



# **Water Supply Bank**

2015 Report for the Board's Water Supply Bank

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## Executive Summary

The Idaho Water Supply Bank (Bank) is a water exchange market operated by the Idaho Water Resource Board (Board) that allows natural flow water rights and storage water to be temporarily leased and rented for new and supplemental beneficial uses. The Water Supply Bank is comprised of two components: regional rental pools that broker exchanges of storage water, and The Board's Bank, which accommodates the temporary lease and rental of natural flow water rights. This report summarizes the 2015 lease and rental transactions of The Board's Bank.

At the end of 2015, approximately 800 water rights are leased into the Board's Bank, representing approximately 250,000 acre feet of water on approximately 75,000 irrigable acres. Actual volume and acre amounts are difficult to accurately determine because many natural flow water rights leased to the Bank do not feature decreed or licensed volume limits, and many water rights are stacked together, meaning multiple rights may jointly authorize the irrigation of a combined, limited, common number of acres with a combined, limited, common diversion volume.

Demand to lease and rent water rights through The Board's Water Supply Bank increase in 2015. More applications were processed in 2015 than ever before and more than half a million dollars was generated for pay out to water right holders who had water rights rented from the Bank in 2015.

Improved administrative processing enabled the Board's Bank to process more lease and rental applications earlier in the year, which resulted in more timely approval of applications. The Bank was also able to begin processing 2016 leases and rentals prior to the end of 2015, which sets The Board's Bank up to have an even more successful year during 2016.

## 2015 Accomplishments

Key accomplishments of the Water Supply Bank include:

- prioritizing the processing of lease and rental applications at key times during the year, which has enabled the Bank to better prioritize staff and process lease and rental applications more timely throughout the year;
- development and application of an effective temporary ground water rental policy in the Wood River Valley, which has enabled the Bank to continue renting ground water rights to Upper Wood River water users while the

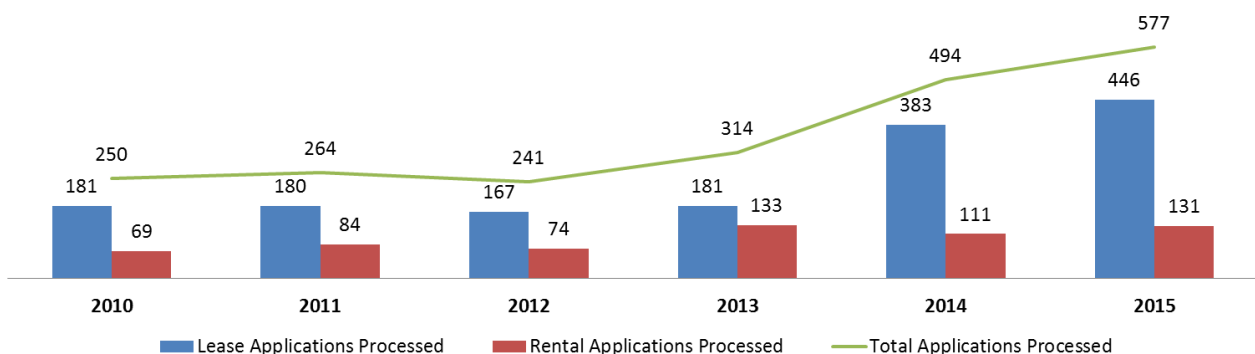
Department concludes work on a ground water model for the Valley, and contemplates how the model may be utilized to address water curtailment calls received in the basin;

- updating more than 150 water rights that were originally leased to the Bank indefinitely, and the conversion of indefinite leases to fixed duration contracts;
- architecting and engineering of a comprehensive, proprietary software solution for the Bank, which will enable the acceptance and processing of all applications, and the management of all lease contracts and rental agreements through a single, geospatially enabled networked, database system.

## 2015 Activity Summary

As evidenced by the graph below, demand to lease water rights to the Bank continued to increase in 2015, though total rental requests remained relatively steady. 83 more applications were processed in 2014 than in 2013, an increase of 17%. The number of lease applications processed in 2015 increased by 63 (up 16% over 2014), while 20 more rental applications were processed in 2015 (an increase of 18%).

**Applications Processed Annually**



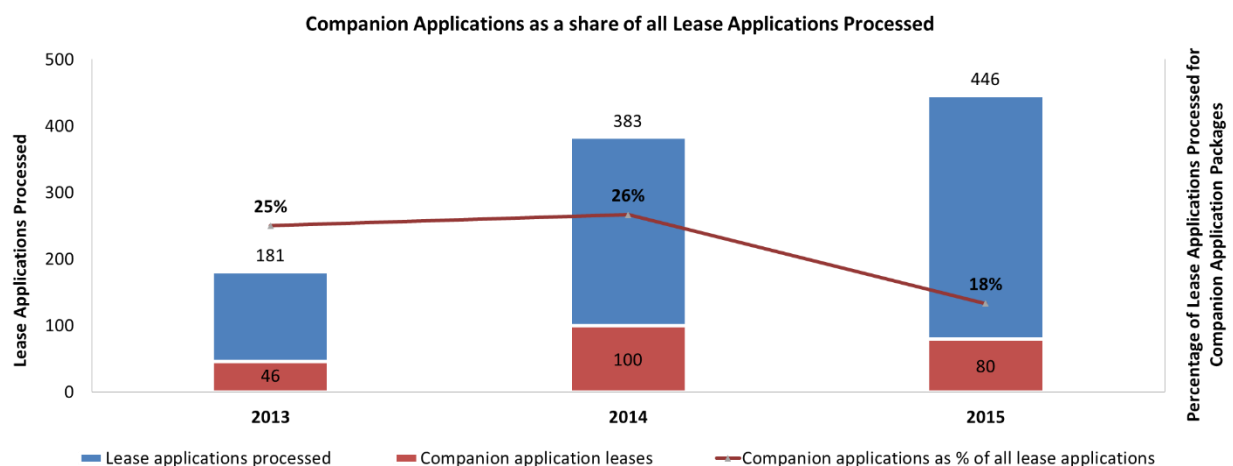
**Chart 1. Total applications processed, 2010 - 2015**

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.

One factor accounting for the rise in the number of lease applications processed in 2015 is that the Bank is continuing to encounter an increasing number of proposals to lease complex, stacked portfolios of water rights, wherein multiple water rights jointly accomplish a common beneficial use in a common area. This is evidenced by the fact that, though the total number of lease applications processed in 2015 was up 16%, revenue from lease application filing fees was up by only 4%. Furthermore, in spite of the 16% increase in the total number of leases processed in 2015, the volume of water leased to the Bank increased from 83,800 acre feet (AF) to 85,000 AF in 2015, an increase of less than 2%.

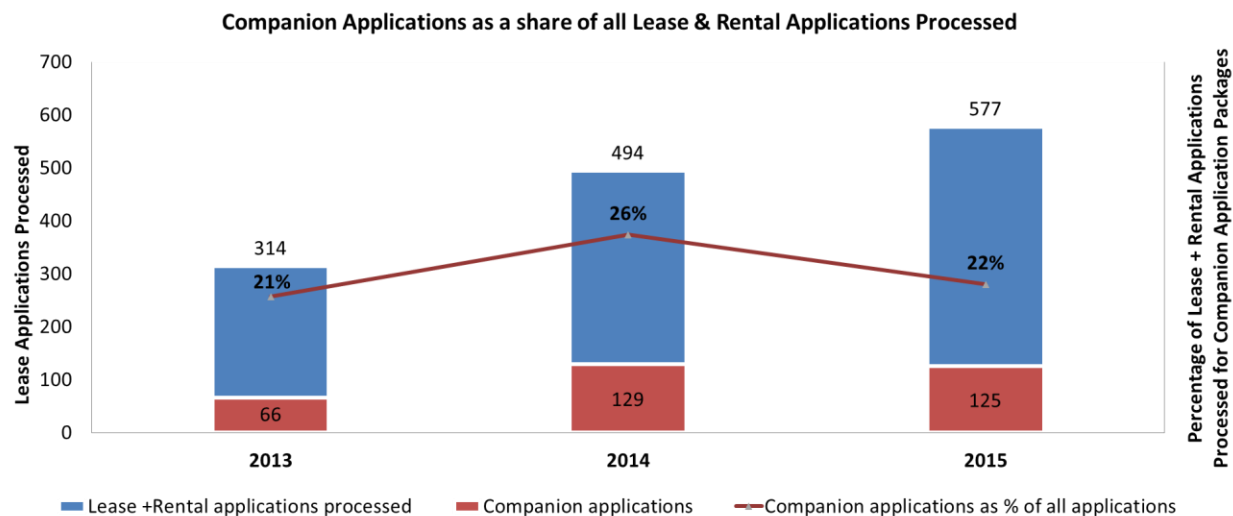
### Companion Applications

Though the total number of applications processed last year was up, the proportion of lease and rental applications processed to accommodate pre-negotiated transactions, what the Bank calls companion applications, declined slightly. As a proportion of all lease applications processed in 2015, the number of leases submitted to the bank to accomplish companion rentals declined from 100 in 2014, to 80 in 2015, representing a decline from 26% of all leases in 2014, to 18% of all leases in 2015.



**Chart 2. Companion applications as a percentage of lease applications, 2013-2015**

Following the decline in the proportion number of leases submitted to accommodate rentals, the total number of pre-established lease and rental packages processed in 2015 was down from 129 in 2014, to 125 in 2015.

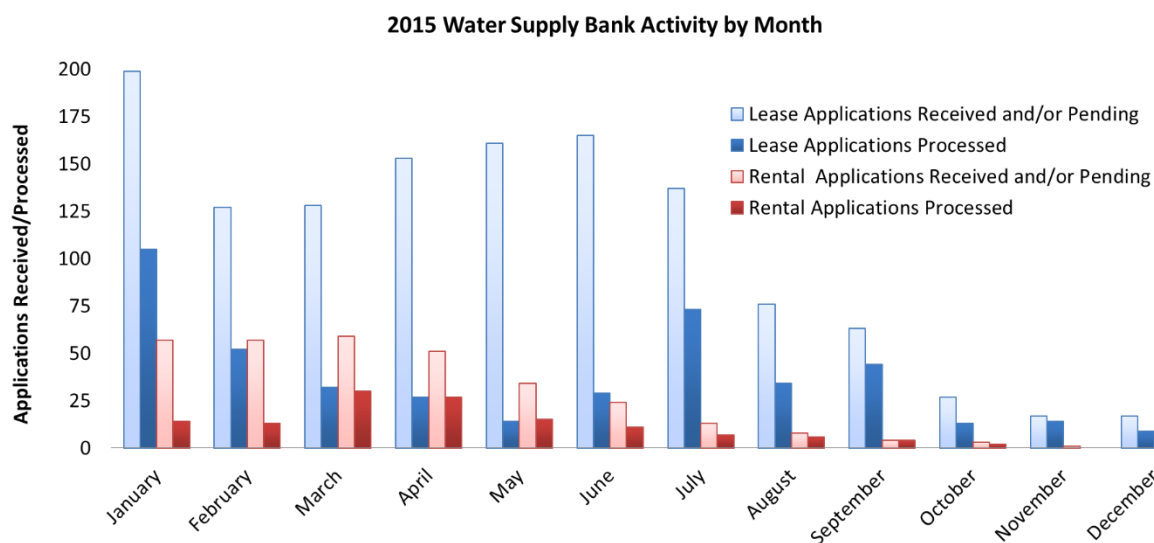


**Chart 3. Companion applications as a percentage of all Bank applications, 2013- 2015**

Despite the decline in 2015, the proportion of companion applications processed by the Bank remains stable, with the data demonstrating that approximately one in five applications proposed to the Bank, either as a lease or rental, is an already established transaction agreed to by the lessor and/or renter, prior to it being submitted to the Bank for review and approval.

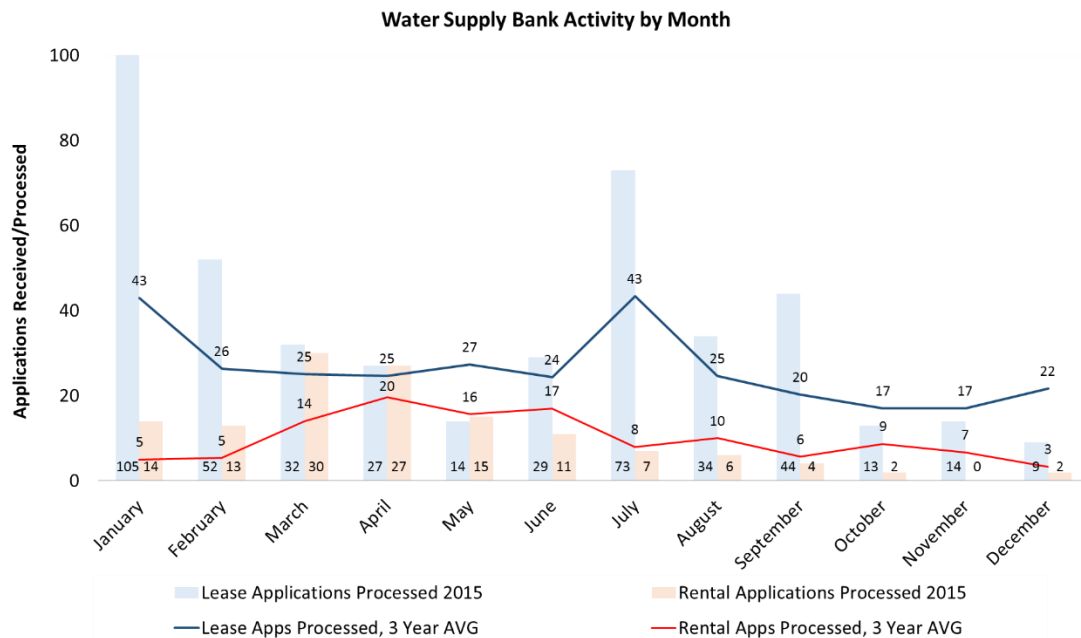
### Applications Processing Times

Building off momentum begun in 2014, the Board's Bank continued in its endeavor to process as many rentals as possible earlier in the year. Whereas in 2014, the Bank processed a majority of rental requests in April, May, June and July, the most active months for the processing of rental requests during 2015 was March, April and May.



**Chart 4. Lease and Rental Application Processing, by month, during 2015**

It is the Bank's goal to continue processing rental requests even earlier in the year 2016 and future years, with the objective that rental requests should be processed most actively in January through March, to provide approvals to water users prior to the commencement of the irrigation season.



**Chart 5. 2015 Application Processing & Processing Averages, 2013-2015**

As evidenced in Chart 5, a significantly greater number of rental requests were processed in the months of January through April during 2015. The payoff from this effort was that water users who rented water in 2015 had greater certainty, earlier in the year, that they were authorized to divert water. Simultaneously, by clearing out the rental request backlog earlier in the year, staff could address the lease application backlog earlier in the summer, which resulted in fewer lease applications requiring processing in the autumn. The total number of lease and rental applications received and processed in 2015 is summarized in Table 1 below.

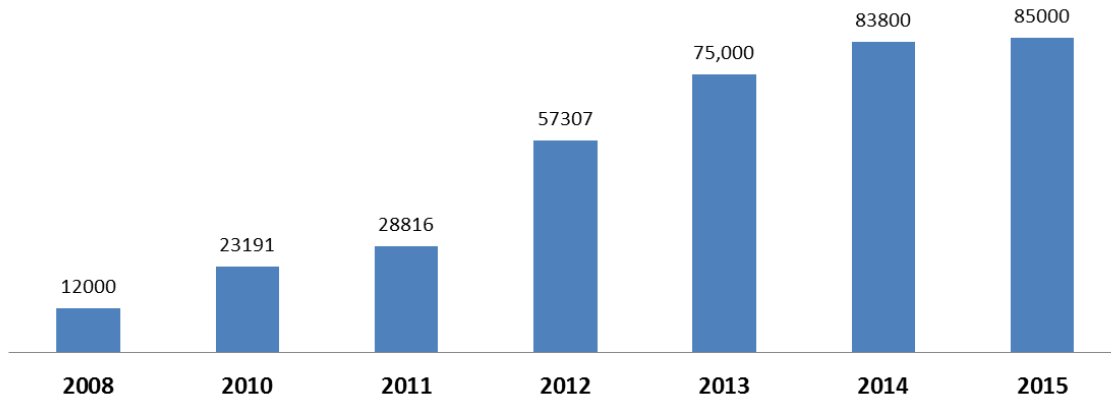
Month	Lease Applications Received	Lease Applications Pending	Lease Applications Processed	Rental Applications Received	Rental Applications Pending	Rental Applications Processed	Total Applications Received	Total Application Pending	Total Applications Processed	Lease App Percentage Processed	Rental App Percentage Processed
January	199	199	105	57	57	14	256	256	119	88%	12%
February	33	127	52	14	57	13	47	184	65	80%	20%
March	53	128	32	15	59	30	68	187	62	52%	48%
April	57	153	27	22	51	27	79	204	54	50%	50%
May	35	161	14	10	34	15	45	195	29	48%	52%
June	18	165	29	5	24	11	23	189	40	73%	28%
July	1	137	73	0	13	7	1	150	80	91%	9%
August	12	76	34	2	8	6	14	84	40	85%	15%
September	21	63	44	2	4	4	23	67	48	92%	8%
October	8	27	13	3	3	2	11	30	15	87%	13%
November	3	17	14	0	1	0	3	18	14	100%	0%
December	23	17	9	1	0	2	24	17	11	82%	18%
Sum	463	17	446	131	0	131	594	17	577	77%	23%

**Table 1. Application Processing Data from 2015**

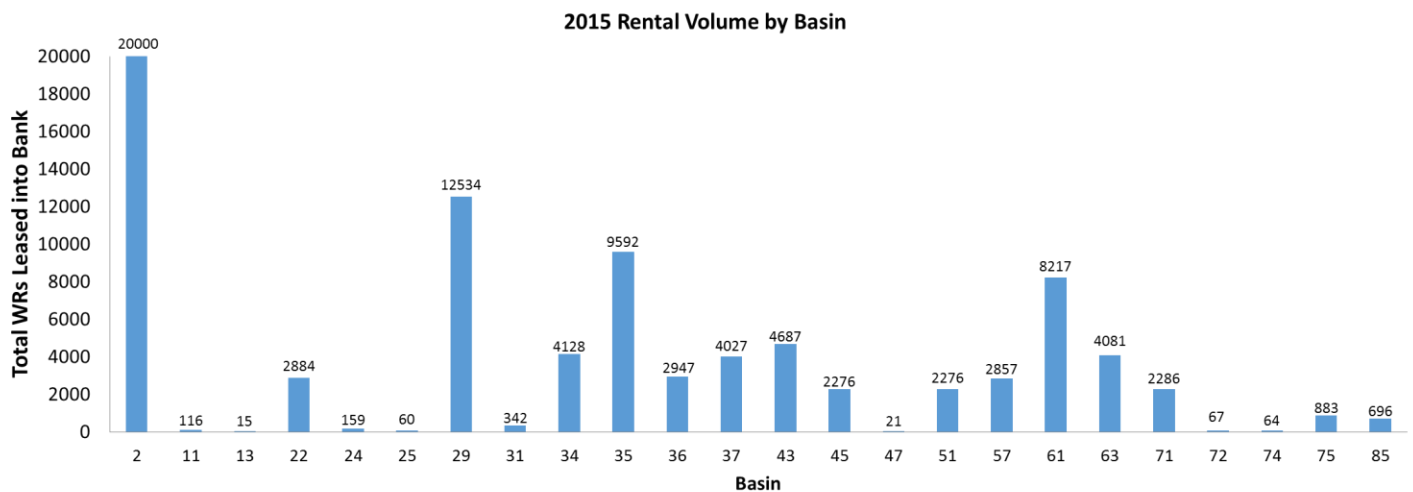
## Annual Rental Volumes

There was a slight increase in both the total number of rental requests processed during 2015, as well as the total volume of water rented from the Bank. Chart 6 shows the total volume rented during 2015, while Chart 7 plots the total volume rented by water basin.

**Rented Volume by Year (AF)**



*Chart 6. Annual rental volumes*



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

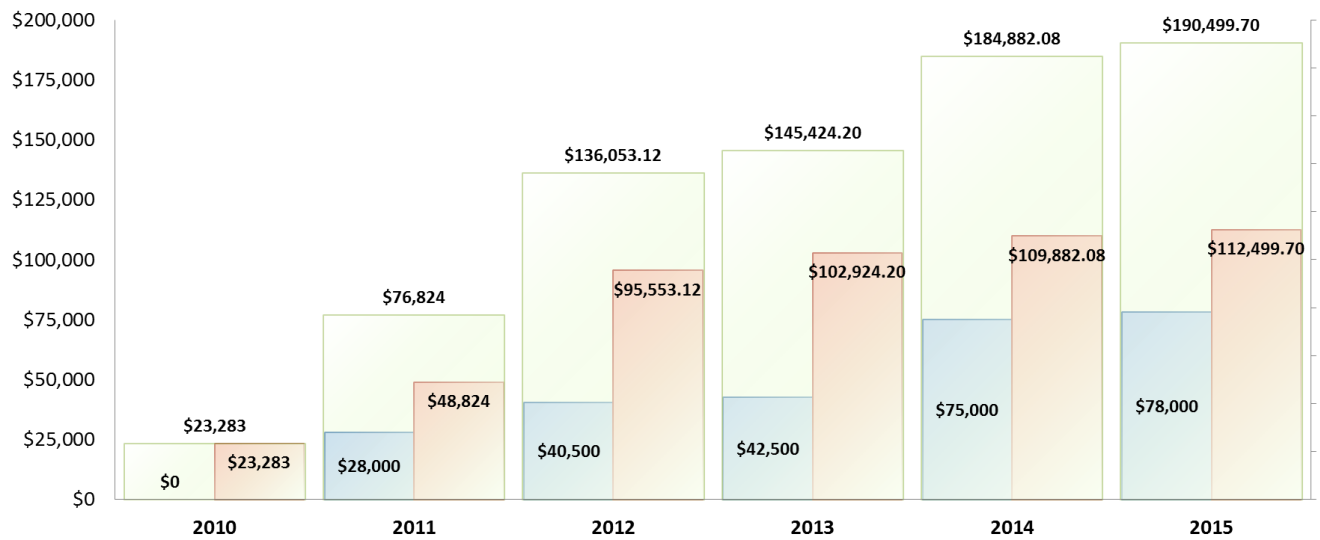
The majority of water rented in 2015 was from basins 2 (the Snake River below Milner Dam), 29 (Blackfoot River), 35 (ESPA Ground Water), 43 (Raft River) and 61 (Mountain Home).



## 2014 Financial Summary

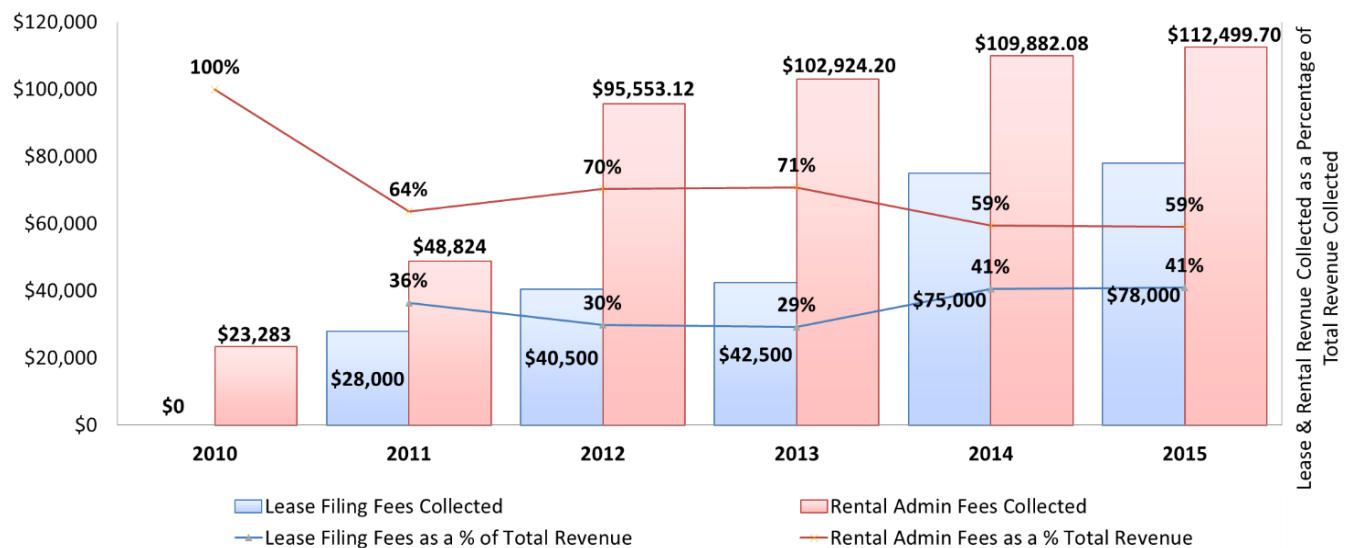
The Board's Bank made marginally more revenue in 2015, though the program again fell short of generating profit for water users. One hundred and ninety-one thousand dollars were generated last year, primarily through rental administrative fees, but as evidenced by charts seven and eight below, lease application filing fees continue to comprise a stable source of revenue for the Board's Bank.

**Annual Lease, Rental and Aggregate Bank Revenue**



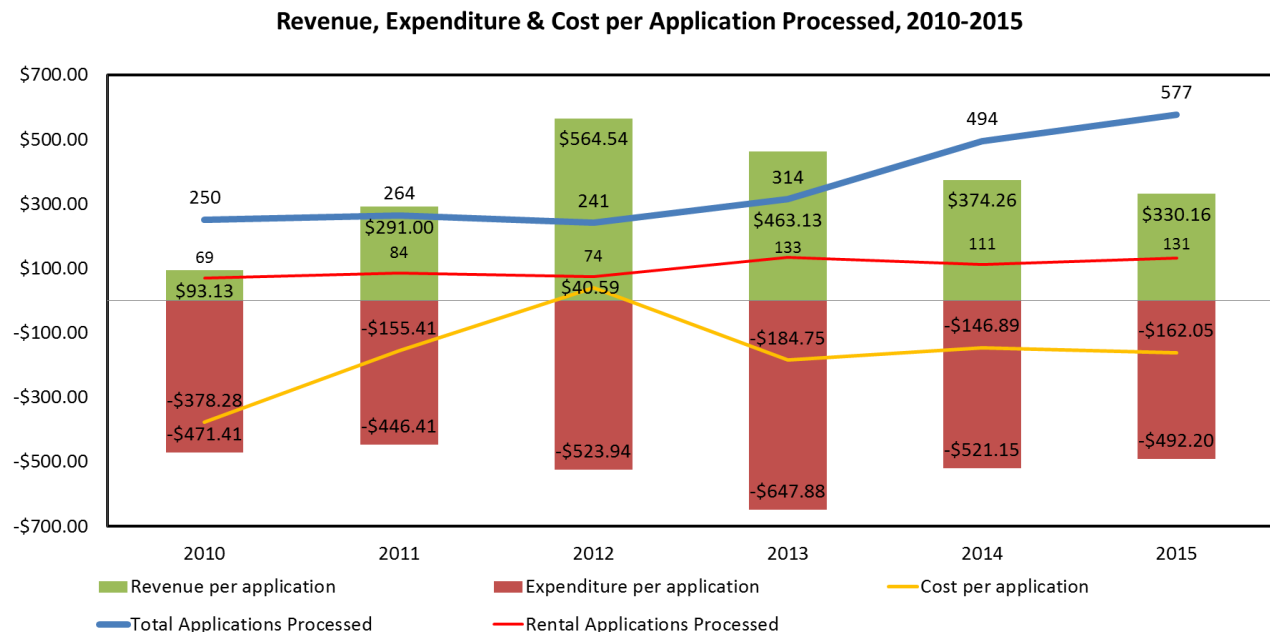
*Chart 8. Annual revenue from lease application filing fees and rental admin fees*

**Annual Lease & Rental Revenue Comparisons**



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

Even as Bank revenue increased marginally in 2015, the increase in the total number of applications processed resulted in a decline in profitability of the program as a whole. Chart 10 below displays the revenue per-application processed, as well as the expenditure incurred per application processed, for the years 2010 through 2015.



**Chart 10. Revenue and Expenditure per application processed, 2010-2015**

The red bar in Chart 10 is a representation of the total cost billed by Bank staff to process lease and rental applications in a given year, divided by the total number of applications processed. Similarly, the green bar represents the total revenue generated in a given year from the processing of all applications (and approved rental agreements), divided by the total number of applications processed that year. The net difference between the red and green bars is represented by the yellow line, which is the net cost or profit realized from processing of lease and rental applications in a given year.

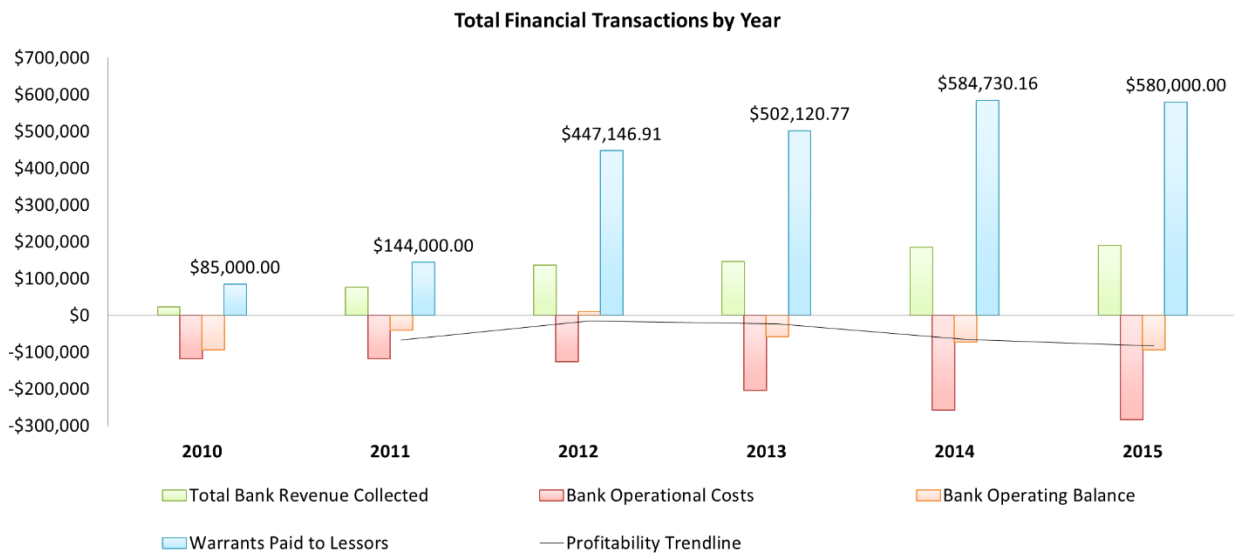
Chart 10 shows that the average cost of processing a lease or rental application in 2010 was -\$378.28 per application. Starting in 2011, the cost to process an application decreased significantly and actually went positive in 2012, which coincided with the implementation of the lease application filing fee in 2011. Interestingly, even as the cost to process an application increased in 2012 (growing to -\$523.94 per application), this expenditure increase was more than offset by the increase in revenue generated through the processing of the application, in large part, due to the implementation of the lease application filing fee.

Additionally, Of further interest, with the exception of an increase in per-application expenditures during 2013, the cost to process an application has continued to decline every year since 2012, due to various improvements realized in administration of the Bank. However, though expenditure per application is declining, revenue generated per application is also declining from the high achieved in 2012, and revenue per application is diminishing more quickly than expenditure per application.

Of note, there appears to be a correlation between the number of rental applications processed and the revenue per application realized. Notice in Chart 10 that as the red bar (representing total number of rental applications processed in a given year) jumped from 74 to 133 in 2013 (an increase of 80%), the revenue generated per application declined from \$564.54 to \$463.13, a drop of \$101.41 (and decline in profitability of approximately 20%). It was during this transition period from 2012 to 2013 that the processing cost per application declined back into negative territory. Intriguingly, as the total number of annual rental requests stabilized during 2014 and 2015, so too has the processing cost per application also remained stable.

Though the processing cost per application can be expected to decline further in 2016 and 2017, as greater administrative efficiencies are realized through improved staff training, further procedural guidance from the IWRB, and the roll out of proprietary water right administration software for the Bank, it is unlikely that expenditures per application will decrease more slowly than the decline in revenue per application. Absent direct action taken by the Idaho Water Resource Board and the Department, the Bank can be expected to continue operating at a loss moving forward into the future. The Water Supply Bank Sub-Committee should consider changes to Water Supply Bank pricing mechanisms during 2016 to enable the Bank to begin moving into revenue neutral or revenue positive territory beginning in 2017.

A summary of annual revenue, expenditures and warrant payouts is summarized in Chart 11 and Table 2, on the final page of this report.



**Chart 11. Bank revenue, operational costs and warrant payouts to water right holders**

Year	Rental Fees Collected	Warrants Paid to Lessors	Rental Admin Fees Retained by Bank	Lease Filing Fees Collected	Total Bank Revenue Collected	Bank Operational Costs	Bank Operating Balance
2010	\$108,283.00	\$85,000.00	\$23,283	\$0	\$23,283	-\$117,852.00	-\$94,569.00
2011	\$192,824.00	\$144,000.00	\$48,824	\$28,000	\$76,824	-\$117,852.00	-\$41,028.00
2012	\$542,700.03	\$447,146.91	\$95,553.12	\$40,500	\$136,053.12	-\$126,270.00	\$9,783.12
2013	\$605,044.97	\$502,120.77	\$102,924.20	\$42,500	\$145,424.20	-\$203,435.00	-\$58,010.80
2014	\$694,612.24	\$584,730.16	\$109,882.08	\$75,000	\$184,882.08	-\$257,445.65	-\$72,563.57
2015	\$692,499.70	\$580,000.00	\$112,499.70	\$78,000	\$190,499.70	-\$284,000.00	-\$93,500.30

**Table 2. Bank revenue, expenditures, operating balance and warrant payouts**