above the red trendline, a greater-than-average number of rental requests were processed, specifically, in January through March. The payoff from this effort was that water users who submitted rental requests in 2016 and early 2017 received certainty that they had an authorization from IDWR prior to the start of the irrigation season. The total number of lease and rental applications received and processed in 2017 is summarized in Table 1 below.

Month	Lease Applications Received	Active Lease Applications	Lease Applications Processed	Rental Applications Received	Active Rental Applications	Rental Applications Processed	Total Applications Received	Total Application Pending	Total Applications Processed	Lease App Percentage Processed	Rental App Percentage Processed
January	12	104	23	6	24	13	18	128	36	64%	36%
February	22	103	47	16	43	11	38	146	58	81%	19%
March	19	75	42	18	37	21	37	112	63	67%	33%
April	13	46	21	7	42	15	20	88	36	58%	42%
May	35	60	25	6	24	25	41	84	50	50%	50%
June	11	46	10	3	18	11	14	64	21	48%	52%
July	20	56	17	3	13	5	23	69	22	77%	23%
August	10	49	37	0	9	7	10	58	44	84%	16%
September	6	18	20	3	9	5	9	27	25	80%	20%
October	2	0	19	0	3	4	2	3	23	83%	17%
November	29	10	22	13	8	2	42	18	24	92%	8%
December	75	63	13	13	18	3	88	81	16	81%	19%
Sum	254	50	296	88	15	122	342	81	418	71%	29%

Table 1. Application Processing Data from 2017

Annual Rental Volumes

There was a slight decrease in the total volume of water rented from the Bank during 2017. Chart 6 below shows the total volume rented in recent years, while Chart 7 on the following page plots the total volume of water rented in 2017, by basin.

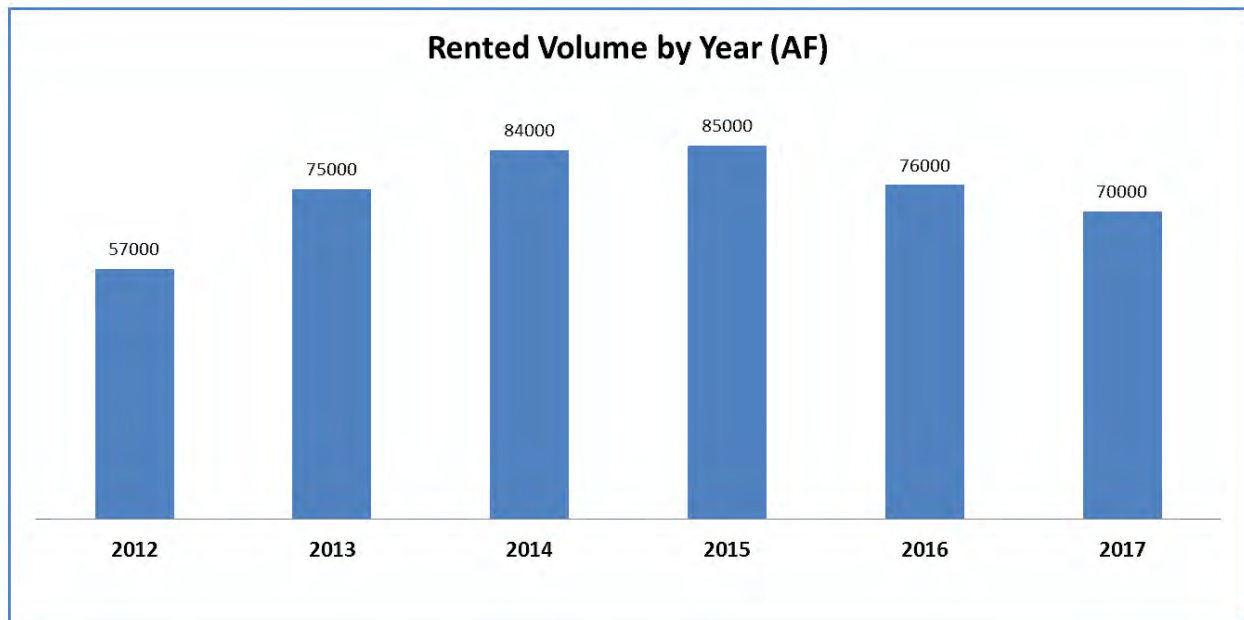


Chart 6. Annual rental volumes



Chart 7. Annual acre-foot rental volumes, by water basin

Consistent with trends observed during the past five years, the majority of water rented during 2017 was from Basins 2 (the Snake River below Milner Dam), 21 (Henrys Fork of the Snake River), 35 (American Falls region, ESPA ground water) and 37 (Wood River Valley & Camas Prairie), as seen more clearly in Tables 2 & 3 below:

2017				Annual Average: Most Recent Five Years (2013-2017)			
Basin	Water Source	Volume	% of Total	Basin	Water Source	Volume	% of Total
2	Snake River	20000	29%	2	Snake River	15048.4	15%
21	Henrys Fork	9600	14%	21	Henrys Fork	9390	10%
35	ESPA - American Falls	6200	9%	29	Blackfoot Basin	7695.4	8%
37	Big Wood River Basin	5200	7%	43	Raft River Basin	6717.2	7%
29	Blackfoot Basin	4100	6%	37	Big Wood River Basin	6231	6%
		45100	64%			45082	46%

Tables 2 & 3. Most active Basins by annual acre-foot rental volumes for 2017 and the annual average for the most recent five years: 2013-2017

Rentals from the five basins identified above accounted for almost two thirds of all water rented from the Bank during 2017. Over the last five years, Basins 2 (the Snake River below Milner Dam), 21 (Henrys Fork of the Snake River), 29 (Blackfoot), 43 (Raft River) and 37 (Wood River Valley & Camas Prairie) accounted for close to half of the total rental volumes averaged during the years 2013 - 2017.

2017 Financial Summary

Revenue for the Board's Bank increased by 4% in 2017, even though there was 12% decline in the number of lease applications processed in 2017. This was likely attributable to a decrease in the number of stacked water rights being leased to the Bank. A sum total of one hundred and sixty nine thousand dollars was generated last year, primarily through rental administrative fees.

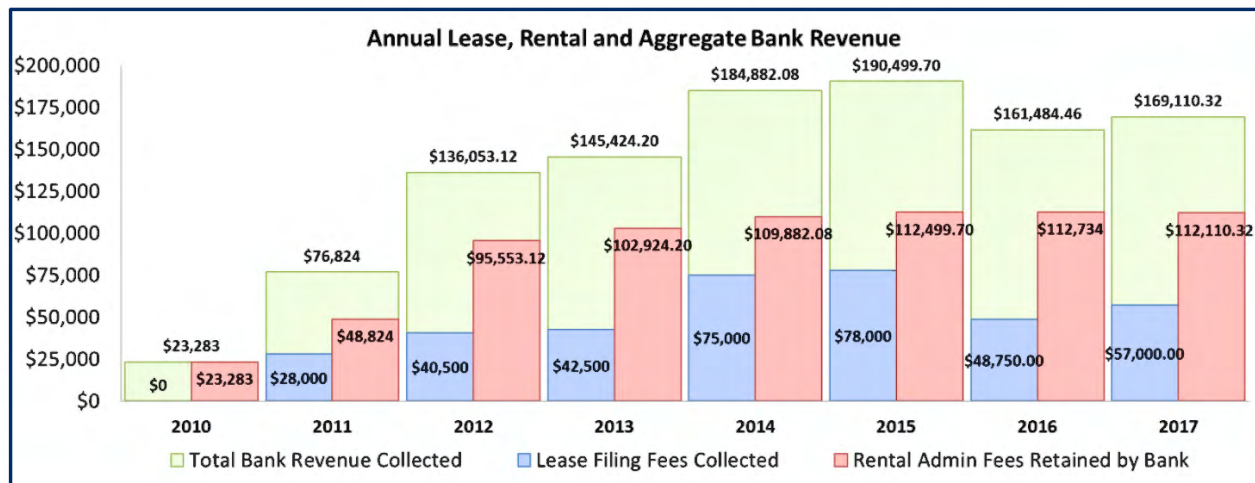


Chart 8. Annual revenue from lease application filing fees and rental admin fees

The additional revenue generated per lease application can be seen in Chart 9 below, where leases as a percentage of total revenue edged up slightly, to 34% of total revenue generated for the Bank.

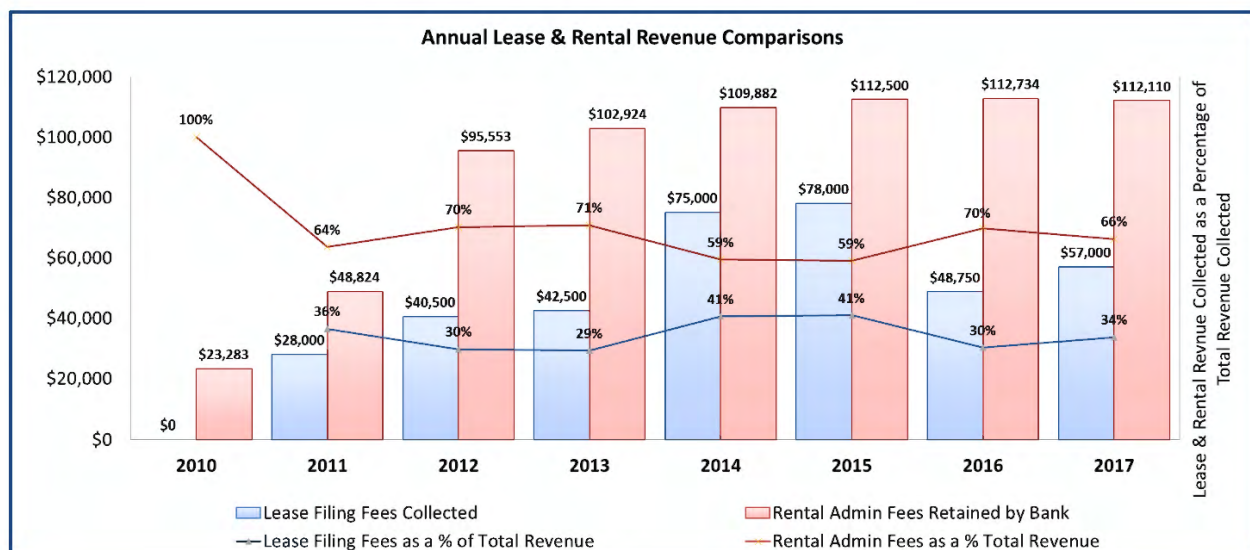


Chart 9. Annual revenue from leases and rentals as a percentage of total revenue

An analysis of revenue & expenditures per hour is provided below in Chart 11, which contrasts hourly staff expenditures to hourly revenue figures. During 2017, the total number of staff hours billed to the Bank was 5,400. Dividing total expenditures billed during 2017 (\$254,000.00) by the total hours worked, provides an hourly staff expenditure rate of \$47.04/hour. Alternatively, dividing total revenue generated from processing and administering 2017 lease and rental transactions (\$169,000.00) by the total hours worked, provides an hourly revenue realization of \$31.32/hour. The difference between these two figures, charted in Chart 11 below, shows that the hourly cost to operate the Bank remains negative, at \$15.72/hour.

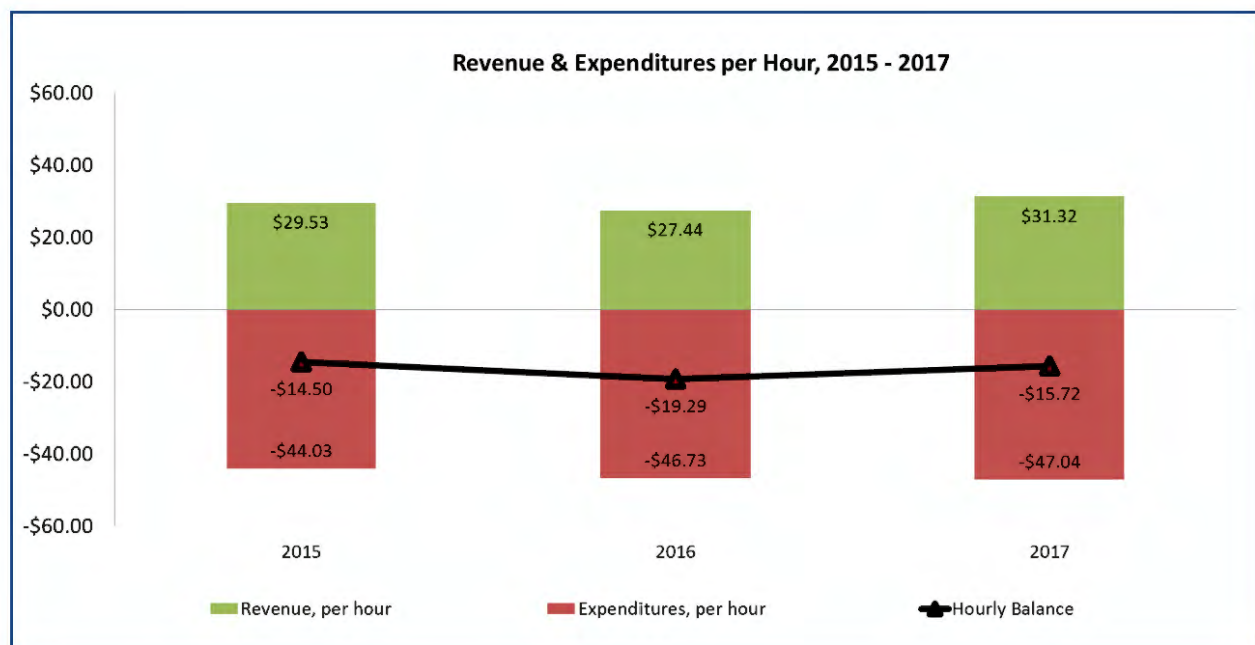


Chart 11. Revenue and Expenditure per hour, 2015 through 2017

The hourly operational cost of the Bank improved last year, and further improvements to make the operational cost of the Bank revenue neutral or positive, can be realized through increased efficiencies in the allocation and utilization of human, technology and knowledge resources dedicated to the Bank, as well as through improved capture of revenue from the processing and management of lease and rental transactions.

Research is being undertaken during 2018, through a Water Supply Bank strategic engagement process, to better identify cost centers and efficiency opportunities to increase revenue per hour and/or applications processed.

Annual revenue, expenditures and warrant payouts are summarized in Table 4 and Chart 12 on the proceeding page.

Year	Lease Filing Fees Collected	Rental Fees Collected	Warrants Paid to Lessors	Rental Admin Fees Retained by Bank	Total Bank Revenue Collected	Bank Operational Costs	Bank Operating Balance	Operations Costs as a % of Revenue
2010	\$0	\$108,283.00	\$85,000.00	\$23,283	\$23,283	-\$117,852.00	-\$94,569.00	506%
2011	\$28,000	\$192,824.00	\$144,000.00	\$48,824	\$76,824	-\$117,852.00	-\$41,028.00	153%
2012	\$40,500	\$542,700.03	\$447,146.91	\$95,553.12	\$136,053.12	-\$126,270.00	\$9,783.12	93%
2013	\$42,500	\$605,044.97	\$502,120.77	\$102,924.20	\$145,424.20	-\$203,435.00	-\$58,010.80	140%
2014	\$75,000	\$694,612.24	\$584,730.16	\$109,882.08	\$184,882.08	-\$257,445.65	-\$72,563.57	139%
2015	\$78,000	\$692,499.70	\$580,000.00	\$112,499.70	\$190,499.70	-\$284,000.00	-\$93,500.30	149%
2016	\$48,750.00	\$728,560.46	\$615,826.00	\$112,734	\$161,484.46	-\$275,000.00	-\$113,515.54	170%
2017	\$57,000.00	\$660,577.39	\$548,000.00	\$112,577.39	\$169,577.39	-\$254,000.00	-\$84,422.61	150%

Table 4. Bank revenue, warrant payouts, expenditures and End-of-Year totals

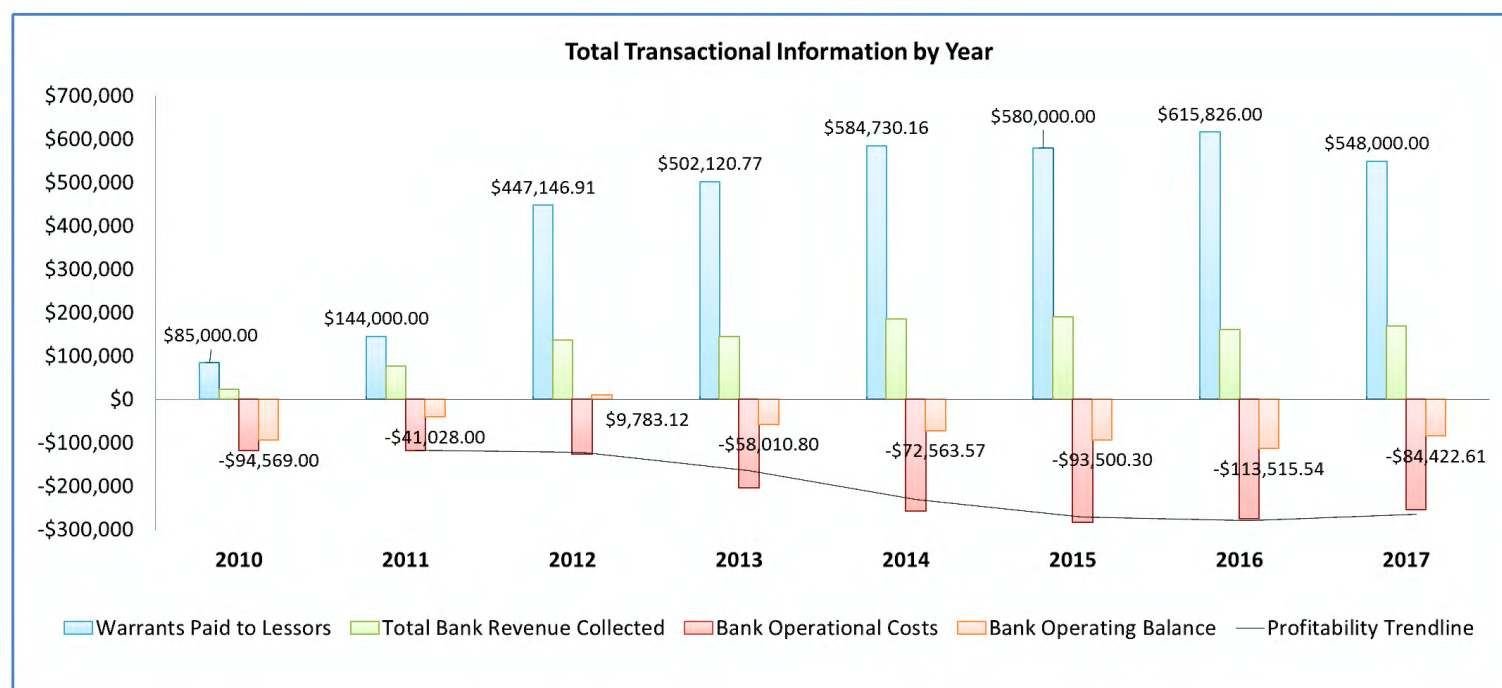


Chart 12. Bank revenue, operational costs and warrant payouts to water right holders