



# **Water Supply Bank**

2020 & 2021 Report for the Board's Water  
Supply Bank

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## Introduction & Background

The Water Supply Bank is a water exchange program 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 and 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).

The Water Supply Bank program consists of two water exchange initiatives: the *Board's water supply bank* (Board's bank) and *rental pools*. The *Board's bank* facilitates the statewide lease and rental of water rights and is operated by IDWR personnel while *rental pools* facilitate the lease and rental of water rights associated with specific watersheds or water sources (e.g. river drainages and/or reservoir systems) and are operated by IWRB-appointed local committees.

This report summarizes operations of the *Board's bank* during calendar years 2020 & 2021 and features recent data and trends specific to the:

- processing of lease and rental applications during 2020 & 2021;
- administration of lease and rental transactions approved for 2020 & 2021;
- productivity and work accomplishments of Water Supply Bank staff during 2020 & 2021; and
- management of finances associated with operations during 2020 & 2021.

## Executive Summary

During the past two years, the total number of hours committed to providing Bank services rose from 5,700 in 2019 to 6,700 hours in 2020 and 6,400 hours in 2021, with a nearly even 50/50 split between time logged by the Water Supply Bank Coordinator and Specialist and time logged by the Allocation Bureau IDWR staff assigned to assist in providing Bank services. Additionally, the median number of days required to process a rental was 70 days in 2020 & 55 days in 2021, which is comparable to the 85 days required in 2018, and the 52 days required in 2019. The volume rented each year continues to remain steady at approximately 70,000 acre-feet annually, with 70% of the demand attributable to only five basins. Finally, annual revenue from rental fees and lease filing fees increased, while the calendar year operating costs dropped, resulting in a dramatic reduction to the annual deficit for years 2020 and 2021.

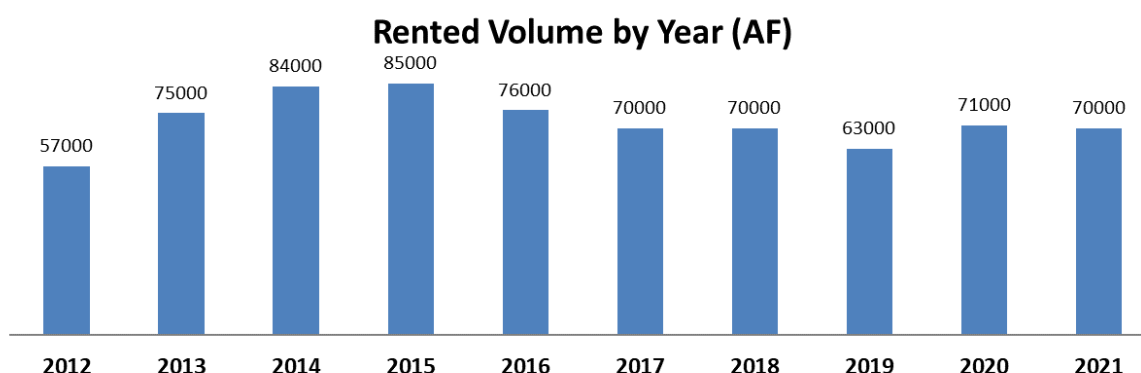
## 2020 & 2021 Accomplishments

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

- **Faster rental application processing times realized in 2021;**
- **Continued early issuance of annual warrant payments and rental fee reminders;**
- **Reduced operational costs and annual operating balances realized in 2020 & 2021.**

## Volume Rented

During 2021, approximately 70,000 acre feet of water was rented from the Bank, similar to the volumes rented in three of the previous four years. Chart 1, below, shows the total volume rented per year since 2012, where the highest volume rented was during 2014 and 2015, with an average of 68,800 acre-feet rented annually from 2017 through 2021.



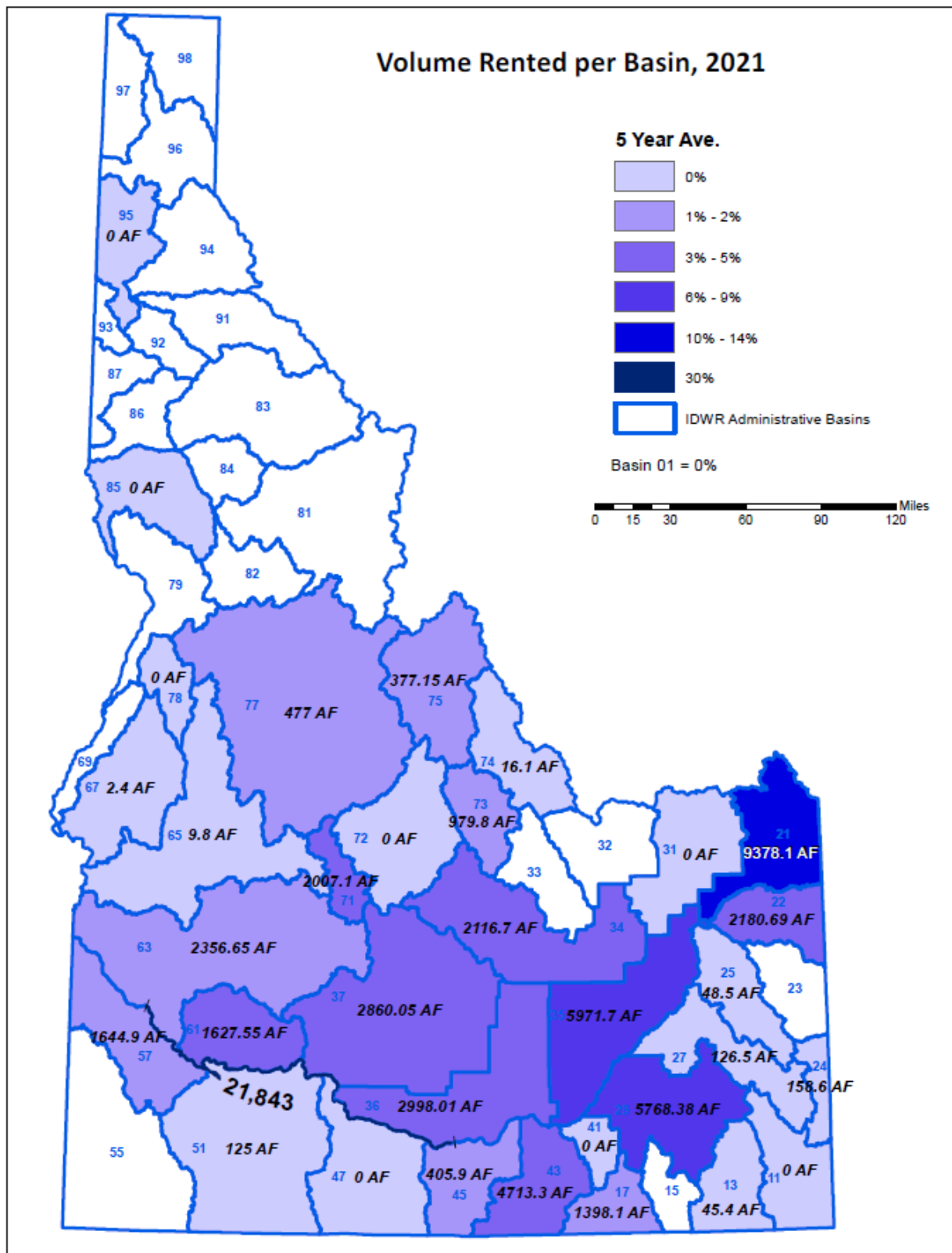
*Chart 1. Total acre-feet rented by year, 2012-2021*

Of the 70,000 acre-feet rented in 2021, nearly 70% of that volume was rented within only five of the twenty-seven basins in which rentals were approved, as shown in Tables 1 and 2, below. Consistent with recent trends, the majority of water rented in 2021, and for the five-year average from 2017-2021, came from basins 2 (Snake River, below Milner Dam), 21 (Henrys Fork of the Snake River), and 35 (ESPA ground water from the American Falls region). It should be noted that in 2020, the fifth spot was from basin 34 (Big Lost River Basin), and the fifth spot for the five-year average was only slightly higher than basin 37 (Big Wood River Basin) with 3,300 acre-feet rented. Each of the top five basins had nearly twice as much leased and available, as was rented in 2021.

2021					Annual Average: Most Recent Five Years (2017-2021)				
#	Basin	Water Source	Volume	% of Total	#	Basin	Water Source	Volume	% of Total
1	2	Snake River	21,843	31%	1	2	Snake River	20,835	30%
2	21	Henrys Fork Basin	9,378	13%	2	21	Henrys Fork Basin	9,403	14%
3	35	ESPA - American Falls	5,972	9%	3	35	ESPA - American Falls	6,513	9%
4	29	Blackfoot River Basin	5,768	8%	4	29	Blackfoot River Basin	5,198	8%
5	43	Raft River Basin	4,713	7%	*5	43	Raft River Basin	3,631	5%
2021 Rental Volume: 70,000 AF			47,675	68%	Average Five Year Rental Vol: 68,800 AF			45,580	66%

*Table 1 & 2. Most active basins, by annual acre-foot rental volumes*

The opposite page shows the volume rented by basin, with gradient coloring to help illustrate the volume demand rented during 2021, where basin 2 (Snake River, below Milner Dam) made up 31% of the total annual volume rented. There are also several basins in which the percentage is zero, representing basins where rentals had occurred in the past since 2012 but did not occur again in 2021.



Graphic 1. Volume rented by basin across Idaho, 2021

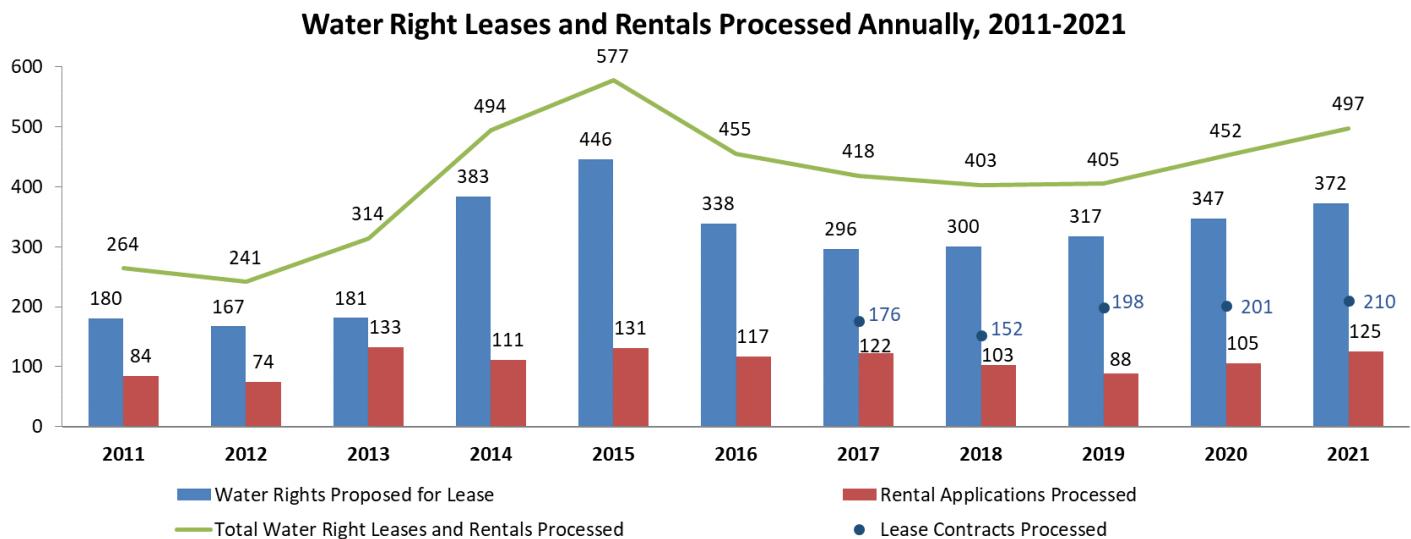
## Lease and Rental Application Processing

If a water user does not fully exercise an authorized water use during a calendar year, they can propose to lease the authorized but unused extent of their water rights to the Idaho Water Resource Board. Approved lease applications allow the IWRB to enter into contract with and to acquire from a water right holder, any unused water right authorizations proposed to be deposited into the Board's bank.

Water rights under contractual lease to the Board's bank form a supply of water from which new and supplemental water uses can be authorized, by means of an approved rental from the Board's bank. Subject to review and approval by the Director of IDWR, successful applications to rent from the Board's bank enable the Board to provide rental agreements to water users who have requested an authorization for a new or supplemental use of water.

### Summary of Lease and Rental Applications Processed Annually

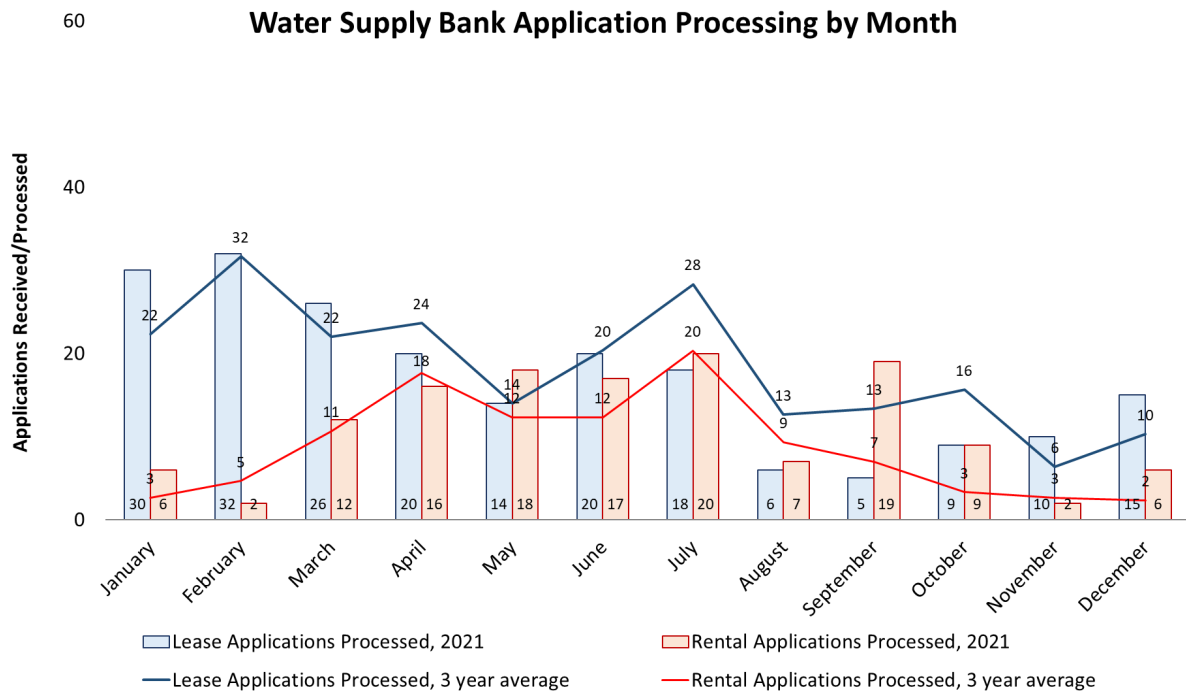
Chart 2, below, summarizes the total number of water right lease proposals and rental requests that were processed by via the Board's bank from 2011 through 2021. Beginning in 2017, the number of lease contracts, which combine multiple water rights together due to overlaps and stacking, is also tracked as a comparison to the number of individual water rights offered each year for lease. As observed in the chart, the number of lease and rental applications rose significantly from 2012 to 2015, and has not fallen below 400 applications processed each year since 2013.



*Chart 2. Total applications processed, 2011 - 2021.*

## Application Processing Times

The Bank endeavors to process all applications as quickly as possible, on a first-come, first-served basis. Generally, the stages associated with application processing include: 1) receipt of an application and preliminary review for completeness; 2) active review of an application, resulting in a recommendation of approval or denial; and 3) completion of application processing through the execution of a lease contract or rental agreement with a water user. Chart 3, below, shows application processing by month during 2021, with comparisons of the averages from years 2018-2021, where all three stages of review have been met and the application is processed.



**Chart 3. Applications Processed by Month, 2019-2021**

In an effort to better understand efficiency and time commitments associated with application processing, in 2017, the Bank began tracking the time required to complete all work associated with steps two and three for all applications processed. Table 3, below, summarizes the median length of time required to fully review and finalize a lease and rental application.

Year	Median Time Required to Process a Lease Application	Median Time Required to Process a Rental Application
2021	51 days	55 days
2020	24 days	70 days
2019	45 days	52 days
2018	41 days	85 days
2017	20 days	60 days

**Table 3. Median Time Required to Process Lease and Rental Applications, 2017-2021**

## Programmatic Operations

The primary operational functions of the Board's bank are to:

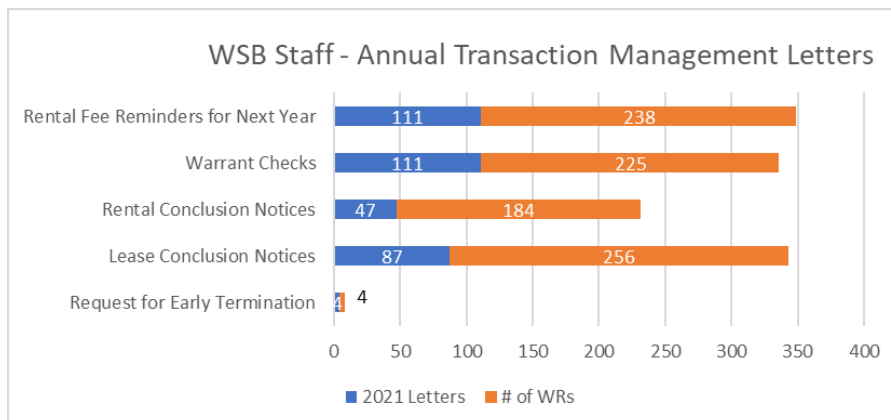
- 1) process lease and rental applications;
- 2) manage active lease and rental transactions;
- 3) communicate and coordinate aspects of application processing and transaction management with program stakeholders; and,
- 4) conduct research and development work to implement program improvements and efficiencies.

### Water Supply Bank Calendar

Month	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Season	Summer			Fall			Winter			Spring		
Process Rental Proposals	Standard Priority					High Priority					Standard Priority	
Process Lease Proposals	Standard Priority			High Priority		Medium Priority					Standard Priority	
Request Rental Fees				Standard Priority								
Cancel Unpaid Rentals							Standard Priority					
Issue Lessor Payments				High Priority								
Process Lease Releases	Standard P...	High Priority			Standard Priority							
Expiration Reminders		Standard Priority										
Close Expired Leases							Standard Priority					
Close Expired Rentals							Standard Priority					

Graphic 2. Board's bank calendar

Processing lease and rental applications, as well as transactional management of the bank and their priority level by month are shown in the calendar above, with overlap of several high priorities in the late summer to fall. Bank staff are responsible for transaction management, which are the tasks 'Requesting Rental Fees' through 'Closing Expired Leases and Rentals,' while additional IDWR staff



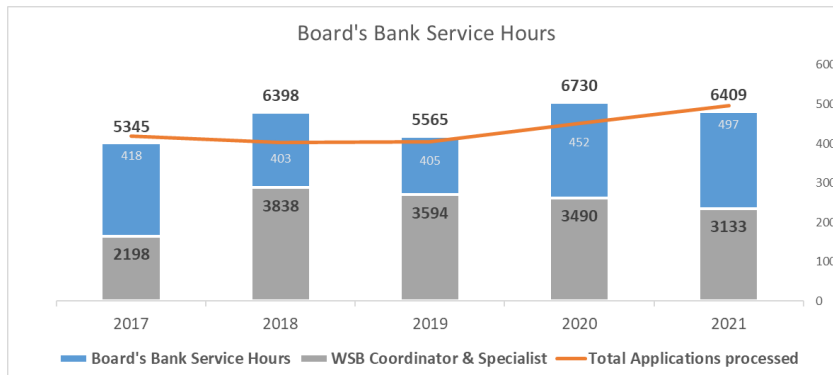
assist in 'Processing Lease and Rental Applications' from September through March. As charted at left, transaction management is a significant undertaking each year with 360 letters sent in 2021 on 907 water rights beginning in July through January.

Chart 4. Transaction Management, 2021



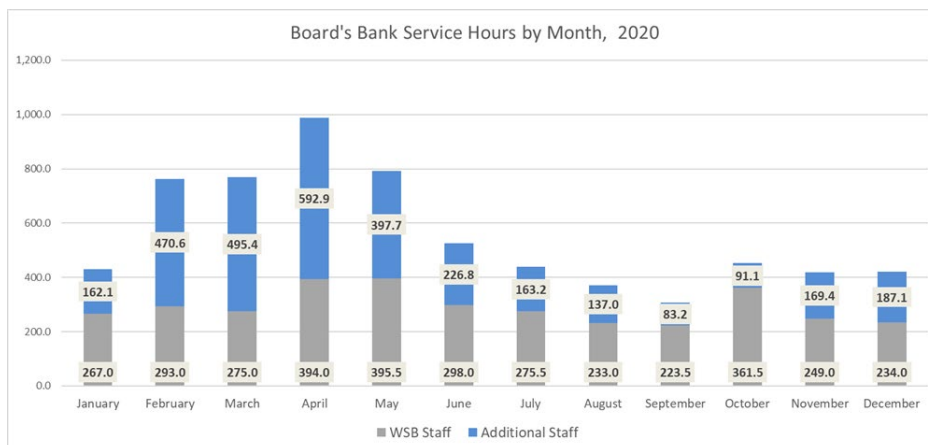
## Human Resources

Chart 5 depicts the hours logged to the bank from 2017 through 2021, as well as the total number of lease and rental applications processed during each year. In 2021, a total of 6,409 hours were logged by IDWR staff in providing Board's bank services. The total hours for the Water Supply Bank Coordinator and Specialist positions averaged 50% of the total bank hours logged during 2020 and 2021, compared to a high of 65% in 2019. It is notable that the Water Supply Bank Specialist position was vacant until the fall of 2017, and in 2021 there was turnover in the Bank for the Coordinator and Specialist positions, with the two positions remaining unfilled for several months in total.

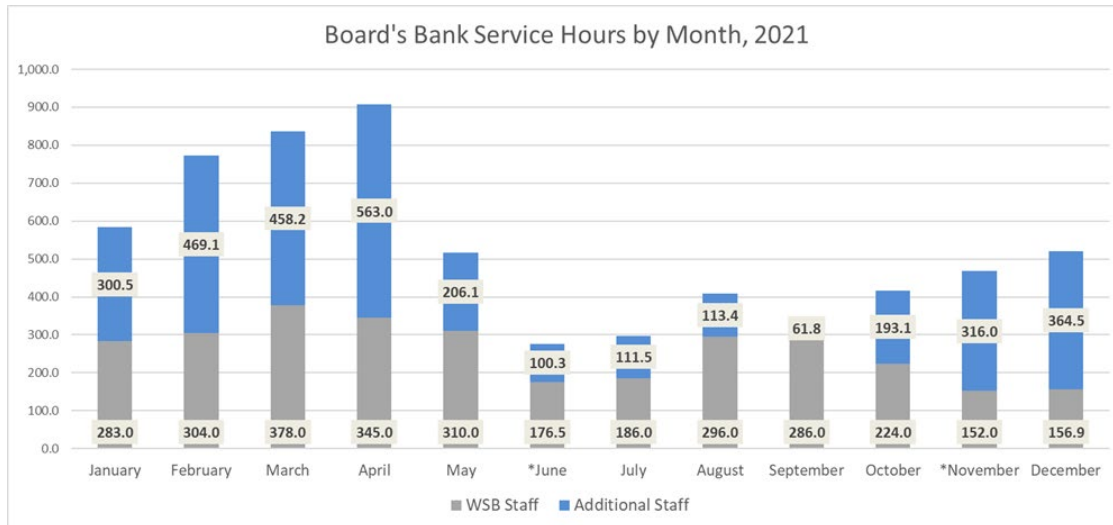


**Chart 5. Hours logged to the Bank with comparison to total applications processed, 2017-2021**

In continuation of detailing the hours logged to the Bank by the Water Supply Bank Coordinator and the Specialist, with comparison to additional staff hours committed by Water Allocations water rights section staff, the Chart 6 below and Chart 7 on the next page illustrates the monthly hours billed by both groups, highlighting the additional support hours logged each year when review of applications has high priority. The highest monthly billed hours is in April, with nearly 1,000 hours billed to the bank, equivalent to 5.8 full time employees. Support from other IDWR staff, especially support from a supervisor from the water rights section, continues through the summer for processing applications, as well as typically a records specialist for electronic filing and mailings.



**Chart 6. Hours billed per month by IDWR staff, 2020**



**Chart 7. Hours billed per month by IDWR staff, 2021**

\*June and November in Chart 7, above, are asterisked for bank staff turnover during 2021.

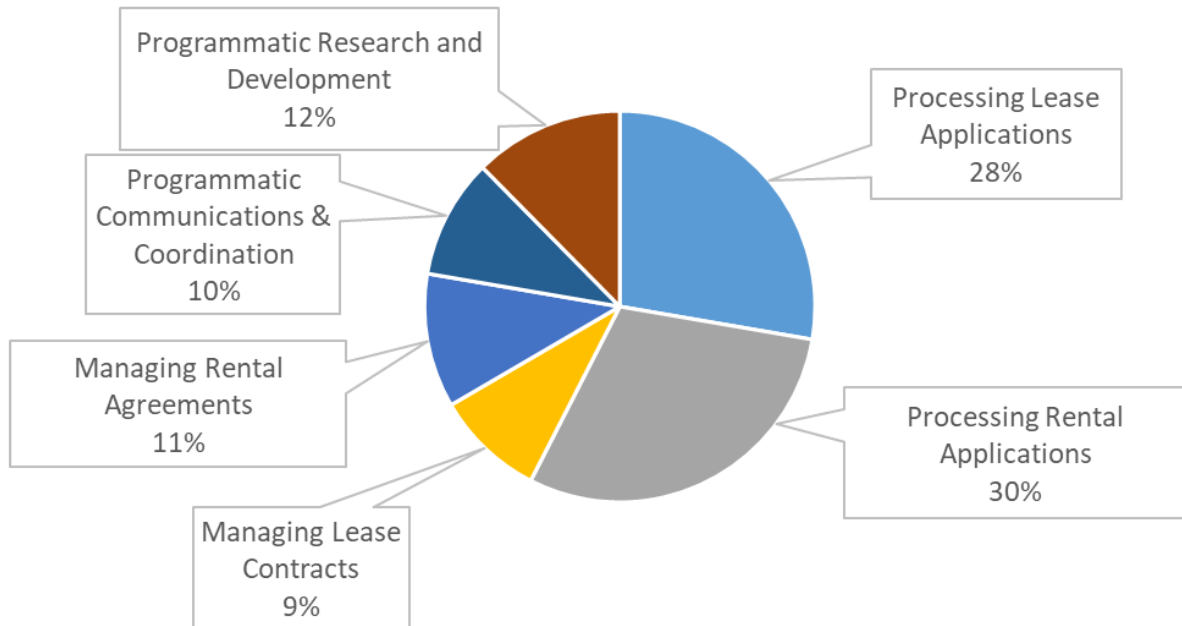
## Processing Applications & Managing Transactions

By considering the specific work tasks performed by IDWR staff who provide Board's bank services, it is possible to estimate the percentage of all time allocated to specific functions. IDWR staff who assisted the bank during 2020 and 2021 were directly solicited for their percentages of time spent on the service functions below. Of the nearly 6,410 hours logged providing Board's bank services during 2021, Table 4, below, breaks down the rounded number of hours allocated to specific functions while Chart 8 on the opposite page depicts these functions as a percentage of total hours utilized to provide Board's bank services.

Service Function	Hours Logged	Percent of All Hours
Processing lease applications	1,780	28 %
Processing rental applications	1,900	30 %
<b>Processing applications, total</b>	<b>3,680</b>	<b>58 %</b>
Managing lease contracts	580	9 %
Managing rental agreements	710	11 %
<b>Managing transactions, total</b>	<b>1,290</b>	<b>20 %</b>
Communications & coordination	640	10 %
Research & development	800	12 %
<b>All services</b>	<b>6,410</b>	<b>100.0 %</b>

**Table 4. Board's bank service hours during 2021, by service function**

### Program Hours Allocation during 2021



*Chart 8. Board's bank services, as a percentage of all services, during 2021*

## Communications & Coordination

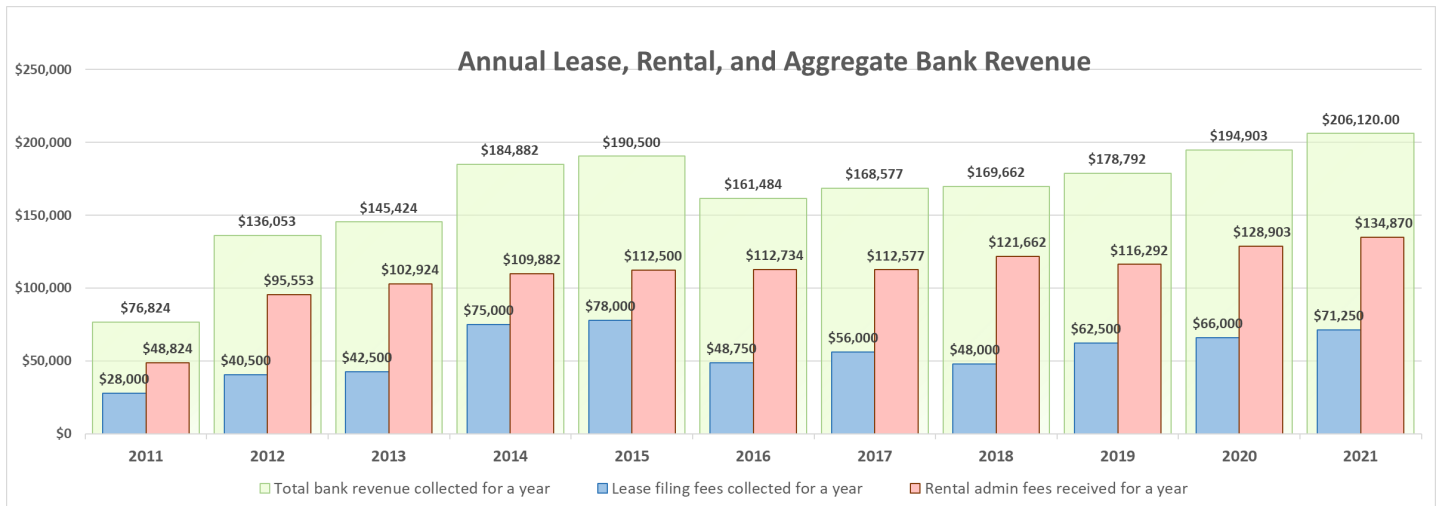
During 2018, the Water Supply Bank engaged IDWR regional office staff, and select Water District watermasters, to obtain insights on ways to improve programmatic coordination. Following up on recommendations gathered during the engagement sessions, the Bank invested time during 2019 to develop new technology resources for state and regional office IDWR staff and water district staff. Specifically, the Bank developed and improved the following coordination tools during 2019:

- Water Supply Bank lease status was integrated into the internal, enterprise, water right information search tool used by all IDWR staff;
- Water district lease and rental reports were developed, allowing for the automated reporting of all water rights leased and rented from the Bank, specific to water districts;
- Automated application processing tracking reports; and
- Automated rental agreement payment reports and warrant payment disbursement reports.

The continuous improvement framework created during 2018, and solutions implemented or developed during 2019 is expected to continue in future iterations of the project.

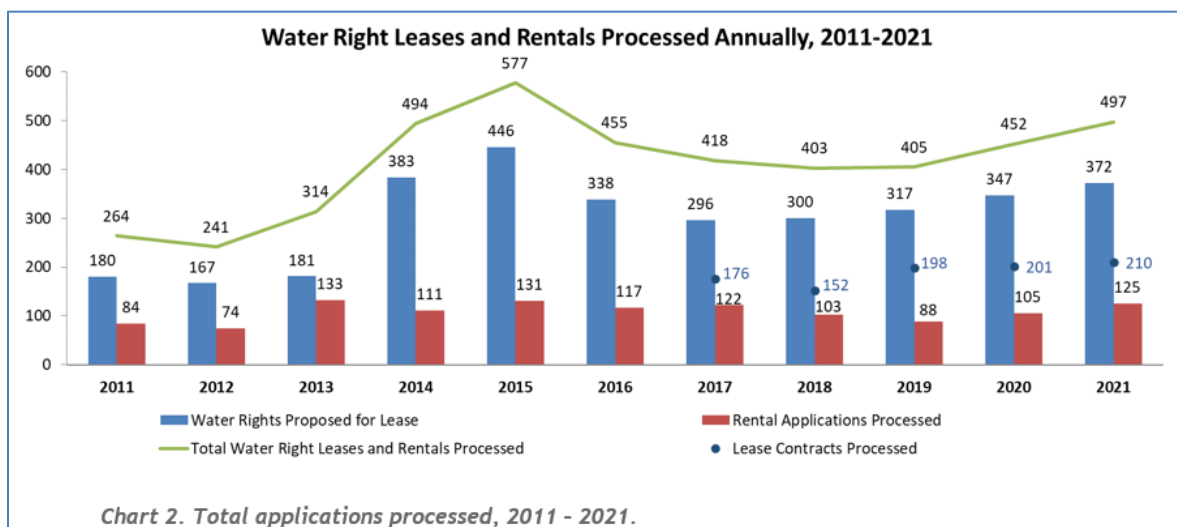
## Financial Management

The cost to lease a water right to the Water Supply Bank is \$250, however when two or more water rights can be collectively leased together into the Bank on a single application, the maximum fee for a multi-water right lease application is \$500. There is no fee to submit a rental application; the Bank collects rental revenue by levying an administrative fee of 10% of the standard or negotiated annual rental fees for rental agreements, based on the acre-feet rented. In 2020 and 2021, the Bank revenue increased for both the lease filing fees and the rental administrative fees, as represented in Chart 9 below.



**Chart 9. Annual revenue from lease application filing fees and rental admin fees**

In 2018, the standard rental rate rose from \$17.00 per acre-foot to \$20.00 per acre-foot, of which the minimum administrative fee levied also rose from \$1.70 per acre-foot to \$2.00 per acre-foot. By comparing Chart 9 to Chart 2 from page 5 of this report, shown again below, it is easier to conceptualize the reason for increases or decreases in total revenue when compared to applications processed for the same years.



**Chart 2. Total applications processed, 2011 - 2021.**

## Programmatic Solvency

The primary expenditures necessary to operate the Board's bank include:

- 1) staff compensation and overhead (salaries, office equipment and office service costs);
- 2) coordination and communication charges (advertising and stakeholder engagement costs); and
- 3) resource research and development charges (technology development and maintenance costs, staff education and consulting fees);

Operational expenses have increased from 2012 until reaching their maximum to date in 2018, before slowly declining in 2019 through 2021. Efforts in finding and implementing efficiencies in processing bank applications and managing multi-year transactions proved fruitful. Operational expenditures for 2020 and 2021 declined from previous years, dropping to about \$240,000 each year, while revenue continued to increase steadily in the same years, bringing the deficit to below \$50,000, its lowest in nearly a decade, as seen below in Chart 10.

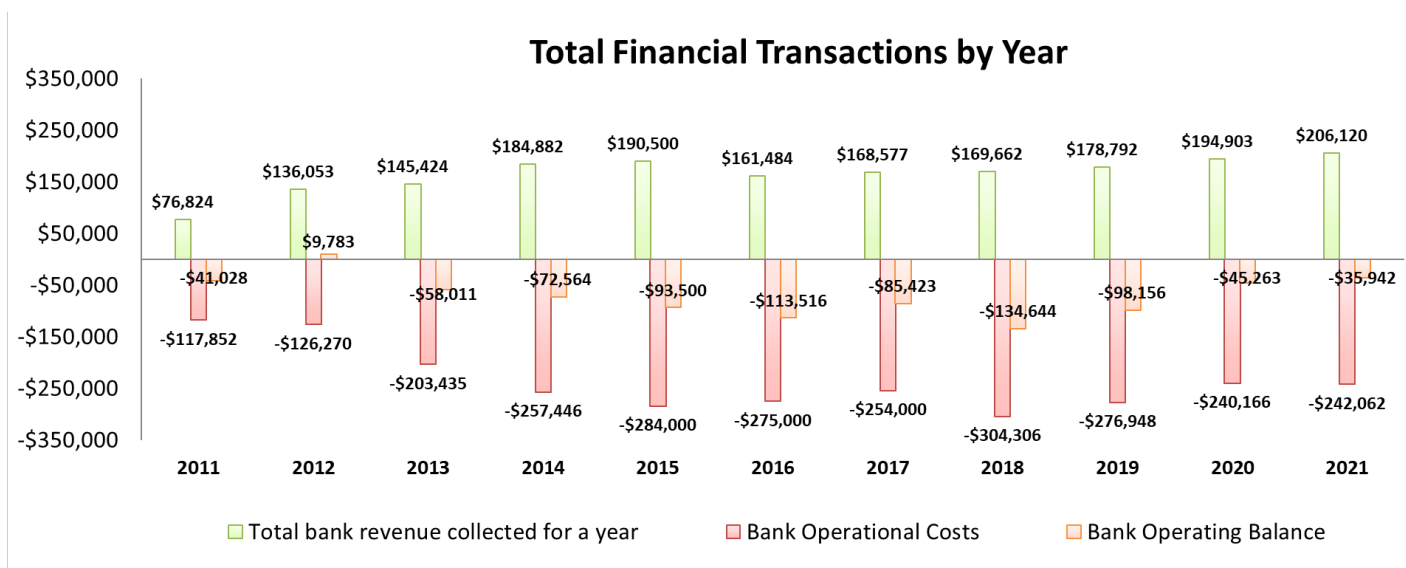


Chart 10. Board's bank operational finances, 2011-2021

Operational expenses in the form of staff compensation can fluctuate each year due to Department priorities, staff turn-over, training, bringing in more experienced staff with higher pay grades, and assigning certain tasks without considering skill required and job classification. For example, there was an increase in 2018 operating costs due to increasing staff when the Water Supply Bank Specialist position was filled in late 2017, undergoing training and overlap with assistance provided by other IDWR staff into the 2018 season. Likewise, there was a reduction in 2019 to operating costs when two supervisors from the water right section who had previously assisted in processing applications and with managing multi-year transactions retired. To help underscore this point, there were more hours logged to the bank in 2020 than in 2018, yet the average cost per billed hour was higher in 2018 resulting in a higher operating cost. Table 5 on the next page breaks down the cost per service function, and the revenue generated by each for years 2017 through 2021.

## Operating Costs and Revenue

Operating Costs and Revenue					
	2017	2018	2019	2020	2021
Lease Applications Processed	176	152	198	201	210
Hrs billed processing leases	1521	1736	1400	1465	1775
% of time for program	28%	27%	25%	22%	28%
Total cost to process	\$ 72,277.92	\$ 82,568.81	\$ 69,678.00	\$ 52,783.95	\$ 67,041.75
<b>Lease revenue from applications</b>	<b>\$ 56,000.00</b>	<b>\$ 48,000.00</b>	<b>\$ 62,500.00</b>	<b>\$ 66,000.00</b>	<b>\$ 71,250.00</b>
Active contracts	487	504	678	675	622
Hrs billed managing leases	479	624	490	378	581
Total cost to manage	\$ 22,762.08	\$ 29,679.11	\$ 24,387.30	\$ 13,619.34	\$ 21,944.37
<b>Leases - Total Cost</b>	<b>\$ 95,040.00</b>	<b>\$ 112,247.91</b>	<b>\$ 94,065.30</b>	<b>\$ 66,403.29</b>	<b>\$ 88,986.12</b>
Leases - Gain/Loss	(\$39,040.00)	(\$64,247.91)	(\$31,565.30)	(\$403.29)	(\$17,736.12)
Rentals Processed	122	103	88	105	125
Hrs billed processing rentals	1575	1727	1650	2396	1912
% of time for program	29%	27%	30%	36%	30%
Total cost to process	\$ 74,845	\$ 79,662	\$ 82,121	\$ 86,328	\$ 72,216
<b>Rental revenue from admin fees</b>	<b>\$ 112,577.00</b>	<b>\$ 121,662.00</b>	<b>\$ 116,292.00</b>	<b>\$ 128,903.00</b>	<b>\$ 134,870.00</b>
Active Rentals	77	107	184	192	207
Hrs billed managing rentals	383	517	437	789	711
Total cost to manage	\$ 18,200	\$ 24,590	\$ 21,749	\$ 28,428	\$ 26,854
<b>Rentals - Total Cost</b>	<b>\$ 93,045</b>	<b>\$ 104,252</b>	<b>\$ 103,870</b>	<b>\$ 114,756</b>	<b>\$ 99,071</b>
Rentals - Gain/Loss	\$ 19,532	\$ 17,410	\$ 12,422	\$ 14,147	\$ 35,799
Rental volume annually	70000	70000	59712	65283	68997
Dollar per acre-foot average	\$ 1.61	\$ 1.74	\$ 1.95	\$ 1.97	\$ 1.95
Total costs of leases + rentals	\$ 188,085	\$ 216,500	\$ 197,936	\$ 181,159	\$ 188,057
Total revenue from leases + rentals	\$ 168,577	\$ 169,662	\$ 178,792	\$ 194,903	\$ 206,120
<b>Lease/Rental Gain or Loss</b>	<b>(\$19,507.72)</b>	<b>(\$46,838.08)</b>	<b>(\$19,143.51)</b>	<b>\$13,744.16</b>	<b>\$18,063.17</b>
Communication & Coordination	\$ 34,927	\$ 49,180	\$ 28,618	\$ 16,898	\$ 23,946
Research & Development	\$ 30,936	\$ 39,049	\$ 52,259	\$ 42,299	\$ 30,027
Hrs billed	1386	1855	1625	1643	1429
<b>Total C&amp;C and R&amp;D Cost</b>	<b>\$ 65,862.72</b>	<b>\$ 88,228.76</b>	<b>\$ 80,876.25</b>	<b>\$ 59,197.29</b>	<b>\$ 53,973.33</b>
Total service hours billed	5,345.0	6,398.0	5,565.0	6,667.0	6,409.0
Coordinator and Specialist hrs billed	2,198.0	3,838.0	3,594.0	3,490.0	3,133.1
Ave annual hrly cost total hrs billed	\$ 47.52	\$ 47.56	\$ 49.77	\$ 36.03	\$ 37.77
<b>Actual Operating cost of Bank (hrs billed)</b>	<b>\$ 254,000.00</b>	<b>\$ 304,306.00</b>	<b>\$ 276,948.00</b>	<b>\$ 240,165.86</b>	<b>\$ 242,062.11</b>
<b>Total Gain or Loss</b>	<b>(\$85,423.00)</b>	<b>(\$134,644.00)</b>	<b>(\$98,156.00)</b>	<b>(\$45,262.86)</b>	<b>(\$35,942.11)</b>

Table 5. Analysis of costs and revenue associated with functions of the Board's bank, 2017-2021

It is important to note that some amounts are rounded to the nearest tenth or whole number while some other values are unrounded. There is a small and reasonable margin of error in calculating from the amounts within the sheet due to the rounding.

As depicted in Table 5 at left, and previously within this report, lease applications have an associated filing fee of \$250 per water right, with a maximum cost of \$500 per contract with multiple water rights for the same place of use, resulting in revenue of \$71,250 during 2021 for 210 approved lease applications. Approved lease applications become contracts, and must be managed and tracked each year, resulting in a management cost of \$21,994 for the contracts which were active and maintained prior to and during 2021. The overall cost of processing and managing leases is higher than the revenue they generate each year, with a loss of -\$17,736 during 2021. An increase in the lease filing fees should be explored, as the fees have not increased since they were implemented more than a decade ago.

Rental applications do not have a filing fee and cost \$72,216 to process the 125 applications in 2021. Rental applications which are approved incur an administrative fee based on the volume rented, priced during 2021 at \$2.00 per acre-foot, and returned \$134,870 in revenue for new and existing rentals. Approved rentals also must be managed each year, whether through requesting rental fees or issuing conclusion notices, and cost \$26,854 to manage in 2021. The overall cost of processing and managing rentals is less than the revenue they generate each year, with a gain of \$35,799 in 2021. The administrative fee is increasing to a minimum of \$2.30 per acre-foot in 2023, and with an average of 68,000 acre-feet rented over the last five years, revenue from administrative fees is expected to increase another \$20,000 annually in 2023. Increasing availability in high demand basins for rentals through solicitation for valid water rights will also increase the revenue annually.

Additional operational costs which are not directly or solely incurred from processing or managing leases and rentals but are directly tied to Bank activity is Communications & Coordination and Research & Development, as was shown in Table 4 on page 9. The percentage of time estimated to be spent on these functions multiplied by the average hourly cost per billed hour to the bank each year resulted in a cost of \$53,973 in 2021. Since these are outside of processing lease applications or for new rental approvals, there is not a revenue directly associated with offsetting these costs.

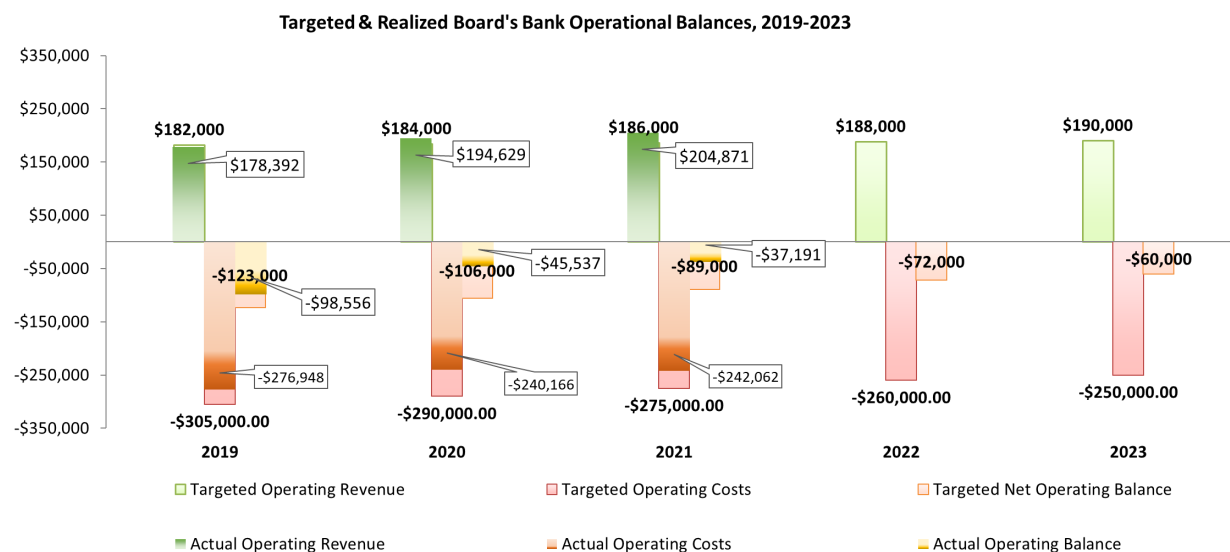
It is important to note that there is some rounding associated with allocating certain dollar amounts to specific functions, but the actual overall operational cost of the bank in 2021 for hours billed was \$242,062, while the revenue from administrative fees and lease filing fees is based on the lease applications processed and rental fees collected for 2021 rather than the amounts received in 2021, and resulted in a total income of \$206,120, for an actual deficit of -\$35,492 during 2021. The volume rented is also slightly different for analyzing the costs within Table 5 than the volumes represented in earlier charts within this report, since the rental fee is based on the combined limit volume rented, rather than the total additive rental volumes for stacked rights.

## Programmatic Forecasts and Future Objectives

In order to maintain the solvency of the Board's bank, through revenue neutral or revenue positive operations, one or more of the following must occur:

- solicitation of valid water rights for lease and market for rental will generate increased revenue;
- hours logged to provide core services need to be controlled and kept as low as possible;
- filing fees for lease applications must be increased;
- filing fees for rental applications should be considered;
- variable rental rates should be explored and considered; and
- research and development initiatives must continue, to find ways for increasing productivity, by maintaining or increasing application processing capacity without increasing overall operational expenditures or the number of hours logged to process applications.

In 2018, it was forecast that the Board's bank could reasonably be expected to operate with annual expenditures of approximately \$250,000, with IDWR staff hours logged to the Board's bank held at or below 5,200. These are the amounts associated with the operation of the Bank with 2.5 FTEs. Chart 10 below plots actual annual operational amounts in 2019, 2020, and 2021 with call outs against the targeted operational amounts established in 2018.



**Chart 10. Targeted and realized Board's bank operational financial amounts, 2019-2023**

For the years 2020 and 2021, revenue generated was higher than the target, operating costs were lower than the targets, and finally the actual deficits were nearly half of the projected. However, for future projections, consideration of the growing number of applications received each year since 2018 with a reasonable expectation to reach the maximum number of applications seen in 2015, it is more reasonable to expect the bank to operate with an annual expenditure of \$300,000 by 2025, and the equivalent of 3 FTEs at 6,240 hours.



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